ACS
Chemistry for Life™

2018
Management's Statement of Responsibility and Audited Financial Statements

Management's Statement of Responsibility
March 8, 2019

The management of the American Chemical Society (ACS or the Society) is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States and, as such, the statements include amounts based on estimates and judgments by management.

The consolidated financial statements have been audited by the independent accounting firm KPMG LLP, which was given unrestricted access to all financial records and related data, including minutes of all meetings of the Board of Directors and its committees. Their report, which follows, expresses their opinion as to whether the consolidated financial statements, considered in their entirety, fairly present the Society's financial position, operating results, and cash flows in conformity with accounting principles generally accepted in the United States. Management believes that all representations made to the independent auditors during their audit were true and accurate.

The Society maintains a system of internal controls which is designed to provide reasonable assurance that assets are safeguarded, transactions are executed in accordance with management's authorization, and accounting records are reliable for preparing financial statements. The Society's internal controls are maintained through the establishment and communication of accounting and financial policies and procedures and by the selection and training of qualified personnel. There are, however, inherent limitations in the effectiveness of any system of internal controls, including the possibility of human error and the circumvention of controls. Accordingly, even an effective internal control system can provide only reasonable assurance with respect to financial statement preparation. Furthermore, the effectiveness of an internal control system can change with circumstances. Management believes that as of December 31, 2018 and 2017, the Society's system of internal controls was adequate to accomplish the objectives discussed herein.

The ACS Board of Directors fulfills its oversight responsibility for the consolidated financial statements through its Audit Committee, which is composed of Committee members who are independent of Society management. The Audit Committee has a charter in place that outlines its responsibilities, which include engaging the independent auditors and internal auditors, reviewing accounting, auditing, internal control, and financial reporting matters, and meeting with management and the independent auditors to ensure that each is carrying out their responsibilities. Recommendations made by the independent auditors are considered and appropriate action is taken with respect to these recommendations. The independent auditors and internal auditors have free and full access to the Audit Committee.

T. M. Connelly	
Thomas M. Connelly, Jr.	Albert G. Horvath
Executive Director & CEO	Treasurer & CFO

KPMG

AMERICAN CHEMICAL SOCIETY

Consolidated Financial Statements

December 31, 2018 and 2017

(With Independent Auditors’ Report Thereon)

KPMG LLP
Suite 12000
1801 K Street, NW
Washington, DC 20006

Independent Auditors' Report

The Board of Directors
American Chemical Society:

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of the American Chemical Society and its subsidiaries (the Society), which comprise the consolidated statements of financial position as of December 31, 2018 and 2017, and the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the American Chemical Society and its subsidiaries as of December 31, 2018 and 2017, and the changes in their net assets and their cash flows for the years then ended, in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in Note 2 to the consolidated financial statements, the Society adopted Accounting Standards Update 2016-14 Not-for-Profit Entities (Topic 958): *Presentation of Financial Statements of Not-for-Profit Entities* during the year ended December 31, 2018. Our opinion is not modified with respect to this matter.

Other Matters – Consolidating Information

Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The consolidating information is presented for purposes of additional analysis and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the consolidating information is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

KPMG LLP

Washington, District of Columbia
March 8, 2019

American Chemical Society
Consolidated Statements of Financial Position
As of December 31

(in thousands)

	2018			2017
	Consolidating Information			
	ACS Programs	PRF Program	Total	Total
ASSETS				
Cash and Cash Equivalents	$ 66,844	$ 39,886	$ 106,730	$ 90,304
Accounts Receivable, Net	119,867	1	119,868	118,122
Interfund (Payable) Receivable	(15,836)	15,836	-	-
Investments	525,102	491,838	1,016,940	1,099,677
Buildings, Land, and Other Property, Net	125,468	57	125,525	123,507
Postretirement Benefits and Other	28,865	12	28,877	25,929
Total Assets	$ 850,310	$ 547,630	$ 1,397,940	$ 1,457,539
LIABILITIES AND NET ASSETS				
Accounts Payable	$ 28,693	$ 7	$ 28,700	$ 37,107
Accrued Expenses	37,661	9	37,670	34,823
Deferred Revenues	208,008	-	208,008	200,235
Grants Payable	260	17,410	17,670	17,496
Postretirement Benefits and Other	137,017	-	137,017	144,632
Total Liabilities	411,639	17,426	429,065	434,293
Net Assets Without Donor Restrictions	326,893	-	326,893	325,290
Net Assets With Donor Restrictions	111,778	530,204	641,982	697,956
Total Net Assets	438,671	530,204	968,875	1,023,246
Total Liabilities and Net Assets	$ 850,310	$ 547,630	$ 1,397,940	$ 1,457,539

See accompanying notes to consolidated financial statements.

American Chemical Society
Consolidated Statements of Activities
For the Years Ended December 31
(in thousands)

	2018			2017
	Consolidating Information			
	ACS Programs	PRF Program	Total	Total
Change in Net Assets Without Donor Restrictions from Operations				
Operating Revenues				
Electronic Services	$ 519,703	$ -	$ 519,703	$ 485,879
Registration Fees and Booth Sales	13,040	-	13,040	12,713
Dues	11,288	-	11,288	11,573
Investment Income	10,381	95	10,476	8,497
Member Insurance Premiums, Refunds, and Fees	9,784	-	9,784	8,420
Advertising	5,904	-	5,904	6,206
Printed Materials	2,346	-	2,346	2,801
Net Assets Released from Restriction	6,275	22,301	28,576	28,216
Other	3,929	-	3,929	4,742
Total Operating Revenues	582,650	22,396	605,046	569,047
Operating Expenses				
Program Expenses				
Information Services	375,201	-	375,201	361,109
Membership and Society Services	30,934	-	30,934	32,698
Education	16,457	-	16,457	15,451
Member Insurance Program	13,520	-	13,520	13,526
External Affairs and Communication	7,439	-	7,439	7,780
Scientific Advancement	4,435	20,543	24,978	23,970
Supporting Expenses				
Institutional Support	92,575	1,853	94,428	92,633
Total Operating Expenses	540,561	22,396	562,957	547,167
Change in Net Assets Without Donor Restrictions from Operations	42,089	-	42,089	21,880
Non-Operating Activities				
Net Investment (Losses) Gains	(27,943)	-	(27,943)	41,939
Change in Postretirement Benefits Obligations	(12,542)	-	(12,542)	14,155
Change in Net Assets - Non-Operating Activities	(40,485)	-	(40,485)	56,094
Change in Net Assets Without Donor Restrictions	1,604	-	1,604	77,974
Change in Net Assets With Donor Restrictions				
Contributions	3,765	-	3,765	4,336
Net Investment (Losses) Gains	(7,876)	(38,700)	(46,576)	78,181
Investment Income	2,809	12,603	15,412	12,863
Net Assets Released From Restriction	(6,275)	(22,301)	(28,576)	(28,216)
Change in Net Assets With Donor Restrictions	(7,577)	(48,398)	(55,975)	67,164
Change in Net Assets	(5,973)	(48,398)	(54,371)	145,138
Beginning Net Assets	444,644	578,602	1,023,246	878,108
Ending Net Assets	$ 438,671	$ 530,204	$ 968,875	$ 1,023,246

See accompanying notes to consolidated financial statements.

American Chemical Society
Consolidated Statements of Cash Flows
For the Years Ended December 31
(in thousands)

	2018			2017
	Consolidating Information			
	ACS Programs	PRF Program	Total	Total
Cash Flows From Operating Activities				
Change in Net Assets	$ (5,973)	$ (48,398)	$ (54,371)	$ 145,138
Adjustments to Reconcile Change in Net Assets to Net Cash Provided By (Used In) Operating Activities:				
Net Investment Losses (Gains)	35,819	38,700	74,519	(119,995)
Change in Postretirement Benefits Obligations	12,542	-	12,542	(14,155)
Depreciation and Amortization	32,863	10	32,873	30,092
Contributions Restricted for Long-Term Investment	(858)	-	(858)	(920)
Net Loss on Property Dispositions	282	-	282	-
Changes in Operating Assets and Liabilities:				
(Increases) Decreases in Assets:				
Accounts Receivable, Net	(1,523)	(1)	(1,524)	24,650
Interfund (Payable) Receivable	(1,279)	1,279	-	-
Other Assets	(3,574)	26	(3,548)	(1,395)
(Decreases) Increases in Liabilities:				
Accounts Payable	(8,414)	7	(8,407)	3,315
Accrued Expenses	2,838	9	2,847	(518)
Deferred Revenues	7,773	-	7,773	(18,782)
Grants Payable	160	14	174	(1,859)
Other Liabilities	(19,814)	-	(19,814)	(14,975)
Net Cash Provided by (Used in) Operating Activities	50,842	(8,354)	42,488	30,596
Cash Flows From Investing Activities				
Purchases of Investments	(95,048)	(1,042,360)	(1,137,408)	(2,421,213)
Sales and Maturities of Investments	73,569	1,071,870	1,145,439	2,432,793
Acquisitions of Buildings, Land, and Other Property	(34,951)	-	(34,951)	(36,210)
Net Cash (Used in) Provided by Investing Activities	(56,430)	29,510	(26,920)	(24,630)
Cash Flows From Financing Activities				
Contributions Restricted for Long-Term Investment	858	-	858	920
Net Cash provided by Financing Activities	858	-	858	920
Net (Decrease) Increase in Cash and Cash Equivalents	(4,730)	21,156	16,426	6,886
Beginning Cash and Cash Equivalents	71,574	18,730	90,304	83,418
Ending Cash and Cash Equivalents	$ 66,844	$ 39,886	$ 106,730	$ 90,304

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

1. ORGANIZATION AND PURPOSE

The American Chemical Society (ACS or the Society) was founded in 1876. It is a U.S. not-for-profit corporation whose national charter was approved by the U.S. Congress on August 25, 1937. The Society's consolidated financial statements include the operations of its wholly owned for-profit subsidiaries and an insurance trust. The Society was organized for the purposes of encouraging the advancement of chemistry, promoting research in chemical science, increasing and diffusing chemical knowledge, and promoting scientific interests and inquiry through its meetings, reports, papers, and publications. The Society has more than 151,000 members.

The Society is generally exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code and accomplishes its exempt purpose through a number of educational and membership programs. These include continuing education programs, national and regional meetings that provide forums for sharing scientific information, employment services, and public outreach. In addition, the Society provides expert testimony at the federal, state, and local government levels on topics relevant to the chemistry enterprise. The Society also provides a significant service to its members and the chemistry enterprise in the form of print and electronic scientific journals and databases pertaining to chemical and related scientific information.

The principal sources of funding for the Society's activities include net revenues generated by the Publications Division and the Chemical Abstracts Service (CAS) Division. The Publications Division publishes a wide range of peer-reviewed scientific journals, periodicals, and books which are available to members and subscribers. CAS analyzes, organizes, and shares scientific information that drives discovery, providing innovative solutions that empower scientists, patent information professionals, and business leaders worldwide. Other sources of the Society's revenue include member dues, insurance premiums, registration fees, investment income, and contributions from individuals and institutions to support Society programs. Products and services are sold domestically and in overseas markets, principally in Europe and Asia. The Society's diverse clientele is composed of its members and other chemistry-related practitioners, corporations, academic institutions, and government agencies.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Presentation and Consolidation

The accompanying consolidated financial statements include the accounts of the American Chemical Society and ACS International, Ltd., a wholly owned international marketing services subsidiary. The consolidated financial statements also include the accounts of the American Chemical Society Petroleum Research Fund (PRF), an endowment fund established to advance scientific education and research in the petroleum field, and the American Chemical Society Insurance Trust, a grantor trust established to enable members of the Society to purchase insurance coverage through group insurance policies. All significant inter-organizational transactions have been eliminated. The assets and liabilities in the consolidated statements of financial position are presented in order of liquidity with the exception of investments, which have certain components that are considered short-term and others that are considered long-term (see Note 10). The accounts of the Society's chapters, referred to as local sections and divisions, are not included in the Society's consolidated financial statements because the Society does not have a financial controlling interest in its chapters.

Dissolution of Hampden Data Services, Ltd.

In August, 2018, the Society's Board of Directors approved the dissolution of ACS's subsidiary, Hampden Data Services, Ltd. (HDS), a wholly owned chemical information software company. The dissolution was effective November 1, 2018.

Net Asset Classes

Based on the existence or absence of donor-imposed restrictions, resources are classified into two categories: without donor restrictions and with donor restrictions.

- Net assets without donor restrictions are free of donor-imposed restrictions. All revenues, gains, and losses that are not restricted by the donor are included in this classification. All expenses are reported as decreases in net assets without donor restrictions.

- Net assets with donor restrictions are subject to donor-imposed restrictions that will be met either by actions of the Society or the passage of time. These net assets include donor restricted endowments and unconditional pledges. Generally, the donor-imposed restrictions of these assets permit the Society to use all or part of the income earned (interest and dividend income) on the related investments for specific purposes; however, investment gains and losses are reinvested into the corpus.

Operating Measure

Operating results (change in net assets without donor restrictions from operations) in the consolidated statements of activities reflect all transactions that change net assets without donor restrictions. Non-operating activities include net investment gains and losses and change in postretirement benefits obligations.

Use of Estimates

The preparation of the consolidated financial statements, in conformity with U.S. generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. The Society's most significant estimates include valuation of investments and derivatives, actuarial assumptions for postretirement benefits obligations, and useful lives of buildings and other property. Actual results could differ from these estimates.

Cash Equivalents

Cash equivalents include money market funds which can be liquidated on a daily basis. These money market funds invest primarily in short-term U.S. Treasury securities, other short-term highly liquid investments, and certain fixed income securities. Cash and cash equivalents that are managed as part of investments are reported within investments, as these funds are not used for daily operating needs.

Accounts Receivable

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Society maintains an allowance for doubtful accounts for estimated losses. In establishing the allowance, management considers historical losses and past-due balances. Consistent with the media industry, the Society records receivables from subscribers related to the next calendar year journal subscriptions billed before December 31 based on written commitments from customers and historically high renewal rates.

Investments

Investments are reported at fair value in the consolidated statements of financial position. Certain commingled trust funds and hedge funds are reported at net asset value (NAV) as a practical expedient for fair value unless it is probable that all or a portion of the investment will be sold for an amount different than NAV. Fair values of certain commingled funds, similar to mutual funds, that are deemed to have a readily determinable fair value are measured at published NAV. The net asset values are provided by external investment managers and involve assumptions and estimation methods; therefore, the estimates could differ materially from actual results. The Society reviews and evaluates the values provided by the investment managers and agrees with the valuation methods and assumptions used in determining the net asset values. Certain investments reported at NAV are subject to withdrawal restrictions and are less liquid than the Society's other investments. As of December 31, 2018 and 2017, the Society had no plans or intentions to sell investments at amounts different from NAV.

Changes in fair value are recognized as net investment gains or losses in the consolidated statements of activities. Investment income, net of related investment expenses, consisting of interest and dividends, is recognized when earned. Purchases and sales of investments are recorded on the trade date. Unsettled transactions, including forward purchases and sales, that are managed as part of investments are reported within investments as the funds related to the settlements of such transactions stay within the investment pools and are not used for operating purposes.

The Society invests in various instruments including domestic and foreign equities, fixed income securities, and financial derivatives. Investments, in general, carry various risks such as interest rate, credit, currency, liquidity, and overall market risk. Due to the level of risk associated with certain investments, it is reasonably possible that changes in the values of investments may occur in the near term, and such changes could materially affect the amounts reported in investments.

The Society has authorized its investment managers to utilize various derivative instruments, including financial futures, options, interest rate swaps, and credit default swaps to either hedge risk or alter the exposure to certain asset classes. The Society has established procedures to monitor and manage the use of these derivative instruments and the related market, interest, and counterparty credit risks. These derivative instruments are recognized at fair value using quoted market prices for similar instruments and are reported within investments in the consolidated statements of financial position.

Foreign Currency Forward Contracts

The Society recognizes foreign currency contracts (not related to its investment portfolios) as either accounts receivable, accounts payable, or deferred revenue in the consolidated statements of financial position at their respective fair values. The fair values of foreign currency forward contracts are based on quoted market prices for similar contracts at December 31. Changes in fair value are recognized as net investment gains or losses in the consolidated statements of activities.

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The fair value measurement standard establishes a three-tier fair value hierarchy that prioritizes the inputs used in measuring fair value. The standard requires that assets and liabilities carried at fair value be classified and disclosed in one of the following three categories:

- Level 1 – Observable inputs such as quoted or published prices in active markets for identical assets or liabilities (e.g., U.S. Treasury issues, equities, and mutual funds traded on major exchanges)
- Level 2 – Inputs other than quoted or published prices in active markets for identical assets or liabilities that are observable either directly or indirectly, such as interest rates, yield curves, and quoted prices in active markets for similar assets or liabilities (e.g., U.S. government and agency issues, corporate bonds, money market funds, and foreign exchange forward contracts)
- Level 3 – Unobservable inputs in which there is little or no market data, requiring the reporting entity to develop its own assumptions

The Society utilizes the best information available in measuring fair value, and financial assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurement.

See Note 4 for the disclosure of the fair value of applicable financial assets and liabilities measured on a recurring basis.

Buildings and Other Property

Buildings and other property are carried at cost less accumulated depreciation and amortization. Improvements that extend the estimated useful life of an asset are capitalized. Internally developed software is capitalized in accordance with the Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC) Subtopic 350-40, *Internal-Use Software* and ASC Subtopic 350-50, *Website Development Costs*. Software that will be included in a product or service or developed for resale purposes is recorded in accordance with ASC Subtopic 985-20, *Costs of Software to Be Sold, Leased, or Marketed*.

Assets are amortized on a straight-line basis over the useful life of the asset. One-half year's depreciation or amortization is taken in the year an asset is placed in service. Useful lives range from 3 to 15 years for software; 3 to 45 years for buildings and improvements; and 3 to 10 years for hardware, furniture, and equipment. Repairs and maintenance costs are charged to expense as incurred.

Long-Lived Assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Member Insurance Program

The Society maintains a separate Member Insurance Program, the American Chemical Society Insurance Trust (the Insurance Trust), which provides members with insurance coverage through several group insurance policies. The Insurance Trust currently maintains group insurance policies that provide term life, accidental death and dismemberment, hospital indemnity, long-term disability, long-term care, excess major medical, short-term medical, supplemental Medicare, auto, homeowners, and professional liability insurance coverage. Insurance carriers underwrite these policies while third-party administrators handle the processing and administration of claims.

The Insurance Trust generates revenue from premiums received from program participants, refunds from the insurance carrier based on favorable claims experience, endorsement fees, interest and dividends earned on investments, and interest income earned on reserves held by the insurance carrier to ensure the stability of the program. The Insurance Trust's expenses include the cost of purchasing group insurance policies, as well as the cost of administering the program. The activities of the Insurance Trust are included within ACS Programs in the consolidated statements of activities.

Revenue Recognition

<u>Electronic Services and Printed Materials</u> – Revenue from the sale of electronic services and printed materials is recognized when the electronic service is provided to the customer or when the printed product is shipped. Subscription revenue from the sale of electronic and printed subscriptions is recognized ratably over the term of the subscription. Subscription revenue billed in advance or cash collected in advance is deferred.

<u>Registration Fees and Booth Sales</u> – Advance payments for registration fees and booth sales are included in deferred revenue. Revenue is recognized when the events occur.

<u>Dues and Subscriptions for Future Periods</u> – The Society renews dues and subscription agreements each year for services to be rendered and publications to be delivered in future periods. These amounts are included in deferred revenue in the accompanying consolidated statements of financial position and are recognized ratably over the membership period or the term of the service.

<u>Advertising Revenue</u> – The Society recognizes advertising revenue over the period the advertisement is run. For print advertising, this is based on release of the journal or publication; for Internet advertising, it is based on the time period of the campaign.

<u>Government Grants and Contracts</u> – Revenue from government grants is recognized as allowable costs are incurred. Revenue from government contracts is derived from fixed-price arrangements and is recognized based on labor hours expended times a fixed price rate per hour. Both government grants and contracts are subject to audit by federal agencies. Grant and contract revenue is included in other revenues in the accompanying consolidated statements of activities.

Contributions

Contributions, including unconditional promises to give, are recognized when received**.** Expirations of donor restrictions on net assets (i.e., the donor stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported as net assets released from restrictions in the consolidated statements of activities. Contributions which impose restrictions that are met in the same fiscal year they are received are reported as increases in net assets without donor restrictions.

Income Taxes

The Society is generally exempt from federal income taxes under Internal Revenue Code Section 501(c)(3). However, the Society is subject to taxation on any net unrelated business income. At December 31, 2018, the Society had a net operating loss carryforward for income tax purposes of approximately $23,105,000, which expires over the years 2019 through 2038**.** A deferred tax asset has not been recorded for the net operating loss because the Society has determined, as of December 31, 2018, it is not recoverable.

Management annually reviews its tax positions and has determined that there are no material uncertain tax positions that require recognition in the consolidated financial statements.

Public law no. 115-97, the Tax Cuts and Jobs Act (the Act), was enacted December 22, 2017, with most provisions effective January 1, 2018. The Act amends the Internal Revenue Code and includes several changes relevant to tax exempt organizations, primarily related to unrelated business income, net operating losses, certain new excise taxes, and changes affecting the deductibility of certain expenses. The impact of the Act is not material to operations.

Petroleum Research Fund

The American Chemical Society Petroleum Research Fund is a donor-restricted endowment fund established on October 25, 2000 as a result of The Agreement of Transfer of Trust (the Agreement) between the Society and Morgan Guaranty Trust Company of New York, approved by the Attorney General for the State of New York, and ordered by the Supreme Court of New York. The Agreement dissolved the Petroleum Research Fund Trust (the Trust) and transferred the assets to the Society to create the American Chemical Society Petroleum Research Fund (the Fund), the purpose of which is the same as the Trust. The Agreement made the Society responsible for the management and administration of the Fund in an account separate and apart from any other accounts of the Society. As a result of the transfer, the historic dollar value for the Fund was established at $72,500,000, the value of the securities originally donated in 1944 to create the Trust. This amount must be held inviolate as donor-restricted net assets.

The assets of the Fund consist primarily of domestic equities, foreign equities, fixed income securities and hedge funds. Under the terms of the Agreement, annual payouts from the Fund are capped at a maximum spending rate of 5% of the net asset value of the Fund over a rolling three-year average. The Society uses distributions from the Fund to make grants for advanced scientific education and fundamental research in the petroleum field. Grants are expensed when awarded by the Society's Board of Directors and accepted by the recipient. Amounts for grants awarded and accepted but not paid at December 31 are recorded as grants payable. The Fund awarded $17,276,000 in 2018 and $16,982,000 in 2017.

Risks and Uncertainties

<u>Concentration of Credit Risk</u> – The Society is subject to potential concentrations of credit risk in its cash and cash equivalents and investments. Deposits at financial institutions were insured by the Federal Deposit Insurance Corporation (FDIC) up to a maximum of $250,000 at December 31, 2018 and 2017. Investments at other financial institutions were insured by the Securities Investor Protection Corporation (SIPC) up to $500,000, which includes a $250,000 limit for cash. At December 31, 2018 and 2017, the aggregate balances were in excess of the insurance and, therefore, pose some risk since they are not collateralized. The Society has historically not experienced any losses on its cash and cash equivalents and investments in relation to FDIC and SIPC insurance limits.

Capital Market Risk – The Society invests in domestic equities, foreign equities, and fixed income securities, which are subject to market risk and may result in gains or losses due to changes in market value. In addition, the Society utilizes futures and options to hedge changes in the market value of underlying investments, and forward contracts to hedge changes in the value of revenues denominated in foreign currencies. These financial instruments are also subject to market risk and may result in gains or losses; however, they are not used to leverage market exposure, and any such gains or losses would be largely offset by changes in the market value of the underlying investments or foreign currencies.

Foreign Currency Risk – Portions of the Society's revenues and expenditures are in foreign currencies. The Society enters into foreign currency forward contracts to reduce the risk that exchange rate fluctuations will adversely impact the U.S. dollar value of future net revenues denominated in foreign currency.

Counterparty Risk – The Society enters into derivative instruments with counterparties. While there is risk that the counterparties may fail to meet their obligations, the Society does not have significant positions with any one counterparty.

Insurance Risk – Given the uncertainty of claims experience in any given year and the resulting impact on the level of experience refunds or charges from the insurance carrier, the Insurance Trust can have either a positive or a negative impact on the Society's consolidated statements of activities.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers* (Topic 606), which requires an entity to recognize revenue when the entity transfers promised goods and services to the customer. Revenue is recognized in an amount that reflects the consideration an entity expects to receive in exchange for those goods or services. Entities are required to disclose sufficient quantitative and qualitative information to enable users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The FASB has also issued several amendments to the standard, which are intended to promote a more consistent interpretation and application of the principles outlined in the standard. This standard is effective for the Society as of January 1, 2019, and management is in the process of evaluating the impact on the Society's consolidated financial statements.

During 2018, the Society adopted ASU 2016-14, *Not-for Profit Entities* (Topic 958): *Presentation of Financial Statements for Not-for-Profit Entities*. ASU 2016-14 reduces the number of net asset classes from three to two: net assets without donor restrictions, previously reported as unrestricted net assets, and net assets with donor restrictions, previously reported as temporarily restricted net assets of $555,426,000 and permanently restricted net assets of $142,530,000 as of December 31, 2017. Additionally, it increases the quantitative and qualitative disclosures regarding liquidity and availability of resources (Note 10, Liquidity and Availability of Financial Assets), and requires expenses to be reported by both their natural and functional classification in one location (Note 9, Expenses). With the implementation of ASU 2016-14, the Society preferentially adopted the unclassified presentation of the statement of financial position to provide more relevant information to the financial statement reader. The Society applied the changes retrospectively herein.

3. ACCOUNTS RECEIVABLE

Accounts receivable consisted of the following as of December 31 (in thousands):

	2018	2017
Accounts Receivable	$ 122,200	$ 120,414
Less Allowance for Doubtful Receivables	2,332	2,292
Accounts Receivable, Net	$ 119,868	$ 118,122

Accounts receivable from subscribers related to the next calendar year journal subscriptions billed before December 31, 2018 and 2017 were $61,793,000 and $57,592,000, respectively.

4. INVESTMENTS AND FAIR VALUE OF FINANCIAL INSTRUMENTS

The following tables summarize the Society's investments and other financial instruments measured at fair value on a recurring basis according to the classification hierarchy as of December 31, 2018 and 2017 (in thousands):

December 31, 2018	Investments Measured at NAV (1)	Level 1	Level 2	Level 3	Total
Cash Equivalents	$ -	$ 42,835	$ -	$ -	$ 42,835
Deferred Compensation Plan Assets	-	9,617	-	-	9,617
Foreign Currency Forward Contracts	-		798	-	798
Investments:					
Cash Equivalents		36,539	26,094	-	62,633
Fixed Income:					
U.S. government and agencies	-	117,686	37,443	-	155,129
Foreign	921	(141)	70,536	-	71,316
Corporate and Other	-	26,525	142,391	-	168,916
Equity:					
Domestic	-	34,983	251,588	-	286,571
Foreign	128,804	8,186	41,835	-	178,825
Hedge Funds	93,550	-	-	-	93,550
Total Investments	223,275	223,778	569,887	-	1,016,940
Total Financial Instruments	$ 223,275	$ 276,230	$ 570,685	$ -	$ 1,070,190

December 31, 2017	Investments Measured at NAV (1)	Level 1	Level 2	Level 3	Total
Cash Equivalents	$ -	$ 31,783	$ -	$ -	$ 31,783
Deferred Compensation Plan Assets	-	10,180	-	-	10,180
Foreign Currency Forward Contracts	-	-	630	-	630
Investments:					
Cash Equivalents	-	12,997	25,439	-	38,436
Fixed Income:					
U.S. government and agencies	-	131,284	27,907	-	159,191
Foreign	913	8	40,760	-	41,681
Corporate and Other	-	23,233	161,794	-	185,027
Equity:					
Domestic	-	103,104	250,313	-	353,417
Foreign	148,099	12,980	53,712	-	214,791
Hedge Funds	107,134	-	-	-	107,134
Total Investments	256,146	283,606	559,925	-	1,099,677
Total Financial Instruments	$ 256,146	$ 325,569	$ 560,555	$ -	$ 1,142,270

(1) Certain investments are measured at fair value using NAV as a practical expedient and have not been classified in the fair value hierarchy. The NAV amounts have been presented to permit reconciliation of the fair value hierarchy to the amounts presented in the statements of financial position.

The following estimates and assumptions were used to determine the fair value of financial instruments within the fair value hierarchy:

- Cash equivalents – Cash equivalents consist of money market funds, commercial paper, and cash collateral held by custodians. Money market funds and commercial paper are classified as Level 2 given that they are valued at amortized cost, which approximates fair value. Cash equivalents held as collateral by custodians are classified as Level 2 based on prices for similar assets.

- Deferred compensation plan assets – The Society offers a non-qualified tax-advantaged deferred-compensation retirement plan to certain employees per Section 457 of the Internal Revenue Code. Assets of the plan comprise 25 mutual funds that are actively traded on major exchanges and are classified as Level 1.

- Foreign currency forward contracts – Foreign currency forward contracts are derivative instruments and recognized at fair value based on quoted prices, in active markets, for similar contracts and are classified as Level 2.

- Fixed income securities – Fixed income securities primarily include U.S. Treasury issues, U.S. government and agency issues, corporate securities, mortgage-backed securities, asset-backed securities, municipal bonds, fixed income mutual funds, forward purchases and sales, and credit default swaps. U.S. Treasury issues and certain fixed income mutual funds are valued using quoted prices in active markets for identical assets and are classified as Level 1. Fair values of investments in commingled funds, similar to mutual funds, that are deemed to have a readily determinable fair value, but not actively traded, are measured at published NAV and are classified as Level 2. The remainder of this investment class is valued using quoted prices in active markets for similar securities and is classified as Level 2.

- Equity investments – Equity investments consist primarily of common stock held in mutual funds, separate accounts, and commingled trust funds. Securities traded on active exchanges are priced using unadjusted market quotes for identical assets and are classified as Level 1. Securities that are traded infrequently or that have comparable traded assets are priced using available quotes and other market data that are observable and are classified as Level 2. Fair values of investments in commingled funds, similar to mutual funds, that are deemed to have a readily determinable fair value, but not actively traded, are measured at published NAV and are classified as Level 2.

As of December 31, 2018 and 2017, there were no financial instruments measured on a non-recurring basis.

The Society maintains balanced investment portfolios structured to generate current income and long-term appreciation.

Liquidity and Certain Strategies

Investment liquidity of investments measured at NAV is aggregated below based on redemption or sale periods (in thousands):

December 31, 2018	Less Than 30 Days	Quarterly	> 1 Year	Total
Fixed Income:				
Foreign	$ 921	$ -	$ -	$ 921
Equity:				
Foreign	128,804	-	-	128,804
Hedge Funds	-	93,550	-	93,550
Total Investments	$ 129,725	$ 93,550	$ -	$ 223,275

December 31, 2017	Less Than 30 Days	Quarterly	> 1 Year	Total
Fixed Income:				
Foreign	$ 913	$ -	$ -	$ 913
Equity:				
Foreign	148,099	-	-	148,099
Hedge Funds		92,902	14,232	107,134
Total Investments	$ 149,012	$ 92,902	$ 14,232	$ 256,146

The Society's investments carried at NAV as a practical expedient include commingled funds (both fixed income and equity) and hedge funds. The commingled funds have redemption notice periods of 1-5 days and the hedge funds have 65-day and 100-day redemption notice periods. The Society does not have any unfunded commitments as of December 31, 2018 or 2017. The significant strategies of the commingled funds and hedge funds are as follows:

- Fixed income and equity commingled funds – are similar to mutual funds except that of an institutional investor class and for which NAV is not priced daily or published. Fixed income funds invest in securities to generate a total return, consisting of income and capital appreciation, while preserving capital. Equity investment funds invest in securities to achieve long-term growth primarily in a diversified portfolio of global equity securities that possess fundamental investment value.

- Hedge funds – includes two investments in fund of hedge funds that each contain 15 to 30 underlying hedge funds. The underlying hedge funds employ a variety of different strategies including long/short equity, fixed income arbitrage, distressed debt, credit and capital structure arbitrage, merger arbitrage, volatility arbitrage, and global asset allocation.

Repurchase Agreements and Investment Derivatives

The Society's investment managers may enter into repurchase agreements (where securities are sold under an agreement to repurchase) and reverse repurchase agreements (where securities are purchased under agreements to resell), collectively called repurchase agreements.

The Society's investment managers may employ derivatives in order to manage market risks, arbitrage mispricing of securities, or replicate long or short positions in a cost effective manner. In no instance are derivatives used to speculate or leverage positions.

All repurchase agreements and derivative instruments are carried at fair value and are reported net in investments on the consolidated statements of financial position. The repurchase agreements and derivatives are held with 8 different counterparties and are subject to master netting agreements. The master netting agreements allow the Society to offset net positions by counterparty and available collateral held. The fair value of the repurchase agreements was $11,800,000 as of December 31, 2018.

The following tables provide the fair value of investment derivatives as of December 31, 2018 and 2017 and gains and losses for the years ended December 31, 2018 and 2017 (in thousands):

	2018		
	Assets	Liabilities	Gains (Losses)
Derivatives:			
Foreign Currency Contracts	$ 23,355	$ (23,543)	$ (188)
Credit Default Swaps	227	(229)	(178)
Interest Rate Swaps	1,523	(1,024)	59
Financial Futures and Other	1,893	(1,751)	241
Total Derivatives	$ 26,998	$ (26,547)	$ (66)

	2017		
	Assets	Liabilities	Gains (Losses)
Derivatives:			
Foreign Currency Contracts	$ 18,232	$ (18,467)	$ (234)
Credit Default Swaps	1,009	(262)	250
Interest Rate Swaps	827	(297)	149
Financial Futures and Other	239	(130)	59
Total Derivatives	$ 20,307	$ (19,156)	$ 224

As of December 31, 2018 and 2017, the foreign currency contracts had a notional value of $23,646,000 and $18,299,000, respectively.

As of December 31, 2018 and 2017, the total notional amount of credit default swap contracts for sell protection amounted to $10,992,000 and $600,000, respectively. There were $22,660,000 and $45,364,000 buy protection credit default swaps as of December 31, 2018 and December 31, 2017, respectively.

The notional amounts related to interest rate swap contracts that pay based on fixed rates at December 31, 2018 and 2017 were $542,504,000 and $220,125,000, respectively. There were no notional amounts related to interest rate swap contracts that pay based on floating rates at December 31, 2018 or 2017.

Financial futures contracts had a notional value of $343,665,000 and $75,448,000 at December 31, 2018 and 2017, respectively.

Other Derivative Instruments

Foreign Currency Forward Contracts - The Society had unrealized losses of $222,000 and $3,509,000 for the years ended December 31, 2018 and 2017, respectively. The unrealized gains or losses are included in non-operating activities in the consolidated statements of activities.

The Society's foreign currency forward contracts are held with one counterparty and are subject to a master netting agreement, which allows for net settlement of positions with the counterparty. The foreign currency forward contracts are presented net in the consolidated statements of financial position within accounts receivable, accounts payable, and deferred revenue. The fair value of the foreign currency forward contracts as of December 31, 2018 and 2017 was as follows (in thousands):

	2018		
	Assets	Liabilities	Net
Foreign Currency Forwards	$ 1,611	$ (813)	$ 798

	2017		
	Assets	Liabilities	Net
Foreign Currency Forwards	$ 2,325	$ (1,695)	$ 630

The following table summarizes the notional amounts relating to unsettled foreign currency forward contracts maturing at various times through 2021 (in thousands):

	2018	2017
Contracts maturing in 2018	$ -	$ 66,408
Contracts maturing in 2019	67,157	37,593
Contracts maturing in 2020	40,898	3,474
Contracts maturing in 2021	4,893	-
Total Notional Amount of Unsettled Forward Contracts	$ 112,948	$ 107,475

In addition to unrealized gains and losses on foreign currency forward contracts, the Society incurred realized gains and losses throughout the year. To the extent that actual remittances in foreign currencies differ from contracted amounts and the exchange rates at time of settlement are different from contracted exchange rates, the Society realizes gains or losses on settlement. The Society recorded realized losses of $441,000 and $304,000 in 2018 and 2017, respectively, from foreign exchange transactions.

5. BUILDINGS AND OTHER PROPERTY

At December 31, buildings and other property consisted of the following (in thousands):

	2018	2017
Software	$ 175,775	$ 173,719
Buildings and Improvements	114,445	111,113
Hardware, Furniture and Equipment	75,958	66,764
Land	2,930	2,930
Total Cost of Buildings and Other Property	369,108	354,526
Less Accumulated Depreciation and Amortization	243,583	231,019
Buildings and Other Property, Net	$ 125,525	$ 123,507

6. POSTRETIREMENT BENEFITS

Defined-Benefit Pension Plan - The Society has a funded noncontributory defined-benefit pension plan (the Plan), which is qualified under Section 401(a) of the Internal Revenue Code and covers employees hired prior to September 1, 2007. The Society makes actuarially determined contributions to satisfy all funding requirements. Effective September 1, 2007, the Plan was closed to new employees. Effective October 31, 2009, the Society froze benefit accruals associated with the Plan, and all participants were transitioned to a defined-contribution retirement plan.

Defined-Contribution Retirement Plan (DCRP) and ACS ERISA 403(b) Plans – The Society's 401(a) DCRP and the ACS ERISA 403(b) plans are available to substantially all employees. The DCRP provides an employer contribution equal to 6% of base pay, plus an employer match equal to 50% of the first 6% a participant contributes to the DCRP and/or the ACS ERISA 403(b) plan, a tax-deferred investment program. Employer contributions to the DCRP totaled $15,641,000 and $15,162,000 in 2018 and 2017, respectively.

Postretirement Medical Plan – The Society provides postretirement medical benefits to all benefit-eligible employees who were employed as of October 31, 2001, have at least five years of service, reach retirement age while employed by the Society, and are collecting retirement benefits from the defined-benefit pension plan. The postretirement medical plan is contributory with participants' contributions adjusted annually. The prescription benefit is actuarially equivalent to Medicare Part D and eligible for the federal subsidy. The Society's contributions toward the overall cost of postretirement medical insurance for both current and future eligible retirees were capped at the 2009 level.

Effective January 1, 2016, the Society adopted a Medicare Advantage Plan for eligible retirees and spouses who are at least 65 years old. The Medicare Advantage Plan continues to provide eligible retirees with an option for medical coverage.

The following tables present the change in benefits obligations, change in plan assets, and the composition of accrued benefits costs and amounts recognized in the accompanying consolidated statements of financial position and consolidated statements of activities for the years ended December 31, 2018 and 2017 (in thousands).

Defined-Benefit Pension and Postretirement Medical Plans

	Defined-Benefit Pension Plan		Postretirement Medical Plan	
	2018	2017	2018	2017
Change in Benefits Obligation				
Benefits Obligation at January 1	$ 727,601	$ 699,288	$ 47,657	$ 46,839
Service Cost	-	-	603	608
Interest Cost	25,655	28,195	1,656	1,843
Plan Participants' Contributions	-	-	1,897	1,755
Actuarial (Gain) Loss	(42,308)	37,060	(2,389)	1,186
Benefits and Administrative Fees Paid	(38,723)	(36,942)	(4,925)	(4,574)
Benefits Obligation at December 31	672,225	727,601	44,499	47,657
Change in Fair Value of Plan Assets				
Plan Assets at January 1	646,600	588,840	-	-
Actual Return on Plan Assets	(28,045)	82,702	-	-
Employer Contributions	15,000	12,000	3,029	2,817
Plan Participants' Contributions	-	-	1,897	1,756
Benefits and Administrative Fees Paid	(38,723)	(36,942)	(4,926)	(4,573)
Plan Assets at December 31	594,832	646,600	-	-
Funded Status	$ (77,393)	$ (81,001)	$ (44,499)	$ (47,657)
Amounts Recognized in the Consolidated Statements of Financial Position				
Liabilities	$ (77,393)	$ (81,001)	$ (44,499)	$ (47,657)
Net Liability at December 31	$ (77,393)	$ (81,001)	$ (44,499)	$ (47,657)

	Defined-Benefit Pension Plan		Postretirement Medical Plan	
	2018	2017	2018	2017
Amounts Recognized in Net Assets Without Donor Restrictions not yet in Net Periodic Costs				
Unrecognized Loss	$ 241,731	$ 227,219	$ 24,364	$ 29,362
Unrecognized Prior Service Credit	-	-	(5,909)	(8,937)
Net Recognized in Net Assets Without Donor Restrictions	$ 241,731	$ 227,219	$ 18,455	$ 20,425

The estimated net actuarial loss for the defined-benefit pension plan that will be amortized from non-operating income for 2019 is $7,360,000.

The estimated net actuarial loss and prior service credit for the postretirement medical plan that will be amortized from non-operating income for 2019 are $2,534,000 and $(1,102,000), respectively.

Components of Net Periodic Benefit Cost (Credits) for the Year Ended December 31 (in thousands):

	Defined-Benefit Pension Plan		Postretirement Medical Plan	
	2018	2017	2018	2017
Service Cost	$ -	$ -	$ 603	$ 608
Interest Cost	25,655	28,195	1,656	1,843
Expected Return on Plan Assets	(35,076)	(33,366)	-	-
Amortization of Prior Service Credits	-	-	(3,028)	(6,676)
Amortization of Net Actuarial Loss	6,301	6,972	2,609	2,769
Net Periodic Benefit (Credits) Cost	$ (3,120)	$ 1,801	$ 1,840	$ (1,456)

Other Changes in Plan Assets and Benefits Obligations Recognized in Non-Operating Activities:

The following table provides information for other changes in plan assets and benefits obligations recognized in net assets without donor restrictions for the years ended December 31 (in thousands):

	Defined-Benefit Pension Plan		Postretirement Medical Plan	
	2018	2017	2018	2017
Net Actuarial Loss (Gain)	$ 20,813	$ (12,276)	$ (2,389)	$ 1,186
Amortization of Prior Service Credit	-	-	3,028	6,676
Amortization of Net Actuarial Loss	(6,301)	(6,972)	(2,609)	(2,769)
Total Recognized in Net Assets Without Donor Restriction	$ 14,512	$ (19,248)	$ (1,970)	$ 5,093

Assumptions

Assumptions used to determine benefits obligations at December 31 are as follows:

	Defined-Benefit Pension Plan		Postretirement Medical Plan	
	2018	2017	2018	2017
Discount Rate	4.28%	3.62%	4.25%	3.59%
Mortality Projection Scales	MP-2018	MP-2017	MP-2018	MP-2017

Assumptions used to determine net periodic benefit cost for the years ended December 31 are as follows:

	Defined-Benefit Pension Plan		Postretirement Medical Plan	
	2018	2017	2018	2017
Discount Rate	3.62%	4.14%	3.59%	4.07%
Expected Return on Plan Assets	5.50%	5.75%	N/A	N/A

The Society determines the long-term expected rate of return on plan assets by examining historic capital market returns, correlations between asset classes, and the Plan’s normal asset allocation. Current and near-term market factors such as inflation and interest rates are then evaluated to arrive at the expected return on plan assets. Peer group and benchmarking data are also reviewed to ensure a reasonable return assumption.

Plan Assets

The Society's defined-benefit pension plan asset allocation as of December 31, by asset category, is as follows:

	Plan Assets	
	2018	2017
Domestic Equities	10%	16%
Foreign Equities	6%	9%
Fixed Income Securities	84%	75%
Total	100%	100%

The Society utilizes a total return on investment approach based on modern portfolio theory. Multiple asset classes are implemented in order to obtain the benefits of diversification and maximize long-term total return for a given level of risk. Risk tolerance is developed by reviewing the funded status of the Plan, the duration of the Plan liabilities, the income and liquidity requirements, legal constraints, and the financial condition of the Society.

The investment portfolio is comprised of a diversified combination of domestic equities, foreign equities, and fixed income securities. The investment policy incorporates a liability-driven investment approach that focuses on the funded status of the Plan and seeks to match the duration of the assets with that of the liabilities. As the Plan's funded status improves, asset allocation will be directed more toward long duration fixed income securities. The allocation among domestic equities, foreign equities, and fixed income securities is determined by the funded status of the Plan, prevailing market conditions, and relative valuations between asset classes. The Plan's financial condition is monitored on an ongoing basis by means of monthly funding reviews, quarterly investment portfolio reviews, an annual independent actuarial valuation, and periodic asset/liability studies.

The Society utilizes the best information available in measuring fair value of the Plan's assets and liabilities, and they are classified based on the lowest level of input that is significant to the fair value measurement. The fair value measurement principles for the Plan's assets are consistent with those disclosed in Note 2.

The following tables summarize valuations of the Society's defined-benefit pension plan assets according to the fair value hierarchy as of December 31, 2018 and 2017 (in thousands):

December 31, 2018	Investments Measured at NAV (1)	Level 1	Level 2	Level 3	Total
Cash Equivalents	$ 6,023	$ -	$ 6,724	$ -	$ 12,747
Fixed Income:					
U.S. government and agencies	-	144,301	1,248	-	145,549
Foreign	-	(27)	76,541	-	76,514
Corporate and Other	54,483	-	224,603	-	279,086
Equity:	-				
Domestic	-	15,258	43,285	-	58,543
Foreign	25,476	866	2,653	-	28,995
Unsettled Transactions, Net	-	(6,602)	-	-	(6,602)
Net Plan Assets	$ 85,982	$ 153,796	$ 355,054	$ -	$ 594,832

December 31, 2017	Investments Measured at NAV (1)	Level 1	Level 2	Level 3	Total
Cash Equivalents	$ 19,805	$ -	$ 4,461	$ -	$ 24,266
Fixed Income:					
U.S. government and agencies	-	148,770	6,969	-	155,739
Foreign	-	33	60,686	-	60,719
Corporate and Other	53,394	-	213,313	-	266,707
Equity:					
Domestic	-	35,482	66,277	-	101,759
Foreign	41,181	4,325	15,704	-	61,210
Unsettled Transactions, Net	-	(23,800)	-	-	(23,800)
Net Plan Assets	$ 114,380	$ 164,810	$ 367,410	$ -	$ 646,600

(1) Certain investments are measured at fair value using NAV as a practical expedient and have not been classified in the fair value hierarchy. The NAV amounts have been presented to permit reconciliation of the fair value hierarchy to the amounts reported as total plan assets.

Liquidity and Certain Strategies

Plan assets, inclusive of investments stated at NAV as a practical expedient, have redemption liquidity of less than 30 days with no significant notice periods. The Plan has no investment funding commitments.

Derivatives

The Plan’s fixed income investment manager may employ derivatives in order to manage market risks, arbitrage mispricing of securities, or replicate long or short positions in a cost-effective manner. In no instance are derivatives used to speculate or leverage positions.

The following tables provide the fair value of plan asset derivative agreements as of December 31, 2018 and 2017, and gains and losses for the years ended December 31, 2018 and 2017 (in thousands):

	2018		
	Assets	Liabilities	Gains (Losses)
Derivatives:			
Foreign Currency Contracts	$ 18,721	$ (18,824)	$ (103)
Credit Default Swaps	1,156	(728)	(33)
Interest Rate Swaps	5,755	(1,996)	3,711
Financial Futures and Other	4,257	(2,398)	1,847
Total Derivatives	$ 29,889	$ (23,946)	$ 5,422

	2017		
	Assets	Liabilities	Gains (Losses)
Derivatives:			
Foreign Currency Contracts	$ 26,118	$ (26,479)	$ (361)
Credit Default Swaps	1,850	(754)	1,059
Interest Rate Swaps	2,974	(219)	5,228
Financial Futures and Other	3,323	(4,495)	(1,245)
Total Derivatives	$ 34,265	$ (31,947)	$ 4,681

As of December 31, 2018 and 2017, the foreign currency contracts had a notional value of $18,735,000 and $26,172,000, respectively.

The total notional amount of credit default swap contracts for buy protection as of December 31, 2018 and 2017 amounted to $43,950,000 and $43,600,000, respectively. The notional amount related to sell protection amounted to $44,450,000 and $48,326,000 as of December 31, 2018 and 2017, respectively.

The notional amount of interest rate swap contracts that pay based on fixed rates at December 31, 2018 and 2017 was $336,100,000 and $99,700,000, respectively. There were no notional amounts related to interest rate swaps that pay based on floating rates for 2018 or 2017. Financial futures had a notional value of $1,117,030,000 and $0 at December 31, 2018 and December 31, 2017, respectively.

The Plan does not have significant positions with any one counterparty.

Cash Contribution **-** The Society expects to contribute $15,000,000 to the Plan in 2019.

Projected Benefit Payments **-** The following are expected benefits payments in future years (in thousands):

	Defined-Benefit Pension Plan Payments	Postretirement Medical Plan Payments
Fiscal year 2019	$ 39,381	$ 3,291
Fiscal year 2020	40,643	3,299
Fiscal year 2021	41,419	3,276
Fiscal year 2022	42,335	3,239
Fiscal year 2023	42,948	3,212
Fiscal years 2024–2028	222,208	15,513

7. NET ASSETS

The following is a summary of net assets at December 31 (in thousands)

	2018	2017
Without Donor Restrictions		
Insurance Trust	$ 34,677	$ 40,921
Board Designated - ACS Programs	735	-
Other Net Assets	291,481	284,369
Total Without Donor Restrictions	326,893	325,290
With Donor Restrictions		
PRF Program	530,204	578,602
ACS Programs	111,778	119,354
Total With Donor Restrictions	641,982	697,956
Total Net Assets	$ 968,875	$ 1,023,246

Net assets released from restriction was $28,576,000 and $28,216,000 for the year ended December 31, 2018 and 2017, respectively.

8. ENDOWMENTS

At December 31, 2018, the Society’s endowments consisted of approximately 30 individual funds, established for a variety of purposes. The endowment includes both donor-restricted endowment funds and funds designated by the Society’s Board of Directors to function as endowments. Net assets associated with endowment funds, including funds designated by the Board to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

Interpretation of Relevant Law

The Society’s Board of Directors evaluated the Uniform Prudent Management of Institutional Funds Act (UPMIFA) and decided to continue to require the preservation of the historical cost of the original gift, as of the gift date, of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result, the Society classifies as net assets with donor restriction the sum of a) the original value of gifts donated to the donor-restricted endowments, b) the original value of subsequent gifts to donor-restricted endowments, c) additions to the donor-restricted endowments made in accordance with explicit donor instructions stipulated in the gift instruments and d) the appreciation on donor-restricted endowment funds until those amounts are made available for expenditure in a manner consistent with the donor gift instrument, the program operating budgets, and the standard of prudence prescribed by UPMIFA.

In accordance with UPMIFA, the Society considers the following factors in making a determination as to the preservation and use of the donor-restricted endowment funds: the donor gift instrument; the duration and preservation of the fund; the purposes of the Society and the fund; general economic conditions; the effect of inflation and deflation; expected total return from income and the appreciation of investments; other resources of the Society; and the Society's investment policies.

Spending Policy

Funds are appropriated from the endowment funds when expenses are approved by management. Expenditures of endowment assets are recorded in accordance with the explicit donor instructions stipulated in the gift instruments.

Return Objective and Risk Parameters

Donor-restricted endowment funds are invested in accordance with the Society's investment policies. The investment policies are intended to assure the Society's Board of Directors and the Board Committee on Pensions and Investments that the assets of the Society are being invested in accordance with the best long-term interests of the Society and its donors, given the following considerations: the Society's risk tolerance; the need to obtain real, or inflation-adjusted growth in its investments; and the requirement for current income to support programs and activities.

The Society adopted investment policies for endowment assets that attempt to generate a sufficient level of funding for programs supported by endowments. Endowment assets include those assets of Board and donor-restricted funds intended to provide a permanent source of income to support the donor-specified programs. Under the policies, as approved by the Board Committee on Pensions and Investments, endowment assets are invested in a manner intended to provide sufficient inflation-adjusted returns to support annual spending policies and achieve real growth in the asset base while maintaining a moderate level of investment risk.

Strategies Employed for Achieving Objectives

To satisfy its long-term rate-of-return objectives, the Society relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The Society targets a diversified asset allocation that places a greater emphasis on equity-based investments to achieve its long-term return objectives within prudent risk constraints.

Underwater Endowment Funds

From time to time, the fair value of assets associated with donor-restricted endowment funds may fall below the original value. As of December 31, 2018 and 2017, there were no endowment funds with market value below the original gift amount.

Endowment net assets consist of the following as of December 31 (in thousands):

	2018		
	Without Donor Restrictions	With Donor Restrictions	Total
Board Designated Endowment Funds	$ 735	$ -	$ 735
Donor-Restricted Endowment Funds			
Historical Gift Value	-	141,828	141,828
Accumulated Investment Return	-	494,103	494,103
Total Endowment Net Assets	$ 735	$ 635,931	$ 636,666

	2017		
	Without Donor Restrictions	With Donor Restrictions	Total
Board Designated Endowment Funds	$ -	$ -	$ -
Donor-Restricted Endowment Funds			
Historical Gift Value	-	142,530	142,530
Accumulated Investment Return	-	547,572	547,572
Total Endowment Net Assets	$ -	$ 690,102	$ 690,102

The following tables show the beginning balances of the Society's endowment funds as of January 1, changes in endowment net assets for the year, and ending balances as of December 31, 2018 and 2017, respectively (in thousands):

	2018		
	Without Donor Restrictions	With Donor Restrictions	Total
Beginning Endowment Net Assets	$ -	$ 690,102	$ 690,102
Investment Return			
Investment Income	19	15,360	15,379
Net Losses	(21)	(46,478)	(46,499)
Investment Return, Net	(2)	(31,118)	(31,120)
Contributions	750	858	1,608
Net Assets Released from Restriction	(13)	(23,911)	(23,924)
Ending Endowment Net Assets	$ 735	$ 635,931	$ 636,666

	2017		
	Without Donor Restrictions	With Donor Restrictions	Total
Beginning Endowment Net Assets	$ -	$ 624,974	$ 624,974
Investment Return			
Investment Income	-	12,814	12,814
Net Gains	-	78,063	78,063
Investment Return, Net	-	90,877	90,877
Contributions	-	920	920
Net Assets Released from Restriction	-	(22,919)	(22,919)
Transfer of Net Assets	-	(3,750)	(3,750)
Ending Endowment Net Assets	$ -	$ 690,102	$ 690,102

The purposes of endowed net assets are for scientific-related grants and awards and program support.

9. EXPENSES

The composition of expenses for the years ended December 31, 2018 and 2017 is as follows (in thousands):

	Compensation and Benefits	Professional Services	Materials and Supplies	Depreciation Expense	Grants and Assistance	Other Operating Expenses	Total
Program:							
Information Services	$ 182,456	$ 103,967	$ 34,463	$ 25,386	$ 276	$ 28,653	$ 375,201
Society Programs:							
Membership and Society Services	12,922	4,565	2,955	1,627	1,202	7,663	30,934
Education	6,752	1,471	1,357	377	4,369	2,131	16,457
Member Insurance Program	393	12,495	8	-	-	624	13,520
External Affairs and Communications	4,808	514	550	239	172	1,156	7,439
Scientific Advancement	3,536	653	417	168	17,519	2,685	24,978
Supporting:							
Institutional Support	55,256	20,836	9,810	5,076	250	3,200	94,428
Total Operating Expenses 2018	$ 266,123	$ 144,501	$ 49,560	$ 32,873	$ 23,788	$ 46,112	$ 562,957
Total Operating Expenses 2017	$ 253,322	$ 146,599	$ 48,610	$ 30,092	$ 23,405	$ 45,139	$ 547,167

Natural expense classes are comprised of Compensation and Benefits; Professional Services, which includes sales promotion and advertising services; Materials and Supplies, which includes building and office operations; Depreciation Expense, which includes depreciation and amortization; and Grants and Assistance, which includes research, travel and other grants, as well as fellowships and scholarships. Other Operating Expenses includes services related to conducting Society sponsored meetings and events and other expenses that support the operations of the Society.

Program services are comprised of Information Services and Society Programs. Information Services includes services performed by CAS (databases of chemical and related scientific information) and Publications Divisions (print and electronic scientific journals). Society Programs includes member-focused activities such as continuing education programs, national and regional meetings, employment services and public outreach, scientific advancement, as well as the member insurance program.

Supporting services include expenses associated with the institutional support of the Society, including administrative functions such as finance, human resources, web strategy and operations, the investment program, promotion and marketing, and fundraising activities. The Society incurred direct fundraising expenses of $1,433,000 in 2018 and $1,398,000 in 2017. Expenses which are related to both program and supporting, including facilities and information technology costs, are allocated based on department headcount and salary.

10. LIQUIDITY AND AVAILABILITY OF FINANCIAL ASSETS

Financial assets available for general expenditure within one year of December 31, 2018 are as follows (in thousands):

Cash and Cash Equivalents	$	66,844
Accounts Receivable		115,518
Operating Investments		379,983
Total Financial Assets Available Within One Year	$	562,345

The Society manages its financial assets to be available as its operating expenditures, liabilities and other obligations come due and to comply with financial guidelines approved by the Society's Board of Directors. Cash in excess of daily requirements is invested short-term in interest-bearing deposit accounts, money market funds, and commercial paper. The Society's operating investments contain short-term and long-term instruments. The Society also has a long-term investment vehicle which is a diversified investment pool with an objective of achieving long-term growth while also producing current income; the underlying investments can be liquidated within one year.

11. COMMITMENTS AND CONTINGENCIES

Lawsuits and legal claims:

The Society is involved in various claims and legal actions arising in the ordinary course of business. Based upon information currently available, management believes the ultimate disposition of these matters will not have a material adverse effect on the Society's consolidated financial position, change in net assets, or cash flows.

Uncertain tax provisions:

The Society is subject to taxation in several jurisdictions and is currently under audit for the 2014-2018 tax years in a foreign territory, as a matter of conducting ordinary business activities in the country. The foreign tax authority has challenged the Society's position on its tax filing. The Society has appealed the tax rulings. Due to the uncertainty associated with the tax appeals, the Society has not recorded a provision in the consolidated financial statements. It is possible that at some future date, liabilities resulting from the audits could be incurred. Management intends to pursue all administrative and judicial remedies necessary to resolve the matter. Based on current legislation, and after consultation with outside tax advisors, management believes the ultimate resolution of the audits will not have a material adverse impact on the Society's financial condition taken as a whole.

12. SUBSEQUENT EVENTS

The Society has performed an evaluation of subsequent events through March 8, 2019, which is the date the consolidated financial statements were available to be issued, noting no adjustments or disclosures were required to the consolidated financial statements.