The following is the text of a report set out on pages IA-1 to IA-2, received from the Company's reporting accountant, PricewaterhouseCoopers, Certified Public Accountants, Hong Kong, for the purpose of incorporation in this prospectus. It is prepared and addressed to the directors of the Company and to the Joint Sponsors pursuant to the requirements of HKSIR 200 Accountants' Reports on Historical Financial Information in Investment Circulars issued by the Hong Kong Institute of Certified Public Accountants.

pwc 羅兵咸永道

ACCOUNTANT'S REPORT ON HISTORICAL FINANCIAL INFORMATION TO THE DIRECTORS OF NETEASE, INC. AND CHINA INTERNATIONAL CAPITAL CORPORATION HONG KONG SECURITIES LIMITED, CREDIT SUISSE (HONG KONG) LIMITED AND J.P. MORGAN SECURITIES (FAR EAST) LIMITED

Introduction

We report on the historical financial information of NetEase, Inc. and its subsidiaries (together, the "**Company**") set out on pages IA-3 to IA-77, which comprises the consolidated balance sheets as at December 31, 2017, 2018 and 2019, and the consolidated statements of operations and comprehensive income, the consolidated statements of shareholders' equity and the consolidated statements of cash flows for each of the years then ended (the "**Track Record Period**") and a summary of significant accounting policies and other explanatory information (together, the "**Historical Financial Information**"). The Historical Financial Information set out on pages IA-3 to IA-77 forms an integral part of this report, which has been prepared for inclusion in the prospectus of the Company dated June 2, 2020 (the "**Prospectus**") in connection with the listing of shares of the Company on the Main Board of The Stock Exchange of Hong Kong Limited.

Directors' responsibility for the Historical Financial Information

The directors of the Company are responsible for the preparation of Historical Financial Information that gives a true and fair view in accordance with the basis of presentation set out in Note 2(b) to the Historical Financial Information, and for such internal control as the directors determine is necessary to enable the preparation of Historical Financial Information that is free from material misstatement, whether due to fraud or error.

Reporting accountant's responsibility

Our responsibility is to express an opinion on the Historical Financial Information and to report our opinion to you. We conducted our work in accordance with Hong Kong Standard on Investment Circular Reporting Engagements 200, *Accountants' Reports on Historical Financial Information in Investment Circulars* issued by the Hong Kong Institute of Certified Public Accountants ("**HKICPA**"). This standard requires that we comply with ethical standards and plan and perform our work to obtain reasonable assurance about whether the Historical Financial Information is free from material misstatement.

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Our work involved performing procedures to obtain evidence about the amounts and disclosures in the Historical Financial Information. The procedures selected depend on the reporting accountant's judgment, including the assessment of risks of material misstatement of the Historical Financial Information, whether due to fraud or error. In making those risk assessments, the reporting accountant considers internal control relevant to the entity's preparation of Historical Financial Information that gives a true and fair view in accordance with the basis of presentation set out in Note 2(b) to the Historical Financial Information in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Our work also included evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the Historical Financial Information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the Historical Financial Information gives, for the purposes of the accountant's report, a true and fair view of the consolidated financial position of the Company as at December 31, 2017, 2018 and 2019 and of its consolidated financial performance and its consolidated cash flows for the Track Record Period in accordance with the basis of presentation out in Note 2(b) to the Historical Financial Information.

Report on matters under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Hong Kong Listing Rules") and the Companies (Winding Up and Miscellaneous Provisions) Ordinance

Adjustments

The Historical Financial Information is stated after making such adjustments to the Historical Financial Statements as defined on page IA-3 as were considered necessary.

Dividends

We refer to Note 23 to the Historical Financial Information which contains information about the dividends paid by NetEase, Inc. in respect of the Track Record Period.

PricewaterhouseCoopers
Certified Public Accountants
Hong Kong
June 2, 2020

I. HISTORICAL FINANCIAL INFORMATION OF THE COMPANY

Preparation of Historical Financial Information

Set out below is the Historical Financial Information which forms an integral part of this accountant's report.

The Historical Financial Information in this report was prepared by the directors of the Company based on the consolidated financial statements of the Company for the years ended December 31, 2017, 2018 and 2019 (collectively referred as "**Historical Financial Statements**"). The consolidated financial statements for the years ended December 31, 2017, 2018 and 2019 were audited by PricewaterhouseCoopers Zhong Tian LLP, PRC, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("**PCAOB**") relating to the financial statements and the effectiveness of internal control over financial reporting.

The Historical Financial Information is presented in Renminbi and United States Dollars. All values are rounded to the nearest thousand except when otherwise indicated.

Consolidated Balance Sheets
(in thousands except per share data)

	Notes	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2019
		RMB	*RMB*	*RMB*	*US$* *Note 2(o)*
Assets					
Current assets:					
Cash and cash equivalents	*2(f)*	2,467,467	4,977,432	3,246,373	466,312
Time deposits	*2(f)*	30,603,369	32,900,287	53,487,075	7,682,937
Restricted cash	*2(f)*	5,886,367	4,692,050	3,150,354	452,520
Accounts receivable, net		3,539,594	4,002,487	4,169,358	598,891
Inventories, net	*2(h)*	984,228	1,065,615	650,557	93,447
Prepayments and other current assets	*5*	3,126,796	3,925,205	4,817,422	691,979
Short-term investments	*6*	9,702,609	11,674,775	15,312,595	2,199,517
Assets held for sale	*3*	5,637,330	5,477,869	271,278	38,967
Total current assets		61,947,760	68,715,720	85,105,012	12,224,570
Non-current assets:					
Property, equipment and software, net	*7*	3,490,130	4,672,079	4,621,712	663,867
Land use rights, net	*8*	439,526	3,271,512	3,707,179	532,503
Operating lease right-of-use assets, net	*9*	–	–	463,688	66,605
Deferred tax assets	*12(c)*	823,495	1,064,295	903,904	129,838
Time deposits	*2(f)*	100,000	100,000	2,360,000	338,993
Restricted cash	*2(f)*	200	–	–	–
Long-term investments	*10*	2,683,776	5,245,108	9,293,868	1,334,980
Other long-term assets	*11*	1,088,089	2,930,069	5,666,610	813,958
Assets held for sale	*3*	458,439	969,145	2,398	344
Total non-current assets		9,083,655	18,252,208	27,019,359	3,881,088
Total assets		71,031,415	86,967,928	112,124,371	16,105,658

Consolidated Balance Sheets (Continued)
(in thousands except per share data)

	Notes	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2019
		RMB	*RMB*	*RMB*	*US$* *Note 2(o)*
Liabilities, redeemable noncontrolling interests and Shareholders' equity					
Current liabilities:					
Accounts payable (including accounts payable of the consolidated VIEs without recourse to the primary beneficiaries of RMB892,401, RMB909,449 and RMB846,893 as of December 31, 2017, 2018 and 2019, respectively)		1,070,976	1,201,210	1,212,303	174,136
Salary and welfare payables (including salary and welfare payables of the consolidated VIEs without recourse to the primary beneficiaries of RMB106,192, RMB108,699 and RMB97,636 as of December 31, 2017, 2018 and 2019, respectively)		2,076,160	2,799,212	2,957,360	424,798
Taxes payable (including taxes payable of the consolidated VIEs without recourse to the primary beneficiaries of RMB22,058, RMB84,118 and RMB122,179 as of December 31, 2017, 2018 and 2019, respectively)	*13*	1,561,920	2,260,646	3,156,513	453,405
Short-term loans (including short-term loans of the consolidated VIEs without recourse to the primary beneficiaries of nil, RMB129,900 and RMB197,420 as of December 31, 2017, 2018 and 2019, respectively)	*14*	6,623,502	13,658,554	16,828,226	2,417,223
Deferred revenue (including deferred revenue of the consolidated VIEs without recourse to the primary beneficiaries of RMB5,853,904, RMB6,672,715 and RMB7,634,637 as of December 31, 2017, 2018 and 2019, respectively)	*16*	6,049,903	7,718,485	8,602,227	1,235,633

Consolidated Balance Sheets (Continued)
(in thousands except per share data)

	Notes	December 31, 2017 RMB	December 31, 2018 RMB	December 31, 2019 RMB	December 31, 2019 US$ Note 2(o)
Accrued liabilities and other payables (including accrued liabilities and other payables of the consolidated VIEs without recourse to the primary beneficiaries of RMB1,966,427, RMB1,865,978 and RMB1,919,549 as of December 31, 2017, 2018 and 2019, respectively)	*15*	4,331,937	5,005,190	5,292,774	760,259
Short-term operating lease liabilities (including short-term operating lease liabilities of the consolidated VIEs without recourse to the primary beneficiaries of nil, nil and RMB14,683 as of December 31, 2017, 2018 and 2019, respectively)	*9*	–	–	191,454	27,501
Liabilities held for sale	*3*	2,035,716	2,465,713	2,156	310
Total current liabilities		23,750,114	35,109,010	38,243,013	5,493,265
Non-current liabilities:					
Deferred tax liabilities	*12(c)*	212,854	392,598	382,030	54,875
Long-term operating lease liabilities (including long-term operating lease liabilities of the consolidated VIEs without recourse to the primary beneficiaries of nil, nil and RMB12,133 as of December 31, 2017, 2018 and 2019, respectively)	*9*	–	–	279,949	40,212
Other long-term payable (including long-term payable of the consolidated VIEs without recourse to the primary beneficiaries of RMB7,500, RMB7,500 and nil as of December 31, 2017, 2018 and 2019, respectively)		18,250	48,921	176,963	25,419
Liabilities held for sale	*3*	361	5,818	961	138
Total non-current liabilities		231,465	447,337	839,903	120,644
Total liabilities		23,981,579	35,556,347	39,082,916	5,613,909

Consolidated Balance Sheets (Continued)
(in thousands except per share data)

	Notes	December 31, 2017 RMB	December 31, 2018 RMB	December 31, 2019 RMB	December 31, 2019 US$ Note 2(o)
Commitments and contingencies	22				
Redeemable noncontrolling interests	17	614,696	5,385,736	10,448,600	1,500,847
Shareholders' equity:					
Ordinary shares, US$0.0001 par value: 1,000,300,000 shares authorized, 3,283,217 shares issued and outstanding as of December 31, 2017, 3,199,018 shares issued and outstanding as of December 31, 2018 and 3,228,531 shares issued and outstanding as of December 31, 2019		2,678	2,620	2,640	379
Additional paid-in capital		1,753,439	–	3,913,656	562,162
Statutory reserves	2(s)	1,206,224	1,214,578	1,215,208	174,554
Accumulated other comprehensive income/(loss)		36,585	17,050	(71,445)	(10,262)
Retained earnings		42,733,081	43,997,388	56,393,640	8,100,439
NetEase, Inc.'s shareholders' equity		45,732,007	45,231,636	61,453,699	8,827,272
Noncontrolling interests	17	703,133	794,209	1,139,156	163,630
Total shareholders' equity		46,435,140	46,025,845	62,592,855	8,990,902
Total liabilities, redeemable noncontrolling interests and shareholders' equity		71,031,415	86,967,928	112,124,371	16,105,658

Consolidated Statements of Operations and Comprehensive Income
(in thousands except per share data or per ADS data)

		For the year ended December 31,			
		2017	2018	2019	2019
	Notes	*RMB*	*RMB*	*RMB*	*US$ Note 2(o)*
Net revenues:					
Online game	*26*	36,281,642	40,190,057	46,422,640	6,668,195
Youdao	*26*	455,746	731,598	1,304,883	187,435
Innovative businesses and others	*26*	7,699,967	10,256,920	11,513,622	1,653,828
Total net revenues		44,437,355	51,178,575	59,241,145	8,509,458
Cost of revenues	*26*	(19,394,314)	(23,832,426)	(27,685,845)	(3,976,823)
Gross profit		**25,043,041**	**27,346,149**	**31,555,300**	**4,532,635**
Operating expenses:					
Selling and marketing expenses		(5,504,613)	(6,911,710)	(6,221,127)	(893,609)
General and administrative expenses		(2,381,842)	(3,078,635)	(3,130,298)	(449,639)
Research and development expenses		(4,161,673)	(7,378,460)	(8,413,224)	(1,208,484)
Total operating expenses		(12,048,128)	(17,368,805)	(17,764,649)	(2,551,732)
Operating profit		**12,994,913**	**9,977,344**	**13,790,651**	**1,980,903**
Other income/(expenses):					
Investment income/(losses), net		362,113	(22,383)	1,306,320	187,641
Interest income, net		666,616	586,671	821,774	118,040
Exchange (losses)/gains		(455,948)	(51,799)	25,166	3,615
Other, net		271,885	586,916	439,422	63,119
Income before tax		**13,839,579**	**11,076,749**	**16,383,333**	**2,353,318**
Income tax	*12(a)*	(2,155,988)	(2,460,650)	(2,914,726)	(418,674)
Net income from continuing operations		11,683,591	8,616,099	13,468,607	1,934,644
Net (loss)/income from discontinued operations		(834,454)	(2,138,682)	7,962,519	1,143,744
Net income		**10,849,137**	**6,477,417**	**21,431,126**	**3,078,388**
Accretion and deemed dividends in connection with repurchase of redeemable noncontrolling interests		–	(248,098)	(271,543)	(39,005)
Net (income)/loss attributable to noncontrolling interests and redeemable noncontrolling interests		(141,198)	(76,912)	77,933	11,194

Consolidated Statements of Operations and Comprehensive Income (Continued)
(in thousands except per share data or per ADS data)

		For the year ended December 31,			
		2017	2018	2019	2019
	Notes	*RMB*	*RMB*	*RMB*	*US$ Note 2(o)*
Net income attributable to NetEase, Inc.'s shareholders		**10,707,939**	**6,152,407**	**21,237,516**	**3,050,577**
Including:					
Net income from continuing operations attributable to NetEase, Inc.'s shareholders		11,542,393	8,291,089	13,274,997	1,906,833
Net (loss)/income from discontinued operations attributable to NetEase, Inc.'s shareholders	*3*	(834,454)	(2,138,682)	7,962,519	1,143,744
Net income		**10,849,137**	**6,477,417**	**21,431,126**	**3,078,388**
Other comprehensive income					
Unrealized losses on available-for-sale securities, net of tax		(23,321)	–	–	–
Foreign currency translation adjustment		(1,573)	18,624	(93,774)	(13,470)
Total other comprehensive (loss)/income		**(24,894)**	**18,624**	**(93,774)**	**(13,470)**
Total comprehensive income		**10,824,243**	**6,496,041**	**21,337,352**	**3,064,918**
Comprehensive (income)/loss attributable to noncontrolling interests and redeemable noncontrolling interests		(141,198)	(76,912)	83,685	12,021
Comprehensive income attributable to NetEase, Inc.'s shareholders		**10,683,045**	**6,419,129**	**21,421,037**	**3,076,939**
Net income/(loss) per share, basic		3.25	1.90	6.59	0.95
— Continuing operations		3.51	2.56	4.12	0.59
— Discontinued operations		(0.26)	(0.66)	2.47	0.36

Consolidated Statements of Operations and Comprehensive Income (Continued)
(in thousands except per share data or per ADS data)

		For the year ended December 31,			
		2017	2018	2019	2019
	Notes	*RMB*	*RMB*	*RMB*	*US$ Note 2(o)*
Net income/(loss) per ADS, basic		81.36	47.54	164.86	23.68
— Continuing operations		87.70	64.07	103.05	14.80
— Discontinued operations		(6.34)	(16.53)	61.81	8.88
Net income/(loss) per share, diluted	*21*	3.23	1.89	6.53	0.94
— Continuing operations		3.48	2.55	4.08	0.59
— Discontinued operations		(0.25)	(0.66)	2.45	0.35
Net income/(loss) per ADS, diluted		80.74	47.26	163.37	23.47
— Continuing operations		87.03	63.69	102.12	14.67
— Discontinued operations		(6.29)	(16.43)	61.25	8.80
Weighted average number of ordinary shares outstanding, basic	*21*	3,290,312	3,235,324	3,220,473	3,220,473
Weighted average number of ADS outstanding, basic		131,612	129,413	128,819	128,819
Weighted average number of ordinary shares outstanding, diluted	*21*	3,315,478	3,254,689	3,249,972	3,249,972
Weighted average number of ADS outstanding, diluted		132,619	130,188	129,999	129,999

Consolidated Statements of Shareholders' Equity
(in thousands)

	Ordinary shares		Additional paid-in capital	Treasury stock		Statutory reserves	Accumulated other comprehensive income	Retained earnings	Noncontrolling interests	Total shareholders' equity
	Share	Amount		Share	Amount					
		RMB	RMB		RMB	RMB	RMB	RMB	RMB	RMB
Balance as of December 31, 2016	3,281,480	2,676	1,637,953	–	–	1,160,161	61,479	35,328,812	271,860	38,462,941
Ordinary shares issued upon settlement of restricted share units	29,805	21	(21)	–	–	–	–	–	–	–
Share-based compensation	–	–	2,177,079	–	–	–	–	–	–	2,177,079
Appropriation to statutory reserves	–	–	–	–	–	46,063	–	(46,063)	–	–
Net income attributable to NetEase, Inc. and noncontrolling interest shareholders	–	–	–	–	–	–	–	10,707,939	126,502	10,834,441
Repurchase of shares	–	–	–	(28,068)	(2,061,591)	–	–	–	–	(2,061,591)
Cancellation of treasury stock	(28,068)	(19)	(2,061,572)	28,068	2,061,591	–	–	–	–	–
Net change in unrealized gains on available-for-sale securities	–	–	–	–	–	–	(23,321)	–	–	(23,321)
Capital injection in subsidiaries by noncontrolling interest shareholders	–	–	–	–	–	–	–	–	311,500	311,500
Dividends to shareholders	–	–	–	–	–	–	–	(3,257,607)	–	(3,257,607)
Foreign currency translation adjustment	–	–	–	–	–	–	(1,573)	–	–	(1,573)
Deconsolidation of a subsidiary	–	–	–	–	–	–	–	–	(6,729)	(6,729)
Balance as of December 31, 2017	3,283,217	2,678	1,753,439	–	–	1,206,224	36,585	42,733,081	703,133	46,435,140

Consolidated Statements of Shareholders' Equity (Continued)
(in thousands)

	Ordinary shares		Additional paid-in capital	Treasury stock		Statutory reserves	Accumulated other comprehensive income	Retained earnings	Noncontrolling interests	Total shareholders' equity
	Share	Amount		Share	Amount					
		RMB	*RMB*		*RMB*	*RMB*	*RMB*	*RMB*	*RMB*	*RMB*
Cumulative effect of changes in accounting principles related to revenue recognition and financial instruments	–	–	–	–	–	–	(38,159)	65,608	12,367	39,816
Ordinary shares issued upon settlement of restricted share units	30,709	19	(19)	–	–	–	–	–	–	–
Share-based compensation	–	–	2,397,798	–	–	–	–	–	131,852	2,529,650
Appropriation to statutory reserves	–	–	–	–	–	8,354	–	(8,354)	–	–
Net income attributable to NetEase, Inc. and noncontrolling interest shareholders	–	–	–	–	–	–	–	6,400,505	76,912	6,477,417
Repurchase of shares	–	–	–	(114,908)	(7,592,598)	–	–	–	–	(7,592,598)
Cancellation of treasury stock	(114,908)	(77)	(4,151,218)	114,908	7,592,598	–	–	(3,441,303)	–	–
Repurchase of noncontrolling interests and redeemable noncontrolling interests	–	–	–	–	–	–	–	(223,243)	(131,143)	(354,386)
Capital injection in subsidiaries by noncontrolling interest shareholders	–	–	–	–	–	–	–	–	15,510	15,510
Dividends to shareholders	–	–	–	–	–	–	–	(1,440,194)	–	(1,440,194)
Foreign currency translation adjustment	–	–	–	–	–	–	18,624	–	–	18,624
Disposal of a subsidiary	–	–	–	–	–	–	–	–	(5,654)	(5,654)
Accretion of redeemable noncontrolling interests	–	–	–	–	–	–	–	(88,712)	(8,768)	(97,480)
Balance as of December 31, 2018	3,199,018	2,620	–	–	–	1,214,578	17,050	43,997,388	794,209	46,025,845

Consolidated Statements of Shareholders' Equity (Continued)
(in thousands)

	Ordinary shares		Additional paid-in capital	Treasury stock		Statutory reserves	Accumulated other comprehensive income	Retained earnings	Noncontrolling interests	Total shareholders' equity
	Share	Amount		Share	Amount					
		RMB	*RMB*		*RMB*	*RMB*	*RMB*	*RMB*	*RMB*	*RMB*
Ordinary shares issued upon settlement of restricted share units	29,513	20	(1,487)	25	1,467	–	–	–	–	–
Share-based compensation	–	–	2,341,078	–	–	–	–	–	46,100	2,387,178
Appropriation to statutory reserves	–	–	–	–	–	11,129	–	(11,129)	–	–
Net income attributable to NetEase, Inc. and noncontrolling interest shareholders	–	–	–	–	–	–	–	21,509,059	(77,933)	21,431,126
Repurchase of shares	–	–	–	(25)	(1,467)	–	–	–	–	(1,467)
Repurchase of noncontrolling interests and redeemable noncontrolling interests	–	–	(4,279)	–	–	–	–	–	(53)	(4,332)
Capital injection in subsidiaries by noncontrolling interest shareholders	–	–	1,153,528	–	–	–	–	–	378,654	1,532,182
Conversion of Youdao's preferred shares recognized as redeemable noncontrolling interests to ordinary shares	–	–	468,788	–	–	–	–	–	27,757	496,545
Dividends to shareholders	–	–	–	–	–	–	–	(8,840,634)	–	(8,840,634)
Foreign currency translation adjustment	–	–	–	–	–	–	(88,022)	–	(5,752)	(93,774)
Disposal of subsidiaries	–	–	(43,972)	–	–	(10,499)	(473)	10,499	(11,807)	(56,252)
Accretion of redeemable noncontrolling interests	–	–	–	–	–	–	–	(271,543)	(12,019)	(283,562)
Balance as of December 31, 2019	3,228,531	2,640	3,913,656	–	–	1,215,208	(71,445)	56,393,640	1,139,156	62,592,855

Consolidated Statements of Cash Flows
(in thousands)

	For the year ended December 31,			
	2017	2018	2019	2019
	RMB	*RMB*	*RMB*	*US$* *Note 2(o)*
Cash flows from operating activities:				
Net income	10,849,137	6,477,417	21,431,126	3,078,388
Net loss/(income) from discontinued operations	834,454	2,138,682	(7,962,519)	(1,143,744)
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	791,778	2,060,135	2,613,782	375,446
Fair value change of equity security investments and other financial instruments	–	248,169	(751,693)	(107,974)
Investment impairment	58,537	159,703	177,567	25,506
Share-based compensation cost	1,984,851	2,471,731	2,404,089	345,326
Allowance for/(Reversal of) doubtful accounts	60,826	50,954	(28,583)	(4,106)
Loss/(Gain) on disposal of property, equipment and software	5,072	(1,385)	5,122	736
Unrealized exchange losses/(gains)	440,529	31,998	(9,981)	(1,434)
Gain on disposal of long-term investments, business and subsidiaries	(9,595)	(213,339)	(98,489)	(14,147)
Deferred income taxes	(438,307)	(70,621)	150,629	21,637
Net equity share of losses/(gains) from equity method investees	12,232	98,301	(4,322)	(621)
Fair value changes of short-term investments	(389,793)	(463,483)	(657,606)	(94,459)
Changes in operating assets and liabilities:				
Accounts receivable	596,054	(612,656)	(11,314)	(1,625)
Inventories	(754,889)	(81,440)	415,057	59,619
Prepayments and other assets	201,931	(719,035)	(1,488,564)	(213,819)
Accounts payable	116,906	112,435	13,229	1,900
Salary and welfare payables	649,460	725,515	146,146	20,993
Taxes payable	(170,130)	685,024	(133,801)	(19,219)
Deferred revenue	(1,375,811)	1,757,874	883,742	126,942
Accrued liabilities and other payables	1,401,210	(196,136)	(182,646)	(26,235)
Net cash provided by continuing operating activities	14,864,452	14,659,843	16,910,971	2,429,110
Net cash (used in)/provided by discontinued operating activities	(2,975,214)	(1,243,966)	305,487	43,880
Net cash provided by operating activities	11,889,238	13,415,877	17,216,458	2,472,990

Consolidated Statements of Cash Flows (Continued)
(in thousands)

	For the year ended December 31,			
	2017	2018	2019	2019
	RMB	*RMB*	*RMB*	*US$* *Note 2(o)*
Cash flows from investing activities:				
Purchase of property, equipment and software	(1,654,486)	(2,169,404)	(1,209,477)	(173,731)
Proceeds from sale of property, equipment and software	4,425	6,688	60,601	8,705
Purchase of intangible assets, content and licensed copyrights	(791,580)	(1,741,225)	(2,119,307)	(304,419)
Purchase of land use right	(6,488)	(2,926,795)	–	–
Net change of short-term investments with terms of three months or less	(895,298)	(1,172,326)	(1,023,165)	(146,969)
Purchase of short-term investments	(12,491,000)	(13,393,000)	(22,370,000)	(3,213,249)
Proceeds from maturities of short-term investments	15,615,544	13,071,359	20,225,342	2,905,189
Investment in equity method investees	(235,769)	(272,451)	(450,695)	(64,738)
Acquisitions of other equity investments	(900,712)	(2,751,040)	(1,111,493)	(159,656)
Proceeds from disposal of investment in equity method investees and other equity investments	350,418	–	406,702	58,419
Placement/rollover of time deposits	(33,984,148)	(41,553,428)	(77,083,350)	(11,072,330)
Proceeds from maturity of time deposits	22,429,597	39,924,525	54,381,647	7,811,435
Change in other long-term assets	(100,646)	(133,039)	(42,345)	(6,082)
Amounts (paid to)/received from disposed businesses	(3,296,366)	(1,889,560)	9,031,051	1,297,229
Net cash used in continuing investing activities	(15,956,509)	(14,999,696)	(21,304,489)	(3,060,197)
Net cash provided by/(used in) discontinued investing activities	3,101,239	1,430,181	(832,252)	(119,546)
Net cash used in investing activities	(12,855,270)	(13,569,515)	(22,136,741)	(3,179,743)
Cash flows from financing activities:				
Net proceeds from short-term loan with terms of three months or less	3,095,465	6,194,113	2,538,267	364,599
Proceeds of short-term loan	9,505	34,256	730,087	104,870
Repayment of short-term loan	–	(18,761)	(296,823)	(42,636)
Dividends paid to shareholders	(3,257,607)	(1,440,194)	(8,840,634)	(1,269,878)
Repurchase of redeemable noncontrolling interests	–	(780,000)	–	–
Proceeds from issuance of redeemable noncontrolling interest shareholders, net of issuance cost	600,000	5,294,174	5,242,180	752,992

Consolidated Statements of Cash Flows (Continued)
(in thousands)

	For the year ended December 31,			
	2017	2018	2019	2019
	RMB	*RMB*	*RMB*	*US$ Note 2(o)*
Repurchase of noncontrolling interests	–	(195,000)	–	–
Capital injection from noncontrolling interest shareholders	311,500	15,510	1,698,810	244,019
Cash (paid for)/refund received from share repurchase	(2,061,591)	(7,516,679)	10,638	1,528
Net cash (used in)/provided by financing activities*	(1,302,728)	1,587,419	1,082,525	155,494
Effect of exchange rate changes on cash, cash equivalents and restricted cash held in foreign currencies	(12,766)	81,511	29,080	4,177
Net (decrease)/increase in cash, cash equivalents and restricted cash	(2,281,526)	1,515,292	(3,808,678)	(547,082)
Cash, cash equivalents and restricted cash, beginning of the year	10,972,772	8,691,246	10,206,538	1,466,077
Cash, cash equivalents and restricted cash, end of the year	8,691,246	10,206,538	6,397,860	918,995
Less: Cash, cash equivalents and restricted cash of held for sales at end of the year	337,212	537,056	1,133	163
Cash, cash equivalents and restricted cash of continuing operations, end of the year	8,354,034	9,669,482	6,396,727	918,832
Supplemental disclosures of cash flow information of continuing operation:				
Cash paid for income taxes, net of tax refund	2,705,804	2,003,158	3,193,802	458,761
Cash paid for interest expenses	84,708	301,761	431,395	61,966
Supplemental schedule of non-cash investing and financing activities of continuing operation:				
Fixed asset purchases financed by accounts payable and accrued liabilities	293,045	351,610	304,944	43,802

* There is no financing activity from discontinued operations.

II. NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Amounts expressed in Renminbi ("**RMB**"), unless otherwise stated)

1. Organization and Nature of Operations

(a) The Group

NetEase.com, Inc. was incorporated in the Cayman Islands on July 6, 1999 and changed its name to "NetEase, Inc." (the "**Company**") with effect from March 29, 2012. The Company completed its initial public offering in July 2000 in connection with its listing on the Nasdaq National Market (now the Nasdaq Global Select Market) in the United States of America. As of December 31, 2019, the Company has wholly-owned and majority-owned subsidiaries incorporated in countries and jurisdictions mainly in the People's Republic of China ("**PRC**" or "**China**," references to "China" and "PRC" are to the People's Republic of China, excluding, for the purposes of the financial statements only, Hong Kong, Macau and Taiwan), Hong Kong, Cayman Islands and British Virgin Islands ("**BVI**"). The Company also effectively controls a number of variable interest entities ("**VIEs**") for which the Company is the primary beneficiary. The Company, its subsidiaries and VIEs are hereinafter collectively referred to as the "**Group**."

In September 2019, the Company sold its Kaola e-commerce business. As a result, Kaola has been deconsolidated from the Company and its historical financial results are reflected in the Company's consolidated financial statements as discontinued operations accordingly. See additional discussion on the discontinued operation in Note 3 to the consolidated financial statements.

On October 26, 2019, Youdao, Inc. ("**Youdao**"), one of the Company's majority-controlled subsidiaries completed its initial public offering ("**IPO**") on the New York Stock Exchange. After Youdao's offering, the Company continues to control Youdao and consolidates Youdao as its controlling shareholder.

The major subsidiaries and VIEs through which the Company conducts its business operations as of December 31, 2019 are described below:

Major Subsidiaries	**Place and year of incorporation**
Guangzhou Boguan Telecommunication Technology Co., Ltd. ("**Boguan**")	Guangzhou, China 2003
NetEase (Hangzhou) Network Co., Ltd. ("**NetEase Hangzhou**")	Hangzhou, China 2006
Hong Kong NetEase Interactive Entertainment Limited	Hong Kong, China 2007

Major VIEs and VIEs' subsidiaries	**Place and year of incorporation**
Guangzhou NetEase Computer System Co., Ltd. ("**Guangzhou NetEase**")	Guangzhou, China 1997
Shanghai EaseNet Network Technology Co., Ltd. ("**Shanghai EaseNet**")	Shanghai, China 2008
StormNet Information Technology (Hong Kong) Limited ("**StormNet IT HK**")	Hong Kong, China 2008
StormNet Information Technology (Shanghai) Co., Ltd. ("**StormNet IT SH**")	Shanghai, China 2008
Hangzhou NetEase Leihuo Technology Co., Ltd. ("**HZ Leihuo**," formerly known as Hangzhou NetEase Leihuo Network Co., Ltd.)	Hangzhou, China 2009

1. Organization and Nature of Operations (Continued)

(a) The Group (Continued)

Guangzhou NetEase, a major VIE of the Company, was incorporated in June 1997 in China and owned by William Lei Ding, or Mr. Ding, the Company's founder, director and chief executive officer, and another Chinese employee of the Group. It is responsible for providing online game, e-mail and other value-added telecommunication services.

HZ Leihuo was incorporated in April 2009 in China by two Chinese employees of the Group and currently operates the Company's mobile game business.

In addition, Shanghai EaseNet is a PRC company owned by Mr. Ding, and has contractual arrangements with StormNet IT HK (a joint venture established between, and owned equally by, Blizzard Entertainment, Inc. ("**Blizzard**") and the Company), and with the Company. StormNet IT HK, together with its wholly owned subsidiary, StormNet IT SH, was established concurrently with the licensing of certain online games in August 2008 and provides technical services to Shanghai EaseNet.

The following combined financial information of the Group's VIEs was included in the accompanying consolidated financial statements of the Group as follows:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Total assets	9,678,794	10,355,050	14,400,564
Total liabilities	8,848,482	9,778,359	12,272,634

	For the year ended December 31,		
	2017	2018	2019
	RMB	*RMB*	*RMB*
Net revenues	40,566,998	43,231,277	49,455,146
Net income	355,697	224,253	344,134

	For the year ended December 31,		
	2017	2018	2019
	RMB	*RMB*	*RMB*
Net cash (used in)/provided by operating activities	(152,931)	356,907	(249,387)
Net cash provided by/(used in) investing activities	122,286	(720,675)	(495,160)
Net cash provided by financing activities	4,000	229,862	26,520

1. Organization and Nature of Operations (Continued)

(a) The Group (Continued)

In accordance with various contractual agreements, the Company has the power to direct the activities of the VIEs and can have assets transferred out of the VIEs. Therefore, the Company considers that there are no assets in the respective VIEs that can be used only to settle obligations of the respective VIEs, except for the registered capital of the VIEs amounting to approximately RMB536.2 million, RMB542.2 million and RMB501.2 million, respectively, as of December 31, 2017, 2018 and 2019, as well as certain non-distributable statutory reserves amounting to approximately RMB27.0 million, RMB31.5 million and RMB42.1 million, respectively, as of December 31, 2017, 2018 and 2019. As the respective VIEs are incorporated as limited liability companies under the PRC Company Law, creditors do not have recourse to the general credit of the Company for the liabilities of the respective VIEs.

Currently, there are certain contractual arrangements between the Company and several of its VIEs which require the Company to provide additional financial support or guarantees to its VIEs, where necessary. Please see Note 1(b) for additional information.

There is no entity in the Company's group for which the Company has a variable interest but is not the primary beneficiary as of December 31, 2017, 2018 and 2019.

(b) Nature of operations

The Group generates revenues mainly from providing online game services, online courses services, advertising services, e-commerce, and other fee-based premium services.

The industry in which the Group operates is subject to a number of industry-specific risk factors, including, but not limited to, rapidly changing technologies; government regulations of the Internet, online game, online education and e-commerce industry in China; numbers of new entrants; dependence on key individuals; competition of similar services from larger companies; customer preferences; and the need for the continued successful development, marketing and selling of its services.

VIE Arrangements with major VIEs

The Group conducts its business mainly in China. The Chinese government regulates Internet access, telecommunications services, the distribution of news and other information and the provision of commerce through strict business licensing requirements and other governmental regulations, which include, among others, those restricting foreign ownership in Chinese companies providing Internet advertising and other Internet or telecommunications value-added services. To comply with the existing Chinese laws and regulations, the Company and certain of its subsidiaries have entered into a series of contractual arrangements with its major VIEs with respect to the operation of the NetEase websites, operation of self-developed and licensed PC and mobile games, Internet content and wireless value-added services, as well as the provision of advertising services.

1. Organization and Nature of Operations (Continued)

(b) Nature of operations (Continued)

Based on the agreements with these VIEs, certain of the Company's subsidiaries provided technical consulting and related services to these VIEs. The principal agreements that transfer economic benefits of Guangzhou NetEase and HZ Leihuo to the Company and its subsidiaries are:

- *Cooperative agreements with Guangzhou NetEase* — under these agreements, certain of the Company's subsidiaries, including Boguan and NetEase Hangzhou provide various technical consulting and related services to Guangzhou NetEase in exchange for substantially all of Guangzhou NetEase's net profits.

- *Cooperative agreement with HZ Leihuo* — under this agreement, NetEase Hangzhou provides various technical consulting and related services to HZ Leihuo in exchange for substantially all of HZ Leihuo's net profits.

Each cooperative agreement will remain in effect indefinitely unless any one of the contract parties terminates such agreement by written notice or otherwise required by law.

Each VIE, the relevant subsidiary of the Company and the relevant VIE shareholders have entered into a series of agreements that give the Company effective control over the VIE. The principal agreements that provide the Company and its subsidiaries effective control over Guangzhou NetEase are:

- Shareholder Voting Rights Trust Agreement among the VIE shareholders and the Company's subsidiary, NetEase Information Technology (Beijing) Co., Ltd. ("**NetEase Beijing**"). Each of the VIE shareholders irrevocably appoints NetEase Beijing to represent him to exercise all the voting rights to which he is entitled as a shareholder of Guangzhou NetEase. The term of this agreement was 10 years from May 12, 2000, which was extended on June 10, 2011 with a term of 20 years from May 12, 2010.

- Letter of Agreement. Each of the VIE shareholders have agreed that any amendments to be made to the agreements to which the Company, NetEase Beijing and/or their respective affiliates is a party, on the one hand, and any of their variable interest entities and/or the shareholders of such entities, on the other hand, shall be subject to the approval by the vote of a majority of the Board of the Company, excluding the vote of Mr. Ding. The VIE shareholders have also agreed that, if any amendments to the above mentioned agreements require a vote of the shareholders of the Company or Guangzhou NetEase, as applicable, both of them will vote in their capacity as direct or indirect shareholders of these companies to act based upon the instructions of the Company's Board. The term of this agreement is 20 years from May 12, 2010.

- Other Governance Arrangements. The parties have agreed that upon the Company's determination and at any time when NetEase Beijing or its affiliates are able to obtain approval to invest in and operate all or any part of any business operated by Guangzhou NetEase, NetEase Beijing or its affiliates may acquire all or any part of the assets or equity interests of Guangzhou NetEase, to the extent permitted by Chinese law.

1. Organization and Nature of Operations (Continued)

(b) Nature of operations (Continued)

The principal agreements that provide the Company and its subsidiaries effective control over HZ Leihuo, are:

- Operating Agreement among NetEase Hangzhou, HZ Leihuo and the VIE shareholders of Hangzhou Leihuo. To ensure the successful performance of the various agreements between the parties, HZ Leihuo and its VIE shareholders have agreed that, except for transactions in the ordinary course of business, HZ Leihuo will not enter into any transaction that would materially affect the assets, liabilities, rights or operations of HZ Leihuo without the prior written consent of NetEase Hangzhou. NetEase Hangzhou has also agreed that it will provide performance guarantees and, at NetEase Hangzhou's discretion, guarantee loans for working capital purposes to the extent required by HZ Leihuo for its operations. Furthermore, the VIE shareholders of HZ Leihuo have agreed that, upon instruction from NetEase Hangzhou, they will appoint HZ Leihuo's board members, president, chief financial officer and other senior executive officers. The term of this agreement is 20 years from December 1, 2015 and can be extended with the written consent of NetEase Hangzhou.

- Shareholder Voting Rights Trust Agreement among NetEase Hangzhou and the VIE shareholders of HZ Leihuo. Under these agreements, each dated December 1, 2015, each of the VIE shareholders of HZ Leihuo agreed to irrevocably entrust a person designated by NetEase Hangzhou to represent him to exercise all the voting rights and other shareholders' rights to which he is entitled as a shareholder of HZ Leihuo. Each agreement shall remain effective for as long as the VIE shareholder remains a shareholder of HZ Leihuo unless NetEase Hangzhou unilaterally terminates the agreement by written notice.

- Exclusive Purchase Option Agreements among NetEase Hangzhou, HZ Leihuo and the VIE shareholders of HZ Leihuo. Under the Exclusive Purchase Option Agreements, each dated December 1, 2015, each of the VIE shareholders has granted NetEase Hangzhou an option to purchase all or a portion of his equity interest in HZ Leihuo at a price equal to the original paid-in capital paid by the VIE shareholder. In addition, HZ Leihuo has granted NetEase Hangzhou an option to purchase all or a portion of the assets held by HZ Leihuo or its subsidiaries at a price equal to the net book value of such assets. Each of HZ Leihuo and the VIE shareholders of HZ Leihuo agrees not to transfer, mortgage or permit any security interest to be created on any equity interest in or assets of HZ Leihuo without the prior written consent of NetEase Hangzhou. Each Exclusive Purchase Option Agreement shall remain in effect until all of the equity interests in or assets of HZ Leihuo have been acquired by NetEase Hangzhou or its designee or until NetEase Hangzhou unilaterally terminates the agreement by written notice.

The principal agreements amongst the other VIEs, the relevant subsidiaries and VIE shareholders that provide the Company effective control over these VIEs contains substantially the same terms as those aforementioned agreements related to HZ Leihuo, except that contract expiry date varies.

1. Organization and Nature of Operations (Continued)

(b) Nature of operations (Continued)

The Joint Venture

In addition to the foregoing, in connection with the licensing of certain online games by Blizzard to Shanghai EaseNet for operation in the PRC, there are certain contractual arrangements among the Company and Shanghai EaseNet, the joint venture established between Blizzard and the Company.

StormNet IT HK, StormNet IT SH and Shanghai EaseNet (collectively referred to as the "**JV Group**") are variable interest entities as equity investment at risk is not sufficient to permit the JV Group to finance its activities without additional subordinated financial support provided by any parties. As Blizzard receives its interest as an indirect contribution from NetEase, Blizzard and the Company are considered related parties for purposes of identifying which party is the primary beneficiary under ASC 810. Since the aggregate variable interests held by Blizzard and NetEase would, if held by a single party, identify that party as the primary beneficiary, either Blizzard or the Company will be the primary beneficiary. Based on the assessment of all relevant facts and circumstances, the Company determined that the Company is most closely associated with the JV Group and therefore is the primary beneficiary. As a result, the JV Group's results of operations, assets and liabilities have been included in the Company's consolidated financial statements.

The Company conducts substantially all of its business through the various VIEs discussed above and their subsidiaries, and therefore these companies directly affect the Company's financial performance and cash flows. As discussed below, if the Chinese government determines the VIE agreements do not comply with applicable laws and regulations and requires the Company to restructure its operations entirely or discontinue all or any portion of its business, or if the uncertainties in the PRC legal system limit the Group's ability to enforce these contractual agreements, the Group's business operations will be significantly disrupted and the Group might be unable to consolidate these companies in the future. In the opinion of management, the likelihood of loss in respect of the Group's current ownership structure or the contractual arrangements with its VIEs is remote.

Risks related to the VIE arrangements

The Company believes that its contractual arrangements with the VIEs are in compliance with PRC law and are legally enforceable. Mr. Ding, who is the major shareholder of Guangzhou NetEase, Shanghai EaseNet and certain of the Company's other VIEs, is the largest shareholder of the Company. He therefore has no current interest in seeking to act contrary to the contractual arrangements. However, uncertainties in the PRC legal system could limit the Company's ability to enforce these contractual arrangements and if Mr. Ding were to reduce his interest in the Company, his interests may diverge from that of the Company and that may potentially increase the risk that he would seek to act contrary to the contractual terms, for example by influencing the VIEs not to pay the service fees when required to do so. If the VIEs or their respective shareholder fail to perform their respective obligations under the current contractual arrangements, the Company may have to incur substantial costs and expend significant resources to enforce those arrangements and rely on legal remedies under Chinese laws. The Chinese laws, rules and regulations are relatively new, and because of the limited volume of published decisions

1. Organization and Nature of Operations (Continued)

(b) Nature of operations (Continued)

and their non-binding nature, the interpretation and enforcement of these laws, rules and regulations involve substantial uncertainties. These uncertainties may impede the ability of the Company to enforce these contractual arrangements, or suffer significant delay or other obstacles in the process of enforcing these contractual arrangements and materially and adversely affect the results of operations and the financial position of the Company.

In addition, many Chinese regulations are subject to extensive interpretive powers of governmental agencies and commissions, and there are substantial uncertainties regarding the interpretation and application of current and future Chinese laws and regulations. Accordingly, the Company cannot be assured that Chinese regulatory authorities will not ultimately take a contrary view to its belief and will not take action to prohibit or restrict its business activities. The relevant regulatory authorities would have broad discretion in dealing with any deemed violations which may adversely impact the financial statements, operations and cash flows of the Company (including the restriction on the Company to carry out the business). It is unclear, however, how such restructuring could impact the Company's business and operating results, as the Chinese government has not yet found any such contractual arrangements non-compliant. If the legal structure and contractual arrangements were found to be in violation of any existing PRC laws and regulations, the PRC government could potentially:

- revoke the Group's business and operating licenses;
- require the Group to discontinue or restrict operations;
- restrict the Group's right to collect revenues;
- block the Group's websites;
- require the Group to restructure the operations in such a way as to compel the Group to establish a new enterprise, re-apply for the necessary licenses or relocate the Group's businesses, staff and assets;
- impose additional conditions or requirements with which the Group may not be able to comply; or
- take other regulatory or enforcement actions against the Group that could be harmful to the Group's business.

The imposition of any of these penalties may result in a material and adverse effect on the Group's ability to conduct the Group's business. In addition, if the imposition of any of these penalties causes the Group to lose the rights to direct the activities of the VIEs or the right to receive their economic benefits, the Group would no longer be able to consolidate the VIEs. The Group does not believe that any penalties imposed or actions taken by the PRC government would result in the liquidation of the Company, its subsidiaries or the VIEs.

2. Principal Accounting Policies

(a) Basis of consolidation

The consolidated financial statements include the financial statements of the Company, its subsidiaries and VIEs for which the Company is the primary beneficiary with the ownership interests of minority shareholders reported as noncontrolling interests. All significant transactions and balances among the Company, its subsidiaries and VIEs have been eliminated upon consolidation. The Company consolidates a VIE if the Company has the power to direct matters that most significantly impact the activities of the VIE, and has the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE.

(b) Basis of presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("**US GAAP**"). The consolidated financial statements are prepared based on the historical cost convention.

The preparation of financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the balance sheet dates and the reported amounts of revenues and expenses during the reporting periods. Actual results might differ from those estimates. Critical accounting estimates and assumptions include, but are not limited to, assessing the following: average playing period of paying players of online games and impairment of long-term investments.

(c) Revenue recognition

In May 2014, the FASB issued Accounting Standards Update No. 2014-09 (Topic 606) "Revenue from Contracts with Customers." Topic 606 supersedes the revenue recognition requirements in Topic 605 "Revenue Recognition" (Topic 605), and requires entities to recognize revenue when control of the promised goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. On January 1, 2018, the Group adopted Topic 606 using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with the Group's historical accounting under Topic 605. The Group recognized the cumulative effect of initially applying the new revenue accounting standard as an adjustment to the beginning retained earnings on January 1, 2018.

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

The adoption of Topic 606 primarily impacts the accounting of the recognition of breakage associated with the Group's unused online points in a personal game account as a result of recording revenue based upon estimates of breakage under the new revenue standard. Under Topic 605, revenue for unused points was not recorded until the points expired. Thus, for unused points, revenue is recorded earlier under the new standard. The cumulative-effect adjustment upon adoption includes a reduction of its deferred revenue of approximately RMB81.7 million and a net increase to its retained earnings of approximately RMB27.4 million (net of tax). Revenues of related game points would have been recorded in the consolidated statements of operations and comprehensive income for the year ended December 31, 2018 under Topic 605 based on its actual expiry date. Therefore, adoption of the new revenue accounting standard impacted the Group's consolidated statements of operations and comprehensive income for the year ended December 31, 2018 by reducing RMB81.7 million of revenues. This impact of adopting the new revenue standard was not material to the consolidated financial statements.

For the year ended December 31, 2018 and 2019, net revenue recognized from sources other than contracts with customers under ASC 606 was immaterial.

Revenues from contracts with customers are recognized when control of the promised goods or services is transferred to the Group's customers, in an amount that reflects the consideration the Group expects to be entitled to in exchange for those goods or services, reduced by estimates for return allowances, promotional discounts, rebates and Value Added Tax ("**VAT**"). The recognition of revenues involves certain management judgments, including estimated lives of virtual items purchased by game players, estimated breakage of game points, return allowance for goods sold, the estimation of the fair value of an advertising-for-advertising barter transaction, volume sales rebates. The amount and timing of the Group's revenues could be different if management made different judgments or utilized different estimates.

The Group's revenues are mainly generated from online game services, online learning services from Youdao, advertising services, e-commerce and other fee-based premium services. Refer to "Note 26 — Segment Information" for disaggregation of revenue.

(i) Online game services

The Group operates mobile games and PC games. The Group is the principal of all games it operates, including both self-developed games and licensed games. As all these games are hosted on the Group's servers, the Group has the pricing discretion, and is responsible for the sale and marketing of the games as well as customer services. Fees paid to game developers, distribution channels (app stores) and payment channels are recorded as cost of revenues.

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

(i) Online game services (Continued)

Mobile games

The Group generates mobile game revenues from the sale of in-game virtual items, including items, avatars, skills, privileges or other in-game consumables, features or functionality, within the games. The Group's performance obligation is to provide on-going game services to players who purchased virtual items to gain an enhanced game-playing experience. This performance obligation is satisfied over the playing period of the paying players. Accordingly, the Group recognizes the revenues ratably over the estimated average playing period of these paying players.

The Group considers the average period that players typically play the games and other game player behavior patterns, as well as various other factors to arrive at the best estimates for the estimated playing period of the paying players for each game based on historical players' churn rates. If a new game is launched and only a limited period of paying player data is available, then the Group considers other qualitative factors, such as the playing patterns for paying users for other games with similar characteristics and playing patterns of paying players, such as targeted players and purchasing frequency. While the Group believes its estimates to be reasonable based on available game player information, the Group may revise such estimates based on new information indicating a change in the game player behavior patterns and any adjustments are applied prospectively.

PC games

The Group sells prepaid points to the end users. Customers can purchase "virtual" prepaid points online or from the vendors who register the points in the Group's system via debit and credit cards or bank transfers via the online payment services platforms, and receive the prepaid point information over the Internet. Customers can use the points to play the Group's PC games, pay for in-game items and use other fee-based services. Proceeds received from the sales of prepaid online points to players are recorded as deferred revenues.

The Group earns revenue through providing PC game services to players under two types of revenue models: time-based revenue model and item-based revenue model. For PC games using the time-based model, players are charged based on the time they spend playing games. Revenues are recognized ratably over the game playing period as the performance obligations are satisfied.

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

(i) Online game services (Continued)

PC games (Continued)

Under the item-based model, the basic game play functions are free of charge, and players are charged for purchases of in-game items. In-game items have different life patterns: one-time use, limited life and permanent life. Revenues from the sales of one-time use in-game items are recognized upon consumption. Limited life items are either limited by the number of uses (for example, 10 times) or limited by time (for example, three months). Revenues from the sales of limited life in-game items are recognized ratably based on the extent of time passed or expired or when the items are fully used. Players are allowed to use permanent life in-game items without any use or time limits. Revenues from the sales of permanent life in-game items are recognized ratably over the estimated average playing period of the paying players.

The Group considers the average period that players typically play the games and other game player behavior patterns, as well as various other factors, including the acceptance and popularity of expansion packs, promotional events launched and market conditions to arrive at the best estimates for the estimated average playing period of the paying players for the permanent in-game items of each PC game based on historical players' churn rate. This estimate is re-assessed on a quarterly basis. Adjustments arising from the changes of estimated playing period of the paying players are applied prospectively as such changes are resulted from new information indicating a change in the game player behavior patterns.

(ii) Online Courses Services

The Group offers various types of integrated learning services through Youdao, which primarily cover a wide spectrum of topics and target people from broad age groups through its diverse offerings of K-12 tutoring courses, foreign languages, professional and interest education services as well as IT computer skills, etc. Youdao's online courses services consist of online live streaming, other activities during the online live streaming period, as well as the content playback service. The aforementioned services are highly interdependent and interrelated in the context of the contract and are only considered accessory services to the online live streaming courses and therefore are not distinct and are not sold standalone. Therefore, the Group's online courses services are accounted for as a single performance obligation, which is satisfied over the learning period of the students. Accordingly, the Group recognizes the revenues ratably over the estimated average learning period for different courses. The Group considers the average period that students typically spend time on the courses and other learning behavior patterns to arrive at the best estimates for the estimated learning period for each course.

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

(iii) Advertising services

The Group derives its advertising revenues principally from short-term online advertising contracts. Advertising service contracts may consist of multiple performance obligations with a typical term of less than three months. In arrangements where the Group has multiple performance obligations, the transaction price is allocated to each performance obligation using the relative stand-alone selling price. The Group generally determines standalone selling prices based on the prices charged to customers. If the performance obligation has not been sold separately, the Group estimates the standalone selling price by taking into consideration of the pricing for advertising areas of the Group's platform with a similar popularities and advertisements with similar formats and quoted prices from competitors as well as other market conditions. Considerations allocated to each performance obligation is recognized as revenue over the advertisement display period, which is usually within three months.

The Group also enters into performance-based advertising arrangements with customers.

For cost per mille ("**CPM**"), or cost per thousand impressions, advertising arrangements with customers, the Group recognizes revenues based on the number of times that the advertisement has been displayed.

For cost per action ("**CPA**") advertising arrangements with customers, including Youdao online marketing services, the Group recognizes revenues based on the number of actions completed resulted from the advertisements, including but not limited to when users click on links.

Certain customers may receive volume rebates, which are accounted for as variable consideration. The Group estimates annual expected rebate volume with reference to their historical results and reduce revenues recognized.

The Group recognizes revenue from providing advertising service in exchange for non-cash consideration, usually advertising services, promotional benefits, content, consulting services and software provided by counterparties, at the fair value of the non-cash consideration measured as of contract inception date. If the Group is not able to reliably determine the fair value of non-cash consideration in some situations, the value of the non-cash consideration received is measured indirectly by reference to the standalone selling price of advertising services provided by the Group. For the year ended December 31, 2017, 2018 and 2019, revenue from rendering adverting services in exchange for non-cash consideration is insignificant.

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

(iv) E-commerce

The Group's e-commerce revenue is primarily from its E-commerce platform Yanxuan, which was established in April 2016. Yanxuan sells its private label products, including apparel, homeware, kitchenware and other general merchandise which are sourced primarily directly from original design manufacturers in China through online direct sales. The Group is the principal for the online direct sales, as it controls the inventory before they are transferred to customers. The Group has the primary responsibility for fulfilling the contracts, bears the inventory risk, and has sole discretion in establishing the prices. E-commerce revenues from online direct sales are recognized when control of the goods is transferred to the customer, which generally occurs upon delivery to the customer. The Group also provides discount coupons to its customers for use in purchases on the Yanxuan platform, which are treated as a reduction of revenue when the related transaction is recognized.

Return allowances, which reduce revenue and cost of sales, are estimated using historical experience. Liabilities for return allowances and rights to recover products from customers associated with the Group's liabilities are recorded as "Accrued liabilities and other payables" and "Inventories, net," respectively, on the Group's consolidated balance sheets. Both of the balances are not material as of December 31, 2017, 2018 and 2019.

(v) Fee-based premium services

Fee-based premium services revenues, mostly operated on either consumption-basis or a monthly subscription basis, are derived principally from providing premium live-streaming services, online music services, online reading, e-mail and other innovative businesses. Prepaid subscription fees collected from customers are deferred and are recognized as revenue on a straight-line basis by the Group over the subscription period, during which customers can access the premium online services provided by the Group. Fees collected from customer to be consumed to purchase online services are recognized as revenue when related services are rendered.

The Group generates revenue from the operation of its live streaming platforms whereby users can enjoy live performances provided by the hosts and interact with the hosts. Most of the hosts host the performance on their own. The Group creates and sells virtual items to users so that the users present them simultaneously to hosts to show their support. The virtual items sold by the Group comprise of either (i) consumable items or (ii) time-based item, such as privilege titles etc. Under the arrangements with the hosts, the Group shares with them a portion of the revenues derived from the sales of virtual items. Revenues derived from the sale of virtual items are recorded on a gross basis as the Group acts as the principal to fulfill all obligations related to the sale of virtual items. Accordingly, revenue is recognized when the virtual item is delivered and consumed if the virtual item is a consumable item or, in the case of time-based virtual item, recognized ratably over the period each virtual item is made available to the user.

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

Practical Expedients

The Group has used the following practical expedients as allowed under ASC 606:

(i) The effects of a significant financing component has not been adjusted for contracts which the Group expects, at contract inception, that the period between when the Group transfers a promised good or service to the customer and when the customer pays for that good or service will be one year or less.

(ii) The Group applied the portfolio approach in determining the commencement date of consumption and the estimated average playing period of paying players for PC games permanent virtual items and of mobile games for the recognition of online game revenue given that the effect of applying a portfolio approach to a group game players' behaviors would not differ materially from considering each one of them individually.

(iii) The Group elects to expense the costs to obtain a contract as incurred when the expected amortization period is one year or less.

Contract Balances

Timing of revenue recognition may differ from the timing of invoicing to customers. Accounts receivable represent amounts invoiced and revenue recognized prior to invoicing, when the Group has satisfied its performance obligations and has the unconditional right to payment. The Group closely monitors the collection of its accounts receivables and records a reserve for doubtful accounts against aged accounts and for specifically identified non-recoverable amounts. If the economic situation and the financial condition of the customer deteriorate resulting in an impairment of the customer's ability to make payments, additional allowances might be required. Accounts receivables balances are written off when they are determined to be uncollectible.

The following table sets out the movements of the allowance for doubtful accounts for the years ended December 31, 2017, 2018 and 2019:

	Balance at January 1	Charged to/ (Write-back against) expenses	Write-off of receivable balances and corresponding provisions	Balance at December 31
	RMB	*RMB*	*RMB*	*RMB*
2017	24,136	60,826	(53)	84,909
2018	84,909	50,954	(5,215)	130,648
2019	130,648	(30,946)	(22,555)	77,147

2. Principal Accounting Policies (Continued)

(c) Revenue recognition (Continued)

Contract Balances (Continued)

Under Topic 606, the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer is recognized as a contract asset. Contract assets as of December 31, 2018 and 2019 were not material.

A contract liability is the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. Contract liabilities are presented as "Deferred Revenue" on the consolidated balance sheets of the Group. Refer to Note 16 — Deferred revenue for further information, including changes in deferred revenue during the year.

(d) Cost of revenues

Costs of revenues consist primarily of revenue sharing cost, staff costs, royalties fees related to licensed games, traffic acquisition cost, content acquisition cost, service fees related to online payments, server and bandwidth service fee, depreciation and amortization of severs, computers and software, and other direct costs of providing these services, as well as cost of merchandise sold. These costs are charged to the consolidated statements of operations and comprehensive income as incurred.

(e) Research and development costs

Research and development costs mainly consist of personnel-related expenses and technology service costs incurred for the development of online games, as well as development and enhancement of the Group's new products, websites and application platforms.

For internal use software, the Group expenses all costs incurred for the preliminary project stage and post implementation-operation stage of development, and costs associated with repair or maintenance of the existing platforms. Costs incurred in the application development stage are capitalized and amortized over the estimated useful life. Since the amount of the Group's research and development expenses qualifying for capitalization has been immaterial for the years ended December 31, 2017, 2018 and 2019, as a result, all development costs incurred for development of internal used software have been expensed as incurred.

For external use software, costs incurred for development of external use software have not been capitalized for the years ended December 31, 2017, 2018 and 2019, because the period after the date technical feasibility is reached and the time when the software is marketed is short historically, and the amount of costs qualifying for capitalization has been immaterial.

2. Principal Accounting Policies (Continued)

(f) Cash, cash equivalents and time deposits

Cash and cash equivalents mainly represent cash on hand, demand deposits placed with large reputable banks in Hong Kong and/or China, and highly liquid investments that are readily convertible to known amounts of cash and with original maturities from the date of purchase with terms of less than three months. As of December 31, 2017, there were cash at bank and demand deposits with terms of less than three months denominated in U.S. dollars, HK dollars and Euro amounting to approximately US$104.1 million, HK$2.7 million and Euro0.1 million, respectively (equivalent to approximately RMB680.3 million, RMB2.2 million and RMB0.8 million, respectively). As of December 31, 2018, there were cash at bank and demand deposits with terms of less than three months denominated in U.S. dollars, HK dollars and Euro amounting to approximately US$244.2 million, HK$90.6 million and Euro0.2 million, respectively (equivalent to approximately RMB1,675.9 million, RMB79.4 million and RMB1.5 million, respectively). As of December 31, 2019, there were cash at bank and demand deposits with terms of less than three months denominated in U.S. dollars, HK dollars and Euro amounting to approximately US$226.6 million, HK$21.3 million and Euro0.4 million, respectively (equivalent to approximately RMB1,580.7 million, RMB19.0 million and RMB2.7 million, respectively).

Time deposits represent time deposits placed with banks with original maturities of three months or more. As of December 31, 2017, there were time deposits denominated in U.S. dollars amounting to approximately US$2,547.8 million (equivalent to approximately RMB16,648.1 million). As of December 31, 2018, there were time deposits denominated in U.S. dollars amounting to approximately US$2,456.3 million (equivalent to approximately RMB16,857.9 million). As of December 31, 2019, there were time deposits denominated in U.S. dollars amounting to approximately US$4,382.9 million (equivalent to approximately RMB30,576.3 million).

As of December 31,2017, 2018 and 2019, the Group had approximately RMB15.1 billion, RMB12.5 billion and RMB14.8 billion cash and cash equivalents and time deposits held by its PRC subsidiaries and VIEs, representing 45.4%, 32.8% and 25.0% of total cash and cash equivalents and time deposits of the Group, respectively.

2. Principal Accounting Policies (Continued)

(f) Cash, cash equivalents and time deposits (Continued)

As of December 31, 2017, 2018 and 2019, the Group had a restricted cash balance approximately RMB5,886.6 million, RMB4,692.1 million and RMB3,150.4 million, respectively, comprising as follows (in millions):

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Customer deposit of NetEase Pay accounts	1,554.8	1,364.4	1,523.3
Pledge deposits for short-term bank borrowings — Current	4,091.0	2,695.0	1,595.0
Pledge deposits for Letter of Guarantee	230.5	623.6	–
Others	10.3	9.1	32.1
Total	5,886.6	4,692.1	3,150.4

The Group had no other lien arrangements during 2017, 2018 and 2019.

(g) Fair value of financial instruments

Accounting guidance defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Group considers the principal or most advantageous market in which it would transact and it considers assumptions that market participants would use when pricing the asset or liability.

Accounting guidance establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Accounting guidance establishes three levels of inputs that may be used to measure fair value:

Level 1 — Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets

Level 2 — Include other inputs that are directly or indirectly observable in the marketplace

Level 3 — Unobservable inputs which are supported by little or no market activity

2. Principal Accounting Policies (Continued)

(g) Fair value of financial instruments (Continued)

The Group's financial instruments include cash and cash equivalents and time deposits, accounts receivable, prepayments and other current assets, short-term investments, accounts payable, short-term loans, deferred revenue and accrued liabilities and other payables, which the carrying values approximate their fair value. Please see Note 27 for additional information.

(h) Inventories, net

Inventories, net mainly represent products for the Group's e-commerce business, are stated at the lower of cost or net realizable value in the consolidated balance sheets. Cost of inventory is determined using the weighted average cost method. Adjustments are recorded to write down the cost of inventory to the estimated net realizable value due to slow-moving merchandise and damaged goods, which is dependent upon factors such as historical and forecasted consumer demand, and promotional environment. The Group takes ownership, risks and rewards of the products purchased. Write downs are recorded in cost of revenues in the consolidated statements of operations and comprehensive income. Certain costs attributable to buying and receiving products, such as purchase freights, are also included in inventories.

(i) Investments

Short-term investments

Short-term investments include investments in financial instruments with a variable interest rate indexed to performance of underlying assets, all of which are with an original maturities of less than 12 months.

In accordance with ASC 825, for investments in financial instruments with a variable interest rate indexed to performance of underlying assets, the Group elected the fair value method at the date of initial recognition and carried these investments at fair value. Changes in the fair value are reflected in the consolidated statements of operations and comprehensive income as other income/(expense), net. Fair value is estimated based on quoted prices of similar products provided by banks at the end of each period. The Group classifies the valuation techniques that use these inputs as Level 2 of fair value measurements. Please see Note 6 and Note 27 for additional information.

Long-term investments

Long-term investments are comprised of equity investments in publicly traded companies, privately-held companies and limited-partnership.

2. Principal Accounting Policies (Continued)

(i) Investments (Continued)

Long-term investments (Continued)

Equity investments in publicly traded companies are reported at fair value as equity investment with readily determinable fair value. Prior to January 1, 2018, they were classified as available-for-sale equity securities under long-term investments, with unrealized gains or losses, if any, recorded in accumulated other comprehensive income/(loss) in shareholders' equity. The treatment of a decline in the fair value of an individual security was based on whether the decline was other-than-temporary. The Group assessed its available-for-sale equity securities for other-than-temporary impairment by considering factors including, but not limited to, its ability and intent to hold the individual security, severity of the impairment, expected duration of the impairment and forecasted recovery of fair value. If the Group determines a decline in fair value was other-than-temporary, the cost basis of the individual security was written down to fair value as a new cost basis and the amount of the write-down was accounted for as a realized loss charged to the consolidated statements of comprehensive income. The fair value of the investment would then become the new cost basis of the investment and were not adjusted for subsequent recoveries in fair value.

In January 2016, the FASB issued Accounting Standards Update No. 2016-01 (ASU No. 2016-01) "Financial Instruments — Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." The Group adopted this guidance on January 1, 2018, and RMB38.2 million of accumulated other comprehensive income for the Group's available-for-sale equity securities that existed as of January 1, 2018 was reclassified into retained earnings on January 1, 2018 upon the adoption. Starting January 1, 2018, unrealized gains and losses during the year are recognized in other income/(expense), net.

Prior to January 1, 2018, investments in common stock or in-substance common stock issued by privately-held companies on which the Group does not have significant influence, and investments in privately-held companies' shares that are not ordinary shares or in substance ordinary shares, as these equity securities do not have readily determinable fair value, the Group carried these investment at cost and only adjusts for other-than-temporary declines in fair value and distributions of earnings that exceed the Group's share of earnings since its investment. Starting January 1, 2018, upon the adoption of ASU 2016-01, the Group elects to measure these equity securities investments without readily determinable fair value at cost, less impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer (referred to as the measurement alternative). All gains and losses on these equity securities, realized and unrealized, are recognized in other income/(expense), net. The Group did not record any changes to the carrying value of equity investments without readily determinable fair value for the year ended December 31, 2018 and 2019.

2. Principal Accounting Policies (Continued)

(i) Investments (Continued)

Long-term investments (Continued)

Investments in common stock or in-substance common stock of investees and limited-partnership investments in which the Group is in a position to exercise significant influence by participating in, but not controlling or jointly controlling, the financial and operating policies are accounted for using the equity method.

Management regularly evaluates the impairment of the investments in privately-held companies without readily determinable fair value and equity method investments at each balance sheet date, or more frequently if events or circumstances indicate that the carrying amount may not be recoverable. For investments without readily determinable fair values, management performs a qualitative assessment of the fair value of the equity interest in comparison to its carrying amount to determine if there is an indication of potential impairment. If such indication exists, management estimates the fair value of the investment, and records an impairment in the consolidated statements of comprehensive income to the extent the carrying amount exceeds the fair value. Significant judgments management applies in the impairment assessment for these equity investments include: (i) the determination as to whether any impairment indicators exist during the year; (ii) the selection of valuation methods; (iii) the determination of significant assumptions used to value the equity investments, including selection of comparable companies and multiples, timing and probabilities of different scenarios, estimated volatility rate, risk-free rate and discount for lack of marketability; and (iv) judgments as to whether a decline in value of equity method investments was other than temporary. For equity method investments, management considers if the investment is impaired when events or circumstances suggest the carrying amount may not be recoverable, and recognizes any impairment charge in the consolidated statements of comprehensive income for a decline in value that is determined to be other than temporary.

(j) Lease

On January 1, 2019, the Group adopted ASU 2016-02, "Leases (Topic 842)," including certain transitional guidance and subsequent amendments within ASU 2018-01, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01 (collectively, including ASU 2016-02, "ASC 842").

ASC 842 supersedes the lease requirements in ASC 840 "Leases" and generally requires the recognition on the balance sheet of right-of-use assets and lease liabilities for all long-term leases, including operating leases, on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. Leases that transfer substantially all of the benefits and risks incidental to the ownership of assets are accounted for as finance leases as if there was an acquisition of an asset and incurrence of an obligation at the inception of the lease. All other leases are accounted for as operating leases. As of December 31, 2019, the Group has no finance leases.

2. Principal Accounting Policies (Continued)

(j) Lease (Continued)

Prior to the adoption of ASC 842, leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the consolidated statements of operations on a straight-line basis over the period of the leases. The Group adopted the new lease standard using the modified retrospective method by applying the new lease standard to all leases existing as of January 1, 2019, the date of initial adoption, and no adjustments were made to the comparative periods. The Group elected the package of practical expedients permitted under the transition guidance, which allowed the Group to carry forward previous lease classification, the assessment on whether a contract was or contained a lease, and the initial direct costs for any leases that existed prior to January 1, 2019. The Group recognized approximately RMB577.0 million as total right-of-use ("**ROU**") assets as well as total lease liabilities for the operating leases on its consolidated balance sheet as of January 1, 2019. The adoption of the new lease standard does not have any significant impact on the consolidated statements of comprehensive income and cash flows and there was no adjustment to the beginning retained earnings on January 1, 2019. See Note 9 Leases for additional information.

Under ASC 842, the Group determines if an arrangement is a lease at inception. The Group is the lessee in a lease contract when the Group obtain the right to control the asset. Operating leases are included in operating lease ROU assets, and short-term and long-term operating lease liabilities in the Group's consolidated balance sheets. ROU assets represent the Group's right to use an underlying asset for the lease term and lease liabilities represent the Group's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of the Group's leases do not provide an implicit rate, the Group generally uses its incremental borrowing rate based on the estimated rate of interest for collateralized borrowing over a similar term of the lease payments at commencement date. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Lease expense is recognized on a straight-line basis over the lease term.

For leases with a term of twelve months or less ("**short-term leases**"), the Group has elected not to recognize lease liabilities and associated ROU assets. Lease payments on short-term leases are recognized as lease expense within cost of revenues or operating expenses on the consolidated statements of operations and comprehensive income, depending on the nature of the lease, on a straight-line basis over the lease term.

2. Principal Accounting Policies (Continued)

(k) Property, equipment and software

Property, equipment and software are stated at cost less accumulated depreciation. Depreciation is calculated on the straight-line basis over the following estimated useful lives, taking into account any estimated residual value:

Building	20 years
Decoration	5 years
Leasehold improvements	lesser of the term of the lease and the estimated useful lives of the assets
Furniture, fixtures, office and other equipment	3-10 years
Vehicles	5 years
Servers and computers	3 years
Software	3 years

Repairs and maintenance expenditures, which are not considered improvements and do not extend the useful life of the property and equipment, are expensed as incurred.

(l) Land use rights

Land use rights represent lease prepayments to the local government authorities. As of December 31, 2017, and 2018, land use rights were carried at cost less accumulated amortization and any impairment loss. Amortization is provided to write off the cost of lease prepayments on a straight-line basis over the remaining term of the land use right period.

Upon the adoption of ASC 842 on January 1, 2019, land use rights, net were identified as operating lease right-of-use assets, which is separately disclosed as "Land use rights" in the Group's consolidated balance sheets. Accordingly, the Group disclosed the cash used for obtaining the land use rights in operating cash flow activities for the year ended December 31, 2019, with no adjustments made to the comparative periods.

(m) Intangible assets

Finite-lived intangible assets are tested for impairment if impairment indicators arise. The Group amortizes its finite-lived intangible assets using the straight-line method:

License right	over the license period
Technology	10 years

The Group obtains music content for customers through licensing agreements. When the license fee for music title is determinable or reasonably estimable and the content is available for streaming, the Group recognizes an asset representing the fee and a corresponding liability for the amounts owed. The Group relieves the liability as payments are made and the Group amortizes the asset to "Cost of revenues" on a straight-line basis over the term of the respective licensing agreements.

2. Principal Accounting Policies (Continued)

(n) Advertising expenses

The Group expenses advertising costs as incurred and reports these costs under selling and marketing expense. Advertising expenses totaled approximately RMB1,998.4 million, RMB2,222.2 million and RMB1,679.3 million (US$241.2 million) for the years ended December 31, 2017, 2018, and 2019, respectively.

(o) Foreign currency translation

The Group's reporting currency is RMB. The Company and its subsidiaries and VIEs, with an exception of several subsidiaries incorporated in Cayman Islands, use RMB as their functional currency. In 2017, several of the Company's subsidiaries incorporated in Cayman Islands changed their functional currency from RMB to US$. The determination of the respective functional currency is based on the criteria of ASC 830, Foreign Currency Matters and such change has not resulted in any material effect on the Group's financial statements.

Transactions in currencies other than the functional currency are measured and recorded in the functional currency using the exchange rate in effect at the date of the transaction. At the balance sheet date, monetary assets and liabilities that are denominated in currencies other than the functional currency are translated into the functional currency using the exchange rate at the balance sheet date. The resulting exchange differences are included in the consolidated statements of operations and comprehensive income.

Assets and liabilities of the Group companies are translated from their respective functional currencies to the reporting currency at the exchange rates at the balance sheet dates, equity accounts are translated at historical exchange rates and revenues and expenses are translated at the average exchange rates in effect during the reporting period. The exchange differences for the translation of group companies with non-RMB functional currency into the RMB functional currency are included in foreign currency translation adjustments, which is a separate component of shareholders' equity on the consolidated financial statements.

Translations of amounts from RMB into United States dollars for the convenience of the reader were calculated at the noon buying rate of US$1.00 = RMB6.9618 on the last trading day of 2019 (December 31, 2019) as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. No representation is made that the RMB amounts could have been, or could be, converted into United States dollars at such rate.

2. Principal Accounting Policies (Continued)

(p) Share-based compensation

Under its 2009 Restricted Share Unit Plan and 2019 Restricted Share Unit Plan (see Note 20(a)), the Company issues restricted share units (RSUs) to its employees, directors and consultants with performance conditions and service vesting periods ranging from one year to five years. Some of the RSUs issued are to be settled, at the Company's discretion, in stock or cash upon vesting based on the stock price at grant date. At each reporting period, the Company evaluates the likelihood of performance conditions being met. Share-based compensation costs are then recorded for the number of RSUs expected to vest on a graded-vesting basis, net of estimated forfeitures, over the requisite service period. The compensation cost of the RSUs to be settled in stock only is measured based on the fair value of stock when all conditions to establish the grant date have been met. The compensation cost of RSUs to be settled either in stock or cash at the Company's discretion is remeasured until the date when settlement in stock or cash is determined by the Company.

The Company records share-based compensation to the consolidated statements of operations and comprehensive income with the corresponding credit to the additional paid-in-capital for share options and RSUs to the extent that such awards are to be settled only in stock.

Certain subsidiaries of the Company granted options exercisable for ordinary shares to certain of the Group's employees. The options expire five to ten years from the date of grant and either vest or have a vesting commencement date upon certain conditions being met ("**Vesting Commencement Date**"). The Group adopts the binomial option pricing model to determine the fair value of stock options and accounts for share-based compensation cost using an estimated forfeiture rate.

Forfeitures were estimated based on the Group's weighted average historical forfeiture rate of the past five years. Differences between actual and estimated forfeitures are expensed in the period that the differences occur. See Note 20 for further information regarding share-based compensation assumptions and expense.

(q) Taxation

Income tax expense is recognized in accordance with the laws of the relevant taxing authorities, with deferred taxes being provided for temporary differences between amounts of assets and liabilities for financial reporting purposes and such amounts as measured by tax laws. Tax rate changes are reflected in income during the period the changes are enacted.

A deferred income tax asset or liability is computed for the expected future impact of differences between the financial reporting and tax bases of assets and liabilities as well as the expected future tax benefit to be derived from tax loss and tax credit carry forwards.

Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount "more likely than not" to be realized in future tax returns.

2. Principal Accounting Policies (Continued)

(q) Taxation (Continued)

For a particular tax-paying component of an enterprise and within a particular tax jurisdiction, all deferred tax assets and liabilities are offset and presented as a single amount. The Group does not offset deferred tax assets and liabilities attributable to different tax-paying components of the enterprise or to different tax jurisdictions.

The Group reports tax-related interest expense and penalty in Other, net in the consolidated statements of operations and comprehensive income, if there is any. The Group did not incur any material penalty or interest payments in connection with tax positions during the years ended December 31, 2017, 2018 and 2019.

The Group did not have any significant unrecognized uncertain tax positions as of December 31, 2017, 2018 and 2019.

In order to assess uncertain tax positions, the Group applies a more likely than not threshold and a two-step approach for the tax position measurement and financial statement recognition. Under the two-step approach, the first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement.

(r) Net earnings per share ("EPS") and per American Depositary Share ("ADS")

Basic earnings per share is computed on the basis of the weighted-average number of ordinary shares outstanding during the period under measurement. Diluted earnings per share are based on the weighted-average number of ordinary shares outstanding and potential ordinary shares. Potential ordinary shares result from the assumed exercise of outstanding stock options, RSUs or other potentially dilutive equity instruments, when they are dilutive under the treasury stock method or the if-converted method.

(s) Statutory reserves

The Company's subsidiaries and VIEs incorporated in China are required to make appropriations to certain non-distributable statutory reserves. In accordance with the laws applicable to foreign invested enterprises in China, its subsidiaries have to make appropriations from its after-tax profit as reported in their PRC statutory accounts to non-distributable statutory reserves including (i) general reserve fund, (ii) enterprise expansion fund and (iii) staff bonus and welfare fund. The appropriation to the general reserve fund is at least 10% of the after-tax profits as reported in the PRC statutory accounts. Appropriation is not required if the reserve fund has reached 50% of the registered capital of the respective company. The appropriation to the other reserve funds is at the discretion of the board of directors of the respective company. At the same time, the Company's VIEs, in accordance with the China Company Laws, must make appropriations from their after-tax profit as reported in their PRC statutory accounts to non-distributable statutory reserves including (i) statutory surplus fund and (ii) discretionary surplus fund. The appropriation to the statutory surplus fund is at least 10% of the after-tax profits as reported in their PRC statutory accounts. Appropriation is not required if the statutory surplus fund has reached 50% of the registered capital of the respective company. Appropriation to the discretionary surplus fund is made at the discretion of the board of directors of the respective companies.

2. Principal Accounting Policies (Continued)

(s) Statutory reserves (Continued)

The general reserve fund and statutory surplus fund are restricted to set off against losses, expansion of production and operation or increase in the registered capital of the respective companies. The staff bonus and welfare fund is available to fund payments of special bonuses to staff and for collective welfare benefits. Upon approval by the board of directors, the discretionary surplus and enterprise expansion fund can be used to offset accumulated losses or to increase capital.

(t) Noncontrolling interests and redeemable noncontrolling interests

Noncontrolling interests are recognized to reflect the portion of the equity of majority-owned subsidiaries and VIEs which is not attributable, directly or indirectly, to the controlling shareholder. The noncontrolling interests will continue to be attributed its share of losses even if that attribution results in a deficit noncontrolling interests balance.

Redeemable noncontrolling interests represent redeemable equity interests issued by the Group's subsidiaries to certain investors (see Note 17), and have been classified as mezzanine noncontrolling interests in the consolidated financial statements as these redeemable interests are contingently redeemable upon the occurrence of certain conditional events, which is not solely within the control of the Group. The Group accreted the redeemable equity interests to their redemption value, which is purchase price plus interest per year over the period since issuance to the earliest redemption date. The accretions were recorded against retained earnings, or in the absence of retained earnings, by charges against additional paid-in capital. Once additional paid-in capital had been exhausted, additional charges were recorded by increasing the accumulated deficit.

(u) Related parties

Parties are considered to be related if one party has the ability, directly or indirectly, to control the other party or exercise significant influence over the other party in making financial and operating decisions. Parties are also considered to be related if they are subject to common control or significant influence, such as a family member or relative, stockholder, or a related corporation.

(v) Comprehensive income

Comprehensive income is defined as the change in equity of the Group during a period arising from transactions and other events and circumstances excluding transactions resulting from investments by shareholders and distributions to shareholders.

Comprehensive income for the years ended December 31, 2017 includes net income, change in unrealized gains/(losses) on marketable securities classified as available-for-sale securities (net of tax) and foreign currency translation adjustment. Starting from January 1, 2018, upon adoption of ASU 2016-01, gain/(losses) on marketable securities are recognized in other income/(expense), net.

2. Principal Accounting Policies (Continued)

(w) Segment reporting

The Group's internal organizational structure as well as information about geographical areas, business segments and major customers in financial statements is set out in detail under Note 26.

(x) Dividends

Dividends of the Company are recognized when declared.

(y) Reclassification of comparative figures

On January 1, 2018, the Group adopted ASU 2016-18 "Statement of Cash Flows (Topic 230): Restricted Cash" on a retrospective transition method. The guidance requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown in the statements of cash flows. The standard should be applied using a retrospective transition method to each period presented. Pursuant to the new guidance, the net change of cash, cash equivalents and restricted cash decreased RMB393.8 million for the year ended December 31, 2017, compared to the amounts presented under previous guidance.

In addition, the Group reclassified comparative figures as of December 31, 2017 and 2018 and for the years ended related to the discontinued operations, see Note 3.

(z) Recently issued accounting pronouncements

In June 2016, the FASB issued ASU 2016-13 "Financial Instruments — Credit Losses (Topic 326)," which requires entities to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. This replaces the existing incurred loss model and is applicable to the measurement of credit losses on financial assets measured at amortized cost. This guidance is effective for the Group beginning on January 1, 2020. The Group does not expect the adoption of this guidance to have a material impact on its consolidated financial statements.

3. Discontinued Operations

Disposal of Kaola e-commerce business

In September 2019, the Group signed a series of agreements with a subsidiary of Alibaba Group Holding Limited ("**Alibaba**") to sell its e-commerce platform Kaola for a consideration of approximately US$1.9 billion. The consideration is comprised of approximately US$1.6 billion in cash payable to the Group and Kaola equity award holders, as well as approximately 14.3 million Alibaba ordinary shares issued to the Group. Upon completion of the transaction, Kaola was deconsolidated from the Group and its historical financial results are reflected in the Group's consolidated financial statements as discontinued operations accordingly. Additionally, the related assets and liabilities associated with discontinued operations in the prior year consolidated balance sheets were classified as assets/liabilities held for sale to provide the comparable financial information.

The following tables set forth the assets, liabilities, statements of operations and cash flows of discontinued operations which were included in the Group's consolidated financial statements:

	December 31, 2017	December 31, 2018
	RMB	*RMB*
Cash and cash equivalents	295,179	400,747
Restricted cash	40,539	125,290
Accounts receivable, net	70,929	169,794
Inventories, net	4,490,701	3,952,208
Prepayments and other current assets	513,168	493,563
Total current assets	5,410,516	5,141,602
Property, equipment and software, net	278,110	705,432
Land use rights, net	153,753	231,058
Other long-term assets	18,724	31,248
Total non-current assets	450,587	967,738
Total assets	5,861,103	6,109,340
Accounts payable	1,369,150	1,183,143
Salary and welfare payables	107,760	188,683
Taxes payable	2,578	11,212
Deferred revenue	188,066	234,770
Accrued liabilities and other payables	360,190	843,073
Total current liabilities	2,027,744	2,460,881
Deferred tax liabilities	361	1,083
Other long-term payable	–	4,735
Total non-current liabilities	361	5,818
Total liabilities	2,028,105	2,466,699

3. **Discontinued Operations (Continued)**

	For the year ended December 31,		
	2017	**2018**	**2019****
	RMB	*RMB*	*RMB*
Net revenues	9,664,664	15,977,878	10,571,406
Cost of revenues	(8,795,012)	(14,920,531)	(9,620,388)
Gross profit	869,652	1,057,347	951,018
Operating expenses:			
Selling and marketing expenses	(1,452,983)	(2,614,760)	(1,258,413)
General and administrative expenses	(48,016)	(112,902)	(79,985)
Research and development expenses	(209,755)	(414,090)	(326,127)
Total operating expenses	(1,710,754)	(3,141,752)	(1,664,525)
Operating loss	(841,102)	(2,084,405)	(713,507)
Other income/(expenses):	13,023	(48,246)	(69,282)
Loss from discontinued operations	(828,079)	(2,132,651)	(782,789)
Income tax	(6,375)	(6,031)	(5,857)
Loss from discontinued operations, net of tax	(834,454)	(2,138,682)	(788,646)
Gains on disposal, net of tax	–	–	8,751,165
Net (loss)/income from discontinued operations	(834,454)	(2,138,682)	7,962,519

	For the year ended December 31,		
	2017	**2018**	**2019****
	RMB	*RMB*	*RMB*
Net cash (used in)/provided by discontinued operating activities	(2,975,214)	(1,243,966)	305,487
Net cash provided by/(used in) discontinued investing activities	3,101,239	1,430,181	(832,252)

** Represented financial results of discontinued operations from January 1, 2019 to September 6, 2019.

4. Concentrations and Risks

(a) Server and bandwidth service provider

The Group relied on telecommunications service providers and their affiliates for server and bandwidth service to support its operations during fiscal years 2017, 2018 and 2019 as follows:

	For the year ended December 31,		
	2017	**2018**	**2019**
Total number of telecommunications service providers	23	49	79
Number of service providers provided by 10% or more of the Group's server and bandwidth service expenditure	3	3	2
Total% of the Group's server and bandwidth service expenditure provided by 10% or greater service providers	67.8%	57.8%	56.3%

(b) Credit risk

Financial instruments that potentially subject the Group to significant concentrations of credit risk consist primarily of cash and cash equivalents, time deposits, restricted cash, accounts receivable and short-term investments. As of December 31, 2017, 2018 and 2019, substantially all of the Group's cash equivalents, time deposits and restricted cash were held in major financial institutions located in the PRC or Hong Kong, which management consider being of high credit quality. Accounts receivable are typically unsecured and are generally derived from revenue earned from mobile games services (mainly related to remittances from distribution channels) and advertising services.

One distribution channel had a receivable balance exceeding 10% of the total accounts receivable balance for the year ended December 31, 2017, 2018 and 2019, as follows:

	December 31, 2017	December 31, 2018	December 31, 2019
Distribution channel A	34.6%	22.2%	24.7%
Allowance for doubtful accounts	Not applicable	Not applicable	Not applicable

Short-term investments consist of financial products issued by commercial banks in China with a variable interest rate indexed to performance of underlying assets, which have a maturity date within one year as of the purchase date. The effective yields of the short-term investments range from 1.9% to 5.5% per annum. Any negative events or deterioration in financial well-being with respect to the counterparties of the above investments and the underlying collateral may cause a material loss to the Group and have a material effect on the Group's financial condition and results of operations.

4. Concentrations and Risks (Continued)

(c) Major Customers

No single customer represented 10% or more of the Group's total net revenues for the years ended December 31, 2017, 2018 and 2019.

(d) Online Games

The Group derived 53.9%, 39.6% and 36.8% of its total net revenues from its top 5 online games for the years ended December 31, 2017, 2018 and 2019, respectively.

Additionally, 70.8%, 71.0% and 71.4% of the Group's total net game revenues were generated from mobile games for the years ended December 31, 2017, 2018 and 2019, respectively.

5. Prepayments and Other Current Assets

The following is a summary of prepayments and other current assets:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Guarantee payment made to Blizzard — royalty fees	42,697	97,642	356,033
Prepayment for royalties, revenue sharing cost	1,479,817	2,000,327	2,627,048
Interest and other operating income receivable	417,843	511,364	524,069
Prepayments of content and marketing cost and other operational expenses	356,363	664,523	569,122
Prepayment for sales tax and deductible value added tax	566,364	312,852	483,547
Bridge loans in connection with ongoing investments	30,575	19,540	21,259
Deposits	112,530	107,254	11,882
Employee advances	54,818	44,337	79,823
Advance to suppliers	45,506	76,009	26,664
Others	20,283	91,357	117,975
	3,126,796	3,925,205	4,817,422

In accordance with the license agreements of *World of Warcraft*®, the *StarCraft*® *II* series, *Hearthstone*®, *Heroes of the Storm*®, *Diablo*® *III* and *Overwatch*®, the Group made certain guarantee payments to Blizzard on behalf of Shanghai EaseNet for the minimum guaranteed royalties as of December 31,2017, 2018 and 2019. The guarantee amounts will be released to the Group when actual royalties are paid by Shanghai EaseNet to Blizzard.

5. Prepayments and Other Current Assets (Continued)

As of December 31, 2017, 2018 and 2019, prepayments for royalties and revenue sharing cost represented prepaid royalties or revenue sharing cost related to operations of licensed PC and mobile games.

The amount of employee advances listed above included staff housing loan balances of RMB48.5 million, RMB43.1 million and RMB43.0 million repayable within 12 months from December 31, 2017, 2018 and 2019, respectively (see Note 11). No advances were made directly or indirectly to the Group's executive officers for their personal benefit for the years ended December 31, 2017, 2018 and 2019.

6. Short-term Investments

As of December 31, 2017, 2018 and 2019, the Group's short-term investments mainly consisted of financial products issued by commercial banks in China with a variable interest rate indexed to the performance of underlying assets and a maturity date within one year when purchased. As of December 31, 2017, 2018 and 2019, the effective yields of short-term investments ranged from 2.00% to 5.30% per annum, 1.90% to 5.50% and 2.00% to 4.25% per annum respectively.

The following is a summary of short-term investments:

	December 31, 2017		
	Cost	Unrealized Gains/(Losses)	Estimated Fair Value
	RMB	*RMB*	*RMB*
Short-term investments	9,557,381	145,228	9,702,609

	December 31, 2018		
	Cost	Unrealized Gains/(Losses)	Estimated Fair Value
	RMB	*RMB*	*RMB*
Short-term investments	11,528,300	146,475	11,674,775

	December 31, 2019		
	Cost	Unrealized Gains/(Losses)	Estimated Fair Value
	RMB	*RMB*	*RMB*
Short-term investments	15,116,330	196,265	15,312,595

During the years ended December 31, 2017, 2018, and 2019, the Group recorded investment income related to short-term investments of RMB389.5 million, RMB463.5 million and RMB657.6 million in the consolidated statements of operations and comprehensive income, respectively.

7. Property, Equipment and Software

The following is a summary of property, equipment and software:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Building and decoration	1,405,618	1,408,343	2,987,003
Leasehold improvements	98,197	164,745	153,145
Furniture, fixtures and office equipment	123,208	135,611	198,909
Vehicles	67,693	76,192	74,487
Servers and computers	2,571,232	3,852,805	4,066,925
Software	86,557	96,092	181,223
Construction in progress	901,476	1,567,091	465,993
	5,253,981	7,300,879	8,127,685
Less: accumulated depreciation	(1,763,851)	(2,628,800)	(3,505,973)
Net book value	3,490,130	4,672,079	4,621,712

Depreciation expense was RMB516.2 million, RMB939.8 million and RMB1,119.1 million for the years ended December 31, 2017, 2018 and 2019, respectively.

As of December 31, 2017, 2018 and 2019, the construction in progress balance were mainly comprised of construction of office buildings and warehouses in Hangzhou, Guangzhou, Jiangxi and Shanghai that have not yet been placed in service for the Group's intended use. All the related cost is capitalized in construction in progress to the extent it is incurred for the purposes of bringing the construction development to a usable state.

8. Land Use Rights

Land use rights represent acquired right to use the land on which the Group's offices and warehouses are built. In 2017, 2018 and 2019, the Group obtained the land use rights in Guangzhou and Shanghai from the local authorities. Amortization of the land use right is made over the remaining term of the land use right period from the date when the land was made available for use by the Group. The land use rights are summarized as follows:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Cost	475,556	3,338,843	3,846,660
Incentive payment from local government	(15,000)	(15,000)	(15,000)
Accumulated amortization	(21,030)	(52,331)	(124,481)
Land use right, net	439,526	3,271,512	3,707,179

The total amortization expense for each of the years ended December 31, 2017, 2018 and 2019 amounted to approximately RMB9.2 million, RMB31.3 million and RMB72.2 million, respectively.

9. Leases

The Group has operating leases for corporate offices, warehouses and retail stores. In addition, upon the adoption of ASC 842, land use rights, net with total carrying amount of RMB3,271.5 million and RMB3,707.2 million (Note 8) were identified as operating lease right-of-use assets as of January 1, 2019 and December 31, 2019, respectively.

The Group's leases have remaining lease terms of 4 months to 49 years, some of which include options to terminate the leases within certain periods. The Group considers these options in determining the classification and measurement of the leases when it is reasonably certain that the Group will exercise that option.

The following table provides information related to the Group's operating leases:

	Year ended December 31, 2019
	RMB
Operating lease cost(i)	360,383
Cash paid for amounts included in the measurement of operating lease liabilities	284,969
Right-of-use assets obtained in exchange for operating lease obligations	179,350

(i) Included short-term lease cost of RMB65.6 million and amortization expenses of land use rights of RMB72.2 million for the year ended December 31, 2019.

The weighted average remaining lease term and discount rate for operating leases as of December 31, 2019 were 1.93 years and 4.35%, respectively.

9. Leases (Continued)

Prior to adoption of ASC 842, the Group incurred rental expenses in the amounts of approximately RMB172.1 million, and RMB280.7 million for the years ended December 31, 2017 and 2018, respectively.

Maturities of operating lease liabilities as of December 31, 2019 were as follows:

	RMB
2020	195,945
2021	175,286
2022	97,639
2023	20,338
2024	9,960
Thereafter	2,970
Total operating lease payments	502,138
Less: imputed interest	(30,735)
Total	471,403

The following table summarizes the minimum lease payments under noncancelable operating leases with initial or remaining lease terms in excess of one year under ASC 840 as of December 31, 2018:

	RMB
2019	230,042
2020	172,290
2021	146,999
2022	47,625
Thereafter	7,844
Total operating lease payments	604,800

The following table summarizes the minimum lease payments under noncancellable operating leases with initial or remaining lease terms in excess of one year under ASC 840 as of December 31, 2017:

	RMB
2018	200,003
2019	118,473
2020	83,650
2021	72,446
Thereafter	48,403
Total operating lease payments	522,975

10. Long-term Investments

The following is a summary of long-term investments:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Investments in equity method investees	563,896	736,551	1,137,774
Equity investments with readily determinable fair values	828,260	612,465	3,551,545
Equity investments without readily determinable fair values	1,291,620	3,896,092	4,604,549
	2,683,776	5,245,108	9,293,868

(a) Investments in equity method investees

The Group recorded equity share of losses of RMB12.2 million, RMB98.3 million and equity share of earnings of RMB4.3 million for the years ended December 31, 2017, 2018, and 2019, respectively, which was included in "investment income, net" in the consolidated statements of operations and comprehensive income. Significant equity method investments are summarized as follows.

(1) In August 2013, the Group established a joint venture with China Telecom Corp. Ltd. ("**China Telecom**"), Zhejiang Yixin Technology Co., Ltd. ("**Yixin**", formerly know as Hangzhou Yixin Technology Co., Ltd.) to launch "YiChat," a proprietary social instant messaging application for smart phones. The Group contributed RMB200.0 million cash in exchange for a 27.0% equity interest in Yixin. In July 2015, the Group increased its equity shares in Yixin to 35.0% with a cash consideration of approximately RMB127.5 million.

(2) As of December 31, 2018, the Group invested an aggregated cash consideration of RMB295.1 million in two limited partnerships as a limited partner, and in 2019, the Group further contributed RMB326.9 million cash in these two limited partnerships. The objective of these limited partnerships are to engage in investment in on-line game business. The Group accounted such investments under the equity method.

10. Long-term Investments (Continued)

(b) Equity investments with readily determinable fair values ("Available-for-sale securities" prior to adoption of ASU 2016-01)

As of December 31, 2019, equity investments with readily determinable fair values included RMB2,650.4 million invested in shares of Alibaba, RMB578.9 million invested in shares of Huatai Securities Company Limited ("**Huatai**") and RMB322.3 million invested in shares of Shenzhen Transsion Holding Limited ("**Transsion**"). The Group recorded fair value loss of RMB215.8 million and fair value gain of RMB763.2 million related to the equity investments with readily determinable fair value for the year ended December 31, 2018 and 2019, respectively.

The Group also received cash dividends of RMB20.9 million, RMB12.7 million and RMB12.7 million from Huatai for the years ended December 31, 2017, 2018, and 2019, respectively.

(c) Equity investments without readily determinable fair value ("Equity investments" prior to adoption of ASU 2016-01)

Equity investments without readily determinable fair value represent investments in privately held companies with no readily determinable fair value. The Group does not have significant influence on these investees, or the investments are not common stock or in substance common stock. Prior to January 1, 2018, the Group accounted for investments in these equity securities at cost less impairment. On January 1, 2018, the Group adopted ASU 2016-01 prospectively. These investments are classified as equity investments without readily determinable fair value, and are carried at cost less impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. For the year ended December 31, 2018 and 2019, there's no upward adjustments to the carrying value of equity securities without readily determinable fair value resulted from such transactions.

The Group recognized a gain of RMB9.6 million, nil and RMB86.1 million related to the disposal of the Group's investments in equity securities without readily determinable fair value as "investment income, net" in the consolidated statements of operations and comprehensive income for the years ended December 31, 2017, 2018 and 2019.

The Group recognized impairment provision of RMB58.5 million, RMB133.6 million and RMB168.4 million related to certain of the equity investments as "investment income, net" in the consolidated statements of operations and comprehensive income for the years ended December 31, 2017, 2018 and 2019, respectively.

11. Other Long-term Assets

The following is a summary of other long-term assets:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Copyrights, licenses and domain names	818,903	2,461,377	3,639,211
Long-term receivable	–	–	1,599,524
Staff housing loans	107,203	98,244	71,997
Non-current deposits	85,874	105,984	140,869
Others	76,109	264,464	215,009
	1,088,089	2,930,069	5,666,610

Balances of copyrights and licenses represents prepaid minimum royalties for exploitation of related intellectual properties, which was amortized over the term of the respective licensing agreements or estimated amortization periods.

Balance of long-term receivable represents receivables from Alibaba for disposal of Kaola which was expected to receive in two years.

The Group made housing loans to its employees (excluding executive officers) for house purchases via a third-party commercial bank in China. Each individual staff housing loan is collateralized either by the property for which the loan is extended or by approved personal guarantees for the loan amount granted. The repayment term is five years from the date of drawdown. The interest rate is fixed varying from 1.5% to 4.75% per annum for the years ended December 31, 2017, 2018 and 2019, respectively. The outstanding portion of the staff housing loans repayable within 12 months as of December 31, 2017, 2018 and 2019 amounted to approximately RMB48.5 million, RMB43.1 million and RMB43.0 million, respectively, and are reported under prepayments and other current assets in the consolidated balance sheets (see Note 5).

12. Taxation

(a) Income taxes

Cayman Islands

Under the current laws of the Cayman Islands, the Company, and its intermediate holding companies in the Cayman Islands are not subject to tax on income or capital gain. Additionally, upon payments of dividends by the Company or its subsidiaries in the Cayman Islands to their shareholders, no Cayman Islands withholding tax will be imposed.

British Virgin Islands ("BVI")

Subsidiaries in the BVI are exempted from income tax on its foreign-derived income in the BVI. There are no withholding taxes in the BVI.

Hong Kong

Subsidiaries in Hong Kong are subject to 16.5% income tax on their taxable income generated from operations in Hong Kong. Commencing from the year of assessment of 2018 and 2019, the first HK$2 million of profits earned by one of the Company's subsidiaries incorporated in Hong Kong is taxed at half the current tax rate (*i.e.*, 8.25%) while the remaining profits will continue to be taxed at the existing 16.5% tax rate. The payments of dividends by these companies to their shareholders are not subject to any Hong Kong withholding tax.

China

On March 16, 2007, the National People's Congress of PRC enacted the Enterprise Income Tax Law, under which Foreign Invested Enterprises ("**FIEs**") and domestic companies would be subject to enterprise income tax ("**EIT**") at a uniform rate of 25%. Preferential tax treatments will continue to be granted to FIEs or domestic companies which conduct businesses in certain encouraged sectors and to entities otherwise classified as "Software Enterprises," "Key Software Enterprises" and/or "High and New Technology Enterprises" ("**HNTEs**"). The Enterprise Income Tax Law became effective on January 1, 2008.

Boguan, NetEase Hangzhou and certain other PRC subsidiaries were qualified as HNTEs and enjoyed a preferential tax rate of 15% for 2017, 2018 and 2019. In 2017, 2018 and 2019, Boguan, NetEase Hangzhou and certain other PRC subsidiaries were also qualified as a Key Software Enterprise and enjoyed a further reduced preferential tax rate of 10% for 2016, 2017 and 2018. The related tax benefit was recorded in 2017, 2018 and 2019, respectively.

The aforementioned preferential tax rates are subject to annual review by the relevant tax authorities in China.

12. Taxation (Continued)

(a) Income taxes (Continued)

The following table presents the combined effects of EIT exemptions and tax rate reductions enjoyed by the Group for the years ended December 31, 2017, 2018 and 2019 (in thousands except per share data):

	For the year ended December 31,		
	2017	**2018**	**2019**
	RMB	*RMB*	*RMB*
Aggregate amount of EIT exemptions and tax rate reductions	1,464,587	1,621,063	1,665,199
Earnings per share effect, basic	0.45	0.50	0.52
Earnings per share effect, diluted	0.44	0.50	0.51

The following table sets forth the component of income tax expenses of the Group for the years ended December 31, 2017, 2018 and 2019:

	For the year ended December 31,		
	2017	**2018**	**2019**
	RMB	*RMB*	*RMB*
Current tax expense	2,594,295	2,531,271	2,764,097
Deferred tax (benefit)/expense	(438,307)	(70,621)	150,629
Income tax expenses	2,155,988	2,460,650	2,914,726

12. Taxation (Continued)

(a) Income taxes (Continued)

The following table presents a reconciliation of the differences between the statutory income tax rate and the Group's effective income tax rate for the years ended December 31, 2017, 2018 and 2019:

	For the year ended December 31,		
	2017	**2018**	**2019**
	%	%	%
Statutory income tax rate	25.0	25.0	25.0
Permanent differences	(0.6)	(0.1)	(2.8)
Effect due to different tax rates applicable to overseas entities	(0.7)	2.8	(0.9)
Effect of lower tax rate applicable to Software Enterprises, Key Software Enterprise and HNTEs	(15.4)	(19.4)	(13.6)
Change in valuation allowance	2.2	7.8	4.9
Effect of withholding income tax	5.1	6.1	5.2
Effective income tax rate	15.6	22.2	17.8

As of December 31, 2019, certain entities of the Group had net operating tax loss carry forwards as follows:

	RMB
Loss expiring in 2020	3,123
Loss expiring in 2021	181,883
Loss expiring in 2022	903,855
Loss expiring in 2023	3,618,659
Loss expiring after 2024	3,594,379
	8,301,899

Full valuation allowance was provided on the related deferred tax assets as the Group's management does not believe that sufficient positive evidence exists to conclude that recoverability of such deferred tax assets is more likely than not to be realized.

12. Taxation (Continued)

(b) Sales tax

Pursuant to the provision regulation of the PRC on VAT and its implementation rules, the Company's subsidiaries and VIEs are generally subject to VAT at a rate of 6% from revenues earned from services provided or 17% from sales of general goods. Effective from May 1, 2018, the 17% VAT rates was reduced to 16% and effective from April 1, 2019, the 16% VAT rates was further reduced to 13%.

The Group is also subject to cultural development fee on the provision of advertising services in China. The applicable tax rate is 3% of the advertising services revenue and subject to a 50% reduction which is effective from July 1, 2019.

(c) Deferred tax assets and liabilities

The following table presents the tax impact of significant temporary differences that give rise to the deferred tax assets and liabilities as of December 31, 2017, 2018 and 2019:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Deferred tax assets:			
Deferred revenue, primarily for advanced payments from online games customers	285,919	507,982	484,637
Accruals	491,227	589,322	478,484
Depreciation of fixed assets	3,697	5,103	4,827
Amortization of intangible assets	23,848	16,059	9,360
Net operating tax loss carry forward	491,193	1,215,444	2,075,475
	1,295,884	2,333,910	3,052,783
Less: valuation allowance	(472,389)	(1,269,615)	(2,148,879)
Total	823,495	1,064,295	903,904

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Deferred tax liabilities:			
Withholding income tax[d]	183,281	391,862	382,030
Others	29,573	736	–
Total	212,854	392,598	382,030

12. Taxation (Continued)

(c) Deferred tax assets and liabilities (Continued)

The Group does not believe that sufficient positive evidence exists to conclude that the recoverability of deferred tax assets of certain entities of the Group is more likely than not to be realized. Consequently, the Group has provided full valuation allowances for certain entities of the Group on the related deferred tax assets. The following table sets forth the movement of the aggregate valuation allowances for deferred tax assets for the periods presented:

	Balance at January 1	Provision/ (Write-off) for the year	Balance at December 31
	RMB	*RMB*	*RMB*
2017	241,394	230,995	472,389
2018	472,389	797,226	1,269,615
2019	1,269,615	879,264	2,148,879

(d) Withholding income tax

The Enterprise Income Tax Law also imposes a withholding income tax of 10% on dividends distributed by a FIE to its immediate holding company outside of China. A lower withholding income tax rate of 5% is applied if the FIE's immediate holding company is registered in Hong Kong or other jurisdictions that have a tax treaty arrangement with China. Such withholding income tax was exempted under the previous income tax law. On February 22, 2008, the Ministry of Finance and State Administration of Taxation jointly issued a circular which stated that for FIEs, all profits accumulated up to December 31, 2007 are exempted from withholding tax when they are distributed to foreign investors. Based on the interpretation of the current tax laws, management believes that the Company and all its non-PRC subsidiaries are not considered as a "resident enterprise" in China for corporate income tax purposes, but it cannot be certain that the relevant PRC tax authorities will agree with this determination. Except for the foregoing withholding taxes, the Company's non-PRC subsidiaries, which are currently all incorporated in Hong Kong, the British Virgin Islands or Cayman Islands are not subject to taxation on dividends they receive from the Company's PRC subsidiaries.

The Group accrued RMB707.1 million, RMB679.4 million and RMB846.6 million (US$121.6 million) withholding tax liabilities associated with its quarterly dividend and cash expected to be distributed from its PRC subsidiaries to overseas for general corporate purposes in 2017, 2018 and 2019, respectively. The Group have repatriated a portion of these earnings and paid related withholding income tax in 2017, 2018 and 2019.

As of December 31, 2017, 2018 and 2019, there were approximately RMB1,075.0 million, RMB1,057.7 million and RMB993.3 million (US$142.7 million) unrecognized deferred tax liabilities related to undistributed earnings of the Group's PRC subsidiaries, respectively. And the Group still intends to indefinitely reinvest these remaining undistributed earnings in its PRC subsidiaries.

13. Taxes Payable

The following is a summary of taxes payable as of December 31, 2017, 2018 and 2019:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Sales tax payable	128,170	256,350	541,175
Withholding individual income taxes for employees	160,547	183,681	190,340
Enterprise income taxes	1,248,198	1,775,908	2,377,655
Others	25,005	44,707	47,343
	1,561,920	2,260,646	3,156,513

14. Short-term Loans

As of December 31, 2017, 2018 and 2019, the short-term loans balances represent short-term loan arrangements with banks which were repayable within a maturity term ranging from one week to one year and charged at a fixed interest rates ranging from 0.78% to 2.42%, 0.74% to 4.57% and 0.68% to 4.57% per annum, respectively. As of December 31, 2017, 2018 and 2019, the weighted average interest rate for the outstanding short-term loans was approximately 2.13%, 3.14% and 2.38%, respectively. The short-term loans are denominated in US$, EUR, GBP, CAD, HK$, JPY or CNY.

As of December 31, 2017, 2018 and 2019, certain short-term loans were secured by RMB deposits of the Group in onshore branches of the banks in the amount of RMB4,091.0 million, RMB2,695.0 million and RMB1,595.0 million (US$229.1 million), which was recognized as restricted cash (see Note 2(f)).

On August 9, 2018, the Group entered into a three year US$500 million syndicated facility agreement with a group of four mandated lead arrangers and bookrunners. The facility is priced at 95 basis points over London interbank offered rate ("**LIBOR**") and has a commitment fee of 0.20% on the undrawn portion. There were US$200.0 million of borrowings outstanding under the syndicated facility as of December 31, 2019. The Group was subject to certain covenants under the syndicated facility agreement and was in compliance with these covenants as of December 31, 2019.

In 2019, the Group also entered into several uncommitted loan credit facility agreements provided by certain financial institutions. As at December 31, 2019, US$1,015.7 million of such credit facilities has not been utilized.

In the year ended December 31, 2019, the Group also entered into several guarantee agreements in the aggregate amount of US$1,062.0 million in respect of certain credit facilities taken by its subsidiaries. As at December 31, 2019, US$240.0 million of such credit facilities had not been utilized.

15. Accrued Liabilities and Other Payables

The following is a summary of accrued liabilities and other payables as of December 31, 2017, 2018 and 2019:

	December 31, 2017	December 31, 2018	December 31, 2019
	RMB	*RMB*	*RMB*
Customer deposits on NetEase Pay accounts	1,554,789	1,369,672	1,539,417
Marketing expenses and promotion materials	1,286,455	1,723,766	1,672,096
Accrued fixed assets related payables	294,779	354,388	304,379
Server and bandwidth service fees and technical charges	232,395	257,066	231,868
Accrued revenue sharing	187,838	373,559	578,940
Content cost	406,890	299,837	403,402
Professional fees	65,096	243,106	88,041
Accrued freight and warehousing charge	86,218	109,716	47,524
Other staff related cost	37,803	80,013	69,849
Others	179,674	194,067	357,258
	4,331,937	5,005,190	5,292,774

16. Deferred Revenue

Deferred revenue represents sales proceeds from prepaid points sold, unamortized mobile game in-game spending, prepaid products fees before delivery and prepaid subscription fees for internet value-added services for which services are yet to be provided as of the balance sheet dates.

For the year ended December 31, 2019, the additions to the deferred revenue balance were primarily due to cash payments received or due in advance of satisfying the Group's performance obligations, while the reductions to the deferred revenue balance were primarily due to the recognition of revenues upon fulfillment of the Group's performance obligations, both of which were in the ordinary course of business. During the year ended December 31, 2018 and 2019, RMB5,737.3 million and RMB7,319.4 million of revenues recognized were included in the deferred revenue balance at the beginning of the year, respectively.

As of December 31, 2019, the aggregate amount of transaction price allocated to the unsatisfied performance obligations is RMB8,602.2 million, which includes the deferred revenues balances and amounts to be invoiced and recognized as revenue in future periods. The Group expect to recognize a significant majority of this balance as revenue over the next 12 months, and the remainder thereafter. This balance does not include an estimate for variable consideration arising from sales rebates to advertising service customers and estimated breakage for online points.

17. Noncontrolling Interests and Redeemable Noncontrolling Interests

NetEase Cloud Music

In the first quarter of 2017, pursuant to the agreements entered into by certain of the Group's subsidiaries and VIE (together referred as "**NetEase Cloud Music**") and some investors, one of NetEase Cloud Music's PRC subsidiary ("**Hangzhou Cloud Music**") issued equity interests with preferential rights to certain investors for a total cash consideration of RMB600.0 million. In addition, Hangzhou Cloud Music issued equity interest to one investor for a total cash consideration of RMB150.0 million. After the issuance of the equity interests, the investors together held approximately 12.59% equity interests in NetEase Cloud Music.

The Group determined that the equity interests with preferential rights of RMB600.0 million should be classified as redeemable noncontrolling interests since they are contingently redeemable upon the occurrence of a conditional event, which is not solely within the control of the Company. The redemption price equals initial investment plus annual interests. Equity interests issued of RMB150.0 million was classified as noncontrolling interests.

In the first quarter of 2018, due to the changes of NetEase Cloud Music financing plan, the Group repurchased all of the redeemable noncontrolling interests and noncontrolling interests issued in China by Hangzhou Cloud Music at a cash consideration of RMB780.0 million and RMB195.0 million, respectively (the "**Onshore Repurchase**"). The Group accounted for the Onshore Repurchase as an equity transaction, no gains or losses were recognized from the repurchase. The excess of the consideration transferred over the carrying amount of the noncontrolling interests surrendered, amounting to RMB63.9 million was recorded as a reduction to retained earnings. The excess of the consideration transferred over the carrying amount of the redeemable noncontrolling interests surrendered, amounting to RMB159.4 million was recognized as a deemed dividend to preferred shareholders, which also reduces the numerator for EPS calculation. The repurchased redeemable noncontrolling interests and noncontrolling interests of NetEase Cloud Music were then retired.

Following the Onshore Repurchase, during 2018 and 2019, Cloud Village Inc., the Cayman holding company of NetEase Cloud Music issued preferred shares ("**NetEase Cloud Music Preferred Shares**") to certain investors for an aggregated cash consideration of US$716.3 million and US$711.6 million (the "**Offshore Issuance**"), respectively.

As of December 31, 2019, the NetEase Cloud Music Preferred Shares investors together held approximately 37.4% issued and outstanding interests in NetEase Cloud Music. The Company still maintains in control of NetEase Cloud Music.

The NetEase Cloud Music Preferred Shares were entitled to certain preferences and privileges with respect to redemption. The Group determined that the preferred shares should be classified as redeemable noncontrolling interests since they are contingently redeemable upon the occurrence of a conditional event or a deemed redemption event, which is not solely within the control of the Group. The redemption price equals to the net initial investment amount plus annual interests, if any.

17. Noncontrolling Interests and Redeemable Noncontrolling Interests (Continued)

Youdao

In April 2018, Youdao issued equity interests with preferential rights ("**Youdao Preferred Shares**") to two investors for a total cash consideration of US$70.0 million. The Group determined that the equity interests with preferential rights should be classified as redeemable noncontrolling interests since they are contingently redeemable upon the occurrence of a conditional event, which is not solely within the control of the Company. The redemption price equals to the net initial investment amount plus annual interests. Upon completion of the IPO of Youdao in October 2019, all Youdao Preferred Shares held by external preferred shareholders were automatically re-designated and converted on a one-for-one basis into Class A ordinary shares of Youdao.

Each issuance of the preferred shares is recognized at the respective issue price at the date of issuance net of issuance costs. The Group records accretions on the redeemable noncontrolling interests to the redemption value from the issuance dates to the earliest redemption dates if redemption is probable. The accretions using the effective interest method, are recorded as deemed dividends to preferred shareholders, which reduces retained earnings and equity classified noncontrolling interests, and earnings available to common shareholders in calculating basic and diluted earnings per share.

18. Capital Structure

The holders of ordinary shares in the Company are entitled to one vote per share and to receive ratably such dividends, if any, as may be declared by the board of directors of the Company. In the event of liquidation, the holders of ordinary shares are entitled to share ratably in all assets remaining after payment of liabilities. The ordinary shares have no preemptive, conversion, or other subscription rights.

19. Employee Benefits

The Company's subsidiaries and VIEs incorporated in China participate in a government-mandated multi-employer defined contribution plan under which certain retirement, medical, housing and other welfare benefits are provided to employees. Chinese labor regulations require the Company's Chinese subsidiaries and VIEs to pay to the local labor bureau a monthly contribution at a stated contribution rate based on the monthly basic compensation of qualified employees. The relevant local labor bureau is responsible for meeting all retirement benefit obligations; hence, the Group has no further commitments beyond its monthly contribution.

19. Employee Benefits (Continued)

The following table presents the Group's employee welfare benefits expense for the years ended December 31, 2017, 2018 and 2019 (in millions):

	For the year ended December 31,		
	2017	**2018**	**2019**
	RMB	*RMB*	*RMB*
Contributions to medical and pension schemes	594.5	788.7	903.4
Other employee benefits	389.1	548.6	631.8
	983.6	1,337.3	1,535.2

20. Share-based Compensation

(a) Restricted share units plan

2009 Restricted Share Unit Plan

In November 2009, the Company adopted a restricted share unit plan for the Company's employees, directors and consultants (the "**2009 Plan**"). The Company has reserved 323,694,050 ordinary shares for issuance under the plan. The 2009 Plan was adopted by a resolution of the board of directors on November 17, 2009 and became effective for a term of ten years unless sooner terminated. The 2009 Plan was expired on November 16, 2019.

2019 Restricted Share Unit Plan

In October 2019, the Company adopted a 2019 restricted share unit plan (the "**2019 Plan**") for the Company's employees, directors and others. The 2019 Plan has a ten-year term and a maximum number of 322,458,300 ordinary shares available for issuance pursuant to all awards under the plan.

20. Share-based Compensation (Continued)

(b) Share-based compensation expense

The Group recognizes share-based compensation cost in the consolidated statements of operations and comprehensive income based on awards ultimately expected to vest, after considering estimated forfeitures. Forfeitures are estimated based on the Group's historical experience over the last five years and revised in subsequent periods if actual forfeitures differ from those estimates.

The table below presents a summary of the Group's share-based compensation cost for the years ended December 31, 2017, 2018 and 2019:

	For the year ended December 31,		
	2017	**2018**	**2019**
	RMB	*RMB*	*RMB*
Cost of revenues	818,101	757,341	758,810
Selling and marketing expenses	90,271	102,638	84,920
General and administrative expenses	576,629	787,200	797,120
Research and development expenses	499,850	824,552	763,239
	1,984,851	2,471,731	2,404,089

As of December 31, 2019, total unrecognized compensation cost related to unvested awards under the 2009 Plan and the 2019 Plan, adjusted for estimated forfeitures, was RMB2,291.8 million (US$329.2 million) and is expected to be recognized through the remaining vesting period of each grant. As of December 31, 2019, the weighted average remaining vesting periods was 2.22 years.

20. Share-based Compensation (Continued)

(c) Restricted share units award activities

The following table presents a summary of the Company's RSUs award activities for the years ended December 31, 2017, 2018 and 2019:

	Number of RSUs	Weighted average grant date fair value
	(in thousands)	*US$*
Outstanding at January 1, 2017	1,663	131.08
Granted	1,260	295.95
Vested	(1,192)	152.96
Forfeited	(59)	177.14
Outstanding at December 31, 2017	1,672	238.18
Outstanding at January 1, 2018	1,672	238.18
Granted	2,073	271.21
Vested	(1,228)	250.53
Forfeited	(92)	238.34
Outstanding at December 31, 2018	2,425	260.12
Outstanding at January 1, 2019	2,425	260.12
Granted	1,763	231.51
Vested	(1,182)	256.12
Forfeited	(191)	244.09
Outstanding at December 31, 2019	2,815	244.99

The aggregate intrinsic value of RSUs outstanding as of December 31, 2019 was US$863.1 million. The intrinsic value was calculated based on the Company's closing stock price of US$306.64 per ADS as of December 31, 2019.

It is the Company's policy to issue new shares upon vesting of RSUs. The number of shares available for future grant under the Company's 2019 RSU Plan was 322,055,900 as of December 31, 2019.

20. Share-based Compensation (Continued)

(d) Other Share Incentive Plan

Certain of the Company's subsidiaries have adopted stock option plans, which allow the related subsidiaries to grant options to certain employees of the Group. The options expire in five to ten years from the date of grant and either vest or have a vesting commencement date upon certain conditions being met ("**Vesting Commencement Date**"). The award can become 100% vested on the Vesting Commencement Date, or vests in two, four or five substantially equal annual installments with the first installment vesting on the Vesting Commencement Date.

The Group has used the binomial model to estimate the fair value of the options granted. For the years ended December 31, 2017, 2018 and 2019, RMB91.5 million, RMB32.0 million and RMB56.2 million compensation expenses were recorded for the share options granted.

While certain share options granted will become vested or commence vesting beginning on the Vesting Commencement Date, the effectiveness of the conditions is not within the control of the Group and is not deemed probable to occur for accounting purposes until the Vesting Commencement Date. For such share options, no compensation expenses were recorded. As of December 31, 2019, there were RMB307.4 million unrecognized share-based compensation expenses are related to such share options for which the service condition had been met and are expected to be recognized when the conditions are achieved.

21. Net Income Per Share

The following table sets forth the computation of basic and diluted net income per share for the years ended December 31, 2017, 2018 and 2019:

	For the year ended December 31,		
	2017	2018	2019
Numerator (RMB in thousands):			
Net income from continuing operations attributable to NetEase, Inc.'s shareholders	11,542,393	8,291,089	13,274,997
Net (loss)/income from discontinued operations attributable to NetEase, Inc.'s shareholders	(834,454)	(2,138,682)	7,962,519
Net income attributable to NetEase, Inc.'s shareholders for basic/dilutive net income per share calculation	10,707,939	6,152,407	21,237,516
Denominator (No. of shares in thousands):			
Weighted average number of ordinary shares outstanding, basic	3,290,312	3,235,324	3,220,473
Dilutive effect of employee stock options and restricted share units	25,166	19,365	29,499
Weighted average number of ordinary shares outstanding, diluted	3,315,478	3,254,689	3,249,972
Net income per share from continuing operations attributable to NetEase, Inc.'s shareholders, basic (RMB)	3.51	2.56	4.12
Net (loss)/income per share from discontinued operations attributable to NetEase, Inc.'s shareholders, basic (RMB)	(0.26)	(0.66)	2.47
Net income per share, basic (RMB)	**3.25**	**1.90**	**6.59**
Net income per share from continuing operations attributable to NetEase, Inc.'s shareholders, diluted (RMB)	3.48	2.55	4.08
Net (loss)/income per share from discontinued operations attributable to NetEase, Inc.'s shareholders, diluted (RMB)	(0.25)	(0.66)	2.45
Net income per share, diluted (RMB)	**3.23**	**1.89**	**6.53**

21. Net Income Per Share (Continued)

Basic net income per share is computed using the weighted average number of the ordinary shares outstanding during the year. Diluted net income per share is computed using the weighted average number of ordinary shares and potential ordinary shares outstanding during the year. For the years ended December 31, 2017, 2018 and 2019, options to purchase ordinary shares and RSUs that were anti-dilutive and excluded from the calculation of diluted net income per share totaled approximately 3.8 million shares, 19.6 million shares and 11.4 million shares, respectively.

22. Commitments and Contingencies

(a) Commitments

As of December 31, 2019, future minimum payment for server and bandwidth service fee commitments, capital commitments, royalties and other expenditures commitments related to licensed contents, including the royalties and minimum marketing expenditure commitment for the games licensed by Blizzard, as well as other commitments related to office machines and services purchases, were as follows:

	Server and Bandwidth Service Fee Commitments	Capital Commitments	Royalties and Expenditure for Licensed Content Commitments	Office Machines and Other Commitments	Total
	RMB	*RMB*	*RMB*	*RMB*	*RMB*
2020	210,343	467,344	2,057,962	135,903	2,871,552
2021	368,206	578,011	2,166,368	29,304	3,141,889
2022	218,863	217,001	1,707,765	17,886	2,161,515
2023	77,616	209,284	1,311,465	17,619	1,615,984
Beyond 2023	52,848	1,000	849,159	–	903,007
	927,876	1,472,640	8,092,719	200,712	10,693,947

(b) Litigation

Overview

From time to time, the Group is involved in claims and legal proceedings that arise in the ordinary course of business. Based on currently available information, management does not believe that the ultimate outcome of these unresolved matters, individually and in the aggregate, is reasonably possible to have a material adverse effect on the Group's financial position, results of operations or cash flows. However, litigation is subject to inherent uncertainties and the Group's view of these matters may change in the future. Were an unfavorable outcome to occur, there exists the possibility of a material adverse impact on the Group's financial position, results of operations or cash flows for the period in which the unfavorable outcome occurs, and potentially in future periods. The Group records a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Group reviews the need for any such liability on a regular basis. The Group has not recorded any material liabilities in this regard as of December 31, 2018 and 2019.

22. Commitments and Contingencies (Continued)

(b) Litigation (Continued)

Litigation

In April 2018, PUBG Corporation and PUBG Santa Monica, Inc. (collectively "**PUBG**"), filed a lawsuit against defendants NetEase, Inc., NetEase Information Technology Corp. and NetEase (Hong Kong) Limited in the U.S. District Court for the Northern District of California. PUBG subsequently dropped all claims against NetEase (Hong Kong) Limited, and added Hong Kong NetEase Interactive Entertainment Limited to the lawsuit. PUBG's complaint generally alleged that two of the Group's mobile games, *Rules of Survival* and *Knives Out*, infringed PUBG's copyrights and trade dress in their competing game, *Battlegrounds*. On March 11, 2019, the Group entered into a settlement agreement with PUBG, and the lawsuit was dismissed. On October 15, 2019, PUBG filed a second lawsuit against the same NetEase defendants, also in the U.S. District Court for the Northern District of California, claiming the Group had allegedly breached the settlement agreement. On March 3, 2020, the court dismissed PUBG's new lawsuit, without prejudice, for lack of subject matter jurisdiction. On March 4, 2020, the Group initiated a declaratory judgment action against PUBG in the Superior Court of California for the County of San Mateo, requesting a declaration that the Group had not breached the settlement agreement. As at the date of this report, this lawsuit against PUBG is on-going.

23. Dividends

Quarterly Dividend Policy

In May 2014, the Company's board of directors approved a new quarterly dividend policy. Under this policy, the Company intends to make quarterly cash dividend distributions at an amount equivalent to approximately 25% of the Group's anticipated net income after tax in each fiscal quarter. In the second quarter of 2019, the Company's board of directors determined that quarterly dividends will be set at an amount equivalent to approximately 20%-30% of the Company's anticipated net income after tax in each fiscal quarter. The Company's board of directors also approved an additional special dividend equivalent to US$3.45 per ADS in the third quarter of 2019.

Dividends are recognized when declared. There is no dividend payable as of December 31, 2017, 2018 and 2019, respectively. The cash dividend declared related to the net profits of fiscal year 2017, 2018 and fiscal year 2019 was RMB2,656.0 million, RMB1,538.3 million and RMB9,353.6 million (US$1,343.6 million) in total, respectively.

The determination to make dividend distributions and the amount of such distributions in any particular quarter will be made at the discretion of the Company's board of directors and will be based upon its operations and earnings, cash flow, financial condition, capital and other reserve requirements and surplus, any applicable contractual restrictions, the ability of the Company's PRC subsidiaries to make distributions to their offshore parent companies, and any other conditions or factors which the board deems relevant and having regard to the directors' fiduciary duties.

24. Share Repurchase Programs

The Company accounts for repurchased ordinary shares under the cost method and includes such treasury stock as a component of the common shareholders' equity. Cancellation of treasury stock is recorded as a reduction of ordinary shares, additional paid-in-capital and retained earnings, as applicable. An excess of purchase price over par value is allocated to additional paid-in-capital first with any remaining excess charged entirely to retained earnings.

In November 2017, the Company announced that its board of directors approved a new share repurchase program of up to US$1.0 billion of the Company's outstanding ADSs for a period not to exceed 12 months. On June 11, 2018, the Company announced that its board of directors approved an amendment to its share repurchase program, authorizing the repurchase of up to an additional US$1.0 billion of the Company's outstanding ADSs. This expands the US$1.0 billion repurchase program that was approved on November 15, 2017 for a period not to exceed 12 months, bringing the total authorized repurchase amount to US$2.0 billion. As of expiration date of the program, the Company has repurchased approximately 4.6 million ADSs (equivalent to 114.9 million ordinary shares) for approximately US$1,178.5 million under this program.

In November 2018, the Company announced that its board of directors approved a new share repurchase program of up to US$1.0 billion of the Company's outstanding ADSs for a period not to exceed 12 months. As of expiration date of the program, the Company has repurchased approximately 1,015 ADSs (equivalent to 25,375 ordinary shares) for approximately US$0.2 million under this program.

In November 2019, the Company announced that its board of directors has approved a share purchase program of up to US$20.0 million of Youdao's outstanding ADSs for a period not to exceed 12 months. As of December 31, 2019, approximately 50,000 ADSs had been purchased under this program.

In February 2020, the Company announced that its board of directors had approved a share repurchase program of up to US$1.0 billion of the Company's outstanding ADSs for a period not to exceed 12 months.

25. Related Party Transactions

The Group had no material transactions with related parties for the year ended December 31, 2017, 2018 and 2019, and no material related parties' balances as of December 31, 2019.

26. Segment Information

(a) Description of segments

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker ("**CODM**"), or decision making group, in deciding how to allocate resources and in assessing performance. The Group's CODM is the chief executive officer.

The Group's organizational structure is based on a number of factors that the CODM uses to evaluate, view and run its business operations which include, but are not limited to, customer base, homogeneity of products and technology. The Group's operating segments are based on this organizational structure and information reviewed by the Group's CODM to evaluate the operating segment results.

Effective in the third quarter of 2019, the Group changed its segment disclosure to add the financial results of its certain advertising services and Yanxuan into innovative businesses and others. In addition, the Group has commenced separately reporting the results of Youdao, which completed its initial public offering and listing on the New York Stock Exchange in October 2019. As a result, the Group now reports segments as online game services, Youdao and innovative businesses and others. This change in segment reporting aligns with the manner in which the Group's CODM currently receives and uses financial information to allocate resources and evaluate the performance of reporting segments. This change in segment presentation does not affect consolidated balance sheets, consolidated statements of operations and comprehensive income or consolidated statements of cash flows. The Group retrospectively revised prior year segment information, to conform to current year presentation.

26. Segment Information (Continued)

(b) Segment data

The table below provides a summary of the Group's operating segment results for the years ended December 31, 2017, 2018 and 2019. The Group does not allocate any operating costs or assets to its business segments as the Group's CODM does not use this information to measure the performance of the operating segments. There was no significant transaction between reportable segments for the years ended December 31, 2017, 2018 and 2019.

	For the year ended December 31,		
	2017	2018	2019
	RMB	*RMB*	*RMB*
Net revenues:			
Online game services	36,281,642	40,190,057	46,422,640
Youdao	455,746	731,598	1,304,883
Innovative businesses and others	7,699,967	10,256,920	11,513,622
Total net revenues	44,437,355	51,178,575	59,241,145
Cost of revenues:			
Online game services	(13,473,339)	(14,617,656)	(16,974,234)
Youdao	(293,807)	(515,133)	(934,261)
Innovative businesses and others	(5,627,168)	(8,699,637)	(9,777,350)
Total cost of revenues	(19,394,314)	(23,832,426)	(27,685,845)
Gross profit:			
Online game services	22,808,303	25,572,401	29,448,406
Youdao	161,939	216,465	370,622
Innovative businesses and others	2,072,799	1,557,283	1,736,272
Total gross profit	25,043,041	27,346,149	31,555,300

The following table set forth the breakdown of net revenues by type of good or service for the years ended December 31, 2017, 2018 and 2019:

	For the year ended December 31,		
	2017	2018	2019
	RMB	*RMB*	*RMB*
Online game services	36,281,642	40,190,057	46,422,640
Youdao learning services and products	149,915	428,716	851,870
Advertising services	2,449,558	2,769,337	2,581,623
Others	5,556,240	7,790,465	9,385,012
Total Net revenue	44,437,355	51,178,575	59,241,145

26. Segment Information (Continued)

(b) Segment data (Continued)

The following table presents the total depreciation and amortization expenses of property and equipment and land use rights by segment for the years ended December 31, 2017, 2018 and 2019:

	For the year ended December 31,		
	2017	**2018**	**2019**
	RMB	*RMB*	*RMB*
Online game services	157,695	235,896	256,181
Youdao	2,160	3,863	6,076
Innovative businesses and others	98,997	201,707	218,850
Total depreciation and amortization expenses of property and equipment and land use rights	258,852	441,466	481,107

As substantially all of the Group's long-lived assets are located in the PRC and substantially all of the Group's revenue of reportable segments are derived from China based on the geographical locations where services and products are provided to customers, no geographical information is presented.

27. Financial Instruments

The following table sets forth the financial instruments, measured at fair value, by level within the fair value hierarchy as of December 31, 2017:

	Fair Value Measurements		
	Total	**Quoted Prices in Active Market for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**
	RMB	*RMB*	*RMB*
Time deposits-short term	30,603,369	30,603,369	–
Time deposits-long term	100,000	100,000	–
Equity investments with readily determinable fair values	828,260	828,260	–
Short-term investments	9,702,609	–	9,702,609
Total	41,234,238	31,531,629	9,702,609

27. Financial Instruments (Continued)

The following table sets forth the financial instruments, measured at fair value, by level within the fair value hierarchy as of December 31, 2018:

	Fair Value Measurements		
	Total	**Quoted Prices in Active Market for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**
	RMB	*RMB*	*RMB*
Time deposits-short term	32,900,287	32,900,287	–
Time deposits-long term	100,000	100,000	–
Equity investments with readily determinable fair values	612,465	612,465	–
Short-term investments	11,674,775	–	11,674,775
Total	45,287,527	33,612,752	11,674,775

The following table sets forth the financial instruments, measured at fair value, by level within the fair value hierarchy as of December 31, 2019:

	Fair Value Measurements		
	Total	**Quoted Prices in Active Market for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**
	RMB	*RMB*	*RMB*
Time deposits-short term	53,487,075	53,487,075	–
Time deposits-long term	2,360,000	2,360,000	–
Equity investments with readily determinable fair values	3,551,545	3,551,545	–
Short-term investments	15,312,595	–	15,312,595
Total	74,711,215	59,398,620	15,312,595

27. Financial Instruments (Continued)

The rates of interest under the loan agreements with the lending banks were determined based on the prevailing interest rates in the market. The Group classifies the valuation techniques that use these inputs as Level 2 of fair value measurements of short-term bank loans. For other financial assets and liabilities with carrying values that approximate fair value, if measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy. As of December 31, 2017, 2018 and 2019, certain equity investments without determinable fair value (Note 10) were measured using significant unobservable inputs (Level 3) and written down from their respective carrying value to fair value, with impairment charges of RMB58.5 million, RMB133.6 million and RMB168.4 million incurred and recorded in earnings for the years then ended.

28. Restricted Net Assets

Relevant PRC laws and regulations permit PRC companies to pay dividends only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Additionally, the Company's PRC subsidiaries and VIEs can only distribute dividends upon approval of the shareholders after they have met the PRC requirements for appropriation to the general reserve fund and the statutory surplus fund respectively. The general reserve fund and the statutory surplus fund require that annual appropriations of 10% of net after-tax income should be set aside prior to payment of any dividends. As a result of these and other restrictions under PRC laws and regulations, the PRC subsidiaries and VIEs are restricted in their ability to transfer a portion of their net assets to the Company either in the form of dividends, loans or advances, which restricted portion amounted to approximately RMB14.1 billion, or 23% of the Company's total consolidated net assets, as of December 31, 2019. Even though the Company currently does not require any such dividends, loans or advances from the PRC subsidiaries and VIEs for working capital and other funding purposes, the Company may in the future require additional cash resources from its PRC subsidiaries and VIEs due to changes in business conditions, to fund future acquisitions and developments, or merely declare and pay dividends to or distributions to the Company's shareholders.

29. Subsequent Events

After the outbreak of Coronavirus Disease 2019 ("**COVID-19 outbreak**") in early 2020, a series of precautionary and control measures have been and continued to be implemented across the country. The Group prioritizes the health and safety of its employees, and has taken various preventative and quarantine measures across the Group soon after the outbreak. The Group will pay close attention to the development of the COVID-19 outbreak and evaluate its impact on the financial position and operating results of the Group. As at the date on which this set of financial statements were authorized for issue, the Group was not aware of any material adverse effects on the financial statements as a result of the COVID-19 outbreak.

In May 2020, the Company's board of directors approved a dividend of US$1.16 per ADS for the first quarter of 2020, which is expected to be paid on June 23, 2020 to shareholders of record as of the close of business on June 12, 2020.

In May 2020, the Company announced that its board of directors had approved an amendment to the share repurchase program to expand the authorized repurchase amount to US$2.0 billion.

III. SUBSEQUENT FINANCIAL STATEMENTS

No audited financial statements have been prepared by the Company in respect of any period subsequent to December 31, 2019 and up to the date of this report. Save as disclosed in this report, no dividend or distribution has been declared or made by the Company in respect of any period subsequent to December 31, 2019.