S&P Global

2019 Financial Performance

The following is excepted from S&P Global Inc.'s Annual Report on Form 10-K and should be read as part of such report to better understand our Company's performance.

Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis ("MD&A") provides a narrative of the results of operations and financial condition of S&P Global Inc. (together with its consolidated subsidiaries, the "Company," "we," "us" or "our") for the years ended December 31, 2019 and 2018, respectively. The MD&A should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the year ended December 31, 2019, which have been prepared in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP").

The MD&A includes the following sections:

- Overview
- Results of Operations
- Liquidity and Capital Resources
- Reconciliation of Non-GAAP Financial Information
- Critical Accounting Estimates
- Recent Accounting Standards

Certain of the statements below are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, any projections of future results of operations and cash flows are subject to substantial uncertainty. See Forward-Looking Statements on pages 46-47 of this report.

Overview

We are a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide. The capital markets include asset managers, investment banks, commercial banks, insurance companies, exchanges, trading firms and issuers; and the commodity markets include producers, traders and intermediaries within energy, petrochemicals, metals and agriculture.

Our operations consist of four reportable segments: S&P Global Ratings ("Ratings"), S&P Global Market Intelligence ("Market Intelligence"), S&P Global Platts ("Platts") and S&P Dow Jones Indices ("Indices").

- Ratings is an independent provider of credit ratings, research and analytics, offering investors and other market participants information, ratings and benchmarks.
- Market Intelligence is a global provider of multi-asset-class data, research and analytical capabilities, which integrate cross-asset analytics and desktop services.
- Platts is the leading independent provider of information and benchmark prices for the commodity and energy markets.
- Indices is a global index provider maintaining a wide variety of valuation and index benchmarks for investment advisors, wealth managers and institutional investors.

Major Portfolio Changes

The following significant change was recently made to our portfolio in January of 2020:

- In January of 2020, we completed the acquisition of the ESG Ratings Business from RobecoSAM, which includes the widely followed SAM* Corporate Sustainability Assessment, an annual evaluation of companies' sustainability practices. The acquisition will bolster our position as the premier resource for essential environmental, social, and governance ("ESG") insights and product solutions for our customers. Through this acquisition, we will be able to offer our customers even more transparent, robust and comprehensive ESG solutions.

The following significant change was made to our portfolio during the three years ended December 31, 2019:

- In April of 2018, we acquired Kensho Technologies Inc. ("Kensho") for approximately $550 million, net of cash acquired, in a mix of cash and stock. Kensho is a leading-edge provider of next-generation analytics, artificial intelligence, machine learning, and data visualization systems to Wall Street's premier global banks and investment institutions, as well as the National Security community. Beginning in the first quarter of 2019, the contract obligations for revenue from Kensho's major customers were transferred to Market Intelligence for fulfillment. As a result of this transfer, from January 1, 2019 revenue from contracts with Kensho's customers is reflected in Market Intelligence's results. In 2018, the revenue from contracts with Kensho's customers was reported in Corporate revenue.

Increased Shareholder Return

During the three years ended December 31, 2019, we have returned approximately $5.4 billion to our shareholders through a combination of share repurchases and our quarterly dividends: we completed share repurchases of approximately $3.9 billion and distributed regular quarterly dividends totaling approximately $1.5 billion. Also, on January 29, 2020 the Board of Directors approved an increase in the quarterly common stock dividend from $0.57 per share to $0.67 per share.

Key Results

(in millions)	2019	2018	2017	'19 vs '18	'18 vs '17
	Year ended December 31,			% Change[1]	
Revenue	**$6,699**	$6,258	$6,063	7%	3%
Operating profit[2]	**$3,226**	$2,790	$2,583	16%	8%
% Operating margin	**48%**	45%	43%		
Diluted earnings per share from net income	**$8.60**	$7.73	$5.78	11%	34%

[1] % changes in the tables throughout the MD&A are calculated off of the actual number, not the rounded number presented.

[2] 2019 includes a gain on the sale of RigData and SPIAS of $27 million and $22 million, respectively, employee severance charges of $25 million, Kensho retention related expense of $21 million, lease impairments of $11 million and acquisition-related costs of $4 million. 2018 includes legal settlement expenses of $74 million, Kensho retention related expense of $31 million, restructuring charges related to a business disposition and employee severance charges of $25 million and lease impairments of $11 million. 2017 includes legal settlement expenses of $55 million, employee severance charges of $44 million, a charge to exit leased facilities of $25 million, non-cash acquisition and disposition-related adjustments of $15 million and an asset write-off of $2 million. 2019 and 2018 also includes amortization of intangibles from acquisitions of $122 million and 2017 includes amortization of intangibles from acquisitions of $98 million.

2019

Revenue increased 7%, with an unfavorable impact of 1 percentage point from foreign exchange rates. The increase was driven by revenue growth at all of our reportable segments. Revenue growth at Ratings was driven by an increase in corporate bond ratings revenue and public finance revenue, partially offset by lower bank loan ratings revenue. The increase at Market Intelligence was driven by annualized contract value growth in the Market Intelligence Desktop, Credit Risk Solutions and Data Management Solutions products. The increase at Indices was due to higher levels of assets under management for exchange traded funds ("ETFs") and mutual funds. Revenue growth at Indices was also favorably impacted by the buyout of the balance of intellectual property rights in a family of indices from one of our co-marketing and index development partners in the fourth quarter of 2018, retrospective fees for previously unlicensed and unreported index usage and benefits related to recent contract renegotiation. The increase at Platts was primarily due to continued demand for market data and price assessment products.

Operating profit increased 16%, with a favorable impact from foreign exchange rates of less than 1 percentage point. Excluding the impact of higher legal settlement expenses in 2018 of 3 percentage points, a gain on our dispositions of 2 percentage points and higher Kensho retention related expense in 2018 of 1 percentage point, operating profit increased 10%. The increase was primarily due to revenue growth at all of our reportable segments, lower professional fees and decreased expenses at Corporate Unallocated driven by a $20 million reduction in contributions made to the S&P Global Foundation in 2018. These increases to operating profit were partially offset by higher technology costs, an increase in incentive costs and higher compensation costs driven by annual merit increases and additional headcount.

2018

Revenue increased 3% with a 1 percentage point favorable impact from foreign exchange rates. Revenue growth was driven by increases at Market Intelligence, Indices and Platts, partially offset by a decrease at Ratings. The increase at Market Intelligence was driven by annualized contract value growth in the Market Intelligence Desktop and Credit Risk Solutions products. Revenue growth at Indices was driven by higher levels of assets under management for ETFs and mutual funds, and higher exchange-traded derivative volumes. The increase at Platts was due to continued demand for market data and price assessment products. These increases were partially offset by a decrease at Ratings driven by lower corporate bond ratings revenue.

Operating profit increased 8% with a 2 percentage point favorable impact from foreign exchange rates. Excluding the unfavorable impact of higher legal settlement expenses in 2018 of less than 1 percentage point, Kensho retention related expense in 2018 of less than 1 percentage point, and higher deal-related amortization in 2018 of less than 1 percentage point, partially offset by the favorable impact of higher employee severance charges in 2017 of less than 1 percentage point, the favorable impact of non-cash acquisition and disposition-related adjustments in 2017 of less than 1 percentage point, operating profit increased 8%. The increase was primarily due to revenue growth at Market Intelligence, Indices and Platts and decreased compensation costs at Ratings and Corporate primarily driven by reduced incentive costs as well as the decreased headcount from attrition and prior year restructuring actions. These increases were partially offset by a decrease in revenue at Ratings, increased expenses at Market Intelligence due to an increase in cost of sales as a result of royalties tied to annualized contract value growth and increased data costs, and higher compensation costs at Market Intelligence and Indices primarily driven by additional headcount.

Our Strategy

We are a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide. Our purpose is to provide the intelligence that is essential for companies, governments and individuals to make decisions with conviction. We seek to deliver on this purpose in line with our core values of integrity, excellence and relevance.

In 2018, we announced the launch of Powering the Markets of the Future to provide a framework for our forward-looking business strategy. Through this framework, we seek to deliver an exceptional, differentiated customer experience by enhancing our foundational capabilities, evolving and growing our core businesses, and pursuing growth via adjacencies. In 2020, we will strive to deliver on our strategic priorities in the following key areas:

Finance

- Meeting or exceeding revenue growth and EBITA margin targets and delivering on commitments to return capital to shareholders;
- Funding organic opportunities with continued productivity gains;
- Pursuing a disciplined acquisition, investment and partnership strategy to support our strategic initiatives; and
- Better serving our customers, employees, and the communities in which we operate through our commitment to corporate responsibility and sustainability.

Customer

- Continuing to drive excellence through our core business offerings;
- Delivering ESG, Small and Medium-sized Enterprise data and Marketplace solutions to market on schedule and with strong commercial traction;
- Modernizing and enhancing the delivery of our products across multiple channels (e.g., S&P Global Platform, MI Smart move, feeds, application programming interfaces);
- Providing a superior customer experience through the collective efforts of our divisions and functions; and
- Accelerating growth in non-U.S. markets with a particular focus on progressing our businesses in China.

Operations

- Modernizing our workplace to improve end-user productivity and experience, enabling our employees to innovate and better serve our customers;
- Standardizing and simplifying our technology to best support and enable our divisions;
- Reducing our Cyber Security risk while augmenting process maturity and producing outcomes commensurate with our risk appetite;
- Maintaining our strong commitment to quality, utilizing shared data processes and capabilities; and
- Continuing to advance a strong Risk, Internal Control, and Compliance environment.

People

- Creating an inclusive performance-driven culture that drives employee engagement and aligns with our purpose of accelerating progress in the world;
- Promoting career mobility and attracting and retaining the best people; and
- Improving diversity in overall representation through talent acquisition, advancement and retention.

There can be no assurance that we will achieve success in implementing any one or more of these strategies as a variety of factors could unfavorably impact operating results, including prolonged difficulties in the global credit markets and a change in the regulatory environment affecting our businesses. See Item 1A, Risk Factors, in our Annual Report on Form 10-K.

Further projections and discussion on our 2020 outlook for our segments can be found within " – Results of Operations".

Results of Operations

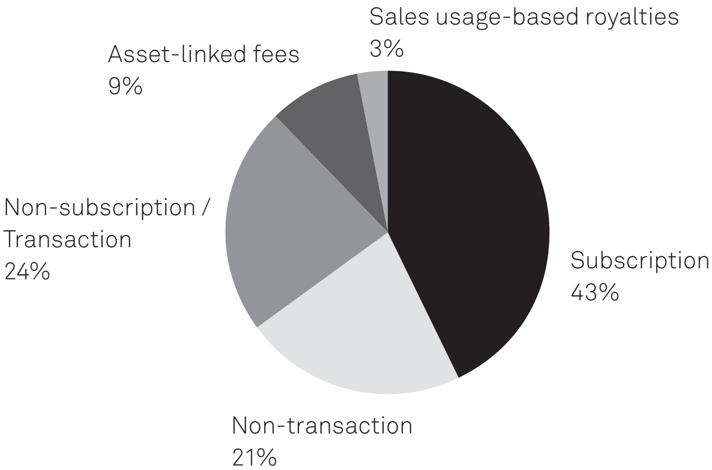
CONSOLIDATED REVIEW	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	’19 vs ’18	’18 vs ’17
Revenue	**$6,699**	$6,258	$6,063	7%	3%
Expenses:					
Operating-related expenses	**1,801**	1,698	1,694	6%	–%
Selling and general expenses	**1,517**	1,564	1,606	(3)%	(3)%
Depreciation and amortization	**204**	206	180	(1)%	14%
Total expenses	**3,522**	3,468	3,480	2%	–%
Gain on dispositions	**(49)**	–	–	N/M	N/M
Operating profit	**3,226**	2,790	2,583	16%	8%
Other expense (income), net	**98**	(25)	(27)	N/M	8%
Interest expense, net	**198**	134	149	48%	(10)%
Provision for taxes on income	**627**	560	823	12%	(32)%
Net income	**2,303**	2,121	1,638	9%	30%
Less: net income attributable to noncontrolling interests	**(180)**	(163)	(142)	(10)%	(15)%
Net income attributable to S&P Global Inc.	**$2,123**	$1,958	$1,496	8%	31%

N/M - not meaningful

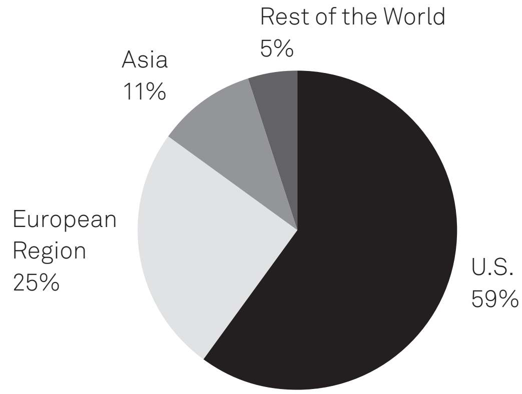
Revenue

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	’19 vs ’18	’18 vs ’17
Subscription revenue	**$2,843**	$2,682	$2,454	6%	9%
Non-subscription / transaction revenue	**1,632**	1,401	1,574	17%	(11)%
Non-transaction revenue	**1,401**	1,408	1,363	(1)%	3%
Asset-linked fees	**623**	542	484	15%	12%
Sales usage-based royalties	**200**	225	188	(11)%	19%
% of total revenue:					
Subscription revenue	**43%**	43%	41%		
Non-subscription / transaction revenue	**24%**	22%	26%		
Non-transaction revenue	**21%**	23%	22%		
Asset-linked fees	**9%**	9%	8%		
Sales usage-based royalties	**3%**	3%	3%		
U.S. revenue	**$3,949**	$3,750	$3,658	5%	3%
International revenue:					
European region	**1,681**	1,543	1,473	9%	5%
Asia	**715**	647	594	11%	9%
Rest of the world	**354**	318	338	11%	(6)%
Total international revenue	**$2,750**	$2,508	$2,405	10%	4%
% of total revenue:					
U.S. revenue	**59%**	60%	60%		
International revenue	**41%**	40%	40%		

2019 Revenue by Type



2019 Revenue by Geographic Area



2019

Revenue increased 7% as compared to 2018. Subscription revenue increased primarily from growth in Market Intelligence's average contract values and continued demand for Platts' proprietary content. Higher data subscription revenue at Indices also contributed to subscription revenue growth. Non-transaction revenue decreased 1% primarily due to the unfavorable impact from foreign exchange rates. Non-transaction revenue was unfavorably impacted by a decline in Ratings Evaluation Service activity, a decrease at CRISIL, primarily within the risk and analytics sector, and lower entity credit ratings revenue, and benefited from an increase in surveillance revenue and higher royalty revenue. Non-subscription / transaction revenue increased driven by an increase in corporate bond ratings revenue and public finance revenue, partially offset by a decline in bank loan ratings revenue at Ratings. Asset-linked fees increased due to the impact of higher levels of assets under management for ETFs and mutual funds at Indices. Additionally, asset-linked fees was favorably impacted by the buyout of the balance of intellectual property rights in a family of indices from one of our co-marketing and index development partners in the fourth quarter of 2018, retrospective fees for previously unlicensed and unreported index usage and benefits related to recent contract renegotiations. The decline in sales-usage based royalties was primarily driven by lower exchange-traded derivative volumes at Indices in 2019. See "Segment Review" below for further information.

The unfavorable impact of foreign exchange rates reduced revenue by 1 percentage point. This impact refers to constant currency comparisons estimated by recalculating current year results of foreign operations using the average exchange rate from the prior year.

2018

Revenue increased 3% as compared to 2017. Subscription revenue increased primarily from growth in Market Intelligence's average contract values and continued demand for Platts' proprietary content. Non-transaction revenue grew at Ratings primarily due to an increase in surveillance fees, higher entity credit ratings revenue and an increase in royalty revenue. Non-subscription / transaction revenue decreased as a decline in corporate bond ratings revenue was partially offset by an increase in structured finance revenue and bank loan ratings revenue at Ratings. Asset-linked fees increased primarily due to the impact of higher levels of assets under management for ETFs and mutual funds at Indices. Sales usage-based royalties increased primarily driven by higher volumes for exchange-traded derivatives at Indices. See "Segment Review" below for further information.

Foreign exchange rates had a 1 percentage point favorable impact on revenue. This impact refers to constant currency comparisons estimated by recalculating current year results of foreign operations using the average exchange rate from the prior year.

Total Expenses

The following tables provide an analysis by segment of our operating-related expenses and selling and general expenses for the years ended December 31, 2019 and 2018:

(in millions)	**2019**		2018		% Change	
	Operating-related expenses	**Selling and general expenses**	Operating-related expenses	Selling and general expenses	Operating-related expenses	Selling and general expenses
Ratings [1]	**$847**	**$461**	$804	$517	5%	(11)%
Market Intelligence [2]	**691**	**583**	654	535	6%	9%
Platts [3]	**219**	**194**	212	195	3%	(1)%
Indices	**136**	**144**	129	133	5%	8%
Intersegment eliminations [4]	**(128)**	**—**	(125)	—	(2)%	N/M
Total segments	**1,765**	**1,382**	1,674	1,380	5%	—%
Corporate Unallocated expense [5]	**36**	**135**	24	184	53%	(27)%
	$1,801	**$1,517**	$1,698	$1,564	6%	(3)%

N/M - not meaningful

1 In 2019, selling and general expenses include employee severance charges of $11 million. In 2018, selling and general expenses include legal settlement expenses of $74 million and employee severance charges of $8 million.

2 In 2019, selling and general expenses include employee severance charges of $6 million and acquisition-related costs of $4 million. In 2018, selling and general expenses include restructuring charges related to a business disposition and employee severance charges of $7 million.

3 In 2019, selling and general expenses include employee severance charges of $1 million.

4 Intersegment eliminations primarily relate to a royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings.

5 In 2019, selling and general expenses include Kensho retention related expense of $21 million, lease impairments of $11 million and employee severance charges of $7 million. In 2018, selling and general expenses include Kensho retention related expense of $31 million, lease impairments of $11 million and employee severance charges of $10 million.

Operating-Related Expenses

Operating-related expenses increased as compared to 2018 driven by the acquisition of Kensho in April of 2018 and increases at all of our reportable segments. Ratings increased primarily due to an increase in incentive costs, partially offset by lower professional fees. The increase at Market Intelligence was due to higher technology costs, higher compensation costs and an increase in intersegment royalties tied to annualized contract value growth. Platts increased due to higher compensation costs primarily related to annual merit increases and higher costs to support business initiatives. The increase at Indices was primarily related to increased royalties due to increased traction of royalty-based products and higher compensation costs.

Intersegment eliminations primarily relate to a royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings.

Selling and General Expenses

Selling and general expenses decreased 3%. Excluding the impact of legal settlement expenses in 2018 of 4 percentage points and higher Kensho retention related expense in 2018 of 1 percentage point, selling and general expenses increased 2%. This increase was primarily driven by an increase at Market Intelligence due to higher compensation and technology costs. The increase at Ratings was primarily driven by an increase in incentive costs. Indices increased primarily due to higher legal expenses and compensation costs. These increases were partially offset by a decrease in expenses at Corporate Unallocated primarily driven by a $20 million contribution made by the Company to the S&P Global Foundation in 2018 and a decrease in expenses at Kensho.

Depreciation and Amortization

Depreciation and amortization decreased $2 million, or 1%, compared to 2018 due to decreases at Market Intelligence and Platts related to assets becoming fully depreciated and assets becoming fully amortized at Platts, partially offset by an increase in amortization expense from the acquisition of Kensho in April of 2018.

The following tables provide an analysis by segment of our operating-related expenses and selling and general expenses for the years ended December 31, 2018 and 2017:

(in millions)	2018		2017		% Change	
	Operating-related expenses	Selling and general expenses	Operating-related expenses	Selling and general expenses	Operating-related expenses	Selling and general expenses
Ratings [1]	$804	$517	$856	$582	(6)%	(11)%
Market Intelligence [2]	654	535	619	502	6%	7%
Platts [3]	212	195	207	218	3%	(10)%
Indices	129	133	121	118	6%	12%
Intersegment eliminations [4]	(125)	—	(109)	—	(14)%	N/M
Total segments	1,674	1,380	1,694	1,420	(1)%	(3)%
Corporate Unallocated expense [5]	24	184	—	186	N/M	(1)%
	$1,698	$1,564	$1,694	$1,606	—%	(3)%

N/M - not meaningful

1 In 2018, selling and general expenses include legal settlement expenses of $74 million and employee severance charges of $8 million. In 2017, selling and general expenses include legal settlement expenses of $55 million and employee severance charges of $25 million.

2 In 2018, selling and general expenses include restructuring charges related to a business disposition and employee severance charges of $7 million. In 2017, selling and general expenses include employee severance charges of $7 million and a non-cash disposition-related adjustment of $4 million.

3 In 2017, selling and general expenses include a non-cash acquisition-related adjustment of $11 million, a charge to exit a leased facility of $6 million, an asset write-off of $2 million and employee severance charges of $2 million.

4 Intersegment eliminations primarily relate to a royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings.

5 In 2018, selling and general expenses include Kensho retention related expense of $31 million, lease impairments of $11 million and employee severance charges of $10 million. In 2017, selling and general expenses include a charge to exit leased facilities of $19 million and employee severance charges of $10 million.

Operating-Related Expenses

Operating-related expenses remained relatively unchanged as compared to 2017, increasing $4 million or less than 1%. Market Intelligence increased due to an increase in cost of sales as a result of royalties tied to annualized contract value growth and increased data costs, and higher compensation costs related to additional headcount. Additionally, operating-related expenses increased due to the acquisition of Kensho in April of 2018. These increases were partially offset by decreased compensation costs at Ratings primarily driven by reduced incentive costs as well as the decreased headcount from attrition and prior year restructuring actions.

Selling and General Expenses

Selling and general expenses decreased 3%. Excluding the favorable impact of higher employee severance charges in 2017 of 59 percentage points, non-cash acquisition and disposition-related adjustments in 2017 of 48 percentage points, higher lease impairment charges in 2017 of 43 percentage points and an asset write-off in 2017 of 7 percentage points, partially offset by the unfavorable impact of Kensho retention related expense in 2018 of 98 percentage points and higher legal settlement expenses in 2018 of 59 percentage points, selling and general expenses decreased 3%. The decrease is due to decreased compensation costs at Ratings primarily driven by reduced incentive costs, as well as the decreased headcount from attrition and prior year restructuring actions, and a reduction in Corporate Unallocated expense due to a reduction in vacant space, technology spend and professional fees. These decreases were partially offset by higher compensation costs at Market Intelligence and Indices, and increased expenses due to the acquisition of Kensho in April of 2018.

Depreciation and Amortization

Depreciation and amortization increased $26 million, or 14%, compared to 2018 due to an increase in amortization expense primarily related to the acquisition of Kensho in April of 2018.

Gain on Dispositions

During the year ended December 31, 2019, we completed the following dispositions that resulted in a pre-tax gain of $49 million, which was included in Gain on dispositions in the consolidated statement of income:

- In July of 2019, we completed the sale of RigData, a business within our Platts segment, to Drilling Info, Inc. RigData is a provider of daily information on rig activity for the natural gas and oil markets across North America. During the year ended December 31, 2019, we recorded a pre-tax gain of $27 million ($26 million after-tax) in Gain on dispositions in the consolidated statement of income related to the sale of RigData.
- In March of 2019, we entered into an agreement to sell Standard & Poor's Investment Advisory Services LLC ("SPIAS"), a business within our Market Intelligence segment, to Goldman Sachs Asset Management ("GSAM"). SPIAS provides non-discretionary investment advice across institutional sub-advisory and intermediary distribution channels globally. On July 1, 2019, we completed the sale of SPIAS to GSAM. During the year ended December 31, 2019, we recorded a pre-tax gain of $22 million ($12 million after-tax) in Gain on dispositions in the consolidated statement of income related to the sale of SPIAS.

Operating Profit

We consider operating profit to be an important measure for evaluating our operating performance and we evaluate operating profit for each of the reportable business segments in which we operate.

We internally manage our operations by reference to operating profit with economic resources allocated primarily based on each segment's contribution to operating profit. Segment operating profit is defined as operating profit before Corporate Unallocated. Segment operating profit is not, however, a measure of financial performance under U.S. GAAP, and may not be defined and calculated by other companies in the same manner.

The table below reconciles segment operating profit to total operating profit:

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	'19 vs '18	'18 vs '17
Ratings [1]	**$1,763**	$1,530	$1,517	15%	1%
Market Intelligence [2]	**607**	545	457	11%	19%
Platts [3]	**438**	383	326	15%	18%
Indices [4]	**630**	563	478	12%	18%
Total segment operating profit	**3,438**	3,021	2,778	14%	9%
Corporate Unallocated [5]	**(212)**	(231)	(195)	8%	(19)%
Total operating profit	**$3,226**	$2,790	$2,583	16%	8%

[1] 2019 includes employee severance charges of $11 million. 2018 includes legal settlement expenses of $74 million and employee severance charges of $8 million. 2017 includes legal settlement expenses of $55 million and employee severance charges of $25 million. 2019 and 2018 includes amortization of intangibles from acquisitions of $2 million and 2017 includes amortization of intangibles from acquisitions of $4 million.

[2] 2019 includes a gain on the sale of SPIAS of $22 million, employee severance charges of $6 million and acquisition-related costs of $4 million. 2018 includes restructuring charges related to a business disposition and employee severance charges of $7 million. 2017 includes employee severance charges of $7 million and a non-cash disposition-related adjustment of $4 million. 2019, 2018 and 2017 includes amortization of intangibles from acquisitions of $75 million, $73 million and $71 million, respectively.

[3] 2019 includes a gain on the sale of RigData of $27 million and employee severance charges of $1 million. 2017 includes a non-cash acquisition-related adjustment of $11 million, a charge to exit a leased facility of $6 million, an asset write-off of $2 million and employee severance charges of $2 million. 2019 includes amortization of intangibles from acquisitions of $12 million and both 2018 and 2017 includes amortization of intangibles from acquisitions of $18 million.

[4] 2019, 2018 and 2017 includes amortization of intangibles from acquisitions of $6 million.

[5] 2019 includes Kensho retention related expense of $21 million, lease impairments of $11 million and employee severance charges of $7 million. 2018 includes Kensho retention related expense of $31 million, lease impairments of $11 million and employee severance charges of $10 million. 2017 includes a charge to exit leased facilities of $19 million and employee severance charges of $10 million. 2019 and 2018 also includes amortization of intangibles from acquisitions of $28 million and $23 million, respectively.

2019

Segment Operating Profit

Increased $417 million, or 14% as compared to 2018. Excluding the impact of higher legal settlement expenses in 2018 of 3 percentage points and a gain on our dispositions in 2019 of 2 percentage points, segment operating profit increased 9%. This increase was primarily driven by an increase in revenue at all of our reportable segments and lower professional fees, partially offset by higher technology costs, an increase in incentive costs and higher compensation costs driven by annual merit increases and additional headcount.

Corporate Unallocated

Corporate Unallocated includes costs for corporate center functions, select initiatives and unoccupied office space and Kensho, included in selling and general expenses, and Kensho revenue in 2018. Corporate Unallocated improved by $19 million or 8% as compared to 2018. Excluding the favorable impact of lower Kensho retention related expense in 2019 of 2 percentage points, partially offset by the unfavorable impact of higher deal-related amortization in 2019 of 1 percentage point, Corporate Unallocated improved 7% primarily driven by a $20 million contribution made by the Company to the S&P Global Foundation in 2018 and a reduction in professional fees.

Foreign exchange rates had a favorable impact on operating profit of less than 1 percentage point. The foreign exchange rate impact refers to constant currency comparisons and the remeasurement of monetary assets and liabilities. Constant currency impacts are estimated by recalculating current year results of foreign operations using the average exchange rate from the prior year. Remeasurement impacts are based on the variance between current-year and prior-year foreign exchange rate fluctuations on monetary assets and liabilities denominated in currencies other than the individual business' functional currency.

2018

Segment Operating Profit
Increased $243 million, or 9% as compared to 2017. Excluding the favorable impact of higher employee severance charges in 2017 of 1 percentage point and non-cash acquisition and disposition related adjustments of 1 percentage point, partially offset by the impact of higher legal settlement charges in 2018 of 1 percentage point, segment operating profit increased 7%. This increase was primarily due to revenue growth at Market Intelligence, Indices and Platts as discussed above and decreased compensation costs at Ratings primarily driven by reduced incentive costs as well as the decreased headcount from attrition and prior year restructuring actions. These increases were partially offset by a decrease in revenue at Ratings, increased expenses at Market Intelligence due to an increase in cost of sales as a result of royalties tied to annualized contract value growth and increased data costs, and higher compensation costs at Market Intelligence and Indices primarily driven by additional headcount. See " – Segment Review" below for further information.

Corporate Unallocated
Corporate Unallocated includes costs for corporate center functions, select initiatives and unoccupied office space, included in selling and general expenses, and the results for Kensho in 2018. Corporate Unallocated operating loss increased by $36 million or 19% as compared to 2017. Excluding the unfavorable impact of Kensho retention related expense in 2018 of 17 percentage points, higher deal-related amortization of 12 percentage points, partially offset by higher lease impairment charges in 2017 of 4 percentage points, Corporate Unallocated improved 6% due to a reduction in vacant space, performance related incentive compensation and professional fees.

Foreign exchange rates had a favorable impact on operating profit of 2 percentage points. The foreign exchange rate impact refers to constant currency comparisons and the remeasurement of monetary assets and liabilities. Constant currency impacts are estimated by recalculating current year results of foreign operations using the average exchange rate from the prior year. Remeasurement impacts are based on the variance between current-year and prior-year foreign exchange rate fluctuations on monetary assets and liabilities denominated in currencies other than the individual business' functional currency.

Other Expense (Income), net

Other expense, net for 2019 was $98 million and other income, net for 2018 and 2017 was $25 million and $27 million, respectively. Other income (expense), net primarily includes the net periodic benefit cost for our retirement and postretirement plans. During the first quarter of 2019, the Company purchased a group annuity contract under which an insurance company assumed the Company's obligation to pay pension benefits to approximately 4,600 retirees and beneficiaries. This purchase eliminates all future investment or mortality risk associated with these retirees. The purchase of this group annuity contract was funded with pension plan assets. As a result, the Company's outstanding pension benefit obligation was reduced by approximately $370 million, representing approximately 24% of the total obligations of the Company's qualified pension plans. In connection with this transaction, the Company recorded a pre-tax settlement charge of $113 million, reflecting the accelerated recognition of a portion of unamortized actuarial losses in the plan. The Company also recorded pension settlement charges of $5 million and $8 million in 2018 and 2017, respectively. Excluding these charges, other income, net was $14 million, $29 million and $35 million for 2019, 2018 and 2017, respectively. The decreases in other income, net in 2019 compared to 2018 and 2018 compared to 2017 were primarily due to a higher loss on investments.

Interest Expense, net

Net interest expense for 2019 increased $64 million or 48% as compared to 2018, primarily driven by costs associated with the early repayment of our 3.3% Senior Notes and a portion of our 6.55% Senior Notes. Excluding these costs, net interest expense increased $7 million or 5%, driven by the release of reserves for accrued interest related to the resolution of various tax audits in 2018.

Net interest expense for 2018 decreased $16 million or 10% as compared to 2017, driven by the release of reserves for accrued interest related to the resolution of various tax audits in 2018.

Provision for Income Taxes

Our effective tax rate was 21.4%, 20.9% and 33.4% for 2019, 2018 and 2017, respectively. The increase in 2019 was primarily due to an increase in accruals for potential tax liabilities for prior years in various jurisdictions. The decrease in 2018 was primarily due to the reduction of the U.S. federal corporate tax rate as a result of the enactment of the Tax Cuts and Jobs Act ("TCJA"). Additionally, a one-time net tax charge of $149 million due to the TCJA was recorded in 2017, which included tax expense of approximately $173 million on the deemed repatriation of foreign earnings and a tax benefit of approximately $24 million in respect of the re-valuation of the net U.S. deferred tax liabilities at the reduced corporate income tax rate.

Segment Review

RATINGS

Ratings is an independent provider of credit ratings, research and analytics to investors, issuers and other market participants. Credit ratings are one of several tools investors can use when making decisions about purchasing bonds and other fixed income investments. They are opinions about credit risk and our ratings express our opinion about the ability and willingness of an issuer, such as a corporation or state or city government, to meet its financial obligations in full and on time. Our credit ratings can also relate to the credit quality of an individual debt issue, such as a corporate or municipal bond, and the relative likelihood that the issue may default.

Ratings disaggregates its revenue between transaction and non-transaction. Transaction revenue primarily includes fees associated with:

- ratings related to new issuance of corporate and government debt instruments, as well as structured finance debt instruments;
- bank loan ratings; and
- corporate credit estimates, which are intended, based on an abbreviated analysis, to provide an indication of our opinion regarding creditworthiness of a company which does not currently have a Ratings credit rating.

Non-transaction revenue primarily includes fees for surveillance of a credit rating, annual fees for customer relationship-based pricing programs, fees for entity credit ratings and global research and analytics at CRISIL. Non-transaction revenue also includes an intersegment royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings. Royalty revenue for 2019, 2018 and 2017 was $118 million, $109 million and $100 million, respectively.

The following table provides revenue and segment operating profit information for the years ended December 31:

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	'19 vs '18	'18 vs '17
Revenue	**$3,106**	$2,883	$2,988	8%	(4)%
Transaction revenue [1]	**$1,577**	$1,350	$1,515	17%	(11)%
Non-transaction revenue [1]	**$1,529**	$1,533	$1,473	—%	4%
% of total revenue:					
Transaction revenue	**51%**	47%	51%		
Non-transaction revenue	**49%**	53%	49%		
U.S. revenue	**$1,745**	$1,619	$1,716	8%	(6)%
International revenue	**$1,361**	$1,264	$1,272	8%	1%
% of total revenue:					
U.S. revenue	**56%**	56%	57%		
International revenue	**44%**	44%	43%		
Operating profit [2]	**$1,763**	$1,530	$1,517	15%	1%
% Operating margin	**57%**	53%	51%		

[1] In 2019, we reevaluated our transaction and non-transaction revenue presentation which resulted in a reclassification from transaction revenue to non-transaction revenue of $27 million and $25 million for 2018 and 2017, respectively.

[2] 2019 includes employee severance charges of $11 million. 2018 includes legal settlement expenses of $74 million and employee severance charges of $8 million. 2017 includes legal settlement expenses of $55 million and employee severance charges of $25 million. 2019 and 2018 includes amortization of intangibles from acquisitions of $2 million and 2017 includes amortization of intangibles from acquisitions of $4 million.

2019

Revenue increased 8%, with a 1 percentage point unfavorable impact from foreign exchange rates, due to an increase in transaction revenue. Transaction revenue increased due to an increase in corporate bond ratings revenue primarily driven by higher corporate bond issuance in the U.S. and Europe mainly resulting from historically low borrowing costs, partially offset by lower bank loan ratings revenue driven by reduced U.S. issuance volumes. An increase in public finance revenue due to increased issuance also contributed to transaction revenue growth. Non-transaction revenue decreased less than 1% primarily due to the unfavorable impact from foreign exchange rates. Non-transaction revenue was unfavorably impacted by a decline in Ratings Evaluation Service activity, a decrease at CRISIL, primarily within the risk and analytics sector, and lower entity credit ratings revenue, and benefited from an increase in surveillance revenue and higher royalty revenue. Transaction and non-transaction revenue also benefited from improved contract terms across product categories.

Operating profit increased 15%, with a 2 percentage point unfavorable impact from foreign exchange rates. Excluding the impact of higher legal settlement expenses in 2018 of 5 percentage points, operating profit increased 10%. This increase was primarily due to the increase in revenue discussed above combined with a reduction in legal expenses, lower professional fees from increased leverage on the Global Technology Center and internal resources, partially offset by an increase in incentive costs and AWS cloud infrastructure spend.

2018

Revenue decreased 4% due to a decline in transaction revenue, partially offset by an increase in non-transaction revenue. Transaction revenue decreased due to a decline in corporate bond ratings revenue driven by lower corporate bond issuance in the U.S. and Europe, partially offset by an increase in structured finance revenue and bank loan ratings revenue. The increase in structured finance transaction revenue was driven by increased U.S. collateralized loan obligations ("CLO") issuance in the first half of the year. Non-transaction revenue grew due to an increase in surveillance revenue, higher entity credit ratings revenue, an increase in royalty revenue, and an increase in Ratings Evaluation Service activity. Transaction and non-transaction revenue benefited from improved contract terms across product categories.

Operating profit increased 1%, with a 3 percentage point favorable impact from foreign exchange rates. Excluding the impact of higher legal settlement expenses in 2018 of 6 percentage points, partially offset by the favorable impact of higher employee severance charges in 2017 of 5 percentage points and higher amortization of intangibles from acquisitions in 2017 of 1 percentage point, operating profit increased 1%. This increase was primarily due to the favorable impact of foreign exchange rates and a decrease in compensation costs related to lower incentive costs as well as the decreased headcount from attrition and prior year restructuring actions, partially offset by the decrease in revenue discussed above and an increase in costs related to the development of a global center for technology talent in India.

Market Issuance Volumes

We monitor market issuance volumes regularly within Ratings. Market issuance volumes noted within the discussion that follows are based on where an issuer is located or where the assets associated with an issue are located. Structured Finance issuance includes amounts when a transaction closes, not when initially priced and excludes domestically-rated Chinese issuance. The following tables depict changes in issuance levels as compared to the prior year based on data from SDC Platinum for Corporate bond issuance and based on a composite of external data feeds and Ratings' internal estimates for Structured Finance issuance.

	2019 Compared to 2018		
Corporate Bond Issuance *	U.S.	Europe	Global
High-yield issuance	58%	35%	51%
Investment-grade issuance	14%	(2)%	12%
Total issuance	20%	2%	15%

* Includes Industrials and Financial Services.

- Corporate issuance was up in 2019 driven by double-digit increases in both high-yield and investment grade issuance. U.S. high-yield issuance increased as accommodating views from the U.S. Federal Reserve regarding interest rates throughout 2019 moved investors toward more fixed-rate debt. Strength was also seen in U.S. investment grade issuance as issuers were taking advantage of historically low borrowing costs. Increased issuance in Europe was driven by strength in high-yield issuance. Both high-yield and investment grade issuance comparisons also benefited from weakness in 2018 due to market volatility and slowing global economic growth.

	2019 Compared to 2018		
Structured Finance	U.S.	Europe	Global
Asset-backed securities ("ABS")	(1)%	(14)%	—%
Structured credit (primarily CLOs)	(46)%	(30)%	(43)%
Commercial mortgage-backed securities ("CMBS")	26%	17%	23%
Residential mortgage-backed securities ("RMBS")	67%	6%	28%
Covered bonds	**	(8)%	(10)%
Total issuance	(11)%	(10)%	(9)%

** Represents no activity in 2019 and 2018.

- ABS issuance was down slightly in the U.S. reflecting a decline in student loan and credit card transactions and down in Europe primarily in auto transactions reflecting uncertainty caused by regulation introducing a new framework for simple, transparent and standardized ("STS") securitizations effective January 1, 2019.
- Issuance was down in the U.S. and European structured credit markets driven by a decline in CLO transactions.
- CMBS issuance was up in the U.S. reflecting increased market volume caused by a decline in interest rates. CMBS issuance was also up in Europe driven by increased market volume.
- RMBS issuance was up in the U.S. reflecting increased market volume primarily driven by nonqualified mortgages. RMBS issuance was also up in Europe reflecting increased market volume in the fourth quarter of 2019.
- Covered bond (debt securities backed by mortgages or other high-quality assets that remain on the issuer's balance sheet) issuance in Europe was down driven by difficult market conditions in the third and fourth quarters of 2019.

Industry Highlights and Outlook

Revenue increased in 2019 due to an increase in corporate bond ratings revenue primarily driven by higher corporate bond issuance in the U.S. and Europe. In 2019, Ratings continued to focus on international expansion particularly in China and published its first ratings in the domestic Chinese bond market. Additionally, Ratings launched ESG Evaluation in 2019. The ESG Evaluation is a cross-sector, relative analysis of an entity's ability to operate successfully in the future and optimize long-term stakeholder value in light of its natural and social environment and the quality of its governance.

In 2020, Ratings will continue to focus on strengthening analytical excellence to drive market relevance, leveraging new technology and data capabilities to transform its value chain, entering new high-potential geographies with innovative products and extending its strong analytical capabilities to new opportunities such as ESG and cybersecurity.

Legal and Regulatory Environment

General

Ratings and many of the securities that it rates are subject to extensive regulation in both the U.S. and in other countries, and therefore existing and proposed laws and regulations can impact the Company's operations and the markets in which it operates. Additional laws and regulations have been adopted but not yet implemented or have been proposed or are being considered. In addition, in certain countries, governments may provide financial or other support to locally-based rating agencies. For example, governments may from time to time establish official rating agencies or credit ratings criteria or procedures for evaluating local issuers. We have reviewed the new laws, regulations and rules which have been adopted and we have implemented, or are planning to implement, changes as required. We do not believe that such new laws, regulations or rules will have a material adverse effect on our financial condition or results of operations. Other laws, regulations and rules relating to credit rating agencies are being considered by local, national, foreign and multinational bodies and are likely to continue to be considered in the future, including provisions seeking to reduce regulatory and investor reliance on credit ratings, remuneration and rotation of credit rating agencies, and liability standards applicable to credit rating agencies. The impact on us of the adoption of any such laws, regulations or rules remains uncertain, but could increase the costs and legal risks relating to Ratings' rating activities, or adversely affect our ability to compete and/or our remuneration, or result in changes in the demand for credit ratings.

In the normal course of business both in the U.S. and abroad, Ratings (or the legal entities comprising Ratings) are defendants in numerous legal proceedings and are often the subject of government and regulatory proceedings, investigations and inquiries. Many of these proceedings, investigations and inquiries relate to the ratings activity of Ratings and are or have been brought by purchasers of rated securities. In addition, various government and self-regulatory agencies frequently make inquiries and conduct investigations into Ratings' compliance with applicable laws and regulations. Any of these proceedings, investigations or inquiries could ultimately result in adverse judgments, damages, fines, penalties or activity restrictions, which could adversely impact our consolidated financial condition, cash flows, business or competitive position.

U.S.

The businesses conducted by our Ratings segment are, in certain cases, regulated under the Credit Rating Agency Reform Act of 2006 (the "Reform Act"), the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd Frank Act"), the Securities Exchange Act of 1934 (the "Exchange Act") and/or the laws of the states or other jurisdictions in which they conduct business. The financial services industry is subject to the potential for increased regulation in the U.S.

S&P Global Ratings is a credit rating agency that is registered with the SEC as a Nationally Recognized Statistical Rating Organization ("NRSRO"). The SEC first began informally designating NRSROs in 1975 for use of their credit ratings in the determination of capital charges for registered brokers and dealers under the SEC's Net Capital Rule. The Reform Act created a new SEC registration system for rating agencies that choose to register as NRSROs. Under the Reform Act, the SEC is given authority and oversight of NRSROs and can censure NRSROs, revoke their registration or limit or suspend their registration in certain cases. The rules implemented by the SEC pursuant to the Reform Act, the Dodd Frank Act and the Exchange Act address, among other things, prevention or misuse of material non-public information, conflicts of interest, documentation and assessment of internal controls, and improving transparency of ratings performance and methodologies. The public portions of the current version of S&P Global Ratings' Form NRSRO are available on S&P Global Ratings' website.

European Union

In the European Union ("EU"), the credit rating industry is registered and supervised through a pan-European regulatory framework which is a compilation of three sets of legislative actions. In 2009, the European Parliament passed a regulation ("CRA1") that established an oversight regime for the credit rating industry in the EU, which became effective in 2010. CRA1 requires the registration, formal regulation and periodic inspection of credit rating agencies operating in the EU. Ratings was granted registration in October of 2011. In January of 2011, the EU established the European Securities and Markets Authority ("ESMA"), which, among other things, has direct supervisory responsibility for the registered credit rating industry throughout the EU.

Additional rules augmenting the supervisory framework for credit rating agencies went into effect in 2013. Commonly referred to as CRA3, these rules, among other things:

- impose various additional procedural requirements with respect to ratings of sovereign issuers;
- require member states to adopt laws imposing liability on credit rating agencies for an intentional or grossly negligent failure to abide by the applicable regulations;
- impose mandatory rotation requirements on credit rating agencies hired by issuers of securities for ratings of resecuritizations, which may limit the number of years a credit rating agency can issue ratings for such securities of a particular issuer;
- impose restrictions on credit rating agencies or their shareholders if certain ownership thresholds are crossed; and
- impose additional procedural and substantive requirements on the pricing of services.

The financial services industry is subject to the potential for increased regulation in the EU.

Other Jurisdictions

Outside of the U.S. and the EU, regulators and government officials have also been implementing formal oversight of credit rating agencies. Ratings is subject to regulations in most of the foreign jurisdictions in which it operates and continues to work closely with regulators globally to promote the global consistency of regulatory requirements. Regulators in additional countries may introduce new regulations in the future. This includes the UK, in which the Financial Conduct Authority is establishing its own credit rating agencies oversight regime for its exit from the EU.

For a further discussion of competitive and other risks inherent in our Ratings business, see Item 1A, Risk Factors, in our Annual Report on Form 10-K. For a further discussion of the legal and regulatory environment in our Ratings business, see Note 13 - *Commitments and Contingencies* to the consolidated financial statements under Item 8, Consolidated Financial Statements and Supplementary Data, in our Annual Report on Form 10-K.

MARKET INTELLIGENCE

Market Intelligence's portfolio of capabilities is designed to help investment professionals, government agencies, corporations and universities track performance, generate alpha, identify investment ideas, understand competitive and industry dynamics, perform valuations and assess credit risk.

In March of 2019, we entered into an agreement to sell SPIAS, a business within our Market Intelligence segment, to GSAM. SPIAS provides non-discretionary investment advice across institutional sub-advisory and intermediary distribution channels globally. On July 1, 2019, we completed the sale of SPIAS to GSAM. During 2019, we recorded a pre-tax gain of $22 million ($12 million after-tax) in Gain on dispositions in the consolidated statement of income related to the sale of SPIAS.

Market Intelligence includes the following business lines:

- Desktop — a product suite that provides data, analytics and third-party research for global finance professionals, which includes the Market Intelligence Desktop (which are inclusive of the S&P Capital IQ and SNL Desktop products);
- Data Management Solutions — integrated bulk data feeds and application programming interfaces that can be customized, which includes Compustat, GICS, Point In Time Financials and CUSIP; and
- Credit Risk Solutions — commercial arm that sells Ratings' credit ratings and related data, analytics and research, which includes subscription-based offerings, RatingsDirect® and RatingsXpress®, and Credit Analytics.

Subscription revenue at Market Intelligence is primarily derived from distribution of data, analytics, third-party research, and credit ratings-related information primarily through web-based channels, including Market Intelligence Desktop, RatingsDirect®, RatingsXpress®, and Credit Analytics. Non-subscription revenue at Market Intelligence is primarily related to certain advisory, pricing and analytical services.

The following table provides revenue and segment operating profit information for the years ended December 31:

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	'19 vs '18	'18 vs '17
Revenue	**$1,959**	$1,833	$1,683	7%	9%
Subscription revenue	**$1,904**	$1,773	$1,614	7%	10%
Non-subscription revenue	**$45**	$40	$46	12%	(13)%
Asset-linked fees	**$10**	$20	$23	(50)%	(14)%
% of total revenue:					
Subscription revenue	**97%**	97%	96%		
Non-subscription revenue	**2%**	2%	3%		
Asset-linked fees	**1%**	1%	1%		
U.S. revenue	**$1,213**	$1,180	$1,114	3%	6%
International revenue	**$746**	$653	$569	14%	14%
% of total revenue:					
U.S. revenue	**62%**	64%	66%		
International revenue	**38%**	36%	34%		
Operating profit [1]	**$607**	$545	$457	11%	19%
% Operating margin	**31%**	30%	27%		

[1] 2019 includes a gain on the disposition of SPIAS of $22 million, employee severance charges of $6 million and acquisition-related costs of $4 million. 2018 includes restructuring charges related to a business disposition and employee severance charges of $7 million. 2017 includes employee severance charges of $7 million and a non-cash disposition-related adjustment of $4 million. 2019, 2018 and 2017 includes amortization of intangibles from acquisitions of $75 million, $73 million and $71 million, respectively.

2019

Revenue increased 7% and was favorably impacted by less than 1 percentage point from the net impact of recent acquisitions and a disposition. Excluding the impact of the acquisitions and disposition, increased revenue was driven by growth in annualized contract values in the Market Intelligence Desktop products, RatingsXpress®, RatingsDirect®, CUSIP and our data feed products within Data Management Solutions. Excluding the impact of the acquisitions and disposition favorably impacting Desktop revenue growth by 1 percentage point, revenue growth at Data Management Solutions, Credit Risk Solutions and Desktop was 11%, 9% and 4%, respectively. Both domestic and international revenue increased compared to 2018. In 2019, international revenue represented 38% of Market Intelligence's total revenue compared to 36% in 2018. Foreign exchange rates had an unfavorable impact of less than 1 percentage point. Revenue was favorably impacted by the acquisitions of 451 Research, LLC, Panjiva Inc. ("Panjiva") and the RateWatch business ("RateWatch") in December of 2019, February of 2018 and June of 2018, respectively, and the transfer of Kensho revenue from Corporate in January of 2019, and unfavorably impacted by the disposition of SPIAS in July of 2019. See Note 1 - *Nature of Operations and Basis of Presentation* and Note 2 - *Acquisitions and Divestitures* to the Consolidated Financial Statements and Supplementary Data, in the Annual Report on Form 10-K for further discussion.

Operating profit increased 11%, with a 2 percentage point favorable impact from foreign exchange rates. Excluding the favorable impact of the gain on the disposition of SPIAS of 5 percentage points, partially offset by the unfavorable impact of acquisition-related costs in 2019 of 1 percentage point, operating profit increased 7%. The increase was primarily due to revenue growth, partially offset by higher technology costs, higher compensation costs primarily driven by additional headcount and an increase in intersegment royalties tied to annualized contract value growth.

2018

Revenue increased 9% and was favorably impacted by 1 percentage point from the impact of recent acquisitions. Excluding acquisitions, the revenue increase was driven by growth in annualized contract values in the Market Intelligence Desktop, RatingsXpress® and RatingsDirect® products. Increases in annualized contract value for certain of our data feed products within Data Management Solutions also contributed to revenue growth. Both domestic and international revenue increased compared to 2017. In 2018, international revenue represented 36% of Market Intelligence's total revenue compared to 34% in 2017.

Operating profit increased 19%, with a 3 percentage point favorable impact from foreign exchange rates. Excluding the favorable impact of a non-cash disposition-related adjustment in 2017 of 8 percentage points and higher employee severance charges in 2017 of 2 percentage points, partially offset by the unfavorable impact of higher amortization in 2018 of 5 percentage points and disposition-related costs in 2018 of 2 percentage points, operating profit increased 16%. The increase was primarily due to revenue growth, partially offset by an increase in intersegment royalties tied to annualized contract value growth and increased data costs, and higher compensation costs driven by additional headcount partially related to the acquisitions of Panjiva in February of 2018 and RateWatch in June of 2018.

Industry Highlights and Outlook

In 2019, Market Intelligence launched unique technology innovations including Textual Data Analytics, Kensho's Scribe and several ESG-related offerings. Textual Data Analytics, launched on Xpressfeed™, provides sentiment scores and behavioral metrics derived from earnings call transcripts. Kensho's Scribe is a speech recognition solution specifically optimized for financial audio. In 2019, Market Intelligence continued to develop its desktop platform by enhancing its product offerings and developing its analytical capabilities. In 2020, Market Intelligence will continue to focus on leveraging its strong content heritage to expand the core business, streamlining and enriching the customer experience across all delivery platforms, and harnessing new data sources and technology to extend into new geographies and growth areas such as ESG.

Legal and Regulatory Environment

The financial services industry is subject to the potential for increased regulation in the U.S. and abroad. Market Intelligence operates investment advisory businesses that are regulated in the U.S. under the U.S. Investment Advisers Act of 1940 (the "Investment Advisers Act") and/or the laws of the states or other jurisdictions in which they conduct business.

Market Intelligence operates a business that is authorized and regulated in the United Kingdom by the Financial Conduct Authority (the "FCA"). As such, this business is authorized to arrange and advise on investments, and is also entitled to exercise a passport right to provide specified cross border services into other European Economic Area ("EEA") States, and is to the conditions under the EU Markets in Financial Instruments Directive ("MiFID").

The markets for research and investment advisory services are very competitive. Market Intelligence competes domestically and internationally on the basis of a number of factors, including the quality of its research and advisory services, client service, reputation, price, geographic scope, range of products and services, and technological innovation. For a further discussion of competitive and other risks inherent in our Market Intelligence business, see Item 1A, Risk Factors, in our Annual Report on Form 10-K.

European Union

The EU enacted a package of legislative measures known as MiFID II ("MiFID II"), which revises and updates the existing EU Markets in Financial Instruments Directive framework, and the substantive provisions became applicable in all EU Member States as of January 3, 2018. MiFID II includes provisions that, among other things: (i) impose new conditions and requirements on the licensing of benchmarks and provide for non-discriminatory access to exchanges and clearing houses; (ii) modify the categorization and treatment of certain classes of derivatives; (iii) expand the categories of trading venue that are subject to regulation; (iv) require the unbundling of investment research and direct how asset managers pay for research either out of a research payment account or from a firm's profits; and (v) provide for the mandatory trading of certain derivatives on exchanges (complementing the mandatory derivative clearing requirements in the EU Market Infrastructure Regulation of 2011). Although the MiFID II package is "framework" legislation (meaning that much of the detail of the rules will be set out in subordinate measures, including some technical standards yet to be adopted by the European Commission), the introduction of the MiFID II package may result in changes to the manner in which Market Intelligence licenses its price certain products. MiFID II may impose regulatory burdens on Market Intelligence activities in the EU, although the exact impact and costs are not yet known.

PLATTS

Platts is the leading independent provider of information and benchmark prices for the commodity and energy markets. Platts provides essential price data, analytics, and industry insight enabling the commodity and energy markets to perform with greater transparency and efficiency.

On July 31, 2019, we completed the sale of RigData, a business within our Platts segment, to Drilling Info, Inc. RigData is a provider of daily information on rig activity for the natural gas and oil markets across North America. During 2019, we recorded a pre-tax gain of $27 million ($26 million after-tax) in Gain on dispositions in the consolidated statement of income related to the sale of RigData.

Platts' revenue is generated primarily through the following sources:

- Subscription revenue — primarily from subscriptions to our real-time news, market data and price assessments, along with other information products;
- Sales usage-based royalties — primarily from licensing of our proprietary market price data and price assessments to commodity exchanges, and
- Non-subscription revenue — conference sponsorship, consulting engagements, and events.

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	’19 vs ’18	’18 vs ’17
Revenue	**$844**	$815	$774	4%	5%
Subscription revenue	**$774**	$750	$704	3%	6%
Sales usage-based royalties	**$60**	$54	$57	11%	(5)%
Non-subscription revenue	**$10**	$11	$13	(5)%	(12)%
% of total revenue:					
Subscription revenue	**92%**	92%	91%		
Sales usage-based royalties	**7%**	7%	7%		
Non-subscription revenue	**1%**	1%	2%		
U.S. revenue	**$281**	$283	$284	–%	–%
International revenue	**$563**	$532	$490	6%	9%
% of total revenue:					
U.S. revenue	**33%**	35%	37%		
International revenue	**67%**	65%	63%		
Operating profit [1]	**$438**	$383	$326	15%	18%
% Operating margin	**52%**	47%	42%		

[1] 2019 includes a gain on the disposition of RigData of $27 million and employee severance charges of $1 million. 2017 includes a non-cash acquisition-related adjustment of $11 million, a charge to exit a leased facility of $6 million, an asset write-off of $2 million and employee severance charges of $2 million. 2019 includes amortization of intangibles from acquisitions of $12 million and both 2018 and 2017 includes amortization of intangibles from acquisitions of $18 million.

2019

Revenue increased 4% and was unfavorably impacted by less than 1 percentage point from the net impact of recent acquisitions and a disposition. Excluding the acquisitions and disposition, revenue increased due to continued demand for market data and price assessment products driven by both expanded product offerings to our existing customers combined with enhanced contract terms. Additionally, revenue growth was driven by an increase in sales usage-based royalties from the licensing of our proprietary market price data and price assessments to commodity exchanges mainly due to increased trading volumes in Iron Ore, LNG and Gasoil. Demand for market data and price assessment products was driven by international customers. International revenue increased and domestic revenue, which was unfavorably impacted by the disposition of RigData in July of 2019, remained relatively unchanged compared to 2018. In 2019, international revenue represented 67% of Platts total revenue compared to 65% in 2018. Petroleum continues to be the most significant revenue driver, followed by power & gas, metals and petrochemicals also contributing to revenue growth. Foreign exchange rates had an unfavorable impact of less than 1 percentage point. Revenue was unfavorably impacted by the disposition of RigData in July of 2019 and favorably impacted by the acquisitions of Live Rice Index and Enerdata in August of 2019 and September of 2019, respectively. See Note 2 - *Acquisitions and Divestitures* to the Consolidated Financial Statements and Supplementary Data, in the Annual Report on Form 10-K for further discussion.

Operating profit increased 15% with a 2 percentage point favorable impact from foreign exchange rates. Excluding the favorable impact of the gain on the disposition of RigData of 7 percentage points and lower amortization of intangibles in 2019 of 2 percentage points, operating profit increased 6%. The increase was primarily due to revenue growth, partially offset by an increase in operating costs to support revenue growth and business initiatives at Platts, including Asia expansion initiatives, an increase in compensation costs due to annual merit increases and increased headcount, higher technology costs, an increase in the bad debt provision in the current year and one-time costs related to the discontinuation of a product line at Platts.

2018

Revenue increased 5% due to continued demand for market data and price assessment products across all commodity sectors, led by petroleum, partially offset by a decrease in sales usage-based royalties from the licensing of our proprietary market price data and price assessments to commodity exchanges mainly due to a decline in oil trading volumes in the first nine months of 2018. Demand for market data and price assessment products was driven by international customers. While petroleum is still the biggest revenue driver, the proportional revenue mix continues to become more diversified as other sectors contributed to revenue growth including petrochemicals, metals and agriculture. International revenue increased and domestic revenue remained relatively unchanged compared to 2017. In 2018, international revenue represented 65% of Platts total revenue compared to 63% in 2017.

Operating profit increased 18%. Excluding the favorable impact of a non-cash acquisition-related adjustment in 2017 of 4 percentage points, a charge to exit a leased facility in 2017 of 2 percentage points, an asset write-off in 2017 of 1 percentage point and employee severance charges in 2017 of 1 percentage point, operating profit increased 10%, with the increase largely driven by revenue growth.

Industry Highlights and Outlook

In 2019, sustained demand for market data and price assessment products, led by petroleum, continued to drive revenue growth. Revenue also increased from the licensing of our proprietary market price data and price assessments to commodity exchanges driven by higher trading volumes. In 2019, Platts continued to drive commercial transformation by enhancing and simplifying the customer experience. Additionally, Platts focused on expanding its capabilities in Asia. In 2020, Platts will continue to focus on extending the core business through innovation, simplifying its product and platform strategy, and driving commercial transformation.

Legal and Regulatory Environment

Platts' commodities price assessment and information business is subject to increasing regulatory scrutiny in the U.S. and abroad. As discussed below under the heading "Indices-Legal and Regulatory Environment", the financial benchmarks industry is subject to the new benchmark regulation in the EU (the "EU Benchmark Regulation") as well as potential increased regulation in other jurisdictions. Platts has obtained authorization and is now supervised by the Dutch Authority for the Financial Markets in the Netherlands under the EU Benchmark Regulation, and may need to take similar steps in other jurisdictions including the United Kingdom post-Brexit and jurisdictions outside of Europe if they pass similar legislation. For a further discussion of competitive and other risks inherent in our Platts business, see Item 1A, Risk Factors, in our Annual Report on Form 10-K.

European Union

The EU has enacted MiFID II, which revise and update the existing EU Markets in Financial Instruments Directive and the substantive provisions became applicable in all EU Member States as of January 3, 2018. MiFID II includes provisions that, among other things: (i) impose new conditions and requirements on the licensing of benchmarks and provide for non-discriminatory access to exchanges and clearing houses; (ii) modify the categorization and treatment of certain classes of derivatives; (iii) expand the categories of trading venue that are subject to regulation; (iv) require the unbundling of investment research and direct how asset managers pay for research either out of a research payment account or from a firm's profits; and (v) provide for the mandatory trading of certain derivatives on exchanges (complementing the mandatory derivative clearing requirements in the EU Market Infrastructure Regulation of 2011). Although the MiFID II package is "framework" legislation (meaning that much of the detail of the rules will be set out in subordinate measures, including some technical standards yet to be adopted by the European Commission), the introduction of the MiFID II package may result in changes to the manner in which Platts licenses its price assessments. MiFID II and the Market Abuse Regulation ("MAR") may impose additional regulatory burdens on Platts activities in the EU, although the exact impact and costs are not yet known.

In October of 2012, IOSCO issued its Principles for Oil Price Reporting Agencies ("PRA Principles"), which are intended to enhance the reliability of oil price assessments referenced in derivative contracts subject to regulation by IOSCO members. Platts has aligned its operations with the PRA Principles and, as recommended by IOSCO in its final report on the PRA Principles, has aligned to the PRA Principles for other commodities for which it publishes benchmarks.

INDICES

Indices is a global index provider maintaining a wide variety of indices to meet an array of investor needs. Indices' mission is to provide transparent benchmarks to help with decision making, collaborate with the financial community to create innovative products, and provide investors with tools to monitor world markets.

Indices primarily derives revenue from asset-linked fees based on the S&P and Dow Jones indices and to a lesser extent generates subscription revenue and sales-usage based royalties. Specifically, Indices generates revenue from the following sources:

- Investment vehicles — asset-linked fees such as ETFs and mutual funds, that are based on the S&P Dow Jones Indices' benchmarks and generate revenue through fees based on assets and underlying funds;
- Exchange traded derivatives — generate sales usage-based royalties based on trading volumes of derivatives contracts listed on various exchanges;
- Index-related licensing fees — fixed or variable annual and per-issue asset-linked fees for over-the-counter derivatives and retail-structured products; and
- Data and customized index subscription fees — fees from supporting index fund management, portfolio analytics and research.

The following table provides revenue and segment operating profit information for the years ended December 31:

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	'19 vs '18	'18 vs '17
Revenue	**$918**	$837	$728	10%	15%
Asset-linked fees	**$613**	$522	$461	18%	13%
Subscription revenue	**$165**	$144	$136	14%	6%
Sales usage-based royalties	**$140**	$171	$131	(18)%	30%
% of total revenue:					
Asset-linked fees	**67%**	62%	63%		
Subscription revenue	**18%**	17%	19%		
Sales usage-based royalties	**15%**	21%	18%		
U.S. revenue	**$772**	$719	$601	7%	20%
International revenue	**$146**	$118	$127	24%	(7)%
% of total revenue:					
U.S. revenue	**84%**	86%	83%		
International revenue	**16%**	14%	17%		
Operating profit [1]	**$630**	$563	$478	12%	18%
Less: net income attributable to noncontrolling interests	**$170**	$151	$129	12%	17%
Net operating profit	**$460**	$412	$349	12%	18%
% Operating margin	**69%**	67%	66%		
% Net operating margin	**50%**	49%	48%		

[1] 2019, 2018 and 2017 includes amortization of intangibles from acquisitions of $6 million.

2019

Revenue increased 10% due to higher levels of assets under management ("AUM") for ETFs and mutual funds. Additionally, revenue was favorably impacted by the buyout of the balance of intellectual property rights in a family of indices from one of our co-marketing and index development partners in the fourth quarter of 2018, retrospective fees for previously unlicensed and unreported index usage and benefits related to contract renegotiations. These increases were partially offset by a decrease in exchange-traded derivatives revenue primarily driven by lower volumes in 2019. Ending AUM for ETFs increased 30% to $1.701 trillion in 2019 and average AUM for ETFs increased 8% to $1.508 trillion compared to 2018. Foreign exchange rates had an unfavorable impact of less than 1 percentage point.

Operating profit grew 12%. The impact of revenue growth was partially offset by higher operating costs from increased royalties due to increased traction of royalty-based products, higher legal expenses and increased compensation costs primarily driven by additional headcount, partially offset by lower incentive costs. Foreign exchange rates had a favorable impact of less than 1 percentage point.

2018

Revenue increased 15%, primarily driven by higher AUM for ETFs and mutual funds, and higher exchange-traded derivative volumes due to market volatility. Average AUM for ETFs increased 20% to $1.399 trillion compared to 2017. Ending AUM for ETFs decreased 3% to $1.309 trillion compared to 2017 driven by the impact of market depreciation in the fourth quarter of 2018. Foreign exchange rates had an unfavorable impact of less than 1 percentage point.

Operating profit grew 18%. The impact of revenue growth was partially offset by higher operating costs to support revenue growth and business initiatives at Indices and higher compensation costs from additional headcount. Foreign exchange rates had an unfavorable impact of less than 1 percentage point.

Industry Highlights and Outlook

Indices continues to be the leading index provider for the ETF market space. In 2019, higher average levels of AUM for ETFs contributed to revenue growth. In 2019, Indices continued to launch innovative indices, expand index product offerings and grow international partnerships. In 2020, Indices will continue to focus on growing the core business, expanding innovative offerings with focus on differentiated solutions such as factor, multi-asset-class, and ESG indices, and growing globally through collaborative client relationships.

Legal and Regulatory Environment

Over the past four years the financial benchmarks industry has been subject to specific benchmark regulation in the European Union (the "EU Benchmark Regulation") and Australia (the "Australia Benchmark Regulation"). Other jurisdictions are also considering new regulation for financial benchmarks.

The EU Benchmark Regulation was published June 30, 2016 and included provisions applicable to Indices and Platts, which became effective January 1, 2018. Both Indices and Platts have established separate benchmark administrators in connection with their benchmark activities in Europe. The Indices and Platts entities are both based in Amsterdam and are authorized by the Netherlands Authority for Financial Markets (AFM). This legislation will likely cause additional operating obligations but they are not expected to be material at this time, although the exact impact remains unclear.

The Australian Benchmark Regulation was enacted in June of 2018 and included provisions applicable to Indices, designating the S&P ASX 200 a significant financial benchmark and therefore requiring Indices to obtain a license from the Australian Investment and Securities Commission ("ASIC") as its administrator. Indices is in the process of obtaining such license. Although narrower in scope, the requirements of the Australian Benchmark Regulation are similar to those of the EU Benchmark Regulation. This legislation will likely cause additional operating obligations but they are not expected to be material at this time, although the exact impact remains unclear.

In July of 2013, the IOSCO issued Financial Benchmark Principles (IOSCO Principles), intended to promote the reliability of financial benchmark determinations. The IOSCO Principles address governance, benchmark quality and accountability mechanisms, including with regard to the indices published by Indices. Even though the IOSCO Principles are not binding law, Indices has taken steps to align its governance regime and operations with the IOSCO Principles and engaged an independent auditor to perform an annual reasonable assurance review of such alignment.

The markets for index providers are very competitive. Indices competes domestically and internationally on the basis of a number of factors, including the quality of its benchmark indices, client service, reputation, price, range of products and services (including geographic coverage) and technological innovation. Our Indices business is impacted by market volatility, asset levels of investment products tracking indices, and trading volumes of certain exchange traded derivatives. Volatile capital markets, as well as changing investment styles, among other factors, may influence an investor's decision to invest in and maintain an investment in an index-linked investment product. For a further discussion of competitive and other risks inherent in our Indices business, see Item 1A, Risk Factors, in our Annual Report on Form 10-K.

Liquidity and Capital Resources

We continue to maintain a strong financial position. Our primary source of funds for operations is cash from our businesses and our core businesses have been strong cash generators. In 2020, cash on hand, cash flows from operations and availability under our existing credit facility are expected to be sufficient to meet any additional operating and recurring cash needs into the foreseeable future. We use our cash for a variety of needs, including but not limited to: ongoing investments in our businesses, strategic acquisitions, share repurchases, dividends, repayment of debt, capital expenditures and investment in our infrastructure.

Cash Flow Overview

Cash, cash equivalents, and restricted cash were $2.9 billion as of December 31, 2019, an increase of $0.9 billion as compared to December 31, 2018.

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Net cash provided by (used for):			
Operating activities	**$2,776**	$2,064	$2,016
Investing activities	**(131)**	(513)	(209)
Financing activities	**(1,751)**	(2,288)	(1,507)

In 2019, free cash flow increased to $2.5 billion compared to $1.8 billion in 2018. Free cash flow is a non-GAAP financial measure and reflects our cash flow provided by operating activities less capital expenditures and distributions to noncontrolling interest holders. Capital expenditures include purchases of property and equipment and additions to technology projects. See "Reconciliation of Non-GAAP Financial Information" below for a reconciliation of cash flow provided by operating activities, the most directly comparable U.S. GAAP financial measure, to free cash flow and free cash flow excluding certain items.

Operating Activities

Cash provided by operating activities increased to $2.8 billion in 2019 as compared to $2.1 billion in 2018. The increase is mainly due to higher results from operations, lower incentive compensation payments and lower legal settlement payments in 2019.

Cash provided by operating activities increased to $2.1 billion in 2018 as compared to $2.0 billion in 2017. The increase is mainly due to higher results from operations in 2018 and lower estimated income tax payments in 2018 due to the reduction of the U.S. federal corporate tax rate as a result of the enactment of the TCJA, partially offset by legal settlement payments and settlement payments following the resolution of tax audits.

Investing Activities

Our cash outflows from investing activities are primarily for acquisitions and capital expenditures, while cash inflows are primarily proceeds from dispositions.

Cash used for investing activities decreased to $0.1 billion for 2019 as compared to $0.5 billion in 2018, primarily due to cash used for the acquisition of Kensho and the purchase of intellectual property in 2018.

Cash used for investing activities increased to $0.5 billion for 2018 as compared to $0.2 billion in 2017, primarily due to cash used for the acquisition of Kensho and the purchase of intellectual property in 2018.

Refer to Note 2 – *Acquisitions and Divestitures* to the Consolidated Financial Statements and Supplementary Data, in the Annual Report on Form 10-K for further information.

Financing Activities

Our cash outflows from financing activities consist primarily of share repurchases, dividends and repayment of short-term and long-term debt, while cash inflows are primarily inflows from long-term and short-term debt borrowings and proceeds from the exercise of stock options.

Cash used for financing activities decreased to $1.8 billion in 2019 from $2.3 billion in 2018. The decrease is primarily attributable to higher cash paid for share repurchases in 2018 and proceeds from the issuance of senior notes in 2019.

Cash used for financing activities increased to $2.3 billion in 2018 from $1.5 billion in 2017. The increase is primarily attributable to higher cash paid for share repurchases in 2018.

During 2019, we received 5.9 million shares, including 0.4 million shares received in January of 2019 related to our October 29, 2018 accelerated share repurchase ("ASR") agreement, resulting in $1,240 million of cash used to repurchase shares. We entered into an ASR agreement with a financial institution on August 5, 2019 to initiate share repurchases aggregating $500 million. We repurchased a total of 2.0 million shares under the ASR agreement for an average purchase price of $253.36 per share. We entered into an ASR agreement with a financial institution on February 11, 2019 to initiate share repurchases aggregating $500 million. We repurchased a total of 2.3 million shares under the ASR agreement for an average purchase price of $214.65 per share.

During 2018, we used cash to repurchase 8.4 million shares for $1.7 billion. We entered into an ASR agreement with a financial institution on October 29, 2018 to initiate share repurchases aggregating $500 million. We repurchased a total of 2.9 million shares under the ASR agreement for an average purchase price of $173.80 per share. We entered into an ASR agreement with a financial institution on March 6, 2018 to initiate share repurchases aggregating $1 billion. We repurchased a total of 5.1 million shares under that ASR agreement for an average purchase price of $197.49 per share.

During 2017, we used cash to repurchase 6.8 million shares for $1.0 billion. We entered into an ASR agreement with a financial institution on August 1, 2017 to initiate share repurchases aggregating $500 million. We repurchased a total of 3.2 million shares under the ASR agreement for an average purchase price of $154.46 per share.

On December 4, 2013, the Board of Directors approved a share repurchase program authorizing the purchase of up to 50 million shares, which was approximately 18% of the total shares of our outstanding common stock at that time. Our current repurchase program has no expiration date and purchases under this program may be made from time to time on the open market and in private transactions, depending on market conditions. As of December 31, 2019, 4.7 million shares remained available under our current repurchase program.

See Note 9 — *Equity* to the Consolidated Financial Statements and Supplementary Data, in the Annual Report on Form 10-K for further discussion related to our ASR agreements.

Additional Financing

We have the ability to borrow a total of $1.2 billion through our commercial paper program, which is supported by our revolving $1.2 billion five-year credit agreement (our "credit facility") that we entered into on June 30, 2017. This credit facility will terminate on June 30, 2022. There were no commercial paper borrowings outstanding as of December 31, 2019 and 2018.

Depending on our corporate credit rating, we pay a commitment fee of 8 to 17.5 basis points for our credit facility, whether or not amounts have been borrowed. We currently pay a commitment fee of 10 basis points. The interest rate on borrowings under our credit facility is, at our option, calculated using rates that are primarily based on either the prevailing London Inter-Bank Offer Rate, the prime rate determined by the administrative agent or the Federal Funds Rate. For certain borrowings under this credit facility, there is also a spread based on our corporate credit rating.

Our credit facility contains certain covenants. The only financial covenant requires that our indebtedness to cash flow ratio, as defined in our credit facility, is not greater than 4 to 1, and this covenant level has never been exceeded.

On November 1, 2019, Fitch Ratings upgraded our short-term/commercial paper rating to F1 from F2, affirmed our long-term debt rating and the ratings outlook was maintained at stable.

Dividends

On January 29, 2020, the Board of Directors approved an increase in the quarterly common stock dividend from $0.57 per share to $0.67 per share.

CONTRACTUAL OBLIGATIONS

We typically have various contractual obligations, which are recorded as liabilities in our consolidated balance sheets, while other items, such as certain purchase commitments and other executory contracts, are not recognized, but are disclosed herein. For example, we are contractually committed to contracts for information-technology outsourcing, certain enterprise-wide information-technology software licensing and maintenance.

We believe that the amount of cash and cash equivalents on hand, cash flow expected from operations and availability under our credit facility will be adequate for us to execute our business strategy and meet anticipated requirements for lease obligations, capital expenditures, working capital and debt service for 2020.

The following table summarizes our significant contractual obligations and commercial commitments as of December 31, 2019, over the next several years. Additional details regarding these obligations are provided in the notes to our consolidated financial statements, as referenced in the footnotes to the table:

(in millions)	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
Debt: [1]					
Principal payments	$—	$—	$—	$3,948	$3,948
Interest payments	$156	$313	$313	$1,414	$2,196
Operating leases [2]	$133	$211	$147	$358	$849
Purchase obligations and other [3]	$91	$98	$69	$70	$328
Total contractual cash obligations	$380	$622	$529	$5,790	$7,321

1 Our debt obligations are described in Note 5 – *Debt* to our consolidated financial statement.

2 See Note 13 – *Commitments and Contingencies* to our consolidated financial statements for further discussion on our operating lease obligations.

3 Other consists primarily of commitments for unconditional purchase obligations in contracts for information-technology outsourcing and certain enterprise-wide information-technology software licensing and maintenance.

As of December 31, 2019, we had $124 million of liabilities for unrecognized tax benefits. We have excluded the liabilities for unrecognized tax benefits from our contractual obligations table because, until formal resolutions are reached, reasonable estimates of the timing of cash settlements with the respective taxing authorities are not practicable.

As of December 31, 2019, we have recorded $2,268 million for our redeemable noncontrolling interest in our S&P Dow Jones Indices LLC partnership discussed in Note 9 – *Equity* to our consolidated financial statements. Specifically, this amount relates to the put option under the terms of the operating agreement of S&P Dow Jones Indices LLC, whereby, after December 31, 2017, CME Group and CME Group Index Services LLC ("CGIS") has the right at any time to sell, and we are obligated to buy, at least 20% of their share in S&P Dow Jones Indices LLC. We have excluded this amount from our contractual obligations table because we are uncertain as to the timing and the ultimate amount of the potential payment we may be required to make.

We make contributions to our pension and postretirement plans in order to satisfy minimum funding requirements as well as additional contributions that we consider appropriate to improve the funded status of our plans. During 2019, we contributed $46 million to our retirement plans. Expected employer contributions in 2020 are $11 million and $5 million for our retirement and postretirement plans, respectively. In 2020, we may elect to make additional non-required contributions depending on investment performance and the pension plan status. See Note 7 – *Employee Benefits* to our consolidated financial statements for further discussion.

OFF-BALANCE SHEET ARRANGEMENTS

As of December 31, 2019 and 2018, we did not have any material relationships with unconsolidated entities, such as entities often referred to as specific purpose or variable interest entities where we are the primary beneficiary, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such we are not exposed to any financial liquidity, market or credit risk that could arise if we had engaged in such relationships.

Reconciliation of Non-GAAP Financial Information

Free cash flow is a non-GAAP financial measure and reflects our cash flow provided by operating activities less capital expenditures and distributions to noncontrolling interest holders. Capital expenditures include purchases of property and equipment and additions to technology projects. Our cash flow provided by operating activities is the most directly comparable U.S. GAAP financial measure to free cash flow. Additionally, we have considered certain items in evaluating free cash flow, which are included in the table below.

We believe the presentation of free cash flow and free cash flow excluding certain items allows our investors to evaluate the cash generated from our underlying operations in a manner similar to the method used by management. We use free cash flow to conduct and evaluate our business because we believe it typically presents a more conservative measure of cash flows since capital expenditures and distributions to noncontrolling interest holders are considered a necessary component of ongoing operations. Free cash flow is useful for management and investors because it allows management and investors to evaluate the cash available to us to prepay debt, make strategic acquisitions and investments and repurchase stock.

The presentation of free cash flow and free cash flow excluding certain items are not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with U.S. GAAP. Free cash flow, as we calculate it, may not be comparable to similarly titled measures employed by other companies. The following table presents a reconciliation of our cash flow provided by operating activities to free cash flow excluding the impact of the items below:

	Year ended December 31,			% Change	
(in millions)	**2019**	2018	2017	'19 vs '18	'18 vs '17
Cash provided by operating activities	**$2,776**	$2,064	$2,016	34%	2%
Capital expenditures	**(115)**	(113)	(123)		
Distributions to noncontrolling interest holders, net [1]	**(143)**	(154)	(111)		
Free cash flow	**$2,518**	$1,797	$1,782	40%	1%
Settlement of prior-year tax audits	**51**	73	—		
Tax on gain from sale of SPIAS and RigData	**13**	—	—		
Tax on gain from sale of SPSE and CMA	**—**	—	67		
Payment of legal settlements	**1**	180	4		
Tax benefit from legal settlements	**—**	(44)	(2)		
Free cash flow excluding above items	**$2,583**	$2,006	$1,851	29%	8%

[1] Distributions to noncontrolling interest holders is net of amounts owed to the S&P Dow Jones Indices LLC joint venture by the noncontrolling interest holders.

(in millions)	**2019**	2018	2017	'19 vs '18	'18 vs '17
Cash used for investing activities	**(131)**	(513)	(209)	(75)%	N/M
Cash used for financing activities	**(1,751)**	(2,288)	(1,507)	(23)%	52%

N/M - not meaningful

Critical Accounting Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities.

On an ongoing basis, we evaluate our estimates and assumptions, including those related to revenue recognition, allowance for doubtful accounts, valuation of long-lived assets, goodwill and other intangible assets, pension plans, incentive compensation and stock-based compensation, income taxes, contingencies and redeemable noncontrolling interests. We base our estimates on historical experience, current developments and on various other assumptions that we believe to be reasonable under these circumstances, the results of which form the basis for making judgments about carrying values of assets and liabilities that cannot readily be determined from other sources. There can be no assurance that actual results will not differ from those estimates.

Management considers an accounting estimate to be critical if it required assumptions to be made that were uncertain at the time the estimate was made and changes in the estimate or different estimates could have a material effect on our results of operations. Management has discussed the development and selection of our critical accounting estimates with the Audit Committee of our Board of Directors. The Audit Committee has reviewed our disclosure relating to them in this MD&A.

We believe the following critical accounting policies require us to make significant judgments and estimates in the preparation of our consolidated financial statements:

Revenue Recognition

We adopted Financial Accounting Standards Board Accounting Standards Codification ("ASC") 606 "Revenue from Contracts with Customers" using the modified retrospective transition method applied to our revenue contracts with customers as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior year amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC 605 "Revenue Recognition". We recorded a net increase to opening retained earnings of $35 million as of January 1, 2018 due to the cumulative effect of adopting ASC 606, with the impact primarily related to our treatment of costs to obtain a contract and to a lesser extent, changes to the timing of the recognition of our subscription and non-transaction revenues. We recognized incremental revenue of $6 million for the year ended December 31, 2018 as a result of the adoption of this standard.

Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. Under ASC 605, revenue was recognized as it was earned and when services were rendered. See Note 1 - *Accounting Policies* to our consolidated financial statements for further information.

Allowance for Doubtful Accounts

The allowance for doubtful accounts reserve methodology is based on historical analysis, a review of outstanding balances and current conditions. In determining these reserves, we consider, amongst other factors, the financial condition and risk profile of our customers, areas of specific or concentrated risk as well as applicable industry trends or market indicators. The impact on operating profit for a one percentage point change in the allowance for doubtful accounts is approximately $16 million.

For the years ended December 31, 2019, 2018 and 2017, there were no material changes in our assumptions regarding the determination of the allowance for doubtful accounts. Based on our current outlook these assumptions are not expected to significantly change in 2020.

Accounting for the Impairment of Long-Lived Assets (Including Other Intangible Assets)

We evaluate long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Upon such an occurrence, recoverability of assets to be held and used is measured by comparing the carrying amount of an asset to current forecasts of undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of the asset exceeds its estimated future cash flows, an impairment charge is recognized equal to the amount by which the carrying amount of the asset exceeds the fair value of the asset. For long-lived assets held for sale, assets are written down to fair value, less cost to sell. Fair value is determined based on market evidence, discounted cash flows, appraised values or management's estimates, depending upon the nature of the assets.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill represents the excess of purchase price and related costs over the value assigned to the net tangible and identifiable intangible assets of businesses acquired. As of December 31, 2019 and 2018, the carrying value of goodwill and other indefinite-lived intangible assets was $4.4 billion. Goodwill and other intangible assets with indefinite lives are not amortized, but instead are tested for impairment annually during the fourth quarter each year or more frequently if events or changes in circumstances indicate that the asset might be impaired.

Goodwill

As part of our annual impairment test of our four reporting units, we initially perform a qualitative analysis evaluating whether any events and circumstances occurred that provide evidence that it is more likely than not that the fair value of any of our reporting units is less than its carrying amount. Reporting units are generally an operating segment or one level below an operating segment. Our qualitative assessment included, but was not limited to, consideration of macroeconomic conditions, industry and market conditions, cost factors, cash flows, changes in key Company personnel and our share price. If, based on our evaluation of the events and circumstances that occurred during the year we do not believe that it is more likely than not that the fair value of any of our reporting units is less than its carrying amount, no quantitative impairment test is performed. Conversely, if the results of our qualitative assessment determine that it is more likely than not that the fair value of any of our reporting units is less than its respective carrying amount we perform a two-step quantitative impairment test. For 2019, based on our qualitative assessments, we determined that it is more likely than not that our reporting units' fair values were greater than their respective carrying amounts.

If the fair value of the reporting unit is less than the carrying value, a second step is performed which compares the implied fair value of the reporting unit's goodwill to the carrying value of the goodwill. The implied fair value of the goodwill is determined based on the difference between the fair value of the reporting unit and the net fair value of the identifiable assets and liabilities of the reporting unit. If the implied fair value of the goodwill is less than the carrying value, the difference is recognized as an impairment charge.

Indefinite-Lived Intangible Assets

We evaluate the recoverability of indefinite-lived intangible assets by first performing a qualitative analysis evaluating whether any events and circumstances occurred that provide evidence that it is more likely than not that the indefinite-lived asset is impaired. If, based on our evaluation of the events and circumstances that occurred during the year we do not believe that it is more likely than not that the indefinite-lived asset is impaired, no quantitative impairment test is performed. Conversely, if the results of our qualitative assessment determine that it is more likely than not that the indefinite-lived asset is impaired, a quantitative impairment test is performed. If necessary, the impairment test is performed by comparing the estimated fair value of the intangible asset to its carrying value. If the indefinite-lived intangible asset carrying value exceeds its fair value, an impairment analysis is performed using the income approach. The fair value of loss is recognized in an amount equal to that excess. Significant judgments inherent in these analyses include estimating the amount and timing of future cash flows and the selection of appropriate discount rates, royalty rates and long-term growth rate assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for this indefinite-lived intangible asset and could result in an impairment charge, which could be material to our financial position and results of operations.

We performed our impairment assessment of goodwill and indefinite-lived intangible assets and concluded that no impairment existed for the years ended December 31, 2019, 2018, and 2017.

Retirement Plans and Postretirement Healthcare and Other Benefits

Our employee pension and other postretirement benefit costs and obligations are dependent on assumptions concerning the outcome of future events and circumstances, including compensation increases, long-term return on pension plan assets, healthcare cost trends, discount rates and other factors. In determining such assumptions, we consult with outside actuaries and other advisors where deemed appropriate. In accordance with relevant accounting standards, if actual results differ from our assumptions, such differences are deferred and amortized over the estimated remaining lifetime of the plan participants. While we believe that the assumptions used in these calculations are reasonable, differences in actual experience or changes in assumptions could affect the expense and liabilities related to our pension and other postretirement benefits.

The following is a discussion of some significant assumptions that we make in determining costs and obligations for pension and other postretirement benefits:

- Discount rate assumptions are based on current yields on high-grade corporate long-term bonds.
- Healthcare cost trend assumptions are based on historical market data, the near-term outlook and an assessment of likely long-term trends.
- The expected return on assets assumption is calculated based on the plan's asset allocation strategy and projected market returns over the long-term.

Our discount rate and return on asset assumptions used to determine the net periodic pension and postretirement benefit cost on our U.S. retirement plans are as follows:

	Retirement Plans			Postretirement Plans		
January 1	2020	2019	2018	2020	2019	2018
Discount rate	3.45%	4.40%	3.68%	3.08%	4.15%	3.40%
Return on assets	5.50%	6.00%	6.00%			
Weighted-average healthcare cost rate				6.50%	6.50%	6.50%

Stock-Based Compensation

Stock-based compensation expense is measured at the grant date based on the fair value of the award and is recognized over the requisite service period, which typically is the vesting period. Stock-based compensation is classified as both operating-related expense and selling and general expense in our consolidated statements of income.

We use a lattice-based option-pricing model to estimate the fair value of options granted. The following assumptions were used in valuing the options granted:

	Year ended December 31, 2018
Risk-free average interest rate	**2.6 - 2.7%**
Dividend yield	**1.1%**
Volatility	**21.8 - 22.0%**
Expected life (years)	**5.67 - 6.07**
Weighted-average grant-date fair value per option	**$112.98**

Because lattice-based option-pricing models incorporate ranges of assumptions, those ranges are disclosed. These assumptions are based on multiple factors, including historical exercise patterns, post-vesting termination rates, expected future exercise patterns and the expected volatility of our stock price. The risk-free interest rate is the imputed forward rate based on the U.S. Treasury yield at the date of grant. We use the historical volatility of our stock price over the expected term of the options to estimate the expected volatility. The expected term of options granted is derived from the output of the lattice model and represents the period of time that options granted are expected to be outstanding.

In 2018, we made a one-time issuance of incentive stock options under the 2002 Plan to replace Kensho employees' stock options that were assumed in connection with our acquisition of Kensho in April of 2018. There were no stock options granted in 2019 and 2017.

Income Taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to be applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. We recognize liabilities for uncertain tax positions taken or expected to be taken in income tax returns. Accrued interest and penalties related to unrecognized tax benefits are recognized in interest expense and operating expense, respectively.

Judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and unrecognized tax benefits. In determining the need for a valuation allowance, the historical and projected financial performance of the operation that is recording a net deferred tax asset is considered along with any other pertinent information.

We file income tax returns in the U.S. federal jurisdiction, various states, and foreign jurisdictions, and we are routinely under audit by many different tax authorities. We believe that our accrual for tax liabilities is adequate for all open audit years based on our assessment of many factors including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgments about future events. It is possible that examinations will be settled prior to December 31, 2020. If any of these tax audit settlements do occur within that period we would make any necessary adjustments to the accrual for unrecognized tax benefits.

As of December 31, 2019, we have approximately $3.2 billion of undistributed earnings of our foreign subsidiaries, of which $776 million is reinvested indefinitely in our foreign operations.

Contingencies

We are subject to a number of lawsuits and claims that arise in the ordinary course of business. We recognize a liability for such contingencies when both (a) information available prior to issuance of the financial statements indicates that it is probable that a liability had been incurred at the date of the financial statements and (b) the amount of loss can reasonably be estimated. We continually assess the likelihood of any adverse judgments or outcomes to our contingencies, as well as potential amounts or ranges of probable losses, and recognize a liability, if any, for these contingencies based on an analysis of each matter with the assistance of outside legal counsel and, if applicable, other experts. Because many of these matters are resolved over long periods of time, our estimate of liabilities may change due to new developments, changes in assumptions or changes in our strategy related to the matter. When we accrue for loss contingencies and the reasonable estimate of the loss is within a range, we record its best estimate within the range. We disclose an estimated possible loss or a range of loss when it is at least reasonably possible that a loss may have been incurred.

Redeemable Noncontrolling Interest

The fair value component of the redeemable noncontrolling interest in Indices business is based on a combination of an income and market valuation approach. Our income and market valuation approaches may incorporate Level 3 fair value measures for instances when observable inputs are not available. The more significant judgmental assumptions used to estimate the value of the S&P Dow Jones Indices LLC joint venture include an estimated discount rate, a range of assumptions that form the basis of the expected future net cash flows (e.g., the revenue growth rates and operating margins), and a company specific beta. The significant judgmental assumptions used that incorporate market data, including the relative weighting of market observable information and the comparability of that information in our valuation models, are forward-looking and could be affected by future economic and market conditions.

Recent Accounting Standards

See Note 1 – *Accounting Policies* to our consolidated financial statements for a detailed description of recent accounting standards. We expect the adoption of these recent accounting standards to have a material impact on our consolidated balance sheet; however, we do not expect that these standards will have a material impact on our consolidated statements of income or cash flows.

Forward-Looking Statements

Our Annual Report on Form 10-K contains "forward-looking statements," as defined in the Private Securities Litigation Reform Act of 1995. These statements, which express management's current views concerning future events, trends, contingencies or results, appear at various places in this report and use words like "anticipate," "assume," "believe," "continue," "estimate," "expect," "forecast," "future," "intend," "plan," "potential," "predict," "project," "strategy," "target" and similar terms, and future or conditional tense verbs like "could," "may," "might," "should," "will" and "would." For example, management may use forward-looking statements when addressing topics such as: the outcome of contingencies; future actions by regulators; changes in the Company's business strategies and methods of generating revenue; the development and performance of the Company's services and products; the expected impact of acquisitions and dispositions; the Company's effective tax rates; and the Company's cost structure, dividend policy, cash flows or liquidity.

Forward-looking statements are subject to inherent risks and uncertainties. Factors that could cause actual results to differ materially from those expressed or implied in forward-looking statements include, among other things:

- worldwide economic, financial, political and regulatory conditions, and factors that contribute to uncertainty and volatility including natural and man-made disasters, pandemics (i.e. coronavirus), geopolitical uncertainty, and conditions that may result from legislative, regulatory, trade and policy changes associated with the current U.S. administration;
- the rapidly evolving regulatory environment, in Europe, the United States and elsewhere, affecting Ratings, S&P Global Platts, Indices, and S&P Global Market Intelligence, including new and amended regulations and the Company's compliance therewith;
- the Company's ability to maintain adequate physical, technical and administrative safeguards to protect the security of confidential information and data, and the potential for a system or network disruption that results in regulatory penalties and remedial costs or improper disclosure of confidential information or data;
- our ability to make acquisitions and dispositions and successfully integrate the businesses we acquire;

- the outcome of litigation, government and regulatory proceedings, investigations and inquiries;
- the health of debt and equity markets, including credit quality and spreads, the level of liquidity and future debt issuances and the potentially adverse impact of increased access to cash resulting from the Tax Cuts and Jobs Act;
- the demand and market for credit ratings in and across the sectors and geographies where the Company operates;
- concerns in the marketplace affecting the Company's credibility or otherwise affecting market perceptions of the integrity or utility of independent credit ratings, benchmarks and indices;
- the effect of competitive products and pricing, including the level of success of new product developments and global expansion;
- the Company's exposure to potential criminal sanctions or civil penalties for noncompliance with foreign and U.S. laws and regulations that are applicable in the domestic and international jurisdictions in which it operates, including sanctions laws relating to countries such as Iran, Russia, Sudan, Syria and Venezuela, anti-corruption laws such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act of 2010, and local laws prohibiting corrupt payments to government officials, as well as import and export restrictions;
- consolidation in the Company's end-customer markets;
- the introduction of competing products or technologies by other companies;
- the impact of customer cost-cutting pressures, including in the financial services industry and commodities markets;
- a decline in the demand for credit risk management tools by financial institutions;
- the level of merger and acquisition activity in the United States and abroad;
- the volatility of the energy marketplace;
- the health of the commodities markets;
- our ability to attract, incentivize and retain key employees;
- the Company's ability to successfully recover should it experience a disaster or other business continuity problem from a hurricane, flood, earthquake, terrorist attack, pandemic, security breach, cyber attack, power loss, telecommunications failure or other natural or man-made event;
- the level of the Company's future cash flows and capital investments;
- the impact on the Company's revenue and net income caused by fluctuations in foreign currency exchange rates;
- the Company's ability to adjust to changes in European and United Kingdom markets as the United Kingdom leaves the European Union, and the impact of the United Kingdom's departure on our credit rating activities and other offerings in the European Union and United Kingdom; and
- the impact of changes in applicable tax or accounting requirements, including the Tax Cuts and Jobs Act on the Company.

The factors noted above are not exhaustive. The Company and its subsidiaries operate in a dynamic business environment in which new risks emerge frequently. Accordingly, the Company cautions readers not to place undue reliance on any forward-looking statements, which speak only as of the dates on which they are made. The Company undertakes no obligation to update or revise any forward-looking statement to reflect events or circumstances arising after the date on which it is made, except as required by applicable law. Further information about the Company's businesses, including information about factors that could materially affect its results of operations and financial condition, is contained in the Company's filings with the SEC, including Item 1A, Risk Factors, in our Annual Report on Form 10-K.

Consolidated Statements of Income

	Year Ended December 31,		
(in millions, except per share data)	**2019**	2018	2017
Revenue	**$6,699**	$6,258	$6,063
Expenses:			
Operating-related expenses	**1,801**	1,698	1,694
Selling and general expenses	**1,517**	1,564	1,606
Depreciation	**82**	84	82
Amortization of intangibles	**122**	122	98
Total expenses	**3,522**	3,468	3,480
Gain on dispositions	**(49)**	—	—
Operating profit	**3,226**	2,790	2,583
Other expense (income), net	**98**	(25)	(27)
Interest expense, net	**198**	134	149
Income before taxes on income	**2,930**	2,681	2,461
Provision for taxes on income	**627**	560	823
Net income	**2,303**	2,121	1,638
Less: net income attributable to noncontrolling interests	**(180)**	(163)	(142)
Net income attributable to S&P Global Inc.	**$2,123**	$1,958	$1,496
Earnings per share attributable to S&P Global Inc. common shareholders:			
Net income:			
Basic	**$8.65**	$7.80	$5.84
Diluted	**$8.60**	$7.73	$5.78
Weighted-average number of common shares outstanding:			
Basic	**245.4**	250.9	256.3
Diluted	**246.9**	253.2	258.9
Actual shares outstanding at year end	**244.0**	248.4	253.7

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Comprehensive Income

	Year Ended December 31,		
(in millions)	**2019**	2018	2017
Net income	**$2,303**	$2,121	$1,638
Other comprehensive income:			
Foreign currency translation adjustments	**10**	(96)	93
Income tax effect	**8**	(4)	—
	18	(100)	93
Pension and other postretirement benefit plans	**141**	(14)	52
Income tax effect	**(39)**	9	(11)
	102	(5)	41
Unrealized (loss) gain on investment and forward exchange contracts	**(2)**	2	(10)
Income tax effect	**—**	—	—
	(2)	2	(10)
Comprehensive income	**2,421**	2,018	1,762
Less: comprehensive income attributable to nonredeemable noncontrolling interests	**(10)**	(12)	(13)
Less: comprehensive income attributable to redeemable noncontrolling interests	**(170)**	(151)	(129)
Comprehensive income attributable to S&P Global Inc.	**$2,241**	$1,855	$1,620

See accompanying notes to the consolidated financial statements.

Consolidated Balance Sheets

(in millions)	December 31, 2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents	**$2,866**	$1,917
Restricted cash	**20**	41
Short-term investments	**28**	18
Accounts receivable, net of allowance for doubtful accounts: 2019- $34; 2018 - $34	**1,577**	1,449
Prepaid and other current assets	**221**	162
Total current assets	**4,712**	3,587
Property and equipment:		
Buildings and leasehold improvements	**420**	372
Equipment and furniture	**522**	494
Total property and equipment	**942**	866
Less: accumulated depreciation	**(622)**	(596)
Property and equipment, net	**320**	270
Right of use assets	**676**	—
Goodwill	**3,575**	3,535
Other intangible assets, net	**1,424**	1,524
Other non-current assets	**641**	525
Total assets	**$11,348**	$9,441
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	**$190**	$211
Accrued compensation and contributions to retirement plans	**446**	354
Income taxes currently payable	**68**	73
Unearned revenue	**1,928**	1,641
Other current liabilities	**461**	351
Total current liabilities	**3,093**	2,630
Long-term debt	**3,948**	3,662
Lease liabilities – non-current	**620**	—
Pension and other postretirement benefits	**259**	229
Other non-current liabilities	**624**	616
Total liabilities	**8,544**	7,137
Redeemable noncontrolling interest	**2,268**	1,620
Commitments and contingencies (Note 13)		
Equity:		
Common stock, $1 par value: authorized - 600 million shares; issued: 2019 - 294 million shares; 2018 - 294 million shares	**294**	294
Additional paid-in capital	**903**	833
Retained income	**12,205**	11,284
Accumulated other comprehensive loss	**(624)**	(742)
Less: common stock in treasury - at cost: 2019 - 50 million shares; 2018 - 45 million shares	**(12,299)**	(11,041)
Total equity – controlling interests	**479**	628
Total equity – noncontrolling interests	**57**	56
Total equity	**536**	684
Total liabilities and equity	**$11,348**	$9,441

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Cash Flows

(in millions)	Year Ended December 31, 2019	2018	2017
Operating Activities:			
Net income	**$2,303**	$2,121	$1,638
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation	**82**	84	82
Amortization of intangibles	**122**	122	98
Provision for losses on accounts receivable	**18**	21	16
Deferred income taxes	**46**	81	—
Stock-based compensation	**78**	94	99
Gain on dispositions	**(49)**	—	—
Accrued legal settlements	**—**	1	55
Pension settlement charge, net of taxes	**85**	—	—
Other	**93**	52	96
Changes in operating assets and liabilities, net of effect of acquisitions and dispositions:			
Accounts receivable	**(135)**	(164)	(196)
Prepaid and other current assets	**(81)**	(1)	10
Accounts payable and accrued expenses	**73**	(106)	75
Unearned revenue	**256**	70	85
Accrued legal settlements	**(1)**	(108)	(4)
Other current liabilities	**(56)**	(67)	(85)
Net change in prepaid/accrued income taxes	**(41)**	(7)	32
Net change in other assets and liabilities	**(17)**	(129)	15
Cash provided by operating activities	**2,776**	2,064	2,016
Investing Activities:			
Capital expenditures	**(115)**	(113)	(123)
Acquisitions, net of cash acquired	**(91)**	(401)	(83)
Proceeds from dispositions	**85**	6	2
Changes in short-term investments	**(10)**	(5)	(5)
Cash used for investing activities	**(131)**	(513)	(209)
Financing Activities:			
Proceeds from issuance of senior notes, net	**1,086**	489	—
Payments on senior notes	**(868)**	(403)	—
Dividends paid to shareholders	**(560)**	(503)	(421)
Distributions to noncontrolling interest holders, net	**(143)**	(154)	(111)
Repurchase of treasury shares	**(1,240)**	(1,660)	(1,001)
Exercise of stock options	**40**	34	75
Purchase of additional CRISIL shares	**—**	(25)	—
Employee withholding tax on share-based payments and other	**(66)**	(66)	(49)
Cash used for financing activities	**(1,751)**	(2,288)	(1,507)
Effect of exchange rate changes on cash	**34**	(84)	87
Net change in cash, cash equivalents, and restricted cash	**928**	(821)	387
Cash, cash equivalents, and restricted cash at beginning of year	**1,958**	2,779	2,392
Cash, cash equivalents, and restricted cash at end of year	**$2,886**	$1,958	$2,779
Cash paid during the year for:			
Interest	**$162**	$151	$139
Income taxes	**$659**	$558	$709

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Equity

(in millions)	Common Stock $1 par	Additional Paid-in Capital	Retained Income	Accumulated Other Comprehensive Loss	Less: Treasury Stock	Total SPGI Equity	Non-controlling Interests	Total Equity
Balance as of December 31, 2016	$412	$502	$9,210	$(773)	$8,701	$650	$51	$701
Comprehensive income [1]			1,496	124		1,620	15	1,635
Dividends (Dividend declared per common share — $1.64 per share)			(421)			(421)	(10)	(431)
Share repurchases					1,001	(1,001)	(5)	(1,006)
Employee stock plans		23			(100)	123	8	131
Change in redemption value of redeemable noncontrolling interest			(260)			(260)		(260)
Other			(2)			(2)	(2)	(4)
Balance as of December 31, 2017	$412	$525	$10,023	$(649)	$9,602	$709	$57	$766
Comprehensive income [1]			1,958	(103)		1,855	12	1,867
Dividends (Dividend declared per common share — $2.00 per share)			(503)			(503)	(11)	(514)
Share repurchases		(75)			1,585	(1,660)		(1,660)
Retirement of common stock	(118)				(118)	—		—
Employee stock plans		56			(28)	84		84
Change in redemption value of redeemable noncontrolling interest			(228)			(228)		(228)
Increase in CRISIL ownership		(25)				(25)	2	(23)
Stock consideration for Kensho		352				352		352
Other			34[2]	10[2]		44	(4)	40
Balance as of December 31, 2018	$294	$833	$11,284	$(742)	$11,041	$628	$56	$684
Comprehensive income [1]			2,123	118		2,241	10	2,251
Dividends (Dividend declared per common share — $2.28 per share)			(560)			(560)	(10)	(570)
Share repurchases		75			1,315	(1,240)		(1,240)
Employee stock plans		(5)			(57)	52		52
Capital contribution from noncontrolling interest			(36)			(36)		(36)
Change in redemption value of redeemable noncontrolling interest			(608)			(608)		(608)
Other			2			2	1	3
Balance as of December 31, 2019	**$294**	**$903**	**$12,205**	**$(624)**	**$12,299**	**$479**	**$57**	**$536**

[1] Excludes $170 million, $151 million and $129 million in 2019, 2018 and 2017, respectively, attributable to redeemable noncontrolling interest.

[2] Includes opening balance sheet adjustments related to the adoption of the new revenue recognition standard and the reclassification of the unrealized loss on investments from Accumulated other comprehensive loss to Retained income.

See accompanying notes to the consolidated financial statements.

Notes to the Consolidated Financial Statements

1. Accounting Policies

Nature of Operations

S&P Global Inc. (together with its consolidated subsidiaries, the "Company," the "Registrant," "we," "us" or "our") is a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide. The capital markets include asset managers, investment banks, commercial banks, insurance companies, exchanges, trading firms and issuers; and the commodity markets include producers, traders and intermediaries within energy, metals, petrochemicals and agriculture.

Our operations consist of four reportable segments: S&P Global Ratings ("Ratings"), S&P Global Market Intelligence ("Market Intelligence"), S&P Global Platts ("Platts") and S&P Dow Jones Indices ("Indices").

- Ratings is an independent provider of credit ratings, research and analytics, offering investors and other market participants information, ratings and benchmarks.
- Market Intelligence is a global provider of multi-asset-class data, research and analytical capabilities, which integrate cross-asset analytics and desktop services.
- Platts is the leading independent provider of information and benchmark prices for the commodity and energy markets.
- Indices is a global index provider that maintains a wide variety of valuation and index benchmarks for investment advisors, wealth managers and institutional investors.

In April of 2018, we acquired Kensho Technologies Inc. ("Kensho") for approximately $550 million, net of cash acquired, in a mix of cash and stock. Beginning in the first quarter of 2019, the contract obligations for revenue from Kensho's major customers were transferred to Market Intelligence for fulfillment. As a result of this transfer, from January 1, 2019, revenue from contracts with Kensho's customers is reflected in Market Intelligence's results. In 2018, the revenue from contracts with Kensho's customers was reported in Corporate revenue. Restricted cash of $15 million and $32 million included in our consolidated balance sheets as of December 31, 2019 and 2018, respectively, includes amounts held in escrow accounts in connection with our acquisition of Kensho. See Note 2 — *Acquisitions and Divestitures* for additional information and Note 12 – *Segment and Geographic Information* for further discussion on our reportable segments.

Adoption of ASC 842, "Leases"

On January 1, 2019, we adopted Financial Accounting Standards Board Accounting Standards Codification ("FASB ASC") 842 that requires a lessee to recognize "right of use" assets with offsetting lease liabilities on the balance sheet, with expenses recognized similar to previously issued guidance. We adopted the new lease standard effective January 1, 2019 using the modified retrospective transition method. Under this transition method, the standard was adopted prospectively without restating prior period's financial statements. See Note 13 — *Commitments and Contingencies* for further details on our leases.

Adoption of ASC 606, "Revenue from Contracts with Customers"

We adopted FASB ASC 606 "Revenue from Contracts with Customers" using the modified retrospective transition method applied to our revenue contracts with customers as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under ASC 606, while prior year amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC 605 "Revenue Recognition". We recorded a net increase to opening retained earnings of $35 million as of January 1, 2018 due to the cumulative effect of adopting ASC 606, with the impact primarily related to our treatment of costs to obtain a contract and to a lesser extent, changes to the timing of the recognition of our subscription and non-transaction revenues.

Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. Under ASC 605, revenue was recognized as it was earned and when services were rendered.

Subscription Revenue
Subscription revenue at Market Intelligence is primarily derived from distribution of data, analytics, third party research, and credit ratings-related information primarily through web-based channels including Market Intelligence Desktop, RatingsDirect®, RatingsXpress®, and Credit Analytics. Subscription revenue at Platts is generated by providing customers access to commodity and energy-related price assessments, market data, and real-time news, along with other information services. Subscription revenue at Indices is derived from the contracts for underlying data of our indexes to support our customers' management of index funds, portfolio analytics, and research.

For subscription products and services, we generally provide continuous access to dynamic data sets and analytics for a defined period, with revenue recognized ratably as our performance obligation to provide access to our data and analytics is progressively fulfilled over the stated term of the contract.

Non-transaction Revenue
Non-transaction revenue at Ratings is primarily related to surveillance of a credit rating, annual fees for customer relationship-based pricing programs, fees for entity credit ratings and global research and analytics. Non-transaction revenue also includes an intersegment revenue elimination of $128 million, $125 million and $110 million for the years ended December 31, 2019, 2018, and 2017 respectively, mainly consisting of the royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings.

For non-transaction revenue related to Rating's surveillance services, we continuously monitor factors that impact the creditworthiness of an issuer over the contractual term with revenue recognized to the extent that our performance obligation is progressively fulfilled over the term contract. Because surveillance services are continuously provided throughout the term of the contract, our measure of progress towards fulfillment of our obligation to monitor a rating is a time-based output measure with revenue recognized ratably over the term of the contract.

Non-subscription / Transaction Revenue
Transaction revenue at our Ratings segment primarily includes fees associated with:

- ratings related to new issuance of corporate and government debt instruments; as well as structured finance instruments;
- bank loan ratings; and
- corporate credit estimates, which are intended, based on an abbreviated analysis, to provide an indication of our opinion regarding creditworthiness of a company which does not currently have a Ratings credit rating.

Transaction revenue is recognized at the point in time when our performance obligation is satisfied by issuing a rating on our customer's instruments, our customer's creditworthiness, or a counter-party's creditworthiness and when we have a right to payment and the customer can benefit from the significant risks and rewards of ownership.

Non-subscription revenue at Market Intelligence is primarily related to certain advisory, pricing and analytical services. Non-subscription revenue at Platts is primarily related to conference sponsorship, consulting engagements and events.

Asset-Linked Fees
Asset-linked fees at Indices and Market Intelligence are primarily related to royalties payments based on the value of assets under management in our customers exchange-traded funds and mutual funds.

For asset-linked products and services, we provide licenses conveying continuous access to our index and benchmark-related intellectual property during a specified contract term. Revenue is recognized when the extent that our customers have used our licensed intellectual property can be quantified. Recognition of revenue for our asset-linked fee arrangements is subject to the "recognition constraint" for usage-based royalty payments because we cannot reasonably predict the value of the assets that will be invested in index funds structured using our intellectual property until it is either publicly available or when we are notified by our customers. Revenue derived from an asset-linked fee arrangement is measured and recognized when the certainty of the extent of its utilization of our index products by our customers is known.

Sales Usage-Based Royalties

Sales usage-based royalty revenue at our Indices segment is primarily related to trading based fees from exchange-traded derivatives. Sales and usage-based royalty revenue at our Platts segment is primarily related to licensing of its proprietary market price data and price assessments to commodity exchanges.

For sales usage-based royalty products and services, we provide licenses conveying the right to continuous access to our intellectual property over the contract term, with revenue recognized when the extent of our license's utilization can be quantified, or more specifically, when trading volumes are known and publicly available to us or when we are notified by our customers. Recognition of revenue of fees tied to trading volumes is subject to the recognition constraint for a usage-based royalty promised by our customers in exchange for the license of our intellectual property, with revenue recognized when trading volumes are known.

Arrangements with Multiple Performance Obligations

Our contracts with customers may include multiple performance obligations. Revenue relating to agreements that provide for more than one performance obligation is recognized based upon the relative fair value to the customer of each service component as each component is earned. The fair value of the service components are determined using an analysis that considers cash consideration that would be received for instances when the service components are sold separately. If the fair value to the customer for each service is not objectively determinable, we make our best estimate of the services' stand-alone selling price and record revenue as it is earned over the service period.

Receivables

We record a receivable when a customer is billed or when revenue is recognized prior to billing a customer. For multi-year agreements, we generally invoice customers annually at the beginning of each annual period.

Contract Assets

Contract assets include unbilled amounts from when the Company transfers service to a customer before a customer pays consideration or before payment is due. As of December 31, 2019 and 2018, contract assets were $28 million and $26 million, respectively, and are included in accounts receivable in our consolidated balance sheets.

Unearned Revenue

We record unearned revenue when cash payments are received in advance of our performance. The increase in the unearned revenue balance for the year ended December 31, 2019 is primarily driven by cash payments received in advance of satisfying our performance obligations, offset by $1.7 billion of revenues recognized that were included in the unearned revenue balance at the beginning of the period.

Remaining Performance Obligations

Remaining performance obligations represent the transaction price of contracts for work that has not yet been performed. As of December 31, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations was $1.9 billion. We expect to recognize revenue on approximately half and three-quarters of the remaining performance obligations over the next 12 and 24 months, respectively, with the remainder recognized thereafter.

We do not disclose the value of unfulfilled performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts where revenue is a usage-based royalty promised in exchange for a license of intellectual property.

Costs to Obtain a Contract

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that certain sales commission programs meet the requirements to be capitalized. Total capitalized costs to obtain a contract were $115 million and $101 million as of December 31, 2019 and December 31, 2018, respectively, and are included in prepaid and other current assets and other non-current assets on our consolidated balance sheets. The asset will be amortized over a period consistent with the transfer to the customer of the goods or services to which the asset relates, calculated based on the customer term and the average life of the products and services underlying the contracts. The expense is recorded within selling and general expenses.

We expense sales commissions when incurred if the amortization period would have been one year or less. These costs are recorded within selling and general expenses.

Other Expense (Income), net

The components of other expense (income), net for the year ended December 31 are as follows:

(in millions)	**2019**	2018	2017
Other components of net periodic benefit cost[1]	**$79**	$(30)	$(27)
Net loss from investments	**19**	5	—
Other expense (income), net	**$98**	$(25)	$(27)

[1] During 2019, the Company purchased a group annuity contract under which an insurance company assumed a portion of the Company's obligation to pay pension benefits to the plan's beneficiaries. The purchase of this group annuity contract was funded by pension plan assets. The net periodic benefit cost for our retirement and post retirement plans for 2019 includes a non-cash pre-tax settlement charge of $113 million reflecting the accelerated recognition of a portion of unamortized actuarial losses in the plan.

Assets and Liabilities Held for Sale and Discontinued Operations

Assets and Liabilities Held for Sale

We classify a disposal group to be sold as held for sale in the period in which all of the following criteria are met: management, having the authority to approve the action, commits to a plan to sell the disposal group; the disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such disposal group; an active program to locate a buyer and other actions required to complete the plan to sell the disposal group have been initiated; the sale of the disposal group is probable, and transfer of the disposal group is expected to qualify for recognition as a completed sale within one year, except if events or circumstances beyond our control extend the period of time required to sell the disposal group beyond one year; the disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

A disposal group that is classified as held for sale is initially measured at the lower of its carrying value or fair value less any costs to sell. Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. Conversely, gains are not recognized on the sale of a disposal group until the date of sale.

The fair value of a disposal group less any costs to sell is assessed each reporting period it remains classified as held for sale and any subsequent changes are reported as an adjustment to the carrying value of the disposal group, as long as the new carrying value does not exceed the carrying value of the disposal group at the time it was initially classified as held for sale. Upon determining that a disposal group meets the criteria to be classified as held for sale, the Company reports the assets and liabilities of the disposal group as held for sale in the current period in our consolidated balance sheets.

Discontinued Operations

In determining whether a disposal of a component of an entity or a group of components of an entity is required to be presented as a discontinued operation, we make a determination whether the disposal represents a strategic shift that had, or will have, a major effect on our operations and financial results. A component of an entity comprises operations and cash flows that can be clearly distinguished both operationally and for financial reporting purposes. If we conclude that the disposal represents a strategic shift, then the results of operations of the group of assets being disposed of (as well as any gain or loss on the disposal transaction) are aggregated for separate presentation apart from our continuing operating results in the consolidated financial statements.

Principles of Consolidation

The consolidated financial statements include the accounts of all subsidiaries and our share of earnings or losses of joint ventures and affiliated companies under the equity method of accounting. All significant intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents include ordinary bank deposits and highly liquid investments with original maturities of three months or less that consist primarily of money market funds with unrestricted daily liquidity and fixed term time deposits. Such investments and bank deposits are stated at cost, which approximates market value, and were $2.9 billion and $1.9 billion as of December 31, 2019 and 2018, respectively. These investments are not subject to significant market risk.

Restricted Cash

Cash that is subject to legal restrictions or is unavailable for general operating purposes is classified as restricted cash.

Short-Term Investments

Short-term investments are securities with original maturities greater than 90 days that are available for use in our operations in the next twelve months. The short-term investments, primarily consisting of certificates of deposit and mutual funds, are classified as held-to-maturity and therefore are carried at cost. Interest and dividends are recorded in income when earned.

Accounts Receivable

Credit is extended to customers based upon an evaluation of the customer's financial condition. Accounts receivable, which include billings consistent with terms of contractual arrangements, are recorded at net realizable value.

Allowance for Doubtful Accounts

The allowance for doubtful accounts reserve methodology is based on historical analysis, a review of outstanding balances and current conditions. In determining these reserves, we consider, amongst other factors, the financial condition and risk profile of our customers, areas of specific or concentrated risk as well as applicable industry trends or market indicators.

Capitalized Technology Costs

We capitalize certain software development and website implementation costs. Capitalized costs only include incremental, direct costs of materials and services incurred to develop the software after the preliminary project stage is completed, funding has been committed and it is probable that the project will be completed and used to perform the function intended. Incremental costs are expenditures that are out-of-pocket to us and are not part of an allocation or existing expense base. Software development and website implementation costs are expensed as incurred during the preliminary project stage. Capitalized costs are amortized from the year the software is ready for its intended use over its estimated useful life, three to seven years, using the straight-line method. Periodically, we evaluate the amortization methods, remaining lives and recoverability of such costs. Capitalized software development and website implementation costs are included in other non-current assets and are presented net of accumulated amortization. Gross capitalized technology costs were $212 million and $205 million as of December 31, 2019 and 2018, respectively. Accumulated amortization of capitalized technology costs was $129 million and $105 million as of December 31, 2019 and 2018, respectively.

Fair Value

Certain assets and liabilities are required to be recorded at fair value and classified within a fair value hierarchy based on inputs used when measuring fair value. We have forward exchange contracts and a cross currency swap that are adjusted to fair value on a recurring basis.

Other financial instruments, including cash and cash equivalents and short-term investments, are recorded at cost, which approximates fair value because of the short-term maturity and highly liquid nature of these instruments. The fair value of our long-term debt borrowings were $3.9 billion and $3.8 billion as of December 31, 2019 and 2018, respectively, and was estimated based on quoted market prices.

Accounting for the Impairment of Long-Lived Assets (Including Other Intangible Assets)

We evaluate long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Upon such an occurrence, recoverability of assets to be held and used is measured by comparing the carrying amount of an asset to current forecasts of undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of the asset exceeds its estimated future cash flows, an impairment charge is recognized equal to the amount by which the carrying amount of the asset exceeds the fair value of the asset. For long-lived assets held for sale, assets are written down to fair value, less cost to sell. Fair value is determined based on market evidence, discounted cash flows, appraised values or management's estimates, depending upon the nature of the assets.

Goodwill and Other Indefinite-Lived Intangible Assets

Goodwill represents the excess of purchase price and related costs over the value assigned to the net tangible and identifiable intangible assets of businesses acquired. Goodwill and other intangible assets with indefinite lives are not amortized, but instead are tested for impairment annually during the fourth quarter each year, or more frequently if events or changes in circumstances indicate that the asset might be impaired. We have four reporting units with goodwill that are evaluated for impairment.

We initially perform a qualitative analysis evaluating whether any events and circumstances occurred or exist that provide evidence that it is more likely than not that the fair value of any of our reporting units is less than its carrying amount. If, based on our evaluation we do not believe that it is more likely than not that the fair value of any of our reporting units is less than its carrying amount, no quantitative impairment test is performed. Conversely, if the results of our qualitative assessment determine that it is more likely than not that the fair value of any of our reporting units is less than their respective carrying amounts we perform a two-step quantitative impairment test.

When conducting the first step of our two step impairment test to evaluate the recoverability of goodwill at the reporting unit level, the estimated fair value of the reporting unit is compared to its carrying value including goodwill. Fair value of the reporting units are estimated using the income approach, which incorporates the use of the discounted free cash flow ("DCF") analyses and are corroborated using the market approach, which incorporates the use of revenue and earnings multiples based on market data. The DCF analyses are based on the current operating budgets and estimated long-term growth projections for each reporting unit. Future cash flows are discounted based on a market comparable weighted average cost of capital rate for each reporting unit, adjusted for market and other risks where appropriate. In addition, we analyze any difference between the sum of the fair values of the reporting units and our total market capitalization for reasonableness, taking into account certain factors including control premiums.

If the fair value of the reporting unit is less than the carrying value, a second step is performed which compares the implied fair value of the reporting unit's goodwill to the carrying value of the goodwill. The fair value of the goodwill is determined based on the difference between the fair value of the reporting unit and the net fair value of the identifiable assets and liabilities of the reporting unit. If the implied fair value of the goodwill is less than the carrying value, the difference is recognized as an impairment charge.

We evaluate the recoverability of indefinite-lived intangible assets by first performing a qualitative analysis evaluating whether any events and circumstances occurred that provide evidence that it is more likely than not that the indefinite-lived asset is impaired. If, based on our evaluation of the events and circumstances that occurred during the year we do not believe that it is more likely than not that the indefinite-lived asset is impaired, no quantitative impairment test is performed. Conversely, if the results of our qualitative assessment determine that it is more likely than not that the indefinite-lived asset is impaired, a quantitative impairment test is performed. If necessary, the impairment test is performed by comparing the estimated fair value of the intangible asset to its carrying value. If the indefinite-lived intangible asset carrying value exceeds its fair value, an impairment analysis is performed using the income approach. An impairment charge is recognized in an amount equal to that excess.

Significant judgments inherent in these analyses include estimating the amount and timing of future cash flows and the selection of appropriate discount rates, royalty rates and long-term growth rate assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit and indefinite-lived intangible asset and could result in an impairment charge, which could be material to our financial position and results of operations.

We performed our impairment assessment of goodwill and indefinite-lived intangible assets and concluded that no impairment existed for the years ended December 31, 2019, 2018 and 2017.

Foreign Currency Translation

We have operations in many foreign countries. For most international operations, the local currency is the functional currency. For international operations that are determined to be extensions of the parent company, the United States ("U.S.") dollar is the functional currency. For local currency operations, assets and liabilities are translated into U.S. dollars using end of period exchange rates, and revenue and expenses are translated into U.S. dollars using weighted-average exchange rates. Foreign currency translation adjustments are accumulated in a separate component of equity.

Depreciation

The costs of property and equipment are depreciated using the straight-line method based upon the following estimated useful lives: buildings and improvements from 15 to 40 years and equipment and furniture from 2 to 10 years. The costs of leasehold improvements are amortized over the lesser of the useful lives or the terms of the respective leases.

Advertising Expense

The cost of advertising is expensed as incurred. We incurred $34 million in advertising costs for the year ended December 31, 2019 and $33 million for the years ended December 31, 2018 and 2017.

Stock-Based Compensation

Stock-based compensation expense is measured at the grant date based on the fair value of the award and is recognized over the requisite service period, which typically is the vesting period. Stock-based compensation is classified as both operating-related expense and selling and general expense in the consolidated statements of income.

We use a lattice-based option-pricing model to estimate the fair value of options granted. The following assumptions were used in valuing the options granted:

	Year Ended December 31, 2018
Risk-free average interest rate	2.6 - 2.7%
Dividend yield	1.1%
Volatility	21.8 - 22.0%
Expected life (years)	5.67 - 6.07
Weighted-average grant-date fair value per option	$112.98

Because lattice-based option-pricing models incorporate ranges of assumptions, those ranges are disclosed. These assumptions are based on multiple factors, including historical exercise patterns, post-vesting termination rates, expected future exercise patterns and the expected volatility of our stock price. The risk-free interest rate is the imputed forward rate based on the U.S. Treasury yield at the date of grant. We use the historical volatility of our stock price over the expected term of the options to estimate the expected volatility. The expected term of options granted is derived from the output of the lattice model and represents the period of time that options granted are expected to be outstanding.

In 2018, we made a one-time issuance of incentive stock options under the 2002 Plan to replace Kensho employees' stock options that were assumed in connection with our acquisition of Kensho in April of 2018. There were no stock options granted in 2019 and 2017.

Income Taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to be applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. We recognize liabilities for uncertain tax positions taken or expected to be taken in income tax returns. Accrued interest and penalties related to unrecognized tax benefits are recognized in interest expense and operating expense, respectively.

Judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and unrecognized tax benefits. In determining the need for a valuation allowance, the historical and projected financial performance of the operation that is recording a net deferred tax asset is considered along with any other pertinent information.

We file income tax returns in the U.S. federal jurisdiction, various states, and foreign jurisdictions, and we are routinely under audit by many different tax authorities. We believe that our accrual for tax liabilities is adequate for all open audit years based on our assessment of many factors including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgments about future events. It is possible that examinations will be settled prior to December 31, 2020. If any of these tax audit settlements do occur within that period we would make any necessary adjustments to the accrual for unrecognized tax benefits.

As of December 31, 2019, we have approximately $3.2 billion of undistributed earnings of our foreign subsidiaries, of which $776 million is reinvested indefinitely in our foreign operations.

Redeemable Noncontrolling Interest

The agreement with the minority partners of our S&P Dow Jones Indices LLC joint venture contains redemption features whereby interests held by our minority partners are redeemable either (i) at the option of the holder or (ii) upon the occurrence of an event that is not solely within our control. Since redemption of the noncontrolling interest is outside of our control, this interest is presented on our consolidated balance sheets under the caption "Redeemable noncontrolling interest." If the interest were to be redeemed, we would generally be required to purchase the interest at fair value on the date of redemption. We adjust the redeemable noncontrolling interest each reporting period to its estimated redemption value, but never less than its initial fair value, using both income and market valuation approaches. Our income and market valuation approaches incorporate Level 3 measures for instances when observable inputs are not available. The more significant judgmental assumptions used to estimate the value of the S&P Dow Jones Indices LLC joint venture include an estimated discount rate, a range of assumptions that form the basis of the expected future net cash flows (e.g., the revenue growth rates and operating margins), and a company specific beta. The significant judgmental assumptions used that incorporate market data, including the relative weighting of market observable information and the comparability of that information in our valuation models, are forward-looking and could be affected by future economic and market conditions. Any adjustments to the redemption value will impact retained income. See Note 9 – *Equity* for further detail.

Contingencies

We accrue for loss contingencies when both (a) information available prior to issuance of the consolidated financial statements indicates that it is probable that a liability had been incurred at the date of the financial statements and (b) the amount of loss can reasonably be estimated. We continually assess the likelihood of any adverse judgments or outcomes to our contingencies, as well as potential amounts or ranges of probable losses, and recognize a liability, if any, for these contingencies based on an analysis of each matter with the assistance of outside legal counsel and, if applicable, other experts. Because many of these matters are resolved over long periods of time, our estimate of liabilities may change due to new developments, changes in assumptions or changes in our strategy related to the matter. When we accrue for loss contingencies and the reasonable estimate of the loss is within a range, we record our best estimate within the range. We disclose an estimated possible loss or a range of loss when it is at least reasonably possible that a loss may be incurred.

Recent Accounting Standards

In January 2020, the Financial Accounting Standards Board ("FASB") issued a guidance intended to clarify the interaction of the accounting for equity securities under ASC 321, investments accounted for under the equity method of accounting under ASC 323, and the accounting for certain forward contracts and purchased options accounted for under ASC 815. This guidance could change how the Company accounts for an equity security under the measurement alternative. The guidance is effective for reporting periods beginning after December 15, 2020; however early adoption permitted. We are currently evaluating the impact of the adoption of this guidance on our consolidated financial statements.

In December of 2019, the FASB issued guidance to simplify the accounting for income taxes. The guidance eliminates certain exceptions to the general principles of Topic 740. The guidance is effective for reporting periods after December 15, 2020; however, early adoption is permitted. We are currently evaluating the impact of the adoption of this guidance on our consolidated financial statements.

In November of 2018, the FASB issued guidance that provides clarification on whether certain transactions between collaborative arrangement participants should be accounted for as revenue under Accounting Standards Codification ("ASC") 606. The guidance is effective for reporting periods beginning after December 15, 2019; however early adoption is permitted. We do not expect this guidance to have a significant impact on our consolidated financial statements.

In August of 2018, the FASB issued guidance to align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The guidance is effective for reporting periods beginning after December 15, 2019; however early adoption is permitted. We do not expect this guidance to have a significant impact on our consolidated financial statements.

In August of 2017, the FASB issued guidance to enhance the hedge accounting model for both nonfinancial and financial risk components, which includes amendments to address certain aspects of recognition and presentation disclosure. The guidance was effective on January 1, 2019, and the adoption of this guidance did not have a significant impact on our consolidated financial statements.

In January of 2017, the FASB issued guidance that simplifies the subsequent measurement of goodwill and eliminates Step 2 from the goodwill impairment test. Under the new guidance, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. Additionally, an entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. The guidance is effective for reporting periods beginning after December 15, 2019; however, early adoption is permitted. We do not expect this guidance to have a significant impact on our consolidated financial statements.

In June of 2016, the FASB issued guidance that amends the measurement of credit losses on certain financial instruments by requiring the use of an expected loss methodology, which will result in more timely recognition of credit losses. The guidance is effective for reporting periods beginning after December 15, 2019. We have completed our evaluation of changes to our accounting policies, business processes, systems and internal controls to support the recognition and disclosure requirements under the new standard. The adoption of the new standard will impact our process around the assessment of the adequacy of our allowance for doubtful accounts on accounts receivable and contract assets to incorporate the impact of forecasts of future economic conditions, in addition to past events and current economic conditions. Based on our preliminary analysis, we anticipate that following the adoption of the new standard, the Company will recognize an immaterial adjustment to retained earnings as of the date of adoption.

In February of 2016, the FASB issued guidance amending the accounting for leases that requires a lessee to recognize "right of use" assets with offsetting lease liabilities on the balance sheet, with expenses recognized similar to previously issued guidance. This guidance is effective for reporting periods beginning after December 15, 2018 with early adoption permitted. We adopted the new lease standard effective January 1, 2019 using the modified retrospective transition method. In July of 2018, the FASB issued a subsequent update providing entities an additional transition method to adopt the new lease standard, allowing entities to adopt the standard prospectively without restating prior period's financial statements. We have elected this transition method upon adoption on January 1, 2019. We have also elected to apply the "package" of practical expedients permitting entities to forgo reassessment of (1) the lease classification of expired or existing leases, (2) whether any expired or existing contracts contain leases, and (3) the accounting for initial direct costs of existing leases. This standard had a material impact on our consolidated balance sheet, but did not have an impact on our consolidated statements of income or cash flows. As part of our implementation process, we have refined our processes, procedures, and controls to capture the complete population of leases that incorporates a third party software solution to report the financial statement impact of the new standard. See Note 12 — *Commitments and Contingencies* for further details on our leases.

Reclassification

Certain prior year amounts have been reclassified for comparability purposes.

2. Acquisitions and Divestitures

Acquisitions

2020

In December of 2019, CRISIL, included within our Ratings segment, agreed to acquire Greenwich Associates LLC ("Greenwich"), a leading provider of proprietary benchmarking data, analytics and qualitative, actionable insights that helps financial services firms worldwide measure and improve business performance. The acquisition will complement CRISIL's existing portfolio of products and expand offerings to new segments across financial services including commercial banks and asset and wealth managers. We will account for the acquisition using the purchase method of accounting. The acquisition of Greenwich will not be material to our consolidated financial statements. The completion of this acquisition is subject to certain closing conditions.

In January of 2020, we completed the acquisition of the ESG Ratings Business from RobecoSAM, which includes the widely followed SAM* Corporate Sustainability Assessment, an annual evaluation of companies' sustainability practices. The acquisition will bolster our position as the premier resource for essential environmental, social, and governance ("ESG") insights and product solutions for our customers. Through this acquisition, we will be able to offer our customers even more transparent, robust and comprehensive ESG solutions. We accounted for the acquisition using the purchase method of accounting. The acquisition of the ESG Ratings Business is not material to our consolidated financial statements.

2019

For the year ended December 31, 2019, we paid cash for acquisitions of $91 million, net of cash acquired, funded with cash from operations. None of our acquisitions were material either individually or in the aggregate, including the pro forma impact on earnings. Acquisitions completed during the year ended December 31, 2019 included:

- In December of 2019, Market Intelligence acquired 451 Research, LLC ("451 Research"), a privately-held research and advisory firm that provides intelligence, expertise and data covering high-growth emerging technology segments. This acquisition will expand and strengthen Market Intelligence's research coverage, adding differentiated expertise and intelligence with comprehensive offerings in technologies. We accounted for the acquisition using the purchase method of accounting. The acquisition of 451 Research is not material to our consolidated financial statements.

- In September of 2019, Platts acquired Canadian Enerdata Ltd. ("Enerdata"), an independent provider of energy data and information in Canada, to further enhance Platts' North American natural gas offering. We accounted for the the acquisition using the purchase method of accounting. The acquisition of Enerdata is not material to our consolidated financial statements.

- In August of 2019, Platts acquired Live Rice Index ("LRI"), a global provider of information and benchmark price assessments for the rice industry. The purchase expands Platts portfolio of agricultural price assessments while extending its data and news coverage in key export regions for international grains. We accounted for the acquisition using the purchase method of accounting. The acquisition of LRI is not material to our consolidated financial statements.

- In July of 2019, we completed the acquisition of the Orion technology center from Ness Technologies. Orion was developed to become our center of excellence for technology talent to focus on innovation by providing employees with access to the latest technologies and global communications infrastructure, as well as physical spaces that enable highly-collaborative teams. We accounted for the acquisition using the purchase method of accounting. The acquisition of Orion is not material to our consolidated financial statements.

For acquisitions during 2019 that were accounted for using the purchase method, the excess of the purchase price over the fair value of the net assets acquired is allocated to goodwill and other intangibles. The goodwill recognized on our acquisitions is largely attributable to anticipated operational synergies and growth opportunities as a result of the acquisition. The intangible assets, excluding goodwill and indefinite-lived intangibles, will be amortized over their anticipated useful lives between 3 and 10 years which will be determined when we finalize our purchase price allocations. The goodwill for 451 Research and Orion is expected to be deductible for tax purposes.

2018

For the year ended December 31, 2018, we paid for acquisitions in a mix of cash and stock. We paid cash for acquisitions of $401 million, net of cash acquired, funded with cash flows from operations. Additionally, stock consideration was given for our acquisition of Kensho. None of our acquisitions were material either individually or in the aggregate, including the pro forma impact on earnings. All acquisitions were funded with cash flows from operations. Acquisitions completed during the year ended December 31, 2018 included:

- In December of 2018, Indices purchased the balance of the intellectual property ("IP") rights in a family of indices derived from the S&P 500, solidifying its IP in and to the S&P 500 index family. We accounted for the acquisition on a cost basis. The transaction is not material to our consolidated financial statements.

- In August of 2018, we acquired a 5.03% investment in FiscalNote, a technology innovator at the intersection of global business and government that provides advanced, data-driven Issues Management solutions. We measured the investment in FiscalNote at cost, less any impairment, and changes resulting from observable price changes will be recorded in the consolidated statements of income. The investment in FiscalNote is not material to our consolidated financial statements.

- In June of 2018, Market Intelligence acquired the RateWatch business ("RateWatch") from TheStreet, Inc., a B2B data business that offers subscription and custom reports on bank deposits, loans, fees and other product data to the financial services industry. The acquisition will complement and strengthen Market Intelligence's core capabilities of providing differentiated data and analytics solutions for the banking sector. We accounted for the acquisition of RateWatch using the purchase method of accounting. The acquisition of RateWatch is not material to our consolidated financial statements.

- In April of 2018, we acquired Kensho for approximately $550 million, net of cash acquired, in a mix of cash and stock. Kensho is a leading-edge provider of next-generation analytics, artificial intelligence, machine learning, and data visualization systems to Wall Street's premier global banks and investment institutions, as well as the National Security community. The acquisition will strengthen S&P Global's emerging technology capabilities, enhance our ability to deliver essential, actionable insights that will transform the user experience for our clients, and accelerate efforts to improve efficiency and effectiveness of our core internal operations. We accounted for the acquisition of Kensho using the purchase method of accounting. The acquisition of Kensho is not material to our consolidated financial statements.

- In February of 2018, Market Intelligence acquired Panjiva, Inc. ("Panjiva"), a privately-held company that provides deep, differentiated, sector-relevant insights on global supply chains, leveraging data science and technology to make sense of large, unstructured datasets. The acquisition will help strengthen the insights, products and data that we provide to our clients throughout the world. We accounted for the acquisition of Panjiva using the purchase method of accounting. The acquisition of Panjiva is not material to our consolidated financial statements.

- In January of 2018, CRISIL, included within our Ratings segment, acquired a 100% stake in Pragmatix Services Private Limited ("Pragmatix"), a data analytics company focused on delivering cutting edge solutions in the "data to intelligence" life cycle to the Banking, Financial Services and Insurance vertical. The acquisition will strengthen CRISIL's position as an agile, innovative and global analytics company. We accounted for the acquisition of Pragmatix using the purchase method of accounting. The acquisition of Pragmatix is not material to our consolidated financial statements.

For acquisitions during 2018 that were accounted for using the purchase method, the excess of the purchase price over the fair value of the net assets acquired is allocated to goodwill and other intangibles. The goodwill recognized on our acquisitions is largely attributable to anticipated operational synergies and growth opportunities as a result of the acquisition. The intangible assets, excluding goodwill and indefinite-lived intangibles, will be amortized over their useful lives not exceeding 10 years. The goodwill for RateWatch will continue to be deductible for tax purposes.

2017

For the year ended December 31, 2017, we paid cash for acquisitions, net of cash acquired, totaling $83 million. None of our acquisitions were material either individually or in the aggregate, including the pro forma impact on earnings. All acquisitions were funded with cash flows from operations. Acquisitions completed during the year ended December 31, 2017 included:

- In August of 2017, we acquired a 6.02% investment in Algomi Limited ("Algomi"), an innovative fintech company focused on providing software-enabled liquidity solutions to both buy-side and sell-side firms within the credit markets. Our investment in Algomi will help facilitate product collaboration and enable future business expansion. We accounted for the investment in Algomi using the cost method of accounting. The investment with Algomi is not material to our consolidated financial statements.
- In June of 2017, CRISIL, included within our Ratings segment, acquired 8.9% of the outstanding shares of CARE Ratings Limited ("CARE") from Canara Bank. CARE is a Securities and Exchange Board of India registered credit rating agency providing various rating and grading services in India whose shares are publicly traded on both the Bombay Stock Exchange and the National Stock Exchange of India. We accounted for the investment in CARE as available-for-sale using the fair value method of accounting. The investment in CARE is not material to our consolidated financial statements.

Non-cash Investing Activities

Liabilities assumed in conjunction with our acquisitions are as follows:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Fair value of assets acquired	**$110**	$857	$83
Cash and stock consideration (net of cash acquired)	**91**	803	83
Liabilities assumed	**$19**	$54	$ —

DIVESTITURES

2020

In January of 2020, Market Intelligence entered into a strategic alliance to transition S&P Global Market Intelligence's Investor Relations ("IR") webhosting business to Q4 Inc. ("Q4"). This alliance will integrate Market Intelligence's proprietary data into Q4's portfolio of solutions, enabling further opportunities for commercial collaboration. In connection with transitioning its IR webhosting business to Q4, Market Intelligence has made a minority investment in Q4.

2019

During the year ended December 31, 2019, we completed the following dispositions that resulted in a pre-tax gain of $49 million, which was included in Gain on dispositions in the consolidated statement of income:

- On July 31, 2019, we completed the sale of RigData, a business within our Platts segment, to Drilling Info, Inc. RigData is a provider of daily information on rig activity for the natural gas and oil markets across North America. During the year ended December 31, 2019, we recorded a pre-tax gain of $27 million ($26 million after-tax) in Gain on dispositions in the consolidated statement of income related to the sale of RigData.
- In March of 2019, we entered into an agreement to sell Standard & Poor's Investment Advisory Services LLC ("SPIAS"), a business within our Market Intelligence segment, to Goldman Sachs Asset Management ("GSAM"). SPIAS provides non-discretionary investment advice across institutional sub-advisory and intermediary distribution channels globally. On July 1, 2019, we completed the sale of SPIAS to GSAM. During the year ended December 31, 2019, we recorded a pre-tax gain of $22 million ($12 million after-tax) in Gain on dispositions in the consolidated statement of income related to the sale of SPIAS.

2018

During the year ended December 31, 2018, we did not complete any material dispositions.

2017

In April of 2017, we signed a letter of intent to sell our facility at East Windsor, New Jersey. The fixed assets of the facility of $5 million have been classified as held for sale, which is included in prepaid and other current assets in our consolidated balance sheet as of December 31, 2019 and 2018.

In January of 2017, we completed the sale of Quant House SAS ("QuantHouse"), included in our Market Intelligence segment, to QH Holdco, an independent third party. In November of 2016, we entered into a put option agreement that gave the Company the right, but not the obligation, to put the entire share capital of QuantHouse to QH Holdco. On January 4, 2017, we exercised the put option, thereby entering into a definitive agreement to sell QuantHouse to QH Holdco. On January 9, 2017, we completed the sale of QuantHouse to QH Holdco.

The operating profit of our businesses that were disposed of for the years ending December 31, 2019, 2018, and 2017 is as follows:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Operating profit [1]	**$5**	$8	$6

[1] The year ended December 31, 2019 excludes a pre-tax gain of $49 million on our dispositions.

3. Goodwill and Other Intangible Assets

GOODWILL

Goodwill represents the excess of purchase price and related costs over the value assigned to the net tangible and identifiable intangible assets of businesses acquired.

The change in the carrying amount of goodwill by segment is shown below:

(in millions)	Ratings	Market Intelligence	Platts	Indices	Corporate	Total
Balance as of December 31, 2017	$114	$1,961	$523	$391	$—	$2,989
Acquisitions	5	62	—	—	498	565
Other [1]	(6)	6	(7)	(12)	—	(19)
Balance as of December 31, 2018	113	2,029	516	379	498	3,535
Acquisitions	—	44	6	—	—	50
Dispositions	—	(12)	(3)	—	—	(15)
Reclassifications	—	3	—	(3)	—	—
Other [1]	2	(2)	2	—	3	5
Balance as of December 31, 2019	**$115**	**$2,062**	**$521**	**$376**	**$501**	**$3,575**

[1] Primarily relates to the impact of foreign exchange and valuation adjustments for prior period acquisitions. 2018 includes adjustments related to Trucost. 2019 includes adjustments related to Panjiva, RateWatch and Eclipse.

Goodwill additions and dispositions in the table above relate to transactions discussed in Note 2 – *Acquisitions and Divestitures.*

OTHER INTANGIBLE ASSETS

Other intangible assets include both indefinite-lived assets not subject to amortization and definite-lived assets subject to amortization. We have indefinite-lived assets with a carrying value of $846 million as of December 31, 2019 and 2018.

- 2019 and 2018 both include $380 million and $90 million for Dow Jones Indices intellectual property and the Dow Jones tradename, respectively, that we recorded as part of the transaction to form S&P Dow Jones Indices LLC in 2012.
- 2019 and 2018 both include $185 million within our Market Intelligence segment for the SNL tradename.
- 2019 and 2018 both include $132 million within our Indices segment for the balance of the IP rights in a family of indices derived from the S&P 500, solidifying Indices IP in and to the S&P 500 index family.
- 2019 and 2018 both include $59 million within our Indices segment for the Goldman Sachs Commodity Index intellectual property and the Broad Market Indices intellectual property.

The following table summarizes our definite-lived intangible assets:

(in millions)	Databases and software	Content	Customer relationships	Tradenames	Other intangibles	Total
COST						
Balance as of December 31, 2017	$554	$139	$347	$50	$77	$1,167
Acquisitions	3	—	—	—	123	126
Other (primarily Fx) [1]	4	—	(1)	—	(6)	(3)
Balance as of December 31, 2018	561	139	346	50	194	1,290
Acquisitions	—	—	—	—	29	29
Reclassifications	78	—	10	5	(93)	—
Other [1]	(10)	—	(1)	(1)	—	(12)
Balance as of December 31, 2019	**$629**	**$139**	**$355**	**$54**	**$130**	**$1,307**
ACCUMULATED AMORTIZATION						
Balance as of December 31, 2017	$187	$101	$106	$42	$57	$493
Current year amortization	52	14	21	3	32	122
Reclassifications	1	—	—	—	(1)	—
Other (primarily Fx) [1]	—	—	(1)	—	(2)	(3)
Balance as of December 31, 2018	240	115	126	45	86	612
Current year amortization	73	14	23	3	9	122
Reclassifications	22	—	4	1	(27)	—
Other [1]	(4)	—	—	(1)	—	(5)
Balance as of December 31, 2019	**$331**	**$129**	**$153**	**$48**	**$68**	**$729**
NET DEFINITE-LIVED INTANGIBLES:						
December 31, 2018	$321	$24	$220	$5	$108	$678
December 31, 2019	**$298**	**$10**	**$202**	**$6**	**$62**	**$578**

[1] Primarily relates to the impact of foreign exchange and valuation adjustments for prior period acquisitions. 2019 includes adjustments related to RigData.

Definite-lived intangible assets are being amortized on a straight-line basis over periods of up to 21 years. The weighted-average life of the intangible assets as of December 31, 2019 is approximately 12 years.

Amortization expense was $122 million for the years ended December 31, 2019 and 2018 and $98 million for the year ended December 31, 2017. Expected amortization expense for intangible assets over the next five years for the years ended December 31, assuming no further acquisitions or dispositions, is as follows:

(in millions)	2020	2021	2022	2023	2024
Amortization expense	$117	$86	$78	$73	$70

4. Taxes on Income

Income before taxes on income resulting from domestic and foreign operations is as follows:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Domestic operations	**$2,068**	$1,857	$1,723
Foreign operations	**862**	824	738
Total income before taxes	**$2,930**	$2,681	$2,461

The provision for taxes on income consists of the following:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Federal:			
Current	**$303**	$198	$489
Deferred	**13**	53	63
Total federal	**316**	251	552
Foreign:			
Current	**201**	214	194
Deferred	**14**	(2)	(3)
Total foreign	**215**	212	191
State and local:			
Current	**93**	84	73
Deferred	**3**	13	7
Total state and local	**96**	97	80
Total provision for taxes	**$627**	$560	$823

A reconciliation of the U.S. federal statutory income tax rate to our effective income tax rate for financial reporting purposes is as follows:

	Year ended December 31,		
	2019	2018	2017
U.S. federal statutory income tax rate	**21.0%**	21.0%	35.0%
State and local income taxes	**2.6**	2.8	2.5
Foreign operations	**(0.3)**	0.2	(3.9)
TCJA Transition Tax	**—**	(0.3)	6.0
Stock-based compensation	**(1.4)**	(1.2)	(2.7)
S&P Dow Jones Indices LLC joint venture	**(1.2)**	(1.2)	(1.8)
Tax credits and incentives	**(1.7)**	(1.7)	(2.1)
Other, net	**2.4**	1.3	0.4
Effective income tax rate	**21.4%**	20.9%	33.4%

The increase in the effective income tax rate in 2019 was primarily due to an increase in accruals for potential tax liabilities for prior years in various jurisdictions. The decrease in the effective income tax rate in 2018 was primarily due to the reduction of the U.S. federal corporate tax rate as a result of the enactment of the Tax Cuts and Jobs Act ("TCJA"). Additionally, a one-time transition tax charge of $149 million due to the TCJA was recorded in 2017, which included tax expense of approximately $173 million on the deemed repatriation of foreign earnings and a tax benefit of approximately $24 million in respect of the re-valuation of the net U.S. deferred tax liabilities at the reduced corporate income tax rate.

We have elected to recognize the tax on Global Intangible Low Taxed Income ("GILTI") as a period expense in the year the tax is incurred. GILTI expense is included in Other, net above.

The principal temporary differences between the accounting for income and expenses for financial reporting and income tax purposes are as follows:

	December 31,	
(in millions)	**2019**	2018
Deferred tax assets:		
Legal and regulatory settlements	**$2**	$2
Employee compensation	**58**	57
Accrued expenses	**30**	36
Postretirement benefits	**27**	48
Unearned revenue	**28**	29
Allowance for doubtful accounts	**9**	8
Loss carryforwards	**155**	155
Other	**24**	24
Total deferred tax assets	**333**	359
Deferred tax liabilities:		
Goodwill and intangible assets	**(318)**	(295)
Total deferred tax liabilities	**(318)**	(295)
Net deferred income tax asset before valuation allowance	**15**	64
Valuation allowance	**(163)**	(156)
Net deferred income tax (liability) asset	**$(148)**	$(92)
Reported as:		
Non-current deferred tax assets	**$52**	$52
Non-current deferred tax liabilities	**(200)**	(144)
Net deferred income tax (liability) asset	**$(148)**	$(92)

We record valuation allowances against deferred income tax assets when we determine that it is more likely than not that such deferred income tax assets will not be realized based upon all the available evidence. The valuation allowance is primarily related to operating losses.

As of December 31, 2019, we have approximately $3.2 billion of undistributed earnings of our foreign subsidiaries, of which $776 million is reinvested indefinitely in our foreign operations. We have not recorded deferred income taxes applicable to undistributed earnings of foreign subsidiaries that are indefinitely reinvested in foreign operations. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested earnings is not practicable.

We made net income tax payments totaling $659 million in 2019, $558 million in 2018, and $709 million in 2017. As of December 31, 2019, we had net operating loss carryforwards of $689 million, of which a significant portion has an unlimited carryover period under current law.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Balance at beginning of year	**$147**	$212	$ 221
Additions based on tax positions related to the current year	**21**	19	23
Additions for tax positions of prior years	**11**	2	17
Reduction for tax positions of prior years	**(15)**	(21)	(32)
Reduction for settlements	**(33)**	(65)	(5)
Expiration of applicable statutes of limitations	**(7)**	—	(12)
Balance at end of year	**$124**	$147	$212

The total amount of federal, state and local, and foreign unrecognized tax benefits as of December 31, 2019, 2018 and 2017 was $124 million, $147 million and $212 million, respectively, exclusive of interest and penalties. During the period ended December 31, 2019, the change in unrecognized tax benefits resulted in a net increase of tax expense of $10 million.

We recognize accrued interest and penalties related to unrecognized tax benefits in interest expense and operating-related expense, respectively. Based on the current status of income tax audits, we believe that the total amount of unrecognized tax benefits on the balance sheet may be reduced by up to approximately $10 million in the next twelve months as a result of the resolution of local tax examinations. In addition to the unrecognized tax benefits, as of December 31, 2019 and 2018, we had $20 million and $35 million, respectively, of accrued interest and penalties associated with unrecognized tax benefits.

The U.S. federal income tax audit for 2017 and 2018 is in process. During 2019, we completed state and foreign tax audits and, with few exceptions, we are no longer subject to federal, state, or foreign income tax examinations by tax authorities for the years before 2013. The impact to tax expense in 2019, 2018 and 2017 was not material.

We file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions, and we are routinely under audit by many different tax authorities. We believe that our accrual for tax liabilities is adequate for all open audit years based on an assessment of many factors including past experience and interpretations of tax law. This assessment relies on estimates and assumptions and may involve a series of complex judgments about future events. It is possible that tax examinations will be settled prior to December 31, 2020. If any of these tax audit settlements do occur within that period, we would make any necessary adjustments to the accrual for unrecognized tax benefits.

5. Debt

A summary of long-term debt outstanding is as follows:

	December 31,	
(in millions)	**2019**	2018
3.3% Senior Notes, due 2020 [1]	**$—**	$698
4.0% Senior Notes, due 2025 [2]	**694**	693
4.4% Senior Notes, due 2026 [3]	**893**	892
2.95% Senior Notes, due 2027 [4]	**493**	493
2.5% Senior Notes, due 2029 [5]	**495**	—
6.55% Senior Notes, due 2037 [6]	**294**	396
4.5% Senior Notes, due 2048 [7]	**490**	490
3.25% Senior Notes, due 2049 [8]	**589**	—
Long-term debt	**$3,948**	$3,662

1 We made a $700 million early repayment of our 3.3% senior note in the fourth quarter of 2019.

2 Interest payments are due semiannually on June 15 and December 15, and as of December 31, 2019, the unamortized debt discount and issuance costs total $6 million.

3 Interest payments are due semiannually on February 15 and August 15, and as of December 31, 2019, the unamortized debt discount and issuance costs total $7 million.

4 Interest payments are due semiannually on January 22 and July 22, and as of December 31, 2019, the unamortized debt discount and issuance costs total $7 million.

5 Interest payments are due semiannually on June 1 and December 1, beginning on June 1, 2020, and as of December 31, 2019, the unamortized debt discount and issuance costs total $5 million.

6 We made a $103 million early repayment of a portion of our 6.55% senior note in November of 2019. Interest payments are due semiannually on May 15 and November 15, and as of December 31, 2019, the unamortized debt discount and issuance costs total $3 million.

7 Interest payments are due semiannually on May 15 and November 15, and as of December 31, 2019, the unamortized debt discount and issuance costs total $10 million.

8 Interest payments are due semiannually on June 1 and December 1, beginning on June 1, 2020, and as of December 31, 2019, the unamortized debt discount and issuance costs total $11 million.

Annual debt maturities are scheduled as follows based on book values as of December 31, 2019: no amounts due in 2020, 2021, 2022, 2023, and 2024 and $3.9 billion due thereafter.

On November 26, 2019, we issued $500 million of 2.5% senior notes due in 2029 and $600 million of 3.25% senior notes due in 2049. The notes are fully and unconditionally guaranteed by our wholly-owned subsidiary, Standard & Poor's Financial Services LLC. In the fourth quarter of 2019, we used the net proceeds to fund the redemption of the $700 million outstanding principal amount of our 3.3% senior notes due in August of 2020 and a portion of the $400 million outstanding principal amount of our 6.55% senior notes due in October of 2037.

On May 17, 2018, we issued $500 million of 4.5% senior notes due in 2048. The notes are fully and unconditionally guaranteed by our wholly-owned subsidiary, Standard & Poor's Financial Services LLC. In June of 2018, we used the net proceeds to fund the redemption price of the $400 million outstanding principal amount of our 2.5% senior notes due in August of 2018, and the balance for general corporate purposes.

We have the ability to borrow a total of $1.2 billion through our commercial paper program, which is supported by our revolving $1.2 billion five-year credit agreement (our "credit facility") that we entered into on June 30, 2017. This credit facility will terminate on June 30, 2022. There were no commercial paper borrowings outstanding as of December 31, 2019 and 2018.

Depending on our corporate credit rating, we pay a commitment fee of 8 to 17.5 basis points for our credit facility, whether or not amounts have been borrowed. We currently pay a commitment fee of 10 basis points. The interest rate on borrowings under our credit facility is, at our option, calculated using rates that are primarily based on either the prevailing London Inter-Bank Offer Rate, the prime rate determined by the administrative agent or the Federal Funds Rate. For certain borrowings under this credit facility, there is also a spread based on our corporate credit rating.

Our credit facility contains certain covenants. The only financial covenant requires that our indebtedness to cash flow ratio, as defined in our credit facility, is not greater than 4 to 1, and this covenant level has never been exceeded.

6. Derivative Instruments

Our exposure to market risk includes changes in foreign exchange rates. We have operations in foreign countries where the functional currency is primarily the local currency. For international operations that are determined to be extensions of the parent company, the U.S. dollar is the functional currency. We typically have naturally hedged positions in most countries from a local currency perspective with offsetting assets and liabilities. As of December 31, 2019 and December 31, 2018, we have entered into foreign exchange forward contracts to mitigate or hedge the effect of adverse fluctuations in foreign exchange rates. As of December 31, 2019, we have entered into a cross currency swap contract to hedge a portion of our net investment in a foreign subsidiary against volatility in foreign exchange rates. These contracts are recorded at fair value that is based on foreign currency exchange rates in active markets; therefore, we classify these derivative contracts within Level 2 of the fair value hierarchy. We do not enter into any derivative financial instruments for speculative purposes.

Undesignated Derivative Instruments

During the twelve months ended December 31, 2019, 2018 and 2017 we entered into foreign exchange forward contracts in order to mitigate the change in fair value of specific assets and liabilities in the consolidated balance sheet. These forward contracts do not qualify for hedge accounting. As of December 31, 2019 and 2018, the aggregate notional value of these outstanding forward contracts was $116 million and $98 million, respectively. The changes in fair value of these forward contracts are recorded in prepaid and other assets in the consolidated balance sheet with their corresponding change in fair value recognized into selling and general expenses in the consolidated statement of income. The amount recorded in selling and general expense for the twelve months ended December 31, 2019 and 2018 related to these contracts was a net gain of $4 million and a net loss of $12 million, respectively.

Net Investment Hedge

During the twelve months ended December 31, 2019, we entered into a cross currency swap to hedge a portion of our net investment in a certain European subsidiary against volatility in the Euro/U.S. dollar exchange rate. This swap is designated and qualifies as a hedge of a net investment in a foreign subsidiary and is scheduled to mature in 2024. As of December 31, 2019, the notional value of our outstanding cross currency swap designated as a net investment hedge was $400 million. The changes in the fair value of this swap are recognized in foreign currency translation adjustments, a component of other comprehensive income (loss), and reported in accumulated other comprehensive loss in our consolidated balance sheet. The gain or loss will be subsequently reclassified into net earnings when the hedged net investment is either sold or substantially liquidated. We have elected to assess the effectiveness of our net investment hedge based on changes in spot exchange rates. Accordingly, amounts related to the cross currency swap recognized directly in net income during 2019 represent net periodic interest settlements and accruals, which are recognized in interest expense, net. We recognized net interest income of $1 million in 2019.

Cash Flow Hedges

During the twelve months ended December 31, 2019, 2018 and 2017, we entered into a series of foreign exchange forward contracts to hedge a portion of the Indian rupee, British pound, and Euro exposures through the fourth quarter of 2020, 2019 and 2018, respectively. These contracts are intended to offset the impact of movement of exchange rates on future revenue and operating costs and are scheduled to mature within twelve months. The changes in the fair value of these contracts are initially reported in accumulated other comprehensive loss in our consolidated balance sheet and are subsequently reclassified into revenue and selling and general expenses in the same period that the hedged transaction affects earnings.

As of December 31, 2019, we estimate that $2 million of the net gains related to derivatives designated as cash flow hedges recorded in other comprehensive income is expected to be reclassified into earnings within the next twelve months.

As of December 31, 2019 and December 31, 2018, the aggregate notional value of our outstanding foreign exchange forward contracts designated as cash flow hedges was $249 million and $289 million, respectively.

The following table provides information on the location and fair value amounts of our cash flow hedges and net investment hedge as of December 31, 2019 and December 31, 2018:

		December 31,	
(in millions)		**2019**	2018
Balance Sheet Location			
Derivatives designated as cash flow hedges:			
Prepaid and other current assets	Foreign exchange forward contracts	**$1**	$3
Derivatives designated as cash flow hedges:			
Other non-current liabilities	Cross currency swap	**$10**	—

The following table provides information on the location and amounts of pre-tax gains (losses) on our cash flow hedges and net investment hedge for the years ended December 31:

	Gain (Loss) Recognized in Accumulated Other Comprehensive Loss (effective portion)			Location of Gain (Loss) Reclassified from Accumulated Other Comprehensive Loss into Income (effective portion)	Gain (Loss) Reclassified from Accumulated Other Comprehensive Loss into Income (effective portion)		
(in millions)	**2019**	2018	2017		**2019**	2018	2017
Cash flow hedges - designated as hedging instruments							
Foreign exchange forward contracts	**$(2)**	$2	$—	Revenue, Selling and general expenses	**$5**	$(4)	$9
Net investment hedge - designated as hedging instrument							
Cross currency swap	**$(10)**	$—	$—		**$—**	$—	$—

The activity related to the change in unrealized gains (losses) in accumulated other comprehensive loss was as follows for the years ended December 31:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Cash Flow Hedges			
Net unrealized gains (losses) on cash flow hedges, net of taxes, beginning of year	**$4**	$2	$2
Change in fair value, net of tax	**3**	(2)	9
Reclassification into earnings, net of tax	**(5)**	4	(9)
Net unrealized gains (losses) on cash flow hedges, net of taxes, end of year	**$2**	$4	$2
Net Investment Hedge			
Net unrealized gains (losses) on net investment hedge, net of taxes, beginning of year	**$—**	$—	$—
Change in fair value, net of tax	**(10)**	—	—
Reclassification into earnings, net of tax	**—**	—	—
Net unrealized gains (losses) on net investment hedge, net of taxes, end of year	**$(10)**	$—	$—

7. Employee Benefits

We maintain a number of active defined contribution retirement plans for our employees. The majority of our defined benefit plans are frozen. As a result, no new employees will be permitted to enter these plans and no additional benefits for current participants in the frozen plans will be accrued.

We also have supplemental benefit plans that provide senior management with supplemental retirement, disability and death benefits. Certain supplemental retirement benefits are based on final monthly earnings. In addition, we sponsor a voluntary 401(k) plan under which we may match employee contributions up to certain levels of compensation as well as profit-sharing plans under which we contribute a percentage of eligible employees' compensation to the employees' accounts.

We also provide certain medical, dental and life insurance benefits for active and retired employees and eligible dependents. The medical and dental plans and supplemental life insurance plan are contributory, while the basic life insurance plan is noncontributory. We currently do not prefund any of these plans.

We recognize the funded status of our retirement and postretirement plans in the consolidated balance sheets, with a corresponding adjustment to accumulated other comprehensive loss, net of taxes. The amounts in accumulated other comprehensive loss represent net unrecognized actuarial losses and unrecognized prior service costs. These amounts will be subsequently recognized as net periodic pension cost pursuant to our accounting policy for amortizing such amounts.

Net periodic benefit cost for our retirement and postretirement plans other than the service cost component are included in other expense (income), net in our consolidated statements of income.

Benefit Obligation

A summary of the benefit obligation and the fair value of plan assets, as well as the funded status for the retirement and postretirement plans as of December 31, 2019 and 2018, is as follows (benefits paid in the table below include only those amounts contributed directly to or paid directly from plan assets):

	RETIREMENT PLANS		**POSTRETIREMENT PLANS**	
(in millions)	**2019**	2018	**2019**	2018
Net benefit obligation at beginning of year	**$2,076**	$2,329	**$40**	$49
Service cost	**3**	3	**—**	—
Interest cost	**64**	71	**1**	1
Plan participants' contributions	**—**	—	**2**	3
Actuarial loss (gain)	**232**	(199)	**1**	(4)
Gross benefits paid	**(75)**	(103)	**(6)**	(8)
Foreign currency effect	**13**	(26)	**—**	—
Other adjustments [1]	**(368)**	1	**—**	(1)
Net benefit obligation at end of year	**1,945**	2,076	**38**	40
Fair value of plan assets at beginning of year	**1,987**	2,219	**16**	20
Actual return on plan assets	**354**	(113)	**1**	—
Employer contributions	**46**	9	**—**	1
Plan participants' contributions	**—**	—	**3**	3
Gross benefits paid	**(75)**	(103)	**(7)**	(8)
Foreign currency effect	**16**	(25)	**—**	—
Other adjustments [1]	**(368)**	—	**—**	—
Fair value of plan assets at end of year	**1,960**	1,987	**13**	16
Funded status	**$15**	$(89)	**$(25)**	$(24)
Amounts recognized in consolidated balance sheets:				
Non-current asset	**$259**	$125	**$—**	$ —
Current liabilities	**(10)**	(9)	**—**	—
Non-current liabilities	**(234)**	(205)	**(25)**	(24)
	$15	$(89)	**$(25)**	$(24)
Accumulated benefit obligation	**$1,932**	$2,066		
Plans with accumulated benefit obligation in excess of the fair value of plan assets:				
Projected benefit obligation	**$244**	$214		
Accumulated benefit obligation	**$231**	$204		
Fair value of plan assets	**$—**	$—		
Amounts recognized in accumulated other comprehensive loss, net of tax:				
Net actuarial loss (gain)	**$355**	$460	**$(40)**	$(41)
Prior service credit	**2**	2	**(13)**	(14)
Total recognized	**$357**	$462	**$(53)**	$(55)

[1] Relates to the impact of a retiree annuity purchase in 2019. The Company purchased a group annuity contract under which an insurance company assumed a portion of the Company's obligation to pay pension benefits to the plan's beneficiaries. The purchase of this group annuity contract was funded by pension plan assets.

The actuarial loss included in accumulated other comprehensive loss for our retirement plans and expected to be recognized in net periodic benefit cost during the year ending December 31, 2020 is $15 million. There is an immaterial amount of prior service credit included in accumulated other comprehensive loss for our retirement plans expected to be recognized in net periodic benefit cost during the year ending December 31, 2020.

The actuarial gain included in accumulated other comprehensive loss for our postretirement plans and expected to be recognized in net periodic benefit cost during the year ending December 31, 2020 is $2 million. The prior year service credit included in accumulated other comprehensive loss for our postretirement plans and expected to be recognized in net periodic benefit cost during the year ending December 31, 2020 is $1 million.

Net Periodic Benefit Cost

For purposes of determining annual pension cost, prior service costs are being amortized straight-line over the average expected remaining lifetime of plan participants expected to receive benefits.

A summary of net periodic benefit cost for our retirement and postretirement plans for the years ended December 31, is as follows:

	RETIREMENT PLANS			POSTRETIREMENT PLANS		
(in millions)	**2019**	2018	2017	**2019**	2018	2017
Service cost	**$3**	$3	$3	**$—**	$—	$—
Interest cost	**64**	71	74	**1**	1	2
Expected return on assets	**(108)**	(124)	(126)	**—**	—	—
Amortization of:						
Actuarial loss (gain)	**12**	20	18	**(2)**	(2)	(2)
Prior service credit	**—**	—	—	**(1)**	(1)	(2)
Net periodic benefit cost	**(29)**	(30)	(31)	**(2)**	(2)	(2)
Settlement charge	**113**[1]	4[2]	8[2]	**—**	—	—
Total net periodic benefit cost	**$84**	$(26)	$(23)	**$(2)**	$(2)	$(2)

1 Relates to the impact of a retiree annuity purchase in 2019. The Company purchased a group annuity contract under which an insurance company assumed a portion of the Company's obligation to pay pension benefits to the plan's beneficiaries. The purchase of this group annuity contract was funded by pension plan assets. The non-cash pretax settlement charge reflects the accelerated recognition of a portion of unamortized actuarial losses in the plan.

2 Represents a charge related to our U.K. retirement plan.

Our U.K. retirement plan accounted for a benefit of $14 million in 2019, $10 million in 2018 and $6 million in 2017 of the net periodic benefit cost attributable to the funded plans.

Other changes in plan assets and benefit obligations recognized in other comprehensive income, net of tax for the years ended December 31, are as follows:

	RETIREMENT PLANS			POSTRETIREMENT PLANS		
(in millions)	**2019**	2018	2017	**2019**	2018	2017
Net actuarial (gain) loss	**$(10)**	$28	$(20)	**$—**	$(7)	$(3)
Recognized actuarial (gain) loss	**(10)**	(15)	(12)	**1**	1	1
Prior service (credit) cost	**—**	1	—	**1**	1	1
Settlement charge	**(85)**[1]	(4)[2]	(7)[2]	**—**	—	—
Total recognized	**$(105)**	$10	$(39)	**$2**	$(5)	$(1)

1 Relates to the impact of a retiree annuity purchase in 2019. The Company purchased a group annuity contract under which an insurance company assumed a portion of the Company's obligation to pay pension benefits to the plan's beneficiaries. The purchase of this group annuity contract was funded by pension plan assets. The non-cash after tax settlement charge reflects the accelerated recognition of a portion of unamortized actuarial losses in the plan.

2 Represents a charge related to our U.K. retirement plan.

The total cost for our retirement plans was $187 million for 2019, $80 million for 2018 and $70 million for 2017. The total cost for our retirement plans in 2019 includes the $113 million settlement charge related to the retiree annuity purchase in 2019. Included in the total retirement plans cost are defined contribution plans cost of $73 million for 2019, $79 million for 2018 and $70 million for 2017.

Assumptions

	RETIREMENT PLANS			POSTRETIREMENT PLANS		
	2019	**2018**	2017	**2019**	2018	2017
Benefit obligation:						
Discount rate [2]	**3.45%**	4.40%	3.68%	**3.08%**	4.15%	3.40%
Net periodic cost:						
Weighted-average healthcare cost rate [1]				**6.50%**	6.50%	7.00%
Discount rate - U.S. plan [2]	**4.40%**	3.68%	4.13%	**4.15%**	3.40%	3.69%
Discount rate - U.K. plan [2]	**2.72%**	2.41%	2.58%			
Return on assets [3]	**6.00%**	6.00%	6.25%			

[1] The assumed weighted-average healthcare cost trend rate will decrease ratably from 6% in 2019 to 5% in 2024 and remain at that level thereafter. Assumed healthcare cost trends have an effect on the amounts reported for the healthcare plans. A one percentage point change in assumed healthcare cost trend creates the following effects:

(in millions)	**1% point increase**	**1% point decrease**
Effect on postretirement obligation	**$—**	$—

[2] Effective January 1, 2019, we changed our discount rate assumption on our U.S. retirement plans to 4.40% from 3.68% in 2018 and changed our discount rate assumption on our U.K. plan to 2.72% from 2.41% in 2018.

[3] The expected return on assets assumption is calculated based on the plan's asset allocation strategy and projected market returns over the long-term. Effective January 1, 2020, our return on assets assumption for the U.S. plan was reduced to 5.50% from 6.00% and the U.K. plan remained unchanged at 6.00%.

Cash Flows

In December of 2003, the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the "Act") was enacted. The Act established a prescription drug benefit under Medicare, known as "Medicare Part D", and a federal subsidy to sponsors of retiree healthcare benefit plans that provide a benefit that is at least actuarially equivalent to Medicare Part D. Our benefits provided to certain participants are at least actuarially equivalent to Medicare Part D, and, accordingly, we are entitled to a subsidy.

Expected employer contributions in 2020 are $11 million and $5 million for our retirement and postretirement plans, respectively. In 2020, we may elect to make additional non-required contributions depending on investment performance and the pension plan status. Information about the expected cash flows for our retirement and postretirement plans and the impact of the Medicare subsidy is as follows:

		Postretirement Plans [2]			
(in millions)	Retirement [1] Plans	Gross payments	Retiree contributions	Medicare subsidy [3]	Net payments
2020	$63	$7	$(2)	$ —	$5
2021	66	6	(2)	—	4
2022	69	6	(2)	—	4
2023	72	5	(1)	—	4
2024	75	5	(1)	—	4
2025-2029	413	17	(6)	—	11

[1] Reflects the total benefits expected to be paid from the plans or from our assets including both our share of the benefit cost and the participants' share of the cost.

[2] Reflects the total benefits expected to be paid from our assets.

[3] Expected medicare subsidy amounts, for the years presented, are less than $1 million.

Fair Value of Plan Assets

In accordance with authoritative guidance for fair value measurements certain assets and liabilities are required to be recorded at fair value. Fair value is defined as the amount that would be received for selling an asset or paid to transfer a liability in an orderly transaction between market participants. A fair value hierarchy has been established which requires us to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The three levels of inputs used to measure fair value are as follows:

- Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The fair value of our defined benefit plans assets as of December 31, 2019 and 2018, by asset class is as follows:

(in millions)	December 31, 2019 Total	Level 1	Level 2	Level 3
Cash and short-term investments	$3	$3	$—	$—
Equities:				
U.S. indexes [1]	23	23	—	—
U.S. growth and value	56	56	—	—
Fixed income:				
Long duration strategy [2]	1,078	—	1,078	—
Intermediate duration securities	20	—	20	—
Agency mortgage backed securities	3	—	3	—
Asset backed securities	14	—	14	—
Non-agency mortgage backed securities [3]	11	—	11	—
International, excluding U.K.	15	—	15	—
Real Estate:				
U.K. [4]	39	—	—	39
Total	**$1,262**	$82	$1,141	$39
Collective investment funds [5]	**$698**			
Total	**$1,960**			

(in millions)	December 31, 2018 Total	Level 1	Level 2	Level 3
Cash and short-term investments	$4	$4	$—	$—
Equities:				
U.S. indexes [1]	21	21	—	—
U.S. growth and value	69	69	—	—
U.K.	—	—	—	—
International, excluding U.K.	—	—	—	—
Fixed income:				
Long duration strategy [2]	1,070	—	1,070	—
Intermediate duration securities	35	—	35	—
Agency mortgage backed securities	4	—	4	—
Asset backed securities	18	—	18	—
Non-agency mortgage backed securities [3]	13	—	13	—
International, excluding U.K.	18	—	18	—
Real Estate:				
U.K. [4]	39	—	—	39
Total	**$1,291**	**$94**	**$1,158**	$39
Collective investment funds [5]	**$696**			
Total	**$1,987**			

1 Includes securities that are tracked in the S&P Smallcap 600 index.

2 Includes securities that are mainly investment grade obligations of issuers in the U.S.

3 Includes U.S. mortgage-backed securities that are not backed by the U.S. government.

4 Includes a fund which holds real estate properties in the U.K.

5 Includes the Standard & Poor's 500 Composite Stock Index, the Standard & Poor's MidCap 400 Composite Stock Index, a short-term investment fund which is a common collective trust vehicle, and other various asset classes.

For securities that are quoted in active markets, the trustee/custodian determines fair value by applying securities' prices obtained from its pricing vendors. For commingled funds that are not actively traded, the trustee applies pricing information provided by investment management firms to the unit quantities of such funds. Investment management firms employ their own pricing vendors to value the securities underlying each commingled fund. Underlying securities that are not actively traded derive their prices from investment managers, which in turn, employ vendors that use pricing models (e.g., discounted cash flow, comparables). The domestic defined benefit plans have no investment in our stock, except through the S&P 500 commingled trust index fund.

The trustee obtains estimated prices from vendors for securities that are not easily quotable and they are categorized accordingly as Level 3. The following table details further information on our plan assets where we have used significant unobservable inputs:

(in millions)	**Level 3**
Balance as of December 31, 2018	$39
Purchases	—
Distributions	—
Gain (loss)	—
Balance as of December 31, 2019	$39

Pension Trusts' Asset Allocations

There are two pension trusts, one in the U.S. and one in the U.K.

- The U.S. pension trust had assets of $1,432 million and $1,572 million as of December 31, 2019 and 2018 respectively, and the target allocations in 2019 include 75% fixed income, 16% domestic equities and 9% international equities.
- The U.K. pension trust had assets of $528 million and $415 million as of December 31, 2019 and 2018, respectively, and the target allocations in 2019 include 40% fixed income, 30% diversified growth funds, 20% equities and 10% real estate.

The pension assets are invested with the goal of producing a combination of capital growth, income and a liability hedge. The mix of assets is established after consideration of the long-term performance and risk characteristics of asset classes. Investments are selected based on their potential to enhance returns, preserve capital and reduce overall volatility. Holdings are diversified within each asset class. The portfolios employ a mix of index and actively managed equity strategies by market capitalization, style, geographic regions and economic sectors. The fixed income strategies include U.S. long duration securities, opportunistic fixed income securities and U.K. debt instruments. The short-term portfolio, whose primary goal is capital preservation for liquidity purposes, is composed of government and government-agency securities, uninvested cash, receivables and payables. The portfolios do not employ any financial leverage.

U.S. Defined Contribution Plan

Assets of the defined contribution plan in the U.S. consist primarily of investment options, which include actively managed equity, indexed equity, actively managed equity/bond funds, target date funds, S&P Global Inc. common stock, stable value and money market strategies. There is also a self-directed mutual fund investment option. The plan purchased 165,286 shares and sold 333,030 shares of S&P Global Inc. common stock in 2019 and purchased 193,051 shares and sold 205,798 shares of S&P Global Inc. common stock in 2018. The plan held approximately 1.3 million and 1.5 million shares of S&P Global Inc. common stock as of December 31, 2019 and 2018, respectively, with market values of $355 million and $251 million, respectively. The plan received dividends on S&P Global Inc. common stock of $3 million during both the years ended December 31, 2019 and December 31, 2018.

8. Stock-Based Compensation

We issue stock-based incentive awards to our eligible employees under the 2019 Employee Stock Incentive Plan and to our eligible non-employee Directors under a Director Deferred Stock Ownership Plan. No further awards may be granted under the 2002 Employee Stock Incentive Plan (the "2002 Plan"), although awards granted under the 2002 Plan prior to the adoption of the new 2019 Plan in June of 2019 remain outstanding in accordance with their terms. The remaining outstanding options under the 2002 Plan will have fully met their maximum term and expire in the second quarter of 2028.

- **2019 Employee Stock Incentive Plan (the "2019 Plan")**
  The 2019 Plan permits the granting of incentive stock options, nonqualified stock options, stock appreciation rights, performance stock, restricted stock and other stock-based awards.

- **Director Deferred Stock Ownership Plan**
  Under this plan, common stock reserved may be credited to deferred stock accounts for eligible Directors. In general, the plan requires that 50% of eligible Directors' annual compensation plus dividend equivalents be credited to deferred stock accounts. Each Director may also elect to defer all or a portion of the remaining compensation and have an equivalent number of shares credited to the deferred stock account. Recipients under this plan are not required to provide consideration to us other than rendering service. Shares will be delivered as of the date a recipient ceases to be a member of the Board of Directors or within five years thereafter, if so elected. The plan will remain in effect until terminated by the Board of Directors or until no shares of stock remain available under the plan.

The number of common shares reserved for issuance are as follows:

	December 31,	
(in millions)	**2019**	2018
Shares available for granting [1]	**20.0**	33.3
Options outstanding	**0.7**	1.7
Total shares reserved for issuance [2]	**20.7**	35.0

[1] Shares available for granting at December 31, 2019 and 2018 are under the 2019 Plan and 2002 Plan, respectively.

[2] Shares reserved for issuance under the Director Deferred Stock Ownership Plan are not included in the total, but are less than 1.0 million at December 31 2019 and 2018, respectively.

We issue treasury shares upon exercise of stock options and the issuance of restricted stock and unit awards. To offset the dilutive effect of the exercise of employee stock options, we periodically repurchase shares. See Note 9 – *Equity* for further discussion.

Stock-based compensation expense and the corresponding tax benefit are as follows:

	Year ended December 31,		
(in millions)	**2019**	2018	2017
Stock option expense	**$1**	$5	$3
Restricted stock and unit awards expense	**77**	89	96
Total stock-based compensation expense	**$78**	$94	$99
Tax benefit	**$13**	$19	$38

Stock Options

Stock options may not be granted at a price less than the fair market value of our common stock on the date of grant. Stock options granted vest over a four year service period and have a maximum term of 10 years. Stock option compensation costs are recognized from the date of grant, utilizing a four-year graded vesting method. Under this method, more than half of the costs are recognized over the first twelve months, approximately one-quarter of the costs are recognized over a twenty-four month period starting from the date of grant, approximately one-tenth of the costs are recognized over a thirty-six month period starting from the date of grant, and the remaining costs recognized over a forty-eight month period starting from the date of grant.

We use a lattice-based option-pricing model to estimate the fair value of options granted. The following assumptions were used in valuing the options granted:

	Year ended December 31, 2018
Risk-free average interest rate	2.6 - 2.7%
Dividend yield	1.1%
Volatility	21.8 - 22.0%
Expected life (years)	5.67 - 6.07
Weighted-average grant-date fair value per option	$112.98

Because lattice-based option-pricing models incorporate ranges of assumptions, those ranges are disclosed. These assumptions are based on multiple factors, including historical exercise patterns, post-vesting termination rates, expected future exercise patterns and the expected volatility of our stock price. The risk-free interest rate is the imputed forward rate based on the U.S. Treasury yield at the date of grant. We use the historical volatility of our stock price over the expected term of the options to estimate the expected volatility. The expected term of options granted is derived from the output of the lattice model and represents the period of time that options granted are expected to be outstanding.

In 2018, we made a one-time issuance of incentive stock options under the 2002 Plan to replace Kensho employees' stock options that were assumed in connection with our acquisition of Kensho in April of 2018. There were no stock options granted in 2019 and 2017.

Stock option activity is as follows:

(in millions, except per award amounts)	Shares	Weighted average exercise price	Weighted-average remaining years of contractual term	Aggregate intrinsic value
Options outstanding as of December 31, 2018	1.7	$47.92		
Exercised	(1.0)	$163.99		
Forfeited and expired [1]	—	$70.70		
Options outstanding as of December 31, 2019	**0.7**	**$55.73**	**3.1**	**$155**
Options exercisable as of December 31, 2019	**0.7**	**$55.12**	**3.0**	**$151**

[1] There are less than 0.1 million shares forfeited and expired.

(in millions, except per award amounts)	Shares	Weighted-average grant-date fair value
Nonvested options outstanding as of December 31, 2018	0.1	$113.02
Vested [1]	—	$113.42
Forfeited	(0.1)	$113.17
Nonvested options outstanding as of December 31, 2019 [2]	**—**	**$112.68**
Total unrecognized compensation expense related to nonvested options	**$0.3**	
Weighted-average years to be recognized over	**0.7**	

[1] There are less than 0.1 million shares vested.

[2] There are less than 0.1 million nonvested options outstanding as of December 31, 2019.

The total fair value of our stock options that vested during the years ended December 31, 2019, 2018 and 2017 was $3 million, $5 million and $4 million, respectively.

Information regarding our stock option exercises is as follows:

		Year ended December 31,	
(in millions)	**2019**	2018	2017
Net cash proceeds from the exercise of stock options	**$40**	$34	$75
Total intrinsic value of stock option exercises	**$110**	$77	$118
Income tax benefit realized from stock option exercises	**$33**	$27	$64

RESTRICTED STOCK AND UNIT AWARDS

Restricted stock and unit awards (performance and non-performance) have been granted under the 2002 Plan and 2019 Plan. Performance unit awards will vest only if we achieve certain financial goals over the performance period. Restricted stock non-performance awards have various vesting periods (generally three years), with vesting beginning on the first anniversary of the awards. Recipients of restricted stock and unit awards are not required to provide consideration to us other than rendering service.

The stock-based compensation expense for restricted stock and unit awards is determined based on the market price of our stock at the grant date of the award applied to the total number of awards that are anticipated to fully vest. For performance unit awards, adjustments are made to expense dependent upon financial goals achieved.

Restricted stock and unit activity for performance and non-performance awards is as follows:

(in millions, except per award amounts)	**Shares**	**Weighted-average grant-date fair value**
Nonvested shares as of December 31, 2018	**0.8**	$172.24
Granted	**0.5**	$187.40
Vested	**(0.6)**	$144.18
Forfeited	**(0.1)**	$179.76
Nonvested shares as of December 31, 2019	**0.6**	$199.93
Total unrecognized compensation expense related to nonvested awards	**$72**	
Weighted-average years to be recognized over	**1.8**	

	Year ended December 31,		
	2019	2018	2017
Weighted-average grant-date fair value per award	**$187.40**	$182.75	$147.12
Total fair value of restricted stock and unit awards vested	**$153**	$154	$147
Tax benefit relating to restricted stock activity	**$29**	$32	$36

9. Equity

Capital Stock

Two million shares of preferred stock, par value $1 per share, are authorized; none have been issued.

On January 29, 2020, the Board of Directors approved an increase in the dividends for 2020 to a quarterly rate of $0.67 per common share.

	Year ended December 31,		
	2019	2018	2017
Quarterly dividend rate	**$0.57**	$0.50	$0.41
Annualized dividend rate	**$2.28**	$2.00	$1.64
Dividends paid (in millions)	**$560**	$503	$421

Stock Repurchases

On December 4, 2013, the Board of Directors approved a share repurchase program authorizing the purchase of 50 million shares, which was approximately 18% of the total shares of our outstanding common stock at that time.

Our purchased shares may be used for general corporate purposes, including the issuance of shares for stock compensation plans and to offset the dilutive effect of the exercise of employee stock options. As of December 31, 2019, 4.7 million shares remained available under our current share repurchase program. Our current share repurchase program has no expiration date and purchases under this program may be made from time to time on the open market and in private transactions, depending on market conditions.

We have entered into accelerated share repurchase ("ASR") agreements with financial institutions to initiate share repurchases of our common stock. Under an ASR agreement, we pay a specified amount to the financial institution and receive an initial delivery of shares. This initial delivery of shares represents the minimum number of shares that we may receive under the agreement. Upon settlement of the ASR agreement, the financial institution delivers additional shares. The total number of shares ultimately delivered, and therefore the average price paid per share, is determined at the end of the applicable purchase period of each ASR agreement based on the volume weighted-average share price, less a discount. We account for our ASR agreements as two transactions: a stock purchase transaction and a forward stock purchase contract. The shares delivered under the ASR agreements resulted in a reduction of outstanding shares used to determine our weighted average common shares outstanding for purposes of calculating basic and diluted earnings per share. The repurchased shares are held in Treasury. The forward stock purchase contracts were classified as equity instruments. The ASR agreements were executed under the current share repurchase program, approved on December 4, 2013.

The terms of each ASR agreement entered for the years ended December 31, 2019, 2018 and 2017, structured as outlined above, are as follows:

(in millions, except average price)

ASR Agreement Initiation Date	ASR Agreement Completion Date	Initial Shares Delivered	Additional Shares Delivered	Total Number of Shares	Average Price Paid Per Share	Total Cash Utilized
August 5, 2019 [1]	October 1, 2019	1.8	0.1	2.0	$253.36	$500
February 11, 2019 [2]	July 31, 2019	2.2	0.1	2.3	$214.65	$500
October 29, 2018 [3]	January 2, 2019	2.5	0.4	2.9	$173.80	$500
March 6, 2018 [4]	September 25, 2018	4.5	0.6	5.1	$197.49	$1,000
August 1, 2017 [5]	October 31, 2017	2.8	0.5	3.2	$154.46	$500

[1] The ASR agreement was structured as a capped ASR agreement in which we paid $500 million and received an initial delivery of 1.8 million shares, representing the minimum number of shares of our common stock to be repurchased based on a calculation using a specified capped price per share.

[2] The ASR agreement was structured as an uncapped ASR agreement in which we paid $500 million and received an initial delivery of 2.2 million shares, representing 85% of the $500 million at a price equal to the then market price of the Company.

[3] The ASR agreement was structured as an uncapped ASR agreement in which we paid $500 million and received an initial delivery of 2.5 million shares, representing 85% of the $500 million at a price equal to the then market price of the Company.

[4] The ASR agreement was structured as an uncapped ASR agreement in which we paid $1 billion and received an initial delivery of 4.5 million shares, representing 85% of the $1 billion at a price equal to the then market price of the Company.

[5] The ASR agreement was structured as an uncapped ASR agreement in which we paid $500 million and received an initial delivery of 2.8 million shares, representing 85% of the $500 million at a price equal to the then market price of the Company.

Additionally, we purchased shares of our common stock in the open market as follows:

(in millions, except average price) Year Ended	Total number of shares purchased	Average price paid per share	Total cash utilized
December 31, 2019	1.2	$208.83	$240
December 31, 2018	0.9	$182.93	$160
December 31, 2017	3.5	$141.60	$501

During the year ended December 31, 2019, we received 5.9 million shares, including 0.4 million shares received in January of 2019 related to our October 29, 2018 ASR agreement, resulting in $1,240 million of cash used to repurchase shares. During the years ended December 31, 2018 and 2017, we purchased a total of 8.4 million and 6.8 million shares for cash of $1,660 million and $1,001 million, respectively.

Redeemable Noncontrolling Interests

The agreement with the minority partners that own 27% of our S&P Dow Jones Indices LLC joint venture contains redemption features whereby interests held by minority partners are redeemable either (i) at the option of the holder or (ii) upon the occurrence of an event that is not solely within our control. Specifically, under the terms of the operating agreement of S&P Dow Jones Indices LLC, CME Group and CME Group Index Services LLC ("CGIS") has the right at any time to sell, and we are obligated to buy, at least 20% of their share in S&P Dow Jones Indices LLC. In addition, in the event there is a change of control of the Company, for the 15 days following a change in control, CME Group and CGIS will have the right to put their interest to us at the then fair value of CME Group's and CGIS' minority interest.

If interests were to be redeemed under this agreement, we would generally be required to purchase the interest at fair value on the date of redemption. This interest is presented on the consolidated balance sheets outside of equity under the caption "Redeemable noncontrolling interest" with an initial value based on fair value for the portion attributable to the net assets we acquired, and based on our historical cost for the portion attributable to our S&P Index business. We adjust the redeemable noncontrolling interest each reporting period to its estimated redemption value, but never less than its initial fair value, using both income and market valuation approaches. Our income and market valuation approaches may incorporate Level 3 fair value measures for instances when observable inputs are not available. The more significant judgmental assumptions used to estimate the value of the S&P Dow Jones Indices LLC joint venture include an estimated discount rate, a range of assumptions that form the basis of the expected future net cash flows (e.g., the revenue growth rates and operating margins), and a company specific beta. The significant judgmental assumptions used that incorporate market data, including the relative weighting of market observable information and the comparability of that information in our valuation models, are forward-looking and could be affected by future economic and market conditions. Any adjustments to the redemption value will impact retained income.

Noncontrolling interests that do not contain such redemption features are presented in equity.

Changes to redeemable noncontrolling interest during the year ended December 31, 2019 were as follows:

(in millions)	
Balance as of December 31, 2018	$1,620
Net income attributable to noncontrolling interest	170
Capital contribution from noncontrolling interest	36
Distributions to noncontrolling interest	(166)
Redemption value adjustment	608
Balance as of December 31, 2019	$2,268

Accumulated Other Comprehensive Loss

The following table summarizes the changes in the components of accumulated other comprehensive loss for the year ended December 31, 2019:

(in millions)	**Foreign Currency Translation Adjustment** [1]	**Pension and Postretirement Benefit Plans** [2]	**Unrealized Gain (Loss) on Forward Exchange Contracts** [1]	**Accumulated Other Comprehensive Loss**
Balance as of December 31, 2018	$(339)	$(407)	$4	$(742)
Other comprehensive gain (loss) before reclassifications	18	9	3	30
Reclassifications from accumulated other comprehensive loss to net earnings	—	93	(5)	88
Net other comprehensive gain (loss) income	18	102	(2)	118
Balance as of December 31, 2019	$(321)	$(305)	$2	$(624)

1 See Note 6 — *Derivative Instruments* for additional details of gains (losses) included in accumulated other comprehensive loss and items reclassed from accumulated other comprehensive loss to net earnings.

2 Reflects amortization of net actuarial losses and is net of a tax benefit of $39 million for the year ended December 31, 2019. See Note 7 — *Employee Benefits* for additional details of items reclassed from accumulated other comprehensive loss to net earnings.

10. Earnings per Share

Basic earnings per common share ("EPS") is computed by dividing net income attributable to the common shareholders of the Company by the weighted-average number of common shares outstanding. Diluted EPS is computed in the same manner as basic EPS, except the number of shares is increased to include additional common shares that would have been outstanding if potential common shares with a dilutive effect had been issued. Potential common shares consist primarily of stock options and restricted performance shares calculated using the treasury stock method.

The calculation for basic and diluted EPS is as follows:

	Year ended December 31,		
(in millions, except per share data)	**2019**	2018	2017
Amount attributable to S&P Global Inc. common shareholders:			
Net income	**$2,123**	$1,958	$1,496
Basic weighted-average number of common shares outstanding	**245.4**	250.9	256.3
Effect of stock options and other dilutive securities	**1.5**	2.3	2.6
Diluted weighted-average number of common shares outstanding	**246.9**	253.2	258.9
Earnings per share attributable to S&P Global Inc. common shareholders:			
Net income:			
Basic	**$8.65**	$7.80	$5.84
Diluted	**$8.60**	$7.73	$5.78

Each period we have certain stock options and restricted performance shares that are potentially excluded from the computation of diluted EPS. The effect of the potential exercise of stock options is excluded when the average market price of our common stock is lower than the exercise price of the related option during the period or when a net loss exists because the effect would have been antidilutive. Additionally, restricted performance shares are excluded because the necessary vesting conditions had not been met or when a net loss exists. As of December 31, 2019, 2018 and 2017, there were no stock options excluded. Restricted performance shares outstanding of 0.4 million, 0.5 million and 0.6 million as of December 31, 2019, 2018 and 2017, respectively, were excluded.

11. Restructuring

During 2019 and 2018, we continued to evaluate our cost structure and further identified cost savings associated with streamlining our management structure and our decision to exit non-strategic businesses. Our 2019 and 2018 restructuring plans consisted of a company-wide workforce reduction of approximately 300 and 160 positions, respectively, and are further detailed below. The charges for each restructuring plan are classified as selling and general expenses within the consolidated statements of income and the reserves are included in other current liabilities in the consolidated balance sheets.

In certain circumstances, reserves are no longer needed because of efficiencies in carrying out the plans or because employees previously identified for separation resigned from the Company and did not receive severance or were reassigned due to circumstances not foreseen when the original plans were initiated. In these cases, we reverse reserves through the consolidated statements of income during the period when it is determined they are no longer needed. There were approximately $3 million of reserves from the 2018 restructuring plan that we have reversed in 2019, which offset the initial charge of $25 million recorded for the 2018 restructuring plan. There were approximately $6 million of reserves from the 2017 restructuring plan that we have reversed in 2018, which offset the initial charge of $44 million recorded for the 2017 restructuring plan.

The initial restructuring charge recorded and the ending reserve balance as of December 31, 2019 by segment is as follows:

	2019 Restructuring Plan		2018 Restructuring Plan	
(in millions)	**Initial Charge Recorded**	**Ending Reserve Balance**	**Initial Charge Recorded**	**Ending Reserve Balance**
Ratings	$11	$7	$8	$—
Market Intelligence	6	5	7	1
Platts	1	—	—	—
Corporate	7	6	10	1
Total	**$25**	**$18**	**$25**	**$2**

For the year ended December 31, 2019, we have reduced the reserve for the 2019 restructuring plan by $7 million and for the years ended December 31, 2019 and 2018, we have reduced the reserve for the 2018 restructuring plan by $22 million and $1 million, respectively. The reductions primarily related to cash payments for employee severance charges.

12. Segment and Geographic Information

As discussed in Note 1 – *Accounting Policies*, we have four reportable segments: Ratings, Market Intelligence, Platts and Indices.

Our Chief Executive Officer is our chief operating decision-maker and evaluates performance of our segments and allocates resources based primarily on operating profit. Segment operating profit does not include Corporate Unallocated, other income, net, or interest expense, net, as these are costs that do not affect the operating results of our reportable segments. We use the same accounting policies for our segments as those described in Note 1 – *Accounting Policies*.

Beginning in the first quarter of 2019, the contract obligations for revenue from Kensho's major customers were transferred to Market Intelligence for fulfillment. As a result of this transfer, from January 1, 2019 revenue from contracts with Kensho's customers is reflected in Market Intelligence's results. In 2018, the revenue from contracts with Kensho's customers was reported in Corporate revenue. See Note 2 — *Acquisitions and Divestitures* for additional information.

A summary of operating results for the years ended December 31 is as follows:

Revenue

(in millions)	**2019**	2018	2017
Ratings	**$3,106**	$2,883	$2,988
Market Intelligence	**1,959**	1,833	1,683
Platts	**844**	815	774
Indices	**918**	837	728
Corporate	**—**	15	—
Intersegment elimination [1]	**(128)**	(125)	(110)
Total revenue	**$6,699**	$6,258	$6,063

Operating Profit

(in millions)	**2019**	2018	2017
Ratings [2]	**$1,763**	$1,530	$1,517
Market Intelligence [3]	**607**	545	457
Platts [4]	**438**	383	326
Indices [5]	**630**	563	478
Total reportable segments	**3,438**	3,021	2,778
Corporate Unallocated [6]	**(212)**	(231)	(195)
Total operating profit	**$3,226**	$2,790	$2,583

1 Revenue for Ratings and expenses for Market Intelligence include an intersegment royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings.

2 Operating profit or the year ended December 31, 2019 includes employee severance charges of $11 million. Operating profit for the year ended December 31, 2018 includes legal settlement expenses of $74 million and employee severance charges of $8 million. Operating profit for the year ended December 31, 2017 includes legal settlement expenses of $55 million and employee severance charges of $25 million. Additionally, operating profit includes amortization of intangibles from acquisitions of $2 million for the years ended December 31, 2019 and 2018 and $4 million for the year ended December 31, 2017.

3 As of July 1, 2019, we completed the sale of SPIAS and the results are included in Market Intelligence results through that date. Operating profit for the year ended December 31, 2019 includes a gain on the sale of SPIAS of $22 million, employee severance charges of $6 million and acquisition related costs of $4 million. Operating profit for the year ended December 31, 2018 includes restructuring charges related to a business disposition and employee severance charges of $7 million. Operating profit for the year ended December 31, 2017 includes employee severance charges of $7 million, and non-cash disposition-related adjustments of $4 million. Additionally, operating profit includes amortization of intangibles from acquisitions of $75 million, $73 million and $71 million for the years ended December 31, 2019, 2018 and 2017, respectively.

4 As of July 31, 2019, we completed the sale of RigData and the results are included in Platts results through that date. Operating profit for the year ended December 31, 2019 includes a gain on the sale of RigData of $27 million and employee severance charges of $1 million. Operating profit for the year ended December 31, 2017 includes non-cash acquisition-related adjustment of $11 million, a charge to exit a leased facility of $6 million, an asset write-off of $2 million, and employee severance charges of $2 million. Additionally, Operating profit includes amortization of intangibles from acquisitions of $12 million for the year ended December 31, 2019 and $18 million for the years ended December 31, 2018 and 2017.

5 Operating profit includes amortization of intangibles from acquisitions of $6 million for the years ended December 31, 2019, 2018 and 2017, respectively.

6 Corporate Unallocated operating loss for the year ended December 31, 2019 includes Kensho retention related expenses of $21 million, lease impairments of $11 million and employee severance charges of $7 million. Corporate Unallocated operating loss for the year ended December 31, 2018 includes Kensho retention related expense of $31 million, lease impairments of $11 million and employee severance charges of $10 million. Corporate Unallocated operating loss for the year ended December 31, 2017 includes a charge to exit leased facilities of $19 million and employee severance charges of $10 million. Additionally, Corporate Unallocated operating loss includes amortization of intangibles from acquisitions of $28 million and $23 million for the years ended December 31, 2019 and 2018.

The following table presents our revenue disaggregated by revenue type for the years ended December 31:

(in millions)	Ratings	Market Intelligence	Platts	Indices	Corporate	Intersegment Elimination [1]	Total
		2019					
Subscription	$—	$1,904	$774	$165	$—	$—	$2,843
Non-subscription / Transaction	1,577	45	10	—	—	—	1,632
Non-transaction	1,529	—	—	—	—	(128)	1,401
Asset-linked fees	—	10	—	613	—	—	623
Sales usage-based royalties	—	—	60	140	—	—	200
Total revenue	**$3,106**	**$1,959**	**$844**	**$918**	**$—**	**$(128)**	**$6,699**
Timing of revenue recognition							
Services transferred at a point in time	$1,577	$45	$10	$—	$—	$—	$1,632
Services transferred over time	1,529	1,914	834	918	—	(128)	5,067
Total revenue	**$3,106**	**$1,959**	**$844**	**$918**	$—	**$(128)**	**$6,699**

(in millions)	Ratings	Market Intelligence	Platts	Indices	Corporate	Intersegment Elimination [1]	Total
		2018 [2]					
Subscription	$—	$1,773	$750	$144	$15	$—	$2,682
Non-subscription / Transaction	1,350	40	11	—	—	—	1,401
Non-transaction	1,533	—	—	—	—	(125)	1,408
Asset-linked fees	—	20	—	522	—	—	542
Sales usage-based royalties	—	—	54	171	—	—	225
Total revenue	**$2,883**	**$1,833**	**$815**	**$837**	**$15**	**$(125)**	**$6,258**
Timing of revenue recognition							
Services transferred at a point in time	$1,350	$40	$11	$—	$—	$—	$1,401
Services transferred over time	1,533	1,793	804	837	15	(125)	4,857
Total revenue	**$2,883**	**$1,833**	**$815**	**$837**	$15	**$(125)**	**$6,258**

(in millions)	Ratings	Market Intelligence	Platts	Indices	Corporate	Intersegment Elimination [1]	Total
		2017 [2, 3]					
Subscription	$—	$1,614	$704	$136	$—	$—	$2,454
Non-subscription / Transaction	1,515	46	13	—	—	—	1,574
Non-transaction	1,473	—	—	—	—	(110)	1,363
Asset-linked fees	—	23	—	461	—	—	484
Sales usage-based royalties	—	—	57	131	—	—	188
Total revenue	**$2,988**	**$1,683**	**$774**	**$728**	**$—**	**$(110)**	**$6,063**
Timing of revenue recognition							
Services transferred at a point in time	$1,515	$46	$13	$—	$—	$—	$1,574
Services transferred over time	1,473	1,637	761	728	—	(110)	4,489
Total revenue	**$2,988**	**$1,683**	**$774**	**$728**	$—	**$(110)**	**$6,063**

[1] Intersegment eliminations mainly consists of a royalty charged to Market Intelligence for the rights to use and distribute content and data developed by Ratings.

[2] In 2019, we reevaluated our transaction and non-transaction revenue presentation which resulted in a reclassification from transaction revenue to non-transaction revenue of $27 million and $25 million for 2018 and 2017, respectively.

[3] Amounts for the year ended December 31, 2017 were not adjusted under the modified retrospective transition method applied to our revenue contracts with customers as of January 1, 2018.

Segment information for the years ended December 31 is as follows:

	Depreciation & Amortization			Capital Expenditures		
(in millions)	**2019**	2018	2017	**2019**	2018	2017
Ratings	**$34**	$32	$34	**$41**	$42	$45
Market Intelligence	**99**	99	104	**44**	30	37
Platts	**21**	27	25	**13**	9	15
Indices	**8**	9	8	**5**	3	3
Total reportable segments	**162**	167	171	**103**	84	100
Corporate	**42**	39	9	**12**	29	23
Total	**$204**	$206	$180	**$115**	$113	$123

Segment information for the years ended December 31 is as follows:

	Total Assets	
(in millions)	**2019**	2018
Ratings	**$963**	$680
Market Intelligence	**3,806**	3,606
Platts	**938**	787
Indices	**1,492**	1,443
Total reportable segments	**7,199**	6,516
Corporate [1]	**4,140**	2,911
Assets held for sale [2]	**9**	14
Total	**$11,348**	$9,441

1 Corporate assets consist principally of cash and cash equivalents, goodwill and other intangible assets, assets for pension benefits, deferred income taxes and leasehold improvements related to subleased areas.

2 Includes East Windsor and New Jersey facility as of December 31, 2019 and 2018, respectively.

We do not have operations in any foreign country that represent more than 8% of our consolidated revenue. Transfers between geographic areas are recorded at agreed upon prices and intercompany revenue and profit are eliminated. No single customer accounted for more than 10% of our consolidated revenue.

The following provides revenue and long-lived assets by geographic region:

	REVENUE			**LONG-LIVED ASSETS**	
	Year ended December 31,			December 31,	
(in millions)	**2019**	2018	2017	**2019**	2018
U.S.	**$3,949**	$3,750	$3,658	**$4,946**	$5,019
European region	**1,681**	1,543	1,473	**323**	317
Asia	**715**	647	594	**93**	51
Rest of the world	**354**	318	338	**44**	42
Total	**$6,699**	$6,258	$6,063	**$5,406**	$5,429

	REVENUE			**LONG-LIVED ASSETS**	
	Year ended December 31,			December 31,	
	2019	2018	2017	**2019**	2018
U.S.	**59%**	60%	60%	**91%**	92%
European region	**25**	25	24	**6**	6
Asia	**11**	10	10	**2**	1
Rest of the world	**5**	5	6	**1**	1
Total	**100%**	100%	100%	**100%**	100%

See Note 2 – *Acquisitions and Divestitures* and Note 11 – *Restructuring*, for actions that impacted the segment operating results.

13. Commitments and Contingencies

Leases

We determine whether an arrangement meets the criteria for an operating lease or a finance lease at the inception of the arrangement. We have operating leases for office space and equipment. Our leases have remaining lease terms of 1 year to 14 years, some of which include options to extend the leases for up to 12 years, and some of which include options to terminate the leases within 1 year. We consider these options in determining the lease term used to establish our right-of use ("ROU") assets and associated lease liabilities. We sublease certain real estate leases to third parties which mainly consist of operating leases for space within our offices.

Leases with an initial term of 12 months or less are not recorded on the balance sheet; we recognize lease expenses for these leases on a straight line-basis over the lease term in operating-related expenses and selling and general expenses.

Operating lease ROU assets and operating lease liabilities are recognized based on the present value of future minimum lease payments over the lease term at commencement date. Our future minimum based payments used to determine our lease liabilities include minimum based rent payments and escalations. As most of our leases do not provide an implicit rate, we use our estimated incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments.

The following table provides information on the location and amounts of our leases on our consolidated balance sheet as of December 31, 2019:

(in millions)		2019
Balance Sheet Location		
Assets		
Right of use assets	Lease right-of-use assets	$676
Liabilities		
Other current liabilities	Current lease liabilities	112
Lease liabilities — non-current	Non-current lease liabilities	620

The components of lease expense for the year ended December 31 are as follows:

(in millions)	2019
Operating lease cost	$157
Sublease income	(18)
Total lease cost	$139

Supplemental information related to leases for the year ended December 31 are as follows:

(in millions)	2019
Cash paid for amounts included in the measurement for operating lease liabilities	
Operating cash flows from operating leases	$146
Right-of-use assets obtained in exchange for lease obligations	
Operating leases	777

Weighted-average remaining lease term and discount rate for our operating leases as of December 31 are as follows:

	2019
Weighted-average remaining lease term (years)	8.95
Weighted-average discount rate	3.93%

Maturities of lease liabilities for our operating leases are as follows:

(in millions)	
2020	$133
2021	113
2022	98
2023	82
2024	65
2025 and beyond	358
Total undiscounted lease payments	$849
Less: Imputed interest	117
Present value of lease liabilities	$732

Related Party Agreement

In March of 2018, the Company made a $20 million contribution to the S&P Global Foundation included in selling and general expenses.

In June of 2012, we entered into a license agreement (the "License Agreement") with the holder of S&P Dow Jones Indices LLC noncontrolling interest, CME Group, which replaced the 2005 license agreement between Indices and CME Group. Under the terms of the License Agreement, S&P Dow Jones Indices LLC receives a share of the profits from the trading and clearing of CME Group's equity index products. During the years ended December 31, 2019, 2018 and 2017, S&P Dow Jones Indices LLC earned $114 million, $121 million and $74 million of revenue under the terms of the License Agreement, respectively. The entire amount of this revenue is included in our consolidated statement of income and the portion related to the 27% noncontrolling interest is removed in net income attributable to noncontrolling interests.

Legal & Regulatory Matters

In the normal course of business both in the United States and abroad, the Company and its subsidiaries are defendants in a number of legal proceedings and are often the subject of government and regulatory proceedings, investigations and inquiries.

In addition, various government and self-regulatory agencies frequently make inquiries and conduct investigations into our compliance with applicable laws and regulations, including those related to ratings activities and antitrust matters. For example, as a nationally recognized statistical rating organization registered with the SEC under Section 15E of the Securities Exchange Act of 1934, S&P Global Ratings is in ongoing communication with the staff of the SEC regarding compliance with its extensive obligations under the federal securities laws. Although S&P Global seeks to promptly address any compliance issues that it detects or that the staff of the SEC or another regulator raises, there can be no assurance that the SEC or another regulator will not seek remedies against S&P Global for one or more compliance deficiencies. Any of these proceedings, investigations or inquiries could ultimately result in adverse judgments, damages, fines, penalties or activity restrictions, which could adversely impact our consolidated financial condition, cash flows, business or competitive position.

In view of the uncertainty inherent in litigation and government and regulatory enforcement matters, we cannot predict the eventual outcome of such matters or the timing of their resolution, or in most cases reasonably estimate what the eventual judgments, damages, fines, penalties or impact of activity (if any) restrictions may be. As a result, we cannot provide assurance that such outcomes will not have a material adverse effect on our consolidated financial condition, cash flows, business or competitive position. As litigation or the process to resolve pending matters progresses, as the case may be, we will continue to review the latest information available and assess our ability to predict the outcome of such matters and the effects, if any, on our consolidated financial condition, cash flows, business or competitive position, which may require that we record liabilities in the consolidated financial statements in future periods.

14. Quarterly Financial Information (Unaudited)

(in millions, except per share data)	First quarter	Second quarter	Third quarter	Fourth quarter	Total year
2019					
Revenue	$1,571	$1,704	$1,689	$1,735	$6,699
Operating profit	$705	$813	$891	$818	$3,226
Net income	$453	$602	$662	$585	$2,303
Net income attributable to S&P Global common shareholders	$410	$555	$617	$541	$2,123
Earnings per share attributable to S&P Global Inc. common shareholders:					
Net income:					
Basic	$1.66	$2.25	$2.52	$2.22	$8.65
Diluted	$1.65	$2.24	$2.50	$2.20	$8.60
2018					
Revenue	$1,567	$1,609	$1,546	$1,536	$6,258
Operating profit	$711	$672	$704	$704	$2,790
Net income	$534	$501	$535	$551	$2,121
Net income attributable to S&P Global common shareholders	$491	$461	$495	$512	$1,958
Earnings per share attributable to S&P Global Inc. common shareholders:					
Net income:					
Basic	$1.94	$1.83	$1.97	$2.06	$7.80
Diluted	$1.93	$1.82	$1.95	$2.03	$7.73

Note - Totals presented may not sum due to rounding.

15. Condensed Consolidating Financial Statements

On November 26, 2019, we issued $500 million of 2.5% senior notes due in 2029 and $600 million of 3.25% senior notes due in 2049. In the fourth quarter of 2019, we used the net proceeds to fund the redemption of the $700 million outstanding principal amount of our 3.3% senior notes due in August of 2020 and a portion of the $400 million outstanding principal amount of our 6.55% senior notes due in October of 2037. On May 17, 2018, we issued $500 million of 4.5% notes due in 2048. On September 22, 2016, we issued $500 million of 2.95% senior notes due in 2027. On May 26, 2015, we issued $700 million of 4.0% senior notes due in 2025. On August 18, 2015, we issued $2.0 billion of senior notes, consisting of $400 million of 2.5% senior notes that were repaid in 2018, $700 million of 3.3% senior notes due in 2020 and $900 million of 4.4% senior notes due in 2026. See Note 5 — *Debt* for additional information.

The senior notes described above are fully and unconditionally guaranteed by Standard & Poor's Financial Services LLC, a 100% owned subsidiary of the Company. The following condensed consolidating financial statements present the results of operations, financial position and cash flows of S&P Global Inc., Standard & Poor's Financial Services LLC, and the Non-Guarantor Subsidiaries of S&P Global Inc. and Standard & Poor's Financial Services LLC, and the eliminations necessary to arrive at the information for the Company on a consolidated basis.

STATEMENT OF INCOME Year Ended December 31, 2019

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
Revenue	$812	$1,898	$4,146	$(157)	$6,699
Expenses:					
Operating-related expenses	158	440	1,360	(157)	1,801
Selling and general expenses	133	329	1,055	—	1,517
Depreciation	44	12	26	—	82
Amortization of intangibles	—	—	122	—	122
Total expenses	335	781	2,563	(157)	3,522
Gain on dispositions	(49)	—	—	—	(49)
Operating profit	526	1,117	1,583	—	3,226
Other expense, net	91	—	7	—	98
Interest expense (income), net	213	—	(15)	—	198
Non-operating intercompany transactions	378	(48)	(1,530)	1,200	—
(Loss) income before taxes on income	(156)	1,165	3,121	(1,200)	2,930
(Benefit) Provision for taxes on income	(74)	285	416	—	627
Equity in net income of subsidiaries	3,405	—	—	(3,405)	—
Net income	3,323	880	2,705	(4,605)	2,303
Less: net income attributable to noncontrolling interests	—	—	—	(180)	(180)
Net income attributable to S&P Global Inc.	$3,323	$880	$2,705	$(4,785)	$2,123
Comprehensive income	$3,446	$880	$2,697	$(4,602)	$2,421

STATEMENT OF INCOME Year Ended December 31, 2018

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
Revenue	$776	$1,695	$3,940	$(153)	$6,258
Expenses:					
Operating-related expenses	124	434	1,293	(153)	1,698
Selling and general expenses	177	292	1,095	—	1,564
Depreciation	46	7	31	—	84
Amortization of intangibles	—	—	122	—	122
Total expenses	347	733	2,541	(153)	3,468
Operating profit	429	962	1,399	—	2,790
Other (income) expense, net	(27)	—	2	—	(25)
Interest expense (income), net	143	2	(11)	—	134
Non-operating intercompany transactions	363	(75)	(1,872)	1,584	—
(Loss) income before taxes on income	(50)	1,035	3,280	(1,584)	2,681
(Benefit) Provision for taxes on income	(14)	250	324	—	560
Equity in net income of subsidiaries	3,576	(1)	—	(3,575)	—
Net income	3,540	784	2,956	(5,159)	2,121
Less: net income attributable to noncontrolling interests	—	—	—	(163)	(163)
Net income attributable to S&P Global Inc.	$3,540	$784	$2,956	$(5,322)	$1,958
Comprehensive income	$3,510	$783	$2,884	$(5,159)	$2,018

STATEMENT OF INCOME Year Ended December 31, 2017

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
Revenue	$717	$1,780	$3,704	$(138)	$6,063
Expenses:					
Operating-related expenses	89	482	1,261	(138)	1,694
Selling and general expenses	197	345	1,064	—	1,606
Depreciation	31	11	40	—	82
Amortization of intangibles	—	—	98	—	98
Total expenses	317	838	2,463	(138)	3,480
Operating profit	400	942	1,241	—	2,583
Other income, net	(16)	—	(11)	—	(27)
Interest expense (income), net	163	—	(14)	—	149
Non-operating intercompany transactions	365	(77)	(2,463)	2,175	—
Income before taxes on income	(112)	1,019	3,729	(2,175)	2,461
Provision for taxes on income	26	370	427	—	823
Equity in net income of subsidiaries	3,808	—	—	(3,808)	—
Net income	3,670	649	3,302	(5,983)	1,638
Less: net income attributable to noncontrolling interests	—	—	—	(142)	(142)
Net income attributable to S&P Global Inc.	$3,670	$649	$3,302	$(6,125)	$1,496
Comprehensive income	$3,694	$649	$3,401	$(5,982)	$1,762

BALANCE SHEET

December 31, 2019

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
ASSETS					
Current assets:					
Cash and cash equivalents	$1,130	$—	$1,736	$—	$2,866
Restricted cash	—	—	20	—	20
Short-term investments	—	—	28	—	28
Accounts receivable, net of allowance for doubtful accounts	229	148	1,200	—	1,577
Intercompany receivable	675	2,855	3,983	(7,513)	—
Prepaid and other current assets	102	2	117	—	221
Total current assets	**2,136**	**3,005**	**7,084**	**(7,513)**	**4,712**
Property and equipment, net of accumulated depreciation	204	—	116	—	320
Right of use assets	402	1	273	—	676
Goodwill	283	—	3,283	9	3,575
Other intangible assets, net	—	—	1,424	—	1,424
Investments in subsidiaries	12,134	6	8,088	(20,228)	—
Intercompany loans receivable	17	—	1,229	(1,246)	—
Other non-current assets	281	37	324	(1)	641
Total assets	**$15,457**	**$3,049**	**$21,821**	**$(28,979)**	**$11,348**
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts payable	$80	$11	$99	$—	$190
Intercompany payable	6,288	27	1,198	(7,513)	—
Accrued compensation and contributions to retirement plans	148	61	237	—	446
Income taxes currently payable	7	—	61	—	68
Unearned revenue	297	243	1,388	—	1,928
Other current liabilities	187	18	256	—	461
Total current liabilities	**7,007**	**360**	**3,239**	**(7,513)**	**3,093**
Long-term debt	3,948	—	—	—	3,948
Lease liabilities – non-current	383	1	236	—	620
Intercompany loans payable	—	—	1,246	(1,246)	—
Pension and other postretirement benefits	178	—	81	—	259
Other non-current liabilities	171	81	373	(1)	624
Total liabilities	**11,687**	**442**	**5,175**	**(8,760)**	**8,544**
Redeemable noncontrolling interest	—	—	—	2,268	2,268
Equity:					
Common stock	294	—	2,377	(2,377)	294
Additional paid-in capital	112	632	9,362	(9,203)	903
Retained income	15,836	1,975	5,404	(11,010)	12,205
Accumulated other comprehensive loss	(175)	—	(497)	48	(624)
Less: common stock in treasury	(12,297)	—	(2)	—	(12,299)
Total equity - controlling interests	3,770	2,607	16,644	(22,542)	479
Total equity - noncontrolling interests	—	—	2	55	57
Total equity	3,770	2,607	16,646	(22,487)	536
Total liabilities and equity	**$15,457**	**$3,049**	**$21,821**	**$(28,979)**	**$11,348**

BALANCE SHEET December 31, 2018

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
ASSETS					
Current assets:					
Cash and cash equivalents	$694	$—	$1,223	$—	$1,917
Restricted cash	—	—	41	—	41
Short-term investments	—	—	18	—	18
Accounts receivable, net of allowance for doubtful accounts	163	109	1,177	—	1,449
Intercompany receivable	550	2,138	2,873	(5,561)	—
Prepaid and other current assets	41	3	118	—	162
Total current assets	**1,448**	**2,250**	**5,450**	**(5,561)**	**3,587**
Property and equipment, net of accumulated depreciation	192	—	78	—	270
Right of use assets	—	—	—	—	—
Goodwill	261	—	3,265	9	3,535
Other intangible assets, net	—	—	1,524	—	1,524
Investments in subsidiaries	8,599	6	8,030	(16,635)	—
Intercompany loans receivable	130	—	1,643	(1,773)	—
Other non-current assets	194	45	286	—	525
Total assets	**$10,824**	**$2,301**	**$20,276**	**$(23,960)**	**$9,441**
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts payable	$89	$15	$107	$—	$211
Intercompany payable	4,453	32	1,076	(5,561)	—
Accrued compensation and contributions to retirement plans	125	33	196	—	354
Income taxes currently payable	2	—	71	—	73
Unearned revenue	240	235	1,166	—	1,641
Other current liabilities	180	16	155	—	351
Total current liabilities	**5,089**	**331**	**2,771**	**(5,561)**	**2,630**
Long-term debt	3,662	—	—	—	3,662
Lease liabilities – non-current	—	—	—	—	—
Intercompany loans payable	114	—	1,659	(1,773)	—
Pension and other postretirement benefits	162	—	67	—	229
Other non-current liabilities	148	75	393	—	616
Total liabilities	**9,175**	**406**	**4,890**	**(7,334)**	**7,137**
Redeemable noncontrolling interest	—	—	—	1,620	1,620
Equity:					
Common stock	294	—	2,279	(2,279)	294
Additional paid-in capital	72	618	9,784	(9,641)	833
Retained income	12,622	1,277	3,824	(6,439)	11,284
Accumulated other comprehensive loss	(299)	—	(489)	46	(742)
Less: common stock in treasury	(11,040)	—	(13)	12	(11,041)
Total equity - controlling interests	1,649	1,895	15,385	(18,301)	628
Total equity - noncontrolling interests	—	—	1	55	56
Total equity	1,649	1,895	15,386	(18,246)	684
Total liabilities and equity	**$10,824**	**$2,301**	**$20,276**	**$(23,960)**	**$9,441**

STATEMENT OF CASH FLOWS					Year Ended December 31, 2019
(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
Operating Activities:					
Net income	$3,323	$880	$2,705	$(4,605)	$2,303
Adjustments to reconcile net income to cash provided by operating activities:					
Depreciation	44	12	26	—	82
Amortization of intangibles	—	—	122	—	122
Provision for losses on accounts receivable	5	4	9	—	18
Deferred income taxes	24	(10)	32	—	46
Stock-based compensation	27	14	37	—	78
Gain on dispositions	(49)	—	—		(49)
Pension settlement charge, net of taxes	85	—	—	—	85
Other	64	2	27	—	93
Changes in operating assets and liabilities, net of effect of acquisitions and dispositions:					
Accounts receivable	(72)	(49)	(14)	—	(135)
Prepaid and other current assets	17	(35)	(63)	—	(81)
Accounts payable and accrued expenses	14	32	27	—	73
Unearned revenue	56	28	172	—	256
Accrued legal settlements	—	(1)	—	—	(1)
Other current liabilities	(61)	1	4	—	(56)
Net change in prepaid/accrued income taxes	(33)	(5)	(3)	—	(41)
Net change in other assets and liabilities	(74)	34	23	—	(17)
Cash provided by operating activities	**3,370**	**907**	**3,104**	**(4,605)**	**2,776**
Investing Activities:					
Capital expenditures	(46)	(3)	(66)	—	(115)
Acquisitions, net of cash acquired	—	—	(91)	—	(91)
Proceeds from dispositions	85	—	—	—	85
Changes in short-term investments	—	—	(10)	—	(10)
Cash provided by (used for) investing activities	**39**	**(3)**	**(167)**	**—**	**(131)**
Financing Activities:					
Proceeds from issuance of senior notes, net	1,086	—	—	—	1,086
Payments on senior notes	(868)	—	—	—	(868)
Dividends paid to shareholders	(560)	—	—	—	(560)
Distributions to noncontrolling interest holders, net	—	—	(143)	—	(143)
Repurchase of treasury shares	(1,240)	—	—	—	(1,240)
Exercise of stock options	36	—	4	—	40
Employee withholding tax on share-based payments and other	(64)	—	(2)	—	(66)
Intercompany financing activities	(1,368)	(904)	(2,333)	4,605	—
Cash used for financing activities	(2,978)	(904)	(2,474)	4,605	(1,751)
Effect of exchange rate changes on cash	5	—	29	—	34
Net change in cash, cash equivalents, and restricted cash	436	—	492	—	928
Cash, cash equivalents, and restricted cash at beginning of year	694	—	1,264	—	1,958
Cash, cash equivalents, and restricted cash at end of year	**$1,130**	**$—**	**$1,756**	**$—**	**$2,886**

STATEMENT OF CASH FLOWS Year Ended December 31, 2018

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
Operating Activities:					
Net income	$3,540	$784	$2,956	$(5,159)	$2,121
Adjustments to reconcile net income to cash provided by operating activities:					
Depreciation	46	7	31	—	84
Amortization of intangibles	—	—	122	—	122
Provision for losses on accounts receivable	3	4	14	—	21
Deferred income taxes	33	10	38	—	81
Stock-based compensation	28	16	50	—	94
Accrued legal settlements	—	1	—	—	1
Other	46	5	1	—	52
Changes in operating assets and liabilities, net of effect of acquisitions and dispositions:					
Accounts receivable	(27)	39	(176)	—	(164)
Prepaid and other current assets	(2)	(4)	5	—	(1)
Accounts payable and accrued expenses	(11)	(64)	(31)	—	(106)
Unearned revenue	(53)	13	110	—	70
Accrued legal settlements	—	—	(108)	—	(108)
Other current liabilities	(22)	(11)	(34)	—	(67)
Net change in prepaid/accrued income taxes	2	—	(9)	—	(7)
Net change in other assets and liabilities	(128)	32	(33)	—	(129)
Cash provided by operating activities	**3,455**	**832**	**2,936**	**(5,159)**	**2,064**
Investing Activities:					
Capital expenditures	(81)	(16)	(16)	—	(113)
Acquisitions, net of cash acquired	—	—	(401)	—	(401)
Proceeds from dispositions	—	—	6	—	6
Changes in short-term investments	—	—	(5)	—	(5)
Cash used for investing activities	**(81)**	**(16)**	**(416)**	**—**	**(513)**
Financing Activities:					
Proceeds from issuance of senior notes, net	489	—	—	—	489
Payments on senior notes	(403)	—	—	—	(403)
Dividends paid to shareholders	(503)	—	—	—	(503)
Distributions to noncontrolling interest holders, net	—	—	(154)	—	(154)
Repurchase of treasury shares	(1,660)	—	—	—	(1,660)
Exercise of stock options	26	—	8	—	34
Purchase of additional CRISIL shares	—	—	(25)	—	(25)
Employee withholding tax on share-based payments and other	(66)	—	—	—	(66)
Intercompany financing activities	(1,190)	(816)	(3,153)	5,159	—
Cash used for financing activities	(3,307)	(816)	(3,324)	5,159	(2,288)
Effect of exchange rate changes on cash	(5)	—	(79)	—	(84)
Net change in cash, cash equivalents, and restricted cash	62	—	(883)	—	(821)
Cash, cash equivalents, and restricted cash at beginning of year	632	—	2,147	—	2,779
Cash, cash equivalents, and restricted cash at end of year	**$694**	**$—**	**$1,264**	**$—**	**$1,958**

STATEMENT OF CASH FLOWS Year Ended December 31, 2017

(in millions)	S&P Global Inc.	Standard & Poor's Financial Services LLC	Non-Guarantor Subsidiaries	Eliminations	S&P Global Inc. Consolidated
Operating Activities:					
Net income	$3,670	$649	$3,302	$(5,983)	$1,638
Adjustments to reconcile net income to cash provided by operating activities:					
Depreciation	31	11	40	—	82
Amortization of intangibles	—	—	98	—	98
Provision for losses on accounts receivable	2	3	11	—	16
Deferred income taxes	108	(10)	(98)	—	—
Stock-based compensation	35	22	42	—	99
Accrued legal settlements	—	—	55	—	55
Other	34	19	43	—	96
Changes in operating assets and liabilities, net of effect of acquisitions and dispositions:					
Accounts receivable	(2)	(23)	(171)	—	(196)
Prepaid and other current assets	(5)	3	12	—	10
Accounts payable and accrued expenses	22	97	(44)	—	75
Unearned revenue	19	2	64	—	85
Accrued legal settlements	—	(1)	(3)	—	(4)
Other current liabilities	(42)	(12)	(31)	—	(85)
Net change in prepaid/accrued income taxes	41	(18)	9	—	32
Net change in other assets and liabilities	7	(6)	14	—	15
Cash provided by operating activities	**3,920**	**736**	**3,343**	**(5,983)**	**2,016**
Investing Activities:					
Capital expenditures	(55)	(32)	(36)	—	(123)
Acquisitions, net of cash acquired	—	—	(83)	—	(83)
Proceeds from dispositions	—	—	2	—	2
Changes in short-term investments	—	—	(5)	—	(5)
Cash used for investing activities	**(55)**	**(32)**	**(122)**	**—**	**(209)**
Financing Activities:					
Dividends paid to shareholders	(421)	—	—	—	(421)
Distributions to noncontrolling interest holders, net	—	—	(111)	—	(111)
Repurchase of treasury shares	(1,001)	—	—	—	(1,001)
Exercise of stock options	68	—	7	—	75
Employee withholding tax on share-based payments	(49)	—	—	—	(49)
Intercompany financing activities	(2,546)	(704)	(2,733)	5,983	—
Cash used for financing activities	(3,949)	(704)	(2,837)	5,983	(1,507)
Effect of exchange rate changes on cash	5	—	82	—	87
Net change in cash, cash equivalents, and restricted cash	(79)	—	466	—	387
Cash, cash equivalents, and restricted cash at beginning of year	711	—	1,681	—	2,392
Cash, cash equivalents, and restricted cash at end of year	**$632**	**$—**	**$2,147**	**$—**	**$2,779**

Five Year Financial Review

(in millions, except per share data)	2019	2018	2017	2016	2015
INCOME STATEMENT DATA:					
Revenue	$6,699	$6,258	$6,063	$5,661	$5,313
Operating profit	3,226	2,790	2,583	3,341	1,908
Income before taxes on income	2,930[1]	2,681[2]	2,461[3]	3,188[4]	1,815[5]
Provision for taxes on income	627	560	823[6]	960	547
Net income attributable to S&P Global Inc.	2,123	1,958	1,496	2,106	1,156
Earnings per share attributable to the S&P Global Inc. common shareholders:					
Basic	8.65	7.80	5.84	8.02	4.26
Diluted	8.60	7.73	5.78	7.94	4.21
Dividends per share	2.28	2.00	1.64	1.44	1.32
OPERATING STATISTICS:					
Return on average equity [7]	377.5%	292.6%	222.3%	472.0%	324.3%
Income before taxes on income as a percent of revenue from operations	43.7%	42.8%	40.6%	56.3%	34.2%
Net income from operations as a percent of revenue from operations	34.4%	33.9%	27.0%	39.4%	23.9%
BALANCE SHEET DATA:					
Working capital [8]	$1,619	$957	$1,110	$1,060	$388
Total assets	11,348	9,441	9,425	8,669	8,183
Total debt [9]	3,948	3,662	3,569	3,564	3,611
Redeemable noncontrolling interest	2,268	1,620	1,352	1,080	920
Equity	536	684	766	701	243
NUMBER OF EMPLOYEES	22,500	21,200	20,400	20,000	20,400

1 Includes the impact of the following items: a pension related charge of $113 million, costs associated with early repayment of our Senior Notes of $56 million, a $49 million gain on dispositions, employee severance charges of $25 million, Kensho retention related expense of $21 million, lease impairments of $11 million, acquisition-related costs of $4 million and amortization of intangibles from acquisitions of $122 million.

2 Includes the impact of the following items: legal settlement expenses of $74 million, Kensho retention related expense of $31 million, restructuring charges related to a business disposition and employee severance charges of $25 million, lease impairments of $11 million, a pension related charge of $5 million and amortization of intangibles from acquisitions of $122 million.

3 Includes the impact of the following items: legal settlement expenses of $55 million, employee severance charges of $44 million, a charge to exit leased facilities of $25 million, non-cash acquisition and disposition-related adjustments of $15 million, a pension related charge of $8 million, an asset write-off of $2 million and amortization of intangibles from acquisitions of $98 million.

4 Includes the impact of the following items: a $1.1 billion gain from our dispositions, a benefit related to net legal settlement insurance recoveries of $10 million, disposition-related costs of $48 million, a technology-related impairment charge of $24 million, employee severance charges of $6 million, a $3 million disposition-related reserve release, an acquisition-related cost of $1 million and amortization of intangibles from acquisitions of $96 million.

5 Includes the impact of the following items: costs related to identified operating efficiencies primarily related to employee severance charges of $56 million, net legal settlement expenses of $54 million, acquisition-related costs of $37 million, an $11 million gain on dispositions and amortization of intangibles from acquisitions of $67 million.

6 Includes $149 million of tax expense due to U.S. tax reform, primarily associated with the deemed repatriation of foreign earnings, which was partially offset by a $21 million tax benefit related to prior year divestitures.

7 Includes the impact of the $49 million gain on dispositions in 2019 and the $1.1 billion gain on dispositions in 2016.

8 Working capital is calculated as current assets less current liabilities.

9 Includes short-term debt of $399 million and $143 million as of December 31, 2017 and December 31, 2015, respectively.

Report of Management

To the Shareholders of S&P Global Inc.

Management's Annual Report on its Responsibility for the Company's Financial Statements and Internal Control Over Financial Reporting

The financial statements in this report were prepared by the management of S&P Global Inc., which is responsible for their integrity and objectivity.

These statements, prepared in conformity with accounting principles generally accepted in the United States and including amounts based on management's best estimates and judgments, present fairly S&P Global Inc.'s financial condition and the results of the Company's operations. Other financial information given in this report is consistent with these statements.

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company as defined under the U.S. Securities Exchange Act of 1934. It further assures the quality of the financial records in several ways: a program of internal audits, the careful selection and training of management personnel, maintaining an organizational structure that provides an appropriate division of financial responsibilities, and communicating financial and other relevant policies throughout the Company.

S&P Global Inc.'s Board of Directors, through its Audit Committee, composed entirely of outside directors, is responsible for reviewing and monitoring the Company's financial reporting and accounting practices. The Audit Committee meets periodically with management, the Company's internal auditors and the independent registered public accounting firm to ensure that each group is carrying out its respective responsibilities. In addition, the independent registered public accounting firm has full and free access to the Audit Committee and meet with it with no representatives from management present.

Management's Report on Internal Control Over Financial Reporting

As stated above, the Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's management has evaluated the system of internal control using the Committee of Sponsoring Organizations of the Treadway Commission 2013 framework ("COSO 2013 framework"). Management has selected the COSO 2013 framework for its evaluation as it is a control framework recognized by the Securities and Exchange Commission and the Public Company Accounting Oversight Board that is free from bias, permits reasonably consistent qualitative and quantitative measurement of the Company's internal controls, is sufficiently complete so that relevant controls are not omitted and is relevant to an evaluation of internal controls over financial reporting.

Based on management's evaluation under this framework, we have concluded that the Company's internal controls over financial reporting were effective as of December 31, 2019. There are no material weaknesses in the Company's internal control over financial reporting that have been identified by management.

The Company's independent registered public accounting firm, Ernst & Young LLP, has audited the consolidated financial statements of the Company for the year ended December 31, 2019, and has issued their reports on the financial statements and the effectiveness of internal controls over financial reporting.

Other Matters

There have been no changes in the Company's internal controls over financial reporting during the most recent quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Doug Peterson

Douglas L. Peterson

President and Chief Executive Officer

Ewout L. Steenbergen

Executive Vice President and Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of S&P Global Inc.

Opinion on the Financial Statements
We have audited the accompanying consolidated balance sheets of S&P Global Inc. (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 10, 2020 expressed an unqualified opinion thereon.

Basis for Opinion
These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter
The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosures to which it relates.

Valuation of redeemable noncontrolling interest in S&P Dow Jones Indices LLC

DESCRIPTION OF THE MATTER	As described in Notes 1 and 9 to the financial statements, the Company has an agreement with the minority partners of its S&P Dow Jones Indices LLC joint venture that contains redemption features outside of the control of the Company. This arrangement is reported as a redeemable noncontrolling interest at fair value of $2,268 million at December 31, 2019. The Company adjusts the redeemable noncontrolling interest each reporting period to its estimated redemption value, but never less than its initial fair value, using both income and market valuation approaches. Auditing the Company's valuation of its redeemable noncontrolling interest was complex due to the estimation uncertainty in determining the fair value. The estimation uncertainty was primarily due to the sensitivity of the fair value to underlying assumptions about the future performance of the business. The more significant judgmental assumptions used to estimate the value of the S&P Dow Jones Indices LLC joint venture include an estimated discount rate, a range of assumptions that form the basis of the expected future net cash flows (e.g., revenue growth rates and operating margins), a company specific beta and earnings and transaction multiples for comparable companies and similar acquisitions, respectively. These significant judgmental assumptions that incorporate market data are forward-looking and could be affected by future economic and market conditions.
HOW WE ADDRESSED THE MATTER IN OUR AUDIT	We obtained an understanding, evaluated the design and tested the operating effectiveness of the Company's controls over the accounting for its redeemable noncontrolling interest, including controls over management's judgments and evaluation of the underlying assumptions with regard to the valuation models applied and the estimation process supporting the determination of the fair value of S&P Dow Jones Indices LLC joint venture. To test the valuation of redeemable noncontrolling interest, we evaluated the Company's selection of the valuation methodology and the methods and significant assumptions used by inspecting available market data and performing sensitivity analyses. For example, when evaluating the assumptions related to the revenue growth rate and operating profit margins, we compared the assumptions to the past performance of S&P Dow Jones Indices LLC joint venture in addition to current observable industry, market and economic trends. We involved valuation specialists to assist in our evaluation of the methodology and significant assumptions used by the Company, including the discount rate, company specific beta and earnings for comparable companies and transaction multiples for similar acquisitions. We also tested the completeness and accuracy of the underlying data supporting the significant assumptions and estimates.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 1969.

New York, New York
February 10, 2020

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of S&P Global Inc.

Opinion on Internal Control over Financial Reporting
We have audited S&P Global Inc.'s internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, S&P Global Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of S&P Global Inc. as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and our report dated February 10, 2020 expressed an unqualified opinion thereon.

Basis for Opinion
The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ ERNST & YOUNG LLP

New York, New York
February 10, 2020