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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2021
or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 001-38860
Tradeweb Markets Inc.
(Exact name of registrant as specified in its charter)

Delaware	**83-2456358**
(State of other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1177 Avenue of the Americas **New York, New York**	**10036**
(Address of principal executive offices)	(Zip Code)

(646) 430-6000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value $0.00001	TW	Nasdaq Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐	Non-accelerated filer	☐
Smaller reporting company	☐	Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No

Class of Stock	Shares Outstanding as of July 21, 2021
Class A Common Stock, par value $0.00001 per share	105,310,024
Class B Common Stock, par value $0.00001 per share	96,933,192
Class C Common Stock, par value $0.00001 per share	1,654,825
Class D Common Stock, par value $0.00001 per share	28,877,108

TRADEWEB MARKETS INC.

FORM 10-Q FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2021

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INTRODUCTORY NOTE

The financial statements and other disclosures contained in this report include those of Tradeweb Markets Inc., which is the registrant, and those of its consolidating subsidiaries, including Tradeweb Markets LLC, which became the principal operating subsidiary of Tradeweb Markets Inc. on April 4, 2019 in a series of reorganization transactions (the "Reorganization Transactions") that were completed in connection with Tradeweb Markets Inc.'s initial public offering (the "IPO"), which closed on April 8, 2019.

As a result of the Reorganization Transactions completed in connection with the IPO, Tradeweb Markets Inc. became a holding company whose only material assets consist of its equity interest in Tradeweb Markets LLC and related deferred tax assets. As the sole manager of Tradeweb Markets LLC, Tradeweb Markets Inc. operates and controls all of the business and affairs of Tradeweb Markets LLC and, through Tradeweb Markets LLC and its subsidiaries, conducts its business. As a result of this control, and because Tradeweb Markets Inc. has a substantial financial interest in Tradeweb Markets LLC, Tradeweb Markets Inc. consolidates the financial results of Tradeweb Markets LLC and its subsidiaries.

As used in this Quarterly Report on Form 10-Q, unless the context otherwise requires, references to:

- "We," "us," "our," the "Company," "Tradeweb" and similar references refer: (i) on or prior to the completion of the Reorganization Transactions to Tradeweb Markets LLC, which we refer to as "TWM LLC," and, unless otherwise stated or the context otherwise requires, all of its subsidiaries and any predecessor entities, and (ii) following the completion of the Reorganization Transactions to Tradeweb Markets Inc., and, unless otherwise stated or the context otherwise requires, TWM LLC and all of its subsidiaries and any predecessor entities.

- "Bank Stockholders" refer collectively to entities affiliated with the following clients: Barclays Capital Inc., BofA Securities, Inc. (a subsidiary of Bank of America Corporation), Citigroup Global Markets Inc., Credit Suisse Securities (USA) LLC, Deutsche Bank Securities Inc., Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC, RBS Securities Inc., UBS Securities LLC and Wells Fargo Securities, LLC, which, prior to the completion of the IPO, collectively held a 46% ownership interest in Tradeweb. Following the IPO and the application of the net proceeds therefrom, entities affiliated with BofA Securities, Inc., RBS Securities Inc. and UBS Securities LLC no longer hold LLC Interests and, except as otherwise indicated, are not considered Bank Stockholders for post-IPO periods.

- "Continuing LLC Owners" refer collectively to (i) those "Original LLC Owners", including Refinitiv (as defined below), certain of the Bank Stockholders and members of management, that continued to own LLC Interests (as defined below) after the completion of the IPO and Reorganization Transactions, that received shares of our Class C common stock, shares of our Class D common stock or a combination of both, as the case may be, in connection with the completion of the Reorganization Transactions, and that may redeem or exchange their LLC Interests for shares of our Class A common stock or Class B common stock and (ii) solely with respect to the Tax Receivable Agreement (as defined below), also includes those Original LLC Owners, including certain Bank Stockholders, that disposed of all of their LLC Interests for cash in connection with the IPO.

- "Investor Group" refer to certain investment funds affiliated with The Blackstone Group Inc. (f/k/a The Blackstone Group L.P.), an affiliate of Canada Pension Plan Investment Board, an affiliate of GIC Special Investments Pte. Ltd. and certain co-investors, which prior to the LSEG Transaction (as defined below) collectively held indirectly a 55% ownership interest in Refinitiv (as defined below).

- "LLC Interests" refer to the single class of common membership interests of TWM LLC issued in connection with the Reorganization Transactions.

- "LSEG Transaction" refer to the acquisition of the Refinitiv business by London Stock Exchange Group plc, in an all share transaction, which closed on January 29, 2021.

- "Original LLC Owners" refer to the owners of TWM LLC prior to the Reorganization Transactions.

- "Refinitiv", prior to the LSEG Transaction, refer to Refinitiv Holdings Limited, and unless otherwise stated or the context otherwise requires, all of its subsidiaries, and subsequent to the LSEG Transaction, refers to Refinitiv Parent Limited, and unless otherwise stated or the context otherwise requires, all of its subsidiaries. Refinitiv owns substantially all of the former financial and risk business of Thomson Reuters (as defined below), including, prior to and following the completion of the Reorganization Transactions, an indirect majority ownership interest in Tradeweb, and was controlled by the Investor Group prior to the LSEG Transaction.

- “Refinitiv Transaction” refer to the transaction pursuant to which Refinitiv indirectly acquired on October 1, 2018 substantially all of the financial and risk business of Thomson Reuters and Thomson Reuters indirectly acquired a 45% ownership interest in Refinitiv.

- “Thomson Reuters” or “TR” refer to Thomson Reuters Corporation, which prior to the LSEG Transaction indirectly held a 45% ownership interest in Refinitiv.

Numerical figures included in this Quarterly Report on Form 10-Q have been subject to rounding adjustments. Accordingly, numerical figures shown as totals in various tables may not be arithmetic aggregations of the figures that precede them. In addition, we round certain percentages presented in this Quarterly Report on Form 10-Q to the nearest whole number. As a result, figures expressed as percentages in the text may not total 100% or, when aggregated, may not be the arithmetic aggregation of the percentages that precede them.

USE OF NON-GAAP FINANCIAL MEASURES

This Quarterly Report on Form 10-Q contains “non-GAAP financial measures,” which are financial measures that are not calculated and presented in accordance with GAAP.

The Securities and Exchange Commission (“SEC”) has adopted rules to regulate the use in filings with the SEC and in other public disclosures of non-GAAP financial measures. These rules govern the manner in which non-GAAP financial measures are publicly presented and require, among other things:

- a presentation with equal or greater prominence of the most comparable financial measure or measures calculated and presented in accordance with GAAP; and

- a statement disclosing the purposes for which the registrant’s management uses the non-GAAP financial measure.

Specifically, we make use of the non-GAAP financial measures “Free Cash Flow,” “Adjusted EBITDA,” “Adjusted EBITDA margin,” “Adjusted EBIT,” “Adjusted EBIT margin,” “Adjusted Net Income” and “Adjusted Diluted EPS” in evaluating our past results and future prospects. For the definition of Free Cash Flow and a reconciliation to cash flow from operating activities, its most directly comparable financial measure presented in accordance with GAAP, see Part I, Item 2. – “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measures.” For the definitions of Adjusted EBITDA, Adjusted EBIT and Adjusted Net Income and reconciliations to net income and net income attributable to Tradeweb Markets Inc., as applicable, their most directly comparable financial measures presented in accordance with GAAP, see Part I, Item 2. – “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measures.” Adjusted EBITDA margin and Adjusted EBIT margin are defined as Adjusted EBITDA and Adjusted EBIT, respectively, divided by revenue for the applicable period. Adjusted Diluted EPS is defined as Adjusted Net Income divided by the diluted weighted average number of shares of Class A common stock and Class B common stock outstanding for the applicable period (including the effect of potentially dilutive securities determined using the treasury stock method), assuming the full exchange of all outstanding LLC Interests held by non-controlling interests for shares of Class A common stock or Class B common stock, for post-IPO periods, and the diluted weighted average number of shares of TWM LLC outstanding for the applicable period (including the effect of potentially dilutive securities determined using the treasury stock method), for pre-IPO periods.

We present Free Cash Flow because we believe it is a useful indicator of liquidity that provides information to management and investors about the amount of cash generated from our core operations after expenditures for capitalized software development costs and furniture, equipment and leasehold improvements.

We present Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin because we believe they assist investors and analysts in comparing our operating performance across reporting periods on a consistent basis by excluding items that we do not believe are indicative of our core operating performance. Management and our board of directors use Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin to assess our financial performance and believe they are helpful in highlighting trends in our core operating performance, while other measures can differ significantly depending on long-term strategic decisions regarding capital structure, the tax jurisdictions in which we operate and capital investments. Further, our executive incentive compensation is based in part on components of Adjusted EBITDA and Adjusted EBITDA margin.

We use Adjusted Net Income and Adjusted Diluted EPS as supplemental metrics to evaluate our business performance in a way that also considers our ability to generate profit without the impact of certain items. Each of the normal recurring adjustments and other adjustments described in the definition of Adjusted Net Income helps to provide management with a measure of our operating performance over time by removing items that are not related to day-to-day operations or are non-cash expenses.

Free Cash Flow, Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS have limitations as analytical tools, and you should not consider such measures either in isolation or as substitutes for analyzing our results as reported under GAAP. Some of these limitations include the following:

- Free Cash Flow, Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS do not reflect every expenditure, future requirements for capital expenditures or contractual commitments;
- Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS do not reflect changes in our working capital needs;
- Adjusted EBITDA and Adjusted EBIT do not reflect any interest expense, or the amounts necessary to service interest or principal payments on any debt obligations;
- Adjusted EBITDA and Adjusted EBIT do not reflect income tax expense, which in post-IPO periods is a necessary element of our costs and ability to operate;
- although depreciation and amortization are eliminated in the calculation of Adjusted EBITDA, and the depreciation and amortization related to acquisitions and the Refinitiv Transaction are eliminated in the calculation of Adjusted EBIT, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA and Adjusted EBIT do not reflect any costs of such replacements;
- in post-IPO periods, Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS do not reflect the noncash component of certain employee compensation expense or payroll taxes associated with certain option exercises;
- Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS do not reflect the impact of earnings or charges resulting from matters we consider not to be indicative, on a recurring basis, of our ongoing operations; and
- other companies in our industry may calculate Free Cash Flow, Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS or similarly titled measures differently than we do, limiting their usefulness as comparative measures.

We compensate for these limitations by relying primarily on our GAAP results and using Free Cash Flow, Adjusted EBITDA, Adjusted EBIT, Adjusted Net Income and Adjusted Diluted EPS only as supplemental information.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). You can generally identify forward-looking statements by our use of forward-looking terminology such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "potential," "predict," "projection," "seek," "should," "will" or "would," or the negative thereof or other variations thereon or comparable terminology. In particular, statements about the markets in which we operate, including our expectations about market trends, our market opportunity and the growth of our various markets, our expansion into new markets, any potential tax savings we may realize as a result of our organizational structure, our dividend policy and our expectations, beliefs, plans, strategies, objectives, prospects or assumptions regarding future events, our performance or otherwise, contained in this Quarterly Report on Form 10-Q are forward-looking statements. In addition, statements contained in this Quarterly Report on Form 10-Q relating to the COVID-19 pandemic, the potential impacts of which are inherently uncertain, are forward-looking statements.

We have based these forward-looking statements on our current expectations, assumptions, estimates and projections. While we believe these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond our control. These and other important factors may cause our actual results, performance or achievements to differ materially from those expressed or implied by these forward-looking statements, or could affect our share price.

Some of the factors that could cause actual results to differ materially from those expressed or implied by the forward-looking statements include:

- changes in economic, political, social and market conditions and the impact of these changes on trading volumes;
- our failure to compete successfully;
- our failure to adapt our business effectively to keep pace with industry changes;
- consolidation and concentration in the financial services industry;
- our dependence on dealer clients that, in some cases, are also stockholders;
- our dependence on third parties for certain market data and certain key functions;
- our ability to implement our business strategies profitably;
- our ability to successfully integrate any acquisition or to realize benefits from any strategic alliances, partnerships or joint ventures;
- our inability to maintain and grow the capacity of our trading platforms, systems and infrastructure;
- design defects, errors, failures or delays with our platforms or solutions;
- systems failures, interruptions, delays in services, cybersecurity incidents, catastrophic events and any resulting interruptions;
- inadequate protection of our intellectual property;
- extensive regulation of our industry;
- our ability to retain the services of certain members of our management;
- limitations on operating our business and incurring additional indebtedness as a result of covenant restrictions under our $500.0 million senior secured revolving credit facility (the "Revolving Credit Facility") with Citibank, N.A., as administrative agent and collateral agent, and the other lenders party thereto, and certain Refinitiv indebtedness;

- our dependence on distributions from TWM LLC to fund our expected dividend payments and to pay our taxes and expenses, including payments under the tax receivable agreement (the “Tax Receivable Agreement”) entered into in connection with the IPO;
- our ability to realize any benefit from our organizational structure;
- Refinitiv’s control of us and our status as a controlled company; and
- other risks and uncertainties, including those listed under Part I, Item 1A. “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2020 (the “2020 Form 10-K”), filed with the Securities and Exchange Commission (“SEC”) and in other filings we may make from time to time with the SEC.

Given these risks and uncertainties, you are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements contained in this Quarterly Report on Form 10-Q are not guarantees of future performance and our actual results of operations, financial condition or liquidity, and the development of the industry and markets in which we operate, may differ materially from the forward-looking statements contained in this Quarterly Report on Form 10-Q. In addition, even if our results of operations, financial condition or liquidity, and events in the industry and markets in which we operate, are consistent with the forward-looking statements contained in this Quarterly Report on Form 10-Q, they may not be predictive of results or developments in future periods.

Any forward-looking statement that we make in this Quarterly Report on Form 10-Q speaks only as of the date of such statement. Except as required by law, we do not undertake any obligation to update or revise, or to publicly announce any update or revision to, any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this Quarterly Report on Form 10-Q.

Investors and others should note that we announce material financial and operational information using our investor relations website, press releases, SEC filings and public conference calls and webcasts. Information about Tradeweb, our business and our results of operations may also be announced by posts on Tradeweb’s accounts on the following social media channels: Instagram, LinkedIn and Twitter. The information that we post through these social media channels may be deemed material. As a result, we encourage investors, the media and others interested in Tradeweb to monitor these social media channels in addition to following our press releases, SEC filings and public conference calls and webcasts. These social media channels may be updated from time to time on our investor relations website.

PART I — FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

Tradeweb Markets Inc. and Subsidiaries
Condensed Consolidated Statements of Financial Condition
(in thousands, except share and per share amounts)
(Unaudited)

	June 30, 2021	December 31, 2020
Assets		
Cash and cash equivalents	$ 681,225	$ 791,280
Restricted cash	1,000	1,000
Receivable from brokers and dealers and clearing organizations	37,436	368
Deposits with clearing organizations	21,799	11,671
Accounts receivable, net of allowance for credit losses of $158 and $243 at June 30, 2021 and December 31, 2020, respectively	141,903	105,286
Furniture, equipment, purchased software and leasehold improvements, net of accumulated depreciation and amortization	32,775	33,814
Right-of-use assets	24,898	29,437
Software development costs, net of accumulated amortization	163,770	168,030
Goodwill	2,782,779	2,694,797
Intangible assets, net of accumulated amortization	1,231,567	1,182,034
Receivable from affiliates	2,801	111
Deferred tax asset	659,274	579,562
Other assets	83,663	82,460
Total assets	$ 5,864,890	$ 5,679,850
Liabilities and Equity		
Liabilities		
Payable to brokers and dealers and clearing organizations	$ 36,611	$ 252
Accrued compensation	85,635	129,288
Deferred revenue	28,052	23,193
Accounts payable, accrued expenses and other liabilities	41,172	42,692
Employee equity compensation payable	—	1,900
Lease liability	28,772	34,463
Payable to affiliates	3,036	5,142
Deferred tax liability	18,134	19,425
Tax receivable agreement liability	425,150	404,332
Total liabilities	666,562	660,687
Commitments and contingencies (Note 13)		
Equity		
Preferred stock, $0.00001 par value; 250,000,000 shares authorized; none issued or outstanding	—	—
Class A common stock, $0.00001 par value; 1,000,000,000 shares authorized; 105,153,208 and 98,075,465 shares issued and outstanding as of June 30, 2021 and December 31, 2020 respectively	1	1
Class B common stock, $0.00001 par value; 450,000,000 shares authorized; 96,933,192 and 96,933,192 shares issued and outstanding as of June 30, 2021 and December 31, 2020 respectively	1	1
Class C common stock, $0.00001 par value; 350,000,000 shares authorized; 1,654,825 and 3,139,821 shares issued and outstanding as of June 30, 2021 and December 31, 2020 respectively	—	—
Class D common stock, $0.00001 par value; 300,000,000 shares authorized; 28,877,108 and 30,871,381 shares issued and outstanding as of June 30, 2021 and December 31, 2020 respectively	—	—
Additional paid-in capital	4,347,884	4,143,094
Accumulated other comprehensive income (loss)	4,714	4,314
Retained earnings	195,368	156,041
Total stockholders' equity attributable to Tradeweb Markets Inc.	4,547,968	4,303,451
Non-controlling interests	650,360	715,712
Total equity	5,198,328	5,019,163
Total liabilities and equity	$ 5,864,890	$ 5,679,850

The accompanying notes are an integral part of these condensed consolidated financial statements.

Tradeweb Markets Inc. and Subsidiaries
Condensed Consolidated Statements of Income
(in thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	**2020**	**2021**	**2020**
Revenues				
Transaction fees and commissions	$ 205,381	$ 160,261	$ 423,197	$ 343,578
Subscription fees	37,883	35,006	75,751	69,489
Refinitiv market data fees	14,926	14,565	30,043	29,193
Other	2,650	2,275	5,248	4,453
Total revenue	**260,840**	**212,107**	**534,239**	**446,713**
Expenses				
Employee compensation and benefits	98,449	88,866	202,071	179,386
Depreciation and amortization	41,867	37,919	82,833	75,095
Technology and communications	13,957	12,042	27,501	22,360
General and administrative	8,789	7,523	12,248	15,863
Professional fees	10,368	6,609	20,096	13,520
Occupancy	3,618	3,509	7,371	7,235
Total expenses	177,048	156,468	352,120	313,459
Operating income	**83,792**	**55,639**	**182,119**	**133,254**
Net interest income (expense)	(325)	(286)	(818)	413
Income before taxes	**83,467**	**55,353**	**181,301**	**133,667**
Provision for income taxes	(17,234)	(12,945)	(33,503)	(28,774)
Net income	**66,233**	**42,408**	**147,798**	**104,893**
Less: Net income attributable to non-controlling interests	10,917	11,912	24,623	30,469
Net income attributable to Tradeweb Markets Inc.	**$ 55,316**	**$ 30,496**	**$ 123,175**	**$ 74,424**
Earnings per share attributable to Tradeweb Markets Inc. Class A and B common stockholders:				
Basic	$ 0.27	$ 0.17	$ 0.61	$ 0.43
Diluted	$ 0.27	$ 0.16	$ 0.60	$ 0.41
Weighted average shares outstanding:				
Basic	201,749,985	177,649,501	200,414,714	171,942,125
Diluted	207,463,960	185,489,824	206,253,756	180,008,891

The accompanying notes are an integral part of these condensed consolidated financial statements.

Tradeweb Markets Inc. and Subsidiaries
Condensed Consolidated Statements of Comprehensive Income
(in thousands)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	**2020**	**2021**	**2020**
Net income	$ 66,233	$ 42,408	$ 147,798	$ 104,893
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments, with no tax benefit for each of the three and six months ended June 30, 2021 and 2020	703	(336)	360	(5,120)
Other comprehensive income (loss), net of tax	703	(336)	360	(5,120)
Comprehensive income	66,936	42,072	148,158	99,773
Less: Net income attributable to non-controlling interests	10,917	11,912	24,623	30,469
Less: Foreign currency translation adjustments attributable to non-controlling interests	92	(71)	46	(1,303)
Comprehensive income attributable to Tradeweb Markets Inc.	$ 55,927	$ 30,231	$ 123,489	$ 70,607

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	**2020**	**2021**	**2020**
Comprehensive income - Tradeweb Markets Inc.				
Net income attributable to Tradeweb Markets Inc.	$ 55,316	$ 30,496	$ 123,175	$ 74,424
Other comprehensive income (loss):				
Foreign currency translation adjustments attributable to Tradeweb Markets Inc.	611	(265)	314	(3,817)
Comprehensive income attributable to Tradeweb Markets Inc.	$ 55,927	$ 30,231	$ 123,489	$ 70,607
Comprehensive income - Non-controlling interests				
Net income attributable to non-controlling interests	$ 10,917	$ 11,912	$ 24,623	$ 30,469
Other comprehensive income (loss):				
Foreign currency translation adjustments attributable to non-controlling interests	92	(71)	46	(1,303)
Comprehensive income attributable to non-controlling interests	$ 11,009	$ 11,841	$ 24,669	$ 29,166

The accompanying notes are an integral part of these condensed consolidated financial statements.

Tradeweb Markets Inc. and Subsidiaries
Condensed Consolidated Statements of Changes in Equity
(in thousands, except share and per share amounts)
(Unaudited)

	Tradeweb Markets Inc. Stockholders' Equity												
	Class A Common Stock		Class B Common Stock		Class C Common Stock		Class D Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Non-Controlling Interests	Total Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance at December 31, 2020	98,075,465	$ 1	96,933,192	$ 1	3,139,821	$ —	30,871,381	$ —	$ 4,143,094	$ 4,314	$ 156,041	$ 715,712	$ 5,019,163
Activities related to exchanges of LLC Interests	3,479,269	—	—	—	(1,484,996)	—	(1,994,273)	—	—	—	—	—	—
Tax receivable agreement liability and deferred taxes arising from LLC Interest ownership exchanges	—	—	—	—	—	—	—	—	65,177	—	—	—	65,177
Issuance of common stock from equity incentive plans	3,088,545	—	—	—	—	—	—	—	46,397	—	—	—	46,397
Deferred taxes arising from issuance of common stock from equity incentive plans	—	—	—	—	—	—	—	—	6,417	—	—	—	6,417
Adjustments to non-controlling interests	—	—	—	—	—	—	—	—	80,665	85	—	(80,750)	—
Distributions to non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	(2,504)	(2,504)
Dividends ($0.08 per share)	—	—	—	—	—	—	—	—	—	—	(16,030)	—	(16,030)
Stock-based compensation expense under the PRSU Plan	—	—	—	—	—	—	—	—	5,997	—	—	—	5,997
Stock-based compensation expense under the RSU Plan	—	—	—	—	—	—	—	—	2,523	—	—	—	2,523
Stock-based compensation expense under the Option Plan	—	—	—	—	—	—	—	—	2,240	—	—	—	2,240
Payroll taxes paid for stock-based compensation exercises	—	—	—	—	—	—	—	—	(45,464)	—	—	—	(45,464)
Net income	—	—	—	—	—	—	—	—	—	—	67,859	13,706	81,565
Foreign currency translation adjustments	—	—	—	—	—	—	—	—	—	(297)	—	(46)	(343)
Balance at March 31, 2021	104,643,279	$ 1	96,933,192	$ 1	1,654,825	$ —	28,877,108	$ —	$ 4,307,046	$ 4,102	$ 207,870	$ 646,118	$ 5,165,138
Issuance of common stock from equity incentive plans	1,127,573	—	—	—	—	—	—	—	21,139	—	—	—	21,139
Deferred taxes arising from issuance of common stock from equity incentive plans	—	—	—	—	—	—	—	—	23,281	—	—	—	23,281
Adjustments to non-controlling interests	—	—	—	—	—	—	—	—	4,797	1	—	(4,798)	—
Distributions to non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	(1,969)	(1,969)
Dividends ($0.08 per share)	—	—	—	—	—	—	—	—	—	—	(16,142)	—	(16,142)
Share repurchases pursuant to the Share Repurchase Program	(617,644)	—	—	—	—	—	—	—	—	—	(51,676)	—	(51,676)
Deferred taxes arising from share repurchases	—	—	—	—	—	—	—	—	(12,816)	—	—	—	(12,816)
Stock-based compensation expense under the PRSU Plan	—	—	—	—	—	—	—	—	7,826	—	—	—	7,826
Stock-based compensation expense under the RSU Plan	—	—	—	—	—	—	—	—	3,815	—	—	—	3,815
Stock-based compensation expense under the Option Plan	—	—	—	—	—	—	—	—	766	—	—	—	766
Payroll taxes paid for stock-based compensation exercises	—	—	—	—	—	—	—	—	(7,970)	—	—	—	(7,970)
Net income	—	—	—	—	—	—	—	—	—	—	55,316	10,917	66,233
Foreign currency translation adjustments	—	—	—	—	—	—	—	—	—	611	—	92	703
Balance at June 30, 2021	105,153,208	$ 1	96,933,192	$ 1	1,654,825	$ —	28,877,108	$ —	$ 4,347,884	$ 4,714	$ 195,368	$ 650,360	$ 5,198,328

The accompanying notes are an integral part of these condensed consolidated financial statements.

Tradeweb Markets Inc. and Subsidiaries
Condensed Consolidated Statements of Changes in Equity – (Continued)
(in thousands, except share and per share amounts)
(Unaudited)

	Tradeweb Markets Inc. Stockholders' Equity												
	Class A Common Stock		Class B Common Stock		Class C Common Stock		Class D Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Non-Controlling Interests	Total Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance at December 31, 2019	66,408,328	$ 1	96,933,192	$ 1	8,328,983	$ —	50,853,172	$ 1	$ 3,329,386	$ 1,366	$ 47,833	$ 1,214,157	$ 4,592,745
Activities related to exchanges of LLC Interests, net of offering costs and cancellations	1,920,941	—	—	—	(939,000)	—	(981,941)	(1)	(335)	—	—	—	(336)
Tax receivable agreement liability and deferred taxes arising from LLC Interest ownership exchanges	—	—	—	—	—	—	—	—	32,736	—	—	—	32,736
Issuance of common stock from equity incentive plans	2,341,171	—	—	—	—	—	—	—	35,422	—	—	—	35,422
Adjustments to non-controlling interests	—	—	—	—	—	—	—	—	45,436	7	—	(45,443)	—
Dividends ($0.08 per share)	—	—	—	—	—	—	—	—	—	—	(13,400)	—	(13,400)
Stock-based compensation expense under the PRSU Plan	—	—	—	—	—	—	—	—	5,407	—	—	—	5,407
Stock-based compensation expense under the RSU Plan	—	—	—	—	—	—	—	—	315	—	—	—	315
Stock-based compensation expense under the Option Plan	—	—	—	—	—	—	—	—	2,249	—	—	—	2,249
Payroll taxes paid for stock-based compensation exercises	—	—	—	—	—	—	—	—	(23,991)	—	—	—	(23,991)
Net income	—	—	—	—	—	—	—	—	—	—	43,928	18,557	62,485
Foreign currency translation adjustments	—	—	—	—	—	—	—	—	—	(3,552)	—	(1,232)	(4,784)
Balance at March 31, 2020	70,670,440	$ 1	96,933,192	$ 1	7,389,983	$ —	49,871,231	$ —	$ 3,426,625	$ (2,179)	$ 78,361	$ 1,186,039	$ 4,688,848
Activities related to the follow-on offering and other exchanges of LLC Interests, net of offering costs and cancellations	17,747,968	—	—	—	(2,279,992)	—	(15,467,976)	—	(1,406)	—	—	—	(1,406)
Tax receivable agreement liability and deferred taxes arising from LLC Interest ownership exchanges	—	—	—	—	—	—	—	—	127,846	—	—	—	127,846
Issuance of common stock from equity incentive plans	2,223,700	—	—	—	—	—	—	—	27,197	—	—	—	27,197
Adjustments to non-controlling interests	—	—	—	—	—	—	—	—	379,623	(249)	—	(379,374)	—
Distributions to non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	(3,605)	(3,605)
Dividends ($0.08 per share)	—	—	—	—	—	—	—	—	—	—	(14,483)	—	(14,483)
Stock-based compensation expense under the PRSU Plan	—	—	—	—	—	—	—	—	7,392	—	—	—	7,392
Stock-based compensation expense under the RSU Plan	—	—	—	—	—	—	—	—	1,675	—	—	—	1,675
Stock-based compensation expense under the Option Plan	—	—	—	—	—	—	—	—	1,279	—	—	—	1,279
Payroll taxes paid for stock-based compensation exercises	—	—	—	—	—	—	—	—	(47,672)	—	—	—	(47,672)
Net income	—	—	—	—	—	—	—	—	—	—	30,496	11,912	42,408
Foreign currency translation adjustments	—	—	—	—	—	—	—	—	—	(265)	—	(71)	(336)
Balance at June 30, 2020	90,642,108	$ 1	96,933,192	$ 1	5,109,991	$ —	34,403,255	$ —	$ 3,922,559	$ (2,693)	$ 94,374	$ 814,901	$ 4,829,143

The accompanying notes are an integral part of these condensed consolidated financial statements.

Tradeweb Markets Inc. and Subsidiaries
Condensed Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Six Months Ended June 30, 2021	Six Months Ended June 30, 2020
Cash flows from operating activities		
Net income	$ 147,798	$ 104,893
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	82,833	75,095
Stock-based compensation expense	23,167	18,317
Deferred taxes	28,749	22,208
(Increase) decrease in operating assets:		
Receivable from/payable to brokers and dealers and clearing organizations, net	(709)	64
Deposits with clearing organizations	8,046	(1,323)
Accounts receivable	(33,182)	(11,162)
Receivable from/payable to affiliates, net	(5,630)	2,885
Other assets	(254)	(10,591)
Increase (decrease) in operating liabilities:		
Accrued compensation	(45,320)	(46,143)
Deferred revenue	4,240	3,457
Accounts payable, accrued expenses and other liabilities	(3,817)	6,258
Employee equity compensation payable	(1,915)	595
Net cash provided by operating activities	204,006	164,553
Cash flows from investing activities		
Cash paid for acquisitions, net of cash acquired	(208,857)	—
Purchase of furniture, equipment, software and leasehold improvements	(8,543)	(4,382)
Capitalized software development costs	(16,967)	(14,798)
Net cash used in investing activities	(234,367)	(19,180)
Cash flows from financing activities		
Share repurchases pursuant to the Share Repurchase Program	(51,121)	—
Proceeds from stock-based compensation exercises	67,536	62,619
Proceeds from issuance of Class A common stock in follow-on offering, net of underwriting discounts	—	626,267
Purchase of LLC Interests	—	(626,267)
Offering costs from issuance of Class A common stock in follow-on offering	—	(1,637)
Dividends	(32,172)	(27,883)
Capital distributions to non-controlling interests	(4,473)	(3,605)
Payroll taxes paid for stock-based compensation	(53,434)	(71,663)
Payments on tax receivable agreement liability	(6,849)	—
Net cash used in financing activities	(80,513)	(42,169)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	819	(4,026)
Net increase (decrease) in cash, cash equivalents and restricted cash	(110,055)	99,178
Cash, cash equivalents and restricted cash		
Beginning of period	792,280	461,711
End of period	$ 682,225	$ 560,889
Supplemental disclosure of cash flow information		
Income taxes paid, net of (refunds)	$ (204)	$ 4,970
Non-cash financing activities		
Unsettled share repurchases included in other liabilities	$ 555	$ —
Items arising from LLC Interest ownership changes:		
Establishment of liabilities under tax receivable agreement	$ 27,666	$ 132,136
Deferred tax asset	$ 109,725	$ 292,718

Reconciliation of cash, cash equivalents and restricted cash as shown on the statements of financial condition:	June 30, 2021	December 31, 2020
Cash and cash equivalents	$ 681,225	$ 791,280
Restricted cash	1,000	1,000
Cash, cash equivalents and restricted cash shown in the statement of cash flows	$ 682,225	$ 792,280

The accompanying notes are an integral part of these condensed consolidated financial statements.

Notes to Condensed Consolidated Financial Statements
(Unaudited)

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Tradeweb Markets Inc. and Subsidiaries
Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. Organization

Tradeweb Markets Inc. (the “Corporation”) was incorporated as a Delaware corporation on November 7, 2018 to carry on the business of Tradeweb Markets LLC (“TWM LLC”) following the completion of a series of reorganization transactions on April 4, 2019 (the “Reorganization Transactions”), in connection with Tradeweb Markets Inc.'s initial public offering (the “IPO”), which closed on April 8, 2019. Following the Reorganization Transactions, Refinitiv Holdings Limited (unless otherwise stated or the context otherwise requires, together with all of its subsidiaries, “Refinitiv”) owned an indirect majority ownership interest in the Company (as defined below).

On January 29, 2021, London Stock Exchange Group plc (“LSEG”) completed its acquisition of Refinitiv from a consortium, including certain investment funds affiliated with The Blackstone Group Inc. (f/k/a The Blackstone Group L.P.) (“Blackstone”) as well as Thomson Reuters Corporation (“TR”), in an all share transaction (the “LSEG Transaction”).

In connection with the LSEG Transaction, the Corporation became a consolidating subsidiary of LSEG. Prior to the LSEG Transaction, the Corporation was a consolidating subsidiary of BCP York Holdings, (“BCP”), a company owned by certain investment funds affiliated with Blackstone, through BCP’s previous majority ownership interest in Refinitiv.

The Corporation is a holding company whose principal asset is LLC Interests (as defined below) of TWM LLC. As the sole manager of TWM LLC, the Corporation operates and controls all of the business and affairs of TWM LLC and, through TWM LLC and its subsidiaries, conducts the Corporation’s business. As a result of this control, and because the Corporation has a substantial financial interest in TWM LLC, the Corporation consolidates the financial results of TWM LLC and reports a non-controlling interest in the Corporation’s condensed consolidated financial statements. As of June 30, 2021, Tradeweb Markets Inc. owns 86.9% of TWM LLC and the non-controlling interest holders own the remaining 13.1% of TWM LLC. As of December 31, 2020, Tradeweb Markets Inc. owned 85.1% of TWM LLC and the non-controlling interest holders owned the remaining 14.9% of TWM LLC.

Unless the context otherwise requires, references to the “Company” refer to Tradeweb Markets Inc. and its consolidated subsidiaries, including TWM LLC, following the completion of the Reorganization Transactions, and TWM LLC and its consolidated subsidiaries prior to the completion of the Reorganization Transactions.

The Company is a leader in building and operating electronic marketplaces for a global network of clients across the institutional, wholesale and retail client sectors. The Company’s principal subsidiaries include:

- Tradeweb LLC (“TWL”), a registered broker-dealer under the Securities Exchange Act of 1934, a member of the Financial Industry Regulatory Authority (“FINRA”), a registered independent introducing broker with the Commodities Future Trading Commission (“CFTC”) and a member of the National Futures Association (“NFA”).
- Dealerweb Inc. (“DW”) (formerly known as Hilliard Farber & Co., Inc.), a registered broker-dealer under the Securities Exchange Act of 1934 and a member of FINRA. DW is also registered as an introducing broker with the CFTC and NFA.
- Tradeweb Direct LLC (“TWD”) (formerly known as BondDesk Trading LLC), a registered broker-dealer under the Securities Exchange Act of 1934 and a member of FINRA.
- Execution Access, LLC, (“EA”), acquired in June 2021, a registered broker-dealer under the Securities Exchange Act of 1934 and a member of FINRA.
- Tradeweb Europe Limited (“TEL”), a Multilateral Trading Facility regulated by the Financial Conduct Authority (the “FCA”) in the UK, which maintains branches in Asia which are regulated by certain Asian securities regulators.
- TW SEF LLC (“TW SEF”), a Swap Execution Facility (“SEF”) regulated by the CFTC.
- DW SEF LLC (“DW SEF”), a SEF regulated by the CFTC.

- Tradeweb Japan K.K. ("TWJ"), a security house regulated by the Japanese Financial Services Agency ("JFSA") and the Japan Securities Dealers Association ("JSDA").

- Tradeweb EU B.V. ("TWEU"), a Trading Venue and Approved Publication Arrangement regulated by the Netherlands Authority for the Financial Markets ("AFM").

- Tradeweb Execution Services Limited ("TESL"), a Banks, Building Societies and Investment Firm ("BIPRU Firm") regulated by the FCA in the UK.

On February 2, 2021, the Company announced that it entered into a definitive agreement to acquire Nasdaq's U.S. fixed income electronic trading platform. The acquired Nasdaq platform (formerly known as eSpeed) is a fully executable central order limit book (CLOB) for electronic trading in on-the-run (OTR) U.S. government bonds. The $190.0 million, all-cash transaction closed on June 25, 2021 (the "NFI Acquisition"). See Note 4 – Acquisitions for additional details on this acquisition.

A majority interest of Refinitiv (formerly the Thomson Reuters Financial & Risk Business) was acquired by BCP on October 1, 2018 (the "Refinitiv Transaction") from TR. The Refinitiv Transaction resulted in a new basis of accounting for certain of the Company's assets and liabilities beginning on October 1, 2018. See Note 2 – Significant Accounting Policies for a description of pushdown accounting applied as a result of the Refinitiv Transaction.

In connection with the Reorganization Transactions, TWM LLC's limited liability company agreement (the "TWM LLC Agreement") was amended and restated to, among other things, (i) provide for a new single class of common membership interests in TWM LLC (the "LLC Interests"), (ii) exchange all of the then existing membership interests in TWM LLC for LLC Interests and (iii) appoint the Corporation as the sole manager of TWM LLC. As used herein, references to "Continuing LLC Owners" refer collectively to (i) those "Original LLC Owners", including an indirect subsidiary of Refinitiv, certain investment and commercial banks (collectively, the "Bank Stockholders") and members of management, that continued to own LLC Interests after the completion of the IPO and Reorganization Transactions, that received shares of Class C common stock, par value $0.00001 per share, of the Corporation (the "Class C common stock"), shares of Class D common stock, par value $0.00001 per share, of the Corporation (the "Class D common stock") or a combination of both, as the case may be, in connection with the completion of the Reorganization Transactions, and that may redeem or exchange their LLC Interests for shares of Class A common stock, par value $0.00001 per share, of the Corporation (the "Class A common stock") or Class B common stock, par value $0.00001 per share, of the Corporation (the "Class B common stock") and (ii) solely with respect to the Tax Receivable Agreement (as defined in Note 7 – Tax Receivable Agreement), also includes those Original LLC Owners, including certain Bank Stockholders, that disposed of all of their LLC Interests for cash in connection with the IPO.

As of June 30, 2021:

- The public investors collectively owned 105,153,208 shares of Class A common stock, representing 7.7% of the combined voting power of Tradeweb Markets Inc.'s issued and outstanding common stock and indirectly, through Tradeweb Markets Inc., owned 45.2% of the economic interest in TWM LLC;

- Refinitiv collectively owned 96,933,192 shares of Class B common stock and 22,988,329 shares of Class D common stock, representing 87.9% of the combined voting power of Tradeweb Markets Inc.'s issued and outstanding common stock and directly and indirectly, through Tradeweb Markets Inc., owned 51.6% of the economic interest in TWM LLC; and

- The Bank Stockholders that continue to own LLC Interests collectively owned 1,654,825 shares of Class C common stock and 5,767,435 shares of Class D common stock, representing 4.3% of the combined voting power of Tradeweb Markets Inc.'s issued and outstanding common stock and directly own 3.2% of the economic interest in TWM LLC. As of June 30, 2021, only Barclays Capital Inc. and Credit Suisse Securities (USA) LLC remained as Bank Stockholders.

- Other stockholders that continue to own LLC Interests also collectively owned 121,344 shares of Class D common stock, representing less than 0.1% of the combined voting power of Tradeweb Markets Inc.'s issued and outstanding common stock and directly own less than 0.1% of the economic interest in TWM LLC.

In addition, the Company's diluted earnings per share calculation for the three and six months ended June 30, 2021 includes 5,713,975 and 5,839,042 weighted average shares resulting from the dilutive effect of its equity incentive plans. See Note 14 – Earnings Per Share for additional details.

2. Significant Accounting Policies

The following is a summary of significant accounting policies:

Basis of Presentation

The condensed consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany transactions and balances have been eliminated in consolidation. As discussed in Note 1 – Organization, as a result of the Reorganization Transactions, Tradeweb Markets Inc. consolidates TWM LLC and its subsidiaries and TWM LLC is considered to be the predecessor to Tradeweb Markets Inc. for financial reporting purposes. Tradeweb Markets Inc. had no business transactions or activities and no substantial assets or liabilities prior to the Reorganization Transactions. The condensed consolidated financial statements represent the financial condition and results of operations of the Company and report a non-controlling interest related to the LLC Interests held by the Continuing LLC Owners.

These condensed consolidated financial statements are unaudited and should be read in conjunction with the audited consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020. The consolidated financial information as of December 31, 2020 has been derived from audited financial statements not included herein. These unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and the rules and regulations of the U.S. Securities and Exchange Commission ("SEC") with respect to interim financial reporting and Form 10-Q. In accordance with such rules and regulations, certain disclosures that are normally included in annual financial statements have been omitted. These unaudited condensed consolidated financial statements reflect all normal and recurring adjustments that are, in the opinion of management, necessary for a fair statement of the results for the interim periods presented. Operating results for interim periods are not necessarily indicative of the results that may be expected for the full year.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 date of the condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and the difference may be material to the condensed consolidated financial statements.

Reclassifications

Certain reclassifications have been made to prior periods' financial information to conform to the current year presentation. This primarily includes an aggregation of transaction fees and commissions into a single revenue category titled "transaction fees and commissions" for all periods presented in condensed consolidated income statements. These reclassifications had no impact on total consolidated revenue or consolidated net income.

Business Combinations

Business combinations are accounted for under the purchase method of accounting pursuant to Accounting Standards Codification ("ASC") 805, *Business Combinations* ("ASC 805"). The total cost of an acquisition is allocated to the underlying net assets based on their respective estimated fair values. The excess of the purchase price over the estimated fair values of the net assets acquired is recorded as goodwill. The fair value of assets acquired and liabilities assumed is determined based on assumptions that reasonable market participants would use in the principal (or most advantageous) market for the asset or liability. Determining the fair value of certain assets acquired and liabilities assumed is judgmental in nature and often involves the use of significant estimates and assumptions, including assumptions with respect to future cash flows, discount rates, growth rates, customer attrition rates and asset lives.

Pushdown Accounting

In connection with the Refinitiv Transaction, a majority interest of Refinitiv (formerly the Thomson Reuters Financial & Risk Business) was acquired by BCP on October 1, 2018 from TR. The Refinitiv Transaction was accounted for by Refinitiv in accordance with the acquisition method of accounting pursuant to ASC 805, and pushdown accounting was applied to Refinitiv to record the fair value of the assets and liabilities of Refinitiv as of October 1, 2018, the date of the Refinitiv Transaction. The Company, as a consolidating subsidiary of Refinitiv, also accounted for the Refinitiv Transaction using pushdown accounting which resulted in a new fair value basis of accounting for certain of the Company's assets and liabilities beginning on October 1, 2018. Under the pushdown accounting applied, the excess of the fair value of the Company above the fair value accounting basis of the net assets and liabilities of the Company as of October 1, 2018 was recorded as goodwill. The fair value of assets acquired and liabilities assumed was determined based on assumptions that reasonable market participants would use in the principal (or most advantageous) market for the asset or liability. The adjusted valuations primarily affected the values of the Company's long-lived and indefinite-lived intangible assets, including software development costs.

Cash and Cash Equivalents

Cash and cash equivalents consists of cash and highly liquid investments (such as short-term money market instruments) with original maturities at the time of purchase of three months or less.

Allowance for Credit Losses

The Company continually monitors collections and payments from its clients and maintains an allowance for credit losses. The allowance for credit losses is based on an estimate of the amount of potential credit losses in existing accounts receivable, as determined from a review of aging schedules, past due balances, historical collection experience and other specific account data. Careful analysis of the financial condition of our counterparties is also performed. Once determined uncollectible, aged balances are written off as credit loss expense, which is included in general and administrative expenses on the condensed consolidated statements of income. See Note 12 – Credit Risk for additional information.

Receivable from and Payable to Brokers and Dealers and Clearing Organizations

Receivable from and payable to brokers and dealers and clearing organizations consists of proceeds from transactions executed on the Company's wholesale platform which failed to settle due to the inability of a transaction party to deliver or receive the transacted security. These securities transactions are generally collateralized by those securities. Until the failed transaction settles, a receivable from (and a matching payable to) brokers and dealers and clearing organizations is recognized for the proceeds from the unsettled transaction.

Deposits with Clearing Organizations

Deposits with clearing organizations are comprised of cash deposits.

Furniture, Equipment, Purchased Software and Leasehold Improvements

Furniture, equipment, purchased software and leasehold improvements are carried at cost less accumulated depreciation. Depreciation for furniture, equipment and purchased software is computed on a straight-line basis over the estimated useful lives of the related assets, ranging from three to seven years. Leasehold improvements are amortized over the lesser of the estimated useful lives of the leasehold improvements or the remaining term of the lease for office space.

Furniture, equipment, purchased software and leasehold improvements are tested for impairment whenever events or changes in circumstances suggest that an asset's carrying value may not be fully recoverable in accordance with ASC 360, *Property, Plant and Equipment ("ASC 360").*

As of June 30, 2021 and December 31, 2020, accumulated depreciation related to furniture, equipment, purchased software and leasehold improvements totaled $46.5 million and $35.4 million, respectively. Depreciation expense for furniture, equipment, purchased software and leasehold improvements was $5.7 million and $4.4 million for the three months ended June 30, 2021 and 2020, respectively, and $11.1 million and $8.7 million for the six months ended June 30, 2021 and 2020, respectively.

Software Development Costs

The Company capitalizes costs associated with the development of internal use software at the point at which the conceptual formulation, design and testing of possible software project alternatives have been completed, in accordance with ASC 350, *Intangibles – Goodwill and Other ("ASC 350").* The Company capitalizes employee compensation and related benefits and third party consulting costs incurred during the application development stage which directly contribute to such development. Such costs are amortized on a straight-line basis over three years. Software development costs capitalized as part of the NFI Acquisition are amortized over one year. Costs capitalized as part of the Refinitiv Transaction pushdown accounting allocation are amortized over nine years. The Company reviews the amounts capitalized for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be fully recoverable, or that their useful lives are shorter than originally expected. Non-capitalized software costs and routine maintenance costs are expensed as incurred.

As of June 30, 2021 and December 31, 2020, accumulated amortization related to software development costs totaled $89.4 million and $67.4 million, respectively. Amortization expense for software development costs was $11.3 million and $8.7 million for the three months ended June 30, 2021 and 2020, respectively, and $22.0 million and $16.7 million for the six months ended June 30, 2021 and 2020, respectively.

Goodwill

Goodwill includes the excess of the fair value of the Company above the fair value accounting basis of the net assets and liabilities of the Company as previously applied under pushdown accounting in connection with the Refinitiv Transaction. Goodwill also includes the cost of acquired companies in excess of the fair value of identifiable net assets at the acquisition date, including the NFI Acquisition. Goodwill is not amortized, but in accordance with ASC 350, goodwill is tested for impairment annually on October 1st and between annual tests, whenever events or changes in circumstances indicate that the carrying amount may not be fully recoverable. Goodwill is tested at the reporting unit level, which is defined as an operating segment or one level below the operating segment. An impairment loss is recognized if the estimated fair value of a reporting unit is less than its net book value. Such loss is calculated as the difference between the estimated fair value of goodwill and its carrying value.

Goodwill was last assessed on October 1, 2020 and no impairment of goodwill was identified.

Intangible Assets

Intangible assets with a finite life are amortized over the estimated lives, ranging from seven to thirteen years, in accordance with ASC 350. Intangible assets subject to amortization are tested for impairment whenever events or changes in circumstances suggest that an asset's or asset group's carrying value may not be fully recoverable in accordance with ASC 360. Intangible assets with an indefinite useful life are tested for impairment at least annually. An impairment loss is recognized if the sum of the estimated discounted cash flows relating to the asset or asset group is less than the corresponding book value.

As of June 30, 2021 and December 31, 2020, accumulated amortization related to intangible assets totaled $273.4 million and $223.7 million, respectively. Amortization expense for definite-lived intangible assets was $24.9 million for each of the three months ended June 30, 2021 and 2020, and $49.7 million for each of the six months ended June 30, 2021 and 2020.

Equity Investments Without Readily Determinable Fair Values

Equity Investments without a readily determinable fair value are measured at cost, less impairment, plus or minus observable price changes (in orderly transactions) of an identical or similar investment of the same issuer. If the Company determines that the equity investment is impaired on the basis of a qualitative assessment, the Company will recognize an impairment loss equal to the amount by which the investment’s carrying amount exceeds its fair value. Equity investments are included as a component of other assets on the condensed consolidated statements of financial condition.

Leases

The Company has operating leases for corporate offices and data centers with initial lease terms ranging from one to 10 years. A right-of-use asset and a lease liability are recognized for all leases with an initial term in excess of twelve months. Significant assumptions and judgements in calculating the right-of-use assets and lease liability include the determination of the applicable borrowing rate for each lease. The Company includes the term covered by an option to extend a lease when the option is reasonably certain to be exercised. The asset reflects the present value of unpaid lease payments coupled with initial direct costs, prepaid lease payments and lease incentives. The amount of the lease liability is calculated as the present value of unpaid lease payments. The Company adopted Accounting Standards Update ("ASU") 2016-2, *Leases (Topic 842)* on January 1, 2019 using the modified retrospective method of adoption and elected to take the optional package of practical expedients, which allowed for no reassessment of:

i. whether any expired or existing contracts are or contain leases,
ii. the lease classification for any expired or existing leases, and
iii. initial direct costs for any existing leases.

Deferred IPO and Follow-On Offering Costs

Deferred IPO and follow-on offering costs consist of legal, accounting, and other costs directly related to the Company's efforts to raise capital. In accordance with ASC 505-10-25, *Equity*, these costs are recognized as a reduction in additional paid-in capital within the condensed consolidated statements of financial condition when the offering is effective. As of both June 30, 2021 and December 31, 2020, $15.9 million of deferred costs related to the IPO and $5.2 million of deferred costs related to follow-on offerings were included as a component of the additional paid-in capital balance in the condensed consolidated statements of financial condition. No offering costs were incurred during the three and six months ended June 30, 2021.

Translation of Foreign Currency and Foreign Currency Forward Contracts

Revenues and expenses denominated in foreign currencies are translated at the rate of exchange prevailing at the transaction date. Assets and liabilities denominated in foreign currencies are translated at the rate prevailing at the condensed consolidated statements of financial condition date. Foreign currency re-measurement gains or losses on transactions in nonfunctional currencies are recognized in the condensed consolidated statements of income within general and administrative expenses. The realized and unrealized losses totaled $0.1 million during both the three months ended June 30, 2021 and 2020, respectively, and realized and unrealized gains/losses totaled a $1.9 million loss and a $1.4 million gain during the six months ended June 30, 2021 and 2020, respectively. Gains or losses on translation in the financial statements of a non-U.S. operation, when the functional currency is other than the U.S. dollar, are included as a component of other comprehensive income.

The Company enters into foreign currency forward contracts to mitigate its U.S. dollar and British pound sterling versus Euro exposure, generally with a duration of less than twelve months. The Company's foreign currency forward contracts are not designated as hedges for accounting purposes and changes in the fair value of these contracts during the period are recognized in the condensed consolidated statements of income within general and administrative expenses. The Company does not use derivative instruments for trading or speculative purposes. Realized and unrealized losses on foreign currency forward contracts totaled $0.7 million and $2.4 million during the three months ended June 30, 2021 and 2020, respectively, and realized and unrealized gains/losses on foreign currency forward contracts totaled a $5.0 million gain and a $3.0 million loss during the six months ended June 30, 2021 and 2020, respectively. See Note 11 – Fair Value of Financial Instruments for additional details on the Company's derivative instruments.

Income Tax

The Corporation is subject to U.S. federal, state and local income taxes with respect to its taxable income, including its allocable share of any taxable income of TWM LLC, and is taxed at prevailing corporate tax rates. TWM LLC is a multiple member limited liability company taxed as a partnership and accordingly any taxable income generated by TWM LLC is passed through to and included in the taxable income of its members, including the Corporation. Income taxes also include unincorporated business taxes on income earned or losses incurred for conducting business in certain state and local jurisdictions, income taxes on income earned or losses incurred in foreign jurisdictions on certain operations and federal and state income taxes on income earned or losses incurred, both current and deferred, on subsidiaries that are taxed as corporations for U.S. tax purposes.

The Company records deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities. The Company measures deferred taxes using the enacted tax rates and laws that will be in effect when such temporary differences are expected to reverse. The Company evaluates the need for valuation allowances based on the weight of positive and negative evidence. The Company records valuation allowances wherever management believes it is more likely than not that the Company will not be able to realize its deferred tax assets in the future.

The Company records uncertain tax positions in accordance with ASC 740, *Income Taxes*, on the basis of a two-step process whereby (i) the Company determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (ii) for those tax positions that meet the more-likely-than-not recognition threshold, the Company recognizes the amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

The Company recognizes interest and penalties related to income taxes within the provision for income taxes in the condensed consolidated statements of income. Accrued interest and penalties are included within accounts payable, accrued expenses and other liabilities in the condensed consolidated statements of financial condition.

The Company has elected to treat taxes due on future U.S. inclusions in taxable income under the global intangible low-taxed income ("GILTI") provision of the Tax Cuts and Jobs Act as a current period expense when incurred.

Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with ASC 718, *Compensation – Stock Compensation* ("ASC 718"*)*. ASC 718 focuses primarily on accounting for a transaction in which an entity obtains employee services in exchange for stock-based payments. Under ASC 718, the stock-based payments received by the employees of the Company are accounted for either as equity awards or as liability awards.

As an equity award, the Company measures and recognizes the cost of employee services received in exchange for awards of equity instruments based on their estimated fair values measured as of the grant date. These costs are recognized as an expense over the requisite service period, with an offsetting increase to additional paid-in capital.

As a liability award, the cost of employee services received in exchange for an award of equity instruments is generally measured based on the grant-date fair value of the award. The fair value of that award is remeasured subsequently at each reporting date through the settlement. Changes in the equity instrument's fair value during the requisite service period are recognized as compensation cost over that period.

For periods following the Reorganization Transactions and the IPO, the fair value of new equity instrument grants is determined based on the price of the Class A common stock on the grant date.

Under ASC 718, the grant-date fair value of stock-based awards that do not require future service (i.e., vested awards) are expensed immediately. The grant-date fair value of stock-based awards that require future service, and are graded-vesting awards, are amortized over the relevant service period on a straight-line basis, with each tranche separately measured. The grant-date fair value of stock-based awards that require both future service and the achievement of Company performance-based conditions, are amortized over the relevant service period for the performance-based condition. If in a reporting period it is determined that the achievement of a performance target for a performance-based tranche is not probable, then no expense is recognized for that tranche and any expenses already recognized relating to that tranche in prior reporting periods are reversed in the current reporting period.

Prior to the IPO, the Company awarded options to management and other employees (collectively, the "Special Option Award") under the Amended and Restated Tradeweb Markets Inc. Option Plan (the "Option Plan"). In accounting for the options issued under the Option Plan, compensation expense is measured and recognized for all awards based on their estimated fair values measured as of the grant date. Costs related to these options are recognized as an expense in the condensed consolidated statements of income over the requisite service period, with an offsetting increase to additional paid-in capital. The non-cash stock-based compensation expense associated with the Special Option Award began being expensed in the second quarter of 2019.

Determining the appropriate fair value model and calculating the fair value of the stock-based awards requires the input of highly subjective assumptions, including the expected life of the stock-based awards and the stock price volatility. The Company uses the Black-Scholes pricing model to value some of its stock-based awards.

Earnings Per Share

Basic earnings per share is computed by dividing the net income attributable to the Company's shares by the weighted-average number of the Company's shares outstanding during the period. For purposes of computing diluted earnings per share, the weighted-average number of the Company's shares reflects the dilutive effect that could occur if securities that qualify as participating securities were converted into or exchanged or exercised for TWM LLC's shares, in the pre-IPO period, and the Class A or Class B common stock, in the post-IPO period, using the treasury stock method, as applicable.

Shares of Class C and Class D common stock do not have economic rights in Tradeweb Markets Inc. and, therefore, are not included in the calculation of basic earnings per share.

Fair Value Measurement

The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (the exit price). Instruments that the Company owns (long positions) are marked to bid prices, and instruments that the Company has sold, but not yet purchased (short positions) are marked to offer prices. Fair value measurements do not include transaction costs.

The fair value hierarchy under ASC 820, *Fair Value Measurement* ("ASC 820"), prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy under ASC 820 are described below.

Basis of Fair Value Measurement

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

- Level 2: Quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly;

- Level 3: Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

3. Restricted Cash

Cash has been segregated in a special reserve bank account for the benefit of brokers and dealers under SEC Rule 15c3-3. The Company computes the proprietary accounts of other broker-dealers ("PAB") reserve, which requires the Company to maintain minimum segregated cash in the amount of total credits per the reserve computation. As of both June 30, 2021 and December 31, 2020, cash in the amount of $1.0 million has been segregated in the PAB reserve account exceeding the requirements pursuant to SEC Rule 15c3-3.

4. Acquisitions

On June 25, 2021, the Company completed its acquisition of all of the outstanding equity interests of Execution Access, LLC, Kleos Managed Services Holdings, LLC and Kleos Managed Services, L.P., which collectively represented the NFI Acquisition. The all-cash purchase price of $190.0 million is net of cash acquired, net of deposits with clearing organizations acquired and prior to working capital adjustments. Preliminary working capital adjustments resulted in a $0.7 million increase to the purchase price. Working capital adjustments will be finalized within 90 days of closing.

Execution Access, LLC is a limited liability company organized in the state of Delaware and is a broker-dealer registered with the SEC and FINRA. The platform (formerly known as eSpeed) acquired from Nasdaq is a fully executable central order limit book (CLOB) for electronic trading in on-the-run (OTR) U.S. government bonds.

The acquisition was accounted for as a business combination and the Company utilized the assistance of a third-party valuation specialist to determine the fair value of the assets acquired and liabilities assumed at the date of acquisition. The fair values were determined based on assumptions that reasonable market participants would use in the principal (or most advantageous) market and primarily included significant unobservable inputs (Level 3). Customer relationships were valued using the income approach, specifically a multi-period excess earnings method. The excess earnings method examines the economic returns contributed by the identified tangible and intangible assets of a company, and then examines the excess return that is attributable to the intangible asset being valued. The discount rate used reflects the amount of risk associated with the hypothetical cash flows for the customer relationships relative to the overall business. In developing a discount rate for the customer relationships, the Company estimated a weighted-average cost of capital for the overall business and employed an intangible asset risk premium to this rate when discounting the excess earnings related to customer relationships. The resulting discounted cash flows were then tax-affected at the applicable statutory rate. A discounted tax amortization benefit was also added to the fair value of the assets under the assumption that the customer relationships would be amortized for tax purposes over a period of 15 years.

The preliminary purchase price was allocated as follows:

	Purchase Price Allocation
	(in thousands)
Cash and cash equivalents	$ 33,806
Deposits with clearing organizations	18,147
Accounts receivable	2,779
Equipment	1,498
Software development costs	820
Goodwill	87,981
Intangible assets – customer relationships	99,236
Other assets	897
Accrued compensation	(1,289)
Deferred revenue	(620)
Accounts payable, accrued expenses and other liabilities	(592)
Total	242,663
Less: Cash acquired	(33,806)
Less: Deposits with clearing organizations acquired	(18,147)
Less: Preliminary working capital adjustments	(710)
Purchase price, net of cash and deposits acquired and excluding working capital adjustments	**$ 190,000**

The primary areas of the preliminary purchase price allocation that are not yet finalized as of June 30, 2021, relate primarily to the valuation of the identifiable intangible assets and software and final working capital adjustments. The allocation of the purchase price will be finalized upon completion of the analysis of the acquired assets within one year of the date of acquisition.

The acquired software development costs will be amortized over a useful life of one year and the customer relationships will be amortized over a useful life of 13 years. The goodwill recognized in connection with the NFI Acquisition is primarily attributable to the acquisition of an assembled workforce and expected synergies from the integration of the operations of the NFI Acquisition into the Company's operations and its single business segment. All of the goodwill recognized in connection with the NFI Acquisition is expected to be deductible for income tax purposes.

During the three and six months ended June 30, 2021, the Company recognized $3.0 million and $4.7 million, respectively, in transaction costs incurred to effect the NFI Acquisition, which are included as a component of professional fees in the accompanying condensed consolidated statements of income.

The NFI Acquisition was not material to the Company's condensed consolidated financial statements and therefore pro forma results of this acquisition have not been presented.

5. Revenue

Revenue Recognition

The Company earns transaction fees from transactions executed on the Company’s trading platforms through various fee plans. Transaction fees are generated both on a variable and fixed price basis and vary by geographic region, product type and trade size. For variable transaction fees, the Company charges clients fees based on the mix of products traded and the volume of transactions executed. Transaction fee revenue is recognized and recorded on a trade-date basis and is generally billed monthly.

The Company earns commission revenue from its electronic and voice brokerage services on a riskless principal basis. Riskless principal revenues are derived on matched principal transactions where revenues are earned on the spread between the buy and sell price of the transacted product. Securities transactions and related commission income for brokerage transactions are recognized and recorded on a trade-date basis. Commission revenue is collected by the Company when the trade settles or is billed monthly.

The Company earns subscription fees from granting access to institutional investors to the Company's electronic marketplaces. Subscription fees are recognized into income in the period that access is provided on a monthly basis. Also included in subscription fees are viewer fees earned monthly from institutional investors accessing fixed income market data. The frequency of subscription fee billings varies from monthly to annually, depending on contract terms. Fees received by the Company which are not yet earned are included in deferred revenue on the condensed consolidated statements of financial condition until the revenue recognition criteria has been met.

The Company earns fees from Refinitiv relating to the sale of market data to Refinitiv, which redistributes that data. Included in these fees, which are billed quarterly, are real-time market data fees which are recognized in the period that the data is provided, generally on a monthly basis, and historical data sets which are recognized when the historical data set is provided to Refinitiv. Significant judgements used in accounting for this contract include:

- The provision of real-time market data feeds and annual historical data sets are distinct performance obligations.
- The performance obligations under this contract are recognized over time from the initial delivery of the data feeds or each historical data set until the end of the contract term.
- Determining the transaction price for the performance obligations by using a market assessment analysis. Inputs in this analysis include a consultant study which determined the overall value of the Company's market data and pricing information for historical data sets provided by other companies.

Some revenues earned by the Company have fixed fee components, such as monthly minimums or fixed monthly fees, and variable components, such as transaction based fees. The breakdown of revenues between fixed and variable revenues for the three and six months ended June 30, 2021 and 2020 is as follows:

	Three Months Ended June 30, 2021 (in thousands)		Three Months Ended June 30, 2020 (in thousands)	
	Variable	**Fixed**	**Variable**	**Fixed**
Revenues				
Transaction fees and commissions	$ 166,655	$ 38,726	$ 124,530	$ 35,731
Subscription fees [(1)]	460	52,349	415	49,156
Other	217	2,433	237	2,038
Total revenue	$ 167,332	$ 93,508	$ 125,182	$ 86,925

(1) Subscription fees for the three months ended June 30, 2021 and 2020 include $14.9 million and $14.6 million, respectively, of Refinitiv market data fees.

	Six Months Ended June 30, 2021 (in thousands)		Six Months Ended June 30, 2020 (in thousands)	
	Variable	**Fixed**	**Variable**	**Fixed**
Revenues				
Transaction fees and commissions	$ 346,322	$ 76,875	$ 272,308	$ 71,270
Subscription fees [(1)]	922	104,872	880	97,802
Other	430	4,818	347	4,106
Total revenue	$ 347,674	$ 186,565	$ 273,535	$ 173,178

(1) Subscription fees for the six months ended June 30, 2021 and 2020 include $30.0 million and $29.2 million respectively, of Refinitiv market data fees.

Deferred Revenue

The Company records deferred revenue when cash payments are received or due in advance of services to be performed. The recognized revenue and remaining balance is shown below:

		Amount
		(in thousands)
Deferred revenue balance - December 31, 2020	$	23,193
New billings		59,970
Revenue recognized		(55,731)
Deferred revenue acquired in connection with the NFI Acquisition		620
Deferred revenue balance - June 30, 2021	$	28,052

During the six months ended June 30, 2021, the Company recognized $20.0 million in total revenue that was deferred as of December 31, 2020. During the six months ended June 30, 2020, the Company recognized $20.2 million in total revenue that was deferred as of December 31, 2019.

6. Income Taxes

The Company's provision for income taxes includes U.S. federal, state, local and foreign taxes. The Company's effective tax rate for the three months ended June 30, 2021 and 2020 was approximately 20.6% and 23.4%, respectively. The Company's effective tax rate for the six months ended June 30, 2021 and 2020 was approximately 18.5% and 21.5%, respectively.

The effective tax rate for the three and six months ended June 30, 2021 and 2020 differed from the U.S. federal statutory rate of 21.0% primarily due to the effect of non-controlling interests and the tax impact of the issuance of common stock from equity incentive plans, partially offset by state, local and foreign taxes.

As a result of the Reorganization Transactions, the Corporation is subject to U.S. federal, state and local income taxes with respect to its taxable income, including its allocable share of any taxable income of TWM LLC, and is taxed at prevailing corporate tax rates. The Company's actual effective tax rate will be impacted by the Corporation's ownership share of TWM LLC, which will increase over time primarily as the Continuing LLC Owners redeem or exchange their LLC Interests for shares of Class A common stock or Class B common stock, as applicable, or the Corporation purchases LLC Interests from the Continuing LLC Owners.

The Company's consolidated effective tax rate will vary from period to period depending on redemptions, exchanges or purchases of LLC Interests as described above, changes in the geographic mix of its earnings and changes in tax legislation and tax rates in various jurisdictions.

The Company expects to obtain an increase in its share of the tax basis of the assets of TWM LLC when LLC Interests are redeemed or exchanged by the Continuing LLC Owners and in connection with certain other qualifying transactions. This increase in tax basis may have the effect of reducing the amounts that the Corporation would otherwise pay in the future to various tax authorities. Pursuant to the Tax Receivable Agreement, the Corporation is required to make cash payments to the Continuing LLC Owners equal to 50% of the amount of U.S. federal, state and local income or franchise tax savings, if any, that the Corporation actually realizes (or in some circumstances are deemed to realize) as a result of certain future tax benefits to which we may become entitled. The Corporation expects to benefit from the remaining 50% of tax benefits, if any, that the Corporation may actually realize. See Note 7 – Tax Receivable Agreement. The tax benefit has been recognized in deferred tax assets on the June 30, 2021 condensed consolidated statement of financial condition.

As a result of the Refinitiv Contribution, the Company assumed the tax liabilities of the contributed entity. The contributed entity is under audit by the State of New Jersey for the tax years 2012 – 2015 and is appealing a tax assessment from an audit by the State of New Jersey for the tax years 2008 – 2011. As of both June 30, 2021 and December 31, 2020, the tax liability related to the Refinitiv Contribution was $2.7 million and is included within accounts payable, accrued expenses and other liabilities on the condensed consolidated statement of financial condition. The Company is indemnified by Refinitiv for tax liabilities that were assumed by the Company as a result of the Refinitiv Contribution. As of both June 30, 2021 and December 31, 2020, $2.7 million is included in other assets on the condensed consolidated statement of financial condition related to this related party indemnification.

7. Tax Receivable Agreement

In connection with the Reorganization Transactions, the Corporation entered into a tax receivable agreement (the "Tax Receivable Agreement") with TWM LLC and the Continuing LLC Owners, which provides for the payment by the Corporation to a Continuing LLC Owner of 50% of the amount of U.S. federal, state and local income or franchise tax savings, if any, that the Corporation actually realizes (or in some circumstances is deemed to realize) as a result of (i) increases in the tax basis of TWM LLC's assets resulting from (a) the purchase of LLC Interests from such Continuing LLC Owner, including with the net proceeds from the IPO and any subsequent offerings or (b) redemptions or exchanges by such Continuing LLC Owner of LLC Interests for shares of Class A common stock or Class B common stock or for cash, as applicable, and (ii) certain other tax benefits related to the Corporation making payments under the Tax Receivable Agreement. Payments under the Tax Receivable Agreement are made within 150 days after the filing of the tax return based on the actual tax savings realized by the Corporation. The first payment of the Tax Receivable Agreement was made in January 2021. Substantially all payments due under the tax receivable agreement are payable over the fifteen years following the purchase of LLC Interests from Continuing LLC Owners or redemption or exchanges by Continuing LLC Owners of LLC Interests.

The Corporation accounts for the income tax effects resulting from taxable redemptions or exchanges of LLC Interests by the Continuing LLC Owners for shares of Class A common stock or Class B common stock or cash, as the case may be, and purchases by the Corporation of LLC Interests from the Continuing LLC Owners by recognizing an increase in deferred tax assets, based on enacted tax rates at the date of each redemption, exchange, or purchase, as the case may be. Further, the Corporation evaluates the likelihood that it will realize the benefit represented by the deferred tax asset, and, to the extent that the Corporation estimates that it is more likely than not that it will not realize the benefit, it reduces the carrying amount of the deferred tax asset with a valuation allowance.

The impact of any changes in the projected obligations under the Tax Receivable Agreement as a result of changes in the mix of the Company's earnings, tax legislation and tax rates in various jurisdictions, or other factors that may impact the Corporation's tax savings, are reflected in income before taxes on the condensed consolidated statement of income in the period in which the change occurs. As of June 30, 2021 and December 31, 2020, the Tax Receivable Agreement liability on the condensed consolidated statements of financial condition totaled $425.2 million and $404.3 million, respectively. During the three and six months ended June 30, 2021 and 2020, no Tax Receivable Agreement liability adjustment was reflected in the condensed consolidated statements of income.

8. Non-Controlling Interests

In connection with the Reorganization Transactions, Tradeweb Markets Inc. became the sole manager of TWM LLC and, as a result of this control, and because Tradeweb Markets Inc. has a substantial financial interest in TWM LLC, consolidates the financial results of TWM LLC into its condensed consolidated financial statements. The non-controlling interests balance reported on the condensed consolidated statements of financial condition represents the economic interests of TWM LLC held by the holders of LLC Interests other than Tradeweb Markets Inc. Income or loss is attributed to the non-controlling interests based on the relative ownership percentages of LLC Interests held during the period by Tradeweb Markets Inc. and the other holders of LLC Interests.

The following table summarizes the ownership interest in Tradeweb Markets LLC:

	June 30, 2021		June 30, 2020	
	LLC Interests	Ownership %	LLC Interests	Ownership %
Number of LLC Interests held by Tradeweb Markets Inc.	202,086,400	86.9 %	187,575,300	82.6 %
Number of LLC Interests held by non-controlling interests	30,531,933	13.1 %	39,513,246	17.4 %
Total LLC Interests outstanding	232,618,333	100.0 %	227,088,546	100.0 %

LLC Interests held by the Continuing LLC Owners are redeemable in accordance with the TWM LLC Agreement at the election of the members for shares of Class A common stock or Class B common stock, on a one-for-one basis or, at the Company's option, a cash payment in accordance with the terms of the TWM LLC Agreement.

The following table summarizes the impact on Tradeweb Market Inc.'s equity due to changes in the Corporation's ownership interest in TWM LLC:

Net Income Attributable to Tradeweb Markets Inc. and Transfers (to) from the Non-Controlling Interests	**Three Months Ended June 30, 2021**	**Three Months Ended June 30, 2020**	**Six Months Ended June 30, 2021**	**Six Months Ended June 30, 2020**
	(in thousands)			
Net income attributable to Tradeweb Markets Inc.	$ 55,316	$ 30,496	$ 123,175	$ 74,424
Transfers (to) from non-controlling interests:				
Increase in Tradeweb Markets Inc.'s additional paid-in capital as a result of ownership changes in TWM LLC	4,797	379,623	85,462	425,059
Net transfers (to) from non-controlling interests	4,797	379,623	85,462	425,059
Change from net income attributable to Tradeweb Markets Inc. and transfers (to) from non-controlling interests	$ 60,113	$ 410,119	$ 208,637	$ 499,483

9. Stockholders' Equity and Stock-Based Compensation Plans

The rights and privileges of the Company's stockholders' equity and LLC Interests are described in the audited consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020 and there have been no changes to those rights and privileges during the three months ended June 30, 2021.

April 2020 Follow-On Offering

In the second quarter of 2020, Tradeweb Markets Inc. completed an underwritten follow-on offering of 12,835,245 shares of Class A Common stock at a public offering price of $50.25 per share, which included 1,674,162 shares of Class A common stock issued pursuant to the underwriters' option to purchase additional shares of Class A common stock. Tradeweb Markets Inc. received net proceeds of $626.3 million, after deducting underwriting discounts and commissions but before deducting estimated offering expenses, which were used to purchase (i) 12,238,827 issued and outstanding LLC Interests from certain of the Bank Stockholders and certain of our executive officers (and the corresponding shares of Class C common stock and/or Class D common stock held by such holders were cancelled) and (ii) 596,418 issued and outstanding shares of Class A common stock from certain of our executive officers (which shares of Class A common stock were cancelled), at a purchase price per interest and share equal to the public offering price of $50.25, less the underwriting discounts and commissions payable thereon.

Stock-Based Compensation Plans

Under the Tradeweb Markets Inc. 2019 Omnibus Equity Incentive Plan, the Company is authorized to issue up to 8,841,864 new shares of Class A common stock to employees, officers and non-employee directors. Under this plan, the Company may grant awards in respect of shares of Class A common stock, including performance-based restricted stock units ("PRSUs"), stock options, restricted stock units ("RSUs") and dividend equivalent rights. The awards may have performance-based and/or time-based vesting conditions. Stock options have a maximum contractual term of 10 years.

During the three months ended June 30, 2021, the Company granted 1,315 RSUs at a weighted-average grant-date fair value of $76.00. During the six months ended June 30, 2021, the Company granted 321,175 RSUs and 205,655 PRSUs at a weighted-average grant-date fair value of $74.16 and $74.16, respectively. RSUs and PRSUs each represent promises to issue actual shares of Class A common stock at the end of a vesting period. The RSU awards granted to employees will vest one-third each year over a three-year period, and RSU awards granted to non-employee directors will vest after one year. PRSUs vest at the end of a three-year cliff vesting period and the number of shares a participant will receive upon vesting is determined by a performance modifier, which is adjusted as a result of the financial performance of the Company in the grant year. The performance modifier can vary between 0% (minimum) and 200% (maximum) of the target (100%) award amount.

A summary of the Company's total stock-based compensation expense is presented below:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Total stock-based compensation expense	$ 12,407	$ 10,346	$ 23,167	$ 18,317

Share Repurchase Program

On February 4, 2021, the Company announced that the board of directors authorized a new share repurchase program, primarily to offset annual dilution from stock-based compensation plans (the “Share Repurchase Program”). The Share Repurchase Program authorizes the purchase of up to $150.0 million of the Company's Class A common stock at the Company's discretion through the end of fiscal year 2023. The Share Repurchase Program will be effected primarily through regular open-market purchases (which may include repurchase plans designed to comply with Rule 10b5-1). The amounts and timing of the repurchases will be subject to general market conditions and the prevailing price and trading volumes of our Class A common stock. The Share Repurchase Program does not require the Company to acquire a specific number of shares and may be suspended, amended or discontinued at any time. For shares repurchased pursuant to the Share Repurchase Program, the excess of the repurchase price paid over the par value of the Class A common stock will be recorded as a reduction to retained earnings.

During the second quarter of 2021, the Company began buying back shares pursuant to the Share Repurchase Program and acquired a total of 617,644 shares of Class A common stock, at an average price of $83.67, for purchases totaling $51.7 million during the three and six months ended June 30, 2021. Each share of Class A common stock repurchased pursuant to the Share Repurchase Program was funded with the proceeds, on a dollar-for-dollar basis, from the repurchase by Tradeweb Markets LLC of an LLC Interest from the Company in order to maintain the one-to-one ratio between shares of the Company's common stock and the LLC Interests. Subsequent to their repurchase, the shares of Class A common stock and the LLC Interests were all cancelled and retired. As of June 30, 2021, a total of $98.3 million remained available for repurchase pursuant to the Share Repurchase Program.

Other Share Repurchases

During the three months ended June 30, 2021 and 2020, the Company withheld 98,003 and 923,839 shares, respectively, of common stock from employee stock option, PRSU and RSU awards, at an average price per share of $81.32 and $51.60, respectively, and an aggregate value of $8.0 million and $47.7 million, respectively, based on the price of the Class A common stock on the date the relevant withholding occurred. During the six months ended June 30, 2021 and 2020, the Company withheld 794,850 and 1,438,984 shares, respectively, of common stock from employee stock option, PRSU and RSU awards, at an average price per share of $67.23 and $49.80, respectively, and an aggregate value of $53.4 million and $71.7 million, respectively, based on the price of the Class A common stock on the date the relevant withholding occurred.

These shares are withheld in order for the Company to cover the payroll tax withholding obligations upon the exercise of stock options and settlement of RSUs and PRSUs and such shares were not withheld in connection with the Share Repurchase Program discussed above.

10. Related Party Transactions

The Company enters into transactions with its affiliates from time to time which are considered to be related party transactions. Prior to the Reorganization Transactions, the Bank Stockholders were collectively considered to be related parties of the Company. As a result of the Reorganization Transactions, they are no longer considered to be related parties.

At June 30, 2021 and December 31, 2020, the following balances with such affiliates were included in the condensed consolidated statements of financial condition in the following line items:

	June 30, 2021	December 31, 2020
	(in thousands)	
Accounts receivable	$ —	$ 4,009
Receivable from affiliates	2,801	111
Other assets	2,722	2,722
Accounts payable, accrued expenses and other liabilities	7,197	6,140
Deferred revenue	4,500	4,500
Payable to affiliates	3,036	5,142

The following balances with such affiliates were included in the condensed consolidated statements of income in the following line items:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Revenue:				
Subscription fees	$ 206	$ —	$ 775	$ —
Refinitiv market data fees [(1)]	14,926	14,565	30,043	29,193
Other fees	122	—	283	—
Expenses:				
Shared Services Fees: [(2)]				
Technology and communications	740	740	1,480	1,480
General and administrative	2	(620)	4	(596)
Occupancy	—	(31)	—	15

(1) The Company maintains a market data license agreement with Refinitiv. Under the agreement, the Company delivers to Refinitiv certain market data feeds which Refinitiv redistributes to its customers. The Company earns license fees and royalties for these feeds.
(2) The Company maintains a shared services agreement with Refinitiv. Under the terms of the agreement, Refinitiv provides the Company with certain real estate, payroll, benefits administration and other administrative support.

The Company reimburses affiliates of Refinitiv for expenses paid on behalf of the Company for certain services including salaries, bonuses and various other administrative services. For the three months ended June 30, 2021 and 2020, the Company reimbursed such affiliates approximately $0.5 million and $0.9 million, respectively, for these expenses, and $0.7 million and $1.2 million, respectively, for the six months ended June 30, 2021 and 2020.

The Company engaged Blackstone Advisory Partners L.P., an affiliate of Blackstone, to provide certain financial consulting services in connection with the IPO, the October 2019 follow-on offering and the April 2020 follow-on offering for fees of $1.0 million, $0.5 million, and $0.5 million, respectively, which fees, with respect to the October 2019 follow-on offering and the April 2020 follow-on offering, were reimbursed by the underwriters. As of both June 30, 2021 and December 31, 2020, $2.0 million related to these offering costs, is included as a component of the additional paid-in capital balance on the condensed consolidated statements of financial condition.

11. Fair Value of Financial Instruments

Financial Instruments Measured at Fair Value

The Company's financial instruments measured at fair value on the condensed consolidated statements of financial condition as of June 30, 2021 and December 31, 2020 have been categorized based upon the fair value hierarchy as follows:

	Quoted Prices in active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
	(in thousands)			
As of June 30, 2021				
Assets				
Cash equivalents – Money market funds	$ 316,335	$ —	$ —	$ 316,335
Receivable from affiliates – Foreign currency forward contracts	—	2,839	—	2,839
Total assets measured at fair value	$ 316,335	$ 2,839	$ —	$ 319,174
Liabilities				
Payable to affiliates – Foreign currency forward contracts	$ —	$ 482	$ —	$ 482
Total liabilities measured at fair value	$ —	$ 482	$ —	$ 482
As of December 31, 2020				
Assets				
Cash equivalents – Money market funds	$ 541,790	$ —	$ —	$ 541,790
Total assets measured at fair value	$ 541,790	$ —	$ —	$ 541,790
Liabilities				
Payable to affiliates – Foreign currency forward contracts	$ —	$ 3,409	$ —	$ 3,409
Total liabilities measured at fair value	$ —	$ 3,409	$ —	$ 3,409

The Company's money market funds are classified within level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets.

The valuation for the Company's foreign currency forward contracts is primarily based on the difference between the exchange rate associated with the forward contract and the exchange rate at the current period end. Foreign currency forward contracts are categorized as Level 2 in the fair value hierarchy. The Company enters into foreign currency forward contracts to mitigate its U.S. dollar and British pound sterling versus Euro exposure, generally with a duration of less than twelve months. As of June 30, 2021 and December 31, 2020, the counterparty on each of the foreign currency forward contracts was an affiliate of Refinitiv and therefore the corresponding liabilities on such contracts were included in payable to affiliates on the accompanying condensed consolidated statements of financial condition.

The following table summarizes the aggregate U.S. dollar equivalent notional amount of the Company's foreign currency forward contracts not designated as hedges for accounting purposes:

	June 30, 2021	December 31, 2020
	(in thousands)	
Foreign currency forward contracts – Gross notional amount	$ 128,006	$ 122,458

The Company's foreign currency forward contracts are not designated as hedges for accounting purposes and changes in the fair value of these contracts during the period are recognized in the condensed consolidated statements of income within general and administrative expenses.

The total realized and unrealized gains (losses) on foreign currency forward contracts recorded within general and administrative expenses in the condensed consolidated statements of income are as follows:

	Three Months Ended June 30, 2021	Three Months Ended June 30, 2020	Six Months Ended June 30, 2021	Six Months Ended June 30, 2020
	(in thousands)			
Foreign currency forward contracts not designated in accounting hedge relationship	$ (737)	$ (2,415)	$ 4,961	$ (2,962)

The Company has no financial instruments measured at fair value that are classified within level 3 of the fair value hierarchy.

Financial Instruments Not Measured at Fair Value

The Company's financial instruments not measured at fair value on the condensed consolidated statements of financial condition as of June 30, 2021 and December 31, 2020 have been categorized based upon the fair value hierarchy as follows:

	Carrying Value	Quoted Prices in active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
As of June 30, 2021			(in thousands)		
Assets					
Cash and restricted cash	$ 365,890	$ 365,890	$ —	$ —	$ 365,890
Receivable from brokers and dealers and clearing organizations	37,436	—	37,436	—	37,436
Deposits with clearing organizations	21,799	21,799	—	—	21,799
Accounts receivable	141,903	—	141,903	—	141,903
Other assets – Memberships in clearing organizations	2,395	—	—	2,395	2,395
Total	$ 569,423	$ 387,689	$ 179,339	$ 2,395	$ 569,423
Liabilities					
Payable to brokers and dealers and clearing organizations	$ 36,611	$ —	$ 36,611	$ —	$ 36,611
Total	$ 36,611	$ —	$ 36,611	$ —	$ 36,611
As of December 31, 2020					
Assets					
Cash and restricted cash	$ 250,490	$ 250,490	$ —	$ —	$ 250,490
Receivable from brokers and dealers and clearing organizations	368	—	368	—	368
Deposits with clearing organizations	11,671	11,671	—	—	11,671
Accounts receivable	105,286	—	105,286	—	105,286
Other assets – Memberships in clearing organizations	1,586	—	—	1,586	1,586
Total	$ 369,401	$ 262,161	$ 105,654	$ 1,586	$ 369,401
Liabilities					
Payable to brokers and dealers and clearing organizations	$ 252	$ —	$ 252	$ —	$ 252
Total	$ 252	$ —	$ 252	$ —	$ 252

The carrying value of financial instruments not measured at fair value classified within level 1 or level 2 of the fair value hierarchy approximates fair value because of the relatively short term nature of the underlying assets or liabilities. The memberships in clearing organizations, which are included in other assets on the condensed consolidated statements of financial condition, are classified within level 3 of the fair value hierarchy because the valuation requires assumptions that are both significant and unobservable.

Non-recurring Fair Value Measurements

We measure certain assets and liabilities, such as assets acquired in a business combination, at fair value as of the acquisition date. See Note 4 – Acquisitions for further details regarding these non-recurring fair value measurements.

Financial Instruments Without Readily Determinable Fair Values

Included in other assets on the condensed consolidated statements of financial condition are equity investments without readily determinable fair values of $21.1 million at both June 30, 2021 and December 31, 2020, respectively. There were no impairments or adjustments to the carrying value of equity investments without readily determinable fair values during the three and six months ended June 30, 2021 and 2020 and no adjustments to the original cost basis have been made to the carrying value over the life of the instruments.

12. Credit Risk

In the normal course of business the Company, as agent, executes transactions with, and on behalf of, other brokers and dealers. If the agency transactions do not settle because of failure to perform by either counterparty, the Company may be obligated to discharge the obligation of the non-performing party and, as a result, may incur a loss if the market value of the security is different from the contract amount of the transaction.

A substantial number of the Company's transactions are collateralized and executed with, and on behalf of, a limited number of broker-dealers. The Company's exposure to credit risk associated with the nonperformance of these clients in fulfilling their contractual obligations pursuant to securities transactions can be directly impacted by volatile trading markets which may impair the clients' ability to satisfy their obligations to the Company.

From time to time, the Company enters into agreements to repurchase to facilitate the clearance of securities. Credit exposure related to these agreements to repurchase, including the risk related to a decline in market value of collateral (pledged or received), is managed by entering into agreements to repurchase with overnight or short-term maturity dates and only entering into repurchase transactions with netting members of the Fixed Income Clearing Corporation (“FICC”). The FICC requires dealer netting members to maintain a minimum of $25.0 million in equity capital and $10.0 million in excess net capital (as defined in Rule 15c3-1 under the Securities Exchange Act of 1934). The FICC operates a continuous net settlement system, whereby as trades are submitted and compared the FICC becomes the counterparty. The FICC also marks to market collateral on a daily basis, requiring member firms to pay or receive margin amounts as part of their daily funds settlement.

The Company does not expect nonperformance by counterparties in the above situations. However, the Company's policy is to monitor its market exposure and counterparty risk. In addition, the Company has a policy of reviewing, as considered necessary, the credit standing of each counterparty with which it conducts business.

Allowance for Credit Losses

The Company may be exposed to credit risk regarding its receivables, which are primarily receivables from financial institutions, including investment managers and broker-dealers. As of both June 30, 2021 and December 31, 2020, the Company maintained an allowance for credit losses with regard to these receivables of $0.2 million. There was no credit loss expense recognized for each of the three and six months ended June 30, 2021 and 2020. For the three months ended June 30, 2021 and 2020, recoveries resulted in a reversal of credit loss expense totaling $42,000 and $28,000, respectively. For the six months ended June 30, 2021 and 2020, recoveries resulted in a reversal of credit loss expense totaling $106,000 and $29,000, respectively.

The Company maintains an allowance for credit losses based upon an estimate of the amount of potential credit losses in existing accounts receivable, as determined from a review of aging schedules, past due balances, historical collection experience and other specific account data. Careful analysis of the financial condition of our counterparties is also performed. The Company has evaluated its loss assumptions as a result of the COVID-19 pandemic and determined the current estimate of expected credit losses remains reasonable due to continued strong collections and no deterioration in the accounts receivable aging.

Account balances are pooled based on the following risk characteristics:

1. Geographic location
2. Transaction fee type (billing type)
3. Legal entity

Write-Offs

Once determined uncollectible, aged balances are written off as credit loss expense. This determination is based on careful analysis of individual receivables and aging schedules, which are disaggregated based on the risk characteristics described above. Based on current policy, this generally occurs when the receivable is 360 days past due.

13. Commitments and Contingencies

In the normal course of business, the Company enters into user agreements with its dealers which provide the dealers with indemnification from third parties in the event that the electronic marketplaces of the Company infringe upon the intellectual property or other proprietary right of a third party. The Company's exposure under these user agreements is unknown as this would involve estimating future claims against the Company which have not yet occurred. However, based on its experience, the Company expects the risk of a material loss to be remote.

The Company has been named as a defendant, along with other financial institutions, in antitrust class actions (consolidated into two actions) relating to trading practices in United States Treasury securities auctions. The cases were dismissed in March 2021, with the Court granting the Plaintiffs leave to further amend the complaint by no later than May 14, 2021. The plaintiffs filed an Amended Complaint on or about May 14, 2021, and the Company served its motion to dismiss on Plaintiffs on June 14, 2021. The Company believes that it has meritorious defenses to the Amended Complaint and intends to continue to vigorously defend its position. The motions to dismiss are scheduled to be fully briefed by the first week of August 2021.

Additionally, the Company was dismissed from a class action relating to an interest rate swaps matter in 2017, but that matter continues against the remaining defendant financial institutions.

The Company records its best estimate of a loss, including estimated defense costs, when the loss is considered probable and the amount of such loss can be reasonably estimated. Based on its experience, the Company believes that the amount of damages claimed in a legal proceeding is not a meaningful indicator of the potential liability. At this time, the Company cannot reasonably predict the timing or outcomes of, or estimate the amount of loss, or range of loss, if any, related to its pending legal proceedings, including the matters described above, and therefore does not have any contingency reserves established for any of these matters.

Revolving Credit Facility

On April 8, 2019, the Company entered into a five year, $500.0 million senior secured revolving credit facility (“Credit Facility”) with a syndicate of banks. The Credit Facility was subsequently amended on November 7, 2019. The Credit Facility provides additional borrowing capacity to be used to fund ongoing working capital needs, letters of credit and for general corporate purposes, including potential future acquisitions and expansions.

Under the terms of the credit agreement that governs the Credit Facility, borrowings under the Credit Facility bear interest at a rate equal to, at the Company’s option, either (a) a base rate equal to the greatest of (i) the administrative agent’s prime rate, (ii) the federal funds effective rate plus ½ of 1.0% and (iii) one month LIBOR plus 1.0%, in each case plus 0.75%, or (b) LIBOR plus 1.75%, subject to a 0.00% floor. The credit agreement also includes a commitment fee of 0.25% for available but unborrowed amounts and other administrative fees that are payable quarterly. The Credit Facility is available until April 2024, provided the Company is in compliance with all covenants. Financial covenant requirements include maintaining minimum ratios related to interest coverage and leverage.

As of June 30, 2021, there were $0.5 million in letters of credit issued under the Revolving Credit Facility and no drawn amounts outstanding. As of December 31, 2020, there were no letters of credit issued under the Revolving Credit Facility and no drawn amounts outstanding.

14. Earnings Per Share

The following table summarizes the calculations of basic and diluted earnings per share of Class A and Class B common stock for Tradeweb Markets Inc.:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands, except share and per share amounts)			
Numerator:				
Net income attributable to Tradeweb Markets Inc.	$ 55,316	$ 30,496	$ 123,175	$ 74,424
Denominator:				
Weighted average shares of Class A and Class B common stock outstanding - Basic	201,749,985	177,649,501	200,414,714	171,942,125
Dilutive effect of equity-settled PRSUs	2,021,234	2,492,567	1,926,771	2,265,494
Dilutive effect of options	3,461,230	5,168,379	3,656,412	5,694,964
Dilutive effect of RSUs	231,511	179,377	255,859	106,308
Weighted average shares of Class A and Class B common stock outstanding - Diluted	207,463,960	185,489,824	206,253,756	180,008,891
Earnings per share - Basic	$ 0.27	$ 0.17	$ 0.61	$ 0.43
Earnings per share - Diluted	$ 0.27	$ 0.16	$ 0.60	$ 0.41

LLC Interests held by the Continuing LLC Owners are redeemable in accordance with the TWM LLC Agreement, at the election of such holders, for shares of Class A or Class B common stock of Tradeweb Markets Inc. The potential dilutive effect of LLC Interests are evaluated under the if-converted method. The potential dilutive effect of PRSUs, shares underlying options and RSUs are evaluated under the treasury stock method.

The following table summarizes the weighted-average PRSUs, shares underlying options, RSUs and LLC Interests that were anti-dilutive for the periods indicated. As a result, these shares, which were outstanding, were excluded from the computation of diluted earnings per share for the periods indicated:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Anti-dilutive Shares:				
Equity-settled PRSUs	—	—	—	—
Options	—	3,125	—	289,376
RSUs	—	375	—	187
LLC Interests	30,531,933	48,132,630	30,871,285	52,888,588

Shares of Class C and Class D common stock do not have economic rights in Tradeweb Markets Inc. and, therefore, are not included in the calculation of basic earnings per share and are not participating securities for purposes of the computation of diluted earnings per share.

15. Regulatory Capital Requirements

TWL, DW, TWD and EA are subject to the Uniform Net Capital Rule 15c3-1 under the Securities Exchange Act of 1934. TEL and TESL are subject to certain financial resource requirements with the FCA in the UK, TWJ is subject to certain financial resource requirements with the FCA in Japan and TWEU is subject to certain finance resource requirements with the AFM in the Netherlands.

At June 30, 2021 and December 31, 2020, the regulatory capital requirements and regulatory capital for TWL, DW, TWD, TEL, TWJ, TWEU, TESL and EA are as follows:

As of June 30, 2021	TWL	DW	TWD	TEL	TWJ	TWEU	TESL	EA
	(in thousands)							
Regulatory Capital	$ 27,961	$ 53,647	$ 20,483	$ 73,658	$ 8,648	$ 6,527	$ 760	$ 214,499
Regulatory Capital Requirement	1,961	1,928	562	34,417	4,334	2,483	741	88
Excess Regulatory Capital	$ 26,000	$ 51,719	$ 19,921	$ 39,241	$ 4,314	$ 4,044	$ 19	$ 214,411

As of December 31, 2020	TWL	DW	TWD	TEL	TWJ	TWEU
	(in thousands)					
Regulatory Capital	$ 49,254	$ 58,026	$ 20,577	$ 59,238	$ 11,066	$ 19,102
Regulatory Capital Requirement	2,438	2,147	731	33,742	3,799	2,562
Excess Regulatory Capital	$ 46,816	$ 55,879	$ 19,846	$ 25,496	$ 7,267	$ 16,540

As SEFs, TW SEF and DW SEF are required to maintain adequate financial resources and liquid financial assets in accordance with CFTC regulations. The required and maintained financial resources and liquid financial assets at June 30, 2021 and December 31, 2020 are as follows:

	As of June 30, 2021		As of December 31, 2020	
	TW SEF	DW SEF	TW SEF	DW SEF
	(in thousands)			
Financial Resources	$ 32,682	$ 16,631	$ 28,476	$ 15,298
Required Financial Resources	13,500	6,071	13,500	6,223
Excess Financial Resources	$ 19,182	$ 10,560	$ 14,976	$ 9,075
Liquid Financial Assets	$ 16,060	$ 9,551	$ 15,662	$ 8,610
Required Liquid Financial Assets	6,750	3,036	6,750	3,112
Excess Liquid Financial Assets	$ 9,310	$ 6,515	$ 8,912	$ 5,498

16. Business Segment and Geographic Information

The Company operates electronic marketplaces for the trading of products across the rates, credit, equities and money markets asset classes and provides related pre-trade and post-trade services. The Company's operations constitute a single business segment because of the integrated nature of these marketplaces and services.

Information regarding revenue by client sector is as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Revenues				
Institutional	$ 160,883	$ 129,992	$ 336,207	$ 275,604
Wholesale	61,689	43,252	121,079	92,008
Retail	18,261	20,366	36,974	42,042
Market Data	20,007	18,497	39,979	37,059
Total revenue	260,840	212,107	534,239	446,713
Operating expenses	177,048	156,468	352,120	313,459
Operating income	$ 83,792	$ 55,639	$ 182,119	$ 133,254

The Company operates in the U.S. and internationally, primarily in the Europe and Asia regions. Revenues are attributed to geographic area based on the jurisdiction where the underlying transactions take place. The results by geographic region are not meaningful in understanding the Company's business. Long-lived assets are attributed to the geographic area based on the location of the particular subsidiary.

The following table provides revenue by geographic area:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Revenues				
U.S.	$ 163,605	$ 140,073	$ 331,341	$ 285,329
International	97,235	72,034	202,898	161,384
Total revenue	$ 260,840	$ 212,107	$ 534,239	$ 446,713

The following table provides information on the attribution of long-lived assets by geographic area:

	June 30, 2021	December 31, 2020
	(in thousands)	
Long-lived assets		
U.S.	$ 4,219,549	$ 4,091,569
International	16,240	16,544
Total	$ 4,235,789	$ 4,108,113

17. Subsequent Events

On July 28, 2021, the board of directors of Tradeweb Markets Inc. declared a cash dividend of $0.08 per share of Class A common stock and Class B common stock for the third quarter of 2021. This dividend will be payable on September 15, 2021 to stockholders of record as of September 1, 2021.

On July 27, 2021, Tradeweb Markets Inc., as the sole manager, approved a distribution by TWM LLC to its equityholders, including Tradeweb Markets Inc., in an aggregate amount of $19.0 million, as adjusted by required state and local tax withholdings that will be determined prior to the record date of September 1, 2021, payable on September 13, 2021.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from the results described in or implied by the forward-looking statements. Factors that could cause or contribute to those differences include, but are not limited to, those identified below and those discussed in the section titled "Cautionary Note Regarding Forward-Looking Statements" included elsewhere in this Quarterly Report on Form 10-Q.

Overview

We are a leader in building and operating electronic marketplaces for our global network of clients across the financial ecosystem. Our network is comprised of clients across the institutional, wholesale and retail client sectors, including many of the largest global asset managers, hedge funds, insurance companies, central banks, banks and dealers, proprietary trading firms and retail brokerage and financial advisory firms as well as regional dealers. Our marketplaces facilitate trading across a range of asset classes, including rates, credit, equities and money markets. We are a global company serving clients in over 65 countries with offices in North America, Europe and Asia. We believe our proprietary technology and culture of collaborative innovation allow us to adapt our offerings to enter new markets, create new platforms and solutions and adjust to regulations quickly and efficiently. We support our clients by providing solutions across the trade lifecycle, including pre-trade, execution, post-trade and data.

Our institutional client sector serves institutional investors in over 40 markets across 25 currencies, and in over 65 countries around the globe. We connect institutional investors with pools of liquidity using our flexible order and trading systems. Our clients trust the integrity of our markets and recognize the value they get by trading electronically: enhanced transparency, competitive pricing, efficient trade execution and regulatory compliance.

In our wholesale client sector, we provide a broad range of electronic, voice and hybrid platforms to more than 300 dealers and financial institutions with more than 100 actively trading on our electronic or hybrid markets with our Dealerweb platform. This platform was launched in 2008 following the acquisition of inter-dealer broker Hilliard Farber & Co., Inc. In 2011, we acquired the brokerage assets of Rafferty Capital Markets and in June 2021, we acquired Nasdaq's U.S. fixed income electronic trading platform (formerly known as eSpeed) (the "NFI Acquisition"). Today, Dealerweb actively competes across a range of rates, credit, money markets, derivatives and equity markets.

In our retail client sector, we provide advanced trading solutions for financial advisory firms and traders with our Tradeweb Direct platform. We entered the retail sector in 2006 and launched our Tradeweb Direct platform following the 2013 acquisition of BondDesk Group LLC, which was built to bring innovation and efficiency to the wealth management community. Tradeweb Direct has provided financial advisory firms access to live offerings, accurate pricing in the marketplace and fast execution.

Our markets are large and growing. Electronic trading continues to increase across the markets in which we operate as a result of market demand for greater transparency, higher execution quality, operational efficiency and lower costs, as well as regulatory changes. We believe our deep client relationships, asset class breadth, geographic reach, regulatory knowledge and scalable technology position us to continue to be at the forefront of the evolution of electronic trading. Our platforms provide transparent, efficient, cost-effective and compliant trading solutions across multiple products, regions and regulatory regimes. As market participants seek to trade across multiple asset classes, reduce their costs of trading and increase the effectiveness of their trading, including through the use of data and analytics, we believe the demand for our platforms and electronic trading solutions will continue to grow.

Trends and Other Factors Impacting Our Performance

The NFI Acquisition

On June 25, 2021, the Company completed its acquisition of all of the outstanding equity interests of Execution Access, LLC, Kleos Managed Services Holdings, LLC and Kleos Managed Services, L.P., which collectively represented the "NFI Acquisition". The all-cash purchase price of $190.0 million is net of cash acquired, net of deposits with clearing organizations acquired and prior to working capital adjustments. The Nasdaq U.S. fixed income electronic trading platform acquired (formerly known as eSpeed) is a fully executable central order limit book (CLOB) for electronic trading in on-the-run (OTR) U.S. government bonds. Execution Access, LLC is a broker-dealer registered with the SEC and FINRA. The three business days of activity from the NFI Acquisition did not have a meaningful contribution to our results of operations for the three months ended June 30, 2021. See Note 4 – Acquisitions to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q for additional details on this acquisition.

COVID-19

Since the onset of the COVID-19 pandemic, we have been focused on keeping our employees safe, helping our clients stay connected, and ensuring our markets operate efficiently through this period of unprecedented market volatility. We have implemented a series of measures to protect the health and safety of our employees. Our successful transition to remote work, more than a year ago reflected our commitment to keeping employees safe, helping clients succeed and playing a positive role in markets. Now, as we look ahead towards life beyond COVID-19, those same priorities are guiding our plans for a more robust and safe return to the office. Beginning in June 2021, many roles within Tradeweb have transitioned to a hybrid approach in our return to the office plans. Our creative and flexible return to the office plans aim to keep driving our business forward and allow safe collaboration and positive team dynamics.

In light of the market volatility and economic disruption that has arisen in the wake of the pandemic, we have worked closely with our clients to provide flexible, stable, resilient and secure access to our platforms across our multi-asset offerings so they can reliably manage their core cash and derivatives needs in the diverse geographic, product and customer sector markets we serve. Our employees and clients together have adapted to working remotely.

We currently expect any future disruptive impact of COVID-19 on our business to be temporary and are determined to continue to minimize such impact. Although we have implemented risk management and contingency plans and taken preventive measures and other precautions, our efforts to mitigate the effects of any disruptions may prove to be inadequate. Due to the uncertainty of the duration and severity of COVID-19, the speed with which this pandemic has developed and persists, the uncertainty as to what governmental measures may yet be taken in response to the pandemic and the unpredictable effect on our business, our employees and our clients, we are not able to reasonably estimate the extent of any potential impact of COVID-19 on our financial condition or results of operations at this time, but the impact could potentially be material. Even after the COVID-19 outbreak has subsided, we may continue to experience impacts to our business as a result of the virus' global economic impact and any recession that has occurred or may occur in the future. Further, as the COVID-19 situation is unprecedented and continuously evolving, COVID-19 may also affect our operating and financial results in a manner that is not presently known to us or in a manner that we currently do not consider to present significant risks to our operations.

As the COVID-19 pandemic continues to evolve, it may also have the effect of heightening many of the risks described in "Item 1A. Risk Factors" in Part I of our 2020 Form 10-K, including, but not limited to, those relating to changes in economic, political, social and market conditions and the impact of these changes on trading volumes; consolidation and concentration in the financial services industry; our dependence on dealer clients; systems failures, interruptions, delays in services, cybersecurity incidents, unforeseen or catastrophic events and any resulting interruptions; our international operations; and our dependence on our senior management team and other qualified personnel.

Economic Environment

Our business is impacted by the overall market activity and, in particular, trading volumes and market volatility. Lower volatility is correlated to lower liquidity, which may result in lower trading volume for our clients and may negatively impact our operating performance. Factors that may impact market activity during the remainder of 2021 include, among other things, economic, political and social conditions, legislative, regulatory or government policy changes, including related to COVID-19. As a result, our business is sensitive to slow trading environments and the continuity of conservative monetary policies of central banks internationally, which tend to lessen volatility.

While our business is impacted by the overall activity of the market and market volatility, our revenues consist of a mix of fixed and variable fees that partially mitigates this impact. More importantly, we are actively engaged in the further electronification of trading activities, which will help mitigate this impact as we believe secular growth trends can partially offset market volatility risk.

Regulatory Environment

Our business is subject to extensive regulations in the United States and internationally, which may expose us to significant regulatory risk and cause additional legal costs to ensure compliance. The existing legal framework that governs the financial markets is periodically reviewed and amended, resulting in enforcement of new laws and regulations that apply to our business. The current regulatory environment in the United States may be subject to future legislative changes driven by the new administration and regulatory agency appointees. The impact of any reform efforts on us and our operations remains uncertain. For example, as a result of the UK's withdrawal from the EU ("Brexit"), which occurred on January 31, 2020, and the end of the UK-EU transition period, which occurred on December 31, 2020, we are currently subject to two separate and distinct legal regimes in Europe. We have incurred additional costs to establish a new regulated subsidiary in the Netherlands, and over time there may be a divergence of regulatory requirements as between the UK and EU. Compliance with regulations may require us to dedicate additional financial and operational resources, which may adversely affect our profitability. In addition, compliance with regulations may require our clients to dedicate significant financial and operational resources, which may negatively affect their ability to pay our fees and use our platforms and, as a result, our profitability. However, under certain circumstances regulation may increase demand for our platforms and solutions, and we believe we are well positioned to benefit from any potential increased electronification due to regulatory changes as market participants seek platforms that meet regulatory requirements and solutions that help them comply with their regulatory obligations.

Competitive Environment

We and our competitors compete to introduce innovations in market structure and new electronic trading capabilities. While we endeavor to be a leader in innovation, new trading capabilities of our competitors are also adopted by market participants. On the one hand, this increases liquidity and electronification for all participants, but it also puts pressure on us to further invest in our technology and to innovate to ensure the continued growth of our network of clients and continued improvement of liquidity, electronic processing and pricing on our platforms. Our ability to compete is influenced by key factors such as (i) developments in trading platforms and solutions, (ii) the liquidity we provide on transactions, (iii) the transaction costs we incur in providing our solutions, (iv) the efficiency in execution of transactions on our platforms, (v) our ability to hire and retain talent and (vi) our ability to maintain the security of our platforms and solutions. Our competitive position is also influenced by the familiarity and integration of our clients with our electronic, voice and hybrid systems. When either a client wants to trade in a new product or we want to introduce a new product, trading protocol or other solution, we believe we benefit from our clients' familiarity with our offerings as well as our integration into their order management systems and back offices.

Technology and Cybersecurity Environment

Our business and its success are largely impacted by the introduction of increasingly complex and sophisticated technology systems and infrastructures and new business models. Offering specialized trading venues and solutions through the development of new and enhanced platforms is essential to maintaining our level of competitiveness in the market and attracting new clients seeking platforms that provide advanced automation and better liquidity. We believe we will continue to increase demand for our platforms and solutions and the volume of transactions on our platforms, and thereby enhance our client relationships, by responding to new trading and information requirements by utilizing technological advances and emerging industry standards and practices in an effective and efficient way. We plan to continue to focus on and invest in technology infrastructure initiatives and continually improve and expand our platforms and solutions to further enhance our market position. We experience cyber-threats and attempted security breaches. If these were successful, these cybersecurity incidents could impact revenue and operating income and increase costs. We therefore continue to make investments, which may result in increased costs, to strengthen our cybersecurity measures.

Foreign Currency Exchange Rate Environment

We earn revenues, pay expenses, hold assets and incur liabilities in currencies other than the U.S. dollar. Accordingly, fluctuations in foreign currency exchange rates can affect our results of operations from period to period. In particular, fluctuations in exchange rates for non-U.S. dollar currencies may reduce the U.S. dollar value of revenues, earnings and cash flows we receive from non-U.S. markets, increase our operating expenses (as measured in U.S. dollars) in those markets, negatively impact our competitiveness in those markets or otherwise adversely impact our results of operations or financial condition. Future fluctuations of foreign currency exchange rates and their impact on our results of operations and financial condition are inherently uncertain. As we continue to grow the size of our global operations, these fluctuations may be material. See Part I, Item 3. – "Quantitative and Qualitative Disclosures About Market Risk— Foreign Currency and Derivative Risk" elsewhere in this Quarterly Report on Form 10-Q.

Taxation

In connection with the Reorganization Transactions, we became the sole manager of TWM LLC. As a result, beginning with the second quarter of 2019, we became subject to U.S. federal, state and local income taxes with respect to our allocable share of any taxable income of TWM LLC and are taxed at prevailing corporate tax rates. Our actual effective tax rate is impacted by our ownership share of TWM LLC, which will increase over time primarily as the Continuing LLC Owners redeem or exchange their LLC Interests for shares of Class A common stock or Class B common stock, as applicable, or as we purchase LLC Interests from the Continuing LLC Owners. In addition to tax expenses, we also incur expenses related to our operations. Furthermore, in connection with the IPO, we entered into the Tax Receivable Agreement pursuant to which we began to make payments in January 2021, and we expect future payments to be significant. We intend to cause TWM LLC to make distributions in an amount sufficient to allow us to pay our tax obligations, operating expenses, including payments under the Tax Receivable Agreement, and our quarterly cash dividends, as and when declared by our board of directors.

Components of our Results of Operations

Revenues

Our revenue is derived primarily from transaction fees, subscription fees, commissions and market data fees. We believe that revenue is the key driver of our operating performance and therefore we utilize it to assess our business on a period by period basis.

Transaction Fees and Commissions

We earn transaction fees from transactions executed on our trading platforms through various fee plans. Transaction fees are generated on both a variable and fixed price basis and vary by geographic region, product type and trade size. For most of our products, clients pay both fixed minimum monthly transaction fees and variable transaction fees on a per transaction basis in excess of the monthly minimum. For certain of our products, clients also pay a subscription fee in addition to the minimum monthly transaction fee. For other products, instead of a minimum monthly transaction fee, clients pay a subscription fee and variable or fixed transaction fees on a per transaction basis. For variable transaction fees, we charge clients fees based on the mix of products traded and the volume of transactions executed.

Transaction volume is determined by using either a measure of the notional volume of the products traded or a count of the number of trades. We typically charge higher fees for products that are less actively traded. In addition, because transaction fees are sometimes subject to fee plans with tiered pricing based on product mix, volume, monthly minimums and monthly maximum fee caps, average transaction fees per million generated for a client may vary each month depending on the mix of products and volume traded. Furthermore, because transaction fees vary by geographic region, product type and trade size, our revenues may not correlate with volume growth.

We earn commission revenue from our electronic and voice brokerage services on a riskless principal basis. Riskless principal revenues are derived on matched principal transactions where revenues are earned on the spread between the buy and sell price of the transacted product. For TBA-MBS, U.S. treasury and repurchase agreement transactions executed by our wholesale clients, we also generate revenue from fixed commissions that are generally invoiced monthly.

Subscription Fees

We earn subscription fees primarily for granting clients access to our markets for trading and market data. For a limited number of products, we only charge subscription fees and no transaction fees or commissions. Subscription fees are generally generated on a fixed price basis.

For purposes of our discussion of our results of operations, we include Refinitiv (formerly Thomson Reuters) market data fees in subscription fees. We earn fixed license fees from our market data license agreement with Refinitiv. We also earn royalties from Refinitiv for referrals of new Eikon (a Refinitiv data platform) customers based on customer conversion rates. Royalties may fluctuate from period to period depending on the numbers of customer conversions achieved by Refinitiv during the applicable royalty fee earning period, which is typically five years from the date of the initial referral.

Operating Expenses

Employee Compensation and Benefits

Employee compensation and benefits expense consists of wages, employee benefits, bonuses, commissions, stock-based compensation cost and related taxes. Factors that influence employee compensation and benefits expense include revenue and earnings growth, hiring new employees and trading activity which generates broker commissions. We expect employee compensation and benefits expense to increase as we hire additional employees and as our revenues and earnings grow. As a result, employee compensation and benefits can vary from period to period.

Depreciation and Amortization

Depreciation and amortization expense consists of costs relating to the depreciation and amortization of acquired and internally developed software, other intangible assets, leasehold improvements, furniture and equipment.

General and Administrative

General and administrative expense consists of travel and entertainment, marketing, value-added taxes, state use taxes, foreign currency transaction gains and losses, gains and losses on foreign currency forward contracts entered into for foreign exchange risk management purposes, charitable contributions, other administrative expenses and credit loss expense. We expect general and administrative expense to increase as we expand the number of our employees and product offerings and grow our operations.

Technology and Communications

Technology and communications expense consists of costs relating to software and hardware maintenance, our internal network connections, data center costs, clearance and other trading platform related transaction costs and data feeds provided by third-party service providers, including Refinitiv pursuant to a shared services agreement. Factors that influence technology and communications expense include trading volumes and our investments in innovation, data strategy and cybersecurity.

Professional Fees

Professional fees consist primarily of accounting, tax and legal fees and fees paid to technology and software consultants to maintain our trading platforms and infrastructure, as well as costs related to business acquisition transactions.

Occupancy

Occupancy expense consists of operating lease rent and related costs for office space and data centers leased in North America, Europe and Asia.

Tax Receivable Agreement Liability Adjustment

The tax receivable agreement liability adjustment reflects changes in the tax receivable agreement liability recorded in our condensed consolidated statement of financial condition as a result of changes in the mix of earnings, tax legislation and tax rates in various jurisdictions which impacted our tax savings. There was no tax receivable agreement liability adjustment during the three and six months ended June 30, 2021 and 2020.

Net Interest Income (Expense)

Interest income consists of interest earned from our cash deposited with large commercial banks and money market funds. Beginning with the second quarter of 2019, interest expense consists of commitment fees payable on, and, if applicable, interest payable on any borrowings outstanding under, the Revolving Credit Facility.

Income Taxes

Beginning with the second quarter of 2019, we became subject to U.S. federal, state and local income taxes with respect to our taxable income, including our allocable share of any taxable income of TWM LLC, and are taxed at prevailing corporate tax rates. TWM LLC is a multiple member limited liability company taxed as a partnership and accordingly any taxable income generated by TWM LLC is passed through to and included in the taxable income of its members, including to us. Income taxes also include unincorporated business taxes on income earned or losses incurred for conducting business in certain state and local jurisdictions, income taxes on income earned or losses incurred in foreign jurisdictions on certain operations and federal and state income taxes on income earned or losses incurred, both current and deferred, on subsidiaries that are taxed as corporations for U.S. tax purposes.

Net Income Attributable to Non-Controlling Interests

We are the sole manager of TWM LLC. As a result of this control, and because we have a substantial financial interest in TWM LLC, we consolidate the financial results of TWM LLC and report a non-controlling interest in our condensed consolidated financial statements, representing the economic interests of TWM LLC held by the Continuing LLC Owners. Income or loss is attributed to the non-controlling interests based on the relative ownership percentages of LLC Interests held during the period by us and the Continuing LLC Owners.

In connection with the Reorganization Transactions, the TWM LLC Agreement was amended and restated to, among other things, (i) provide for LLC Interests and (ii) exchange all of the then existing membership interests in TWM LLC for LLC Interests. LLC Interests held by the Continuing LLC Owners are redeemable in accordance with the TWM LLC Agreement, at the election of such holders, for newly issued shares of Class A common stock or Class B common stock, as the case may be, on a one-for-one basis. In the event of such election by a Continuing LLC Owner, we may, at our option, effect a direct exchange of Class A common stock or Class B common stock for such LLC Interests of such Continuing LLC Owner in lieu of such redemption. In connection with any redemption or exchange, we will receive a corresponding number of LLC Interests, increasing our total ownership interest in TWM LLC. Following the completion of the Reorganization Transactions and the IPO, we owned 64.3% of TWM LLC and the Continuing LLC Owners owned the remaining 35.7% of TWM LLC. As of June 30, 2021, we owned 86.9% of TWM LLC and the Continuing LLC Owners owned the remaining 13.1% of TWM LLC.

Results of Operations

For the Three Months Ended June 30, 2021 and Three Months Ended June 30, 2020

The following table sets forth a summary of our statements of income for the three months ended June 30, 2021 and 2020:

	Three Months Ended June 30,			
	2021	**2020**	**$ Change**	**% Change**
	(dollars in thousands)			
Total revenue	$ 260,840	$ 212,107	$ 48,733	23.0 %
Total expenses	177,048	156,468	20,580	13.2 %
Operating income	83,792	55,639	28,153	50.6 %
Net interest income (expense)	(325)	(286)	(39)	13.6 %
Income before taxes	83,467	55,353	28,114	50.8 %
Provision for income taxes	(17,234)	(12,945)	(4,289)	33.1 %
Net income	66,233	42,408	23,825	56.2 %
Less: Net income attributable to non-controlling interests	10,917	11,912	(995)	(8.4)%
Net income attributable to Tradeweb Markets Inc.	$ 55,316	$ 30,496	$ 24,820	81.4 %

Revenues

Our revenues for the three months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended June 30,					
	2021		2020			
	$	% of Total Revenue	$	% of Total Revenue	$ Change	% Change
	(dollars in thousands)					
Revenues						
Transaction fees and commissions	$ 205,381	78.7 %	$ 160,261	75.6 %	$ 45,120	28.2 %
Subscription fees [(1)]	52,809	20.2	49,571	23.4	3,238	6.5 %
Other	2,650	1.0	2,275	1.1	375	16.5 %
Total revenue	$ 260,840	100.0 %	$ 212,107	100.0 %	$ 48,733	23.0 %

Components of total revenue growth:	
Constant currency growth [(2)]	20.2 %
Foreign currency impact	2.8 %
Total revenue growth	23.0 %

(1) Subscription fees for the three months ended June 30, 2021 and 2020 include $14.9 million and $14.6 million, respectively, of Refinitiv market data fees.

(2) Constant currency growth, which is a non-GAAP financial measure, is defined as total revenue growth excluding the effects of foreign currency fluctuations. Total revenue excluding the effects of foreign currency fluctuations is calculated by translating the current period and prior period's total revenue using the average exchange rates for 2020. We use constant currency growth as a supplemental metric to evaluate our underlying total revenue performance between periods by removing the impact of foreign currency fluctuations. We believe that providing constant currency growth provides a useful comparison of our total revenue performance and trends between periods.

The primary driver of the $48.7 million increase in revenue related to a $45.1 million increase in transaction fees and commissions to $205.4 million for the three months ended June 30, 2021 from $160.3 million for the three months ended June 30, 2020, primarily due to increased volumes and fees for U.S. and European corporate bonds, rates derivatives products and U.S. government bonds. The NFI Acquisition, which closed on June 25, 2021, did not have a meaningful contribution to revenue for the three months ended June 30, 2021.

Our total revenue by asset class for the three months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended June 30,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Revenues				
Rates	$ 134,003	$ 112,823	$ 21,180	18.8 %
Credit	72,212	49,105	23,107	47.1 %
Equities	17,397	15,407	1,990	12.9 %
Money Markets	11,340	10,539	801	7.6 %
Market Data	20,007	18,497	1,510	8.2 %
Other	5,881	5,736	145	2.5 %
Total revenue	$ 260,840	$ 212,107	$ 48,733	23.0 %

Our variable and fixed revenues by asset class for the three months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended June 30, 2021		Three Months Ended June 30, 2020		$ Change		% Change	
	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed
	(dollars in thousands)							
Revenues								
Rates	$ 79,766	$ 54,237	$ 62,101	$ 50,722	$ 17,665	$ 3,515	28.4 %	6.9 %
Credit	65,712	6,500	43,731	5,374	21,981	1,126	50.3 %	21.0 %
Equities	14,612	2,785	12,905	2,502	1,707	283	13.2 %	11.3 %
Money Markets	7,242	4,098	6,445	4,094	797	4	12.4 %	0.1 %
Market Data	—	20,007	—	18,497	—	1,510	—	8.2 %
Other	—	5,881	—	5,736	—	145	—	2.5 %
Total revenue	$ 167,332	$ 93,508	$ 125,182	$ 86,925	$ 42,150	$ 6,583	33.7 %	7.6 %

A significant percentage of our transaction fees and commissions are tied directly to overall trading volumes in the rates, credit, equities and money markets asset classes. The average daily volumes and total volumes on our trading platforms by asset class for the three months ended June 30, 2021 and 2020, and the resulting percentage changes, are summarized as follows:

	Three Months Ended June 30, 2021		Three Months Ended June 30, 2020		ADV
	ADV	Volume	ADV	Volume	% Change
	(dollars in millions)				
Rates	**$ 575,671**	**$ 36,557,865**	**$ 506,759**	**$ 31,796,020**	**13.6 %**
Cash Rates	319,023	20,348,109	297,599	18,717,824	7.2 %
Rates Derivatives	256,648	16,209,757	209,160	13,078,196	22.7 %
Swaps / Swaptions Tenor (greater than 1 year)	165,825	10,441,873	140,999	8,811,975	17.6 %
Other Rates Derivatives [(1)]	90,823	5,767,883	68,162	4,266,222	33.2 %
Credit	**18,085**	**1,140,358**	**17,944**	**1,120,317**	**0.8 %**
Cash Credit [(2)]	9,519	599,774	7,812	486,716	21.9 %
Credit Derivatives and U.S. Cash "EP"	8,566	540,584	10,132	633,602	(15.5) %
Equities	**16,056**	**1,007,641**	**9,996**	**627,197**	**60.6 %**
Cash Equities	8,240	516,734	6,329	396,849	30.2 %
Equity Derivatives	7,817	490,906	3,667	230,348	113.1 %
Money Markets (Cash)	**367,063**	**23,332,283**	**243,681**	**15,309,908**	**50.6 %**
Total	**$ 976,876**	**$ 62,038,148**	**$ 778,380**	**$ 48,853,443**	**25.5 %**
Total excluding Other Rates Derivatives [(3)]	**$ 886,053**	**$ 56,270,265**	**$ 710,218**	**$ 44,587,221**	**24.8 %**

(1) Includes Swaps/Swaptions of tenor less than 1 year and Rates Futures.
(2) The "cash credit" category represents the "credit" asset class excluding (1) credit derivatives and (2) U.S. High Grade and High Yield electronically processed ("EP") activity.
(3) Included to contextualize the impact of short-tenored Swaps/Swaptions and Rates Futures on totals for all periods presented.

The average variable fees per million dollars of volume traded on our trading platforms by asset class for the three months ended June 30, 2021 and 2020 are summarized below. There are three potential drivers of quarterly fluctuations in our average variable fees per million: (1) volume discounts, (2) the mix and duration of cash and derivatives products traded, and (3) the mix of protocols underpinning cash and derivatives products. Average variable fees per million should be reviewed in conjunction with our trading volumes and total revenue by asset class. Since variable fees are sometimes subject to fee plans with tiered pricing based on product mix and volume, average variable fees per million for a specific asset class may not correlate with volumes or revenue growth.

	Three Months Ended June 30,			
	2021	2020	$ Change	% Change
Rates	**$ 2.18**	**$ 1.95**	**$ 0.23**	**11.7 %**
Cash Rates	$ 2.02	$ 1.94	$ 0.08	4.4 %
Rates Derivatives	$ 2.38	$ 1.97	$ 0.41	20.5 %
Swaps / Swaptions Tenor (greater than 1 year)	$ 3.54	$ 2.84	$ 0.70	24.6 %
Other Rates Derivatives (1)	$ 0.28	$ 0.18	$ 0.10	51.6 %
Credit	**$ 57.62**	**$ 39.03**	**$ 18.59**	**47.6 %**
Cash Credit (2)	$ 138.52	$ 134.56	$ 3.96	2.9 %
Credit Derivatives and U.S. Cash "EP"	$ 7.91	$ 7.30	$ 0.61	8.3 %
Equities	**$ 14.50**	**$ 20.58**	**$ (6.08)**	**(29.5)%**
Cash Equities	$ 23.21	$ 27.24	$ (4.03)	(14.8) %
Equity Derivatives	$ 5.34	$ 9.10	$ (3.76)	(41.3) %
Money Markets (Cash)	**$ 0.31**	**$ 0.42**	**$ (0.11)**	**(26.3)%**
Total Fees per Million	**$ 2.70**	**$ 2.56**	**$ 0.14**	**5.3 %**
Total Fees per Million excluding Other Rates Derivatives (3)	**$ 2.95**	**$ 2.79**	**$ 0.16**	**5.6 %**

(1) Includes Swaps/Swaptions of tenor less than 1 year and Rates Futures.
(2) The "cash credit" category represents the "credit" asset class excluding (1) credit derivatives and (2) U.S. High Grade and High Yield electronically processed ("EP") activity.
(3) Included to contextualize the impact of short-tenored Swaps/Swaptions and Rates Futures on blended fees per million across all periods presented.

The key drivers of the change in total revenue, volumes and variable fees per million by asset class are summarized as follows:

Rates. Revenues from our rates asset class increased by $21.2 million or 18.8% to $134.0 million for the three months ended June 30, 2021 compared to $112.8 million for the three months ended June 30, 2020 primarily due to variable transaction fees and commissions earned on higher trading volumes for rates derivatives products and U.S. and European government bonds.

Average variable fees per million for rates increased due to growth of higher fee long-tenor swaps volumes, which have a higher variable fee capture compared to overall rates.

Credit. Revenues from our credit asset class increased by $23.1 million or 47.1% to $72.2 million for the three months ended June 30, 2021 compared to $49.1 million for the three months ended June 30, 2020 primarily due to variable transaction fees and commissions on higher trading volumes for U.S. and European corporate bonds.

Average variable fees per million for credit increased due to higher growth in volume for fully electronic U.S. High-Grade and U.S. High-Yield cash credit products and European credit products, which have a higher variable fee capture compared to credit derivatives which experienced a decline in trading volume period over period.

Equities. Revenues from our equities asset class increased by $2.0 million or 12.9% to $17.4 million for the three months ended June 30, 2021 compared to $15.4 million for the three months ended June 30, 2020 primarily due to variable transaction fees and commissions on higher trading volumes for European ETFs.

Average variable fees per million for equities decreased due to higher growth in U.S. equity derivative products, which have a lower variable fee capture compared to overall equities products.

Money Markets. Revenues from our money markets asset class increased by $0.8 million or 7.6% to $11.3 million for the three months ended June 30, 2021 compared to $10.5 million for the three months ended June 30, 2020 primarily due to variable transaction fees and commissions on higher trading volumes for repurchase agreements, which set a record in average daily volume for the three months ended June 30, 2021, partially offset by lower trading volumes for certificates of deposit, which have a higher fee per million.

Average variable fees per million for money markets decreased due to a mix shift to lower fee per million repurchase agreements and away from higher fee certificates of deposit.

Market Data. Revenues from our market data asset class increased by $1.5 million or 8.2% to $20.0 million for the three months ended June 30, 2021 compared to $18.5 million for the three months ended June 30, 2020. The increase was derived from increased third party market data fees, revenue from our APA reporting service and Refinitiv market data fees.

Other. Revenues from our other asset class increased by $0.1 million or 2.5%, to $5.9 million for the three months ended June 30, 2021 compared to $5.7 million for the three months ended June 30, 2020 primarily due to increased fees from software development and implementation revenue on behalf of certain clients..

We generate revenue from a diverse portfolio of client sectors. Our total revenue by client sector for the three months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended June 30,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Revenues				
Institutional	$ 160,883	$ 129,992	$ 30,891	23.8 %
Wholesale	61,689	43,252	18,437	42.6 %
Retail	18,261	20,366	(2,105)	(10.3)%
Market Data	20,007	18,497	1,510	8.2 %
Total revenue	$ 260,840	$ 212,107	$ 48,733	23.0 %

Institutional. Revenues from our institutional client sector increased by $30.9 million or 23.8% to $160.9 million for the three months ended June 30, 2021 from $130.0 million for the three months ended June 30, 2020. The increase was derived primarily from increased volumes for rates derivatives products and U.S. and European corporate bonds.

Wholesale. Revenues from our wholesale client sector increased by $18.4 million or 42.6% to $61.7 million for the three months ended June 30, 2021 from $43.3 million for the three months ended June 30, 2020. The increase was derived primarily from increased volumes for U.S. and European corporate bonds and U.S. government bonds.

Retail. Revenues from our retail client sector decreased by $2.1 million or 10.3% to $18.3 million for the three months ended June 30, 2021 from $20.4 million for the three months ended June 30, 2020. The decrease was derived primarily from lower volumes from U.S corporate bonds, certificates of deposit and municipals, partially offset by increased fees from structured products.

Market Data. Revenues from our market data client sector increased by $1.5 million or 8.2% to $20.0 million for the three months ended June 30, 2021 from $18.5 million for the three months ended June 30, 2020. The increase was derived from increased third party market data fees, revenue from our APA reporting service and Refinitiv market data fees.

Our revenues and client base are also diversified by geography. Our total revenue by geography (based on client location) for the three months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Three Months Ended June 30, 2021	Three Months Ended June 30, 2020	$ Change	% Change
	(dollars in thousands)			
Revenues				
U.S.	$ 163,605	$ 140,073	$ 23,532	16.8 %
International	97,235	72,034	25,201	35.0 %
Total revenue	$ 260,840	$ 212,107	$ 48,733	23.0 %

U.S. Revenues from U.S. clients increased by $23.5 million or 16.8% to $163.6 million for the three months ended June 30, 2021 from $140.1 million for the three months ended June 30, 2020 primarily due to higher revenues for U.S. corporate bonds and U.S. government bonds.

International. Revenues from International clients increased by $25.2 million or 35.0% to $97.2 million for the three months ended June 30, 2021 from $72.0 million for the three months ended June 30, 2020 primarily due to higher revenues for rates derivatives products and European corporate bonds. Fluctuations in foreign currency rates for the three months ended June 30, 2021 increased our International total revenue by $4.1 million.

Operating Expenses

Our expenses for the three months ended June 30, 2021 and 2020 were as follows:

	Three Months Ended June 30, 2021	Three Months Ended June 30, 2020	$ Change	% Change
	(dollars in thousands)			
Employee compensation and benefits	$ 98,449	$ 88,866	$ 9,583	10.8 %
Depreciation and amortization	41,867	37,919	3,948	10.4 %
Technology and communications	13,957	12,042	1,915	15.9 %
General and administrative	8,789	7,523	1,266	16.8 %
Professional fees	10,368	6,609	3,759	56.9 %
Occupancy	3,618	3,509	109	3.1 %
Total expenses	$ 177,048	$ 156,468	$ 20,580	13.2 %

Employee Compensation and Benefits. Expenses related to employee compensation and benefits increased by $9.6 million or 10.8% to $98.4 million for the three months ended June 30, 2021 from $88.9 million for the three months ended June 30, 2020. The increase was primarily due to increases in commissions due to higher revenues from our wholesale client sector, salaries and benefits as a result of increased employee headcount and incentive compensation expenses tied to operating performance.

Depreciation and Amortization. Expenses related to depreciation and amortization increased by $3.9 million or 10.4% to $41.9 million for the three months ended June 30, 2021 from $37.9 million for the three months ended June 30, 2020. The increase in depreciation and amortization expense was the result of the longer estimated useful lives of computer software and the adjusted fair value of the assets that were established in connection with pushdown accounting on October 1, 2018 (see "—Critical Accounting Policies and Estimates"). Assets which may have been fully depreciated or amortized prior to the application of pushdown accounting are still being depreciated or amortized in these periods.

Technology and Communications. Expenses related to technology and communications increased by $1.9 million or 15.9% to $14.0 million for the three months ended June 30, 2021 from $12.0 million for the three months ended June 30, 2020. The increase was primarily due to an increased investment in our data strategy and cybersecurity and increased clearance and data fees driven primarily by higher trading volumes period over period.

General and Administrative. Expenses related to general and administrative costs increased by $1.3 million or 16.8% to $8.8 million for the three months ended June 30, 2021 from $7.5 million for the three months ended June 30, 2020. The increase was primarily due to higher travel and entertainment expenses, as COVID-19 contributed to a reduction in expenses during 2020, as well as higher insurance, marketing and other administrative expenses during 2021. The increase was partially offset by lower foreign exchange losses during the three months ended June 30, 2021.

Professional Fees. Expenses related to professional fees increased by $3.8 million or 56.9% to $10.4 million for the three months ended June 30, 2021 from $6.6 million for the three months ended June 30, 2020. The increase was primarily due to acquisition transaction costs related to the NFI Acquisition and higher consulting fees.

Occupancy. Expenses related to occupancy costs remained relatively flat at $3.6 million for the three months ended June 30, 2021 as compared to $3.5 million for the three months ended June 30, 2020.

Net Interest Income (Expense)

Net interest expense remained flat at $0.3 million for the three months ended June 30, 2021.

Income Taxes

Income tax expense increased by $4.3 million to $17.2 million for the three months ended June 30, 2021 from $12.9 million for the three months ended June 30, 2020. The provision for income taxes includes U.S. federal, state, local, and foreign taxes. The effective tax rate for the three months ended June 30, 2021 was approximately 20.6%, compared with 23.4% for the three months ended June 30, 2020. The effective tax rate for the three months ended June 30, 2021 and 2020 differed from the U.S. federal statutory rate of 21.0% primarily due to the effect of non-controlling interests and the tax impact of the issuance of common stock from equity incentive plans, partially offset by state, local and foreign taxes.

For the Six Months Ended June 30, 2021 and Six Months Ended June 30, 2020

The following table sets forth a summary of our statements of income for the six months ended June 30, 2021 and 2020:

	Six Months Ended June 30,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Total revenue	$ 534,239	$ 446,713	$ 87,526	19.6 %
Total expenses	352,120	313,459	38,661	12.3 %
Operating income	182,119	133,254	48,865	36.7 %
Net interest income (expense)	(818)	413	(1,231)	(298.1)%
Income before taxes	181,301	133,667	47,634	35.6 %
Provision for income taxes	(33,503)	(28,774)	(4,729)	16.4 %
Net income	147,798	104,893	42,905	40.9 %
Less: Net income attributable to non-controlling interests	24,623	30,469	(5,846)	(19.2)%
Net income attributable to Tradeweb Markets Inc.	$ 123,175	$ 74,424	$ 48,751	65.5 %

Revenues

Our revenues for the six months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Six Months Ended June 30,					
	2021		2020			
	$	% of Total Revenue	$	% of Total Revenue	$ Change	% Change
	(dollars in thousands)					
Revenues						
Transaction fees and commissions	$ 423,197	79.2 %	$ 343,578	76.9 %	$ 79,619	23.2 %
Subscription fees [1]	105,794	19.8	98,682	22.1	7,112	7.2 %
Other	5,248	1.0	4,453	1.0	795	17.9 %
Total revenue	$ 534,239	100.0 %	$ 446,713	100.0 %	$ 87,526	19.6 %

Components of total revenue growth:	
Constant currency growth [2]	16.9 %
Foreign currency impact	2.7 %
Total revenue growth	19.6 %

(1) Subscription fees for the six months ended June 30, 2021 and 2020 include $30.0 million and $29.2 million respectively, of Refinitiv market data fees.
(2) Constant currency growth, which is a non-GAAP financial measure, is defined as total revenue growth excluding the effects of foreign currency fluctuations. Total revenue excluding the effects of foreign currency fluctuations is calculated by translating the current period and prior period's total revenue using the average exchange rates for 2020. We use constant currency growth as a supplemental metric to evaluate our underlying total revenue performance between periods by removing the impact of foreign currency fluctuations. We believe that providing constant currency growth provides a useful comparison of our total revenue performance and trends between periods.

The primary driver of the $87.5 million increase in revenue related to a $79.6 million increase in transaction fees and commissions to $423.2 million for the six months ended June 30, 2021 from $343.6 million for the six months ended June 30, 2020, primarily due to increased volumes and fees for U.S. and European corporate bonds, rates derivatives products and U.S. government bonds. The NFI Acquisition, which closed on June 25, 2021, did not have a meaningful contribution to revenue for the six months ended June 30, 2021.

Our total revenue by asset class for the six months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Six Months Ended June 30,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Revenues				
Rates	$ 276,932	$ 238,862	$ 38,070	15.9 %
Credit	146,580	103,083	43,497	42.2 %
Equities	36,258	34,841	1,417	4.1 %
Money Markets	22,158	21,747	411	1.9 %
Market Data	39,979	37,059	2,920	7.9 %
Other	12,332	11,121	1,211	10.9 %
Total revenue	$ 534,239	$ 446,713	$ 87,526	19.6 %

Our variable and fixed revenues by asset class for the six months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Six Months Ended June 30,							
	2021		2020		$ Change		% Change	
	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed
	(dollars in thousands)							
Revenues								
Rates	$ 169,417	$ 107,515	$ 137,642	$ 101,220	$ 31,775	$ 6,295	23.1 %	6.2 %
Credit	133,710	12,870	92,306	10,777	41,404	2,093	44.9 %	19.4 %
Equities	30,592	5,666	30,005	4,836	587	830	2.0 %	17.2 %
Money Markets	13,955	8,203	13,582	8,165	373	38	2.7 %	0.5 %
Market Data	—	39,979	—	37,059	—	2,920	—	7.9 %
Other	—	12,332	—	11,121	—	1,211	—	10.9 %
Total revenue	$ 347,674	$ 186,565	$ 273,535	$ 173,178	$ 74,139	$ 13,387	27.1 %	7.7 %

The key drivers of the change in total revenue by asset class are summarized as follows:

Rates. Revenues from our rates asset class increased by $38.1 million or 15.9% to $276.9 million for the six months ended June 30, 2021 compared to $238.9 million for the six months ended June 30, 2020 primarily due to variable transaction fees and commissions earned on higher trading volumes for rates derivatives products and U.S. and European government bonds.

Credit. Revenues from our credit asset class increased by $43.5 million or 42.2% to $146.6 million for the six months ended June 30, 2021 compared to $103.1 million for the six months ended June 30, 2020 primarily due to variable transaction fees and commissions on higher trading volumes for U.S. and European corporate bonds which were partially offset by lower credit derivatives volumes. Credit derivatives experienced an all-time high in volumes during the three months ended March 31, 2020.

Equities. Revenues from our equities asset class increased by $1.4 million or 4.1% to $36.3 million for the six months ended June 30, 2021 compared to $34.8 million for the six months ended June 30, 2020 due to variable transaction fees and commissions on higher trading volumes for European ETFs which were partially offset by lower trading volumes for wholesale equity products.

Money Markets. Revenues from our money markets asset class increased by $0.4 million or 1.9% to $22.2 million for the six months ended June 30, 2021 compared to $21.7 million for the six months ended June 30, 2020 primarily due to variable transaction fees and commissions on higher trading volumes for repurchase agreements, partially offset by lower trading volumes for certificates of deposit, which have a higher fee per million.

Market Data. Revenues from our market data asset class increased by $2.9 million or 7.9% to $40.0 million for the six months ended June 30, 2021 compared to $37.1 million for the six months ended June 30, 2020. The increase was derived from increased third party market data fees, Refinitiv market data fees and revenue from our APA reporting service.

Other. Revenues from our other asset class increased by $1.2 million or 10.9%, to $12.3 million for the six months ended June 30, 2021 compared to $11.1 million for the six months ended June 30, 2020 primarily due to increased fees from software development and implementation revenue on behalf of certain clients.

We generate revenue from a diverse portfolio of client sectors. Our total revenue by client sector for the six months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Six Months Ended June 30,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Revenues				
Institutional	$ 336,207	$ 275,604	$ 60,603	22.0 %
Wholesale	121,079	92,008	29,071	31.6 %
Retail	36,974	42,042	(5,068)	(12.1)%
Market Data	39,979	37,059	2,920	7.9 %
Total revenue	$ 534,239	$ 446,713	$ 87,526	19.6 %

Institutional. Revenues from our institutional client sector increased by $60.6 million or 22.0% to $336.2 million for the six months ended June 30, 2021 from $275.6 million for the six months ended June 30, 2020. The increase was derived primarily from increased volumes for U.S. and European corporate bonds and rates derivatives products.

Wholesale. Revenues from our wholesale client sector increased by $29.1 million or 31.6% to $121.1 million for the six months ended June 30, 2021 from $92.0 million for the six months ended June 30, 2020. The increase was derived primarily from increased volumes for U.S. and European corporate bonds and U.S. government bonds.

Retail. Revenues from our retail client sector decreased by $5.1 million or 12.1% to $37.0 million for the six months ended June 30, 2021 from $42.0 million for the six months ended June 30, 2020. The decrease was derived primarily from lower volumes from certificates of deposit, U.S. corporate bonds and municipals, partially offset by increased fees from software development and implementation revenue on behalf of certain clients.

Market Data. Revenues from our market data client sector increased by $2.9 million or 7.9% to $40.0 million for the six months ended June 30, 2021 from $37.1 million for the six months ended June 30, 2020. The increase was derived from increased third party market data fees, Refinitiv market data fees and revenue from our APA reporting service.

Our revenues and client base are also diversified by geography. Our total revenue by geography (based on client location) for the six months ended June 30, 2021 and 2020, and the resulting dollar and percentage changes, were as follows:

	Six Months Ended June 30,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Revenues				
U.S.	$ 331,341	$ 285,329	$ 46,012	16.1 %
International	202,898	161,384	41,514	25.7 %
Total revenue	$ 534,239	$ 446,713	$ 87,526	19.6 %

U.S. Revenues from U.S. clients increased by $46.0 million or 16.1% to $331.3 million for the six months ended June 30, 2021 from $285.3 million for the six months ended June 30, 2020 primarily due to higher revenues for U.S. corporate bonds and U.S. government bonds.

International. Revenues from International clients increased by $41.5 million or 25.7% to $202.9 million for the six months ended June 30, 2021 from $161.4 million for the six months ended June 30, 2020 primarily due to higher revenues for rates derivatives products and European corporate bonds. Fluctuations in foreign currency rates for the six months ended June 30, 2021 increased our International total revenue by $7.9 million.

Operating Expenses

Our expenses for the six months ended June 30, 2021 and 2020 were as follows:

	Six Months Ended June 30, 2021	Six Months Ended June 30, 2020	$ Change	% Change
	(dollars in thousands)			
Employee compensation and benefits	$ 202,071	$ 179,386	$ 22,685	12.6 %
Depreciation and amortization	82,833	75,095	7,738	10.3 %
Technology and communications	27,501	22,360	5,141	23.0 %
General and administrative	12,248	15,863	(3,615)	(22.8)%
Professional fees	20,096	13,520	6,576	48.6 %
Occupancy	7,371	7,235	136	1.9 %
Total expenses	$ 352,120	$ 313,459	$ 38,661	12.3 %

Employee Compensation and Benefits. Expenses related to employee compensation and benefits increased by $22.7 million or 12.6% to $202.1 million for the six months ended June 30, 2021 from $179.4 million for the six months ended June 30, 2020. The increase was primarily due to increases in salaries and benefits as a result of increased employee headcount, commissions due to higher revenues from our wholesale client sector and incentive compensation expenses tied to operating performance.

Depreciation and Amortization. Expenses related to depreciation and amortization increased by $7.7 million or 10.3% to $82.8 million for the six months ended June 30, 2021 from $75.1 million for the six months ended June 30, 2020. The increase in depreciation and amortization expense was the result of the longer estimated useful lives of computer software and the adjusted fair value of the assets that were established in connection with pushdown accounting on October 1, 2018 (see "—Critical Accounting Policies and Estimates"). Assets which may have been fully depreciated or amortized prior to the application of pushdown accounting are still being depreciated or amortized in these periods.

Technology and Communications. Expenses related to technology and communications increased by $5.1 million or 23.0% to $27.5 million for the six months ended June 30, 2021 from $22.4 million for the six months ended June 30, 2020. The increase was primarily due to an increased investment in our data strategy and cybersecurity and increased clearance and data fees driven primarily by higher trading volumes period over period.

General and Administrative. Expenses related to general and administrative costs decreased by $3.6 million or 22.8% to $12.2 million for the six months ended June 30, 2021 from $15.9 million for the six months ended June 30, 2020. The decrease was primarily due to foreign exchange gains during the six months ended June 30, 2021, which reduced the net expense during the period, as compared to losses during the six months ended June 30, 2020 as well as a decrease in travel and entertainment expenses, primarily due to the impact of COVID-19. These decreases were offset by higher insurance, marketing and other administrative expenses during 2021.

Professional Fees. Expenses related to professional fees increased by $6.6 million or 48.6% to $20.1 million for the six months ended June 30, 2021 from $13.5 million for the six months ended June 30, 2020. The increase was primarily due to acquisition transaction costs related to the NFI Acquisition and higher consulting fees.

Occupancy. Expenses related to occupancy costs remained relatively flat at $7.4 million for the six months ended June 30, 2021 as compared to $7.2 million for the six months ended June 30, 2020.

Net Interest Income (Expense)

Net interest income (expense) decreased by $1.2 million to net interest expense of $0.8 million for the six months ended June 30, 2021 from net interest income of $0.4 million for the six months ended June 30, 2020 due to a decrease in interest rates.

Income Taxes

Income tax expense increased by $4.7 million to $33.5 million for the six months ended June 30, 2021 from $28.8 million for the six months ended June 30, 2020. The provision for income taxes includes U.S. federal, state, local, and foreign taxes. The effective tax rate for the six months ended June 30, 2021 was approximately 18.5%, compared with 21.5% for the six months ended June 30, 2020. The effective tax rate for the six months ended June 30, 2021 and 2020 differed from the U.S. federal statutory rate of 21.0% primarily due to the effect of non-controlling interests and the tax impact of the issuance of common stock from equity incentive plans, partially offset by state, local and foreign taxes.

Liquidity and Capital Resources

Overview

Liquidity describes the ability of a company to generate sufficient cash flows to meet the cash requirements of its business operations, including working capital needs to meet operating expenses, debt service, acquisitions, other commitments and contractual obligations. We consider liquidity in terms of cash flows from operations and availability under the Revolving Credit Facility and their sufficiency to fund our operating and investing activities.

Historically, we have generated significant cash flows from operations and have funded our business operations through cash on hand and cash flows from operations.

Our primary cash needs are for day to day operations, working capital requirements, capital expenditures, primarily for software and equipment, our expected dividend payments, and our share repurchase program. In addition, we are obligated to make payments under the Tax Receivable Agreement. Although the actual timing and amount of any payments that may be made under the Tax Receivable Agreement will vary, we expect that the payments that we will be required to make under the Tax Receivable Agreement will be significant. Any payments made by us under the Tax Receivable Agreement will generally reduce the amount of overall cash flows that might have otherwise been available to us or to TWM LLC. These payments will offset some of the tax benefits that we expect to realize as a result of the ownership structure of TWM LLC. To the extent that we are unable to make payments under the Tax Receivable Agreement for any reason, the unpaid amounts generally will be deferred and will accrue interest until paid by us. Total amounts due to the Continuing LLC Owners as of June 30, 2021 under the Tax Receivable Agreement were $425.2 million, substantially all due to be paid over 15 years. The first payment of the Tax Receivable Agreement was made in January 2021.

We expect to fund our liquidity requirements through cash and cash equivalents and cash flows from operations. While historically we have generated significant and adequate cash flows from operations, in the case of an unexpected event in the future or otherwise, we may fund our liquidity requirements through borrowings under the Revolving Credit Facility.

We believe that our projected cash position, cash flows from operations and, if necessary, borrowings under the Revolving Credit Facility, will be sufficient to fund our liquidity requirements for at least the next 12 months. However, our future liquidity requirements could be higher than we currently expect as a result of various factors. For example, any future investments, acquisitions, joint ventures or other similar transactions, which we consider from time to time, may reduce our cash balance or require additional capital. In addition, our ability to continue to meet our future liquidity requirements will depend on, among other things, our ability to achieve anticipated levels of revenues and cash flows from operations and our ability to manage costs and working capital successfully, all of which are subject to general economic, financial, competitive and other factors beyond our control. In the event we require any additional capital, it will take the form of equity or debt financing, or both, and there can be no assurance that we will be able to raise any such financing on terms acceptable to us or at all.

As of June 30, 2021 and December 31, 2020, we had cash and cash equivalents of approximately $681.2 million and $791.3 million, respectively. All cash and cash equivalents were held in accounts with banks or money market funds such that the funds are immediately available or in fixed term deposits with a maximum maturity of three months.

Factors Influencing Our Liquidity and Capital Resources

Dividend Policy

Subject to legally available funds, we intend to continue to pay quarterly cash dividends on our Class A common stock and Class B common stock equal to $0.08 per share. As discussed below, our ability to pay these quarterly cash dividends on our Class A common stock and Class B common stock will depend on distributions to us from TWM LLC.

The declaration, amount and payment of any dividends will be at the sole discretion of our board of directors and will depend on our and our subsidiaries' results of operations, capital requirements, financial condition, business prospects, contractual restrictions, restrictions imposed by applicable laws and other factors that our board of directors deem relevant. Because we are a holding company and all of our business is conducted through our subsidiaries, we expect to pay dividends, if any, only from funds we receive from our subsidiaries. Accordingly, our ability to pay dividends to our stockholders is dependent on the earnings and distributions of funds from our subsidiaries. As the sole manager of TWM LLC, we intend to cause, and will rely on, TWM LLC to make distributions in respect of LLC Interests to fund our dividends. If TWM LLC is unable to cause these subsidiaries to make distributions, it may have inadequate funds to distribute to us and we may be unable to fund our dividends. In addition, when TWM LLC makes distributions to us, the other holders of LLC Interests will be entitled to receive proportionate distributions based on their economic interests in TWM LLC at the time of such distributions.

Our board of directors will periodically review the cash generated from our business and the capital expenditures required to finance our growth plans and determine whether to modify the amount of regular dividends and/or declare any periodic special dividends. Any future determination to change the amount of dividends and/or declare special dividends will be at the discretion of our board of directors and will be dependent upon then-existing conditions and other factors that our board of directors considers relevant.

Cash Dividends

On July 28, 2021, the board of directors of Tradeweb Markets Inc. declared a cash dividend of $0.08 per share of Class A common stock and Class B common stock for the third quarter of 2021. This dividend will be payable on September 15, 2021 to stockholders of record as of September 1, 2021.

In March and June 2021, Tradeweb Markets Inc. paid quarterly cash dividends to holders of Class A common stock and Class B common stock in an aggregate amount totaling $32.2 million during the six months ended June 30, 2021.

Cash Distributions

On July 27, 2021, Tradeweb Markets Inc., as the sole manager, approved a distribution by TWM LLC to its equityholders, including Tradeweb Markets Inc., in an aggregate amount of $19.0 million, as adjusted by required state and local tax withholdings that will be determined prior to the record date of September 1, 2021, payable on September 13, 2021.

In March and June 2021, TWM LLC made a quarterly cash distribution to its equityholders in an aggregate amount totaling $33.8 million during the six months ended June 30, 2021, including distributions to Tradeweb Markets Inc. totaling $29.3 million and distributions to non-controlling interests totaling $4.5 million. The proceeds of the cash distributions were used by Tradeweb Markets Inc. to fund dividend payments, taxes and expenses.

Share Repurchase Program

On February 4, 2021, we announced that our board of directors authorized a new share repurchase program (the "Share Repurchase Program"), primarily to offset annual dilution from stock-based compensation plans. The Share Repurchase Program authorizes the purchase of up to $150.0 million of our Class A common stock at the Company's discretion through the end of fiscal year 2023. The Share Repurchase Program will be effected primarily through regular open-market purchases (which may include repurchase plans designed to comply with Rule 10b5-1). The amounts and timing of the repurchases will be subject to general market conditions and the prevailing price and trading volumes of our Class A common stock. The Share Repurchase Program does not require the Company to acquire a specific number of shares and may be suspended, amended or discontinued at any time. During the second quarter of 2021, the Company began buying back shares pursuant to the Share Repurchase Program and acquired a total of 617,644 shares of Class A common stock, at an average price of $83.67, for purchases totaling $51.7 million during the three and six months ended June 30, 2021.

Other Share Repurchases

In addition to the Share Repurchase Program discussed above, we may also withhold shares to cover the payroll tax withholding obligations upon the exercise of stock options and vesting of restricted stock units.

During the six months ended June 30, 2021 and 2020, the Company withheld 794,850 and 1,438,984 shares, respectively, of common stock from employee stock option, PRSU and RSU awards, at an average price per share of $67.23 and $49.80, respectively, and an aggregate value of $53.4 million and $71.7 million, respectively, based on the price of the Class A common stock on the date the relevant withholding occurred.

Indebtedness

As of June 30, 2021 and December 31, 2020, we had no outstanding indebtedness.

On April 8, 2019, TWM LLC entered into the Revolving Credit Facility with a syndicate of banks. The Revolving Credit Facility was subsequently amended on November 7, 2019. The Revolving Credit Facility provides $500.0 million of borrowing capacity to be used to fund our ongoing working capital needs, letters of credit and for general corporate purposes, including potential future acquisitions and expansions. As of June 30, 2021, there were $0.5 million in letters of credit issued under the Revolving Credit Facility and no drawn amounts outstanding. The Revolving Credit Facility will mature on April 8, 2024.

The credit agreement that governs the Revolving Credit Facility contains a number of covenants that, among other things and subject to certain exceptions, restrict the ability of TWM LLC and the ability of its restricted subsidiaries to incur additional indebtedness, pay dividends or distributions, make investments and enter into certain other transactions. As of June 30, 2021, we were in compliance with all the covenants set forth in the Revolving Credit Facility.

See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources – Factors Influencing Our Liquidity and Capital Resources – Indebtedness” in Part II of our 2020 Form 10-K for additional details regarding the terms, restrictions and covenants applicable to our Revolving Credit Facility.

Capital Requirements

Certain of our U.S. subsidiaries are registered as broker-dealers, SEFs or introducing brokers and are subject to the applicable rules and regulations of the SEC and CFTC. These rules contain minimum net capital or other financial resource requirements, as defined in the applicable regulations. These rules may also require a significant part of the registrants’ assets be kept in relatively liquid form. Certain of our foreign subsidiaries are regulated by the Financial Conduct Authority in the UK, the Nederlandsche Bank in the Netherlands, the Japanese Financial Services Agency, the Japanese Securities Dealers Association and other foreign regulators, and must maintain financial resources, as defined in the applicable regulations, in excess of the applicable financial resources requirement. As of June 30, 2021 and December 31, 2020, each of our regulated subsidiaries had maintained sufficient net capital or financial resources to at least satisfy their minimum requirements which in aggregate were $66.1 million and $65.1 million, respectively. We maintain capital balances in these subsidiaries in excess of our minimum requirements in order to satisfy working capital needs and to ensure that we have enough cash on hand to satisfy margin requirements and credit risk, including the excess capital expectations of our clients.

Fails to Deliver/Fails to Receive

At times, transactions executed on our wholesale platform fail to settle due to the inability of a transaction party to deliver or receive the transacted security. Until the failed transaction settles, we will recognize a receivable from (and a matching payable to) brokers and dealers and clearing organizations for the proceeds from the unsettled transaction. The impact on our liquidity and capital resources is minimal as receivables and payables for failed transactions are usually recognized simultaneously and predominantly offset.

Working Capital

Working capital is defined as current assets minus current liabilities. Current assets consist of cash and cash equivalents, restricted cash, receivable from brokers and dealers and clearing organizations, deposits with clearing organizations, accounts receivable and receivable from affiliates. Current liabilities consist of payable to brokers and dealers and clearing organizations, accrued compensation, deferred revenue, accounts payable, accrued expenses and other liabilities, employee equity compensation payable, lease liability, payable to affiliates and tax receivable agreement liability. Changes in working capital, which impact our cash flows provided by operating activities, can vary depending on factors such as delays in the collection of receivables, changes in our operating performance, changes in trading patterns, changes in client billing terms and other changes in the demand for our platforms and solutions.

Our working capital as of June 30, 2021 and December 31, 2020 was as follows:

	June 30, 2021	December 31, 2020
	(in thousands)	
Cash and cash equivalents	$ 681,225	$ 791,280
Restricted cash	1,000	1,000
Receivable from brokers and dealers and clearing organizations	37,436	368
Deposits with clearing organizations	21,799	11,671
Accounts receivable	141,903	105,286
Receivable from affiliates	2,801	111
Total current assets	886,164	909,716
Payable to brokers and dealers and clearing organizations	36,611	252
Accrued compensation	85,635	129,288
Deferred revenue	28,052	23,193
Accounts payable, accrued expenses and other liabilities	40,549	42,077
Employee equity compensation payable	—	1,900
Lease liability	8,493	10,813
Payable to affiliates	3,036	5,142
Tax receivable agreement liability	9,983	16,832
Total current liabilities	212,359	229,497
Total working capital	$ 673,805	$ 680,219

Current Assets

Current assets decreased to $886.2 million as of June 30, 2021 from $909.7 million as of December 31, 2020 primarily due to a decrease in cash and cash equivalents (see “—Cash Flows” below), partially offset by an increase in accounts receivable as a result of increased revenues and earnings and due to an increase in receivables from brokers and dealers and clearing organizations resulting from a higher number of fails to deliver as a result of increased unsettled wholesale platform transactions.

Current Liabilities

Current liabilities decreased to $212.4 million as of June 30, 2021 from $229.5 million as of December 31, 2020 primarily due to a decrease in accrued compensation as a result of annual bonus payments which occurred during the six months ended June 30, 2021, partially offset by an increase in payable to brokers and dealers and clearing organizations resulting from a higher number of fails to deliver as a result of increased unsettled wholesale platform transactions.

See “—Capital Requirements” above for a discussion on how capital requirements can impact our working capital.

Cash Flows

Our cash flows for the six months ended June 30, 2021 and 2020 were as follows:

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Net cash provided by operating activities	$ 204,006	$ 164,553
Net cash used in investing activities	(234,367)	(19,180)
Net cash used in financing activities	(80,513)	(42,169)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	819	(4,026)
Net increase (decrease) in cash, cash equivalents and restricted cash	$ (110,055)	$ 99,178

Operating Activities

Operating activities consist primarily of net income adjusted for noncash items that primarily include depreciation and amortization and stock-based compensation expense. Cash flows from operating activities can fluctuate significantly from period-to-period as working capital needs and the timing of payments for accrued compensation (primarily in the first quarter) and other items impact reported cash flows.

Net cash provided by operating activities for the six months ended June 30, 2021 was $204.0 million, an increase of $39.5 million over the six months ended June 30, 2020, primarily driven by an increase in net income during 2021.

Investing Activities

Investing activities generally consist of software development costs, investments in technology hardware, purchases of equipment and other tangible assets, business acquisitions and investments.

Net cash used in investing activities was $234.4 million for the six months ended June 30, 2021, which consisted of $208.9 million in total net cash paid related to the NFI Acquisition (net of cash acquired), $17.0 million of capitalized software development costs and $8.5 million of purchases of furniture, equipment, purchased software and leasehold improvements. Net cash used in investing activities was $19.2 million for the six months ended June 30, 2020, which consisted of $14.8 million of capitalized software development costs and $4.4 million of purchases of furniture, equipment, purchased software and leasehold improvements.

Financing Activities

Net cash used in financing activities for the six months ended June 30, 2021 was $80.5 million, and was primarily driven by $51.1 million in share repurchases pursuant to the Share Repurchase Program and $32.2 million in cash dividends to our Class A and Class B common stockholders, partially offset by $14.1 million in net proceeds from stock-based compensation option exercises, net of related stock-based compensation payroll tax payments for options, PRSUs and RSUs. Net cash used in financing activities for the six months ended June 30, 2020 was $42.2 million, and was primarily driven by $27.9 million in cash dividends to our Class A and Class B common stockholders and $9.0 million in net proceeds from stock-based compensation option exercises, net of related stock-based compensation payroll tax payments for options, PRSUs and RSUs.

Non-GAAP Financial Measures

Free Cash Flow

In addition to cash flow from operating activities presented in accordance with GAAP, we use Free Cash Flow, a non-GAAP measure, to measure liquidity. Free Cash Flow is defined as cash flow from operating activities less non-acquisition related expenditures for capitalized software development costs and furniture, equipment and leasehold improvements.

We present Free Cash Flow because we believe it is a useful indicator of liquidity that provides information to management and investors about the amount of cash generated from our core operations after non-acquisition related expenditures for capitalized software development costs and furniture, equipment and leasehold improvements.

Free Cash Flow has limitations as an analytical tool, and you should not consider Free Cash Flow in isolation or as an alternative to cash flow from operating activities or any other liquidity measure determined in accordance with GAAP. You are encouraged to evaluate each adjustment. In addition, in evaluating Free Cash Flow, you should be aware that in the future, we may incur expenditures similar to the adjustments in the presentation of Free Cash Flow. In addition, Free Cash Flow may not be comparable to similarly titled measures used by other companies in our industry or across different industries.

The table set forth below presents a reconciliation of our cash flow from operating activities to Free Cash Flow for the six months ended June 30, 2021 and 2020:

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Cash flow from operating activities	$ 204,006	$ 164,553
Less: Capitalization of software development costs	(16,967)	(14,798)
Less: Purchases of furniture, equipment and leasehold improvements	(8,543)	(4,382)
Free Cash Flow	$ 178,496	$ 145,373

Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT, Adjusted EBIT margin, Adjusted Net Income and Adjusted Diluted EPS

In addition to net income and net income attributable to Tradeweb Markets Inc., each presented in accordance with GAAP, we present Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin as non-GAAP measures of our operating performance and Adjusted Net Income and Adjusted Net Income per diluted share ("Adjusted Diluted EPS") as non-GAAP measures of our profitability.

Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin

Adjusted EBITDA is defined as net income before net interest income/expense, provision for income taxes and depreciation and amortization, adjusted for the impact of certain other items, including transaction and other costs related to the NFI Acquisition, certain stock-based compensation expense and payroll taxes associated with certain option exercises, tax receivable agreement liability adjustments, unrealized gains and losses from outstanding foreign currency forward contracts and gains and losses from the revaluation of foreign denominated cash.

Adjusted EBIT is defined as net income before net interest income/expense and provision for income taxes, adjusted for the impact of certain other items, including transaction and other costs related to the NFI Acquisition, certain stock-based compensation expense and payroll taxes associated with certain option exercises, tax receivable agreement liability adjustments, depreciation and amortization related to acquisitions and the Refinitiv Transaction, unrealized gains and losses from outstanding foreign currency forward contracts and gains and losses from the revaluation of foreign denominated cash.

Adjusted EBITDA margin and Adjusted EBIT margin are defined as Adjusted EBITDA and Adjusted EBIT, respectively, divided by revenue for the applicable period.

We present Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin because we believe they assist investors and analysts in comparing our operating performance across reporting periods on a consistent basis by excluding items that we do not believe are indicative of our core operating performance. For example, we exclude non-cash stock-based compensation expense associated with the Special Option Award discussed below under "— Critical Accounting Policies and Estimates — Stock-Based Compensation," and options awarded to management and other employees following the IPO during 2019 as well as payroll taxes associated with exercises of such options during the applicable period. We believe it is useful to exclude this stock-based compensation expense and associated payroll taxes because the amount of expense associated with the Special Option Award and the post-IPO option awards in 2019 may not directly correlate to the underlying performance of our business and will vary across periods. We do not expect to exclude any non-cash stock-based compensation expense associated with options that may be awarded to management and other employees during 2021. In addition, we exclude the tax receivable agreement liability adjustments discussed below under "— Critical Accounting Policies and Estimates — Tax Receivable Agreement." We believe it is useful to exclude the tax receivable agreement liability adjustment because the recognition of income during a period due to changes in the tax receivable agreement liability recorded in our condensed consolidated statement of financial condition as a result of changes in the mix of earnings, tax legislation and tax rates in various jurisdictions, or other factors that may impact our tax savings, may not directly correlate to the underlying performance of our business and will vary across periods. We also believe it is useful to exclude the transaction and other costs related to the NFI Acquisition as costs related to the acquisition are not indicative of our core operating performance. With respect to Adjusted EBIT and Adjusted EBIT margin, we believe it is useful to exclude the depreciation and amortization of tangible and intangible assets resulting from acquisitions and the application of pushdown accounting to the Refinitiv Transaction in order to facilitate a period-over-period comparison of our financial performance.

Management and our board of directors use Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin to assess our financial performance and believe it is helpful in highlighting trends in our core operating performance, while other measures can differ significantly depending on long-term strategic decisions regarding capital structure, the tax jurisdictions in which we operate and capital investments. Further, our executive incentive compensation is based in part on components of Adjusted EBITDA and Adjusted EBITDA margin.

Adjusted Net Income and Adjusted Diluted EPS

We present Adjusted Net Income and Adjusted Diluted EPS for Tradeweb Markets Inc. for post-IPO periods and Tradeweb Markets LLC for pre-IPO periods. As discussed below, because Adjusted Net Income and Adjusted Diluted EPS give effect to certain tax related adjustments to reflect an assumed effective tax rate for all periods presented and, for post-IPO periods, assumes all LLC Interests held by non-controlling interests are exchanged for shares of Class A or Class B common stock, we believe that Adjusted Net Income and Adjusted Diluted EPS for Tradeweb Markets Inc. and Tradeweb Markets LLC are comparable.

Adjusted Net Income is defined as net income attributable to Tradeweb Markets Inc. assuming the full exchange of all outstanding LLC Interests held by non-controlling interests for shares of Class A common stock or Class B common stock of Tradeweb Markets Inc. (for post-IPO periods) and net income (for pre-IPO periods), each adjusted for certain stock-based compensation expense and payroll taxes associated with certain option exercises, tax receivable liability adjustments, transaction and other costs related to the NFI Acquisition, depreciation and amortization related to acquisitions and the Refinitiv Transaction, unrealized gains and losses from outstanding foreign currency forward contracts and gains and losses from the revaluation of foreign denominated cash. Adjusted Net Income also gives effect to certain tax related adjustments to reflect an assumed effective tax rate and, for pre-IPO periods, assumes TWM LLC was subject to a corporate tax rate for the periods presented. Adjusted Diluted EPS is defined as Adjusted Net Income divided by the diluted weighted average number of shares of Class A common stock and Class B common stock outstanding for the applicable period (including the effect of potentially dilutive securities determined using the treasury stock method), assuming the full exchange of all outstanding LLC Interests held by non-controlling interests for shares of Class A common stock or Class B common stock, for post-IPO periods, and the diluted weighted average number of shares of TWM LLC outstanding for the applicable period (including the effect of potentially dilutive securities determined using the treasury stock method), for pre-IPO periods.

We use Adjusted Net Income and Adjusted Diluted EPS as supplemental metrics to evaluate our business performance in a way that also considers our ability to generate profit without the impact of certain items. We exclude stock-based compensation expense associated with the Special Option Award and the post-IPO option awards in 2019 and payroll taxes associated with exercises of such options, tax receivable liability adjustments, acquisition-related costs and acquisition and Refinitiv Transaction-related depreciation and amortization for the reasons described above. Each of the normal recurring adjustments and other adjustments described in the definition of Adjusted Net Income helps to provide management with a measure of our operating performance over time by removing items that are not related to day-to-day operations or are non-cash expenses. In addition to excluding items that are non-recurring or may not be indicative of our ongoing operating performance, by assuming the full exchange of all outstanding LLC Interests held by non-controlling interests, we believe that Adjusted Net Income and Adjusted Diluted EPS for Tradeweb Markets Inc. facilitate comparisons with other companies that have different organizational and tax structures, as well as comparisons period over period, because it eliminates the effect of any changes in net income attributable to Tradeweb Markets Inc. driven by increases in our ownership of TWM LLC, which are unrelated to our operating performance.

Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT, Adjusted EBIT margin, Adjusted Net Income and Adjusted Diluted EPS have limitations as analytical tools, and you should not consider these non-GAAP financial measures in isolation or as alternatives to net income attributable to Tradeweb Markets Inc., net income, operating income, gross margin, earnings per share or any other financial measure derived in accordance with GAAP. You are encouraged to evaluate each adjustment and, as applicable, the reasons we consider it appropriate for supplemental analysis. In addition, in evaluating Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT, Adjusted EBIT margin, Adjusted Net Income and Adjusted Diluted EPS you should be aware that in the future, we may incur expenses similar to the adjustments in the presentation of these non-GAAP financial measures. Our presentation of Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT, Adjusted EBIT margin, Adjusted Net Income and Adjusted Diluted EPS should not be construed as an inference that our future results will be unaffected by unusual or non-recurring items. In addition, Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT, Adjusted EBIT margin, Adjusted Net Income and Adjusted Diluted EPS may not be comparable to similarly titled measures used by other companies in our industry or across different industries.

The table set forth below presents a reconciliation of net income to Adjusted EBITDA, Adjusted EBITDA margin, Adjusted EBIT and Adjusted EBIT margin for the three and six months ended June 30, 2021 and 2020:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(dollars in thousands)			
Net income	$ 66,233	$ 42,408	$ 147,798	$ 104,893
Acquisition transaction costs (1)	2,966	—	4,727	—
Net interest (income) expense	325	286	818	(413)
Depreciation and amortization	41,867	37,919	82,833	75,095
Stock-based compensation expense (2)	2,803	4,995	9,186	8,492
Provision for income taxes	17,234	12,945	33,503	28,774
Foreign exchange (gains) / losses (3)	470	2,756	(4,883)	4,118
Tax receivable agreement liability adjustment (4)	—	—	—	—
Adjusted EBITDA	$ 131,898	$ 101,309	$ 273,982	$ 220,959
Less: Depreciation and amortization	(41,867)	(37,919)	(82,833)	(75,095)
Add: D&A related to acquisitions and the Refinitiv Transaction(5)	30,240	27,131	59,843	53,404
Adjusted EBIT	$ 120,271	$ 90,521	$ 250,992	$ 199,268
Adjusted EBITDA margin (6)	50.6 %	47.8 %	51.3 %	49.5 %
Adjusted EBIT margin (6)	46.1 %	42.7 %	47.0 %	44.6 %

(1) Represents transaction and other costs related to the NFI Acquisition, which closed in June 2021. Acquisition-related costs primarily include legal, consulting and advisory fees and severance costs incurred that relate to the acquisition transaction.

(2) Represents non-cash stock-based compensation expense associated with the Special Option Award and post-IPO options awarded in 2019 and payroll taxes associated with exercises of such options during the applicable period.

(3) Represents unrealized gain or loss recognized on foreign currency forward contracts and foreign exchange gain or loss from the revaluation of cash denominated in a different currency than the entity's functional currency.

(4) Represents income recognized during the applicable period due to changes in the tax receivable agreement liability recorded in the statement of financial condition as a result of changes in the mix of earnings, tax legislation and tax rates in various jurisdictions which impacted our tax savings.

(5) Represents intangible asset amortization and increased tangible asset and capitalized software depreciation and amortization resulting from the NFI Acquisition and the application of pushdown accounting to the Refinitiv Transaction (where all assets were marked to fair value as of the closing date of the Refinitiv Transaction).

(6) For the three months ended June 30, 2021, Adjusted EBITDA margin increased compared to the prior year period by 280 basis points, or 297 basis points on a constant currency basis. For the three months ended June 30, 2021, Adjusted EBIT margin increased compared to the prior year period by 343 basis points, or 353 basis points on a constant currency basis. For the six months ended June 30, 2021, Adjusted EBITDA margin increased compared to the prior year period by 182 basis points, or 244 basis points on a constant currency basis. For the six months ended June 30, 2021, Adjusted EBIT margin increased compared to the prior year period by 237 basis points, or 292 basis points on a constant currency basis. The changes in Adjusted EBITDA margin and Adjusted EBIT margin on a constant currency basis, which are non-GAAP financial measures, are defined as the changes in Adjusted EBITDA margin and Adjusted EBIT margin excluding the effects of foreign currency fluctuations. Adjusted EBITDA margin and Adjusted EBIT margin excluding the effects of foreign currency fluctuations are calculated by translating the current period and prior period's results using the average exchange rates for the prior period. We use the changes in Adjusted EBITDA margin and Adjusted EBIT margin on a constant currency basis as supplemental metrics to evaluate our underlying margin performance between periods by removing the impact of foreign currency fluctuations. We believe that providing changes in Adjusted EBITDA margin and Adjusted EBIT margin on a constant currency basis provide useful comparisons of our Adjusted EBITDA margin and Adjusted EBIT margin and trends between periods.

The table set forth below presents a reconciliation of net income attributable to Tradeweb Markets Inc. and net income, as applicable, to Adjusted Net Income and Adjusted Diluted EPS for the three and six months ended June 30, 2021 and 2020:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands except per share amounts)			
Earnings per diluted share	$ 0.27	$ 0.16	$ 0.60	$ 0.41
Net income attributable to Tradeweb Markets Inc.	$ 55,316	$ 30,496	$ 123,175	$ 74,424
Net income attributable to non-controlling interests (1)	10,917	11,912	24,623	30,469
Net income	66,233	42,408	147,798	104,893
Provision for income taxes	17,234	12,945	33,503	28,774
Acquisition transaction costs (2)	2,966	—	4,727	—
D&A related to acquisitions and the Refinitiv Transaction (3)	30,240	27,131	59,843	53,404
Stock-based compensation expense (4)	2,803	4,995	9,186	8,492
Foreign exchange (gains) / losses (5)	470	2,756	(4,883)	4,118
Tax receivable agreement liability adjustment (6)	—	—	—	—
Adjusted Net Income before income taxes	119,946	90,235	250,174	199,681
Adjusted income taxes (7)	(26,388)	(19,852)	(55,038)	(43,930)
Adjusted Net Income	$ 93,558	$ 70,383	$ 195,136	$ 155,751
Adjusted Diluted EPS (8)	$ 0.39	$ 0.30	$ 0.82	$ 0.67

(1) Represents the reallocation of net income attributable to non-controlling interests from the assumed exchange of all outstanding LLC Interests held by non-controlling interests for shares of Class A or Class B common stock.
(2) Represents transaction and other costs related to the NFI Acquisition, which closed in June 2021. Acquisition-related costs primarily include legal, consulting and advisory fees and severance costs incurred that relate to the acquisition transaction.
(3) Represents intangible asset amortization and increased tangible asset and capitalized software depreciation and amortization resulting from the NFI Acquisition and the application of pushdown accounting to the Refinitiv Transaction (where all assets were marked to fair value as of the closing date of the Refinitiv Transaction).
(4) Represents non-cash stock-based compensation expense associated with the Special Option Award and post-IPO options awarded in 2019 and payroll taxes associated with exercises of such options during the applicable period.
(5) Represents unrealized gain or loss recognized on foreign currency forward contracts and foreign exchange gain or loss from the revaluation of cash denominated in a different currency than the entity's functional currency.
(6) Represents income recognized during the applicable period due to changes in the tax receivable agreement liability recorded in the statement of financial condition as a result of changes in the mix of earnings, tax legislation and tax rates in various jurisdictions which impacted our tax savings.
(7) Represents corporate income taxes at an assumed effective tax rate of 22.0% applied to Adjusted Net Income before income taxes for each of the three and six months ended June 30, 2021 and 2020.
(8) For a summary of the calculation of Adjusted Diluted EPS, see "Reconciliation of Diluted Weighted Average Shares Outstanding to Adjusted Diluted Weighted Average Shares Outstanding" below.

The following table summarizes the calculation of Adjusted Diluted EPS for the three and six months ended June 30, 2021 and 2020:

Reconciliation of Diluted Weighted Average Shares Outstanding to Adjusted Diluted Weighted Average Shares Outstanding	Three Months Ended June 30, 2021	Three Months Ended June 30, 2020	Six Months Ended June 30, 2021	Six Months Ended June 30, 2020
Diluted weighted average shares of Class A and Class B common stock outstanding	207,463,960	185,489,824	206,253,756	180,008,891
Assumed exchange of LLC Interests for shares of Class A or Class B common stock (1)	30,531,933	48,132,630	30,871,285	52,888,588
Adjusted diluted weighted average shares outstanding	237,995,893	233,622,454	237,125,041	232,897,479
Adjusted Net Income (in thousands)	$ 93,558	$ 70,383	$ 195,136	$ 155,751
Adjusted Diluted EPS	$ 0.39	$ 0.30	$ 0.82	$ 0.67

(1) Assumes the full exchange of the weighted average of all outstanding LLC Interests held by non-controlling interests for shares of Class A or Class B common stock, resulting in the elimination of the non-controlling interests and recognition of the net income attributable to non-controlling interests.

Off-Balance Sheet Arrangements

As of June 30, 2021, we did not have any off-balance sheet arrangements.

Critical Accounting Policies and Estimates

Our condensed consolidated financial statements are prepared in accordance with U.S. GAAP which requires us to make estimates and assumptions about future events that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosure of contingent assets and liabilities. Management evaluates its accounting policies, estimates and judgments on an on-going basis.

Management evaluated the development and selection of its critical accounting policies and estimates and believes that the following policies are most critical to the portrayal of our financial condition and results of operations, and that require our most difficult, subjective or complex judgments in estimating the effect of inherent uncertainties. With respect to critical accounting policies, even a relatively minor variance between actual and expected experience can potentially have a materially favorable or unfavorable impact on subsequent results of operations. More information on all of our significant accounting policies can be found in Note 2 – Significant Accounting Policies to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts and disclosures in our condensed consolidated financial statements and accompanying notes. These estimates and assumptions are based on judgment and the best available information at the time. Management bases its estimates on historical experience, observance of trends in particular areas, information available from outside sources and various other assumptions that are believed to be reasonable under the circumstances. Information from these sources form the basis for making judgments about the carrying values of assets and liabilities that may not be readily apparent from other sources. Therefore, actual results could differ materially from those estimates. Such estimates include business combination purchase price allocations, pushdown accounting, intangible assets, goodwill, software development costs, revenue recognition, stock-based compensation, current and deferred income taxes and the Tax Receivable Agreement liability.

Business Combinations

Business combinations are accounted for under the purchase method of accounting pursuant to Accounting Standards Codification (“ASC”) 805, *Business Combinations* (“ASC 805”). The total cost of an acquisition is allocated to the underlying net assets based on their respective estimated fair values. The excess of the purchase price over the estimated fair values of the net assets acquired is recorded as goodwill. The fair value of assets acquired and liabilities assumed is determined based on assumptions that reasonable market participants would use in the principal (or most advantageous) market for the asset or liability. Determining the fair value of certain assets acquired and liabilities assumed is judgmental in nature and often involves the use of significant estimates and assumptions, including assumptions with respect to future cash flows, discount rates, growth rates, customer attrition rates and asset lives.

The most critical accounting estimate associated with the June 2021 NFI Acquisition was the valuation of the acquired definite-lived intangible customer relationship asset, which was valued at approximately $99.2 million as of the date of the acquisition. The majority of the residual total purchase price of $190 million, net of cash acquired, net of deposits with clearing organizations acquired and prior to working capital adjustments, was primarily allocated to goodwill, which was valued at approximately $88.0 million as of the date of acquisition. We utilized the assistance of a third-party valuation specialist to determine the fair value of the assets acquired and liabilities assumed at the date of acquisition.

The valuation of the customer relationships primarily included significant unobservable inputs (Level 3), creating a significant level of estimation uncertainty. Customer relationships were valued using the income approach, specifically a multi-period excess earnings method. The excess earnings method examines the economic returns contributed by the identified tangible and intangible assets of a company, and then examines the excess return that is attributable to the intangible asset being valued. The discount rate used reflects the amount of risk associated with the hypothetical cash flows for the customer relationships relative to the overall business. In developing a discount rate for the customer relationships, the Company estimated a weighted-average cost of capital for the overall business and employed an intangible asset risk premium to this rate when discounting the excess earnings related to customer relationships. The resulting discounted cash flows were then tax-affected at the applicable statutory rate. A discounted tax amortization benefit was also added to the fair value of the assets under the assumption that the customer relationships would be amortized for tax purposes over a period of 15 years. The customer relationships will be amortized over a useful life of 13 years. Any changes in the discount rate used for valuing the customer relationships or the estimated useful life used for amortization purposes could have a material impact on our condensed consolidated statements of financial condition and condensed consolidated statement of income. Any increases or decreases in the allocation of purchase price to customer relationships, which is an amortizable asset, would be offset by a corresponding decrease or increase in goodwill, which is an indefinite-lived asset, not subject to amortization and as a result would impact the asset balances recorded on our condensed consolidated statements of financial condition as well as the amortization expense recorded on our condensed consolidated statement of income over the life of the asset. Any changes in the estimated useful life of the customer relationships would also impact timing of the reduction of the net balance of intangible assets, net of accumulated amortization on our consolidated statements of financial condition and the timing of the recognition of amortization expense on our condensed consolidated statement of income. The primary areas of the preliminary purchase price allocation that are not yet finalized as of June 30, 2021, relate primarily to the valuation of the identifiable intangible assets and software and final working capital adjustments. The allocation of the purchase price will be finalized upon completion of the analysis of the acquired assets within one year of the date of acquisition.

Pushdown Accounting

The Refinitiv Transaction was accounted for by Refinitiv in accordance with the acquisition method of accounting pursuant to ASC 805 and pushdown accounting was applied to Refinitiv to record the fair value of the assets and liabilities of Refinitiv as of October 1, 2018, the date of the Refinitiv Transaction. We, as a consolidating subsidiary of Refinitiv, also accounted for the Refinitiv Transaction using pushdown accounting which resulted in a new fair value basis of accounting for certain of the Company's assets and liabilities beginning on October 1, 2018. Under the pushdown accounting applied by us, the excess of our fair value above the fair value accounting basis of our net assets and liabilities as of October 1, 2018 was recorded as goodwill. The adjusted valuations primarily affected the values of the Company's long-lived and indefinite-lived intangible assets, including software development costs.

The fair value of assets acquired and liabilities assumed was determined based on assumptions that reasonable market participants would use in the principal (or most advantageous) market for the asset or liability. In determining the fair value of the assets acquired and the liabilities assumed, we considered a report of a third-party valuation expert. Management is responsible for these internal and third-party valuations and appraisals.

Intangible Assets

We amortize our intangible assets with a finite life over their estimated useful lives ranging from seven to thirteen years and test intangible assets for impairment whenever events or changes in circumstances suggest that an asset’s or asset group’s carrying value may not be fully recoverable. We test our intangible assets with an indefinite useful life for impairment at least annually. An impairment loss is recognized if the sum of the estimated discounted cash flows relating to the asset or asset group is less than the corresponding carrying value.

Goodwill

Goodwill arises out of pushdown accounting and business combinations and is the cost of acquired companies in excess of the fair value of identifiable net assets at acquisition date. We test our goodwill at least annually for impairment and recognize an impairment loss if the estimated fair value of a reporting unit is less than its net book value. The Company is one reporting unit for goodwill impairment testing purposes. The fair value of a reporting unit is calculated based on the fair market value of our Class A common stock and Class B common stock and our ownership percentage in TWM LLC. We calculate such loss as the difference between the estimated fair value of goodwill and its carrying value. If future events or results differ adversely from the estimates and assumptions made at acquisition or as part of subsequent impairment tests, we may record increased impairment charges in the future.

Software Development Costs

We capitalize certain costs associated with the development of internal use software at the point at which the conceptual formulation, design and testing of possible software project alternatives have been completed, including among other items, employee compensation and related benefits and third-party consulting costs incurred during the application development stage which directly contribute to such development. Such costs are amortized on a straight-line basis over three years. Software development costs capitalized as part of the NFI Acquisitionare amortized over one year. Costs capitalized as part of the Refinitiv Transaction pushdown accounting allocation are amortized over nine years. We review the amounts capitalized for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be fully recoverable, or that their useful lives are shorter than originally expected. Due to rapidly changing technology and the uncertainty of the software development process itself, future results could be affected if management’s current assessment of its software projects differs from actual performance.

Revenue Recognition

We earn transaction fees from transactions executed on our trading platforms through various fee plans. Transaction fees are generated on both a variable and fixed price basis and vary by geographic region, product type and trade size. For variable transaction fees, we charge clients fees based on the mix of products traded and the volume of transactions executed.

We earn commission revenue from our electronic and voice brokerage services on a riskless principal basis. Riskless principal revenues are derived on matched principal transactions where revenues are earned on the spread between the buy and sell price of the transacted product.

We earn subscription fees primarily for granting clients access to our markets for trading and market data. Subscription fees are generally generated on a fixed price basis.

We earn fees from Refinitiv relating to the sale of market data to Refinitiv, which redistributes that data. Included in these fees are real-time market data fees which are recognized in the period that the data is provided, generally on a monthly basis, and fees for historical data sets which are recognized when the historical data set is provided to Refinitiv.

We are required to make significant judgements for the Refinitiv market data fees. Significant judgements used in accounting for this contract include:

- The provision of real-time market data feeds and annual historical data sets are distinct performance obligations.
- The performance obligations under this contract are recognized over time from the initial delivery of the data feeds or each historical data set until the end of the contract term.
- Determining the transaction price for the performance obligations by using a market assessment analysis. Inputs in this analysis include a consultant study which determined the overall value of our market data and pricing information for historical data sets provided by other companies.

Stock-Based Compensation

The stock-based compensation that our employees receive is accounted for as equity or liability awards. As a stock-based equity award, the Company measures and recognizes the cost of employee services received in exchange for awards of equity instruments based on their estimated fair values measured as of the grant date. These costs are recognized as an expense over the requisite service period, with an offsetting increase to additional paid-in capital and members' capital in our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q. As a stock-based liability award, the cost of the employee services received in exchange for an award of equity instruments is generally measured based on the grant-date fair value of the award. The fair value of that award is remeasured subsequently at each reporting date through to settlement. Changes in the fair value of the equity instrument are recognized as compensation cost over that period in our condensed consolidated statements of income. For grants made during the post-IPO period, the fair value of the equity instruments is determined based on the price of our Class A common stock on the grant date. For grants made during the pre-IPO period, the fair value of the equity instruments was determined in accordance with the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately Held Company Securities Issued as Compensation. Factors that were considered in determining the fair value include forecasted future cash flows, the weighted average cost of capital, and the performance multiples of comparable companies.

Prior to the IPO, we awarded options to management and other employees (collectively, the “Special Option Award”) under the Amended and Restated Tradeweb Markets Inc. Option Plan (the "Option Plan"). In accounting for the options issued under the Option Plan, including the Special Option Award as well as post-IPO options, we measure and recognize compensation expense for all awards based on their estimated fair values measured as of the grant date. Costs related to these options are recognized as an expense in our condensed consolidated statements of income over the requisite service period, with an offsetting increase to additional paid-in capital.

We use the Black-Scholes pricing model to value some of our stock-based awards. Determining the appropriate fair value model and calculating the fair value of the stock-based awards requires the input of highly subjective assumptions, including the expected life of the stock-based awards, the number of expected stock-based awards that will be forfeited prior to the completion of the vesting requirements, and the stock price volatility.

Income Taxes

Tradeweb Markets Inc. is subject to U.S. federal, state and local income taxes with respect to its taxable income, including its allocable share of any taxable income of TWM LLC, and is taxed at prevailing corporate tax rates. TWM LLC is a multiple member limited liability company taxed as a partnership and accordingly any taxable income generated by TWM LLC is passed through to and included in the taxable income of its members, including to us. TWM LLC records taxes for conducting business in certain state, local and foreign jurisdictions and records U.S. federal taxes for subsidiaries that are taxed as corporations for U.S. tax purposes. We currently record deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities and measure the deferred taxes using the enacted tax rates and laws that will be in effect when such temporary differences are expected to reverse. We record valuation allowances when we believe that it is more likely than not that the Company will not be able to realize its deferred tax assets in the future.

We recognize interest and penalties related to unrecognized tax benefits within the provision for income taxes in our condensed consolidated statements of income. Accrued interest and penalties are included within accounts payable, accrued expenses and other liabilities in our condensed consolidated statements of financial condition. A U.S. shareholder of a controlled foreign corporation ("CFC") is required to include in income, as a deemed dividend, the global intangible low-taxed income ("GILTI") of the CFC. We have elected to treat taxes due on future U.S. inclusions in taxable income of GILTI as a current period expense when incurred.

Tax Receivable Agreement

Tradeweb Markets Inc. entered into a Tax Receivable Agreement with TWM LLC and the Continuing LLC Owners which provides for the payment by Tradeweb Markets Inc. to a Continuing LLC Owner of 50% of the amount of U.S. federal, state and local income or franchise tax savings, if any, that Tradeweb Markets Inc. actually realizes (or in some circumstances is deemed to realize) as a result of (i) increases in the tax basis of TWM LLC's assets resulting from (a) the purchase of LLC Interests from such Continuing LLC Owner, including with the net proceeds from the IPO, the October 2019 and April 2020 follow-on offerings and any future offering or (b) redemptions or exchanges by such Continuing LLC Owner of LLC Interests for shares of Class A common stock or Class B common stock or for cash, as applicable, and (ii) certain other tax benefits related to Tradeweb Markets Inc. making payments under the Tax Receivable Agreement. Substantially all payments due under the tax receivable agreement are payable over the fifteen years following the purchase of LLC Interests from Continuing LLC Owners or redemption or exchanges by Continuing LLC Owners of LLC Interests.

The impact of any changes in the projected obligations under the Tax Receivable Agreement as a result of changes in the geographic mix of our earnings, changes in tax legislation and tax rates or other factors that may impact our tax savings will be reflected in income before taxes in the period in which the change occurs.

Effects of Inflation

While inflation may impact our revenues and operating expenses, we believe the effects of inflation, if any, on our results of operations and financial condition have not been significant. However, there can be no assurance that our results of operations and financial condition will not be materially impacted by inflation in the future.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

Foreign Currency and Derivative Risk

We have global operations and substantial portions of our revenues, expenses, assets and liabilities are generated and denominated in non-U.S. dollar currencies.

The following table shows the percentage breakdown of our revenue and operating expenses denominated in currencies other than the U.S. dollar for the three and six months ended June 30, 2021 and 2020:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	**2020**	**2021**	**2020**
% of revenue denominated in foreign currencies (1)	29%	27%	30%	29%
% of operating expenses denominated in foreign currencies (2)	16%	16%	15%	15%

(1) Revenue in foreign currencies is primarily denominated in Euros.
(2) Operating expenses in foreign currencies are primarily denominated in British pounds.

Since our condensed consolidated financial statements are presented in U.S. dollars, we must translate revenues and expenses, as well as assets and liabilities, into U.S. dollars. Accordingly, increases or decreases in the value of the U.S. dollar against the other currencies will affect our operating revenues, operating income and the value of balance sheet items denominated in foreign currencies. Revenues and expenses denominated in currencies other than the U.S. dollar are translated at the rate of exchange prevailing at the transaction date. Assets and liabilities denominated in foreign currencies are translated at the rate prevailing at the end of the reporting period. Any gain or loss resulting from the translation of assets and liabilities is included as a component of other comprehensive income.

The following table shows the change in revenue and operating income caused by fluctuations in foreign currency rates during the three and six months ended June 30, 2021 and 2020:

	Three Months Ended June 30,		Six Months Ended June 30,	
Impact of Foreign Currency Rate Fluctuations (amounts in thousands)	**2021**	**2020**	**2021**	**2020**
Increase (decrease) in revenue	$ 4,100	$ (500)	$ 7,900	$ (1,200)
Increase (decrease) in operating income	$ 2,100	$ 100	$ 4,300	$ (700)

The following table shows the impact a hypothetical 10% increase or decrease in the U.S. dollar against all other currencies would have on actual revenue and operating income for the three and six months ended June 30, 2021 and 2020:

	Three Months Ended June 30,		Six Months Ended June 30,	
Hypothetical 10% Change in Value of U.S. Dollar (amounts in thousands)	**2021**	**2020**	**2021**	**2020**
Effect of 10% change on revenue	+/- $ 8,500	+/- $ 6,400	+/- $ 17,700	+/- $ 14,500
Effect of 10% change on operating income	+/- $ 5,400	+/- $ 3,900	+/- $ 11,700	+/- $ 9,400

We have derivative risk relating to our foreign currency forward contracts. We enter into foreign currency forward contracts to mitigate our U.S. dollar and British pound sterling versus Euro exposure, generally with a duration of less than twelve months. We do not use derivative instruments for trading or speculative purposes. As of June 30, 2021 and December 31, 2020, the notional amount of our foreign currency forward contracts was $128.0 million and $122.5 million, respectively.

By using derivative instruments to hedge exposures to foreign currency fluctuations, we are exposed to credit risk. Credit risk is the failure of the counterparty to perform under the terms of the derivative contract. When the fair value of a derivative contract is positive, the counterparty owes us, which creates credit risk for us. When the fair value of a derivative contract is negative, we owe the counterparty and, therefore, we are not exposed to the counterparty’s credit risk in those circumstances. We attempt to minimize counterparty credit risk in derivative instruments by entering into transactions with high-quality counterparties whose credit rating is at least upper-medium investment grade.

Credit Risk

We have credit risk relating to our receivables, which are primarily receivables from financial institutions, including investment managers and brokers and dealers. As of both June 30, 2021 and December 31, 2020, we have an allowance for credit losses of $0.2 million with regard to these receivables.

In the normal course of our business we, as an agent, execute transactions with, and on behalf of, other brokers and dealers. If these transactions do not settle because of failure to perform by either counterparty, we may be obligated to discharge the obligation of the non-performing party and, as a result, may incur a loss if the market value of the instrument is different than the contractual amount. This credit risk exposure can be directly impacted by volatile trading markets, as our clients may be unable to satisfy their contractual obligations during volatile trading markets.

Our policy is to monitor our market exposure and counterparty risk. Counterparties are evaluated for creditworthiness and risk assessment prior to our initiating contract activities. The counterparties’ creditworthiness is then monitored on an ongoing basis, and credit levels are reviewed to ensure that there is not an inappropriate concentration of credit outstanding to any particular counterparty.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management has evaluated, under the supervision of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures, as defined in Rule 13(a)-15(e) of the Exchange Act, as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q are effective at a reasonable assurance level in ensuring that information required to be disclosed in our Exchange Act reports is (1) recorded, processed, summarized and reported in a timely manner and (2) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures will prevent or detect all errors and all fraud. While our disclosure controls and procedures are designed to provide reasonable assurance of their effectiveness, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected.

Changes in Internal Control over Financial Reporting

There were no changes to our internal control over financial reporting during the quarter ended June 30, 2021 that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Except as set forth in Note 13 to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q, there have been no material changes from the legal proceedings previously disclosed under the heading "Item 3. Legal Proceedings" in Part I of our 2020 Form 10-K.

ITEM 1A. RISK FACTORS

There have been no material changes to our principal risks that we believe are material to our business, results of operations and financial condition, from the risk factors previously disclosed in "Item 1A. Risk Factors" in Part I of our 2020 Form 10-K.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

During the three months ended June 30, 2021, we repurchased the following shares of shares of Class A common stock:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (1)
				(in thousands)
April 1, 2021 – April 30, 2021	—	$ —	—	$ 150,000
May 1, 2021 – May 31, 2021	—	—	—	$ 150,000
June 1, 2021 – June 30, 2021	617,644	83.67	617,644	$ 98,324
Total	617,644	$ 83.67	617,644	

(1) On February 4, 2021, we announced that the board of directors authorized a new share repurchase program, primarily to offset annual dilution from stock-based compensation plans (the "Share Repurchase Program"). The Share Repurchase Program authorizes the purchase of up to $150.0 million of the Company's Class A common stock at the Company's discretion through the end of fiscal year 2023. The Share Repurchase Program will be effected primarily through regular open-market purchases (which may include repurchase plans designed to comply with Rule 10b5-1). The Share Repurchase Program does not require the Company to acquire a specific number of shares and may be suspended, amended or discontinued at any time. Each share of Class A common stock repurchased pursuant to the Share Repurchase Program was funded with the proceeds, on a dollar-for-dollar basis, from the repurchase by Tradeweb Markets LLC of an LLC Interest from the Company in order to maintain the one-to-one ratio between shares of the Company's common stock and the LLC Interests.

The table above does not reflect shares surrendered to cover the payroll tax withholding obligations upon the exercise of stock options and vesting of restricted stock units. During the three months ended June 30, 2021, the Company withheld 98,003 shares, of common stock from employee stock option, PRSU and RSU awards.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Description of Exhibit
31.1*	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover page formatted as Inline XBRL and contained in Exhibit 101.

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

	TRADEWEB MARKETS INC.
July 30, 2021	/s/ Lee Olesky
	By: Lee Olesky Chief Executive Officer (Principal Executive Officer)
July 30, 2021	/s/ Robert Warshaw
	By: Robert Warshaw Chief Financial Officer (Principal Financial Officer)

EXHIBIT 31.1

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Lee Olesky, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2021 of Tradeweb Markets Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 30, 2021

/s/ Lee Olesky
Lee Olesky
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Robert Warshaw, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2021 of Tradeweb Markets Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 30, 2021

/s/ Robert Warshaw

Robert Warshaw
Chief Financial Officer

EXHIBIT 32.1

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Tradeweb Markets Inc. (the “Company”) for the fiscal quarter ended June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Lee Olesky, Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 30, 2021	/s/ Lee Olesky
	Lee Olesky Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Tradeweb Markets Inc. (the “Company”) for the fiscal quarter ended June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Robert Warshaw, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 30, 2021	/s/ Robert Warshaw
	Robert Warshaw
	Chief Financial Officer