PAYCHEX INC
Form 10-Q
December 21, 2018
UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10 Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF

THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended November 30, 2018

Commission file number 0-11330

PAYCHEX, INC.

911 Panorama Trail South

Rochester, New York 14625-2396

(585) 385-6666

A Delaware Corporation

IRS Employer Identification Number: 16-1124166

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

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

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

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

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

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

The number of shares outstanding of each of the issuer’s classes of common stock, as of the latest practicable date:

Common Stock, $0.01 Par Value	359,091,176	Shares
CLASS	OUTSTANDING AS OF	November 30, 2018

PAYCHEX, INC.

Table of Contents

Table of Contents

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

PAYCHEX, INC.

CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME (UNAUDITED)

In millions, except per share amounts

	For the three months ended November 30,		For the six months ended November 30,	
	2018	2017 As Adjusted(1)	2018	2017 As Adjusted(1)
Revenue:				
Management Solutions	$ 685.4	$ 653.5	$ 1,373.1	$ 1,319.4
PEO and Insurance Services	155.2	135.5	313.2	248.8
Total service revenue	$ 840.6	$ 789.0	$ 1,686.3	$ 1,568.2
Interest on funds held for clients	18.3	14.0	35.4	27.7
Total revenue	858.9	803.0	1,721.7	1,595.9
Expenses:				
Operating expenses	264.9	248.6	530.4	480.6
Selling, general and administrative expenses	286.8	251.3	563.8	494.9
Total expenses	551.7	499.9	1,094.2	975.5
Operating income	307.2	303.1	627.5	620.4
Investment income, net	2.1	1.7	4.4	3.8
Income before income taxes	309.3	304.8	631.9	624.2
Income taxes	73.5	106.0	152.5	215.0
Net income	$ 235.8	$ 198.8	$ 479.4	$ 409.2
Other comprehensive loss, net of tax	(11.6)	(33.6)	(11.2)	(29.2)
Comprehensive income	$ 224.2	$ 165.2	$ 468.2	$ 380.0
Basic earnings per share	$ 0.66	$ 0.55	$ 1.34	$ 1.14
Diluted earnings per share	$ 0.65	$ 0.55	$ 1.33	$ 1.13
Weighted-average common shares outstanding	359.1	359.1	359.1	359.0
Weighted-average common shares outstanding, assuming dilution	361.5	361.4	361.5	361.4

(1) Amounts have been adjusted to reflect the adoption of Accounting Standards Codification ("ASC") Topic 606, "Revenue from Contracts with Customers" ("ASC Topic 606").

See Notes to Consolidated Financial Statements.

1

Table of Contents

PAYCHEX, INC.

CONSOLIDATED BALANCE SHEETS (UNAUDITED)

In millions, except per share amounts

	November 30, 2018	May 31, 2018 As Adjusted(1)
Assets		
Cash and cash equivalents	$ 510.6	$ 358.2
Corporate investments	248.4	66.0
Interest receivable	28.6	32.2
Accounts receivable, net of allowance for doubtful accounts	562.6	492.4
Prepaid income taxes	33.3	17.0
Prepaid expenses and other current assets	234.2	224.0
Current assets before funds held for clients	1,617.7	1,189.8
Funds held for clients	3,672.3	4,703.8
Total current assets	5,290.0	5,893.6
Long-term corporate investments	10.0	295.5
Property and equipment, net of accumulated depreciation	394.0	393.5
Intangible assets, net of accumulated amortization	128.0	141.4
Goodwill	810.6	814.0
Long-term deferred costs	354.0	361.0
Other long-term assets	15.8	16.4
Total assets	$ 7,002.4	$ 7,915.4
Liabilities		
Accounts payable	$ 70.6	$ 73.7
Accrued compensation and related items	307.9	320.6
Short-term borrowings	57.3	—
Deferred revenue	42.5	34.6
Other current liabilities	111.2	132.9
Current liabilities before client fund obligations	589.5	561.8
Client fund obligations	3,717.3	4,734.9
Total current liabilities	4,306.8	5,296.7
Accrued income taxes	19.7	18.4
Deferred income taxes	161.6	154.4
Other long-term liabilities	89.8	89.1
Total liabilities	4,577.9	5,558.6
Commitments and contingencies — Note M		

Stockholders' equity		
Common stock, $0.01 par value; Authorized: 600.0 shares; Issued and outstanding: 359.1 shares as of November 30, 2018 and 359.0 shares as of May 31, 2018	3.6	3.6
Additional paid-in capital	1,165.7	1,126.8
Retained earnings	1,302.6	1,262.6
Accumulated other comprehensive loss	(47.4)	(36.2)
Total stockholders' equity	2,424.5	2,356.8
Total liabilities and stockholders' equity	$ 7,002.4	$ 7,915.4

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

See Notes to Consolidated Financial Statements.

2

Table of Contents

PAYCHEX, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

In millions

	For the six months ended November 30,	
	2018	2017 As Adjusted(1)
Operating activities		
Net income	$ 479.4	$ 409.2
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization on property and equipment and intangible assets	72.7	65.7
Amortization of premiums and discounts on available-for-sale securities, net	27.7	33.8
Stock-based compensation costs	22.8	19.1
Provision for deferred income taxes	10.9	47.2
Provision for allowance for doubtful accounts	1.5	1.8
Net realized losses on sales of available-for-sale securities	0.2	—
Changes in operating assets and liabilities:		
Interest receivable	3.6	0.7
Accounts receivable	(71.6)	(8.5)
Prepaid expenses and other current assets	(26.7)	(25.8)
Accounts payable and other current liabilities	(30.2)	(35.5)
Deferred costs	7.3	10.6
Net change in other long-term assets and liabilities	(0.4)	1.1
Net cash provided by operating activities	497.2	519.4
Investing activities		
Purchases of available-for-sale securities	(21,248.8)	(20,324.3)
Proceeds from sales and maturities of available-for-sale securities	21,364.3	20,708.7
Net change in funds held for clients’ money market securities and other cash equivalents	985.1	(1,018.0)
Purchases of property and equipment	(60.8)	(95.5)
Acquisition of businesses, net of cash acquired	—	(17.9)
Purchases of other assets	(1.0)	(4.1)
Net cash provided by/(used in) investing activities	1,038.8	(751.1)
Financing activities		

Net change in client fund obligations	(1,017.6)	625.3
Net proceeds from short-term borrowings	57.3	133.4
Dividends paid	(402.7)	(358.9)
Repurchases of common shares	(32.8)	(94.1)
Activity related to equity-based plans	12.2	(1.4)
Net cash (used in)/provided by financing activities	(1,383.6)	304.3
Increase in cash and cash equivalents	152.4	72.6
Cash and cash equivalents, beginning of fiscal year	358.2	184.6
Cash and cash equivalents, end of period	$ 510.6	$ 257.2

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

See Notes to Consolidated Financial Statements.

PAYCHEX, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

November 30, 2018

Note A: Description of Business, Basis of Presentation, and Significant Accounting Policies

Description of business: Paychex, Inc. and its wholly owned subsidiaries (collectively, the "Company" or "Paychex") is a leading provider of integrated human capital management ("HCM") solutions for payroll, benefits, human resource ("HR"), and insurance services for small- to medium-sized businesses in the United States ("U.S."). The Company also has operations in Europe.

Paychex, a Delaware corporation formed in 1979, reports as one segment. Substantially all of the Company's revenue is generated within the U.S. The Company also generates revenue within Europe, which represented approximately one percent of the Company's total revenue for both the three and six months ended November 30, 2018 and was less than one percent of the Company's total revenue for both the three and six months ended November 30, 2017. Long-lived assets in Europe were approximately 10% of total long-lived assets of the Company as of November 30, 2018 and May 31, 2018.

Basis of presentation: The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") for interim financial information and with the instructions to the Quarterly Report on Form 10-Q (“Form 10-Q”) and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statement presentation. The consolidated financial statements include the consolidated accounts of the Company with all intercompany transactions eliminated. In the opinion of management, the information furnished herein reflects all adjustments (consisting of items of a normal recurring nature), which are necessary for a fair statement of the results for the interim period. These consolidated financial statements should be read in conjunction with the Company’s consolidated financial statements and related Notes to Consolidated Financial Statements presented in the Company’s Annual Report on Form 10-K (“Form 10-K”) for the fiscal year ended May 31, 2018 (“fiscal 2018”). Operating results and cash flows for the six months ended November 30, 2018 are not necessarily indicative of the results that may be expected for other interim periods or for the fiscal year ending May 31, 2019 (“fiscal 2019”).

Effective June 1, 2018, the Company adopted the requirements of Accounting Standards Update (“ASU”) No. 2014-09, “Revenue from Contracts with Customers (Topic 606),” as discussed in “Recently adopted accounting pronouncements.” All amounts and disclosures set forth in this Form 10-Q have been updated to comply with the new standard, as indicated by the “As Adjusted” footnote.

Reclassifications: Certain prior period amounts have been reclassified to conform to the current period presentation in connection with the adoption of ASU No. 2014-09 and had no material effect on reported consolidated earnings.

PEO insurance reserves: As part of the professional employer organization (“PEO”) service, the Company offers workers' compensation insurance and health insurance to client companies for the benefit of client employees. For workers' compensation insurance, reserves are established to provide for the estimated costs of paying claims up to per occurrence liability limits. The Company’s maximum individual claims liability, excluding HR Outsourcing Holdings, Inc. (“HROI”), was $1.0 million and $1.3 million under its fiscal 2019 and fiscal 2018 workers' compensation insurance policies, respectively. HROI’s maximum individual claims liability was $0.5 million and $0.8 million under its workers’ compensation insurance policies for the annual periods ended September 30, 2018 and ending September 30, 2019, respectively.

Under the minimum premium insurance plan offering within the PEO, the Company's health benefits insurance reserves are established to provide for the payment of claims liability charges in accordance with its service contract with the insurance carrier. The Company's maximum individual claims liability, excluding HROI, was $0.3 million under both its calendar 2018 and 2017 minimum premium insurance plan policies. HROI’s maximum individual claims liability was $0.3 million under its minimum premium insurance plan policies for the annual periods ended June 30, 2018 and ending June 30, 2019. In addition, the Company also provides self-insured dental and vision plans.

Estimating the ultimate cost of future claims is an uncertain and complex process based upon historical loss experience and actuarial loss projections, and is subject to change due to multiple factors, including economic trends, changes in legal liability law, and damage awards, all of which could materially impact the reserves as reported in the consolidated financial statements. Accordingly, final claim settlements may vary from the present estimates, particularly with workers' compensation insurance where those payments may not occur until well into the future. The Company regularly reviews the adequacy of its estimated insurance reserves. Adjustments to previously established insurance reserves are reflected in the results of operations for the period in which such adjustments are identified. Such adjustments could be significant, reflecting any combination of new and adverse or favorable trends.

Stock-based compensation costs: The Company has issued stock-based awards to employees and directors consisting of stock options, restricted stock awards, restricted stock units, performance shares, performance-based restricted stock, and performance-based stock options. The Company accounts for all stock-based awards to employees and directors as compensation costs in the consolidated financial statements based on their fair values measured as of the date of grant. These costs are recognized over the requisite service period. Stock-based compensation costs recognized were $11.9 million and $22.8 million for the three and six months ended November 30, 2018, respectively, as compared with $10.4 million and $19.1 million for the three and six months ended November 30, 2017. The methods and assumptions used in the determination of the fair value of stock-based awards are consistent with those described in the Company's fiscal 2018 Form 10-K.

Recently adopted accounting pronouncements: In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." This guidance, as amended by subsequent ASUs on the topic, outlines a single comprehensive model for determining revenue recognition for contracts with customers, and supersedes guidance on revenue recognition in ASC Topic 605, "Revenue Recognition." The Company adopted the new standard on June 1, 2018, utilizing the full retrospective method, which required the Company to recast each prior reporting period presented and included a cumulative adjustment to increase stockholder's equity by $262.9 million as of June 1, 2016. The Company has updated its control framework for new internal controls and made changes to existing controls related to the new standard.

Impact on Previously Reported Results

The provisions of ASU No. 2014-09 do not materially impact the timing or the amount of revenue the Company recognizes on an annual basis in its Consolidated Statements of Income and Comprehensive Income. However, it does have an impact on the timing and amount of revenue the Company recognizes on a quarterly basis due to changes in the way it accounts for certain revenues where performance obligations are satisfied at a point in time. The provisions of the new standard have a material impact on the Company's Consolidated Balance Sheets. The primary impact of adopting the new standard is on the Company's treatment of certain costs to obtain and fulfill contracts. In relation to those items, the new standard resulted in the Company deferring additional costs on its Consolidated Balance Sheets and amortizing them to the Consolidated Statements of Income and Comprehensive Income over the estimated average life of the client. Refer to Note B for further details.

The following table presents a recast of selected unaudited Consolidated Statements of Income and Comprehensive Income line items after giving effect to the adoption of ASU No. 2014-09:

For the three months ended
November 30, 2017

In millions, except per share amounts	As Previously Reported	Adjustments	As Adjusted
Service revenue	$ 812.5	$ (23.5)	$ 789.0
Operating expenses	248.7	(0.1)	248.6
Selling, general and administrative expenses	245.6	5.7	251.3
Total expenses	494.3	5.6	499.9
Operating income	332.2	(29.1)	303.1
Income taxes	116.9	(10.9)	106.0
Net income	$ 217.0	$ (18.2)	$ 198.8
Basic earnings per share	$ 0.60	$ (0.05)	$ 0.55
Diluted earnings per share	$ 0.60	$ (0.05)	$ 0.55

	For the six months ended November 30, 2017		
In millions, except per share amounts	As Previously Reported	Adjustments	As Adjusted
Service revenue	$ 1,615.6	$ (47.4)	$ 1,568.2
Operating expenses	480.8	(0.2)	480.6
Selling, general and administrative expenses	485.3	9.6	494.9
Total expenses	966.1	9.4	975.5
Operating income	677.2	(56.8)	620.4
Income taxes	236.2	(21.2)	215.0
Net income	$ 444.8	$ (35.6)	$ 409.2
Basic earnings per share	$ 1.24	$ (0.10)	$ 1.14
Diluted earnings per share	$ 1.23	$ (0.10)	$ 1.13

The following table presents a recast of selected unaudited Consolidated Balance Sheet line items after giving effect to the adoption of ASU No. 2014-09:

	May 31, 2018		
In millions	As Previously Reported	Adjustments	As Adjusted
Assets			
Accounts receivable, net of allowance for doubtful accounts	$ 531.4	$ (39.0)	$ 492.4

Prepaid expenses and other current assets	$ 75.8	$ 148.2	$ 224.0
Long-term deferred costs(1)	$ 18.5	$ 342.5	$ 361.0
Liabilities and stockholders' equity			
Accounts payable	$ 74.5	$ (0.8)	$ 73.7
Deferred revenue	$ 24.3	$ 10.3	$ 34.6
Deferred income taxes	$ 48.8	$ 105.6	$ 154.4
Other long-term liabilities	$ 84.8	$ 4.3	$ 89.1
Retained earnings	$ 930.3	$ 332.3	$ 1,262.6

(1) Amounts were previously reported as a component of other long-term assets on the Consolidated Balance Sheets included in the Company’s fiscal 2018 Form 10-K. Long-term deferred costs are separately presented on the Consolidated Balance Sheets contained in this Form 10-Q.

The following table presents a recast of selected unaudited Consolidated Statement of Cash Flow line items after giving effect to the adoption of ASU No. 2014-09:

	For the six months ended November 30, 2017		
In millions	As Previously Reported	Adjustments	As Adjusted
Cash flows from operating activities			
Net income	$ 444.8	$ (35.6)	$ 409.2
Provision for deferred income taxes	$ 68.4	$ (21.2)	$ 47.2
Accounts receivable	$ (56.5)	$ 48.0	$ (8.5)
Accounts payable and other current liabilities	$ (34.3)	$ (1.2)	$ (35.5)
Deferred costs	$ —	$ 10.6	$ 10.6
Net change in other long-term assets and liabilities	$ 1.7	$ (0.6)	$ 1.1

In June 2018, the Company also adopted the following ASUs, none of which had a material impact on its consolidated financial statements:

- ASU No. 2017-05, “Other Income – Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets.”

- ASU No. 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force).”

- ASU No. 2016-16, “Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory.”

- ASU No. 2016-15, “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the Emerging Issues Task Force).”

- ASU No. 2016-01, “Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities.”

Recently issued accounting pronouncements: In November 2018, the FASB issued ASU No. 2018-18, “Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606.” ASU No. 2018-18 was issued to resolve the diversity in practice concerning the manner in which entities account for transactions based on their assessment of the economics of a collaborative arrangement. This guidance is effective for public entities for fiscal years beginning after December 15, 2019, and for interim periods within those fiscal years, with early adoption permitted. This guidance is applicable to the Company’s fiscal year beginning June 1, 2020. The Company is currently evaluating the potential effects of this guidance on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, “Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of the FASB Emerging Issues Task Force).” ASU No. 2018-15 aligns 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 (and hosting arrangements that include an internal-use software license). This guidance is effective for fiscal years beginning after December 15, 2019, and for interim periods within those fiscal years, with early adoption permitted. This guidance is applicable to the Company’s fiscal year beginning June 1, 2020. The Company is currently evaluating the potential effects of this guidance on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement.” ASU No. 2018-13 modified the disclosure requirements in Topic 820, “Fair Value Measurement,” based on the FASB Concepts Statement, “Conceptual Framework for Financial Reporting – Chapter 8: Notes to Financial Statements,” including consideration of costs and benefits. This guidance is effective for fiscal years beginning after December 15, 2019, and for interim periods within those fiscal years, with early adoption permitted. This guidance is applicable to the Company’s fiscal year beginning June 1, 2020. The Company is currently evaluating the potential effects of this guidance on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842).” This guidance, as amended by subsequent ASUs on the topic, improves transparency and comparability among companies by recognizing lease assets and lease liabilities on the balance sheet and by disclosing key information about leasing arrangements. ASU No. 2016-02 is effective for public business entities for annual periods, including interim periods within those annual periods, beginning after December 15, 2018, with early adoption permitted. The Company will adopt ASU No. 2016-02 in its fiscal year beginning June 1, 2019, and currently anticipates using the alternative transition method provided by the

FASB in ASU No. 2018-11, “Leases (Topic 842): Targeted Improvements.” Under this transition method, the Company will initially apply the new standard at adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings on June 1, 2019.

The Company is gathering data and assessing the impact of the new lease accounting standard and the Company anticipates that the adoption of the new lease accounting standard will result in the Company recording additional assets and liabilities on its Consolidated Balance Sheets. The Company is still in the process of quantifying the impact the new standard will have on its Consolidated Balance Sheets. However, the Company does not anticipate that the new standard will have a material impact on its Consolidated Statements of Income and Comprehensive Income. In addition, the Company is in the process of completing its evaluation of available practical expedients and the impact of the new guidance on its business processes, systems, and controls.

Other recent authoritative guidance issued by the FASB (including technical corrections to the ASC), the American Institute of Certified Public Accountants, and the Securities Exchange Commission (“SEC”) during the six months ended November 30, 2018 did not, or are not expected to, have a material effect on the Company’s consolidated financial statements.

Note B: Service Revenue

Service revenue is primarily attributable to fees for providing services to the Company’s clients and is recognized when control of the promised services are transferred to its clients, in an amount that reflects the consideration it expects to receive in exchange for such services. The Company’s service revenue is largely attributable to processing services where the fee is based on a fixed amount per processing period or a fixed amount per processing period plus a fee per employee or transaction processed. The Company’s contracts generally have a term of 30 days as they are cancellable at any time by either party with 30-days’ notice of termination. Sales and other applicable taxes are excluded from service revenue.

Based upon similar operational and economic characteristics, the Company’s service revenue is disaggregated by Management Solutions and PEO and Insurance Services as reported on the Company’s Consolidated Statements of Income and Comprehensive Income. The Company believes these revenue categories depict how the nature, amount, timing, and uncertainty of its revenue and cash flows are affected by economic factors.

Revenue earned from delivery service for the distribution of certain client payroll checks and reports is included in Management Solutions revenue on the Company’s Consolidated Statements of Income and Comprehensive Income. Delivery service revenue is recognized at a point in time following the delivery of payroll checks, reports, quarter-end packages, and tax returns to the Company’s clients.

The following table, consistent with the Consolidated Statements of Income and Comprehensive Income, disaggregates service revenue by Management Solutions and PEO and Insurance Services:

In millions	For the three months ended November 30, 2018	2017 As Adjusted(1)	For the six months ended November 30, 2018	2017 As Adjusted(1)
Management Solutions	$ 685.4	$ 653.5	$ 1,373.1	$ 1,319.4
PEO and Insurance Services	155.2	135.5	313.2	248.8
Total service revenue	$ 840.6	$ 789.0	$ 1,686.3	$ 1,568.2

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

Management Solutions Revenue

Management Solutions revenue is primarily derived from the Company's payroll processing, payroll-related ancillary services and HR outsourcing solutions. Clients can select services on an á la carte basis or as part of various product bundles. The Company's offerings often leverage the information gathered in its base payroll processing service, allowing it to provide comprehensive outsourcing services covering the HCM spectrum. Management Solutions revenue is generally recognized over time as services are performed and the customer simultaneously receives and controls the benefits from these services.

PEO and Insurance Services Revenue

PEO services are sold through the Company's registered and licensed subsidiaries, Paychex Business Solutions, LLC and HROI, and offer businesses a combined package of services that includes payroll, employer compliance, HR and employee benefits administration, risk management outsourcing, and the on-site availability of a professionally trained HR representative, among other services. The Company serves as a co-employer of its clients' employees, offers health insurance coverage to client employees, and assumes the risks and rewards of workers' compensation insurance and certain health insurance benefit offerings. PEO revenue is recognized over time as the services are performed and the customer simultaneously receives and controls the benefits from these services. PEO revenue is reported net of certain direct pass-through costs billed and incurred, which include payroll wages, payroll taxes, including state unemployment insurance, and certain health insurance benefit premiums, primarily costs related to our guaranteed cost benefit plans. For guaranteed cost benefit plans where the Company does not retain risk, it is acting as the agent for revenue recognition purposes and revenues are recorded net of the premiums paid to the insurance carrier. Approximately 60% of the client worksite employees that participate in the Company's benefit plans are enrolled in guaranteed cost benefit plans where the Company does not retain risk. For workers' compensation and certain benefit plans where the Company retains risk, it is acting as the principal for revenue recognition purposes and revenues and costs are recorded on a gross basis. Approximately 40% of the client worksite employees that participate in the

Company’s health insurance offerings are enrolled in these benefit plans.

Insurance services are sold through the Company’s licensed insurance agency, Paychex Insurance Agency, Inc., which provides insurance through a variety of carriers, while allowing companies to expand their employee benefit offerings at an affordable cost. Insurance offerings include property and casualty coverage such as workers’ compensation, business-owner policies, commercial auto, and health and benefits coverage, including health, dental, vision, and life. Insurance services revenue is recognized over time as services are performed and the customer simultaneously receives and controls the benefits from these services.

Contract Balances

The timing of revenue recognition for Management Solutions and PEO and Insurance Services is consistent with the invoicing of clients as they both occur during the respective client payroll period for which the services are provided. Therefore, the Company does not recognize a contract asset or liability resulting from the timing of revenue recognition and invoicing.

Advance payments received for certain of the Company’s service offerings for set-up fees are considered a material right. Therefore, the Company defers revenue associated with these performance obligations, which exceed one year, and subsequently recognizes these as future services are provided, over approximately three to four years.

Changes in deferred revenue related to material right performance obligations were as follows:

In millions	For the three months ended November 30, 2018	For the six months ended November 30, 2018
Balance, beginning of period	$ 45.7	$ 46.4
Deferral of revenue	7.1	13.2
Recognition of unearned revenue	(6.8)	(13.6)
Balance, end of period	$ 46.0	$ 46.0

Deferred revenue related to material right performance obligations is reported in the deferred revenue and other long-term liabilities line items on the Company’s Consolidated Balance Sheets contained in this Form 10-Q. The Company expects to recognize $12.8 million of deferred revenue related to material right performance obligations in the remainder of fiscal 2019, $18.5 million of such deferred revenue during our fiscal year ending May 31, 2020, and

$14.7 million of such deferred revenue thereafter.

Assets Recognized from the Costs to Obtain and Fulfill Contracts

The Company recognizes an asset for the incremental costs of obtaining a contract with a client if it is expected that the amortization period will be longer than one year. The Company determined that certain selling and commission costs meet the capitalization criteria under ASC Subtopic 340-40, "Other Assets and Deferred Costs: Contracts with Customers" ("ASC 340-40"). Prior to the adoption of ASU No. 2014-09 these costs were deferred up to an amount equal to the set-up fee revenue deferred and any costs in excess of that amount were recognized as expense when incurred. The Company also recognizes an asset for the costs to fulfill a contract with a client if the costs are specifically identifiable, generate or enhance resources used to satisfy future performance obligations, and are expected to be recovered. The Company has determined that substantially all costs related to implementation activities are administrative in nature and meet the capitalization criteria under ASC 340-40. These capitalized costs to fulfill a contract principally relate to upfront direct costs that are expected to be recovered and enhance our ability to satisfy future performance obligations.

The assets related to both costs to obtain and costs to fulfill contracts with clients are capitalized and amortized using an accelerated method to closely align with the pattern of client attrition over the estimated life of the client relationship. Deferred costs to obtain and fulfill contracts are reported in the prepaid expenses and other current assets and long-term deferred costs line items on the Company's Consolidated Balance Sheets. Amortization expense related to costs to obtain and fulfill a contract are included in operating and selling, general, and administrative expenses in the Company's Consolidated Statements of Income and Comprehensive Income. The Company regularly reviews its deferred costs and did not recognize an impairment loss during the six months ended November 30, 2018.

Changes in deferred costs to obtain and fulfill contracts were as follows:

	For the three months ended November 30, 2018			
In millions	Beginning balance	Capitalization of costs	Amortization	Ending balance
Costs to obtain a contract	$ 448.5	$ 37.9	$ (39.1)	$ 447.3
Costs to fulfill a contact	$ 65.7	$ 5.9	$ (5.8)	$ 65.8

	For the six months ended November 30, 2018			
In millions	Beginning balance	Capitalization of costs	Amortization	Ending balance
Costs to obtain a contract	$ 455.0	$ 70.3	$ (78.0)	$ 447.3

Costs to fulfill a contact	$ 65.4	$ 11.9	$ (11.5)	$ 65.8

Note C: Basic and Diluted Earnings Per Share

Basic and diluted earnings per share were calculated as follows:

In millions, except per share amounts	For the three months ended November 30, 2018	2017 As Adjusted(1)	For the six months ended November 30, 2018	2017 As Adjusted(1)
Basic earnings per share:				
Net income	$ 235.8	$ 198.8	$ 479.4	$ 409.2
Weighted-average common shares outstanding	359.1	359.1	359.1	359.0
Basic earnings per share	$ 0.66	$ 0.55	$ 1.34	$ 1.14
Diluted earnings per share:				
Net income	$ 235.8	$ 198.8	$ 479.4	$ 409.2
Weighted-average common shares outstanding	359.1	359.1	359.1	359.0
Dilutive effect of common share equivalents	2.4	2.3	2.4	2.4
Weighted-average common shares outstanding, assuming dilution	361.5	361.4	361.5	361.4
Diluted earnings per share	$ 0.65	$ 0.55	$ 1.33	$ 1.13
Weighted-average anti-dilutive common share equivalents	0.6	1.2	0.5	1.1

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

Weighted-average common share equivalents that have an anti-dilutive impact are excluded from the computation of diluted earnings per share.

For the three months ended November 30, 2018 and November 30, 2017, 0.1 million shares and 0.3 million shares, respectively, of the Company’s common stock were issued in connection with the exercise or vesting of stock-based awards. For the six months ended November 30, 2018 and November 30, 2017, 0.6 million shares and 0.8 million shares, respectively, of the Company’s common stock were issued in connection with the exercise or vesting of stock-based awards. In addition, for the six months ended November 30, 2017, 0.6 million shares of the Company’s common stock were issued in relation to an immaterial business acquisition completed in August 2017.

In July 2016, the Company announced that its Board of Directors approved a program to repurchase up to $350.0 million of the Company's common stock, with authorization expiring in May 2019. The purpose of the program is to manage common stock dilution. No shares were repurchased during the three months ended November 30, 2018 and November 30, 2017. During the six months ended November 30, 2018 and November 30, 2017, the Company repurchased 0.5 million shares for $32.8 million and 1.6 million shares for $94.1 million, respectively. All shares of common stock repurchased were retired.

The Company declared a quarterly dividend to its shareholders of $0.56 per share and $0.50 per share for the three months ended November 30, 2018 and November 30, 2017, respectively. For the six months ended November 30, 2018 and November 30, 2017, the Company declared quarterly dividends to its shareholders of $1.12 per share and $1.00 per share, respectively.

Note D: Business Combinations

On November 23, 2018, the Company entered into a Stock Purchase Agreement (the "Agreement") to acquire Oasis Outsourcing Group Holdings, L.P. ("Oasis"). Oasis is the nation's largest privately owned PEO, serving more than 8,400 clients across all 50 states with its HR solutions, employee benefits, payroll administration, and risk management services.

On December 20, 2018, the Company closed its acquisition of Oasis for a purchase price of approximately $1.0 billion, net of approximately $200.0 million in cash acquired. The acquisition was financed through a combination of cash on hand of approximately $400.0 million and temporary borrowings under existing credit facilities of approximately $800.0 million. The Company is in the process of securing permanent financing for the acquisition.

Upon closing, Oasis became a wholly owned subsidiary of the Company. The allocation of aggregate purchase price to assets acquired and liabilities assumed is expected to largely consist of intangibles and goodwill. Goodwill in excess of the existing tax basis is not expected to be deductible for tax purposes and is attributable to the future economic benefits we expect to achieve and expected synergies to be realized when combining the operations of this acquisition into our existing operations. The Company is in the process of completing its accounting and valuations of Oasis and accordingly, more detailed disclosures will be provided in future filings. Supplemental pro forma information has not been provided as the Company has deemed it impracticable given the timing of the closing of the transaction and availability of Oasis financial information.

Effective February 28, 2018, the Company acquired Lessor Group ("Lessor"). Upon closing, Lessor became a wholly owned subsidiary of the Company. Lessor is a market-leading provider of payroll and HCM software solutions headquartered in Denmark and serving clients in Northern Europe. The purchase price was $162.5 million, net of $13.4 million in cash acquired. Goodwill in the amount of $111.5 million was recorded as a result of the acquisition, which is not tax-deductible. The purchase accounting is provisional and subject to change, pending completion of a final valuation of Lessor. However, further changes to goodwill resulting from the acquisition are not anticipated to be material to the Company’s Consolidated Balance Sheets.

Effective August 18, 2017, the Company acquired HROI and all of its operating subsidiaries. HROI is a national PEO that provides HR solutions to small- and medium-sized businesses in more than 35 states. The acquisition expanded the Company’s presence in the PEO industry. The purchase price was $75.4 million and was comprised of $42.2 million of cash plus $33.2 million issued in the form of Paychex common stock. Goodwill in the amount of $51.1 million was recorded as a result of the acquisition, which is not tax-deductible.

The financial results of both Lessor and HROI are included in the Company’s consolidated financial statements from the respective dates of acquisition. The Company concluded that these acquisitions were not material to its results of operations and financial position. Therefore, pro forma financial information has been excluded.

Note E: Investment Income, Net

Investment income, net, consisted of the following items:

	For the three months ended November 30,		For the six months ended November 30,	
In millions	2018	2017	2018	2017
Interest income on corporate funds	$ 2.8	$ 2.7	$ 6.0	$ 5.6
Interest expense	(0.8)	(1.3)	(1.7)	(2.1)
Net gain from equity-method investments	0.1	0.3	0.1	0.3
Investment income, net	$ 2.1	$ 1.7	$ 4.4	$ 3.8

Note F: Funds Held for Clients and Corporate Investments

Funds held for clients and corporate investments are as follows:

In millions	November 30, 2018 Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Type of issue:				
Funds held for clients' money market securities and other cash equivalents	$ 957.2	$ —	$ —	$ 957.2
Available-for-sale securities:				
Corporate bonds	398.0	—	(10.7)	387.3
General obligation municipal bonds	1,008.8	0.5	(11.7)	997.6
Pre-refunded municipal bonds(1)	49.8	0.1	(0.2)	49.7
Revenue municipal bonds	635.2	0.3	(8.3)	627.2
U.S. government agency securities	474.4	—	(15.3)	459.1
Variable rate demand notes	433.4	—	—	433.4
Total available-for-sale securities	2,999.6	0.9	(46.2)	2,954.3
Other	18.1	1.4	(0.3)	19.2
Total funds held for clients and corporate investments	$ 3,974.9	$ 2.3	$ (46.5)	$ 3,930.7

In millions	May 31, 2018 Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Type of issue:				
Funds held for clients' money market securities and other cash equivalents	$ 1,942.3	$ —	$ —	$ 1,942.3
Available-for-sale securities:				
Corporate bonds	328.6	0.1	(7.3)	321.4
General obligation municipal bonds	1,231.6	1.3	(11.2)	1,221.7
Pre-refunded municipal bonds(1)	50.9	0.1	(0.1)	50.9
Revenue municipal bonds	813.5	0.9	(8.0)	806.4
U.S. government agency securities	410.2	—	(14.1)	396.1
Variable rate demand notes	308.3	—	—	308.3
Total available-for-sale securities	3,143.1	2.4	(40.7)	3,104.8
Other	16.1	2.1	—	18.2
Total funds held for clients and corporate investments	$ 5,101.5	$ 4.5	$ (40.7)	$ 5,065.3

(1) Pre-refunded municipal bonds are secured by an escrow fund of U.S. government obligations.

Included in money market securities and other cash equivalents as of November 30, 2018 and May 31, 2018 were bank demand deposit accounts, time deposits, commercial paper, and money market funds.

Classification of investments on the Consolidated Balance Sheets is as follows:

In millions	November 30, 2018	May 31, 2018
Funds held for clients	$ 3,672.3	$ 4,703.8
Corporate investments	248.4	66.0
Long-term corporate investments	10.0	295.5
Total funds held for clients and corporate investments	$ 3,930.7	$ 5,065.3

The Company's available-for-sale securities reflected net unrealized losses of $45.3 million and $38.3 million as of November 30, 2018 and May 31, 2018, respectively. Included in the net unrealized loss totals as of November 30, 2018 and May 31, 2018 were 1,090 and 970 available-for-sale securities in an unrealized loss position, respectively. The available-for-sale securities in an unrealized loss position were as follows:

	November 30, 2018					
	Securities in an unrealized loss position for less than twelve months		Securities in an unrealized loss position for more than twelve months		Total	
In millions	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value
Type of issue:						
Corporate bonds	$ (4.6)	$ 230.9	$ (6.1)	$ 144.8	$ (10.7)	$ 375.7
General obligation municipal bonds	(2.5)	417.6	(9.2)	447.5	(11.7)	865.1
Pre-refunded municipal bonds	(0.1)	22.1	—	5.6	(0.1)	27.7
Revenue municipal bonds	(1.3)	213.9	(7.0)	308.1	(8.3)	522.0
U.S. government agency securities	(1.7)	111.2	(13.7)	347.9	(15.4)	459.1
Total	$ (10.2)	$ 995.7	$ (36.0)	$ 1,253.9	$ (46.2)	$ 2,249.6

May 31, 2018		
Securities in an unrealized loss position for less than twelve months	Securities in an unrealized loss position for more than twelve months	Total

In millions	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value
Type of issue:						
Corporate bonds	$ (6.0)	$ 271.5	$ (1.3)	$ 34.6	$ (7.3)	$ 306.1
General obligation municipal bonds	(8.7)	856.4	(2.5)	68.9	(11.2)	925.3
Pre-refunded municipal bonds	(0.1)	18.5	—	0.5	(0.1)	19.0
Revenue municipal bonds	(6.3)	540.9	(1.7)	50.9	(8.0)	591.8
U.S. government agency securities	(6.4)	219.7	(7.7)	176.4	(14.1)	396.1
Total	$ (27.5)	$ 1,907.0	$ (13.2)	$ 331.3	$ (40.7)	$ 2,238.3

The Company regularly reviews its investment portfolios to determine if any investment is other-than-temporarily impaired due to changes in credit risk or other potential valuation concerns. The Company believes that the investments held as of November 30, 2018 that had gross unrealized losses of $46.2 million were not other-than-temporarily impaired. The Company believes that it is probable that the principal and interest will be collected in accordance with contractual terms, and that the unrealized losses on these securities were due to changes in interest rates and were not due to increased credit risk or other valuation concerns. A majority of the securities in an unrealized loss position as of November 30, 2018 and May 31, 2018 held an AA rating or better. The Company does not intend to sell these investments until the recovery of their amortized cost basis or maturity, and further believes that it is not more-likely-than-not that it will be required to sell these investments prior to that time. The Company’s assessment that an investment is not other-than-temporarily impaired could change in the future due to new developments or changes in the Company’s strategies or assumptions related to any particular investment.

Realized gains and losses on the sales of securities are determined by specific identification of the amortized cost basis of each security. On the Consolidated Statements of Income and Comprehensive Income, realized gains and losses from funds held for clients are included in interest on funds held for clients and realized gains and losses from corporate investments are included in investment income, net. Realized gains were insignificant for the three and six months ended November 30, 2018 and November 30, 2017. Realized losses were $0.4 million for both the three and six months ended November 30, 2018. There were no realized losses for the three and six months ended November 30, 2017.

The amortized cost and fair value of available-for-sale securities that had stated maturities as of November 30, 2018 are shown below by contractual maturity. Expected maturities can differ from contractual maturities because borrowers may have the right to prepay obligations without prepayment penalties.

	November 30, 2018	
In millions	Amortized cost	Fair value
Maturity date:		

Due in one year or less	$ 193.3	$ 192.9
Due after one year through three years	825.2	818.0
Due after three years through five years	1,035.7	1,014.7
Due after five years	945.4	928.7
Total	$ 2,999.6	$ 2,954.3

Variable rate demand notes are primarily categorized as due after five years in the table above as the contractual maturities on these securities are typically 20 to 30 years. Although these securities are issued as long-term securities, they are priced and traded as short-term instruments because of the liquidity provided through the tender feature.

Note G: Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the measurement date. The accounting standards related to fair value measurements include a hierarchy for information and valuations used in measuring fair value that is broken down into three levels based on reliability, as follows:

· Level 1 valuations are based on quoted prices in active markets for identical instruments that the Company can access at the measurement date.

· Level 2 valuations are based on inputs other than quoted prices included in Level 1 that are observable for the instrument, either directly or indirectly, for substantially the full term of the asset or liability including the following:

o quoted prices for similar, but not identical, instruments in active markets;

o quoted prices for identical or similar instruments in markets that are not active;

o inputs other than quoted prices that are observable for the instrument; or

o inputs that are derived principally from or corroborated by observable market data by correlation or other means.

· Level 3 valuations are based on information that is unobservable and significant to the overall fair value measurement.

The carrying values of cash and cash equivalents, accounts receivable, net of allowance for doubtful accounts, accounts payable and short-term borrowings, when used by the Company, approximate fair value due to the short maturities of these instruments. Marketable securities included in funds held for clients and corporate investments consist primarily of securities classified as available-for-sale and are recorded at fair value on a recurring basis.

The Company’s financial assets and liabilities measured at fair value on a recurring basis were as follows:

	November 30, 2018			
In millions	Carrying value (Fair value)	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets:				
Cash equivalents:				
Commercial paper	$ 380.0	$ —	$ 380.0	$ —
Time deposits	50.0	—	50.0	—
Money market securities	12.3	12.3	—	—
Total cash equivalents	$ 442.3	$ 12.3	$ 430.0	$ —
Available-for-sale securities:				
Corporate bonds	$ 387.3	$ —	$ 387.3	$ —
General obligation municipal bonds	997.6	—	997.6	—
Pre-refunded municipal bonds	49.7	—	49.7	—
Revenue municipal bonds	627.2	—	627.2	—
U.S. government agency securities	459.1	—	459.1	—
Variable rate demand notes	433.4	—	433.4	—
Total available-for-sale securities	$ 2,954.3	$ —	$ 2,954.3	$ —
Other	$ 19.2	$ 19.2	$ —	$ —
Liabilities:				
Other long-term liabilities	$ 19.2	$ 19.2	$ —	$ —

	May 31, 2018			
In millions	Carrying value (Fair value)	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets:				
Cash equivalents:				
Commercial paper	$ 655.0	$ —	$ 655.0	$ —

Time deposits	200.0	—	200.0	—
Money market securities	7.1	7.1	—	—
Total cash equivalents	$ 862.1	$ 7.1	$ 855.0	$ —
Available-for-sale securities:				
Corporate bonds	$ 321.4	$ —	$ 321.4	$ —
General obligation municipal bonds	1,221.7	—	1,221.7	—
Pre-refunded municipal bonds	50.9	—	50.9	—
Revenue municipal bonds	806.4	—	806.4	—
U.S. government agency securities	396.1	—	396.1	—
Variable rate demand notes	308.3	—	308.3	—
Total available-for-sale securities	$ 3,104.8	$ —	$ 3,104.8	$ —
Other	$ 18.2	$ 18.2	$ —	$ —
Liabilities:				
Other long-term liabilities	$ 18.2	$ 18.2	$ —	$ —

In determining the fair value of its assets and liabilities, the Company predominately uses the market approach. Money market securities, which are cash equivalents, are valued based on quoted market prices in active markets. Cash equivalents also include commercial paper and time deposits, which are considered Level 2 investments as they are valued based on similar, but not identical, instruments in active markets. Available-for-sale securities, including municipal bonds, variable rate demand notes, corporate bonds, and U.S. government agency securities, are included in Level 2 and are valued utilizing inputs obtained from an independent pricing service. To determine the fair value of the Company's Level 2 available-for-sale securities, the independent pricing service uses a variety of inputs, including benchmark yields, reported trades, non-binding broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data, new issue data, and monthly payment information. The Company has not adjusted the prices obtained from the independent pricing service because it believes that they are appropriately valued.

Assets included as other are mutual fund investments, consisting of participants' eligible deferral contributions under the Company's non-qualified and unfunded deferred compensation plans. The related liability is reported as other long-term liabilities. The mutual funds are valued based on quoted market prices in active markets.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Note H: Accounts Receivable, Net of Allowance for Doubtful Accounts

The components of accounts receivable, net of allowance for doubtful accounts, consisted of the following:

In millions	November 30, 2018	May 31, 2018 As Adjusted(1)
PEO receivables(2)	$ 167.9	$ 140.1
Purchased receivables(3)	323.3	267.0
Other trade receivables(4)	77.9	92.3
Total accounts receivable, gross	569.1	499.4
Less: Allowance for doubtful accounts	6.5	7.0
Accounts receivable, net of allowance for doubtful accounts	$ 562.6	$ 492.4

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

(2) PEO receivables are primarily client wages and related tax withholdings since the last payroll processed. Balances will vary based on the timing of the last payroll processed and the end of the reporting period.

(3) Purchased receivables relate to payroll funding arrangements with clients in the temporary staffing industry.

(4) Other trade receivables primarily relate to other ongoing services provided to our clients and can vary based on the timing of these services and the end of the reporting period.

No single client had a material impact on total accounts receivable, service revenue, or results of operations.

Note I: Property and Equipment, Net of Accumulated Depreciation

The components of property and equipment, at cost, consisted of the following:

In millions	November 30, 2018	May 31, 2018
Land and improvements	$ 10.7	$ 10.6
Buildings and improvements	162.2	126.4
Data processing equipment	215.3	211.3

Software (1)	580.0	545.5
Furniture, fixtures, and equipment	115.6	114.5
Leasehold improvements	107.3	111.4
Construction in progress (1)	30.3	63.0
Total property and equipment, gross	1,221.4	1,182.7
Less: Accumulated depreciation	827.4	789.2
Property and equipment, net of accumulated depreciation	$ 394.0	$ 393.5

(1) Software includes both purchased software and costs capitalized related to internally developed software placed in service. Capitalized costs related to internally developed software that has not yet been placed in service is included in construction in progress.

Depreciation expense was $30.2 million and I can't million for the three and six months ended November 30, 2018, respectively, compared to $28.4 million and $56.5 million for the three and six months ended November 30, 2017, respectively.

The Company is in the process of completing its plan for a new multi-building Paychex campus, including the renovation of over 300,000 square feet based in Rochester, NY. The Company completed the purchase of five buildings during the three months ended November 30, 2017 for a combined cost of approximately $34.7 million and placed approximately $16.0 million in escrow for building renovations, which are nearly complete. All costs previously included in the Company's construction in progress balance related to the multi-building campus have been capitalized as of November 30, 2018. As of May 31, 2018, $32.0 million was included in the Company's construction in progress balance. The Company had a remaining balance in escrow of $1.5 million and $14.2 million as of November 30, 2018 and May 31, 2018, respectively.

Note J: Goodwill and Intangible Assets, Net of Accumulated Amortization

The Company had goodwill balances on its Consolidated Balance Sheets of $810.6 million as of November 30, 2018 and $814.0 million as of May 31, 2018. Changes in goodwill balances are the result of foreign currency exchange rate fluctuations.

The Company has certain intangible assets on its Consolidated Balance Sheets. The components of intangible assets, at cost, consisted of the following:

In millions	November 30, 2018	May 31, 2018
Client lists	$ 305.7	$ 308.5
Other intangible assets	12.8	13.3
Total intangible assets, gross	318.5	321.8
Less: Accumulated amortization	190.5	180.4
Intangible assets, net of accumulated amortization	$ 128.0	$ 141.4

Amortization expense relating to intangible assets was $6.6 million and $13.1 million for the three and six months ended November 30, 2018, respectively, compared to $5.3 million and $9.2 million for the three and six months ended November 30, 2017, respectively.

As of November 30, 2018, the estimated amortization expense relating to intangible asset balances for the full year fiscal 2019 and the following four fiscal years is as follows:

In millions Year ending May 31,	Estimated amortization expense
2019	$ 25.9
2020	22.6
2021	19.5
2022	16.6
2023	14.2

Note K: Accumulated Other Comprehensive (Loss)/Income

The change in unrealized gains and losses, net of applicable taxes, related to investments in available-for-sale securities and foreign currency translation adjustments are the primary components reported in accumulated other comprehensive loss on the Company’s Consolidated Balance Sheets. The changes in accumulated other comprehensive (loss)/income are as follows:

	For the three months ended November 30,		For the six months ended November 30,	
In millions	2018	2017	2018	2017
Beginning balance	$ (35.8)	$ 24.4	$ (36.2)	$ 20.0
Other comprehensive (loss)/income:				

Unrealized losses on available-for-sale securities, net of tax	(7.2)	(33.6)	(5.2)	(29.3)
Foreign currency translation adjustment	(4.4)	—	(6.0)	0.1
Total other comprehensive loss, net of tax	(11.6)	(33.6)	(11.2)	(29.2)
Ending balance	$ (47.4)	$ (9.2)	$ (47.4)	$ (9.2)
Total tax benefit included in other comprehensive loss	$ (1.8)	$ (19.3)	$ (2.3)	$ (16.8)

Reclassification adjustments out of accumulated other comprehensive (loss)/income for realized gains and losses on the sale of available-for-sale securities were insignificant for the three and six months ended November 30, 2018 and November 30, 2017. Those reclassification adjustments are reflected in interest on funds held for clients on the Consolidated Statements of Income and Comprehensive Income.

Note L: Short-term Financing

The Company maintains credit facilities and letters of credit as part of its normal and recurring business operations.

Credit Facilities: The Company maintains three committed, unsecured credit facilities, as follows:

Bank	Borrower (1)	Date Entered	Expiration Date	Maximum Amount Available	Purpose
JP Morgan Chase Bank, N.A.(2)	Paychex of New York, LLC	August 5, 2015	August 5, 2020	$1 Billion	To meet short-term funding requirements.
JP Morgan Chase Bank, N.A.(2)	Paychex of New York, LLC	August 17, 2017	August 17, 2022	$500 Million	To meet short-term funding requirements.
PNC Bank, National Association (“PNC”)	Paychex Advance, LLC	March 17, 2016	March 17, 2020	$150 Million	To finance working capital needs and general corporate purposes.

(1) Borrower is a wholly owned subsidiary of the Company.

(2) JP Morgan Chase Bank, N.A. (“JPM”) acts as the administrative agent for this syndicated credit facility.

For all credit facilities, obligations under any facility are guaranteed by the Company and certain of its subsidiaries and will bear interest at competitive rates based on options provided to the borrower. Upon the expiration date, any borrowings outstanding will mature and be payable on such date.

JPM $1 Billion Credit Facility: There were no borrowings outstanding under this credit facility as of November 30, 2018 or May 31, 2018. Details of borrowings under this credit facility during the three and six months ended November 30, 2018 and November 30, 2017 are as follows:

$ in millions	For the three months ended November 30, 2018	For the three months ended November 30, 2017	For the six months ended November 30, 2018	For the six months ended November 30, 2017
Number of days borrowed	4	6	10	19
Maximum amount borrowed	$ 483.0	$ 700.0	$ 483.0	$ 700.0
Weighted-average amount borrowed	$ 389.8	$ 445.8	$ 285.7	$ 331.6
Weighted-average interest rate	5.12 %	4.25 %	5.06 %	4.24 %

The Company typically borrows on an overnight basis and only borrowed on an overnight basis during the three and six months ended November 30, 2018 and during the three months ended November 30, 2017. In addition to overnight borrowings, during the six months ended November 30, 2017, the Company borrowed $100.0 million for a three-day period at a weighted-average interest rate of 4.25%. Subsequent to November 30, 2018, the Company borrowed $400.0 million due on February 20, 2019 at a LIBOR-based interest rate of 3.50% as it secures permanent financing for the acquisition of Oasis.

JPM $500 Million Credit Facility: There were no borrowings outstanding under this credit facility as of November 30, 2018 or May 31, 2018. Details of borrowings under this credit facility during the three and six months ended November 30, 2018 and November 30, 2017 are as follows:

$ in millions	For the three months ended November 30, 2018	For the three months ended November 30, 2017	For the six months ended November 30, 2018	For the six months ended November 30, 2017
Number of days borrowed	3	20	7	20
Maximum amount borrowed	$ 135.5	$ 400.0	$ 223.0	$ 400.0
Weighted-average amount borrowed	$ 83.0	$ 215.8	$ 111.8	$ 215.8
Weighted-average interest rate	5.25 %	2.84 %	5.07 %	2.84 %

The Company typically borrows on an overnight basis and only borrowed on an overnight basis during the three and six months ended November 30, 2018. In addition to overnight borrowings, during the three and six months ended November 30, 2017, the Company borrowed $300.0 million for seven days and $75.0 million for eleven days at weighted-average LIBOR-based interest rates of 2.13% and 2.19%, respectively. Subsequent to November 30, 2018, the Company borrowed $400.0 million due on February 20, 2019 at a LIBOR-based interest rate of 3.50% as it secures permanent financing for the acquisition of Oasis.

PNC $150 Million Credit Facility: As of November 30, 2018, the Company had $57.3 million outstanding under this credit facility, which remains outstanding as of the date of this report. There were no borrowings outstanding under this credit facility as of May 31, 2018. Details of borrowings under this credit facility during the three and six months ended November 30, 2018 and November 30, 2017 are as follows:

	For the three months ended November 30,		For the six months ended November 30,	
$ in millions	2018	2017	2018	2017
Number of days borrowed	91	91	179	179
Maximum amount borrowed	$ 57.7	$ 58.6	$ 57.7	$ 58.6
Weighted-average amount borrowed	$ 57.3	$ 57.8	$ 56.6	$ 56.8
Weighted-average interest rate	2.68 %	1.78 %	2.61 %	1.73 %

All of the Company’s credit facilities contain various financial and operational covenants that are usual and customary for such arrangements. The Company was in compliance with all of these covenants as of November 30, 2018.

Certain lenders under these credit facilities, and their respective affiliates, have performed, and may in the future perform for the Company, various commercial banking, investment banking, underwriting, and other financial advisory services, for which they have received, and will continue to receive in the future, customary fees and expenses.

Letters of credit: The Company had irrevocable standby letters of credit outstanding totaling $67.8 million and $56.8 million as of November 30, 2018 and May 31, 2018, respectively, required to secure commitments for certain insurance policies. The letters of credit expire at various dates between April 2019 and July 2020. No amounts were outstanding on these letters of credit as of or during the six months ended November 30, 2018 and November 30, 2017, or as of May 31, 2018.

Note M: Commitments and Contingencies

Other commitments: The Company enters into various purchase commitments with vendors in the ordinary course of business. The Company had outstanding commitments to purchase approximately $4.4 million and $6.7 million of capital assets as of November 30, 2018 and May 31, 2018, respectively.

In the normal course of business, the Company makes representations and warranties that guarantee the performance of services under service arrangements with clients. Historically, there have been no material losses related to such guarantees. In addition, the Company has entered into indemnification agreements with its officers and directors, which require the Company to defend and, if necessary, indemnify these individuals for certain pending or future claims as they relate to their services provided to the Company.

The Company currently self-insures the deductible portion of various insured exposures under certain employee benefit plans. The estimated loss exposure under these insurance arrangements is recorded in other current liabilities on the Company's Consolidated Balance Sheets. Historically, the amounts accrued have not been material and were not material as of November 30, 2018. The Company also maintains insurance coverage in addition to its purchased primary insurance policies for gap coverage for employment practices liability, errors and omissions, warranty liability, theft and embezzlement, cyber threats, and acts of terrorism; and capacity for deductibles and self-insured retentions through its captive insurance company.

Contingencies: The Company is subject to various claims and legal matters that arise in the normal course of its business. These include disputes or potential disputes related to breach of contract, tort, patent, breach of fiduciary duty, employment-related claims, tax claims, and other matters.

The Company's management currently believes that resolution of any outstanding legal matters will not have a material adverse effect on the Company's financial position or results of operations. However, legal matters are subject to inherent uncertainties and there exists the possibility that the ultimate resolution of these matters could have a material adverse impact on the Company's financial position and results of operations in the period in which any such effect is recorded.

Note N: Income Taxes

The Company's effective income tax rate was 23.8% and 34.8% for the three months ended November 30, 2018 and November 30, 2017, respectively, and 24.1% and 34.4% for the six months ended November 30, 2018 and November 30, 2017, respectively. The decrease in the effective income tax rate for the three and six months ended November 30, 2018 was primarily due to the enactment of the Tax Cuts and Jobs Act (the "Tax Act") in December 2017. The decrease in the effective income tax rate for the six months ended November 30, 2018 was partially impacted by certain discrete items related to the revaluation of deferred taxes. In addition, the effective income tax rates in these periods were impacted by the recognition of a net discrete tax benefit related to employee stock-based compensation payments. The net discrete tax benefit impacted the three months ended November 30, 2018 by less than $0.01 per diluted share and the three months ended November 30, 2017 by $0.01 per diluted share. The net discrete tax benefit impacted the six months ended November 30, 2018 and November 30, 2017 by $0.01 per diluted share and $0.02 per diluted share, respectively.

The Tax Act made broad and complex changes to U.S. Federal corporate income taxation as outlined in the Company's Form 10-K for fiscal 2018. In December 2017, the staff of the SEC issued guidance under Staff Accounting Bulletin No. 118 ("SAB No. 118"), "Income Tax Accounting Implications of the Tax Cuts and Jobs Act," allowing taxpayers to record provisional amounts for reasonable estimates when they do not have the necessary information available, prepared or analyzed in reasonable detail to complete their accounting for certain income tax effects of the Tax Act. The SEC also issued rules that would allow for a measurement period of up to one year after the enactment date of the Tax Act to finalize the related tax impacts. As of November 30, 2018, the Company's accounting for the impact of the Tax Act is complete.

Table of Contents

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Management's Discussion and Analysis of Financial Condition and Results of Operations reviews the operating results of Paychex, Inc. and its wholly owned subsidiaries ("Paychex," the "Company," "we," "our," or "us") for the three months end November 30, 2018 (the "second quarter") and six months ended November 30, 2018 (the "six months"), November 30, 2017, and our financial condition as of November 30, 2018. The focus of this review is on the underlying business reasons for material changes and trends affecting our revenue, expenses, net income, and financial condition. This review should be read in conjunction with the November 30, 2018 consolidated financial statements and the related Notes to Consolidated Financial Statements (Unaudited) contained in this Quarterly Report on Form 10-Q ("Form 10-Q"). This review should also be read in conjunction with our Annual Report on Form 10-K ("Form 10-K") for the year ended May 31, 2018 ("fiscal 2018"). Forward-looking statements in this review are qualified by the cautionary statement included under the next sub-heading, "Cautionary Note Regarding Forward-Looking Statements Pursuant to the United States Private Securities Litigation Reform Act of 1995."

Cautionary Note Regarding Forward-Looking Statements Pursuant to the United States Private Securities Litigation Reform Act of 1995

Certain written and oral statements made by us may constitute "forward-looking statements" within the meaning of the safe harbor provisions of the United States ("U.S.") Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by such words and phrases as "we expect," "expected to," "estimates," "estimated," "overview," "current outlook," "we look forward to," "would equate to," "projects," "projections," "projected," "projected to be," "anticipa "anticipated," "we believe," "believes," "could be," "targeting," and other similar words or phrases. Examples of forward-looking statements include, among others, statements we make regarding operating performance, events, or developments that we expect or anticipate will occur in the future, including statements relating to our outlook, revenue growth, earnings, earnings-per-share growth, or similar projections.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict, many of which are outside our control. Our actual results and financial conditions may differ materially from those indicated in the forward-looking statements. Therefore, you should not place undue reliance upon any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following:

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general market and economic conditions including, among others, changes in U.S. employment and wage levels, changes to new hiring trends, legislative changes to stimulate the economy, changes in short- and long-term interest rates, changes in the fair value and the credit rating of securities held by us, and accessibility of financing;

- changes in demand for our services and products, ability to develop and market new services and products effectively, pricing changes, and the impact of competition;

- changes in the availability of skilled workers, in particular those supporting our technology and product development;

- changes in the laws regulating collection and payment of payroll taxes, professional employer organizations (“PEOs”), and employee benefits, including retirement plans, workers’ compensation insurance, health insurance (including health care reform legislation), state unemployment, and section 125 plans;

- changes in health insurance and workers’ compensation insurance rates and underlying claim trends;

- changes in technology that adversely affect our products and services and impact our ability to provide timely enhancements to services and products;

- the possibility of cyberattacks, security breaches, or other security vulnerabilities that could disrupt operations or expose confidential client data, and could also result in reduced revenues, increased costs, liability claims, or harm to our competitive position;

- the possibility of the failure of our operating facilities, or the failure of our computer systems, and communication systems during a catastrophic event;

- the possibility of third-party service providers failing to perform their functions;

- the possibility of a failure of internal controls or our inability to implement business process improvements;

- the possibility that we may be subject to liability for violations of employment or discrimination laws by our clients and acts or omissions of client employees who may be deemed to be our agents, even if we do not participate in any such acts or violations, including possible liability related to our co-employment relationship with our PEO;

- potential outcomes related to pending or future litigation and legislative matters;

- the expected impacts of the Tax Cuts and Jobs Act of 2017 (the “Tax Act”); and

- risks related to the integration of the businesses we acquire, including the acquisition of Oasis Outsourcing Group Holdings, L.P. (“Oasis”).

Any of these factors, as well as such other factors as discussed in our Form 10-K for fiscal 2018 or other periodic filings with the Securities and Exchange Commission (“SEC”), could cause our actual results to differ materially from our anticipated results. The information provided in this Form 10-Q is based upon the facts and circumstances known at this time, and any forward-looking statements made by us in this Form 10-Q speak only as of the date on which they are made. Except as required by law, we undertake no obligation to update these forward-looking statements after the date of filing this Form 10-Q with the SEC to reflect events or circumstances after such date, or to reflect the occurrence of unanticipated events.

Business

We are a leading provider of integrated human capital management (“HCM”) solutions for payroll, benefits, human resource (“HR”), and insurance services for small- to medium-sized businesses. Our business strategy focuses on flexible, convenient service; industry-leading, integrated technology; providing a comprehensive suite of value-added HCM services; solid sales execution; continued service penetration; and engaging in strategic acquisitions, when possible. We believe that success in our mission to be a leading provider of HCM services by being an essential partner with America's businesses will lead to strong, long-term financial performance.

We offer a comprehensive portfolio of HCM services and products that allow our clients to meet their diverse payroll and HR needs. Clients can select services on an á la carte basis or as part of various product bundles. Our offerings often leverage the information gathered in our base payroll processing service, allowing us to provide comprehensive outsourcing services covering the HCM spectrum.

We support our clients through our core payroll, utilizing our proprietary, robust, Paychex Flex® processing platform or SurePayroll® online applications. Both products are cloud-based software-as-a-service (“SaaS”) solutions that allow users to process payroll when they want, how they want, and on any device (desktop, tablet, and mobile phone). Clients with more complex payroll and benefits needs are serviced through our Paychex Flex Enterprise solution set, which offers an integrated suite of HCM solutions through the Paychex Flex platform, or through our legacy platform. Our SaaS solution through Paychex Flex Enterprise integrates payroll processing with HR management, employee benefits administration, time and labor management, applicant tracking, and onboarding solutions. Paychex Flex Enterprise allows clients to choose the services and software they need to meet the complexity of their business and have them integrated through one HCM solution.

Our portfolio of HCM and employee benefit-related services are as follows:

Service	Description
Management Solutions:	
Payroll processing services	Includes the calculation, preparation, and delivery of employee payroll checks; production of internal accounting records and management reports; preparation of federal, state, and local payroll tax returns; and collection and remittance of clients' payroll obligations.
Payroll tax administration services	Provides accurate preparation and timely filing of quarterly and year-end tax returns, as well as the electronic transfer of funds to the applicable federal, state, and local tax or regulatory agencies.
Employee payment services	Provides an employer the option of paying their employees by direct deposit, payroll debit card, a check drawn on a Paychex account (Readychex®), or a check drawn on the employer's account and electronically signed by us.
Regulatory compliance services	Includes new-hire reporting and garnishment processing, which allow employers to comply with legal requirements and reduce the risk of penalties. We also offer comprehensive solutions to help clients navigate the Affordable Care Act.
HR Solutions Administrative Services Organization ("ASO")	Offers businesses a combined package that includes payroll, employer compliance, HR and employee benefits administration, risk management outsourcing, and the on-site availability of a professionally trained HR representative, among other services. Paychex HR Essentials is an ASO product that provides support to our clients over the phone or online to help manage employee-related topics.
Retirement services administration	Offers a variety of retirement plan options to clients, as well as recordkeeping services, which include plan implementation, ongoing compliance with government regulations, employee and employer reporting, participant and employer online access, electronic funds transfer, and other administrative services.
HR administration services	Offers cloud-based HR administration software products for employee benefits management and administration, time and attendance solutions, recruiting, and onboarding.
Other HR services and products	Includes section 125 plans, state unemployment insurance services, employee handbooks, management manuals, and personnel and required regulatory forms.
Accounting and business services	Offers various accounting and business services to companies. Our wholly owned subsidiary, Paychex Advance, LLC, provides a portfolio of services to the temporary staffing industry, including payroll funding (via the purchase of accounts receivable) and outsourcing services, which include payroll processing, invoicing, and tax preparation.

Table of Contents

PEO and Insurance Services:

Paychex PEO	Our licensed subsidiaries, Paychex Business Solutions, LLC, and HR Outsourcing Holdings, Inc. ("HROI") offer businesses a combined package that includes payroll, employer compliance, HR and employee benefits administration, risk management outsourcing, and the on-site availability of a professionally trained HR representative, among other services. We serve as a co-employer of our clients' employees, offer health care coverage to PEO client employees, and assume the risks and rewards of workers' compensation insurance and certain health insurance offerings.
Insurance services	Our licensed insurance agency, Paychex Insurance Agency, Inc., provides insurance through a variety of carriers. Insurance offerings include property and casualty coverage, such as workers' compensation; business-owner policies; commercial auto; and health and benefits coverage, including health, dental, vision, and life.

Overview

Our financial results for the second quarter reflected continued growth across our major HCM product lines. Total revenue and total service revenue each increased 7% for the second quarter. Management Solutions revenue and PEO and Insurance Services revenue increased by 5% and 15%, respectively, for the second quarter.

On November 23, 2018, we entered into a stock purchase agreement (the "Agreement") to acquire Oasis, the nation's largest privately owned PEO and an industry leader in providing HR outsourcing services. This acquisition will significantly advance our leadership position in HR outsourcing and reinforces our commitment to meet the HR technology and advisory needs of our clients and their employees. We believe this acquisition will strengthen our PEO growth strategy, gain scale of new products with our insurance partners, provide a new client base to offer Paychex retirement and time and attendance products, and augment our experienced management team. On December 20, 2018 we completed this acquisition for a purchase price of approximately $1.0 billion, net of cash acquired.

Interest on funds held for clients increased 31% for the second quarter. Interest rates available on high-quality financial instruments are gradually increasing. Our combined funds held for clients and corporate investment portfolios earned an average rate of return of 1.9% for the second quarter, compared to 1.5% for the same period last year. In December 2018, the Federal Funds rate was raised an additional 25 basis points to a range of 2.25% to 2.50%.

We continue to focus on driving growth in the number of clients, revenue, and profits, while providing award-winning service and leading-edge technology solutions to our clients and their employees. We are continually engaged in developing enhancements to our various software platforms to meet the changing requirements of our clients and the marketplace. Concentrated efforts remain on the continued enhancement of Paychex Flex, our robust, cloud-based HCM platform, which allows direct client access to payroll, HR, and benefits information in a streamlined and integrated approach to workplace management. In September 2018, we launched Paychex Learning to enable employers to foster a learning environment that provides employees with everything from business acumen to tactical skills to HR compliance.

Highlights of the financial results for the second quarter as compared to the same period last year are as follows:

- Total revenue increased 7% to $858.9 million.
- Total service revenue increased 7% to $840.6 million.
  - Management Solutions revenue increased 5% to $685.4 million.
  - PEO and Insurance Services revenue increased 15% to $155.2 million.
- Interest on funds held for clients increased 31% to $18.3 million.
- Operating income increased 1% to $307.2 million.
- Net income increased 19% to $235.8 million and adjusted net income (1) increased 20% to $235.3 million.
- Diluted earnings per share increased 18% to $0.65 per share and adjusted diluted earnings per share(1) increased 20% to $0.65 per share.

(1) Adjusted net income and adjusted diluted earnings per share are not U.S. generally accepted accounting principles (“GAAP”) measures.

Refer to the “Non-GAAP Financial Measures” section within the discussion of “Results of Operations” of this Item 2 for a discussion of these non-GAAP measures and a reconciliation to the most comparable GAAP measures of net income and diluted earnings per share.

Financial Position and Liquidity

Our financial position as of November 30, 2018 remained strong with cash and total corporate investments of $769.0 million. Short-term borrowings totaled $57.3 million as of November 30, 2018. Our investment strategy continues to focus on protecting principal and optimizing liquidity. We invest predominately in municipal bonds – including general obligation bonds; pre-refunded bonds, which are secured by a U.S. government escrow; and essential services revenue bonds – along with U.S. government agency securities and corporate bonds. During the second quarter, our primary short-term investment vehicles were Variable Rate Demand Notes (“VRDNs”), commercial paper, and bank demand deposit accounts.

A majority of our portfolio is invested in high credit quality securities with ratings of AA or higher, and A-1/P-1 ratings on short-term securities. We limit the amounts that can be invested in any single issuer and invest in short- to intermediate-term instruments whose fair values are less sensitive to interest rate changes. We believe that our investments as of November 30, 2018 that were in an unrealized loss position were not other-than-temporarily impaired, nor has any event occurred subsequent to that date that would indicate any other-than-temporary impairment.

Our primary source of cash is generated from our ongoing operations. Cash flows from operations were $497.2 million for the six months, a decrease of 4% from the same period last year. Historically, we have funded our operations, capital purchases, business acquisitions, share repurchases, and dividend payments from our operating activities. Our positive cash flows have allowed us to support our business and to pay substantial dividends, targeting approximately 80% of our net income, to our stockholders. It is anticipated that cash and total corporate investments as of November 30, 2018, along with projected operating cash flows and available short-term financing, will support our normal business operations, capital purchases, share repurchases, and dividend payments for the foreseeable future.

While we have historically funded our business acquisitions with cash generated from operating activities, we funded our most recent acquisition of Oasis, which closed on December 20, 2018, through a combination of cash and temporary borrowings on our existing credit facilities. We expect to borrow approximately $800.0 million in new debt as it relates to the acquisition of Oasis, prior to the fiscal year ending May 31, 2019 (“fiscal 2019”).

For further analysis of our results of operations for the second quarter, and our financial position as of November 30, 2018, refer to the analysis and discussion in the “Results of Operations” and “Liquidity and Capital Resources” sections of this Item 2.

Outlook

Our outlook for fiscal 2019 is based upon current market expectations and economic conditions continuing with no significant changes. Our guidance has been revised for fiscal 2019. Excluding the anticipated impact related to the acquisition of Oasis, our revised guidance is as follows:

- Interest on funds held for clients is expected to increase in the range of 20% to 25%;

- Investment income, net is anticipated to be in the range of $10 million to $15 million;

- Net income is expected to increase approximately 4%;

- Diluted earnings per share is expected to increase approximately 4%; and

- Adjusted diluted earnings per share (non-GAAP) (1) is expected to increase in the range of 11% to 12%.

Other aspects of our guidance for fiscal 2019 remain unchanged from what we previously disclosed. This includes the following:

· Management Solutions revenue is anticipated to increase approximately 4%;

· PEO and Insurance Services revenue is anticipated to increase in the range of 18% to 20%;

· Total revenue, including interest on funds held for clients, is expected to increase in the range of 6% to 7%;

· Operating income, as a percent of total revenue, is anticipated to be approximately 37%;

· The effective income tax rate for fiscal 2019 is expected to be approximately 24%; and

· Adjusted net income (non-GAAP) (1) is expected to increase in the range of 11% to 12%.

We anticipate that the acquisition of Oasis, which closed on December 20, 2018, will have an incremental impact to total revenue in the range of $155 million to $175 million in fiscal 2019. Excluding one-time costs related to the acquisition, Oasis is anticipated to have minimal impact on earnings per share. One-time acquisition costs are anticipated to impact diluted earnings per share by approximately $0.03 per share in the balance of fiscal 2019.

(1) Adjusted net income and adjusted diluted earnings per share are non-GAAP measures. Please refer to the "Non-GAAP Financial Measures" section within the discussion of "Results of Operations" of this Item 2 for a discussion of these non-GAAP measures. Fiscal 2019 growth rates for these non-GAAP measures are based on fiscal 2018 adjusted net income of $922.9 million and adjusted diluted earnings per share of $2.56, which includes the impact of the restatement of fiscal 2018 results as it relates to our adoption of ASC Topic 606 on June 1, 2018. No assumptions were made in regards to discrete tax items in fiscal 2019 for employee stock-based compensation payments.

RESULTS OF OPERATIONS

Summary of Results of Operations:

In millions, except per share amounts	For the three months ended November 30, 2018	2017 As Adjusted(1)	Change	For the six months ended November 30, 2018	2017 As Adjusted(1)	Change
Revenue:						
Management Solutions	$ 685.4	$ 653.5	5 %	$ 1,373.1	$ 1,319.4	4 %
PEO and Insurance Services	155.2	135.5	15 %	313.2	248.8	26 %
Total service revenue	840.6	789.0	7 %	1,686.3	1,568.2	8 %
Interest on funds held for clients	18.3	14.0	31 %	35.4	27.7	28 %
Total revenue	858.9	803.0	7 %	1,721.7	1,595.9	8 %
Combined operating and SG&A expenses	551.7	499.9	10 %	1,094.2	975.5	12 %
Operating income	307.2	303.1	1 %	627.5	620.4	1 %
Investment income, net	2.1	1.7	17 %	4.4	3.8	14 %
Income before income taxes	309.3	304.8	1 %	631.9	624.2	1 %
Income taxes	73.5	106.0	(31) %	152.5	215.0	(29) %
Effective income tax rate	23.8 %	34.8 %		24.1 %	34.4 %	
Net income	$ 235.8	$ 198.8	19 %	$ 479.4	$ 409.2	17 %
Diluted earnings per share	$ 0.65	$ 0.55	18 %	$ 1.33	$ 1.13	18 %

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

We invest in highly liquid, investment-grade fixed income securities and do not utilize derivative instruments to manage interest rate risk. As of November 30, 2018, we had no exposure to high-risk or illiquid investments. Details regarding our combined funds held for clients and corporate investment portfolios are as follows:

$ in millions	For the three months ended November 30, 2018	2017	Change	For the six months ended November 30, 2018	2017	Change
Average investment balances:						
Funds held for clients	$ 3,656.2	$ 3,660.9	— %	$ 3,675.5	$ 3,723.8	(1) %
Corporate investments	878.9	893.7	(2) %	881.6	911.7	(3) %
Total	$ 4,535.1	$ 4,554.6	— %	$ 4,557.1	$ 4,635.5	(2) %
Average interest rates earned (exclusive of net realized losses):						
Funds held for clients	2.0 %	1.5 %		1.9 %	1.5 %	
Corporate investments	1.4 %	1.2 %		1.4 %	1.2 %	
Combined funds held for clients and corporate investments	1.9 %	1.5 %		1.8 %	1.4 %	
Total net realized losses	$ (0.3)	$ —		$ (0.2)	$ —	

$ in millions	November 30, 2018	May 31, 2018
Net unrealized losses on available-for-sale securities(1)	$ 45.3	$ 38.3
Federal Funds rate(2)	2.25 %	1.75 %
Total fair value of available-for-sale securities	$ 2,954.3	$ 3,104.8
Weighted-average duration of available-for-sale securities in years(3)	3.2	3.1
Weighted-average yield-to-maturity of available-for-sale securities(3)	2.0 %	1.9 %

(1) The net unrealized loss on our investment portfolio was approximately $35.4 million as of December 17, 2018.

(2) The Federal Funds rate was in the range of 2.00% to 2.25% as of November 30, 2018, compared to a range of 1.50% to 1.75% as of

May 31, 2018. In December 2018, the Federal Funds rate was raised an additional 25 basis points to a range of 2.25% to 2.50%.

(3) These items exclude the impact of VRDNs, as they are tied to short-term interest rates.

Management Solutions revenue: Management Solutions revenue was $685.4 million for the second quarter and $1.4 billion for the six months, reflecting increases of 5% and 4%, respectively, compared to the same periods last year. The increase in Management Solutions revenue was primarily driven by increases in client bases across many of our services. Within Management Solutions revenue, retirement services revenue also benefited from an increase in asset fee revenue earned on the asset value of participants' funds. Our acquisition of Lessor Group ("Lessor"), completed during February 2018, contributed 1% to the growth in Management Solutions revenue for the second quarter.

PEO and Insurance Services revenue: PEO and Insurance Services revenue was $155.2 million for the second quarter and $313.2 million for the six months, reflecting increases of 15% and 26%, respectively, compared to the same periods last year. PEO and Insurance Services revenue growth was primarily driven by increases in clients and client worksite employees across our PEO business. Insurance Services growth resulted from an increase in the number of health and benefit applicants.

Total service revenue: Total service revenue was $840.6 million for the second quarter and $1.7 billion for the six months, reflecting increases of 7% and 8%, respectively, compared to the same periods last year. The increase was primarily attributable to the items previously discussed. The acquisitions of HROI and Lessor, completed during fiscal 2018, contributed approximately 2% to the growth in total service revenue for the six months compared to the same period last year.

Interest on funds held for clients: Interest on funds held for clients was $18.3 million for the second quarter and $35.4 million for the six months, reflecting increases of 31% and 28%, respectively, compared to the same periods last year. The increase resulted primarily from higher average interest rates earned. The funds held for clients average investment balances were flat for the second quarter and decreased 1% for the six months, compared to the same periods last year, primarily due to the impact of lower client withholdings resulting from the Tax Act, partially offset by wage inflation.

Combined operating and SG&A expenses: Total expenses were $551.7 million for the second quarter and $1.1 billion for the six months, reflecting increases of 10% and 12%, respectively, compared to the same periods last year. The acquisition of Lessor contributed approximately 2% to the growth in total expenses for the second quarter, compared to the same period last year. The acquisitions of HROI and Lessor contributed approximately 4% to the growth in total expenses for the six months, compared to the same period last year. The following table summarizes total combined operating and SG&A expenses:

	For the three months ended November 30,			For the six months ended November 30,		
In millions	2018	2017 As Adjusted(1)	Change	2018	2017 As Adjusted(1)	Change
Compensation-related expenses	$ 333.0	$ 303.3	10 %	$ 660.7	$ 597.5	11 %
Depreciation and amortization	36.8	33.7	9 %	72.7	65.7	11 %
PEO insurance costs	62.0	53.9	15 %	125.7	91.3	38 %
Other expenses	119.9	109.0	10 %	235.1	221.0	6 %
Total expenses	$ 551.7	$ 499.9	10 %	$ 1,094.2	$ 975.5	12 %

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

Compensation-related expenses increased 10% for the second quarter and 11% for the six months, which was primarily driven by increased headcount due to investment in the sales force, technology resources and employees acquired with Lessor, as well as increases in operations to support the growth in the business and certain service optimization initiatives. The acquisition of Lessor contributed approximately 1% to the growth in compensation-related expenses for the second quarter, compared to the same period last year. The acquisitions of HROI and Lessor contributed approximately 2% to the growth in compensation-related expenses for the six months, compared to the same period last year. Headcount was approximately 14,600 employees, including Lessor, as of November 30, 2018, compared to approximately 14,000 employees, as of November 30, 2017.

Depreciation expense is primarily related to buildings, furniture and fixtures, data processing equipment, and software. Amortization of intangible assets is primarily related to client list acquisitions, which are amortized using either straight-line or accelerated methods. The growth in depreciation and amortization for both the second quarter and the six months was primarily driven by an increase in internally developed software that was placed in service over the past two years.

PEO insurance costs include workers' compensation and minimum premium health insurance benefit plans where we retain risk. Growth in our combined PEO business, including the acquisition of HROI, contributed to the growth in PEO insurance costs for the second quarter and the six months.

Other expenses include items such as non-capital equipment, delivery, forms and supplies, communications, travel and entertainment, professional services, and other costs incurred to support our business. Continued investment in product development and supporting technology impacted other expense growth for the second quarter and the six months.

Operating income: Operating income was $307.2 million for the second quarter and $627.5 million for the six months, reflecting increases of 1% as compared with the same periods last year. The changes in operating income were attributable to the factors previously discussed. Operating income as a percent of total revenue was 35.8% for the second quarter and 36.4% for the six months, compared to 37.7% and 38.9%, respectively, compared to the same periods last year.

Investment income, net: Investment income, net, primarily represents earnings from our cash and cash equivalents and investments in available-for-sale securities. Investment income does not include interest on funds held for clients, which is included in total revenue. Investment income, net, was $2.1 million for the second quarter and $4.4 million for the six months, reflecting increases of 17% and 14%, respectively, compared to the same periods last year. These increases were due to higher average interest rates earned, partially offset by decreases of 2% and 3% in average corporate investment balances for the second quarter and the six months, respectively, compared to the same periods last year. The decreases in average corporate investment balances were due to funds used for stock repurchases over the past twelve months, higher dividend payments, and acquisitions.

Income taxes: Our effective income tax rate was 23.8% for the second quarter and 24.1% for the six months, compared to 34.8% and 34.4% for the respective prior year periods. The decrease in the effective income tax rate for the second quarter and the six months was primarily due to the enactment of the Tax Act in December 2017. In addition, the effective income tax rates in these periods were impacted by the recognition of a net discrete tax benefit related to employee stock-based compensation payments. The net discrete tax benefit impacted the second quarter by less than $0.01 per diluted share and the respective prior year period by $0.01 per diluted share. The net discrete tax benefit impacted the six months by $0.01 per diluted share and the respective prior year period by $0.02 per diluted share.

Net income and diluted earnings per share: Net income was $235.8 million for the second quarter and $479.4 million for the six months, reflecting increases of 19% and 17%, respectively, compared to the same periods last year. Diluted earnings per share was $0.65 per share for the second quarter and $1.33 per share for the six months, reflecting increases of 18% in each respective period, compared to the same periods last year. These fluctuations were attributable to the factors previously discussed. Adjusted net income was $235.3 million for the second quarter and $477.3 million for the six months, reflecting increases of 20% and 19%, respectively, compared to the same periods last year. Adjusted diluted earnings per share was $0.65 per share for the second quarter and $1.32 per share for the six months, reflecting increases of 20% and 19%, respectively, compared to the same periods last year. Refer to the "Non-GAAP Financial Measures" section that follows for a discussion of these non-GAAP measures.

Non-GAAP Financial Measures: Adjusted net income and adjusted diluted earnings per share are summarized as follows:

	For the three months ended November 30,			For the six months ended November 30,		
$ in millions	2018	2017 As adjusted(1)	Change	2018	2017 As adjusted(1)	Change
Net income	$ 235.8	$ 198.8	19 %	$ 479.4	$ 409.2	17 %
Non-GAAP adjustments:						
Excess tax benefit related to employee stock-based compensation payments (2)	(0.5)	(2.6)		(3.8)	(7.6)	
Revaluation of net deferred tax liabilities (3)	—	—		1.7	—	
Total non-GAAP adjustments	(0.5)	(2.6)		(2.1)	(7.6)	
Adjusted net income	$ 235.3	$ 196.2	20 %	$ 477.3	$ 401.6	19 %
Diluted earnings per share	$ 0.65	$ 0.55	18 %	$ 1.33	$ 1.13	18 %
Non-GAAP adjustments:						
Excess tax benefit related to employee stock-based compensation payments (2)	—	(0.01)		(0.01)	(0.02)	
Revaluation of net deferred tax liabilities (3)	—	—		—	—	
Total non-GAAP adjustments	—	(0.01)		(0.01)	(0.02)	
Adjusted diluted earnings per share	$ 0.65	$ 0.54	20 %	$ 1.32	$ 1.11	19 %

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

(2) Net tax windfall or shortfall benefits related to employee stock-based compensation payments recognized in income taxes. This item is subject to volatility and will vary based on employee decisions on exercising employee stock options and fluctuations in our stock price, neither of which is within the control of management.

(3) One-time tax charge recognized during the three months ended August, 31, 2018 as a result of updated guidance on Internal Revenue Code Section 162(m). This event is not expected to recur.

In addition to reporting net income and diluted earnings per share which are U.S. GAAP measures, we present adjusted net income and adjusted diluted earnings per share, which are non-GAAP measures. We believe adjusted net income and adjusted diluted earnings per share are appropriate additional measures, as they are indicators of our core business operations performance period over period. Adjusted net income and adjusted diluted earnings per share are not calculated through the application of GAAP and are not required forms of disclosure by the SEC. As such, they should not be considered as a substitute for the GAAP measures of net income and diluted earnings per share, and therefore should not be used in isolation, but in conjunction with the GAAP measures. The use of any non-GAAP measure may produce results that vary from the GAAP measure and may not be comparable to a similarly defined non-GAAP measure used by other companies.

LIQUIDITY AND CAPITAL RESOURCES

Our financial position as of November 30, 2018 remained strong with cash and total corporate investments of $769.0 million. Short-term borrowings totaled $57.3 million as of November 30, 2018. We believe that our investments in an unrealized loss position as of November 30, 2018 were not other-than-temporarily impaired, nor has any event occurred subsequent to that date to indicate any other-than-temporary impairment. We anticipate that cash and total corporate investments as of November 30, 2018, along with projected operating cash flows and available short-term financing, will support our normal business operations, capital purchases, share repurchases, and dividend payments, for the foreseeable future.

Short-Term Financing

We maintain credit facilities and letters of credit as part of our normal and recurring business operations.

Credit Facilities: We maintain three committed, unsecured credit facilities as follows:

Bank	Borrower (1)	Date Entered	Expiration Date	Maximum Amount Available	Purpose
				$1 Billion	

JP Morgan Chase Bank, N.A.(2)	Paychex of New York, LLC	August 5, 2015	August 5, 2020		To meet short-term funding requirements.
JP Morgan Chase Bank, N.A.(2)	Paychex of New York, LLC	August 17, 2017	August 17, 2022	$500 Million	To meet short-term funding requirements.
PNC Bank, National Association ("PNC")	Paychex Advance, LLC	March 17, 2016	March 17, 2020	$150 Million	To finance working capital needs and general corporate purposes.

(1) Borrower is a wholly owned subsidiary of our Company.

(2) JP Morgan Chase Bank, N.A. ("JPM") acts as the administrative agent for this syndicated credit facility.

For all of the credit facilities, obligations under any facility are guaranteed by us and certain of our subsidiaries and will bear interest at competitive rates based on options provided to the borrower. Upon the expiration date, any borrowings outstanding will mature and be payable on such date.

JPM $1 Billion Credit Facility: There were no borrowings outstanding under this credit facility as of November 30, 2018. Details of borrowings under this credit facility during the second quarter and six months, and the respective prior year periods are as follows:

	For the three months ended November 30,		For the six months ended November 30,	
$ in millions	2018	2017	2018	2017
Number of days borrowed	4	6	10	19
Maximum amount borrowed	$ 483.0	$ 700.0	$ 483.0	$ 700.0
Weighted-average amount borrowed	$ 389.8	$ 445.8	$ 285.7	$ 331.6
Weighted-average interest rate	5.12 %	4.25 %	5.06 %	4.24 %

We typically borrow on an overnight basis and only borrowed on an overnight basis during the second quarter and six months. In addition to overnight borrowings, during the six months ended November 30, 2017, we borrowed $100.0 million for a three-day period at a weighted-average interest rate of 4.25%. Subsequent to November 30, 2018, we borrowed $400.0 million due on February 20, 2019 at a LIBOR-based interest rate of 3.50% as we secure permanent financing for the acquisition of Oasis.

JPM $500 Million Credit Facility: There were no borrowings outstanding under this credit facility as of November 30, 2018. Details of borrowings under this credit facility during the second quarter and six months, and the respective prior year periods are as follows:

$ in millions	For the three months ended November 30, 2018	2017	For the six months ended November 30, 2018	2017
Number of days borrowed	3	20	7	20
Maximum amount borrowed	$ 135.5	$ 400.0	$ 223.0	$ 400.0
Weighted-average amount borrowed	$ 83.0	$ 215.8	$ 111.8	$ 215.8
Weighted-average interest rate	5.25 %	2.84 %	5.07 %	2.84 %

We typically borrow on an overnight basis and only borrowed on an overnight basis during the second quarter and the six months. In addition to overnight borrowings, during the three and six months ended November 30, 2017, we borrowed $300.0 million for seven days and $75.0 million for eleven days at weighted-average LIBOR-based interest rates of 2.13% and 2.19%, respectively. Subsequent to November 30, 2018, we borrowed $400.0 million due on February 20, 2019 at a LIBOR-based interest rate of 3.50% as we secure permanent financing for the acquisition of Oasis.

PNC $150 Million Credit Facility: As of November 30, 2018, there was $57.3 million outstanding under this credit facility which remains outstanding as of the date of this report. Details of borrowings under this credit facility during the second quarter and six months and the respective prior year periods are as follows:

$ in millions	For the three months ended November 30, 2018	2017	For the six months ended November 30, 2018	2017
Number of days borrowed	91	91	179	179
Maximum amount borrowed	$ 57.7	$ 58.6	$ 57.7	$ 58.6
Weighted-average amount borrowed	$ 57.3	$ 57.8	$ 56.6	$ 56.8
Weighted-average interest rate	2.68 %	1.78 %	2.61 %	1.73 %

All of our credit facilities contain various financial and operational covenants that are usual and customary for such arrangements. We were in compliance with all of these covenants as of November 30, 2018.

Certain lenders under these credit facilities, and their respective affiliates, have performed, and may in the future perform for us, various commercial banking, investment banking, underwriting, and other financial advisory services, for which they have received, and will continue to receive in the future, customary fees and expenses.

Letters of credit: As of November 30, 2018, we had irrevocable standby letters of credit outstanding totaling $67.8 million, required to secure commitments for certain insurance policies. The letters of credit expire at various dates between April 2019 and July 2020. No amounts were outstanding on these letters of credit during the second quarter or the six months or as of November 30, 2018.

Other commitments: We enter into various purchase commitments with vendors in the ordinary course of business. We had outstanding commitments to purchase approximately $4.4 million of capital assets as of November 30, 2018.

In the normal course of business, we make representations and warranties that guarantee the performance of services under service arrangements with clients. Historically, there have been no material losses related to such guarantees. In addition, we have entered into indemnification agreements with our officers and directors, which require us to defend and, if necessary, indemnify these individuals for certain pending or future legal claims as they relate to their services provided to us.

We currently self-insure the deductible portion of various insured exposures under certain employee benefit plans. Our estimated loss exposure under these insurance arrangements is recorded in other current liabilities on our Consolidated Balance Sheets. Historically, the amounts accrued have not been material and were not material as of November 30, 2018. We also maintain insurance coverage in addition to our purchased primary insurance policies for gap coverage for employment practices liability, errors and omissions, warranty liability, theft and embezzlement, cyber threats, and acts of terrorism; and capacity for deductibles and self-insured retentions through our captive insurance company.

During fiscal 2018, we announced our plan for a new multi-building Paychex campus based in Rochester, NY. This involved the purchase of five buildings and the renovation of over 300,000 square feet of existing space. We completed the purchase of these buildings for a combined cost of approximately $34.7 million and placed approximately $16.0 million in escrow for the building renovations. A majority of the renovations on the buildings purchased have been completed and any remaining renovations are expected to be substantially completed later this fiscal year.

Off-Balance Sheet Arrangements

As part of our ongoing business, we do not participate in transactions with unconsolidated entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other limited purposes. We do maintain investments as a limited partner in both low-income housing projects and a venture capital fund focused on the financial technology sector. These are not considered part of our ongoing operations. These investments accounted for under the equity method of accounting represented less than one percent of our total assets as of November 30, 2018.

Operating Cash Flow Activities

In millions	For the six months ended November 30, 2018	2017 As Adjusted(1)
Net income	$ 479.4	$ 409.2
Non-cash adjustments to net income	135.8	167.6
Cash used in operating assets and liabilities	(118.0)	(57.4)
Net cash provided by operating activities	$ 497.2	$ 519.4

(1) Amounts have been adjusted to reflect the adoption of ASC Topic 606.

The decrease in our operating cash flows for the six months, compared to the same period last year, was primarily the result of fluctuations in operating assets and liabilities and non-cash adjustments, partially offset by higher net income. The fluctuations in our operating assets and liabilities were primarily due to the timing of collections and related tax payments for our combined PEO business. In addition, the increase in our cash used in operating assets and liabilities was impacted by a decrease in accrued liabilities balances in connection with the termination of certain licensing agreements. A decrease in non-cash adjustments was primarily due to a lower provision for deferred income taxes, which was impacted by the utilization of alternative minimum tax credits carried forward from prior years.

Investing Cash Flow Activities

In millions	For the six months ended November 30, 2018	2017
Net change in funds held for clients and corporate investment activities	$ 1,100.6	$ (633.6)
Purchases of property and equipment	(60.8)	(95.5)
Acquisition of businesses, net of cash acquired	—	(17.9)
Purchases of other assets	(1.0)	(4.1)
Net cash provided by/(used in) investing activities	$ 1,038.8	$ (751.1)

Funds held for clients and corporate investments: Funds held for clients consist of short-term funds and available-for-sale securities. Corporate investments are primarily comprised of available-for-sale securities. The portfolio of funds held for clients and corporate investments is detailed in Note F of the Notes to Consolidated Financial Statements (Unaudited) contained in Item 1 of this Form 10-Q.

In general, fluctuations in the net change in funds held for clients and corporate investment activities primarily relate to timing of purchases, sales, or maturities of investments. The amount of funds held for clients will also vary based upon the timing of collecting client funds, and the related remittance of funds to applicable tax or regulatory agencies for payroll tax administration services and to employees of clients utilizing employee payment services. Additional discussion of interest rates and related risks is included in the “Market Risk Factors” section of this Form 10-Q.

The six months reflected a net cash inflow resulting from the net change in funds held for clients and corporate investment activities, whereas there was a net cash outflow for the respective prior year period. These fluctuations were attributable to timing of collections and remittances within the client funds portfolio, and related investment or liquidation of funds held for client fund obligations, as discussed further in the “Financing Cash Flow Activities” section which follows.

Purchases of long-lived assets: To support our continued client and ancillary product growth, we made purchases of data processing equipment and software, and we upgraded various operating facilities. The decrease in the net cash outflow for the purchases of property and equipment, compared to the same period last year, was due to the purchase of five buildings for a new Paychex campus based in Rochester N.Y. during the prior year period.

The net cash outflow for the acquisitions of businesses, net of cash acquired during the six months ended November 30, 2017 reflects our acquisition of HROI in August 2017. The acquisition consideration was a combination of cash and stock. The amount reflected as cash outflow during the same period last year was the cash portion of the purchase offset by cash balances acquired.

Purchases of other assets relates primarily to client list acquisition activity and changes in equity investments.

Financing Cash Flow Activities

For the six months ended

In millions, except per share amounts	November 30, 2018	2017
Net change in client fund obligations	$ (1,017.6)	$ 625.3
Net proceeds from short-term borrowings	57.3	133.4
Dividends paid	(402.7)	(358.9)
Repurchases of common shares	(32.8)	(94.1)
Activity related to equity-based plans	12.2	(1.4)
Net cash (used in)/provided by financing activities	$ (1,383.6)	$ 304.3
Cash dividends per common share	$ 1.12	$ 1.00

Net change in client fund obligations: The client fund obligations liability will vary based on the timing of collecting client funds and the related required remittance of funds to applicable tax or regulatory agencies for payroll tax administration services and to employees of clients utilizing employee payment services. Collections from clients are typically remitted from one to 30 days after receipt, with some items extending to 90 days.

The six months reflected a net cash outflow resulting from the net change in client fund obligations, whereas there was a net cash inflow for the same period last year. Client fund obligation balances are significantly impacted by the timing of the period end and overall trends in client fund balances. November 30, 2018 fell on a Friday, which is a significant disbursement day for direct pay funds. November 30, 2017 fell on a Thursday, which is a significant collection day for direct pay funds. In addition, funds held for clients average investment balances were down slightly in the six months compared to the same period last year, primarily due to the impact of the Tax Act on client fund collections.

Net proceeds from short-term borrowings: During the six months, we borrowed funds under our credit facilities. Certain borrowings remained outstanding under the PNC credit facility as of November 30, 2018 and November 30, 2017. In addition, certain borrowings remained outstanding under the JPM $500 million credit facility as of November 30, 2017. Borrowings are to finance working capital needs and general corporate purposes and decreased from the corresponding prior year period.

Dividends paid: The increase in dividend payments for the six months compared to the corresponding period last year is primarily due to a 12% increase in our dividend rate beginning in April 2018, offset slightly by the impact of repurchases of our common stock. The payment of future dividends is dependent on our future earnings and cash flow and is subject to the discretion of our Board of Directors (the “Board”).

Repurchases of common stock: In July 2016, our Board approved a program to repurchase up to $350.0 million of our common stock, with authorization expiring in May 2019. The purpose of the program is to manage common stock dilution. During the six months, we repurchased 0.5 million shares for $32.8 million. During the respective prior year period, we repurchased 1.6 million shares for $94.1 million. All shares of common stock repurchased were retired. As of November 30, 2018, approximately $67.7 million remains available under the approved common stock repurchase program.

Activity related to equity-based plans: The increase in cash flows from activity related to equity-based plans for the six months compared to the respective prior year period is largely a result of higher proceeds from stock option exercises at higher market prices, as 0.4 million options were exercised during the six months and the respective prior year period. The net cash outflow during the respective prior year period was a result of proceeds from stock options not exceeding the impact of shares withheld to cover taxes on lapses of stock awards.

MARKET RISK FACTORS

Changes in interest rates and interest rate risk: Funds held for clients are primarily comprised of short-term funds and available-for-sale securities. Corporate investments are primarily comprised of available-for-sale securities. As a result of our investing activities, we are exposed to changes in interest rates that may materially affect our results of operations and financial position. Changes in interest rates will impact the earnings potential of future investments and will cause fluctuations in the fair value of our longer-term available-for-sale securities. We follow an investment strategy of protecting principal and optimizing liquidity. A substantial portion of our portfolios is invested in high credit quality securities with ratings of AA or higher, and A-1/P-1 ratings on short-term securities. We invest predominantly in municipal bonds - including general obligation bonds; pre-refunded bonds, which are secured by a U.S. government escrow; and essential services revenue bonds - along with U.S. government agency securities and corporate bonds. We limit the amounts that can be invested in any single issuer and invest primarily in short- to intermediate-term instruments whose fair value is less sensitive to interest rate changes. We manage the available-for-sale securities to a benchmark duration of two and one-half to three and three-quarters years.

During the six months, our primary short-term investment vehicles were VRDNs, commercial paper and bank demand deposit accounts. We have no exposure to high-risk or illiquid investments. We have insignificant exposure to European investments. We have not and do not utilize derivative financial instruments to manage our interest rate risk.

During the six months, the average interest rate earned on our combined funds held for clients and corporate investment portfolios was 1.8% compared with 1.4% for the respective prior year period. When interest rates are rising, the full impact of higher interest rates will not immediately be reflected in net income due to the interaction of short- and long-term interest rate changes. During a rising interest rate environment, earnings increase from our short-term investments, and over time earnings increase from our longer-term available-for-sale securities. Earnings from the available-for-sale-securities, which as of November 30, 2018 had an average duration of 3.2 years, would not reflect increases in interest rates until the investments are sold or mature and the proceeds are reinvested at higher rates.

The amortized cost and fair value of available-for-sale securities that had stated maturities as of November 30, 2018 are shown below by contractual maturity. Expected maturities can differ from contractual maturities because borrowers may have the right to prepay obligations without prepayment penalties.

In millions	November 30, 2018 Amortized cost	Fair value
Maturity date:		
Due in one year or less	$ 193.3	$ 192.9
Due after one year through three years	825.2	818.0
Due after three years through five years	1,035.7	1,014.7
Due after five years	945.4	928.7
Total	$ 2,999.6	$ 2,954.3

VRDNs are primarily categorized as due after five years in the table above as the contractual maturities on these securities are typically 20 to 30 years. Although these securities are issued as long-term securities, they are priced and traded as short-term instruments because of the liquidity provided through the tender feature.

As of November 30, 2018, funds rate was in the range of 2.0% to 2.25%. In December 2018, the Federal Funds rate was raised an additional 25 basis points to a range of 2.25% to 2.50%. The Federal Reserve has raised this rate by 25 basis points eight times from December 2015 through November 30, 2018.

Calculating the future effects of changing interest rates involves many factors. These factors include, but are not limited to:

· daily interest rate changes;

· seasonal variations in investment balances;

· actual duration of short-term and available-for-sale securities;

· the proportion of taxable and tax-exempt investments;

· changes in tax-exempt municipal rates versus taxable investment rates, which are not synchronized or simultaneous; and

· financial market volatility and the resulting effect on benchmark and other indexing interest rates.

Subject to these factors and under normal financial market conditions, a 25-basis-point change in taxable interest rates generally affects our tax-exempt interest rates by approximately 17 basis points. Under normal financial market conditions, the impact to earnings from a 25-basis-point change in short-term interest rates would be in the range of $3.0 million to $4.0 million, after taxes, for a twelve-month period. Such a basis point change may or may not be tied to changes in the Federal Funds rate.

Our total investment portfolio (funds held for clients and corporate investments) is expected to average approximately $4.8 billion for fiscal 2019. Our anticipated allocation is approximately 45% invested in short-term and VRDNs with an average duration of less than 30 days and 55% invested in available-for-sale securities, with an average duration of two and one-half to three and three-quarters years.

The combined funds held for clients and corporate available-for-sale securities reflected net unrealized losses of $45.3 million as of November 30, 2018 and $38.3 million as of May 31, 2018. During the six months, the net unrealized loss on our investment portfolios ranged from $32.1 million to $60.7 million. These fluctuations were driven by changes in market rates of interest. The net unrealized loss on our investment portfolios was approximately $35.4 million as of December 17, 2018.

As of November 30, 2018 and May 31, 2018, we had $2.9 billion and $3.1 billion, respectively, invested in available-for-sale securities at fair value. The weighted-average yield-to-maturity was 2.0% as of November 30, 2018 and 1.9% as of May 31, 2018. The weighted-average yield-to-maturity excludes available-for-sale securities tied to short-term interest rates, such as VRDNs. Assuming a hypothetical increase in longer-term interest rates of 25 basis points, the resulting potential decrease in fair value for our portfolio of available-for-sale securities held as of November 30, 2018 would be approximately $20.0 million. Conversely, a corresponding decrease in interest rates would result in a comparable increase in fair value. This hypothetical increase or decrease in the fair value of the portfolio would be recorded as an adjustment to the portfolio's recorded value, with an offsetting amount recorded in stockholders' equity. These fluctuations in fair value would have no related or immediate impact on the results of operations, unless any declines in fair value were considered to be other-than-temporary and an impairment loss recognized.

Credit risk: We are exposed to credit risk in connection with these investments through the possible inability of the borrowers to meet the terms of their bonds. We regularly review our investment portfolios to determine if any investment is other-than-temporarily impaired due to changes in credit risk or other potential valuation concerns. We believe that the investments we held as of November 30, 2018 were not other-than-temporarily impaired. While $2.2 billion of our available-for-sale securities had fair values that were below amortized cost, we believe that it is probable that the principal and interest will be collected in accordance with the contractual terms, and that the gross unrealized losses of $46.2 million were due to changes in interest rates and were not due to increased credit risk or other valuation concerns. A majority of the securities in an unrealized loss position as of November 30, 2018 and May 31, 2018 held an AA rating or better. We do not intend to sell these investments until the recovery of their amortized cost basis or maturity, and further believe that it is not more-likely-than-not that we will be required to sell these investments prior to that time. Our assessment that an investment is not other-than-temporarily impaired could change in the future due to new developments or changes in our strategies or assumptions related to any particular investment.

We have some credit risk exposure in connection with our purchase of accounts receivable as a means of providing payroll funding to clients in the temporary staffing industry. This credit risk exposure is diversified amongst multiple client arrangements and all such arrangements are regularly reviewed for potential write-off. No single client is material in respect to total accounts receivable, service revenue, or results of operations.

CRITICAL ACCOUNTING POLICIES

Our critical accounting policies are described in Item 7 of our Form 10-K for fiscal 2018, filed with the SEC on July 20, 2018. On an ongoing basis, we evaluate the critical accounting policies used to prepare our consolidated financial statements, including, but not limited to, those related to:

- revenue recognition;
- PEO insurance reserves;
- goodwill and other intangible assets;
- stock-based compensation costs; and
- income taxes.

During the three months ended August 31, 2018, we adopted the new revenue recognition guidance in Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." Refer to Notes A and B of the Notes to Consolidated Financial Statements (Unaudited) for additional information. There have been no other material changes in these aforementioned critical accounting policies.

NEW ACCOUNTING PRONOUNCEMENTS

Recently adopted accounting pronouncements: Refer to Note A of the Notes to Consolidated Financial Statements (Unaudited) contained in Item 1 of this Form 10-Q for a discussion of recently adopted accounting pronouncements.

Recently issued accounting pronouncements: Refer to Note A of the Notes to Consolidated Financial Statements (Unaudited) contained in Item 1 of this Form 10-Q for a discussion of recently issued accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosure of Market Risk

The information called for by this item is provided under the caption “Market Risk Factors” under Item 2 – Management’s Discussion and Analysis of Financial Condition and Results of Operations and is incorporated herein by reference.

Item 4. Controls and Procedures

Disclosure Controls and Procedures: Disclosure controls and procedures are designed with the objective of ensuring that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), such as this report, is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures are also designed with the objective of ensuring that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures: As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on such evaluation, the Chief Executive Officer (principal executive officer) and Chief Financial Officer (principal financial officer) have concluded that as of November 30, 2018, the end of the period covered by this report, our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting: In connection with the Company’s adoption of Accounting Standards Update No. 2014-09, “Revenue from Contracts with Customers (Topic 606),” the Company has updated its control framework effective June 1, 2018 for certain new internal controls and changes to certain existing controls, including reconciliation controls, management review controls, and contract review controls. Other than these changes, there have been no material changes in our internal control over financial reporting that occurred most recently completed fiscal quarter ended November 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

In July 2016, the Company’s Board of Directors approved a program to repurchase up to $350.0 million of the Company's common stock, authorized through May 31, 2019. The purpose of the program is to manage common stock dilution and shares repurchased are retired. There were no repurchases of common stock under this program during the three months ended November 30, 2018. As of November 30, 2018, the dollar value of common shares that may yet be purchased under the program is approximately $67.7 million.

Item 5. Other Information

Completion of Oasis Acquisition

On December 20, 2018, we completed our previously announced acquisition of Oasis Outsourcing Acquisition Corporation, a Delaware Corporation (“Oasis”), pursuant to the Stock Purchase Agreement (the “Agreement”) by and among Oasis, Oasis Outsourcing Group Holdings, L.P., (the “Seller”), and Paychex North America Inc., our wholly-owned subsidiary (the “Buyer”). Pursuant to the Agreement, upon the closing of the transaction the Buyer acquired all of the issued and outstanding capital stock of Oasis. The Company guaranteed the obligations of the Buyer under the Agreement.

The aggregate purchase price paid by the Company to Oasis was approximately $1.0 billion, net of cash acquired. The acquisition was financed through a combination of cash and temporary borrowings on previously existing credit facilities of the Company. The Company is in the process of securing permanent financing for the acquisition.

Item 6. Exhibits

INDEX TO EXHIBITS

Exhibit number	Description
2.1	Stock Purchase Agreement by and among Oasis Outsourcing Acquisition Corporation, Oasis Outsourcing Group Holdings, L.P. and Paychex North America Inc.
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL instance document.
101.SCH	XBRL taxonomy extension schema document.
101.CAL	XBRL taxonomy extension calculation linkbase document.
101.LAB	XBRL taxonomy label linkbase document.
101.PRE	XBRL taxonomy extension presentation linkbase document.
101.DEF	XBRL taxonomy extension definition linkbase document.

Table of Contents

SIGNATURES

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

PAYCHEX, INC.

Date: December 21, 2018	/s/ Martin Mucci Martin Mucci President and Chief Executive Officer (Principal Executive Officer)
Date: December 21, 2018	/s/ Efrain Rivera Efrain Rivera Senior Vice President, Chief Financial Officer, and Treasurer (Principal Financial Officer)