MARSH & McLENNAN COMPANIES

Accelerating
our growth trajectory

MARSH & McLENNAN COMPANIES
2019 ANNUAL REPORT

We are **MARSH & McLENNAN**

Marsh & McLennan is the world's leading professional services firm in the areas of risk, strategy and people.

We are four global businesses united by a common purpose and a uniquely collaborative culture. Our 76,000 colleagues advise organizations in over 130 countries, helping them navigate an increasingly dynamic and complex environment.

We are committed to each other, to our clients and to the greater good. Every day, we help clients change what's possible, enabling enterprise around the world.

Risk & Insurance Services

Insurance Broking & Risk Management
MARSH

Reinsurance & Capital Strategies
GUY CARPENTER

Consulting

Health, Wealth & Career Consulting
MERCER

Strategy, Economic & Brand Consulting
OLIVER WYMAN

DAN GLASER
President and Chief Executive Officer
Marsh & McLennan Companies

To our shareholders, colleagues and clients,

Marsh & McLennan is a trusted advisor to clients around the world on the issues that touch every organization at its core: risk, strategy and people.

Enabling bold enterprise is the heart of our business. We help our clients change what is possible, realizing ambitious goals and making their futures more secure.

For nearly 150 years, this has been our role, but—like business itself—the *how* has evolved greatly over time.

Historically, most of our work was aimed at addressing specific challenges that our clients needed to navigate, such as technological shifts, changes in the competitive environment or market volatility. Today, the challenges that confront our clients are increasingly interrelated, and vastly more complex as a result. Disruption is the operating environment and uncertainty is the prevailing condition for leaders.

The most successful organizations have become more fluid. They are adept at managing continuous change, and that includes Marsh & McLennan. In 2019, our acquisition of Jardine Lloyd Thompson launched our company on a new trajectory, sparking closer collaboration and partnership across our businesses and increased efficiencies in how we operate, as we strive to deliver even greater value as one enterprise.

In 2020, we're organizing to realize the vast new possibilities that we've created for our clients, our colleagues and our company. I am excited to bring you up to date.

A STEP CHANGE FOR OUR COMPANY

The acquisition of Jardine Lloyd Thompson, completed on April 1, 2019, was the largest in our history. We welcomed more than 10,000 talented colleagues into our organization, providing us with more capabilities to serve our clients, and that's the real power in this combination. The need for specialist advice has never been greater as clients deal with the increasing size, complexity and range of business challenges.

JLT enhances our footprint and scale in key geographies and markets—including the UK, Australia, Asia Pacific and Latin America—and makes us stronger in several specialty areas and across our lines of business. Our reach extends to more than 130 countries.

With an even more substantial presence in the market, we're now competing and winning as one company. Colleagues in our businesses continue to learn from one another, finding new ways of working—and growing our business.

It's early in this journey, but we're already seeing how the combination benefits clients. In 2019, Marsh showcased its collective knowledge of the medical products and life sciences space, deep understanding of the casualty risk landscape, and insights into the changing dynamics of the property market, turning a US-based life sciences prospect into a client. Guy Carpenter pitched and won an RFP for terror modeling, highlighting Guy Carpenter's knowledge and data in the terror space and JLT Re's next-generation terrorism model. And a leading UK internet provider liked Mercer's Darwin solution—an award-winning benefits management and engagement platform—and JLT's implementation team. Now they have the best of both.

2019 was a step change for Marsh & McLennan—in revenue, talent, capabilities and, most of all, *possibilities*.

OUR FINANCIAL STRENGTH

Financial strength is a great enabler. A smartly run organization has more credibility, more opportunities and more *time* to do great things. Consistent profits enable us to hire and retain extraordinary people and pursue new ventures. Superior financial performance enables us to build game-changing technologies and acquire growth companies that can rewrite the future for our company—and our clients'.

It's a tribute to our 76,000 colleagues that we integrated our largest-ever acquisition without skipping a beat in financial performance. We emerged from 2019 as a stronger company. Here's a closer look at a milestone year.

Marsh & McLennan generated $16.7 billion in consolidated revenue for the year, an increase of 11% compared with 2018, our highest annual top-line growth in 20 years. It was also the 10th year in a row where we achieved underlying growth of 3% or above.

Adjusted operating income[1] rose 14% and consolidated adjusted margin increased 110 basis points, our 12th consecutive year of margin improvement. Our adjusted earnings per share grew 7%, consistent with our guidance of modest dilution in the first year of the JLT acquisition.

1 For a reconciliation of non-GAAP results to GAAP results, as related to all non-GAAP references presented in this letter, please refer to the Company's Form 8-K, dated January 30, 2020, available on the Company's website at mmc.com.

2019 marked the close of a powerful decade for Marsh & McLennan:

GREW OUR REVENUE BY MORE THAN
TWO-THIRDS

NEARLY
TRIPLED
ADJUSTED EARNINGS PER SHARE

INCREASED OUR SHARE PRICE
FIVEFOLD

OUTPERFORMED THE S&P 500 BY
OVER 280%
IN TERMS OF TSR

ADDED
NEARLY 50%
MORE COLLEAGUES

Our risk and insurance businesses produced $9.6 billion in revenue for 2019, an increase of 17%, or 4% on an underlying basis. Marsh's revenue growth was 17% for the year, or 4% on an underlying basis. Marsh took a significant leap forward in regions like Asia Pacific, where it grew revenue 39%, and Latin America, where it increased 15%. Guy Carpenter closed out another strong year with overall revenue growth of 15%, or 5% on an underlying basis.

Our consulting businesses delivered revenue of $7.1 billion for 2019, up 5%, or 3% on an underlying basis. Mercer achieved 6% revenue growth, 2% on an underlying basis, lifted by a strong fourth-quarter performance. Oliver Wyman increased revenue to $2.1 billion for the year, up 6% on an underlying basis.

We met our capital management objectives to reduce our share count and increase our dividend by double digits.

Over the past decade, we've completed 167 transactions involving approximately $13 billion of capital deployed. In 2019, even while completing the largest transaction in our history, we invested $500 million in areas of strategic focus, including five acquisitions for Marsh & McLennan Agency, our fast-growing US middle-market brokerage business.

Overall, I'm pleased with our performance in 2019, which capped a remarkable 10 years for our company.

THE CHALLENGES OF OUR TIME

Our performance takes place in the context of a dynamic global landscape that shapes the work we do to help our clients succeed.

The *2020 Global Risks Report*, which we help produce with the World Economic Forum, includes perils that have always been with us and dangers unique to the past 20 years: new economic and political confrontations, the vulnerability of digital systems to cyberattack and the growing effects of climate change.

The world can be a difficult place to do business. We can do our best to cope, or set about creating the future that we want. At Marsh & McLennan, we see it as our role to enable what is possible. We're optimists who thrive on the challenges of our time—and on working side by side, with our clients, to address them.

As an example, we're helping governments, communities and the insurance industry respond to the scourge of global wildfires with our risk management and risk transfer expertise. In August, Guy Carpenter was appointed sole reinsurance intermediary for the California Wildfire Fund, while Marsh worked closely to support some of the most affected industries in the months leading up to the passage of the bill establishing the fund.

Marsh and Guy Carpenter are also working together to expand market capacity and develop coverage standards to help clients protect themselves against increasing cyber threats.

Our consulting businesses are tackling complex challenges, from healthcare access and innovation, to the impact of artificial intelligence on the workforce, to the effects of a changing climate on industry and society. Mercer and Oliver Wyman have partnered to help public institutions get ahead of long-term pension obligations. For example, a European supranational chose us to help ensure its long-term financial stability based on Oliver Wyman's public sector experience and Mercer's expertise in pensions and capital markets.

We do things like this at every scale, all over the world. We serve 95% of *Fortune 1000* companies. We serve a growing number of middle-market and small companies, and millions of individuals. In some cases, we've developed markets that *no one* was serving. Guy Carpenter and Oliver Wyman have pioneered solutions that bring insurance and financial services to whole populations for whom they are life-changing. For example, Oliver Wyman has worked closely with a leading microfinance provider in 28 countries, to rethink opportunities for deepening financial inclusion—and using financial services as a tool to lift families out of poverty.

Even as the issues of the day inevitably change, the collective strength and expertise across our enterprise will continue to serve the evolving needs of our clients—and drive growth for our company.

Better Solutions for **MORE CLIENTS**

MARSH & McLENNAN HELPS MANY OF THE WORLD'S MOST RESPECTED COMPANIES CREATE NEW MARKETS AND RESHAPE THEIR INDUSTRIES. Recently we've been reshaping one of our own industries—insurance—by expanding in middle and small commercial markets around the world.

In the last 10 years, we've built Marsh & McLennan Agency into a leading middle-market commercial insurance broker in the US, increasing run-rate revenue from zero to $1.7 billion. We made five new acquisitions in 2019 and have a robust pipeline for 2020. In the UK, our recently rebranded Marsh Commercial business is one of the premier middle-market brokers. Worldwide, the middle market is now Marsh's largest segment by revenue.

We're also in an ideal position to participate in the fragmented small commercial market, leveraging our scale, scope and technology platforms. Victor, our leading managing general agency and underwriter platform, is a robust distribution network to build on and we're making continuous investments in this area.

Marsh & McLennan's digital ecosystem now includes Dovetail, our online marketplace that helps insurance agencies get the best policies for their clients; and Bluestream, a cloud-based broker for the affinity business.

Other tech platforms provide timely new options where the needs are acute. Marsh's Torrent Technologies accelerates transaction processing for flood insurance claims; and ICAT is changing what's possible for businesses and homeowners in hurricane- and earthquake-prone areas.

Using digital platforms to extend our risk expertise and deliver greater value for more clients is one of the most exciting parts of our business.

THE POWER OF SHARED ENTERPRISE

Interrelated challenges require more holistic approaches. The breadth and depth of expertise at Marsh & McLennan is a distinct strength, and we are organizing to deploy our vast array of capabilities in more seamless ways.

Bringing together our health and benefits expertise is a good example. Health is a major growth sector for us, and the health and benefits marketplace is a big opportunity, where Marsh and Mercer have complementary strengths. Mercer Marsh Benefits (MMB) now goes to market outside of the US as one brand, with one leadership team, delivering a consistent client experience across 73 countries. MMB is a core part of our industry-leading global health and benefits business that generates more than $3 billion in revenue.

For clients with unique opportunities, our Marsh & McLennan Advantage platform delivers our expertise and capabilities from wherever they are in the company to wherever they're needed in the client organization. Our global networks of experts and advisors focus on the issues that matter most to our clients and society—from strengthening climate-change resilience to realizing the potential of transformative technologies.

More and more, our businesses are teaming up to create comprehensive solutions for clients. In 2019 a team of more than 50 colleagues—across four continents and three of our businesses—developed an infrastructure overhaul plan for a large Asia-Pacific rail operator. Our team included experts in placement, risk consulting, claims advocacy, forensic accounting, catastrophe modeling and analytics, as well as rail specialists from Australia, the US and the UK.

We enable colleagues at every level to collaborate across business lines and borders through peer-to-peer knowledge-sharing platforms and a more cohesive approach to learning and professional development.

Operating and going to market as a more unified company isn't a revolutionary idea; it's a smarter way to realize the significant opportunities in front of us.

A COMPANY OF IDEAS AND IDEALS

Environmental, social and governance (ESG) considerations have long been part of our decision-making at every level. We advise our clients on important issues ranging from responsible investing to workforce of the future, pay equity, climate change and cyber, to name just a few. Having created the Corporate Responsibility Committee in 2008, our Board has formally focused on ESG initiatives for more than a decade. We've also disclosed and externally verified carbon data since 2011.

Foundational to who we are is our strong culture of integrity, reflected in *The Greater Good*, our code of conduct everywhere we do business in the world. *The Greater Good* supports colleagues in making the right decision, especially in situations where it may not be clear—or easy. We've just recreated *The Greater Good* as a fully digital experience for our colleagues.

We continue to work at advancing full inclusion and addressing issues of equity in pay and career advancement. For example, we routinely assess gender and, in the US, racial pay equity across our businesses using rigorous statistical modeling methods. Our diversity and inclusion initiatives, including colleague resource groups, are designed to ensure our businesses promote a fair and inclusive work environment—and that everyone has an equal opportunity to succeed. Much of our internal work draws on Mercer's leading-edge Workforce Sciences capabilities that are helping our clients achieve pay, career and employment equity.

We're also partnering with other organizations, through initiatives such as CEO Action for Diversity & Inclusion and the 30% Club, to change how business is done. It's gratifying to see our efforts recognized with membership in the Bloomberg Gender-Equality Index for the second year in a row and our 12th consecutive "Best Places to Work for LGBTQ Equality" award from Human Rights Campaign.

Sustainability is also an important issue for Marsh & McLennan. Four years ago, we began our Smart Office project to reconfigure select offices around the world. Fundamental to this work is ensuring these offices consume less of every resource that goes into them—land, materials, energy—and reduce the emissions that come out of them. One by one, these new workspaces are also becoming more egalitarian, creative, collaborative and flexible. We'll have at least 20 Smart Offices by the end of 2020.

All of these priorities are organic to our culture, part of what makes us *us*. We attract people who want to make a difference, and our culture is their reflection.

Making a Difference in **OUR COMMUNITIES**

POWERFUL CHANNELS FOR COMMUNITY SERVICE ARE EMBEDDED IN OUR ORGANIZATION because our colleagues share a commitment to improving the communities where we live and work. Each year, all colleagues receive a paid day off to volunteer. In 2019, our colleagues volunteered nearly 200,000 hours of their time, often sharing their professional skills with communities that need them.

22.0%
CONSOLIDATED ADJUSTED MARGIN— AN INCREASE OF 1,320 BASIS POINTS SINCE 2008

Record High
ADJUSTED OPERATING INCOME FOR BOTH RISK & INSURANCE SERVICES AND CONSULTING

ANNUAL REVENUE OF
$16.7 Billion

CLOSED TRANSACTIONS TOTALING MORE THAN
$14 Billion
ACROSS 190+ ACQUISITIONS AND INVESTMENTS SINCE 2009

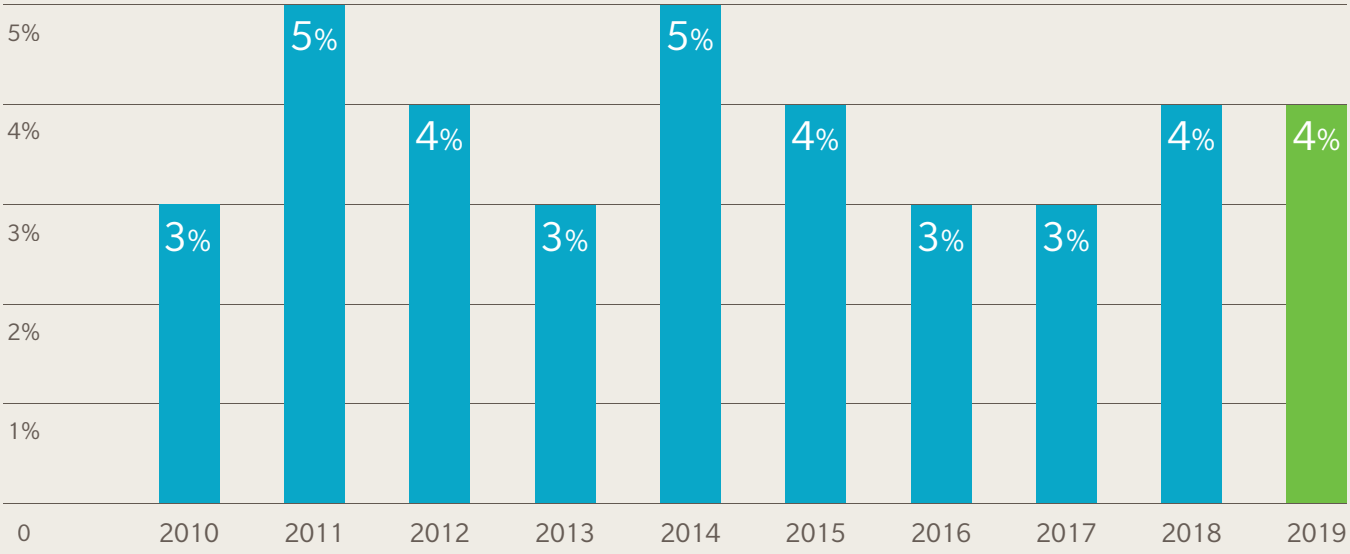
10% Dividend Growth
DELIVERING ON OUR ANNUAL COMMITMENT TO INCREASE DIVIDENDS PER SHARE BY DOUBLE DIGITS

CLIENTS IN MORE THAN
130 Countries

REDUCED YEAR-END SHARES OUTSTANDING FOR
6th Consecutive Year

76,000
COLLEAGUES AROUND THE WORLD MAKING A DIFFERENCE FOR CLIENTS IN CRITICAL MOMENTS

10 years of consecutive underlying revenue growth in the 3-5 percent range



Responsible **INVESTING**

MARSH & McLENNAN MANAGES BENEFITS AND RETIREMENT PROGRAMS FOR ORGANIZATIONS AROUND THE WORLD. Through Mercer, we're directly responsible for $305 billion in client assets and serve as investment advisors on another $15 trillion. At this scale, how and where money is invested can make as great a difference as how much.

Mercer's Global Responsible Investment team, established in 2004, understands that it's in our clients' financial interests to make risk and return decisions that consider environmental impacts such as climate change; social impacts such as people's health and safety; and company governance factors, such as board quality and diversity.

LOOKING FORWARD

The work changes. Our purpose doesn't. We are here to serve clients, helping them realize the futures they imagine—and to make those futures more secure. On the eve of our 150th year, we are more successful than we've ever been because we question the way things are, and relentlessly seek a smarter way.

We have a greater capacity to invest in transformative technologies that can extend innovative solutions to more clients and markets. We have the capability to be at home in the world's fastest-growing regions, and the deep specialization to enter new businesses that are shaping the future. And we have the ambition to make Marsh & McLennan a place where talented people can do the best work of their careers—work that makes a difference.

We're soundly positioned for continued growth, including in markets where growth has historically outpaced the broader economy globally. The global property and casualty insurance market is underpenetrated, particularly in emerging markets and perils such as flood and cyber. The global health insurance market is complex and the retirement savings gap remains largely unsolved, creating strong demand for our advice and solutions in these areas.

Even in an exceptional year like 2019, we consistently challenge ourselves to balance delivering for today while positioning for future growth. Our performance last year was a great example of strong overall execution, adding to our track record of sustained value creation.

None of this happens on its own. I'd like to thank our Board of Directors, led by Ed Hanway, our Independent Chairman, for their superb governance, wisdom and leadership.

I'd also like to thank our clients for the opportunity to earn their trust, and our colleagues for their commitment, hard work and for doing what's right to serve our clients.

Finally, I'd like to thank our investors, whose support is indispensable in enabling us to seize the vast opportunities of the future.

Together, we have the talent, the scope and the scale to change what's possible—in our business, for our clients and for the world around us. I look forward to all that we'll achieve in 2020 and beyond.

Best regards,

DAN GLASER
President and Chief Executive Officer
Marsh & McLennan Companies
February 20, 2020

RECOGNITION

Marsh awarded a **Business Insurance Innovation Award** for FINTECH Protect insurance option	GC Securities and Pool Re awarded **Reinsurance Transaction of the Year** for Baltic Catastrophe Bond	Mercer ranked **#1 for global outsourced assets under management and advisement** by *Pensions & Investments**	Oliver Wyman recognized as a firm that values **inclusivity, trust and compassion**
Marsh & McLennan included in **Bloomberg Gender-Equality Index** for the second year	Marsh & McLennan named a **Best Place to Work for LGBTQ Equality**	Marsh & McLennan ranked **#1 broker** by *Business Insurance*	Marsh & McLennan named a **Military Friendly®** company

For the acquisition of Jardine Lloyd Thompson:

Marsh & McLennan received *Reactions* **North America Awards' M&A Deal of the Year**	Marsh & McLennan awarded **M&A Transaction of the Year**

* Pension & Investments, AUA ranked by worldwide assets under advisement as of June 30, 2019 as reported by each firm to P&I. Pensions & Investments OCIO survey, worldwide discretionary assets under management as of March 31, 2019 as reported by each firm to P&I. See Important Notices for important information about assets under advisement and assets under management.

Top, from left: *R. David Yost, Marc D. Oken, Lloyd M. Yates, Daniel S. Glaser, Morton O. Schapiro, Bruce P. Nolop, Steven A. Mills, Anthony K. Anderson* **Bottom, from left:** *Oscar Fanjul, Deborah C. Hopkins, H. Edward Hanway, Tamara Ingram*

OUR BOARD OF DIRECTORS

ANTHONY K. ANDERSON
Former Vice Chair and
Midwest Area Managing Partner,
Ernst & Young LLP

OSCAR FANJUL
Vice Chairman, Omega Capital
Founding Chairman and Former
Chief Executive Officer,
Repsol

DANIEL S. GLASER
President and Chief Executive Officer,
Marsh & McLennan Companies

H. EDWARD HANWAY
Former Chairman and
Chief Executive Officer,
CIGNA Corporation

DEBORAH C. HOPKINS
Former Chief Executive Officer
of Citi Ventures and
Chief Innovation Officer,
Citigroup

TAMARA INGRAM
Global Chairman,
Wunderman Thompson

STEVEN A. MILLS
Former Executive Vice President,
Software & Systems,
International Business
Machines Corporation (IBM)

BRUCE P. NOLOP
Former Executive Vice President
and Chief Financial Officer,
E*TRADE Financial Corporation

MARC D. OKEN
Chairman,
Falfurrias Capital Partners
Former Chief Financial Officer,
Bank of America Corporation

MORTON O. SCHAPIRO
President and Professor of Economics,
Northwestern University

LLOYD M. YATES
Former Executive Vice President, Market
Solutions of Duke Energy and President
of Duke Energy's Carolinas Region

R. DAVID YOST
Former President and
Chief Executive Officer,
AmerisourceBergen

Top, from left: *Peter Hearn, Martine Ferland, Scott McDonald, Peter J. Beshar, E. Scott Gilbert*
Bottom, from left: *John Q. Doyle, Daniel S. Glaser, Laurie Ledford, Dominic Burke, Mark McGivney*

OUR EXECUTIVE COMMITTEE

PETER J. BESHAR
Executive Vice President and
General Counsel,
Marsh & McLennan Companies

DOMINIC BURKE
Vice Chair,
Marsh & McLennan Companies

JOHN Q. DOYLE
President & CEO, Marsh
Vice Chair, Marsh & McLennan Companies

MARTINE FERLAND
President & CEO, Mercer
Vice Chair, Marsh & McLennan Companies

E. SCOTT GILBERT
Senior Vice President and
Chief Information Officer,
Marsh & McLennan Companies

DANIEL S. GLASER
President and Chief Executive Officer,
Marsh & McLennan Companies

PETER HEARN
President & CEO, Guy Carpenter
Vice Chair, Marsh & McLennan Companies

LAURIE LEDFORD
Senior Vice President and
Chief Human Resources Officer,
Marsh & McLennan Companies

SCOTT McDONALD
President & CEO, Oliver Wyman
Vice Chair, Marsh & McLennan Companies

MARK McGIVNEY
Chief Financial Officer,
Marsh & McLennan Companies

What we **STAND FOR**

Companies like ours have enormous power to shape the future through investment, expertise and the advice that we provide to a world of clients. Here are some of the principles that we try to live by as a public entity.

WE RESPECT
the dignity and worth of every person. We work to advance human rights and social and workplace equality everywhere we do business.

WE SUPPORT
the rule of law, sustained alliances based on shared values, and keeping commitments.

WE REJECT
racism, bigotry, homophobia and xenophobia, and condemn any stance that limits people's possibilities because of who they are or the circumstances that surround them.

WE BELIEVE
that the best solutions haven't been invented yet. Investment and policy decisions should look forward, not backward; outward, not inward; and they should be based on objective evidence.

WE CHAMPION
liberal democracy and the power of free enterprise to change what is possible. We embrace globalization and cooperative action to address the world's great challenges and create new opportunities for its citizens.

WE STAND FOR
enabling enterprise around the world and a better future for all.

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

FORM 10-K

(Mark One)

☒ **Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the fiscal year ended December 31, 2019

OR

☐ **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

Commission File No. 1-5998

Marsh & McLennan Companies, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**36-2668272**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1166 Avenue of the Americas
New York, New York 10036-2774
(Address of principal executive offices; Zip Code)
(212) 345-5000
Registrant's telephone number, including area code
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, par value $1.00 per share	MMC	New York Stock Exchange Chicago Stock Exchange London Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes ☐ No ☒

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 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 or a smaller reporting Company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting Company" in Rule 12b-2 of the Exchange Act. (Check one):

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 ☒

As of June 28, 2019, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately $50,438,773,243 computed by reference to the closing price of such stock as reported on the New York Stock Exchange on June 28, 2019.

As of February 18, 2020, there were outstanding 503,897,894 shares of common stock, par value $1.00 per share, of the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Marsh & McLennan Companies, Inc.'s Notice of Annual Meeting and Proxy Statement for the 2020 Annual Meeting of Stockholders (the "2020 Proxy Statement") are incorporated by reference in Part III of this Form 10-K.

INFORMATION CONCERNING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward-looking statements," as defined in the Private Securities Litigation Reform Act of 1995. These statements, which express management's current views concerning future events or results, use words like "anticipate," "assume," "believe," "continue," "estimate," "expect," "intend," "plan," "project" and similar terms, and future or conditional tense verbs like "could," "may," "might," "should," "will" and "would."

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

- our ability to compete effectively and adapt to changes in the competitive environment, including to respond to technological change, disintermediation, digital disruption and other types of innovation;
- the impact from lawsuits, other contingent liabilities and loss contingencies arising from errors and omissions, breach of fiduciary duty or other claims against us;
- our ability to attract and retain industry leading talent;
- our organization's ability to maintain adequate safeguards to protect the security of our information systems and confidential, personal or proprietary information, particularly given the large volume of our vendor network and the need to identify and patch software vulnerabilities, including those in the existing JLT information systems;
- our ability to successfully integrate or achieve the intended benefits of our acquisitions, including JLT;
- the impact of investigations, reviews, or other activity by regulatory or law enforcement authorities, including the ongoing investigation by the European Commission competition authority;
- our ability to maintain our credit ratings and repay our outstanding long-term debt in a timely manner and on favorable terms, including approximately $6.5 billion issued in connection with the acquisition of JLT;
- the regulatory, contractual and reputational risks that arise based on insurance placement activities and various insurer revenue streams;
- the financial and operational impact of complying with laws and regulations where we operate and the risks of noncompliance with such laws, including cybersecurity and data privacy regulations such as the E.U.’s General Data Protection Regulation, anti-corruption laws such as the U.S. Foreign Corrupt Practices Act, U.K. Anti-Bribery Act and trade sanctions regimes;
- our ability to manage risks associated with our investment management and related services business, including potential conflicts of interest between investment consulting and fiduciary management services;
- the impact of macroeconomic, political, regulatory or market conditions on us, our clients and the industries in which we operate, including the impact of Brexit or the inability to collect on our receivables;
- our ability to successfully recover if we experience a business continuity problem due to cyberattack, natural disaster, pandemic or otherwise; and
- the impact of changes in tax laws, guidance and interpretations, including certain provisions of the U.S. Tax Cuts and Jobs Act, or disagreements with tax authorities.

The factors identified above are not exhaustive. Further information concerning Marsh & McLennan Companies and its businesses, including information about factors that could materially affect our results of operations and financial condition, is contained in the Company's filings with the Securities and Exchange Commission, including the "Risk Factors" section in Part I, Item 1A of this report and the "Management’s Discussion and Analysis of Financial Condition and Results of Operations" section in Part II, Item 7 of this report. We caution readers not to place undue reliance on any forward-looking statements, which are based only on information currently available to us and speak only as of the dates on which they are made. We undertake no obligation to update or revise any forward-looking statement to reflect events or circumstances arising after the date on which it is made.

TABLE OF CONTENTS

Information Concerning Forward-Looking Statements		i
PART I		
Item 1 —	Business	1
Item 1A —	Risk Factors	12
Item 1B —	Unresolved Staff Comments	29
Item 2 —	Properties	30
Item 3 —	Legal Proceedings	30
Item 4 —	Mine Safety Disclosures	30
PART II		
Item 5 —	Market for the Company's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	31
Item 6 —	Selected Financial Data	32
Item 7 —	Management's Discussion and Analysis of Financial Condition and Results of Operations	33
Item 7A —	Quantitative and Qualitative Disclosures About Market Risk	54
Item 8 —	Financial Statements and Supplementary Data	56
Item 9 —	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	120
Item 9A —	Controls and Procedures	120
Item 9B —	Other Information	123
PART III		
Item 10 —	Directors, Executive Officers and Corporate Governance	124
Item 11 —	Executive Compensation	124
Item 12 —	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	124
Item 13 —	Certain Relationships and Related Transactions, and Director Independence	124
Item 14 —	Principal Accountant Fees and Services	124
PART IV		
Item 15 —	Exhibits and Financial Statement Schedules	125
Item 16 —	Form 10-K Summary	138
Signatures		139

PART I

Item 1. Business.

References in this report to "we", "us" and "our" are to Marsh & McLennan Companies, Inc. and its consolidated subsidiaries (the "Company"), unless the context otherwise requires.

GENERAL

The Company is a global professional services firm offering clients advice and solutions in risk, strategy and people. Its businesses include: Marsh, the insurance broker, intermediary and risk advisor; Guy Carpenter, the risk and reinsurance specialist; Mercer, the provider of HR and investment related advice and services; and Oliver Wyman Group, the management, economic and brand consultancy. With 76,000 colleagues worldwide and annual revenue of $17 billion, the Company provides analysis, advice and transactional capabilities to clients in more than 130 countries.

The Company conducts business through two segments:

- **Risk and Insurance Services** includes risk management activities (risk advice, risk transfer and risk control and mitigation solutions) as well as insurance and reinsurance broking and services. The Company conducts business in this segment through Marsh and Guy Carpenter.
- **Consulting** includes health, wealth and career services and products, and specialized management, economic and brand consulting services. The Company conducts business in this segment through Mercer and Oliver Wyman Group.

We describe our current segments in further detail below. We provide financial information about our segments in our consolidated financial statements included under Part II, Item 8 of this report.

OUR BUSINESSES

RISK AND INSURANCE SERVICES

The Risk and Insurance Services segment generated approximately 57% of the Company's total revenue in 2019 and employs approximately 43,600 colleagues worldwide. The Company conducts business in this segment through Marsh and Guy Carpenter.

MARSH

Marsh is a leading global insurance broker and risk advisor, serving companies, institutions and individuals. From its founding in 1871 to the present day, Marsh has demonstrated a commitment to thought leadership, innovation and insurance expertise to meet its clients' needs. Marsh's pioneering contributions include introducing the practice of client representation through brokerage, the discipline of risk management, the globalization of risk management services and the development of service platforms that identify, quantify, mitigate and transfer risk.

Currently, approximately 40,500 Marsh colleagues provide risk management, insurance broking, insurance program management services, risk consulting, analytical modeling and alternative risk financing services to a wide range of businesses, government entities, professional service organizations and individuals in more than 130 countries. Marsh generated approximately 48% of the Company's total revenue in 2019.

Insurance Broking and Risk Consulting

In its core insurance broking and risk advisory business, Marsh employs a team approach to identify, quantify and address clients' risk management and insurance needs. Marsh's product and service offerings include risk analysis, insurance program design and placement, insurance program support and administration, claims support and advocacy, alternative risk strategies and a wide array of risk analysis and risk management consulting services. Clients benefit from Marsh's advanced analytics, deep technical expertise, collaborative global culture and the ability to develop innovative solutions and products. The firm's resources also include nearly three dozen specialty and industry practices, including cyber, financial and professional service practices, along with a growing employee health & benefits business.

Marsh provides services to clients of all sizes, including large multinational companies ("Risk Management"), high growth middle-market businesses ("Corporate"), small commercial enterprises and high net-worth private clients ("Commercial & Consumer"). Marsh's segments are designed to build stronger value propositions and operating models to optimize solutions and services for clients depending on their needs.

Risk Management. Marsh has an extensive global footprint and market-leading advisory and placement services that benefit large domestic and international companies and institutions facing complex risk exposures. These clients are also supported by Marsh's robust analytics and a growing digital experience led by work from Marsh Labs.

In addition, Marsh's largest multinational clients are serviced by a dedicated team of colleagues from around the world focused on delivering service excellence and insurance solutions to clients wherever they are located. Marsh provides global expertise and an intimate knowledge of local markets, helping clients navigate local regulatory environments to address the worldwide risk issues that confront them.

- ***Marsh JLT Specialty***. Marsh's specialty unit combined with JLT Specialty to form Marsh JLT Specialty as part of the 2019 acquisition of Jardine Lloyd Thompson Group plc ("JLT"). The new unit offers leading expertise, global service and data-driven insights to clients across seven global specialties: aviation; credit specialties; financial & professional services; private equity & mergers & acquisitions; construction; energy & power; and marine & cargo. These teams of specialist experts are globally committed to delivering consulting, placement, account management and claims solutions to clients who require specialist advice and support. Marsh JLT Specialty has bolstered Marsh's leadership as a global specialty broker.

Corporate. A fast-growing segment, middle market clients are served by Marsh's brokerage operations globally and constitute a substantial majority of clients served by Marsh & McLennan Agency (MMA) in the United States and large portions of Marsh's international business.

- ***MMA*** offers a broad range of commercial property and casualty products and services, as well as solutions for employee health and benefits, retirement and administration needs and a growing personal lines business in the United States and Canada. Since its first acquisition in 2009, MMA has acquired 75 agencies. MMA provides advice on insurance program structure and market dynamics, along with industry expertise and transactional capability.

Commercial & Consumer. Clients in this market segment typically face less complex risks and are served by Marsh's innovative product and placement offerings and growing capabilities in digitally enabled distribution.

- ***Victor Insurance Holdings*** is one of the largest underwriting managers of professional liability and specialty insurance programs worldwide. In the United States, Victor Insurance Managers (US) and ICAT Managers deliver risk management and insurance solutions to over 125,000 insureds through a national third-party distribution network of licensed brokers. Victor Insurance Managers (Canada), a leading managing general agent in Canada with over 43,000 insureds, delivers professional liability and construction insurance, as well as group and retiree benefits programs and claims handling for individuals, organizations and businesses. Victor has a growing business in the UK (where it was formerly known as Bluefin Underwriting) and Europe, where new businesses have been launched in the Netherlands, Italy and Germany.
- **Marsh Commercial** (formerly branded as Jelf) services more than 250,000 clients, primarily in the small to mid-market segment across the United Kingdom, and offers high quality technical advice, bespoke products and distinctive services including claims consultancy, employee health and benefits, personal lines solutions and risk management. With the completion of the acquisition of JLT in 2019, and following the acquisitions of Bluefin in 2017 and Clark Thomson in 2018, Marsh Commercial has one of the United Kingdom's most extensive office networks focused on providing smaller organizations with access to high quality risk and insurance advice.

- ***Dovetail Insurance*** is a leading provider of cloud-based insurance services and transaction processing tailored to the U.S. small commercial market. Dovetail deploys a cloud-based technology platform that enables independent insurance agents, on behalf of their small business clients, to obtain online quotes from multiple insurance providers and bind property and casualty and workers compensation insurance policies in real time.

High Net Worth (HNW). Individual high net worth clients and family offices are serviced by Marsh USA's Private Client Services (PCS), MMA and other personal lines businesses globally. These businesses provide a single-source solution for high net worth clients and are dedicated to sourcing protections across a broad spectrum of risk. Using a consultative approach, Marsh's HNW practices analyze exposures and customizes programs to cover individual clients with complex asset portfolios.

Additional Services and Adjacent Businesses

In addition to insurance broking, Marsh provides certain other specialist advisory or placement services:

Marsh Risk Consulting (MRC) is a global practice comprising specialists that advise clients on identifying exposures, use data and analytics to assess critical business activities and evaluate existing risk practices and strategies. MRC provides client services in four main areas: Property Consulting; Casualty Consulting; Strategic Risk and Cybersecurity Consulting; and Financial Advisory Services.

Marsh Data, Digital and Analytics provides solutions to enhance the insurance process and data and analytical tools to better understand risks, make more informed decisions and support the implementation of innovative solutions and strategies. Among the suite of solutions deployed by this team are: Bluestream, a digital brokerage platform that enables clients to provide insurance to their customers or suppliers in a B2B2C affinity model; Blockchain solutions, where Marsh is working in conjunction with industry consortia and leading technology companies to help provide certificates of insurance digitally; and Marsh’s proprietary suite of analytics applications that delivers risk insights to clients for better decision making concerning retaining, mitigating, transferring risk and financing risk.

Marsh Captive Solutions serves more than 1,350 captive facilities, including single-parent captives, reinsurance pools and risk retention groups. The Captive Solutions practice operates in 53 captive domiciles and leverages the consulting expertise within Marsh’s brokerage offices worldwide. The practice includes the Captive Advisory Group, a consulting arm that performs captive feasibility studies and helps to structure and implement captive solutions; the Captive Management Group, an industry leader in managing captive facilities and in providing administrative, consultative and insurance-related services; and the Actuarial Services Group, which is comprised of credentialed actuaries and supporting actuarial analysts.

Torrent Technologies is a service provider to Write Your Own (WYO) insurers participating in the National Flood Insurance Program (NFIP) in the United States and also serves the NFIP directly as its Direct Servicing Agent Torrent offers a comprehensive suite of both NFIP and private and excess flood insurance products and services to WYO companies and agents.

Bowring Marsh is an international placement broker primarily for property and casualty risks. Bowring Marsh uses placement expertise in major international insurance market hubs, including Bermuda, Brazil, China, United Arab Emirates, Ireland, Spain, United Kingdom, the United States, Singapore, Japan and Switzerland, and an integrated global network to secure advantageous terms and conditions for its clients throughout the world.

Services for Insurers

Insurer Consulting Group provides services to insurance carriers. Through Marsh's patented electronic platform, MarketConnect, and sophisticated data analysis, Marsh provides insurers with individualized preference setting and risk identification capabilities, as well as detailed performance data and metrics. Insurer consulting teams review performance metrics and preferences with insurers and provide customized consulting services to insurers designed to improve business planning and strategy implementation. Marsh's Insurer Consulting services are designed to improve the product offerings available to clients, assist insurers in identifying new opportunities and enhance insurers’ operational efficiency. The scope and nature of the services vary by insurer and by geography.

GUY CARPENTER

Guy Carpenter, the Company's reinsurance intermediary and advisor, generated approximately 9% of the Company's total revenue in 2019. The workforce consists of approximately 3,100 colleagues who provide clients with a combination of specialized reinsurance broking expertise, strategic advisory services and analytics solutions. Guy Carpenter creates and executes reinsurance and risk management solutions for clients worldwide through risk assessment analytics, actuarial services, highly-specialized product knowledge and trading relationships with reinsurance markets. Client services also include contract and claims management and fiduciary accounting.

Acting as a broker or intermediary on all classes of reinsurance, Guy Carpenter places two main types of property casualty and life / health reinsurance: treaty reinsurance, which involves the transfer of a portfolio of risks; and facultative reinsurance, which involves the transfer of part or all of the coverage provided by a single insurance policy.

Guy Carpenter provides reinsurance services in a broad range of centers of excellence and segments, including: Automobile / Motor, Aviation, Crop/Agriculture, Cyber, D&O/Non-Medical Professional, Engineering / Construction, Environmental, GL & Umbrella, Health, Life, Marine and Energy, Medical Professional, Mortgage, Political Risk & Trade Credit, Program Manager Solutions, Property, Public Sector, Retrocessional Reinsurance, Surety, Terror, and Workers Compensation / Employer Liability.

Guy Carpenter also offers clients alternatives to traditional reinsurance, including industry loss warranties and, through its licensed affiliates, capital markets alternatives such as transferring catastrophe risk through the issuance of risk-linked securities. GC Securities, the Guy Carpenter division of MMC Securities LLC and MMC Securities (Europe) Limited, offers corporate finance solutions, including mergers & acquisitions and private debt and equity capital raising, and capital markets-based risk transfer solutions that complement Guy Carpenter's strong industry relationships, analytical capabilities and reinsurance expertise.

Guy Carpenter also provides its clients with reinsurance-related services, including actuarial, enterprise risk management, financial and regulatory consulting, portfolio analysis and advice on the efficient use of capital. Guy Carpenter's Global Strategic Advisory ("GSA") unit helps clients better understand and quantify the uncertainties inherent in their businesses. Working in close partnership with Guy Carpenter account executives, GSA specialists help support clients' critical decisions in numerous areas, including reinsurance utilization, catastrophe exposure portfolio management, new product and market development, rating agency, regulatory and account impacts, loss reserve risk, capital adequacy and return on capital.

Compensation for Services in Risk and Insurance Services

Marsh and Guy Carpenter are compensated for brokerage and consulting services through commissions and fees. Commission rates and fees vary in amount and can depend on a number of factors, including the type of insurance or reinsurance coverage provided, the particular insurer or reinsurer selected, and the capacity in which the broker acts and negotiates with clients. In addition to compensation from its clients, Marsh also receives other compensation, separate from retail fees and commissions, from insurance companies. This other compensation includes, among other things, payments for consulting and analytics services provided to insurers; compensation for administrative and other services (including fees for services provided to or on behalf of insurers relating to the administration and management of quota shares, panels and other facilities in which insurers participate); and contingent commissions, which are paid by insurers based on factors such as volume or profitability of Marsh's placements, primarily driven by MMA and parts of Marsh's international operations.

Marsh and Guy Carpenter receive interest income on certain funds (such as premiums and claims proceeds) held in a fiduciary capacity for others. For a more detailed discussion of revenue sources and factors affecting revenue in our Risk and Insurance Services segment, see Part II, Item 7 ("Management's Discussion and Analysis of Financial Condition and Results of Operations") of this report.

CONSULTING

The Company's Consulting segment generated approximately 43% of the Company's total revenue in 2019 and employs approximately 30,400 colleagues worldwide. The Company conducts business in this segment through Mercer and Oliver Wyman Group.

MERCER

Mercer delivers advice and digital solutions that help organizations meet the health, wealth and career needs of a changing workforce. Mercer has nearly 25,300 colleagues based in 43 countries. Clients include a majority of the companies in the Fortune 1000 and FTSE 100, as well as medium- and small-market organizations. Mercer generated approximately 30% of the Company's total revenue in 2019.

Mercer operates in the following areas:

Health. Mercer assists public and private sector employers in the design and management of employee health care programs; administration of health benefits and flexible benefits programs, including benefits outsourcing; employee engagement with their health benefits through a digital experience; compliance with local benefits-related regulations; and the establishment of health and welfare benefits coverage for employees. Mercer provides a range of advice and solutions to clients, which, depending on the engagement, may include: total health and wellness management strategies; global health brokerage solutions; vendor performance and audit; life and disability management; and measurement of healthcare provider performance. These services are provided through traditional fee-based consulting as well as commission-based brokerage services in connection with the selection of insurance companies and healthcare providers. Mercer provides solutions for private active and retiree exchanges in the United States, including its Mercer Marketplace 365^{SM} and Mercer 365+^{SM} offerings, as well as tools to enhance employee engagement with their health benefits through its Darwin^{SM} platform across the world.

Mercer also provides consulting and actuarial services to U.S. state governments to support the purchase of healthcare through state Medicaid programs. In addition, outside of the U.S., Mercer provides consulting services to insurance carriers to assist them with improving product offerings available to clients, identifying new opportunities and enhancing insurers' operational efficiency.

Wealth. Mercer assists clients worldwide in the design, governance and risk management of defined benefit, defined contribution and hybrid retirement plans. Mercer provides retirement plan outsourcing, including administration and delivery of defined benefit and defined contribution retirement benefits. Mercer also provides investment advice and related services to the sponsors and trustees of pension plans, master trusts, foundations, endowments, and insurance companies as well as wealth management and other financial intermediary firms.

Mercer's Retirement business includes offerings primarily in defined benefit and actuarial consulting, defined benefit investment consulting and defined benefit plan administration. Mercer provides a range of retirement-related services and solutions to corporate, trustees, governmental and institutional clients. Mercer's Investments business provides primarily investment consulting and investment management (also referred to as "delegated solutions" or "fiduciary management") services, defined contribution-related consulting and investment and administration services, and financial wellness. Mercer's services cover all stages of the investment process, from strategy, asset allocation and implementation to ongoing portfolio management services. Mercer provides these services primarily to institutional and other sophisticated investors including retirement plans (defined benefit and defined contribution), master trusts, endowments and foundations and wealth managers and other financial intermediary firms, primarily through manager of manager funds sponsored and managed by Mercer. Mercer also provides services to individual investors, including financial planning and other discretionary investment services. As of December 31, 2019, Mercer and its global affiliates had assets under management of approximately $305 billion worldwide. Mercer's financial wellness advice and services are designed to promote the financial wellbeing of employees.

Career. Mercer's Career businesses advise organizations on the engagement, management and reward of employees; the design of executive remuneration programs; people strategies during business transformation, improvement of human resource (HR) effectiveness; and the implementation of digital and cloud-based Human Resource Information Systems through Mercer Career Digital. In addition, through proprietary survey data and decision support tools, Mercer's Career Products business provides clients

with human capital information and analytical capabilities to improve strategic human capital decision making. Mercer's Communications business helps clients plan and implement HR programs and other organizational changes designed to maximize employee engagement, drive desired employee behaviors and achieve improvements in business performance.

OLIVER WYMAN GROUP

With more than 5,100 professionals and offices in 29 countries, Oliver Wyman Group delivers advisory services to clients through three operating units, each of which is a leader in its field: Oliver Wyman, Lippincott and NERA Economic Consulting. Oliver Wyman Group generated approximately 13% of the Company's total revenue in 2019.

Oliver Wyman is a global leader in management consulting. Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management and organization transformation. Industry groups include:

- Automotive
- Aviation, Aerospace & Defense
- Business Services
- Communications, Media & Technology
- Distribution & Wholesale
- Education
- Energy
- Financial Services (including corporate and institutional banking, insurance, wealth and asset management, public policy, and retail and business banking)
- Health & Life Sciences
- Industrial Products
- Public Sector
- Retail & Consumer Products
- Surface Transportation
- Travel & Leisure

Oliver Wyman overlays its industry knowledge with expertise in the following functional specializations:

- *Actuarial*. Oliver Wyman's Actuarial Practice uses mathematical and statistical modeling skills and qualitative assessment methodologies to assist clients in evaluating and addressing risk.
- *Corporate Finance & Restructuring.* Oliver Wyman provides an array of capabilities to support investment decision making by private equity funds, hedge funds, sovereign wealth funds, investment banks, commercial banks, arrangers, strategic investors and insurers.
- *Digital*. Oliver Wyman helps organizations capitalize on the opportunities created by digitization of business, and anticipate and neutralize strategic threats.
- *Operations.* Oliver Wyman helps organizations leverage their operations for a competitive advantage using a comprehensive set of capabilities, including performance improvement, digital operations strategy, and risk management.
- *Organizational Effectiveness.* Oliver Wyman's Organizational Effectiveness capability brings together deep functional expertise and industry knowledge to enable the whole organization to work in service of its strategic vision and to address the most pressing organizational, people, and change issues.
- *Payments.* Oliver Wyman draws on years of industry-shaping work in the Financial Services and Retail industries, deep digital expertise, and renowned research partners in its Celent® business, to help clients - from banks/issuers, to payments providers, to retailers - to build growth strategies, form effective partnerships, optimize costs, and manage risk.
- *Pricing, Sales, and Marketing.* Oliver Wyman helps organizations drive top-line and margin growth through outstanding strategy and decision making on pricing, marketing optimization, and best practices on sales effectiveness.
- *Risk Management.* Oliver Wyman works with chief financial officers, chief risk officers, and other senior finance and risk management executives of corporations and financial institutions on risk

management solutions. Oliver Wyman provides effective, customized solutions to the challenges presented by the evolving roles, needs and priorities of these individuals and organizations.

- *Strategy*. Oliver Wyman is a leading provider of corporate strategy advice and solutions in the areas of growth strategy and corporate portfolio; non-organic growth and M&A; performance improvement; business design and innovation; corporate center and shared services; and strategic planning.
- *Sustainability Center*. The Sustainability Center at Oliver Wyman supports leading companies and governments around the world in their efforts to foster economic growth while encouraging more responsible use of natural resources and environmental protection.

Lippincott is a creative consultancy specializing in brand and innovation that shapes recognized brands and experiences for clients globally. With a team of visual and verbal designers, Lippincott has helped create some of the world's most recognized brands.

NERA Economic Consulting provides economic analysis and advice to public and private entities to achieve practical solutions to highly complex business and legal issues arising from competition, regulation, public policy, strategy, finance and litigation. NERA professionals operate worldwide assisting clients including corporations, governments, law firms, regulatory agencies, trade associations, and international agencies. NERA's specialized practice areas include: antitrust; securities; complex commercial litigation; energy; environmental economics; network industries; intellectual property; product liability and mass torts; and transfer pricing.

Compensation for Services in Consulting

Mercer and the Oliver Wyman Group of businesses are compensated for advice and services primarily through fees paid by clients. Mercer's Health business is also compensated through commissions for the placement of insurance contracts and supplemental compensation from insurers based on such factors as volume, growth of accounts, and total retention of accounts placed by Mercer (comprising more than half of the revenue in the Health business). Mercer's Delegated Solutions business and certain of Mercer's administration services are compensated typically through fees based on assets under administration or management. For a majority of the Mercer-managed investment funds, revenue received from Mercer's investment management clients as sub-advisor fees is reported in accordance with U.S. GAAP, on a gross basis rather than a net basis. For a more detailed discussion of revenue sources and factors affecting revenue in the Consulting segment, see Part II, Item 7 ("Management's Discussion and Analysis of Financial Condition and Results of Operations") of this report.

REGULATION

The Company's activities are subject to licensing requirements and extensive regulation under U.S. federal and state laws, as well as laws of other countries in which the Company's subsidiaries operate. See Part I, Item 1A ("Risk Factors") below for a discussion of how actions by regulatory authorities or changes in legislation and regulation in the jurisdictions in which we operate may have an adverse effect on our businesses.

Risk and Insurance Services. While laws and regulations vary from location to location, every state of the United States and most foreign jurisdictions require insurance market intermediaries and related service providers (such as insurance brokers, agents and consultants, reinsurance brokers and managing general agents) to hold an individual or company license from a government agency or self-regulatory organization. Some jurisdictions issue licenses only to individual residents or locally-owned business entities; in those instances, if the Company has no licensed subsidiary, it may maintain arrangements with residents or business entities licensed to act in such jurisdiction. Such arrangements are subject to an internal review and approval process. Licensing of reinsurance intermediaries is generally less rigorous compared to that of insurance brokers, and most jurisdictions require only corporate reinsurance intermediary licenses.

In 2005, the Insurance Mediation Directive which, as from October 1, 2018 has been superseded by the Insurance Distribution Directive, was adopted by the United Kingdom and 27 other European Union Member States. Its implementation gave powers to the Financial Services Authority ("FSA"), the United Kingdom regulator at the time, to expand its responsibilities in line with the Financial Services and

Markets Act (2000), the result of which was the regulation of insurance and reinsurance intermediaries. The enhanced regulatory regime implemented in the United Kingdom created a licensing system based on an assessment of factors which included professional competence, financial capacity and the requirement to hold professional indemnity insurance. In April 2013, the FSA was superseded by the Financial Conduct Authority ("FCA"). In April 2014, the FCA's responsibilities were expanded further to include the regulation of credit activities for consumers. This included the broking of premium finance to consumers who wished to spread the cost of their insurance. In April 2015, the FCA obtained concurrent competition powers enabling it to enforce prohibitions on anti-competitive behavior in relation to financial services.

Insurance authorities in the United States and certain other jurisdictions in which the Company's subsidiaries do business, including the FCA in the United Kingdom, also have enacted laws and regulations governing the investment of funds, such as premiums and claims proceeds, held in a fiduciary capacity for others. These laws and regulations typically provide for segregation of these fiduciary funds and limit the types of investments that may be made with them, and generally apply to both the insurance and reinsurance business.

Certain of the Company's Risk and Insurance Services activities are governed by other regulatory bodies, such as investment, securities and futures licensing authorities. In the United States, Marsh and Guy Carpenter use the services of MMC Securities LLC, a SEC registered broker-dealer in the United States, investment adviser and introducing broker. MMC Securities LLC is a member of the Financial Industry Regulatory Authority ("FINRA"), the National Futures Association and the Securities Investor Protection Corporation ("SIPC"), primarily in connection with capital markets and other investment banking-related services relating to insurance-linked and alternative risk financing transactions. Also in the United States, Marsh uses the services of MMA Securities LLC, a SEC registered broker-dealer, investment adviser and member of FINRA and SIPC and JSL Securities, Inc., a SEC registered broker-dealer and member of FINRA, SIPC and the Municipal Securities Rulemaking Board, primarily in connection with retirement, executive compensation and benefits consulting and advisory services to qualified and non-qualified benefits plans, companies and executives. In the United Kingdom, Marsh and Guy Carpenter use the expertise of MMC Securities (Europe) Limited, which is authorized and regulated by the FCA to provide advice on securities and investments, including mergers & acquisitions in the European Union. MMC Securities LLC, MMC Securities (Europe) Limited, MMA Securities LLC and JSL Securities, Inc. are indirect, wholly-owned subsidiaries of Marsh & McLennan Companies, Inc.

Consulting. Mercer's retirement-related consulting and investment services are subject to pension law and financial regulation in many countries. In addition, the trustee services, investment services (including advice to persons, institutions and other entities on the investment of pension assets and assumption of discretionary investment management responsibilities) and retirement and employee benefit program administrative services provided by Mercer and its subsidiaries and affiliates are also subject to investment and securities regulations in various jurisdictions, including regulations imposed or enforced by the SEC and the Department of Labor in the United States, the FCA in the United Kingdom, the Central Bank of Ireland and the Australian Prudential Regulation Authority and the Australian Securities and Investments Commission. In the United States, Mercer provides investment services through Mercer Investments LLC, (formerly Mercer Investment Management, Inc.), an SEC-registered investment adviser, which consolidated the activities of each of Mercer's affiliated investment adviser entities in the United States (including Mercer Investment Consulting LLC and Pavilion Advisory Group), earlier in 2019. Mercer Trust Company, a limited purpose New Hampshire chartered trust bank, may also provide services for certain clients of Mercer's investment management business in the United States. The benefits insurance consulting and brokerage services provided by Mercer and its subsidiaries and affiliates are subject to the same licensing requirements and regulatory oversight as the insurance market intermediaries described above regarding our Risk and Insurance Services businesses. Mercer uses the services of MMC Securities LLC to provide certain services, including executive benefit and compensation services and securities dealing services.

***FATCA*.** Regulations promulgated by the U.S. Treasury Department pursuant to the Foreign Account Tax Compliance Act and related legislation (FATCA) require the Company to take various measures relating to non-U.S. funds, transactions and accounts. The regulations impose on Mercer certain client financial account tracking and disclosure obligations with respect to non-U.S. financial institution and insurance

clients, and until recently, required Marsh and Guy Carpenter (and Mercer, in limited circumstances) to collect, validate and maintain certain documentation from each foreign insurance entity that insures a risk that is subject to the regulations. On December 13, 2018, the U.S. Treasury Department modified these rules, effectively relieving Marsh and Guy Carpenter from FATCA compliance with respect to its handling of non-cash value premium payments. As it relates to these non-cash value insurance premiums, the new rules were put into immediate effect.

COMPETITIVE CONDITIONS

The Company faces strong competition in all of its businesses from providers of similar products and services, including competition with regard to identifying and pursuing acquisition candidates. The Company also encounters strong competition throughout its businesses from both public corporations and private firms in attracting and retaining qualified employees. In addition to the discussion below, see "Risks Relating to the Company Generally — Competitive Risks," in Part I, Item 1A of this report.

Risk and Insurance Services. The Company's combined insurance and reinsurance services businesses are global in scope. Our insurance and reinsurance businesses compete principally on sophistication, range, quality and cost of the services and products they offer to clients. The Company encounters strong competition from other insurance and reinsurance brokerage firms that operate on a global, regional, national or local scale, from a large number of regional and local firms in the United States, the European Union and elsewhere, from insurance and reinsurance companies that market, distribute and service their insurance and reinsurance products without the assistance of brokers or agents and from other businesses, including commercial and investment banks, accounting firms, consultants and online platforms, that provide risk-related services and products or alternatives to traditional insurance brokerage services. In addition, third party capital providers have entered the insurance and reinsurance risk transfer market offering products and capital directly to the Company’s clients. Their presence in the market increases the competitive pressures that the Company faces.

Certain insureds and groups of insureds have established programs of self-insurance (including captive insurance companies) as a supplement or alternative traditional third-party insurance, thereby reducing in some cases their need for insurance placements. Certain insureds also obtain coverage directly from insurance providers. There are also many other providers of managing general agency, affinity programs and private client services, including specialized firms, insurance companies and other institutions.

Consulting. The Company's consulting businesses face strong competition from other privately and publicly held worldwide and national companies, as well as regional and local firms. These businesses generally compete on the basis of the range, quality and cost of the services and products they provide to clients. Competitors include independent consulting and outsourcing firms, as well as consulting and outsourcing operations affiliated with accounting, information systems, technology and financial services firms. Mercer's investments business faces competition from many sources, including investment consulting firms (many of which offer delegated services), investment management firms and other financial institutions. In some cases, clients have the option of handling the services provided by Mercer and Oliver Wyman Group internally, without assistance from outside advisors.

Segmentation of Activity by Type of Service and Geographic Area of Operation.

Financial information relating to the types of services provided by the Company and the geographic areas of its operations is incorporated herein by reference to Note 17 to the consolidated financial statements included under Part II, Item 8 of this report.

Employees

As of December 31, 2019, the Company and its consolidated subsidiaries employed 76,000 colleagues worldwide, including approximately 43,600 in Risk and Insurance Services and 30,400 in Consulting.

EXECUTIVE OFFICERS OF THE COMPANY

The executive officers and executive officer appointees of the Company are appointed annually by the Company's Board of Directors. The following individuals are the executive officers of the Company:

Peter J. Beshar, age 58, is Executive Vice President and General Counsel of Marsh & McLennan. In addition to managing the Company's Legal, Compliance & Public Affairs groups, Mr. Beshar also oversees the Company's Government Relations and Risk Management groups. Before joining Marsh & McLennan in November 2004, Mr. Beshar was a Litigation Partner in the law firm of Gibson, Dunn & Crutcher LLP. Mr. Beshar joined Gibson, Dunn & Crutcher in 1995 after serving as an Assistant Attorney General in the New York Attorney General's office and as the Special Assistant to Cyrus Vance in connection with the peace negotiations in the former Yugoslavia.

Dominic Burke, age 61, is Vice Chair of Marsh & McLennan. He joined the firm in 2019 following the acquisition of Jardine Lloyd Thompson Group (JLT), after having served as JLT's Group Chief Executive for more than 13 years. He also serves as Chairman of Marsh JLT Specialty. Mr. Burke has more than three decades of experience in the insurance industry. Prior to serving as JLT's Group Chief Executive, Mr. Burke held various roles at JLT including Group Chief Operating Officer and prior to that, CEO of JLT's UK Retail and Employee Benefits business. Mr. Burke joined JLT in 2000, when it acquired the company he founded, Burke Ford Insurance Group. Mr. Burke serves as the Chairman of Newbury Racecourse plc and is a Director for the charity Injured Jockeys Fund in the UK.

John Q. Doyle, age 56, is Vice Chair, Marsh & McLennan and President and Chief Executive Officer of Marsh. He oversees all of Marsh's businesses and operations globally. Mr. Doyle was named CEO of Marsh in July 2017, having joined Marsh & McLennan as President of Marsh in April 2016. Prior to that, he was Chief Executive Officer of AIG's commercial insurance businesses. Mr. Doyle began his career at AIG in 1986 and held several senior executive positions, including President and Chief Executive Officer of AIG property and casualty in the U.S., President and Chief Executive Officer of National Union Fire Insurance Company, and President of American Home Assurance Company.

Martine Ferland, age 58, is Vice Chair, Marsh & McLennan and President and Chief Executive Officer of Mercer, a role she assumed in March 2019. Previously, she was Mercer's Group President, responsible for leading the firm's regions and Global Business Solutions. She joined Mercer in 2011 as Retirement Business Leader for the Europe and Pacific region, and has served as Europe and Pacific Region President and Co-President, Global Health. Ms. Ferland began her career as a pension actuary and consultant at Willis Towers Watson, where she spent 25 years and held various leadership positions in Montreal and New York. Ms. Ferland is a Fellow of the Society of Actuaries and of the Canadian Institute of Actuaries.

E. Scott Gilbert, age 64, is Senior Vice President and Chief Information Officer of Marsh & McLennan. Mr. Gilbert is responsible for the Company's global information technology strategy, systems, and infrastructure and leads the Company's firm-wide efforts to improve the experience of clients and colleagues through the development and implementation of innovative and cost-effective technologies. Mr. Gilbert also oversees the firm's global Business Resiliency and Security operations. He joined the Company in January 2005 as Chief Compliance Officer and was subsequently appointed Chief Risk and Compliance Officer, a position he held until 2015, when he became Chief Information Officer. Prior to joining the Company, Mr. Gilbert served as Chief Compliance Counsel of General Electric Company, and served for over five years as an Assistant U.S. Attorney for the Southern District of New York.

Daniel S. Glaser, age 59, is President and Chief Executive Officer of Marsh & McLennan. Prior to starting his current role in January 2013, Mr. Glaser served as Group President and Chief Operating Officer of the Company. He rejoined Marsh & McLennan in December 2007 as Chairman and Chief Executive Officer of Marsh, returning to the firm where he had begun his career right out of university in 1982. Mr. Glaser is an insurance industry veteran who has held senior positions in commercial insurance and insurance brokerage, working in the United States, Europe and the Middle East. Mr. Glaser serves as the Chairman of the U.S. Federal Advisory Committee on Insurance (FACI). He is a member of: the Boards of Trustees for The Institutes and Ohio Wesleyan University and the Board of Directors for the Partnership for New York City. He is also Co-Chair of the International Advisory Board for BritishAmerican Business.

Peter Hearn, age 64, is Vice Chair, Marsh & McLennan and President and Chief Executive Officer of Guy Carpenter. Previously, he was Global Chairman of Willis Re from March 2011 to June 2015. Prior to that, Mr. Hearn served as the company's Global CEO from February 2005 to March 2011, during which time he was also a member of the Willis Group Executive Committee. Mr. Hearn began his reinsurance career in 1978 with Willis Faber and Dumas, working in the North American casualty, facultative, marine, and North American reinsurance divisions until 1981, when he joined Towers Perrin Forster and Crosby. Mr. Hearn joined Willis Re as a Senior Vice President in 1994.

Laurie Ledford, age 62, is Senior Vice President and Chief Human Resources Officer of Marsh & McLennan. She is responsible for Marsh & McLennan's overall human capital and talent strategy and the delivery of human resources services to all our colleagues worldwide. Prior to assuming her current role in 2012, Ms. Ledford served as Chief Human Resources Officer (CHRO) for Marsh Inc. Ms. Ledford joined Marsh in 2000 and was named CHRO in 2006, after having served as Senior Human Resources Director for Marsh's International Specialty Operations. Her prior experience was with Citibank and NationsBank.

Scott McDonald, age 53, is Vice Chair, Marsh & McLennan and President and Chief Executive Officer of the Oliver Wyman Group. Prior to assuming this role in January 2014, Mr. McDonald was President of Oliver Wyman. Before becoming President of Oliver Wyman in 2012, Mr. McDonald was the Managing Partner of Oliver Wyman's Financial Services practice. Before joining Oliver Wyman in 1995, he was an M&A investment banker with RBC Dominion Securities in Toronto.

Mark McGivney, age 52, is Chief Financial Officer of Marsh & McLennan. Prior to assuming this role in January 2016, Mr. McGivney has held a number of senior financial management positions since joining the Company in 2007. Most recently he was Senior Vice President, Corporate Finance of Marsh & McLennan, and was responsible for leading and directing the Company's Corporate Development, Treasury and Investor Relations functions from 2014 until 2016. Prior to that, he served as Chief Financial Officer of Marsh, and Chief Financial Officer and Chief Operating Officer of Mercer. His prior experience includes senior positions at The Hanover Insurance Group, including serving as Senior Vice President of Finance, Treasurer, and Chief Financial Officer of the Property & Casualty business, as well as positions with Merrill Lynch and Price Waterhouse.

AVAILABLE INFORMATION

The Company is subject to the information reporting requirements of the Securities Exchange Act of 1934. In accordance with the Exchange Act, the Company files with, or furnishes to, the SEC its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statement for its annual shareholders' meeting. The Company makes these reports and any amendments to these reports available free of charge through its website, www.mmc.com, as soon as reasonably practicable after they are filed with or furnished to the SEC. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding issuers, like the Company, that file electronically with the SEC.

The Company also posts on its website certain governance and other information for investors.

The Company encourages investors to visit these websites from time to time, as information is updated and new information is posted. Website references in this report are provided as a convenience and do not constitute, and should not be viewed as, incorporation by reference of the information contained on, or available through, the websites. Therefore, such information should not be considered part of this report.

Item 1A. Risk Factors

You should consider the risks described below in conjunction with the other information presented in this report. These risks have the potential to materially adversely affect the Company's business, results of operations or financial condition.

RISKS RELATING TO THE COMPANY GENERALLY

Technology, Cybersecurity and Data Protection Risks

Our business performance and growth plans could be negatively affected if we are not able to develop and implement improvements in technology or respond effectively to the threat of digital disruption and other technological change.

We depend in large part on our technology systems for conducting business, as well as for providing the data and analytics we utilize to manage our business. As a result, our business success is dependent on maintaining the effectiveness of existing technology systems and on continuing to develop and enhance technology systems that support our business processes and strategic initiatives in a cost and resource efficient manner, particularly as our business processes become more digital. We have a number of strategic initiatives involving investments in or partnerships with technology companies as well as investments in technology systems and infrastructure to support our growth strategy. These investments may be costly and require significant capital expenditures, may not be profitable or may be less profitable than what we have experienced historically. In addition, investments in technology systems may not deliver the benefits or perform as expected, or may be replaced or become obsolete more quickly than expected, which could result in operational difficulties or additional costs. In some cases, we also depend on key vendors and partners to provide technology and other support for our strategic initiatives. If these vendors or partners fail to perform their obligations or otherwise cease to work with us, our ability to execute on our strategic initiatives could be adversely affected. If we do not keep up with technological changes or execute effectively on our strategic initiatives, our business and results of operations could be adversely impacted.

In addition, to remain competitive in many of our business areas, we must anticipate and respond effectively to the threat of digital disruption and other technological change. The threat comes from traditional players, such as insurers, through disintermediation as well as from new entrants, such as technology companies, "Insurtech" start-up companies and others. These players are focused on using technology and innovation, including artificial intelligence (AI), digital platforms, data analytics, robotics and blockchain, to simplify and improve the client experience, increase efficiencies, alter business models and effect other potentially disruptive changes in the industries in which we operate.

We could incur significant liability or our reputation could be damaged if our information systems are breached or we otherwise fail to protect client or Company data or information systems.

In operating our business and providing services and solutions to clients, we collect, use, store, transmit and otherwise process certain electronic information, including personal, confidential, proprietary and sensitive data such as information related to financial records, health care, mergers and acquisitions and personal data of our clients, colleagues and vendors. We rely on the efficient, uninterrupted and secure operation of complex information technology systems and networks to operate our business and securely process, transmit and store electronic information. In the normal course of business, we also share electronic information with our vendors and other third parties. This electronic information comprises sensitive and confidential data, including information related to financial records, health care, mergers and acquisitions and clients' personal data. Our information technology systems and safety control systems, and those of our numerous third-party providers, as well as the control systems of critical infrastructure they rely on, such as power grids, are potentially vulnerable to unauthorized access, damage or interruption from a variety of external threats, including cyberattacks, computer viruses and other malware, ransomware and other types of data and systems-related modes of attack. Our systems are also subject to compromise from internal threats such as improper action by employees, vendors and other third parties with otherwise legitimate access to our systems. Moreover, we face the ongoing challenge of managing access controls in a complex environment. The latency of a compromise is often measured in months but could be years, and we may not be able to detect a compromise in a timely manner. We could experience significant financial and reputational harm if our information systems are breached, sensitive client or Company data are compromised, surreptitiously modified, rendered

inaccessible for any period of time or maliciously made public, or if we fail to make adequate or timely disclosures to the public or law enforcement agencies following any such event, whether due to delayed discovery or a failure to follow existing protocols.

Cyberattacks are increasing in frequency and evolving in nature. We are at risk of attack by a variety of adversaries, including state-sponsored organizations, organized crime, hackers or "hactivists" (activist hackers), through use of increasingly sophisticated methods of attack, including the deployment of artificial intelligence to find and exploit vulnerabilities, such as “deep fakes”, and long-term, persistent attacks referred to as advanced persistent threats. These techniques used to obtain unauthorized access or sabotage systems include, among other things, computer viruses, malicious or destructive code, ransomware, social engineering attacks (including phishing and impersonation), hacking and denial-of-service attacks. Because these techniques change frequently and new techniques may not be identified until they are launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures, resulting in potential data loss, data unavailability, data corruption or other damage to information technology systems.

As the breadth and complexity of the technologies we use and the software and platforms we develop continue to grow, including as a result of the use of mobile devices, cloud services, "open source" software, social media and the increased reliance on devices connected to the Internet (known as the "Internet of Things"), the potential risk of security breaches and cyber-attacks also increases. Despite ongoing efforts to improve our ability to protect data from compromise, we may not be able to protect all of our data across our diverse systems. Our efforts to improve and protect data from compromise may also identify previously undiscovered instances of security breaches or other cyber incidents. Our policies, employee training (including phishing prevention training), procedures and technical safeguards may also be insufficient to prevent or detect improper access to confidential, personal or proprietary information. In addition, the competition for talent in the data privacy and cybersecurity space is intense, and we may also be unable to hire, develop or retain suitable talent capable of adequately detecting, mitigating or remediating these risks.

Should an attacker gain access to our network using compromised credentials of an authorized user, we are at risk that the attacker might successfully leverage that access to compromise additional systems and data. Certain measures that could increase the security of our systems, such as data encryption (including encryption of data at rest), heightened monitoring and logging, scanning for source code errors or deployment of multi-factor authentication, take significant time and resources to deploy broadly, and such measures may not be deployed in a timely manner or be effective against an attack. The inability to implement, maintain and upgrade adequate safeguards could have a material adverse effect on our business.

Our information systems must be continually updated, patched, and upgraded to protect against known vulnerabilities. The volume of new software vulnerabilities has increased markedly, as has the criticality of patches and other remedial measures, including those in the existing JLT information systems. In addition to remediating newly identified vulnerabilities, previously identified vulnerabilities must also be continuously addressed. Accordingly, we are at risk that cyberattackers exploit these known vulnerabilities before they have been communicated by vendors or addressed. Due to the large number and age of the systems and platforms that we operate, the increased frequency at which vendors are issuing security patches to their products, the need to test patches and, in some cases coordinate with clients and vendors, before they can be deployed, we perpetually face the substantial risk that we cannot deploy patches in a timely manner. We are also dependent on third party vendors to keep their systems patched and secure in order to protect our data. Any failure related to these activities could have a material adverse effect on our business.

We have numerous vendors and other third parties who receive personal information from us in connection with the services we offer our clients. In addition, we have migrated certain data, and may increasingly migrate data, to the cloud hosted by third-party providers. Some of these vendors and third parties also have direct access to our systems. We are at risk of a cyberattack involving a vendor or other third party, which could result in a breakdown of such third party’s data protection processes or the cyberattackers gaining access to our infrastructure through the third party. To the extent that a vendor or third party suffers a cyberattack that compromises its operations, we could incur significant costs and possible service interruption, which could have an adverse effect on our business.

We have a history of making acquisitions and investments, and in April 2019 we completed the acquisition of JLT. The process of integrating the information systems of JLT and of such other businesses we acquire is complex and exposes us to additional risk. For instance, we may not adequately identify weaknesses and vulnerabilities in an acquired entity's information systems, either before or after the acquisition, which could affect the value we are able to derive from the acquisition, expose us to unexpected liabilities or make our own systems more vulnerable to a cyberattack. In addition, if we discover a historical compromise, security breach or other cyber incident related to the target's information systems following the close of the acquisition, we may be liable and exposed to significant costs and other unforeseen liabilities. We may also be unable to integrate the systems of the businesses we acquire into our environment in a timely manner, which could further increase these risks until such integration takes place. In the case of JLT, our integration of the information systems is ongoing, and given the size and complexity of the integration project, we remain exposed to these risks until the integration is complete.

We have from time to time experienced data incidents and cybersecurity breaches, such as malware incursions (including computer viruses and ransomware), users exceeding their data access authorization, employee misconduct and incidents resulting from human error, such as loss of portable and other data storage devices or misconfiguration of software or hardware resulting in inadvertent exposure of personal, sensitive, confidential or proprietary information. Like many companies, we are subject to social engineering attacks such as regular phishing email campaigns directed at our employees that can result in malware infections and data loss. Although these incidents have resulted in data loss and other damages, to date, they have not had a material adverse effect on our business or operations. In the future, these types of incidents could result in personal, sensitive, confidential or proprietary information being lost or stolen, surreptitiously modified, rendered inaccessible for any period of time, or maliciously made public, including client, employee or Company data, which could have a material adverse effect on our business. In the event of a cyberattack, we might have to take our systems offline, which could interfere with services to our clients or damage our reputation. We also may be unable to detect an incident, assess its severity or impact, or appropriately respond in a timely manner. In addition, our liability insurance, which includes cyber insurance, may not be sufficient in type or amount to cover us against claims related to security breaches, cyberattacks and other related data and system incidents.

The costs to comply with, or our failure to comply with, U.S. and foreign laws related to privacy, data security and data protection, such as the E.U. General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA), could adversely affect our financial condition, operating results and our reputation.

In operating our business and providing services and solutions to clients, we store and transfer sensitive employee and client data, including personal data, in and across multiple jurisdictions. We leverage systems and applications that are spread all over the world requiring us to regularly move data across national borders. As a result, we are subject to a variety of laws and regulations in the United States, Europe and around the world regarding privacy, data protection, data security and cyber-security. These laws and regulations are continuously evolving and developing. Some of these laws and regulations are increasing the level of data handling restrictions, including rules on data localization, all of which could affect our operations and result in regulatory liability and high fines. In particular, high-profile security breaches at major companies continue to be disclosed regularly, which is leading to even greater regulatory scrutiny and fines at the highest levels they have ever been.

The scope and interpretation of the laws that are or may be applicable to us are often uncertain and may be conflicting. For example, the GDPR, which became effective in May 2018, greatly increased the European Commission's jurisdictional reach of its laws and added a broad array of requirements for handling personal data, such as the public disclosure of data breaches, privacy impact assessments, data portability and the appointment of data protection officers in some cases. In the U.S., the CCPA came into effect in January 2019 and introduced several new concepts to local privacy requirements, including increased transparency and rights such as access and deletion and an ability to opt out of the "sale" of personal information. Despite a proliferation of regulatory guidance papers, much remains unclear with respect to how to interpret and implement the GDPR and the CCPA, and that lack of clarity could result in potential liability for our failure to meet our obligations under the GDPR and the CCPA. Given the breadth and depth of changes in data protection obligations, including classifying data and committing to a range

of administrative, technical and physical controls to protect data and enable data transfers outside of the E.U., our compliance with laws such as the GDPR and the CCPA will continue to require time, resources and review of the technology and systems we use. Further, Brexit has created uncertainty with regard to the future of the flow of personal information between the United Kingdom and the E.U., and that uncertainty may impair our ability to offer our existing and planned products and services or increase our cost of doing business.

Following the implementation of the GDPR, other jurisdictions have sought to amend, or propose legislation to amend, their existing data protection laws to align with the requirements of the GDPR with the aim of obtaining an adequate level of data protection to facilitate the transfer of personal data to most jurisdictions from the E.U. Accordingly, the challenges we face in the E.U. will likely also apply to other jurisdictions that adopt laws similar to the GDPR or regulatory frameworks of equivalent complexity. For example, Brazil has enacted its general data protection law, the Lei Geral de Proteção de Dados Pessoais, which is due to come into effect in August 2020, China has modified its law, India has a new draft privacy law and Japan has adopted sweeping changes to its privacy law. In some cases, including China and India, the laws include data localization elements that will require that certain personal data stay within their borders. Looking at the U.S. following the passage of the CCPA, multiple other states have introduced similar bills, some more comprehensive than the CCPA. There is also continued legislative interest in passing a federal privacy law. In addition to data protection laws, countries and states in the U.S. are enacting cybersecurity laws and regulations. For example, the New York State Department of Financial Services issued in 2017 cybersecurity regulations which imposed an array of detailed security measures on covered entities. These requirements were phased in and the last of them came into effect on March 1, 2019. All of these evolving compliance and operational requirements impose significant costs that are likely to increase over time, may divert resources from other initiatives and projects and could restrict the way services involving data are offered, all of which may adversely affect our results of operations.

Many statutory requirements, both in the United States and abroad, include obligations for companies to notify individuals of security breaches involving certain personal information, which could result from breaches experienced by us or our vendors. In addition to government regulation, privacy advocates and industry groups have and may in the future propose self-regulatory standards from time to time. These and other industry standards may legally or contractually apply to us, or we may elect to comply with such standards. We expect that there will continue to be new proposed laws and regulations concerning data privacy and security, and we cannot yet determine the impact such future laws, regulations and standards may have on our business.

Furthermore, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy violations continue to increase. Unauthorized disclosure or transfer of sensitive or confidential client or Company data, whether through systems failure, employee negligence, fraud or misappropriation, by the Company, our vendors or other parties with whom we do business (if they fail to meet the standards we impose) could subject us to significant litigation, monetary damages, regulatory enforcement actions, fines and criminal prosecution in one or more jurisdictions. Given the complexity of operationalizing the various privacy laws such as the GDPR and the CCPA, the maturity level of proposed compliance frameworks and the continued lack of clarity on how to implement their requirements, we and our clients are at risk of enforcement actions taken by E.U. and other data protection authorities or litigation from consumer advocacy groups acting on behalf of data subjects. We may not be able to respond quickly or effectively to regulatory, legislative and other developments, and these changes may in turn impair our ability to offer our existing or planned products and services and/or increase our cost of doing business.

Legal and Regulatory Risks

We are subject to significant uninsured exposures arising from errors and omissions, breach of fiduciary duty and other claims.

Our businesses provide numerous professional services, including the placement of insurance and the provision of consulting, investment advisory and actuarial services, to clients around the world. As a result, the Company and its subsidiaries are subject to a significant number of errors and omissions, breach of fiduciary duty and similar claims, which we refer to collectively as "E&O claims." In our Risk and

Insurance Services segment, such claims include allegations of damages arising from our failure to assess clients' risks, advise clients, place coverage or notify insurers of potential claims on behalf of clients in accordance with our obligations to them. In our Consulting segment, where we increasingly act in a fiduciary capacity through our investments business, such claims could include allegations of damages arising from the provision of consulting, investments, actuarial, pension administration and other services. We may also be exposed to claims related to assets or solutions offered by the Consulting segment in complement to its traditional consulting services. These Consulting segment services frequently involve complex calculations and other analysis, including (i) making assumptions about, and preparing estimates concerning, contingent future events, (ii) drafting and interpreting complex documentation governing pension plans, (iii) calculating benefits within complex pension structures, (iv) providing individual financial planning advice including investment advice and advice relating to cashing out of defined benefit pension plans; (v) providing investment advice, including guidance on asset allocation and investment strategy, and (vi) managing client assets, including the selection of investment managers and implementation of the client's investment policy. We provide these services to a broad client base, including clients in the public sector for our investment services. Matters often relate to services provided by the Company dating back many years. Such claims may subject us to significant liability for monetary damages, including punitive and treble damages, negative publicity and reputational harm, and may divert personnel and management resources. We may be unable to effectively limit our potential liability in certain jurisdictions, including through insurance, or in connection with certain types of claims, particularly those concerning claims of a breach of fiduciary duty.

In establishing liabilities for E&O claims under U.S. generally accepted accounting principles ("U.S. GAAP"), the Company uses case level reviews by inside and outside counsel, actuarial analysis by Oliver Wyman Group, a subsidiary of the Company, and other methods to estimate potential losses. A liability is established when a loss is both probable and reasonably estimable. The liability is assessed quarterly and adjusted as developments warrant. In many cases, the Company has not recorded a liability, other than for legal fees to defend the claim, because we are unable, at the present time, to make a determination that a loss is both probable and reasonably estimable. Given the judgment involved in estimating and establishing liabilities in accordance with U.S. GAAP, as well as the unpredictability of E&O claims and the litigation that can flow from them, it is possible that an adverse outcome in a particular matter could have a material adverse effect on the Company's business, results of operations or financial condition.

We are subject to regulatory investigations, reviews and other inquiries that consume significant management time and, if determined unfavorably to us, could have a material adverse effect on our business, results of operations or financial condition.

We are subject to regulatory investigations, reviews and other inquiries that consume significant management time and, if determined unfavorably to us, could have a material adverse effect on our business, results of operations or financial condition. For example, in October 2017, the Company received a notice that the Directorate-General for Competition of the European Commission had commenced a civil investigation of a number of insurance brokers, including both Marsh and JLT, regarding "the exchange of commercially sensitive information between competitors in relation to aviation and aerospace insurance and reinsurance broking products and services in the European Economic Area, as well as possible coordination between competitors." In January 2019, we received a notice that the Administrative Council for Economic Defense anti-trust agency in Brazil had commenced an administrative proceeding against a number of insurance brokers, including both Marsh and JLT, and insurers "to investigate an alleged sharing of sensitive commercial and competitive confidential information" in the aviation insurance and reinsurance sector. In addition, upon the consummation of the acquisition of JLT, the Company assumed the legal liabilities and became responsible for JLT's litigation and regulatory exposures as of April 1, 2019.

These regulatory matters are ongoing, and we are unable to predict their likely timing, outcome or ultimate impact. Additional information regarding these investigations and certain other legal and regulatory proceedings is set forth in Note 16 to our consolidated financial statements included under Part II, Item 8 of this report.

We cannot guarantee that we are or will be in compliance with all current and potentially applicable U.S. federal and state or foreign laws and regulations, and actions by regulatory authorities or changes in legislation and regulation in the jurisdictions in which we operate could have a material adverse effect on our business.

Our activities are subject to extensive regulation under the laws of the United States and its various states, the United Kingdom, the European Union and its member states and the other jurisdictions in which we operate. For example, we are subject to regulation by agencies such as the Securities and Exchange Commission, FINRA and state insurance regulators in the United States, the FCA and the Competition and Markets Authority (CMA) in the United Kingdom, and the European Commission in the European Union, as further described above under Part I, Item 1 - Business (Regulation) of this report. We are also subject to trade sanctions laws relating to countries such as Cuba, Crimea, Iran, North Korea, Russia, Syria and Venezuela, and anti-corruption laws such as the U.S. Foreign Corrupt Practices Act and the U.K. Anti-Bribery Act. We are subject to numerous other laws on matters as diverse as internal control over financial reporting and disclosure controls and procedures, securities regulation, data privacy and protection, cybersecurity, taxation, anti-trust and competition, immigration, wage-and-hour standards and employment and labor relations.

The U.S. and foreign laws and regulations that apply to our operations are complex and may change rapidly, and our efforts to comply and keep up with them require significant resources. In some cases, these laws and regulations may decrease the need for our services, increase our costs, negatively impact our revenues or impose operational limitations on our business, including on the products and services we may offer or on the amount or type of compensation we may collect. While we attempt to comply with applicable laws and regulations, there can be no assurance that we, our employees, our consultants and our contractors and other agents are in full compliance with such laws and regulations or interpretations at all times, or that we will be able to comply with any future laws or regulations. If we fail to comply or are accused of failing to comply with applicable laws and regulations, including those referred to above, we may become subject to investigations, criminal penalties, civil remedies or other consequences, including fines, injunctions, loss of an operating license or approval, increased scrutiny or oversight by regulatory authorities, the suspension of individual employees, limitations on engaging in a particular business or redress to clients or other parties, and we may become exposed to negative publicity or reputational damage. Moreover, our failure to comply with laws or regulations in one jurisdiction may result in increased regulatory scrutiny by other regulatory agencies in that jurisdiction or regulatory agencies in other jurisdictions. The cost of compliance and the consequences of failing to be in compliance could therefore have a material adverse effect on our business, results of operations and financial condition.

In most jurisdictions, government regulatory authorities have the power to interpret and amend or repeal applicable laws and regulations, and have discretion to grant, renew and revoke the various licenses and approvals we need to conduct our activities. Such authorities may require the Company to incur substantial costs in order to comply with such laws and regulations. In some areas of our businesses, we act on the basis of our own or the industry's interpretations of applicable laws or regulations, which may conflict from state to state or country to country. In the event those interpretations eventually prove different from the interpretations of regulatory authorities, we may be penalized or precluded from carrying on our previous activities. Moreover, the laws and regulations to which we are subject may conflict among the various jurisdictions and countries in which we operate, which increases the likelihood of our businesses being non-compliant in one or more jurisdictions.

Our business or reputation could be harmed by our reliance on third-party providers or introducers.

We currently partner with a large volume of third-party providers to meet the needs of our clients around the world. In certain limited instances, we also work with third-party introducers that provide services for public sector clients.

There is a risk that our third-party providers or introducers engage in business practices that are prohibited by our internal policies or violate applicable laws and regulations, such as the U.S. Foreign Corrupt Practices Act and the U.K. Anti-Bribery Act.

Acquisitions and Dispositions Risks

We face risks when we acquire businesses, including risks relating to our integration of JLT.

We have a history of making acquisitions and investments, including a total of 123 in the period from 2013 to 2019. In particular, we completed the acquisition of the Jardine Lloyd Thompson Group plc ("JLT") on April 1, 2019 (the “JLT Transaction”). We may not be able to successfully integrate the business of JLT or any other businesses that we acquire into our own business, or achieve any expected cost savings or synergies from the integration of JLT or any other such integration. The potential difficulties that we may face which could cause the results of the acquisition of JLT or any other business to differ from our expectations, include, but are not limited to, the following:

- the retention of key colleagues and clients;
- failure to implement our business plan for the combined business or to achieve anticipated revenue or profitability targets;
- delays or difficulties in completing the integration of acquired companies or assets;
- higher than expected costs, lower than expected cost savings and/or a need to allocate resources to manage unexpected operating difficulties;
- issues in integrating information and technology, accounting, tax, financial reporting, human resources, and other systems;
- assumption of unknown liabilities, or other unanticipated issues, expenses and liabilities;
- weaknesses and vulnerabilities in an acquired entity’s information systems, either before or after the acquisition, which could expose us to unexpected liabilities or make our own systems more vulnerable to a cyberattack;
- changes in applicable laws and regulations or their interpretations, including changes in tax laws, employment regulations and changes in the U.K. and Europe related to Brexit;
- diversion of attention and resources of management;
- promoting or retaining a positive corporate culture;
- retaining and obtaining required regulatory approvals, licenses and permits;
- for acquisitions in which the acquired company’s financial performance is incorporated into our financial results, either in full or in part, the dependence on the acquired company’s accounting, financial reporting and similar systems, controls and processes;
- the difficulty of implementing the required controls, procedures and policies appropriate for a U.S. public company, including compliance with the requirements under the Sarbanes-Oxley Act of 2002, and the potential for significant deficiencies or material weaknesses related to controls and procedures, particularly for acquisitions of companies headquartered outside the U.S.;
- the ability to receive dividends and other payments from newly acquired companies; and
- compliance with all current and potentially applicable U.S. federal and state or foreign laws and regulations, including the U.K. Anti-Bribery Act, U.S. Foreign Corrupt Practices Act and U.S. anti-money laundering and sanctions laws.

In addition, if in the future the performance of our reporting units or an acquired business varies from our projections or assumptions, or estimates about future profitability of our reporting units or an acquired business change, the estimated fair value of our reporting units or an acquired business could change materially and could result in an impairment of goodwill and other acquisition-related intangible assets recorded on our balance sheet or in adjustments in contingent payment amounts. Given the significant size of the Company's goodwill and intangible assets, an impairment could have a material adverse effect on our results of operations in any given period.

We expect that acquisitions will continue to be a key part of our business strategy. Our success in this regard will depend on our ability to identify and compete for appropriate acquisition candidates and to finance and complete the transactions we decide to pursue on favorable terms with positive results.

When we dispose of businesses, we may continue to be subject to certain liabilities of that business after its disposition relating to the prior period of our ownership and may not be able to negotiate for limitations on those liabilities. We are also subject to the risk that the sales price is less than the amount reflected on our balance sheet.

Competitive Risks

The loss of members of our senior management team or other key colleagues could have a material adverse effect on our business.

We rely upon the contributions of our senior management team to establish and implement our business strategy and to manage the future growth of our business. The loss of any of the senior management team could limit our ability to successfully execute our business strategy or adversely affect our ability to retain existing and attract new clients. Moreover, we could be adversely affected if we fail to adequately plan for the succession of members of our senior management team.

Across all of our businesses, our colleagues are critical to developing and retaining client relationships as well as performing the services on which our revenues are earned. It is therefore important for us to attract, incentivize and retain significant revenue-producing employees and the key managerial and other professionals who support them. We face numerous challenges in this regard, including the intense competition for talent, the general mobility of colleagues and fostering a diverse and inclusive workplace.

Losing colleagues who manage or support substantial client relationships or possess substantial experience or expertise could adversely affect our ability to secure and complete client engagements, which could adversely affect our results of operations. And, subject to applicable enforceable restrictive covenants, if a key employee were to join an existing competitor or form a competing company, some of our clients could choose to use the services of that competitor instead of our services.

Failure to maintain our corporate culture could damage our reputation.

We strive to foster a culture in which our colleagues act with integrity and feel comfortable speaking up about potential misconduct. We are a people business, and our ability to attract and retain colleagues and clients is dependent upon our commitment to a diverse and inclusive workplace, trustworthiness, ethical business practices and other qualities. Our colleagues are the cornerstone of this culture, and acts of misconduct by any colleague, and particularly by senior management, could erode trust and confidence and damage our reputation among existing and potential clients and other stakeholders.

In addition, there is increased focus, including from governmental organizations, investors, colleagues and clients, on environmental, social and governance (ESG) issues such as climate change. Our reputation could be damaged if we do not, or are perceived not to, adequately address these issues.

We face significant competitive pressures in each of our businesses, including from disintermediation, as our competitive landscape continues to evolve.

As a global professional services firm, the Company faces intense, sustained competition in each of its businesses, and the competitive landscape continues to change and evolve. Our ability to compete successfully depends on a variety of factors, including the quality and expertise of our colleagues, our geographic reach, the sophistication and quality of our services, our pricing relative to competitors, our clients' ability to self-insure or use internal resources instead of consultants, and our ability to respond to changes in client demand and industry conditions. Some of our competitors may have greater financial resources, or may be better positioned to respond to technological and other changes in the industries we serve, and they may be able to compete more effectively. If we are unable to respond successfully to the changing conditions we face, our businesses, results of operations and financial condition will be adversely impacted.

In our Risk and Insurance Services segment, in addition to the challenges posed by capital market alternatives to traditional insurance and reinsurance, we compete intensely against a wide range of other insurance and reinsurance brokerage and risk advisory firms that operate on a global, regional, national or local scale for both client business and employee talent. In recent years, private equity sponsors have invested tens of billions of dollars into the insurance brokerage sector, transforming existing players and creating new ones to compete with large global and regional brokers. We also compete with in-house brokers, captive insurance companies, insurance and reinsurance companies that market and service

their insurance products directly to consumers and without the assistance of brokers or other market intermediaries, and with various other companies that provide risk-related services or alternatives to traditional brokerage services, including those that rely almost exclusively on technological solutions or platforms. This competition is intensified by an often "syndicated" or "distributed" approach to the purchase of insurance and reinsurance brokerage services, where a client engages multiple brokers to service different portions of the client's account. In addition, third party capital providers have entered the insurance and reinsurance risk transfer market offering products and capital directly to our clients that serve as substitutes for traditional insurance.

In our Consulting segment, we compete for business with numerous consulting firms and similar organizations, many of whom also provide, or are affiliated with firms that provide, accounting, information systems, technology and financial services. Such competitors may be able to offer more comprehensive products and services to potential clients, which may give them a competitive advantage.

Consolidation in the industries we serve could adversely affect our business.

Companies in the industries that we serve may seek to achieve economies of scale and other synergies by combining with or acquiring other companies. If two or more of our current clients merge, or consolidate or combine their operations, it may decrease the amount of work that we perform for these clients. If one of our current clients merges or consolidates with a company that relies on another provider for its services, we may lose work from that client or lose the opportunity to gain additional work. Any of these or similar possible results of increasing or evolving industry consolidation could adversely affect our business. For example, as insurance and reinsurance companies continue to consolidate, Guy Carpenter’s smaller client base may be more susceptible to this risk given the limited number of insurance company clients and reinsurers in the marketplace. In addition, in our Consulting segment in Australia, Mercer faces increased competitive pressure as the superannuation industry is consolidating, and superannuation providers, such as Mercer, face increased downward pressure on fees.

We rely on a large number of vendors and other third parties to perform key functions of our business operations and to provide services to our clients. These vendors and third parties may act in ways that could harm our business.

We rely on a large number of vendors and other third parties, and in some cases subcontractors, to provide services, data and information such as technology, information security, funds transfers, business process management, and administration and support functions that are critical to the operations of our business. These third parties include correspondents, agents and other brokers and intermediaries, insurance markets, data providers, plan trustees, payroll service providers, software and system vendors, health plan providers, investment managers, risk modeling providers, and providers of human resource functions, such as recruiters. Many of these providers are located outside the U.S., which exposes us to business disruptions and political risks inherent when conducting business outside of the U.S. As we do not fully control the actions of these third parties, we are subject to the risk that their decisions or operations may adversely impact us and replacing these service providers could create significant delay in services or operations and additional expense.

A failure by the third parties to (i) comply with service level agreements in a high quality and timely manner, particularly during periods of our peak demand for their services, (ii) maintain adequate internal controls that may impact our own financial reporting, or (iii) adequately maintain the confidentiality of any of our data or trade secrets or adequately protect or properly use other intellectual property to which they may have access, could result in economic and reputational harm to us. These third parties also face their own technology, operating, business and economic risks, and any significant failures by them, including the improper use or disclosure of our confidential client, employee, or Company information or failure to comply with applicable law, could cause harm to our reputation or otherwise expose us to liability. An interruption in or the cessation of service by any service provider as a result of systems failures, capacity constraints, non-compliance with legal, regulatory or contractual obligations, financial difficulties or for any other reason could disrupt our operations, impact our ability to offer certain products and services, and result in contractual or regulatory penalties, liability claims from clients or employees, damage to our reputation and harm to our business.

Business Resiliency Risks

Our inability to successfully recover should we experience a disaster or other business continuity or data recovery problem could cause material financial loss, loss of human capital, regulatory actions, reputational harm or legal liability.

If we experience a local or regional disaster or other business continuity event, such as an earthquake, hurricane, flood, terrorist attack, pandemic, security breach, cyberattack (including manipulating the control systems of critical infrastructure), power loss or telecommunications failure, our ability to operate will depend, in part, on the continued availability of our personnel, our office facilities and the proper functioning of our computer, telecommunication and other related systems and operations. In such an event, we could experience operational challenges that could have a material adverse effect on our business. The risk of business disruption is more pronounced in certain geographic areas, including major metropolitan centers, like New York or London, where we have significant operations and approximately 3,300 and 5,200 colleagues in those respective locations, and in certain countries and regions in which we operate that are subject to higher potential threat of terrorist attacks or military conflicts.

Our operations depend in particular upon our ability to protect our technology infrastructure against damage. If a business continuity event occurs, we could lose client or Company data or experience interruptions to our operations or delivery of services to our clients, which could have a material adverse effect. A cyberattack or other business continuity event affecting us or a key vendor or other third party could result in a significant and extended disruption in the functioning of our information technology systems or operations or our ability to recover data, requiring us to incur significant expense to address and remediate or otherwise resolve such issues. For example, hackers have increasingly targeted companies by attacking internet-connected industrial control and safety control systems. An extended outage could result in the loss of clients and a decline in our revenues. In the worst case, any manipulation of the control systems of critical infrastructure may even result in the loss of life.

We regularly assess and take steps to improve our existing business continuity, disaster recovery and data recovery plans and key management succession. However, a disaster or other continuity event on a significant scale or affecting certain of our key operating areas within or across regions, or our inability to successfully recover from such an event, could materially interrupt our business operations and result in material financial loss, loss of human capital, regulatory actions, reputational harm, damaged client relationships and legal liability. Our business disruption insurance may also not fully cover, in type or amount, the cost of a successful recovery in the event of such a disruption.

Financial Risks

Our results of operations and investments could be adversely affected by macroeconomic conditions, political events and market conditions.

Macroeconomic conditions, political events and other market conditions around the world affect our clients' businesses and the markets they serve. These conditions may reduce demand for our services or depress pricing for those services, which could have a material adverse effect on our results of operations. Changes in macroeconomic and political conditions could also shift demand to services for which we do not have a competitive advantage, and this could negatively affect the amount of business that we are able to obtain.

The United Kingdom’s exit from the European Union, referred to as "Brexit," continues to create political and economic uncertainty, particularly in the United Kingdom and the European Union. The British government and the E.U. continue to negotiate the terms of the U.K.'s future relationship with the E.U. There remains inevitable uncertainty on topics such as financial laws and regulations, tax and free trade agreements, immigration laws and employment laws. We have significant operations and a substantial workforce in the U.K. Approximately 16% of our revenue is from the U.K., and the uncertainty surrounding the implementation and effect of Brexit may cause increased economic volatility, affecting our operations and business. The effects of Brexit will depend on the agreements the U.K. makes to retain access to European Union markets during a transitional period and more permanently. The measures could potentially disrupt the markets we serve and may cause us to lose clients and colleagues. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which European Union laws to replace or replicate. These developments may have a material adverse effect on global economic conditions and the stability of financial markets, both in the U.K. and

globally. Any of these factors could affect the demand for our services. Furthermore, currency exchange rates in GBP and the euro with respect to each other and the U.S. dollar have already been adversely affected by these developments. Should this foreign exchange volatility continue, it could cause volatility in our quarterly financial results.

In addition, any changes in U.S. trade policy could trigger retaliatory actions by affected countries, resulting in “trade wars,” which could affect the volume of economic activity and performance of stock markets in the United States, including demand for our services.

Our investments, including our minority investments in other companies as well as our cash investments and those held in a fiduciary capacity, are subject to general credit, liquidity, counterparty, foreign exchange, market and interest rate risks. These risks may be exacerbated by global macroeconomic conditions, market volatility and regulatory, financial and other difficulties affecting the companies in which we have invested or that may be faced by financial institution counterparties. During times of stress in the banking industry, counterparty risk can quickly escalate, potentially resulting in substantial trading and investment losses for corporate and other investors. In addition, we may incur investment losses as a result of unusual and unpredictable market developments, and we may continue to experience reduced investment earnings if the yields on investments deemed to be low risk remain at or near their current low levels. If the banking system or the fixed income, interest rate, credit or equity markets deteriorate, the value and liquidity of our investments could be adversely affected. Finally, the value of the Company's assets held in other jurisdictions, including cash holdings, may decline due to foreign exchange fluctuations.

If we are unable to collect our receivables, our results of operations and cash flows could be adversely affected.

Our business depends on our ability to obtain payment from our clients of the amounts they owe us for the work we perform. As of December 31, 2019, our receivables for our commissions and fees were approximately $4.6 billion, or approximately one-quarter of our total annual revenues, and portions of our receivables are increasingly concentrated in certain businesses and geographies.

Macroeconomic or political conditions could result in financial difficulties for our clients, which could cause clients to delay payments to us, request modifications to their payment arrangements that could increase our receivables balance or default on their payment obligations to us.

We may not be able to obtain sufficient financing on favorable terms.

The maintenance and growth of our business, including our ability to finance acquisitions, the payment of dividends and our ability to make share repurchases rely on our access to capital, which depends in large part on cash flow generated by our business and the availability of equity and debt financing. Certain of our businesses such as GC Securities, a division of MMC Securities, LLC and MMC Securities (Europe) Limited also rely on financings by us to fund their underwriting of debt and equity capital raising offerings by their clients. We incurred significant debt to finance the JLT Transaction, and there can be no assurance that our operations will generate sufficient positive cash flow to finance all of our capital needs or that we will be able to obtain equity or debt financing on favorable terms. In addition, our ability to obtain financing will depend in part upon prevailing conditions in credit and capital markets, which are beyond our control.

Our defined benefit pension plan obligations could cause the Company's financial position, earnings and cash flows to fluctuate.

Our defined benefit pension obligations and the assets set aside to fund those obligations are sensitive to certain changes in the financial markets. Any such changes may result in increased pension expense or additional cash payments to fund these plans.

The Company has significant defined benefit pension obligations to its current and former employees, including obligations assumed as part of the JLT Transaction, totaling approximately $17.6 billion, and related plan assets of approximately $17.0 billion, at December 31, 2019 on a U.S. GAAP basis. As part of the JLT Transaction, the Company assumed responsibility for a number of pension plans throughout the world, with $255 million of net pension liabilities as of December 31, 2019 ($1,003 million in liabilities and $748 million of plan assets as of December 31, 2019). The Company's policy for funding its defined benefit pension plans is to contribute amounts at least sufficient to meet the funding requirements set

forth by law. In the United States, contributions to these plans are based on ERISA guidelines. Outside the United States, contributions are generally based on statutory requirements and local funding practices, which may differ from measurements under U.S. GAAP. In the U.K., for example, the assumptions used to determine pension contributions are the result of legally-prescribed negotiations between the Company and the plans' trustees. Currently, the use of these assumptions results in a lower funded status than determined under U.S. GAAP and may result in contributions irrespective of the U.S. GAAP funded status.

The financial calculations relating to our defined benefit pension plans are complex. Pension plan assets could decrease as the result of poor future asset performance. In addition, the estimated return on plan assets would likely be impacted by changes in the interest rate environment and other factors, including equity valuations, since these factors reflect the starting point used in the Company's projection models. For example a reduction in interest rates may result in a reduction in the estimated return on plan assets. Also, pension plan liabilities, periodic pension expense and future funding amounts could increase as a result of a decline in the interest rates we use to discount our pension liabilities, longer lifespans than those reflected in our mortality assumptions, changes in investment markets that result in lower expected returns on assets, actual investment return that is less than the expected return on assets, adverse changes in laws or regulations and other variables.

While we have taken steps to mitigate the impact of pension volatility on our earnings and cash funding requirements, these strategies may not be successful. Accordingly, given the magnitude of our worldwide pension plans, variations in or reassessment of the preceding or other factors or potential miscalculations relating to our defined benefit pension plans could cause significant fluctuation from year to year in our earnings and cash flow, as well as our pension plan assets, liabilities and equity, and may result in increased levels of contributions to our pension plans.

Our significant non-U.S. operations expose us to exchange rate fluctuations and various risks that could impact our business.

Approximately 53% of our business is located outside of the United States. We are subject to exchange rate movement because we must translate the financial results of our foreign subsidiaries into U.S. dollars and also because some of our subsidiaries receive revenue other than in their functional currencies. Exchange rate movements may change over time, and they could have a material adverse impact on our financial results and cash flows reported in U.S. dollars. Our U.S. operations earn revenue and incur expenses primarily in U.S. dollars. In certain jurisdictions, however, while Risk and Insurance Services operations generate revenue in a number of different currencies, expenses are almost entirely incurred in local currency. Due to fluctuations in foreign exchange rates, we are subject to economic exposure as well as currency translation exposure on the net operating results of our operations. Because the non-U.S. based revenue that is exposed to foreign exchange fluctuations is approximately 53% of total revenue, exchange rate movement can have a significant impact on our business, financial condition, results of operations and cash flow. For additional discussion, see "Market Risk and Credit Risk-Foreign Currency Risk" in Part II, Item 7A ("Quantitative and Qualitative Disclosures about Market Risk") of this report.

We may not be able to receive dividends or other distributions in needed amounts from our subsidiaries.

The Company is organized as a legal entity separate and distinct from our operating subsidiaries. Because we do not have significant operations of our own, we are dependent upon dividends and other payments from our operating subsidiaries to meet our obligations for paying principal and interest on outstanding debt obligations, paying dividends to stockholders, repurchasing our common stock under our share repurchase program and paying corporate expenses. In the event our operating subsidiaries are unable to pay sufficient dividends and make other payments to the Company, we may not be able to service our debt, pay dividends on or repurchase our common stock or meet our other obligations.

Further, the Company derives a significant portion of its revenue and operating profit from operating subsidiaries located outside the United States. Funds from the current year's earnings of the Company's non-U.S. operating subsidiaries are regularly repatriated to the United States. A number of factors could arise that could limit our ability to repatriate funds or could make repatriation cost-prohibitive, including, but not limited to, the imposition of currency controls and other government restrictions on repatriation in

the jurisdictions in which our subsidiaries operate, fluctuations in foreign exchange rates and the imposition of withholding and other taxes on such payments.

In the event we are unable to generate or repatriate cash from our operating subsidiaries, our overall liquidity could deteriorate and our ability to finance our obligations, including to pay dividends on or repurchase our common stock, could be adversely affected.

Our quarterly revenues and profitability may fluctuate significantly.

Quarterly variations in revenues and operating results may occur due to several factors. These include:

- the number of client engagements during a quarter;
- the possibility that clients may decide to delay or terminate a current or anticipated project as a result of factors unrelated to our work product or progress;
- fluctuations in hiring and utilization rates and clients' ability to terminate engagements without penalty;
- potential limitations on the clients or industries we serve resulting from increased regulation or changing stakeholder expectations on ESG issues;
- the impact of changes in accounting standards or in our accounting estimates or assumptions, including from the adoption of the revenue recognition, pension or lease accounting standards;
- the impact on us or our clients of changes in legislation, regulation and legal guidance or interpretations in the jurisdictions in which we operate, including with respect to the TCJA;
- seasonality due to the impact of regulatory deadlines, policy renewals and other timing factors to which our clients are subject;
- the success of our acquisitions or investments;
- macroeconomic factors such as changes in foreign exchange rates, interest rates and global securities markets, particularly in the case of Mercer, where fees in its investments business and certain other business lines are derived from the value of assets under management or administration; and
- general economic conditions, including factors beyond our control affecting economic conditions such as severe weather, climate change, global health crises and pandemics, geopolitical unrest or other catastrophic events, since our results of operations are directly affected by the levels of business activity of our clients, which in turn are affected by the level of economic activity in the industries and markets that they serve.

A significant portion of our total operating expenses is relatively fixed in the short term. Therefore, a variation in the number of client assignments or in the timing of the initiation or the completion of client assignments can cause significant variations in quarterly operating results for these businesses.

Credit rating downgrades would increase our financing costs and could subject us to operational risk.

Currently, the Company's senior debt is rated A- by S&P and Baa1 by Moody's. The ratings from both S&P and Moody's currently carry a Negative outlook.

If we need to raise capital in the future (for example, in order to fund maturing debt obligations or finance acquisitions or other initiatives), credit rating downgrades would increase our financing costs, and could limit our access to financing sources. Further, a downgrade to a rating below investment-grade could result in greater operational risks through increased operating costs and increased competitive pressures.

We have significantly increased our debt as a result of the JLT acquisition, which could adversely affect our financial flexibility.

As of December 31, 2019, we had total consolidated debt outstanding of approximately $12.0 billion. In 2019 alone, we incurred $6.5 billion of additional debt to finance the JLT acquisition.

The level of debt outstanding could adversely affect our financial flexibility by reducing our cash flows and our ability to use cash from operations for other purposes, including working capital, dividends to shareholders, share repurchases, acquisitions, capital expenditures and general corporate purposes. In addition, we are subject to risks that, at the time any of our outstanding debt matures, we will not be able to retire or refinance the debt on terms that are acceptable to us. We also face the risk of a credit rating downgrade if we do not retire or refinance the debt to levels acceptable to the credit rating agencies in a timely manner.

The ongoing effects from the 2017 Tax Cuts and Jobs Act continue to make our results more difficult to predict.

Our effective tax rate may fluctuate in the future as a result of the 2017 Tax Cuts and Jobs Act (the "TCJA") and the continuing issuance of interpretive guidance related to the TCJA. The TCJA included significant changes in U.S. income tax law that has a meaningful impact on our provision for income taxes and requires significant judgments and estimates in interpretation and calculations. Given the significant complexity of the TCJA, the potential for new legislation or additional guidance from U.S. Treasury, the Securities and Exchange Commission, the Financial Accounting Standards Board or other regulatory authorities related to the TCJA, recognized impacts in future periods could be significantly different from our current estimates. Such uncertainty may also result in increased scrutiny from, or disagreements with, tax authorities.

The enacted tax legislation included, among other provisions, a reduction in the corporate tax rate, new limitations on the deductibility of net interest, a tax on Global Intangible Low-Taxed Income ("GILTI"), and the Base Erosion and Anti-Abuse Tax ("BEAT"). With respect to GILTI, we are experiencing relatively high effective tax rates on our foreign source earnings because of the limitation on foreign tax credits on income already subject to tax rates higher than the U.S. rate. The provision continues to be subject to regulatory guidance and possible legislative changes, which make predicting its impact on our tax rate difficult. In addition, the interaction of GILTI with the interest expense limitations may negatively impact our effective tax rate. Also, due to the lack of court cases testing the TCJA and related regulations, it cannot be certain that we will not be subject to the BEAT. The BEAT levies a significant tax on cross border payments to related group companies. While we operate in a manner that currently limits our exposure to BEAT, uncertainty about the financial impact on us of this tax remains and there can be no assurance that we will not be subject to material amounts of BEAT in the future.

Global Operations

We are exposed to multiple risks associated with the global nature of our operations.

We conduct business globally. In 2019, approximately 53% of the Company's total revenue was generated from operations outside the United States, and over one-half of our employees were located outside the United States. The JLT Transaction significantly expanded our non-U.S. operations in jurisdictions such as the U.K., Asia, South America and Australia, and we expect to expand our non-U.S. operations further.

The geographic breadth of our activities subjects us to significant legal, economic, operational, market, compliance and reputational risks. These include, among others, risks relating to:

- economic and political conditions in the countries in which we operate;
- client concentration in certain high-growth countries in which we operate;
- the length of payment cycles and potential difficulties in collecting accounts receivable;
- unexpected increases in taxes or changes in U.S. or foreign tax laws, rulings, policies or related legal and regulatory interpretations, including recent international initiatives to require multinational enterprises, like ours, to report profitability on a country-by-country basis, which could increase scrutiny by, or cause disagreements with, foreign tax authorities and the potential imposition of new global minimum tax;
- potential transfer pricing-related tax exposures that may result from the flow of funds among our subsidiaries and affiliates in the various jurisdictions in which we operate;
- withholding or other taxes that foreign governments may impose on the payment of dividends or other remittances to us from our non-U.S. subsidiaries;

- potential conflicts of interest that may arise as we expand the scope of our businesses and our client base;
- international hostilities, international trade disputes, terrorist activities, natural disasters and infrastructure disruptions;
- local investment or other financial restrictions that foreign governments may impose;
- potential lawsuits, investigations, market studies, reviews or other activity by foreign regulatory or law enforcement authorities or legislatively appointed commissions, which may result in potential modifications to our businesses, related private litigation or increased scrutiny from U.S. or other regulators;
- potential costs and difficulties in complying with a wide variety of foreign laws and regulations (including tax systems) administered by foreign government agencies, some of which may conflict with U.S. or other sources of law;
- potential costs and difficulties in complying, or monitoring compliance, with foreign and U.S. laws and regulations that are applicable to our operations abroad, including trade sanctions laws relating to countries such as Cuba, Crimea, Iran, North Korea, Russia, Syria and Venezuela and anti-corruption laws such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act 2010;
- limitations or restrictions that foreign or U.S. governments and regulators may impose on the products or services we sell, the methods by which we sell our products and services and the manner in which and the amounts we are compensated;
- potential limitations or difficulties in protecting our intellectual property in various foreign jurisdictions;
- limitations that foreign governments may impose on the conversion of currency or the payment of dividends or other remittances to us from our non-U.S. subsidiaries;
- engaging and relying on third parties to perform services on behalf of the Company; and
- potential difficulties in monitoring employees in geographically dispersed locations.

RISKS RELATING TO OUR RISK AND INSURANCE SERVICES SEGMENT

Our Risk and Insurance Services segment, conducted through Marsh and Guy Carpenter, represented 57% of the Company's total revenue in 2019. Our business in this segment is subject to particular risks.

Results in our Risk and Insurance Services segment may be adversely affected by a general decline in economic activity.

Demand for many types of insurance and reinsurance generally rises or falls as economic growth expands or slows. This dynamic affects the level of commissions and fees generated by Marsh and Guy Carpenter. To the extent our clients become adversely affected by declining business conditions, they may choose to limit their purchases of insurance and reinsurance coverage, as applicable, which would inhibit our ability to generate commission revenue and other revenue based on premiums placed by us. Also, the insurance they seek to obtain through us may be impacted by changes in their assets, property values, sales or number of employees, which may reduce our commission revenue, and they may decide not to purchase our risk advisory or other services, which would inhibit our ability to generate fee revenue. Moreover, insolvencies and combinations associated with an economic downturn, especially insolvencies and combinations in the insurance industry, could adversely affect our brokerage business through the loss of clients or by limiting our ability to place insurance and reinsurance business, as well as our revenues from insurers. Guy Carpenter is especially susceptible to this risk given the limited number of insurance company clients and reinsurers in the marketplace.

Volatility or declines in premiums and other market trends may significantly impede our ability to grow revenues and profitability.

A significant portion of our Risk and Insurance Services revenue consists of commissions paid to us out of the premiums that insurers and reinsurers charge our clients for coverage. We do not determine the insurance premiums on which our commissions are generally based. Our revenues and profitability are

subject to change to the extent that premium rates fluctuate or trend in a particular direction. The potential for changes in premium rates is significant, due to the normal cycles of pricing in the commercial insurance and reinsurance markets.

As traditional insurance companies continue to rely on non-affiliated brokers or agents to generate premium, those insurance companies may seek to reduce their expenses by lowering their commission rates. The reduction of these commission rates, along with general volatility or declines in premiums, may significantly affect our revenue and profitability. Because we do not determine the timing or extent of premium pricing changes, it is difficult to accurately forecast our commission revenues, including whether they will significantly decline. As a result, we may have to adjust our plans for future acquisitions, capital expenditures, dividend payments, loan repayments and other expenditures to account for unexpected changes in revenues, and any decreases in premium rates may adversely affect the results of our operations.

In addition to movements in premium rates, our ability to generate premium-based commission revenue may be challenged by disintermediation and the growing availability of alternative methods for clients to meet their risk-protection needs. This trend includes a greater willingness on the part of corporations to self-insure, the use of captive insurers, and the presence of capital markets-based solutions for traditional insurance and reinsurance needs. Further, the profitability of our Risk and Insurances Services segment depends in part on our ability to be compensated for the analytical services and other advice that we provide, including the consulting and analytics services that we provide to insurers. If we are unable to achieve and maintain adequate billing rates for all of our services, our margins and profitability could decline.

Adverse legal developments and future regulations concerning how intermediaries are compensated by insurers or clients, as well as allegations of anti-competitive behavior or conflicts of interest more broadly, could have a material adverse effect on Marsh's business, results of operations and financial condition.

The ways in which insurance intermediaries are compensated receive scrutiny from regulators in part because of the potential for anti-competitive behavior and conflicts of interest. The vast majority of the compensation that Marsh receives is in the form of retail fees and commissions that are paid by the client or paid from premium that is paid by the client. The amount of other compensation that we receive from insurance companies, separate from retail fees and commissions, has increased in the last several years, both on an underlying basis and through acquisition. This other compensation includes payment for (i) consulting and analytics services provided to insurers; (ii) administrative and other services provided to insurers (including services relating to the administration and management of quota shares, panels and other facilities); and (iii) contingent commissions, primarily at MMA and outside the U.S., paid by insurers based on factors such as volume or profitability. These other revenue streams present potential regulatory, litigation and reputational risks that may arise from alleged anti-competitive behavior or conflicts of interest, and future changes in the regulatory environment may impact our ability to collect such revenue. Adverse regulatory, legal or other developments could have a material adverse effect on our business and expose the Company to negative publicity and reputational harm.

RISKS RELATING TO OUR CONSULTING SEGMENT

Our Consulting segment, conducted through Mercer and Oliver Wyman Group, represented 43% of our total revenue in 2019. Our businesses in this segment are subject to particular risks.

Mercer's Investments business is subject to a number of risks, including risks related to third-party investment managers, operational risk, conflicts of interest, asset performance and regulatory compliance, that, if realized, could result in significant damage to our business.

Mercer's Investments business provides clients with investment consulting and investment management (also referred to as "delegated solutions" or "fiduciary management") services. In the investment consulting business, clients make and implement their own investment decisions based upon advice provided by Mercer. In its delegated solutions business, Mercer implements the client's investment policy by engaging and overseeing third-party asset managers who determine which investments to buy and sell. To effect implementation of a client's investment policy, Mercer may utilize its "manager of managers" investment funds.

Mercer's Investments business is subject to a number of risks, including risks related to third-parties, our operations, conflicts of interest, asset performance and regulatory compliance and scrutiny, which could arise in connection with these offerings. For example, Mercer's due diligence on an asset manager may fail to uncover material deficiencies or fraud that could result in investment losses to a client. There is a risk that Mercer will fail to properly implement a client's investment policy, which could cause an incorrect or untimely allocation of client assets among asset managers or strategies. Mercer may also be perceived as recommending certain asset managers to clients, or offering delegated solutions to an investment consulting client, solely to enhance its own compensation. Asset classes may perform poorly, or asset managers may underperform their benchmarks, due to poor market performance, a downturn in the global equity markets, negligence or other reasons, resulting in poor returns or loss of client capital. Changes in the value levels of equity, debt, real assets, commodities, foreign exchange or other asset markets, in particular as a result of a downturn in the global markets, may cause our assets under management, revenue and earnings to decline. These risks, if realized, could result in significant liability and damage our business.

Revenues for the services provided by our Consulting segment may decline for various reasons, including as a result of changes in economic conditions, the value of equity, debt and other asset markets, our clients' or an industry's financial condition or government regulation or an accelerated trend away from actively managed investments to passively managed investments.

Global economic conditions may negatively impact businesses and financial institutions. Many of our clients, including financial institutions, corporations, government entities and pension plans, have reduced expenses, including amounts spent on consulting services, and used internal resources instead of consultants during difficult economic periods. The evolving needs and financial circumstances of our clients may reduce demand for our consulting services and could adversely affect our revenues and profitability. If the economy or markets in which we operate experience weakness or deteriorate, our business, financial condition and results of operations could be materially and adversely affected.

In addition, some of Mercer's Investments business generate fees based upon the value of the clients' assets under management or advisement. Changes in the value of equity, debt, currency, real estate, commodities or other asset classes could cause the value of assets under management or advisement, and the fees received by Mercer, to decline. Such changes could also cause clients to withdraw funds from Mercer's Investments business in favor of other investment service providers. In either case, our business, financial condition and results of operations could be materially and adversely affected. Mercer's Investments business also could be adversely affected by an accelerated shift away from actively managed investments to passively managed investments with associated lower fees. Further, revenue received by Mercer as investment manager to the majority of the Mercer-managed investment funds is reported in accordance with U.S. GAAP on a gross basis rather than a net basis, with sub-advisor fees reflected as an expense. Therefore, the reported revenue for these offerings does not fully reflect the amount of net revenue ultimately attributable to Mercer.

Demand for many of Mercer's benefits services is affected by government regulation and tax laws, rulings, policies and interpretations, which drive our clients' needs for benefits-related services. Significant changes in government regulations affecting the value, use or delivery of benefits and human resources programs, including changes in regulations relating to health and welfare plans, defined contribution plans or defined benefit plans, may adversely affect the demand for or profitability of Mercer's services.

Factors affecting defined benefit pension plans and the services we provide relating to those plans could adversely affect Mercer.

Mercer currently provides corporate trustees, multi-employer and public clients with actuarial, consulting and administration services relating to defined benefit pension plans. The nature of our work is complex. Many clients, particularly in the public sector, have sizeable pension deficits and are subject to impact from volatility in the global stock markets and interest rate fluctuations. A number of Mercer's clients have frozen or curtailed their defined benefit plans and have moved to defined contribution plans resulting in reduced revenue for Mercer's retirement business. These developments and a continued or accelerated rate of decline in revenues for our defined benefit pension plans business could adversely affect Mercer's business and operating results. In addition, our actuarial services involve numerous assumptions and estimates regarding future events, including interest rates used to discount future liabilities, estimated

rates of return for a plan's assets, healthcare cost trends, salary projections and participants' life expectancies. Our consulting services involve the drafting and interpretation of trust deeds and other complex documentation governing pension plans. Our administration services include calculating benefits within complicated pension plan structures. Our investments services include investment advice and management relating to defined benefit pension plan assets intended to fund present and future benefit obligations. Clients dissatisfied with our services have brought, and may bring, significant claims against us, particularly in the United States and the United Kingdom.

The profitability of our Consulting segment may decline if we are unable to achieve or maintain adequate utilization and pricing rates for our consultants.

The profitability of our Consulting businesses depends in part on ensuring that our consultants maintain adequate utilization rates (i.e., the percentage of our consultants' working hours devoted to billable activities). Our utilization rates are affected by a number of factors, including:

- our ability to transition consultants promptly from completed projects to new assignments, and to engage newly-hired consultants quickly in revenue-generating activities;
- our ability to continually secure new business engagements, particularly because a portion of our work is project-based rather than recurring in nature;
- our ability to forecast demand for our services and thereby maintain appropriate headcount in each of our geographies and workforces;
- our ability to retain key colleagues and consulting professionals;
- unanticipated changes in the scope of client engagements;
- the potential for conflicts of interest that might require us to decline client engagements that we otherwise would have accepted;
- our need to devote time and resources to sales, training, professional development and other non-billable activities;
- the potential disruptive impact of acquisitions and dispositions; and
- general economic conditions.

If the utilization rate for our consulting professionals declines, our profit margin and profitability could decline.

In addition, the profitability of our Consulting businesses depends in part on the prices we are able to charge for our services. The prices we charge are affected by a number of factors, including:

- clients' perception of our ability to add value through our services;
- market demand for the services we provide;
- our ability to develop new services and the introduction of new services by competitors;
- the pricing policies of our competitors;
- the extent to which our clients develop in-house or other capabilities to perform the services that they might otherwise purchase from us; and
- general economic conditions.

If we are unable to achieve and maintain adequate billing rates for our services, our profit margin and profitability could decline.

Item 1B. Unresolved Staff Comments.

There are no unresolved comments to be reported pursuant to Item 1B.

Item 2. Properties.

Marsh & McLennan Companies maintains its corporate headquarters in New York City. We also maintain other offices around the world, primarily in leased space. In certain circumstances we may have space that we sublet to third parties, depending upon our needs in particular locations.

Marsh & McLennan Companies and certain of its subsidiaries own, directly and indirectly through special purpose subsidiaries, a 58% condominium interest covering approximately 900,000 square feet of office space in a 44 story condominium in New York City. This real estate serves as the Company's headquarters and is occupied primarily by the Company and its subsidiaries for general corporate use. The condominium interests are financed by a 30-year mortgage loan that is non-recourse to the Company unless the Company (i) is downgraded below B (stable outlook) by S&P or Fitch or B2 (stable outlook) by Moody's and such downgrade is continuing or (ii) an event of default under the mortgage loan has occurred. The mortgage is secured by a first priority assignment of leases and rents, including the leases which the Company and certain of its subsidiaries entered into with their affiliated special purpose subsidiaries which own the mortgaged condominium interests. The net rent due under those leases in effect services the mortgage debt.

Item 3. Legal Proceedings.

In April 2017, the Financial Conduct Authority in the United Kingdom (the "FCA") commenced a civil competition investigation into the aviation insurance and reinsurance sector. In connection with that investigation, the FCA carried out an on-site inspection at the London offices of Marsh Limited, our Marsh and Guy Carpenter operating subsidiary in the United Kingdom, and JLT Specialty Ltd., JLT's U.K. operating subsidiary. The FCA indicated that it had reasonable grounds for suspecting that Marsh Limited, JLT Specialty Ltd. and other participants in the market had been sharing competitively sensitive information within the aviation insurance and reinsurance broking sector.

In October 2017, the Company received a notice that the Directorate-General for Competition of the European Commission had commenced a civil investigation of a number of insurance brokers, including both Marsh and JLT, regarding "the exchange of commercially sensitive information between competitors in relation to aviation and aerospace insurance and reinsurance broking products and services in the European Economic Area ("EEA"), as well as possible coordination between competitors." In light of the action taken by the European Commission, the FCA informed Marsh Limited and JLT Specialty Ltd. that it had discontinued its investigation under U.K. competition law. In May 2018, the FCA advised that it would not be taking any further action with Marsh Limited or JLT Specialty Ltd. in connection with this matter.

In January 2019, the Company received a notice that the Administrative Council for Economic Defense anti-trust agency in Brazil had commenced an administrative proceeding against a number of insurance brokers, including both Marsh and JLT, and insurers “to investigate an alleged sharing of sensitive commercial and competitive confidential information" in the aviation insurance and reinsurance sector.

We are cooperating with these investigations and are conducting our own reviews. At this time, we are unable to predict their likely timing, outcome or ultimate impact. There can be no assurance that the ultimate resolution of these or any related matters will not have a material adverse effect on our consolidated results of operations, financial condition or cash flows.

We and our subsidiaries are also party to a variety of other legal, administrative, regulatory and government proceedings, claims and inquiries arising in the normal course of business.

Additional information regarding certain legal proceedings and related matters is set forth in Note 16 to the consolidated financial statements appearing under Part II, Item 8 ("Financial Statements and Supplementary Data") of this report.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for the Company's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

For information regarding dividends paid and the number of holders of the Company's common stock, see the table entitled "Selected Quarterly Financial Data and Supplemental Information (Unaudited)" below on the last page of Part II, Item 8 ("Financial Statements and Other Supplementary Data") of this report.

The Company's common stock is listed on the New York, Chicago and London Stock Exchanges. The following table indicates the high and low prices (NYSE composite quotations) of the Company's common stock during 2019 and 2018 and each quarterly period thereof:

	2019 Stock Price Range		2018 Stock Price Range	
	High	Low	High	Low
First Quarter	$94.96	$77.85	$85.94	$78.69
Second Quarter	$100.20	$91.67	$84.52	$78.60
Third Quarter	$103.37	$94.81	$87.89	$81.38
Fourth Quarter	$113.94	$95.00	$89.59	$74.30
Full Year	$113.94	$77.85	$89.59	$74.30

On February 18, 2020, the closing price of the Company's common stock on the NYSE was $119.45.

During 2019, the Company repurchased 4.8 million shares of its common stock for total consideration of $485 million. In November 2019, the Board of Directors of the Company authorized the Company to repurchase up to $2.5 billion in shares of the Company's common stock, which superseded any prior authorizations. As of December 31, 2019, the Company remained authorized to repurchase up to approximately $2.4 billion in shares of its common stock. There is no time limit on the authorization.

Period	Total Number of Shares (or Units) Purchased	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
Oct 1-31, 2019	553,907	$ 97.4891	553,907	$ 511,753,209
Nov 1-30, 2019	685,452	$ 105.0219	685,452	$ 2,482,000,302
Dec 1-31, 2019	537,171	$ 109.858	537,171	$ 2,422,987,756
Total	1,776,530	$ 104.1355	1,776,530	$ 2,422,987,756

Item 6. Selected Financial Data.

Marsh & McLennan Companies, Inc. and Subsidiaries
FIVE-YEAR STATISTICAL SUMMARY OF OPERATIONS

For the Years Ended December 31, *(In millions, except per share figures)*	**2019**	2018	2017	2016	2015
Revenue	**$ 16,652**	$ 14,950	$ 14,024	$ 13,211	$ 12,893
Expense:					
Compensation and Benefits	**9,734**	8,605	8,085	7,694	7,569
Other Operating Expenses	**4,241**	3,584	3,284	3,086	3,140
Operating Expenses	**13,975**	12,189	11,369	10,780	10,709
Operating Income [(a)]	**2,677**	2,761	2,655	2,431	2,184
Other Net Benefits Credits	**265**	215	201	233	235
Interest Income	**39**	11	9	5	13
Interest Expense	**(524)**	(290)	(237)	(189)	(163)
Cost of Extinguishment of Debt	**(32)**	—	—	—	—
Investment Income (loss)	**22**	(12)	15	—	38
Acquisition Related Derivative Contracts	**(8)**	(441)	—	—	—
Income Before Income Taxes	**2,439**	2,244	2,643	2,480	2,307
Income Tax Expense [(b)]	**666**	574	1,133	685	671
Income From Continuing Operations	**1,773**	1,670	1,510	1,795	1,636
Discontinued Operations, Net of Tax	**—**	—	2	—	—
Net Income Before Non-Controlling Interests	**1,773**	1,670	1,512	1,795	1,636
Less: Net Income Attributable to Non-Controlling Interests	**31**	20	20	27	37
Net Income Attributable to the Company	**$ 1,742**	$ 1,650	$ 1,492	$ 1,768	$ 1,599
Basic Net Income Per Share Information:					
Income From Continuing Operations	**$ 3.44**	$ 3.26	$ 2.91	$ 3.41	$ 3.01
Income From Discontinued Operations	**—**	—	—	—	—
Net Income Attributable to the Company	**$ 3.44**	$ 3.26	$ 2.91	$ 3.41	$ 3.01
Average Number of Shares Outstanding	**506**	506	513	519	531
Diluted Income Per Share Information:					
Income From Continuing Operations	**$ 3.41**	$ 3.23	$ 2.87	$ 3.38	$ 2.98
Discontinued Operations, Net of Tax Per Share	**—**	—	—	—	—
Net Income Attributable to the Company	**$ 3.41**	$ 3.23	$ 2.87	$ 3.38	$ 2.98
Average Number of Shares Outstanding	**511**	511	519	524	536
Dividends Paid Per Share	**$ 1.74**	$ 1.58	$ 1.43	$ 1.30	$ 1.18
Return on Average Equity	**22%**	22%	22%	27%	23%
Year-End Financial Position:					
Working capital	**$ 389**	$ 1,010	$ 1,300	$ 802	$ 1,336
Total assets	**$ 31,357**	$ 21,578	$ 20,429	$ 18,190	$ 18,216
Long-term debt	**$ 10,741**	$ 5,510	$ 5,225	$ 4,495	$ 4,402
Total equity	**$ 7,943**	$ 7,584	$ 7,442	$ 6,272	$ 6,602
Total shares outstanding (net of treasury shares)	**504**	504	509	514	522
Other Information:					
Number of employees	**76,000**	66,000	64,000	60,000	60,000
Stock price ranges—					
U.S. exchanges — High	**$ 113.94**	$ 89.59	$ 86.54	$ 69.77	$ 59.99
— Low	**$ 77.85**	$ 74.30	$ 66.75	$ 50.81	$ 50.90

(a) Includes the impact of net restructuring costs of $112 million, $161 million, $40 million, $44 million, and $28 million in 2019, 2018, 2017, 2016 and 2015, respectively, and JLT integration, restructuring and acquisition related costs of $485 million in 2019 and $12 million in 2018.

(b) Income tax expense in 2017 includes a $460 million provisional charge related to the enactment of U.S. tax reform.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations", appearing under Part II, Item 7 of this report, for discussion of significant items affecting the results of operations in 2019 and 2018.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

General

Marsh & McLennan Companies, Inc. and its consolidated subsidiaries (the "Company") is a global professional services firm offering clients advice and solutions in risk, strategy and people. Its businesses include: Marsh, the insurance broker, intermediary and risk advisor; Guy Carpenter, the risk and reinsurance specialist; Mercer, the provider of HR and Investment related financial advice and services; and Oliver Wyman Group, the management, economic and brand consultancy. With 76,000 colleagues worldwide and annual revenue of $17 billion, the Company provides analysis, advice and transactional capabilities to clients in more than 130 countries.

The Company conducts business through two segments:

- **Risk and Insurance Services** includes risk management activities (risk advice, risk transfer and risk control and mitigation solutions) as well as insurance and reinsurance broking and services. The Company conducts business in this segment through Marsh and Guy Carpenter.
- **Consulting** includes health, wealth and career consulting services and products, and specialized management, economic and brand consulting services. The Company conducts business in this segment through Mercer and Oliver Wyman Group.

We describe the primary sources of revenue and categories of expense for each segment below, in our discussion of segment financial results. A reconciliation of segment operating income to total operating income is included in Note 17 to the consolidated financial statements included in Part II, Item 8 in this report. The accounting policies used for each segment are the same as those used for the consolidated financial statements.

Changes to Requirements for Prior Year Discussion of Results

On March 20, 2019, the Securities and Exchange Commission ("SEC") adopted changes to its rules and forms in an effort to modernize and simplify disclosure requirements for public companies. These rule changes include a registrant's option to omit the earliest year in its discussion in Management's Discussion and Analysis ("MD&A"). Under the previous rules, registrants generally provided a discussion covering the three-year period of the financial statements with year-to-year comparisons. The amendments allow registrants to eliminate the discussion of the earliest of the three years, if such a discussion was included in a prior 10-K filing and if there were no material changes to such older periods. The Company has elected to adopt this rule change and eliminate the prior year-to-year comparisons in this current December 31, 2019 Annual Report on Form 10-K filing. For information on fiscal 2017 results and similar comparisons, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Form 10-K for the fiscal year ended December 31, 2018.

Acquisition of JLT

On April 1, 2019, the Company completed the acquisition (the "Transaction") of all of the outstanding shares of Jardine Lloyd Thompson Group plc ("JLT"), a public company organized under the laws of England and Wales. Under the terms of the Transaction, JLT shareholders received £19.15 in cash for each JLT share, which valued JLT's existing share capital at approximately £4.3 billion (or approximately $5.6 billion based on the exchange rate of U.S. $1.31:£1) on the Transaction closing date.

JLT's results of operations for the period April 1, 2019 through December 31, 2019 are included in the Company's results of operations for 2019. Under applicable accounting guidance, JLT's results of operations for the period January 1 through March 31, 2019 and for the years ended 2018 and 2017 are not included in the Company's results of operations and therefore, affect comparability. Prior to being acquired by the Company, JLT operated in three segments: Specialty, Reinsurance and Employee Benefits. JLT operated in 41 countries, with significant revenue in the United Kingdom, Pacific, Asia and the United States. As of April 1, 2019, the historical JLT businesses were combined into MMC operations as follows: JLT Specialty is included by geography within Marsh, JLT Reinsurance is included in Guy Carpenter and the majority of JLT's Employee Benefits business was included in Mercer Health and Wealth.

Upon the consummation of the acquisition of JLT, the Company assumed the legal liabilities and became responsible for JLT's litigation and regulatory exposures as of April 1, 2019. Please see the "Risk Factors" section of this Annual Report on Form 10-K for risks associated with the acquisition.

The Company's results for the year ended December 31, 2019 were impacted by JLT related acquisition, restructuring and integration costs as well as legacy MMC restructuring programs as discussed in Note 14 to the consolidated financial statements.

Acquisitions and dispositions impacting the Risk and Insurance Services and Consulting segments are discussed in Note 5 to the consolidated financial statements.

This MD&A contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. See "Information Concerning Forward-Looking Statements" at the outset of this report.

Consolidated Results of Operations

For the Years Ended December 31, *(In millions, except per share figures)*	**2019**	2018	2017
Revenue	**$ 16,652**	$ 14,950	$ 14,024
Expense			
Compensation and Benefits	**9,734**	8,605	8,085
Other Operating Expenses	**4,241**	3,584	3,284
Operating Expenses	**13,975**	12,189	11,369
Operating Income	**$ 2,677**	$ 2,761	$ 2,655
Income Before Income Taxes	**$ 2,439**	$ 2,244	$ 2,643
Income from Continuing Operations	**$ 1,773**	$ 1,670	$ 1,510
Discontinued Operations, Net of Tax	**—**	—	2
Net Income Before Non-Controlling Interests	**$ 1,773**	$ 1,670	$ 1,512
Net Income Attributable to the Company	**$ 1,742**	$ 1,650	$ 1,492
Basic net income per share			
– Continuing Operations	**$ 3.44**	$ 3.26	$ 2.91
– Net income attributable to the Company	**$ 3.44**	$ 3.26	$ 2.91
Diluted net income per share			
– Continuing operations	**$ 3.41**	$ 3.23	$ 2.87
– Net income attributable to the Company	**$ 3.41**	$ 3.23	$ 2.87
Average number of shares outstanding			
– Basic	**506**	506	513
– Diluted	**511**	511	519
Shares outstanding at December 31,	**504**	504	509

Consolidated operating income was $2.7 billion in 2019 compared with $2.8 billion in 2018. Improvements in the Company's ongoing operating results, both legacy and from the inclusion of JLT's results beginning on April 1, 2019 was offset by the year-over-year increase in JLT integration, restructuring and acquisition related costs as per the chart below.

Income before income taxes increased 9% to $2.4 billion as compared to $2.2 billion in 2018, reflecting the change in operating income discussed immediately above and the increase in year-over-year interest expense, primarily related to new debt issued to finance the JLT Transaction, partly offset by lower derivative related costs, pension settlement charges and the 2018 impairment charge related to Alexander Forbes.

Diluted earnings per share increased 6% to $3.41 in 2019 compared with $3.23 in 2018. This increase is a result of the factors discussed above, and a lower effective tax rate in 2019. Average diluted shares

outstanding for 2019 remained unchanged from 2018 at 511 million. Share repurchases during the year were offset by the shares issued related to vesting of share awards and the exercise of employee stock options.

Risk and Insurance Services operating income decreased $31 million, or 2%, in 2019 compared with 2018. Revenue increased 17%, reflecting a 4% increase on an underlying basis partly offset by a 2% decrease from the impact of foreign currency translation. Expense increased 22% or 5% on an underlying basis in 2019 compared with 2018 primarily due to JLT related integration, restructuring and acquisition related costs.

Consulting operating income increased $111 million, or 10%, to $1.2 billion in 2019 compared with 2018, reflecting the combined impact of increases in revenue of 5% and expense of 4%.

The following chart summarizes the activity related to the restructuring and noteworthy items discussed in more detail below:

	Twelve Months Ended December 31,		
(In millions)	**2019**	2018	2017
Restructuring costs, excluding JLT	**$ 112**	$ 161	$ 40
JLT integration and restructuring costs	**335**	—	—
JLT acquisition related costs	**150**	12	—
Impact on operating income	**597**	173	40
Change in fair value of acquisition related derivative contracts	**8**	441	—
Pension settlement charges	**7**	42	54
Early extinguishment of JLT debt	**32**	—	—
JLT related interest income - pre-acquisition	**(25)**	—	—
JLT related interest expense - pre-acquisition	**53**	30	—
Investment loss (impairment loss)	**—**	83	—
Impact on income before taxes	**$ 672**	$ 769	$ 94

In 2019 and 2018, the Company's results of operations and earnings per share were significantly impacted by the following items:

- **Restructuring costs, excluding JLT:** Includes severance and related charges from restructuring activities, adjustments to restructuring liabilities for future rent under non-cancellable leases and other real estate costs, and restructuring costs related to the integration of recent acquisitions. These costs are discussed in more detail in Note 14 of the consolidated financial statements.
- **JLT integration and restructuring costs:** Includes costs incurred for staff reductions, lease related exit costs as well as consulting costs related to the JLT Transaction. These costs are discussed in more detail in Note 14 of the consolidated financial statements.
- **JLT acquisition related costs:** Includes advisor fees and stamp duty taxes related to the closing of the JLT Transaction and retention costs. These costs are reflected as part of net operating income. Also includes the loss on the sale of JLT's aerospace business, which is included in revenue.
- **Change in fair value of acquisition related derivatives:** In connection with the JLT Transaction, to hedge the risk of appreciation of the GBP-denominated purchase price relative to the U.S. dollar, in September 2018, the Company entered into a deal contingent foreign exchange contract (the "FX Contract") to, solely upon consummation of the JLT Transaction, purchase £5.2 billion and sell a corresponding amount of U.S. dollars at a contracted exchange rate. The FX Contract is discussed in Note 11 to the consolidated financial statements. An unrealized loss of $325 million related to the fair value changes to this derivative was recognized in the consolidated

statement of income for the year ended December 31, 2018, largely due to the depreciation of the GBP from September 2018. In 2019, the Company recorded a gain of $31 million upon final settlement of the FX Contract.

In addition, to hedge the economic risk of increases in interest rates prior to its issuance of senior notes in January 2019, in the fourth quarter of 2018, the Company entered into Treasury lock contracts related to $2 billion of the expected debt issuance. These economic hedges were not designated as accounting hedges. The Company recorded an unrealized loss of $116 million related to the changes in the fair value of these derivatives in the consolidated statement of income for the year ended December 31, 2018. In January 2019, upon issuance of the $5 billion of senior notes, the Company settled the Treasury lock contracts and made a payment to its counter party for $122 million. In 2019, an additional charge of $6 million was recorded to the consolidated statement of income related to the settlement of the Treasury lock derivatives.

- **JLT related interest income and expense:** To secure funding for the Transaction, the Company entered into a bridge loan agreement with aggregate commitments of £5.2 billion in September 2018. The Company paid the customary upfront fees related to the bridge loan, which were amortized as interest expense based on the period of time the facility was expected to be in effect. The Company recorded interest expense of approximately $30 million for the year ended December 31, 2018 related to the amortization of the bridge loan fees and an additional $6 million in 2019 upon termination of the bridge loan agreement in connection with the closing of the JLT Transaction. The Company recorded approximately $47 million of interest expense related to the senior notes issued in the first quarter of 2019 and $25 million of interest income from the investment of the proceeds prior to the closing of the JLT Transaction.
- **Investment loss-impairment charge:** The Company owns approximately 34% of the common stock of Alexander Forbes ("AF"), a South African company listed on the Johannesburg Stock Exchange, which it purchased in 2014 for 7.50 South African Rand per share. Based on the duration of time and the extent to which the shares traded below their cost, the Company concluded the decline in value of the investment was other than temporary and recorded a charge of $83 million in the 2018 consolidated statement of income. See Note 5 to the consolidated financial statements for additional information regarding the pending sale of the Company's remaining investment in AF.
- **Pension settlement charge:** The Defined Benefit Pension Plans in the U.K. and certain other countries allow participants an option for the payment of a lump sum distribution from plan assets before retirement in full satisfaction of the retirement benefits due to the participant as well as any survivor’s benefit. The Company’s policy under applicable U.S. GAAP is to treat these lump sum payments as a partial settlement of the plan liability if they exceed the sum of service cost plus interest cost components of net period pension cost of a plan for the year ("settlement thresholds"). The amount of lump sum payments through December 31, 2018 exceeded the settlement thresholds in two of the U.K. plans. The Company recorded non-cash settlement charges, primarily related to these plans of $42 million and $54 million for the years ended December 31, 2018 and 2017, respectively, of which approximately 90% impacted Risk and Insurance Services. In 2019, the Company recorded $7 million of non-cash pension settlement charges related to certain of its non U.S. plans.

JLT Integration and Restructuring Costs

The Company is currently integrating JLT, which is discussed in more detail in Note 14 to the consolidated financial statements, and will incur costs in connection with the integration and restructuring of the combined businesses, primarily related to severance, real estate rationalization, technology, consulting fees related to the management of the integration processes and legal fees related to the rationalization of legal entity structures. Based on current estimates, the Company expects to incur pre-tax charges of $700 million, of which approximately $625 million will be cash charges. These costs reflect $335 million incurred in 2019 and projected costs of approximately $365 million, most of which will be incurred in 2020 and the remainder in 2021. Based on further analysis and review during the second half of 2019, the Company identified additional opportunities for further efficiencies that will result in additional future cost savings and is currently tracking ahead of our prior guidance. The Company expects to achieve run rate savings of at least $350 million. The Company has realized cost savings in 2019 of approximately $125

million and expects to achieve the remainder by the end of 2021. The Company incurred cash charges of approximately $265 million during 2019 and expects most of the remaining cash expenditures to occur in 2020, with a modest amount in 2021, related to this initiative. These integration and restructuring plans are still being finalized, which may change our current cost and related savings estimates, as the Company continues to refine its detailed plans for each business and location.

JLT Acquisition Related Costs

JLT acquisition related costs include costs directly related to completing the Transaction, such as retention costs, investment banking fees, legal fees and stamp duty tax. It also includes the loss on disposal of JLT's aerospace business.

Consolidated Revenue and Expense

Revenue - Components of Change

The Company conducts business in many countries. As a result, foreign exchange rate movements may impact period-to-period comparisons of revenue. Similarly, certain other items such as the revenue impact of acquisitions and dispositions, including transfers among businesses may impact period-to-period comparisons of revenue. Underlying revenue measures the change in revenue from one period to another by isolating these impacts.

The calculation of underlying revenue growth for the twelve-month period ended December 31, 2019, is calculated as if MMC and JLT were a combined company a year ago, but excludes the impact of currency and other acquisitions, dispositions, and transfers among businesses. Combined prior year revenue information for MMC and JLT for the twelve-month periods ended December 31, 2018 are presented below. The unaudited 2018 JLT revenue amounts in the "2018 including JLT" column reflect historical JLT revenue information following IFRS, adjusted to conform with U.S. GAAP and the Company's specific accounting policies, primarily related to development of constraints and subsequent release of those constraints related to the reinsurance business. The decrease in revenue due to the disposal of JLT's Aerospace business is reflected in the acquisitions/dispositions column beginning in June 2019, when the sale was completed. See the reconciliation of non-GAAP measures on page 55. All other acquisitions/ dispositions activity is included in the acquisitions/dispositions column. Underlying expense growth is calculated in a similar manner.

The impact of foreign currency exchange fluctuations, acquisitions and dispositions, including transfers among businesses, on the Company's operating revenues by segment are as follows:

	Year Ended December 31,					Components of Revenue Change Including JLT*		
(In millions, except percentage figures)	**2019**	2018	**% Change GAAP Revenue**	**2018 Including JLT**	**% Change Including JLT in 2018**	**Currency Impact**	**Acquisitions/ Dispositions/ Other Impact**	**Underlying Revenue**
Risk and Insurance Services								
Marsh	**$ 8,014**	$ 6,877	17%	**$ 7,895**	2%	(2)%	—	4%
Guy Carpenter	**1,480**	1,286	15%	**1,442**	3%	(1)%	(1)%	5%
Subtotal	**9,494**	8,163	16%	**9,337**	2%	(2)%	—	4%
Fiduciary Interest Income	**105**	65		**78**				
Total Risk and Insurance Services	**9,599**	8,228	17%	**9,415**	2%	(2)%	—	4%
Consulting								
Mercer	**5,021**	4,732	6%	**5,001**	—	(2)%	—	2%
Oliver Wyman Group	**2,122**	2,047	4%	**2,047**	4%	(2)%	—	6%
Total Consulting	**7,143**	6,779	5%	**7,048**	1%	(2)%	—	3%
Corporate/Eliminations	**(90)**	(57)		**(57)**				
Total Revenue	**$ 16,652**	$ 14,950	11%	**$ 16,406**	2%	(2)%	—	4%

The following table provides more detailed revenue information for certain of the components presented above:

	Year Ended December 31,				% Change	Components of Revenue Change Including JLT*		
(In millions, except percentage figures)	**2019**	2018	**% Change GAAP Revenue**	**2018 Including JLT**	**Including JLT in 2018**	**Currency Impact**	**Acquisitions/ Dispositions/ Other**	**Underlying Revenue**
Marsh:								
EMEA	**$ 2,482**	$ 2,132	16 %	**$ 2,607**	(5)%	(3)%	(2)%	1%
Asia Pacific	**953**	683	39 %	**948**	1 %	(3)%	(3)%	7%
Latin America	**460**	400	15 %	**515**	(11)%	(8)%	(6)%	3%
Total International	**3,895**	3,215	21 %	**4,070**	(4)%	(4)%	(3)%	3%
U.S./Canada	**4,119**	3,662	12 %	**3,825**	8 %	—	3 %	5%
Total Marsh	**$ 8,014**	$ 6,877	17 %	**$ 7,895**	2 %	(2)%	—	4%
Mercer:								
Wealth	**2,369**	2,185	8 %	**2,394**	(1)%	(3)%	2 %	—
Health	**1,796**	1,735	4 %	**1,793**	—	(1)%	(3)%	5%
Career	**856**	812	5 %	**814**	5 %	(2)%	3 %	5%
Total Mercer	**$ 5,021**	$ 4,732	6 %	**$ 5,001**	—	(2)%	—	2%

* Components of revenue change may not add due to rounding.

Revenue

Consolidated revenue was $17 billion in 2019, an increase of 11%, or 4% on an underlying basis. Revenue in the Risk and Insurance Services segment increased 17% in 2019 compared with 2018, or 4% on an underlying basis. Revenue increased 4% and 5% on an underlying basis at Marsh and Guy Carpenter, respectively, as compared with 2018. The Consulting segment's revenue increased 5% compared with 2018, or 3% on an underlying basis. Revenue increased 2% and 6% on an underlying basis at Mercer and Oliver Wyman Group, respectively, as compared with 2018.

Operating Expense

Consolidated operating expenses increased 15% in 2019 compared with 2018, or 4% on an underlying basis. The increase in underlying expenses is primarily due to the JLT acquisition, integration and restructuring as discussed in more detail in Notes 5 and 14 of the consolidated financial statements, as well as higher incentive compensation.

Risk and Insurance Services

In the Risk and Insurance Services segment, the Company’s subsidiaries and other affiliated entities act as brokers, agents or consultants for insureds, insurance underwriters and other brokers in the areas of risk management, insurance broking and insurance program management services, primarily under the name of Marsh; and engage in reinsurance broking, catastrophe and financial modeling services and related advisory functions, primarily under the name of Guy Carpenter.

Marsh and Guy Carpenter are compensated for brokerage and consulting services primarily through fees paid by clients or commissions paid out of premiums charged by insurance and reinsurance companies. Commission rates vary in amount depending upon the type of insurance or reinsurance coverage provided, the particular insurer or reinsurer, the capacity in which the broker acts and negotiates with clients. Revenues can be affected by premium rate levels in the insurance/reinsurance markets, the amount of risk retained by insurance and reinsurance clients themselves and by the value of the risks that have been insured since commission-based compensation is frequently related to the premiums paid by insureds/reinsureds. In many cases, fee compensation may be negotiated in advance, based on the type of risk, coverage required and service provided by the Company and ultimately, the extent of the risk placed into the insurance market or retained by the client. The trends and comparisons of revenue from one period to the next can be affected by changes in premium rate levels, fluctuations in client risk retention and increases or decreases in the value of risks that have been insured, as well as new and lost business, and the volume of business from new and existing clients.

Marsh also receives other compensation from insurance companies, separate from retail fees and commissions. This compensation includes, among other things, payment for consulting and analytics services provided to insurers; administrative and other services provided to or on behalf of insurers (including services relating to the administration and management of quota share, panels and other facilities in which insurers participate); and contingent commissions. Marsh and Guy Carpenter also receive interest income on certain funds (such as premiums and claims proceeds) held in a fiduciary capacity for others. The investment of fiduciary funds is regulated by state and other insurance authorities. These regulations typically require segregation of fiduciary funds and limit the types of investments that may be made with them. Interest income from these investments varies depending on the amount of funds invested and applicable interest rates, both of which vary from time to time. For presentation purposes, fiduciary interest is segregated from the other revenues of Marsh and Guy Carpenter and separately presented within the segment, as shown in the revenue by segments charts presented earlier in this MD&A.

The results of operations for the Risk and Insurance Services segment are presented below:

(In millions of dollars, except percentages)	**2019**	2018	2017
Revenue	**$ 9,599**	$ 8,228	$ 7,630
Compensation and Benefits	**5,370**	4,485	4,171
Other Operating Expenses	**2,396**	1,879	1,728
Operating Expenses	**7,766**	6,364	5,899
Operating Income	**$ 1,833**	$ 1,864	$ 1,731
Operating Income Margin	**19.1%**	22.7%	22.7%

Revenue

Revenue in the Risk and Insurance Services segment increased 17% in 2019 compared with 2018, reflecting the inclusion of JLT for the last three quarters of 2019. Revenue grew 4% on an underlying basis partly offset by a 2% decrease related to the impact of foreign currency translation.

In Marsh, revenue increased 4% on an underlying basis, partly offset by a 2% decrease from the impact of foreign currency translation. U.S./Canada had underlying revenue growth of 5%. International operations increased 3% on an underlying basis, reflecting increases of 7% in Asia Pacific, 3% in Latin America and 1% in EMEA.

Guy Carpenter's revenue increased 15% to $1.5 billion in 2019 compared with 2018, or 5% on an underlying basis.

Fiduciary interest income was $105 million in 2019 compared with $65 million in 2018 primarily due to the inclusion of JLT's results from April 1 to December 31, 2019.

The Risk and Insurance Services segment completed five acquisitions during 2019, other than JLT. Information regarding those acquisitions is included in Note 5 to the consolidated financial statements.

Expense

Expense in the Risk and Insurance Services segment increased 22% in 2019 compared with 2018, reflecting the inclusion of JLT for the last three quarters of 2019. The underlying expense increases of 5% and 3% from acquisitions, were partly offset by a 3% decrease from the impact of foreign currency. The increase in underlying expense reflects the impact of acquisition, restructuring and integration related costs of $326 million, primarily due to severance, lease related exit costs and consulting fees related to the JLT Transaction as well as higher incentive compensation.

Consulting

The Company conducts business in its Consulting segment through two main business groups, Mercer and Oliver Wyman Group. Mercer provides consulting expertise, advice, services and solutions in the areas of health, wealth and career. Oliver Wyman Group provides specialized management, economic and brand consulting services.

The major component of revenue in the Consulting business is fees paid by clients for advice and services. Mercer, principally through its health line of business, also earns revenue in the form of

commissions received from insurance companies for the placement of group (and occasionally individual) insurance contracts, primarily life, health and accident coverages. Revenue for Mercer's investment management business and certain of Mercer's defined contribution administration services consists principally of fees based on assets under management or administration.

Revenue in the Consulting segment is affected by, among other things, global economic conditions, including changes in clients' particular industries and markets. Revenue is also affected by competition due to the introduction of new products and services, broad trends in employee demographics, including levels of employment, the effect of government policies and regulations, and fluctuations in interest and foreign exchange rates. Revenues from the provision of investment management services and retirement trust and administrative services are significantly affected by the level of assets under management or administration, which is impacted by securities market performance.

For the investment management business, revenues from the majority of funds are included on a gross basis in accordance with U.S. GAAP and include reimbursable expenses incurred by professional staff and sub-advisory fees, and the related expenses are included in other operating expenses.

The results of operations for the Consulting segment are presented below:

(In millions of dollars, except percentages)	**2019**	2018	2017
Revenue	**$ 7,143**	$ 6,779	$ 6,444
Compensation and Benefits	**3,934**	3,760	3,573
Other Operating Expenses	**1,999**	1,920	1,761
Operating Expenses	**5,933**	5,680	5,334
Operating Income	**$ 1,210**	$ 1,099	$ 1,110
Operating Income Margin	**16.9%**	16.2%	17.2%

Revenue

Consulting revenue in 2019 increased 5% compared with 2018, reflecting the inclusion of JLT for the last three quarters of 2019. Revenue increased 3% on an underlying basis, partly offset by a 2% decrease from the impact of foreign currency translation.

Mercer's revenue in 2019 increased 2% on an underlying basis. Mercer's year-over-year revenue comparison also reflects a 2% decrease from the impact of foreign currency translation. The underlying revenue growth reflects increases in both Career and Health of 5%, while Wealth remained flat. Oliver Wyman Group's revenue increased 4% in 2019 compared with 2018, or 6% on an underlying basis.

Expense

Consulting expense in 2019 increased 4% compared with 2018, reflecting the inclusion of JLT for the last three quarters of 2019. The underlying expense increase of 2% was offset by a 2% decrease from the impact of foreign currency translation. The increase in underlying expense reflects higher incentive compensation and restructuring-related costs. Consulting expense in 2019 included $56 million related to a business restructuring at Mercer.

Corporate and Other

Corporate expense in 2019 was $366 million compared with $202 million in 2018. Expenses increased 54% on an underlying basis, primarily due to acquisition, integration and restructuring costs related to the JLT Transaction of $139 million recorded in 2019 as well as higher incentive compensation.

Other Corporate Items

Interest

Interest income earned on corporate funds amounted to $39 million in 2019 compared with $11 million in 2018. Interest expense in 2019 was $524 million compared with $290 million in 2018. During the first quarter of 2019, the Company issued approximately $6.5 billion of senior notes related to the JLT acquisition. The funds were held in escrow and released for payment in April 2019, when the acquisition was completed. The increase in interest income from the prior year is primarily due to interest earned on

these funds. The increase in interest expense was primarily due to new debt issuances related to the JLT acquisition.

Investment Income

The caption "Investment income" in the consolidated statements of income comprises realized and unrealized gains and losses from investments. It includes, when applicable, other-than-temporary declines in the value of securities, mark-to-market increases/decreases in equity investments with readily determinable fair values and equity method gains or losses on its investments in private equity funds. The Company's investments may include direct investments in insurance, consulting or other strategically linked companies and investments in private equity funds.

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2018, the Company prospectively adopted a new accounting standard that requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. The Company holds certain equity investments that under legacy U.S. GAAP were previously treated as available for sale securities, whereby the mark-to-market change was recorded to other comprehensive income in its consolidated balance sheet. The Company recorded a cumulative-effect adjustment increase to retained earnings as of the beginning of the period of adoption of $14 million, reflecting the reclassification of cumulative unrealized gains, net of tax, as of December 31, 2017 from other comprehensive income to retained earnings. Prior periods have not been restated.

The Company recorded net investment income of $22 million in 2019 which included $10 million related to mark-to-market changes to equity securities and $12 million of gains related to investments in private equity funds and other investments. The Company recorded a net investment loss of $12 million in 2018, that included an $83 million charge related to an other than temporary decline in the Company's equity method investment in Alexander Forbes (see Note 10 to the consolidated financial statements), partly offset by investment gains of $54 million related to mark-to-market changes in equity securities and $17 million related to investments in private equity funds and other investments.

Income Taxes

As noted above, on April 1, 2019, the Company completed the JLT Transaction. The integration of this global organization required intercompany transfers of acquired entities into the Company's country structures and combination of those entities within the equivalent Company businesses. The integration transactions were designed to be tax efficient. The Company's global effective tax rate on JLT's earnings was reduced compared to JLT's pre-acquisition tax rate by utilizing debt for the restructuring transactions to be capital efficient, and reducing the generation of post-acquisition tax losses by merging historically unprofitable JLT entities with profitable Company operations. The provisions for deferred taxes and uncertain tax positions have been established as part of the purchase price allocation as of April 1, 2019.

The broader JLT organization is now held under the Company, which makes it part of a U.S.-based multinational company and subjects it to full U.S. taxation.

In 2017, the tax reform legislation known as the "Tax Cuts and Jobs Act" (the "TCJA"), significantly changed the U.S. federal income tax regime. It provided for a reduction in the U.S. corporate tax rate to 21% and the creation of a quasi-territorial system to tax non-U.S. based operations, including adding a minimum tax on Global Intangible Low-Taxed Income ("GILTI"). The TCJA also changed the deductibility of certain expenses, primarily meals and entertainment, executive officers' compensation and interest. As further discussed in Note 7 to the consolidated financial statements, in the fourth quarter of 2017, the Company recorded a provisional charge of $460 million related to the enactment of the TCJA, and this provisional charge was finalized in 2018. State treatment of certain TCJA provisions is still evolving.

The Company's consolidated effective tax rate was 27.3%, 25.6%, and 42.9% in 2019, 2018, and 2017, respectively. The rates in 2019 and 2018 reflect ongoing impacts of the TCJA, primarily the reduced 21% U.S. statutory tax rate, and certain tax planning benefits, largely offset by higher U.S. tax costs under the quasi-territorial system, greater disallowance of compensation and entertainment deductions, a decrease in excess tax benefits related to share compensation primarily due to the lower U.S. tax rate, lower federal benefit for State taxes and treatment by States of certain TCJA provisions. The 2019 rate reflects items related to the JLT acquisition, including non-deductible goodwill allocated to the sale of Aerospace

and non-deductible expenses incurred in relation to the JLT acquisition. The 2018 rate includes the effect of a charge related to the Company's investment in Alexander Forbes as discussed in Note 10. The tax rates in all periods reflect the impact of discrete tax matters, tax legislation, and nontaxable adjustments to contingent acquisition consideration.

The effective tax rate may vary significantly from period to period for the foreseeable future. The effective tax rate is sensitive to the geographic mix and repatriation of the Company's earnings, which may result in higher or lower tax rates. Thus, a shift in the mix of profits among jurisdictions can affect the effective tax rate. In 2019, pre-tax income in Barbados, Canada, Australia, Ireland, Germany, the U.K. and Bermuda accounted for approximately 60% of the Company's total non-U.S. pre-tax income, with effective rates in those countries of 1%, 28%, 32%, 14%, 29%, 105% and 1% respectively.

In addition, losses in certain jurisdictions cannot be offset by earnings from other operations, and may require valuation allowances that affect the rate, depending on estimates of the value of associated deferred tax assets which can be realized. A valuation allowance was recorded to reduce deferred tax assets to the amount that the Company believes is more likely than not to be realized. The details are provided in Note 7 of the consolidated financial statements. The effective tax rate is also sensitive to changes in unrecognized tax benefits, including the impact of settled tax audits and expired statutes of limitation.

Changes in tax laws, rulings, policies or related legal and regulatory interpretations occur frequently and may also have significant favorable or adverse impacts on our effective tax rate.

As a U.S. domiciled parent holding company, the Company is the issuer of essentially all of the Company's external indebtedness, and incurs the related interest expense in the U.S. The Company's interest expense deductions are not currently limited. Further, most senior executive and oversight functions are conducted in the U.S. and the associated costs are incurred primarily in the United States. Some of these expenses may not be deductible in the U.S., which may impact the effective tax rate.

The quasi-territorial tax regime provides an opportunity for the Company to repatriate foreign earnings more tax efficiently and there is less incentive for permanent reinvestment of these earnings. However, permanent reinvestment continues to be a component of the Company's global capital strategy. The Company revised its permanent reinvestment assertion related to accumulated earnings that were subject to the 2017 transition tax of the TCJA, to facilitate repatriation of most of those accumulated earnings. For post-2017 years, including 2019, the Company continues to evaluate its global investment and repatriation strategy in light of our capital requirements, considering the TCJA and the quasi-territorial tax regime for future foreign earnings.

Liquidity and Capital Resources

The Company is organized as a legal entity separate and distinct from its operating subsidiaries. As the Company does not have significant operations of its own, the Company is dependent upon dividends and other payments from its operating subsidiaries to pay principal and interest on its outstanding debt obligations, pay dividends to stockholders, repurchase its shares and pay corporate expenses. The Company can also provide financial support to its operating subsidiaries for acquisitions, investments and certain parts of their business that require liquidity, such as the capital markets business of Guy Carpenter. Other sources of liquidity include borrowing facilities discussed below in financing cash flows.

The Company derives a significant portion of its revenue and operating profit from operating subsidiaries located outside of the United States. Funds from those operating subsidiaries are regularly repatriated to the United States out of annual earnings. At December 31, 2019, the Company had approximately $1.0 billion of cash and cash equivalents in its foreign operations, which includes $178 million of operating funds required to be maintained for regulatory requirements or as collateral under certain captive insurance arrangements. The Company expects to continue its practice of repatriating available funds from its non-U.S. operating subsidiaries out of current annual earnings. Where appropriate, a portion of the current year earnings will continue to be permanently reinvested. With respect to repatriating 2018 and prior earnings, the Company has evaluated such factors as its short- and long-term capital needs, acquisition and borrowing strategies, and the availability of cash for repatriation for each of its subsidiaries. The Company has determined that, in general, its permanent reinvestment assertions, in light of the enactment of the Tax Cuts and Jobs Act, should allow the Company to repatriate previously taxed earnings from the deemed repatriations as cash becomes available.

During 2019, the Company recorded foreign currency translation adjustments which increased net equity by $151 million. Continued weakening of the U.S. dollar against foreign currencies would further increase the translated U.S. dollar value of the Company's net investments in its non-U.S. subsidiaries, as well as the translated U.S. dollar value of cash repatriations from those subsidiaries.

Cash on our consolidated balance sheets includes funds available for general corporate purposes. Funds held on behalf of clients in a fiduciary capacity are segregated and shown separately in the consolidated balance sheets as an offset to fiduciary liabilities. Fiduciary funds cannot be used for general corporate purposes, and should not be considered as a source of liquidity for the Company.

Operating Cash Flows

The Company generated $2.4 billion of cash from operations in both 2019 and 2018. These amounts reflect the net income of the Company during those periods, excluding gains or losses from investments, adjusted for non-cash charges and changes in working capital which relate primarily to the timing of payments of accrued liabilities or receipts of assets and pension contributions.

Pension-Related Items

Contributions

During 2019, the Company contributed $35 million to its U.S. pension plans and $87 million to non-U.S. pension plans compared to contributions of $30 million to U.S. plans and $82 million to non-U.S. plans in 2018.

In the United States, contributions to the tax-qualified defined benefit plans are based on ERISA guidelines and the Company generally expects to maintain a funded status of 80% or more of the liability determined under the ERISA guidelines. In 2019, the Company made $31 million of contributions to its non-qualified plans and $4 million to plans acquired in the JLT acquisition. The Company expects to contribute approximately $76 million to its U.S. pension plans in 2020, including $47 million to the US qualified plans to meet ERISA funding requirements and $29 million for its non-qualified plans.

The Company contributed $27 million to the U.K. plans in 2019, including an expense allowance of approximately $10 million. The Company's contributions to the U.K. plans in 2020 are expected to be approximately $39 million, including an expense allowance of $10 million.

Outside the United States, the Company has a large number of non-U.S. defined benefit pension plans, the largest of which are in the U.K., which comprise approximately 81% of non-U.S. plan assets at December 31, 2019. Contribution rates for non-U.S. plans are generally based on local funding practices and statutory requirements, which may differ significantly from measurements under U.S. GAAP. In the U.K., the assumptions used to determine pension contributions are the result of legally-prescribed negotiations between the Company and the plans' trustee that typically occur every three years in conjunction with the actuarial valuation of the plans. Currently, this results in a lower funded status than under U.S. GAAP and may result in contributions irrespective of the U.S. GAAP funded status. For the MMC U.K. Pension Fund, a new agreement was reached with the trustee in the fourth quarter of 2019 based on the surplus funding position at December 31, 2018. Under the agreement no deficit funding is required until 2023. The funding level will be re-assessed during 2022 to determine if contributions are required in 2023. As part of a long-term strategy, which depends on having greater influence over asset allocation and overall investment decisions, in November 2019 the Company renewed its agreement to support annual deficit contributions by the U.K. operating companies under certain circumstances, up to GBP 450 million over a seven-year period. In addition, in the U.K. the Company assumed responsibility for JLT's Pension Scheme ("JLT U.K. plan"). Deficit funding of approximately $28 million is expected during 2020 with a new funding agreement expected to be reached with the Trustee during 2020.

In the aggregate, the Company expects to contribute approximately $84 million to its non-U.S. defined benefit plans in 2020, comprising approximately $45 million to plans outside of the U.K. and $39 million to the U.K. plans.

Changes to Pension Plans

As part of the JLT Transaction, the Company assumed responsibility for a number of pension plans throughout the world, with $255 million of net pension liabilities as of December 31, 2019 ($1,003 million in liabilities and $748 million of plan assets as of December 31, 2019). The JLT U.K. plan has a defined

benefit section which was frozen to future accruals in 2006 and a defined contribution section. The assets of the JLT U.K. plan are held in a trustee administered fund separate from the Company.

Changes in Funded Status and Expense

The year-over-year change in the funded status of the Company's pension plans is impacted by the difference between actual and assumed results, particularly with regard to return on assets, and changes in the discount rate, as well as the amount of Company contributions, if any. Unrecognized actuarial losses were approximately $2.1 billion and $3.1 billion at December 31, 2019 for the U.S. plans and non-U.S. plans, respectively, compared with losses of $1.9 billion and $2.6 billion at December 31, 2018. The increases in both the U.S. and non-U.S. plans was primarily due to a decrease in the discount rate used to measure plan liabilities partly offset by an increase in asset values. In the past several years, the amount of unamortized losses has been significantly impacted, both positively and negatively, by actual asset performance and changes in discount rates. The discount rate used to measure plan liabilities in 2019 decreased in the U.S. and U.K. (the Company's largest plans) following increases in the U.S. and the U.K. in 2018. The discount rate used to measure plan liabilities decreased in 2017. An increase in the discount rate decreases the measured plan benefit obligation, resulting in actuarial gains, while a decrease in the discount rate increases the measured plan obligation, resulting in actuarial losses. During 2019, the Company's defined benefit pension plan assets had gains of 21.4% and 13.1% in the U.S. and U.K., respectively as compared to losses of 7.4% and 1.0% in the U.S. and U.K., respectively in 2018. During 2017, the Company's defined benefit pension plan assets had actual returns of 19.3% in the U.S. and 9.1% in the U.K.

Overall, based on the measurement at December 31, 2019, total benefit credits related to the Company’s defined benefit plans are expected to decrease in 2020 by approximately $5 million compared to 2019, reflecting a decrease in non-U.S. plans of approximately $8 million, offset by an increase in U.S. plans of $3 million.

The Company’s accounting policies for its defined benefit pension plans, including the selection of and sensitivity to assumptions, are discussed below under Management’s Discussion of Critical Accounting Policies. For additional information regarding the Company’s retirement plans, see Note 8 to the consolidated financial statements.

Financing Cash Flows

Net cash provided by financing activities was $3.3 billion in 2019 compared with $1.3 billion used in 2018.

Debt

The Company increased outstanding debt by approximately $6.1 billion in 2019, discussed in more detail below. Outstanding debt increased $340 million in 2018.

In January 2019, the Company issued $5 billion aggregate amount of Senior Notes consisting of $700 million of 3.50% Senior Notes due 2020, $1 billion of 3.875% Senior Notes due 2024, $1.25 billion of 4.375% Senior Notes due 2029, $500 million of 4.75% Senior Notes due 2039, $1.25 billion of 4.90% Senior Notes due 2049 and $300 million of Floating Rate Senior Notes due 2021.

In March 2019, the Company issued €550 million of 1.349% Senior Notes due 2026 and €550 million of 1.979% Senior Notes due 2030. In addition, the Company issued an additional $250 million of 4.375% Senior Notes due 2029, in March 2019. These notes constitute a further issuance of the 4.375% Senior Notes due 2029, of which $1.25 billion aggregate principal amount was issued in January 2019 (see above). After giving effect to the issuance of the notes, the Company has $1.5 billion aggregate principal amount of 4.375% Senior Notes due 2029. The Company used part of the net proceeds from these offerings, along with the $5 billion of Senior Notes issued in January 2019 (discussed above) to primarily fund the acquisition of JLT, including the payment of related fees and expenses, and to repay certain JLT indebtedness, as well as for general corporate purposes.

In connection with the closing of the JLT Transaction, the Company assumed approximately $1 billion of historical JLT indebtedness. In April and June of 2019, the Company repaid approximately $450 million and $553 million, respectively, which represented all of the JLT debt acquired upon the acquisition of JLT. The Company incurred debt extinguishment costs of $32 million in regard to the repayment of this debt.

In September 2019, the Company repaid $300 million of maturing senior notes.

The Company has established a short-term debt financing program of up to $1.5 billion through the issuance of commercial paper. The proceeds from the issuance of commercial paper are used for general corporate purposes. The Company had no commercial paper outstanding at December 31, 2019.

In October 2018, the Company repaid $250 million of maturing senior notes.

In March 2018, the Company issued $600 million of 4.20% senior notes due 2048. The Company used the net proceeds for general corporate purposes.

Credit Facilities

In January 2020, the Company closed on $500 million one-year and $500 million two-year term loan facilities. The interest rate on these facilities is based on LIBOR plus a fixed margin which varies with the Company's credit ratings. The facilities require the Company to maintain coverage ratios and leverage ratios consistent with the revolving credit facility discussed below. The Company has no current borrowings outstanding under these facilities.

In March 2019, the Company closed on $300 million one-year and $300 million three-year term loan facilities. The interest rate on these facilities was based on LIBOR plus a fixed margin which varies with the Company's credit ratings. In August 2019, the Company terminated the $300 million three-year term loan facility. The Company had $300 million of borrowings outstanding under the one-year term facility at September 30, 2019 which was terminated and repaid in December 2019.

In September 2018, the Company entered into a bridge loan agreement to finance the proposed JLT transaction. The Company paid approximately $35 million of customary upfront fees related to the bridge loan at the inception of the loan commitment. The bridge loan agreement was terminated on April 1, 2019.

In October 2018, the Company and certain of its foreign subsidiaries increased its multi-currency five-year unsecured revolving credit facility from $1.5 billion to $1.8 billion. The interest rate on this facility is based on LIBOR plus a fixed margin which varies with the Company's credit ratings. This facility expires in October 2023 and requires the Company to maintain certain coverage and leverage ratios which are tested quarterly. There were no borrowings outstanding under this facility at December 31, 2019.

The Company also maintains other credit facilities, guarantees and letters of credit with various banks, aggregating $598 million at December 31, 2019 and $594 million at December 31, 2018. There were no outstanding borrowings under these facilities at December 31, 2019 or December 31, 2018.

The Company's potential exposure to the discontinuance of LIBOR is discussed in Note 13 to the consolidated financial statements.

The Company's senior debt is currently rated A- by Standard & Poor's and Baa1 by Moody's. The Company's short-term debt is currently rated A-2 by Standard & Poor's and P-2 by Moody's. The Company carries a Negative outlook from both firms.

Share Repurchases

During 2019, the Company repurchased 4.8 million shares of its common stock for total consideration of $485 million at an average price per share of $100.48. In November 2019, the Board of Directors authorized an increase in the Company’s share repurchase program, which supersedes any prior authorization, allowing management to buy back up to $2.5 billion of the Company’s common stock. As of December 31, 2019, the Company remained authorized to purchase additional shares of its common stock up to a value of approximately $2.4 billion. There is no time limit on this authorization.

During 2018, the Company repurchased 8.2 million shares of its common stock for total consideration of $675 million at an average price per share of $82.61.

Dividends

The Company paid total dividends of $890 million in 2019 ($1.74 per share), $807 million in 2018 ($1.58 per share) and $740 million in 2017 ($1.43 per share).

Contingent Payments Related To Acquisitions

During 2019, the Company paid $63 million of contingent payments related to acquisitions made in prior years. These payments are split between financing and operating cash flows in the consolidated statements of cash flows. Payments of $22 million related to the contingent consideration liability that was

recorded on the date of acquisition are reflected as financing cash flows. Payments related to increases in the contingent consideration liability subsequent to the date of acquisition of $41 million are reflected as operating cash flows. Remaining estimated future contingent consideration payments of $223 million for acquisitions completed in 2019 and in prior years are included in accounts payable and accrued liabilities or other liabilities in the consolidated balance sheet at December 31, 2019. The Company paid deferred purchase consideration related to prior years' acquisitions of $43 million and $62 million for the years ended December 31, 2019 and 2018, respectively. Remaining deferred cash payments of approximately $193 million are included in accounts payable and accrued liabilities or other liabilities in the consolidated balance sheet at December 31, 2019.

In 2018, the Company paid $91 million of contingent payments related to acquisitions made in prior periods, of which $55 million was reported as financing cash flows and $36 million as operating cash flows.

Derivatives

JLT Fair Value Debt Derivative contracts

Prior to the JLT Transaction closing, a significant portion of JLT's outstanding senior notes were denominated in U.S. dollars. In order to hedge its exposure against the risk of fluctuations between the GBP and the U.S. dollar, JLT entered into foreign exchange and interest rate swaps, which were designated as fair value hedges. In June 2019, the Company redeemed these U.S. dollar denominated senior notes and settled the related derivative contracts. Both the change in fair value of the debt and the change in fair value of the derivative contracts were recorded in the consolidated statement of income in the second quarter of 2019. The Company received approximately $112 million upon settlement of these derivative contracts.

JLT Cash Flow Hedges

JLT also had a number of foreign exchange contracts to hedge the risk of foreign exchange movements between the U.S. dollar and GBP, related to JLT’s U.S. dollar denominated revenue in the U.K. Prior to the acquisition, these derivative contracts were designated as cash flow hedges. Upon acquisition, the derivative contracts were not re-designated as cash flow hedges by the Company. The contracts were settled in June 2019. The change in fair value between the acquisition date and the settlement date resulted in a charge of $26 million in the second quarter of 2019. The charge is recorded as a change in fair value of acquisition related derivative contracts in the consolidated statement of income.

Foreign Exchange Forward Contract

In connection with the JLT Transaction, to hedge the risk of appreciation of the GBP-denominated purchase price relative to the U.S. dollar, on September 20, 2018, the Company entered into the FX Contract to, solely upon consummation of the Transaction, purchase £5.2 billion and sell a corresponding amount of U.S. dollars at a contracted exchange rate. The FX Contract, which did not qualify for hedge accounting treatment under applicable accounting guidance, is discussed in Note 11 to the consolidated financial statements. The Company settled the FX Contract on April 1, 2019, recording a realized gain to the consolidated statement of income of approximately $31 million in 2019. The cash outflow related to the settlement of the FX Contract was approximately $294 million in 2019.

Foreign Exchange Contract on Euro Debt Issuance

In March 2019, the Company issued €1.1 billion of senior notes related to the JLT Transaction. See Note 14 for additional information related to the Euro senior note issuances. In connection with the senior note issuances of €1.1 billion, the Company entered into a forward exchange contract to hedge the economic risk of changes in foreign exchange rates from the issuance date to settlement date of the Euro senior notes. This forward exchange contract was settled in March 2019 and the Company recorded a charge of $7 million in the first quarter of 2019 related to the settlement of this contract.

Treasury Locks on Senior Notes

In connection with the JLT Transaction, to hedge the risk of increases in future interest rates prior to its issuance of senior notes, in the fourth quarter of 2018, the Company entered into treasury locks related to $2 billion of the expected debt. The fair value at December 31, 2018 was based on the published treasury rate plus forward premium as of December 31, 2018 compared to the all in rate at the inception of the

contract. The contracts were not designated as an accounting hedge. The Company recorded an unrealized loss of $116 million related to the change in the fair value of these derivatives in the consolidated statement of income for the twelve month period ended December 31, 2018. In January 2019, upon issuance of the $5 billion of senior notes, the Company settled the treasury lock derivatives and made a payment to its counter party for $122 million. An additional charge of $6 million was recorded in the first quarter of 2019 related to the settlement of the Treasury lock derivatives.

Net Investment Hedge

The Company has investments in various subsidiaries with Euro functional currencies. As a result, the Company is exposed to the risk of fluctuations between the Euro and U.S. dollar exchange rates. As part of its risk management program to fund the JLT acquisition, the Company issued €1.1 billion senior notes, as discussed above, and designated the debt instruments as a net investment hedge of its Euro denominated subsidiaries. The hedge is re-assessed each quarter to confirm that the designated equity balance at the beginning of each period continues to equal or exceed 80% of the outstanding balance of the Euro debt instrument and that all the critical terms of the hedging instrument and the hedged net investment continue to match. If the Company concludes that the hedge is highly effective, the change in the debt balance related to foreign exchange fluctuations will be recorded in foreign currency translation gains (losses) in the consolidated balance sheet. The U.S. dollar value of the Euro notes decreased by $28 million during 2019 related to the change in foreign exchange rates. Since the Company concluded that the hedge was highly effective, it recorded an increase to foreign currency translation gains (losses) for the twelve months ended December 31, 2019.

Investing Cash Flows

Net cash used for investing activities amounted to $5.7 billion in 2019 compared with $1.1 billion used for investing activities in 2018.

The Company paid $5,505 million and $884 million, net of cash acquired, for acquisitions it made during 2019 and 2018, respectively.

In January 2019, the Company increased its equity ownership in Marsh India from 26% to 49% for approximately $88 million. Marsh India is carried under the equity method.

The Company's additions to fixed assets and capitalized software, which amounted to $421 million in 2019 and $314 million in 2018, primarily relate to computer equipment purchases, the refurbishing and modernizing of office facilities and software development costs.

The Company has commitments for potential future investments of approximately $60 million in four private equity funds that invest primarily in financial services companies.

Commitments and Obligations

The following sets forth the Company's future contractual obligations by the types identified in the table below as of December 31, 2019:

	Payment due by Period				
Contractual Obligations *(In millions of dollars)*	Total	Within 1 Year	1-3 Years	4-5 Years	After 5 Years
Current portion of long-term debt	$ 1,217	$ 1,217	$ —	$ —	$ —
Long-term debt	10,808	—	1,334	2,234	7,240
Interest on long-term debt	5,556	456	807	689	3,604
Net operating leases	2,610	413	694	529	974
Service agreements	349	184	89	61	15
Other long-term obligations	448	195	243	5	5
Total	$ 20,988	$ 2,465	$ 3,167	$ 3,518	$ 11,838

The above does not include the liability for unrecognized tax benefits of $86 million as the Company is unable to reasonably predict the timing of settlement of these liabilities, other than approximately $2 million that may become payable during 2020.

The above does not include the remaining transitional tax payments related to the TCJA of $69 million.

Management's Discussion of Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires management to make estimates and judgments that affect reported amounts of assets, liabilities, revenue and expenses, and disclosure of contingent assets and liabilities. Management considers the policies discussed below to be critical to understanding the Company's financial statements because their application places the most significant demands on management's judgment, and requires management to make estimates about the effect of matters that are inherently uncertain. Actual results may differ from those estimates.

Purchase Price Allocation

Assets acquired and liabilities assumed as part of a business acquisition are generally recorded at their fair value at the date of acquisition. The excess of purchase price over the fair value of assets acquired and liabilities assumed is recorded as goodwill. The JLT Transaction has increased the significance of judgments and estimates management must make to complete the purchase price allocation. Determining fair value of identifiable assets, particularly intangibles, and liabilities acquired also requires management to make estimates, which are based on all available information and in some cases assumptions with respect to the timing and amount of future revenues and expenses associated with an asset. These estimates directly impact the amount of identified intangible assets recognized and the related amortization expense in future periods.

Revenue Recognition

The adoption of the new revenue standard on January 1, 2018 has increased the significance of judgments and estimates management must make to apply the guidance. In particular, in the Risk and Insurance Services segment, judgments related to the amount of variable revenue consideration to ultimately be received on placement of quota share reinsurance treaties and contingent commission from insurers, which was previously recognized when the contingency was resolved, now requires significant judgments and estimates.

Under the new standard, certain costs to obtain or fulfill a contract that were previously expensed as incurred have been capitalized. The Company capitalizes the incremental costs to obtain contracts primarily related to commissions or sales bonus payments. These deferred costs are amortized over the expected life of the underlying customer relationships. The Company also capitalizes certain pre-placement costs that are considered fulfillment costs that are amortized at a point in time when the associated revenue is recognized.

Management also makes significant judgments and estimates to measure the progress toward completing performance obligations and realization rates for consideration related to contracts as well as potential performance-based fees in the Consulting segment.

See Note 2 to the consolidated financial statements for additional information.

Legal and Other Loss Contingencies

The Company and its subsidiaries are subject to numerous claims, lawsuits and proceedings including claims for errors and omissions ("E&O"). GAAP requires that a liability be recorded when a loss is both probable and reasonably estimable. Significant management judgment is required to apply this guidance. The Company utilizes case level reviews by inside and outside counsel, an internal actuarial analysis by Oliver Wyman Group, a subsidiary of the Company, and other methods to estimate potential losses. The liability is reviewed quarterly and adjusted as developments warrant. In many cases, the Company has not recorded a liability, other than for legal fees to defend the claim, because we are unable, at the present time, to make a determination that a loss is both probable and reasonably estimable. Given the unpredictability of E&O claims and of litigation that could flow from them, it is possible that an adverse outcome in a particular matter could have a material adverse effect on the Company's businesses, results of operations, financial condition or cash flow in a given quarterly or annual period.

In addition, to the extent that insurance coverage is available, significant management judgment is required to determine the amount of recoveries that are probable of collection under the Company's various insurance programs.

Retirement Benefits

The Company maintains qualified and non-qualified defined benefit pension and defined contribution plans for its eligible U.S. employees and a variety of defined benefit and defined contribution plans for its eligible non-U.S. employees. The Company's policy for funding its tax-qualified defined benefit retirement plans is to contribute amounts at least sufficient to meet the funding requirements set forth in U.S. and applicable foreign laws.

The Company recognizes the funded status of its over-funded defined benefit pension and retiree medical plans as a net benefit plan asset and its unfunded and underfunded plans as a net benefit plan liability. The gains or losses and prior service costs or credits that have not been recognized as components of net periodic costs are recorded as a component of Accumulated Other Comprehensive Income ("AOCI"), net of tax, in the Company's consolidated balance sheets. The gains and losses that exceed specified corridors are amortized prospectively out of AOCI over a period that approximates the remaining life expectancy of participants in plans where substantially all participants are inactive or the average remaining service period of active participants for plans with active participants. The vast majority of unrecognized losses relate to inactive plans and are amortized over the remaining life expectancy of the participants.

The determination of net periodic pension cost is based on a number of assumptions, including an expected long-term rate of return on plan assets, the discount rate, mortality and assumed rate of salary increase. The assumptions used in the calculation of net periodic pension costs and pension liabilities are disclosed in Note 8 to the consolidated financial statements. The assumptions for expected rate of return on plan assets and the discount rate are discussed in more detail below.

The long-term rate of return on plan assets assumption is determined for each plan based on the facts and circumstances that exist as of the measurement date, and the specific portfolio mix of each plan's assets. The Company utilizes a model developed by Mercer, a subsidiary of the Company, to assist in the determination of this assumption. The model takes into account several factors, including: actual and target portfolio allocation; investment, administrative and trading expenses incurred directly by the plan trust; historical portfolio performance; relevant forward-looking economic analysis; and expected returns, variances and correlations for different asset classes. These measures are used to determine probabilities using standard statistical techniques to calculate a range of expected returns on the portfolio.

The target asset allocation for the U.S. plans is 64% equities and equity alternatives and 36% fixed income. At the end of 2019, the actual allocation for the U.S. plans was 64% equities and equity alternatives and 36% fixed income. The target asset allocation for the U.K. plans, which comprise approximately 81% of non-U.S. plan assets, is 34% equities and equity alternatives and 66% fixed income. At the end of 2019, the actual allocation for the U.K. plans was 35% equities and equity alternatives and 65% fixed income.

The discount rate selected for each U.S. plan is based on a model bond portfolio with coupons and redemptions that closely match the expected liability cash flows from the plan. Discount rates for non-U.S. plans are based on appropriate bond indices adjusted for duration; in the U.K., the plan duration is reflected using the Mercer yield curve.

The table below shows the weighted average assumed rate of return and the discount rate at the December 31, 2019 measurement date (for measuring pension expense in 2020) for the total Company, the U.S. and the Rest of World ("ROW").

	Total Company	U.S.	ROW
Assumed Rate of Return on Plan Assets	5.31%	7.82%	4.35%
Discount Rate	2.57%	3.44%	2.09%

Holding all other assumptions constant, a half-percentage point change in the rate of return on plan assets and discount rate assumptions would affect net periodic pension cost for the U.S. and U.K. plans, which together comprise approximately 85% of total pension plan liabilities, as follows:

	0.5 Percentage Point Increase		0.5 Percentage Point Decrease	
(In millions of dollars)	U.S.	U.K.	U.S.	U.K.
Assumed Rate of Return on Plan Assets	$ (22)	$ (47)	$ 22	$ 47
Discount Rate	$ 1	$ 2	$ (2)	$ (3)

The impact of discount rate changes shown above relates to the increase or decrease in actuarial gains or losses being amortized through net periodic pension cost, as well as the increase or decrease in interest expense, with all other facts and assumptions held constant. It does not contemplate nor include potential future impacts a change in the interest rate environment and discount rates might cause, such as the impact on the market value of the plans' assets. In addition, the assumed return on plan assets would likely be impacted by changes in the interest rate environment and other factors, including equity valuations, since these factors reflect the starting point used in the Company's projection models. For example, a reduction in interest rates may result in a reduction in the assumed return on plan assets. Changing the discount rate and leaving the other assumptions constant also may not be representative of the impact on expense, because the long-term rates of inflation and salary increases are often correlated with the discount rate. Changes in these assumptions will not necessarily have a linear impact on the net periodic pension cost.

The Company contributes to certain health care and life insurance benefits provided to its retired employees. The cost of these post-retirement benefits for employees in the U.S. is accrued during the period up to the date employees are eligible to retire, but is funded by the Company as incurred. The key assumptions and sensitivity to changes in the assumed health care cost trend rate are discussed in Note 8 to the consolidated financial statements.

Income Taxes

Significant judgment is required in determining the annual effective tax rate and in evaluating uncertain tax positions. The Company reports a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. The evaluation of a tax position is a two-step process:

- First, the Company determines whether it is more likely than not that a tax position will be sustained upon tax examination, including resolution of any related appeals or litigation, based on only the technical merits of the position. If a tax position does not meet the more-likely-than-not recognition threshold, the benefit of that position is not recognized in the financial statements.
- The second step is measurement. A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured as the largest amount of benefit that is greater than 50-percent likely of being realized upon ultimate resolution with a taxing authority. Uncertain tax positions are evaluated based upon the facts and circumstances that exist at each reporting period and involve significant management judgment. Subsequent changes in judgment based upon new information may lead to changes in recognition, de-recognition, and measurement. Adjustments may result, for example, upon resolution of an issue with the taxing authorities, or expiration of a statute of limitations barring an assessment for an issue.

The Company recognizes interest and penalties, if any, related to unrecognized tax benefits in income tax expense.

Certain items are included in the Company's tax returns at different times than the items are reflected in the financial statements. As a result, the annual tax expense reflected in the consolidated statements of income is different than that reported in the tax returns. Some of these differences are permanent, such as non-deductible expenses, and some differences are temporary and reverse over time, such as depreciation expense. Temporary differences create deferred tax assets and liabilities, which are measured at existing tax rates. Deferred tax liabilities generally represent tax expense recognized in the

financial statements for which payment has been deferred, or expense for which a deduction has been taken already in the tax return but the expense has not yet been recognized in the financial statements. Deferred tax assets generally represent items that can be used as a tax deduction or credit in tax returns in future years for which a benefit has already been recorded in the financial statements. The Company evaluates all significant available positive and negative evidence, including the existence of losses in recent years and its forecast of future taxable income by jurisdiction, in assessing the need for a valuation allowance. The Company also considers tax planning strategies that would result in realization of deferred tax assets, and the presence of taxable income in prior period tax filings in jurisdictions that allow for the carryback of tax attributes pursuant to the applicable tax law. The underlying assumptions the Company uses in forecasting future taxable income require significant judgment and take into account the Company's recent performance. The ultimate realization of deferred tax assets is dependent on the generation of future taxable income during the periods in which temporary differences or carry-forwards are deductible or creditable. Valuation allowances are established for deferred tax assets when it is estimated that it is more likely than not that future taxable income will be insufficient to fully use a deduction or credit in that jurisdiction.

Fair Value Determinations

Goodwill Impairment Testing – The Company is required to assess goodwill and any indefinite-lived intangible assets for impairment annually, or more frequently if circumstances indicate impairment may have occurred. The Company performs the annual impairment assessment for each of its reporting units during the third quarter of each year. In accordance with applicable accounting guidance, a company can assess qualitative factors to determine whether it is necessary to perform a goodwill impairment test. Alternatively, the company may elect to proceed directly to the quantitative goodwill impairment test. In 2019, the Company elected to perform a quantitative impairment assessment. Fair values of the reporting units were estimated using a market approach. Carrying values for the reporting units are based on balances at the prior quarter end and include directly identified assets and liabilities as well as an allocation of those assets and liabilities not recorded at the reporting unit level. The Company completed its 2019 annual review in the third quarter and concluded goodwill was not impaired, as the fair value of each reporting unit exceeded its carrying value by a substantial margin.

Share-Based Payment

The guidance for accounting for share-based payments requires, among other things, that the estimated grant date fair value of stock options be charged to earnings. Significant management judgment is required to determine the appropriate assumptions for inputs such as volatility and expected term necessary to estimate option values. In addition, management judgment is required to analyze the terms of the plans and awards granted thereunder to determine if awards will be treated as equity awards or liability awards, as defined by the accounting guidance.

As of December 31, 2019, there was $19 million of unrecognized compensation cost related to stock option awards. The weighted-average period over which the costs are expected to be recognized is 1.25 years. Also as of December 31, 2019, there was $357 million of unrecognized compensation cost related to the Company’s restricted stock, restricted stock unit and performance stock unit awards. The weighted-average period over which that cost is expected to be recognized is approximately 1.11 years.

See Note 9 to the consolidated financial statements for additional information regarding accounting for share-based payments.

Investments and Derivatives

Although not directly recorded in the Company’s consolidated balance sheets, the Company's defined benefit pension plans hold investments of approximately $17 billion, which include private equity and other non-liquid investments. The fair value of the plan investments determines, in part, the over-or under-funded status of those plans, which is included in the Company’s consolidated balance sheets. The Company also has minority positions in certain equity securities (primarily Alexander Forbes) as well as approximately $107 million of investments in private equity funds accounted for using the equity method of accounting.

The Company reviews the carrying value of its investments (both direct and held through its pension plans) to determine if any valuation adjustments are appropriate under the applicable accounting

pronouncements. The Company bases its review on the facts and circumstances as they relate to each investment. In those instances where quoted market prices are not available, particularly for private equity funds, significant management judgment is required to determine the appropriate value of the Company's investments. Fair value of investments in private equity funds is determined by the funds' investment managers. Factors considered in determining the fair value of private equity investments include: implied valuation of recently completed financing rounds that included sophisticated outside investors; performance multiples of comparable public companies; restrictions on the sale or disposal of the investments; trading characteristics of the securities; and the relative size of the holdings in comparison to other private investors and the public market float.

In connection with the JLT Transaction, the Company entered into several derivative contracts, described in Note 11 to the consolidated financial statements. These derivative contracts are recorded at fair value at the end of each period, with the change in fair value recorded in the consolidated statements of income. Prior to the settlement, determination of the fair value of these contracts, in particular the deal contingent foreign exchange contract, required significant management judgments or estimates about the potential closing dates of the transaction and remaining value of the deal contingency feature. All derivative contracts related to the JLT Transaction were settled during 2019.

New Accounting Pronouncements

Note 1 to the consolidated financial statements contains a summary of the Company's significant accounting policies, including a discussion of recently issued accounting pronouncements and their impact or potential future impact on the Company's financial results, if determinable, under the sub-heading "New Accounting Pronouncements".

Reconciliation of Non-GAAP Measures

On April 1, 2019, the Company completed its previously announced acquisition of JLT. JLT's results of operations for the three months ended December 31, 2019 are included in the Company's results of operations for the fourth quarter of 2019. JLT's results of operations from April 1, 2019 are included in the Company's results of operations for the twelve month-period ended December 31, 2019. Prior periods in 2018 do not include JLT's results. Prior to being acquired by the Company, JLT operated in three segments, Specialty, Reinsurance and Employee Benefits. As of April 1, 2019, the historical JLT businesses were combined into MMC operations as follows: JLT Specialty is included by geography within Marsh, JLT Reinsurance is included within Guy Carpenter and the majority of the JLT Employee Benefits business is included in Mercer Health and Wealth.

The JLT Transaction had a significant impact on the Company's results of operations in 2019. The Company believes that in addition to the change in reported GAAP revenue, a comparison of 2019 GAAP reported revenue to the combined 2018 revenue of MMC and JLT, as if the companies were combined on April 1, 2018, provides investors with meaningful information as to the Company's year-over-year underlying operating results. Investors should not consider the comparison of these non-GAAP measures in isolation from, or as a substitute for, the financial information that the Company reports in accordance with GAAP.

The 2018 Including JLT revenue information set forth in the table below presents revenue information as if the companies were combined on April 1, 2018 and is not necessarily indicative of what the results would have been had we operated the business since April 1, 2018.

The MMC revenue amounts are as previously reported by the Company in its quarterly filings on Form 10-Q for the applicable periods. The unaudited 2018 JLT revenue amounts reflect historical JLT revenue information following IFRS, adjusted to conform with U.S. GAAP and MMC's specific accounting policies, primarily related to the development of constraints and subsequent release of those constraints related to the reinsurance business. The revenue includes JLT's aerospace business. Additional information can be found in the supplemental information furnished to the SEC on June 6, 2019 on Form 8-K, which is not incorporated by reference in this Form 10-K.

(In millions)	Three Months Ended December 31, 2018	Twelve Months Ended December 31, 2018
MMC As Previously Reported		
Risk & Insurance Services		
Marsh	$ 1,804	$ 6,877
Guy Carpenter	102	1,286
Subtotal	1,906	8,163
Fiduciary Interest Income	19	65
Total Risk & Insurance Services	1,925	8,228
Consulting		
Mercer	1,228	4,732
Oliver Wyman Group	577	2,047
Total Consulting	1,805	6,779
Corporate Eliminations	(18)	(57)
Total Revenue	$ 3,712	$ 14,950
JLT 2018		
Specialty (Marsh)	$ 407	$ 1,018
Reinsurance (Guy Carpenter)	48	156
Employee Benefits (Mercer)	96	269
Subtotal	551	1,443
Fiduciary Interest Income	5	13
Total Revenue	$ 556	$ 1,456
2018 Including JLT		
Marsh	$ 2,211	$ 7,895
Guy Carpenter	150	1,442
Subtotal	2,361	9,337
Fiduciary Interest Income	24	78
Total Risk & Insurance Services	2,385	9,415
Consulting		
Mercer	1,324	5,001
Oliver Wyman Group	577	2,047
Total Consulting	1,901	7,048
Corporate Eliminations	(18)	(57)
Total Revenue Including JLT	$ 4,268	$ 16,406

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market Risk and Credit Risk

Certain of the Company's revenues, expenses, assets and liabilities are exposed to the impact of interest rate changes and fluctuations in foreign currency exchange rates and equity markets.

Interest Rate Risk and Credit Risk

Interest income generated from the Company's cash investments as well as invested fiduciary funds will vary with the general level of interest rates.

The Company had the following investments subject to variable interest rates:

(In millions of dollars)		December 31, 2019
Cash and cash equivalents invested in money market funds, certificates of deposit and time deposits	**$**	**1,155**
Fiduciary cash and investments	**$**	**7,344**

Based on the above balances, if short-term interest rates increased or decreased by 10%, or 15 basis points, over the full year, annual interest income, including interest earned on fiduciary funds, would increase or decrease by approximately $8 million.

In addition to interest rate risk, our cash investments and fiduciary fund investments are subject to potential loss of value due to counter-party credit risk. To minimize this risk, the Company and its subsidiaries invest pursuant to a Board approved investment policy. The policy mandates the preservation of principal and liquidity and requires broad diversification with counter-party limits assigned based primarily on credit rating and type of investment. The Company carefully monitors its cash and fiduciary fund investments and will further restrict the portfolio as appropriate to market conditions. The majority of cash and fiduciary fund investments are invested in short-term bank deposits and liquid money market funds.

Foreign Currency Risk

The translated values of revenue and expense from the Company's international operations are subject to fluctuations due to changes in currency exchange rates. The non-U.S. based revenue that is exposed to foreign exchange fluctuations is approximately 53% of total revenue. We periodically use forward contracts and options to limit foreign currency exchange rate exposure on net income and cash flows for specific, clearly defined transactions arising in the ordinary course of business. Although the Company has significant revenue generated in foreign locations which is subject to foreign exchange rate fluctuations, in most cases both the foreign currency revenue and expenses are in the functional currency of the foreign location. As such, under normal circumstances, the U.S. dollar translation of both the revenues and expenses, as well as the potentially offsetting movements of various currencies against the U.S. dollar, generally tends to mitigate the impact on net operating income of foreign currency risk. However, there have been periods where the impact was not mitigated due to external market factors, and external macroeconomic events, such as the impact of "Brexit" in the United Kingdom, may result in greater foreign exchange rate fluctuations in the future. If foreign exchange rates of major currencies (Euro, Sterling, Australian dollar and Canadian dollar) moved 10% in the same direction against the U.S. dollar compared with the foreign exchange rates in 2019, the Company estimates net operating income would increase or decrease by approximately $53 million. The Company has exposure to approximately 85 foreign currencies overall. In Continental Europe, the largest amount of revenue from renewals for the Risk & Insurance Services segment occurs in the first quarter.

Equity Price Risk

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2018, the Company adopted a new accounting standard that requires equity investments with readily determinable market values to be measured at fair value with changes in fair value recognized in net income.

The Company holds investments in both public and private companies as well as private equity funds, including investments of approximately $19 million that are valued using readily determinable fair values and approximately $67 million of investments without readily determinable fair values. The Company also has investments of approximately $434 million that are accounted for using the equity method, including the Company's investment in Alexander Forbes. The investments are subject to risk of decline in market value, which, if determined to be other than temporary for assets without readily determinable fair values, could result in realized impairment losses. The Company periodically reviews the carrying value of such investments to determine if any valuation adjustments are appropriate under the applicable accounting pronouncements.

The Company owns approximately 34% of the common stock of Alexander Forbes, a South African company listed on the Johannesburg Stock Exchange, which it purchased in 2014 for 7.50 South African Rand per share. In the third quarter of 2018, the Company concluded the decline in value of the investment was other than temporary and recorded an impairment charge of $83 million in 2018. As of December 31, 2019, the carrying value of the Company’s investment in Alexander Forbes was approximately $144 million. As of December 31, 2019, the market value of the approximately 443 million shares of Alexander Forbes owned by the Company, based on the December 31, 2019 closing share price of 5.55 South African Rand per share, was approximately $173 million. See Note 5 to the consolidated financial statements for additional information regarding the pending sale of the Company's remaining investment in AF.

Other

A number of lawsuits and regulatory proceedings are pending. See Note 16 ("Claims, Lawsuits and Other Contingencies") to the consolidated financial statements included in this report.

Item 8. Financial Statements and Supplementary Data

MARSH & McLENNAN COMPANIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME

For the Years Ended December 31, *(In millions, except per share figures)*	**2019**	2018	2017
Revenue	**$ 16,652**	$ 14,950	$ 14,024
Expense:			
Compensation and benefits	**9,734**	8,605	8,085
Other operating expenses	**4,241**	3,584	3,284
Operating expenses	**13,975**	12,189	11,369
Operating income	**2,677**	2,761	2,655
Other net benefits credits	**265**	215	201
Interest income	**39**	11	9
Interest expense	**(524)**	(290)	(237)
Cost of extinguishment of debt	**(32)**	—	—
Investment income (loss)	**22**	(12)	15
Acquisition related derivative contracts	**(8)**	(441)	—
Income before income taxes	**2,439**	2,244	2,643
Income tax expense	**666**	574	1,133
Income from continuing operations	**1,773**	1,670	1,510
Discontinued operations, net of tax	**—**	—	2
Net income before non-controlling interests	**1,773**	1,670	1,512
Less: Net income attributable to non-controlling interests	**31**	20	20
Net income attributable to the Company	**$ 1,742**	$ 1,650	$ 1,492
Basic net income per share			
– Continuing operations	**$ 3.44**	$ 3.26	$ 2.91
– Net income attributable to the Company	**$ 3.44**	$ 3.26	$ 2.91
Diluted net income per share			
– Continuing operations	**$ 3.41**	$ 3.23	$ 2.87
– Net income attributable to the Company	**$ 3.41**	$ 3.23	$ 2.87
Average number of shares outstanding			
– Basic	**506**	506	513
– Diluted	**511**	511	519
Shares outstanding at December 31,	**504**	504	509

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

MARSH & McLENNAN COMPANIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the Years Ended December 31, *(In millions)*	**2019**	2018	2017
Net income before non-controlling interests	**$ 1,773**	$ 1,670	$ 1,512
Other comprehensive (loss) income, before tax:			
Foreign currency translation adjustments	**148**	(529)	717
Unrealized investment (loss) income	**—**	—	(7)
(Loss) gain related to pension/post-retirement plans	**(702)**	(91)	408
Other comprehensive (loss) income, before tax	**(554)**	(620)	1,118
Income tax (credit) expense on other comprehensive (loss) income	**(146)**	(30)	68
Other comprehensive (loss) income, net of tax	**(408)**	(590)	1,050
Comprehensive income	**1,365**	1,080	2,562
Less: Comprehensive income attributable to non-controlling interests	**31**	20	20
Comprehensive income attributable to the Company	**$ 1,334**	$ 1,060	$ 2,542

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

MARSH & McLENNAN COMPANIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

December 31, *(In millions, except share figures)*		**2019**		2018
ASSETS				
Current assets:				
Cash and cash equivalents	**$**	**1,155**	$	1,066
Receivables				
Commissions and fees		**4,608**		3,984
Advanced premiums and claims		**123**		79
Other		**645**		366
		5,376		4,429
Less-allowance for doubtful accounts and cancellations		**(140)**		(112)
Net receivables		**5,236**		4,317
Other current assets		**677**		551
Total current assets		**7,068**		5,934
Goodwill		**14,671**		9,599
Other intangible assets		**2,774**		1,437
Fixed assets, net		**858**		701
Pension related assets		**1,632**		1,688
Right of use assets		**1,921**		—
Deferred tax assets		**676**		680
Other assets		**1,757**		1,539
	$	**31,357**	$	21,578
LIABILITIES AND EQUITY				
Current liabilities:				
Short-term debt	**$**	**1,215**	$	314
Accounts payable and accrued liabilities		**2,746**		2,234
Accrued compensation and employee benefits		**2,197**		1,778
Acquisition related derivatives		**—**		441
Current lease liabilities		**342**		—
Accrued income taxes		**179**		157
Total current liabilities		**6,679**		4,924
Fiduciary liabilities		**7,344**		5,001
Less – cash and investments held in a fiduciary capacity		**(7,344)**		(5,001)
		—		—
Long-term debt		**10,741**		5,510
Pension, postretirement and postemployment benefits		**2,336**		1,911
Long-term lease liabilities		**1,926**		—
Liability for errors and omissions		**335**		287
Other liabilities		**1,397**		1,362
Commitments and contingencies		**—**		—
Equity:				
Preferred stock, $1 par value, authorized 6,000,000 shares, none issued		**—**		—
Common stock, $1 par value, authorized				
1,600,000,000 shares, issued 560,641,640 shares at December 31, 2019 and December 31, 2018		**561**		561
Additional paid-in capital		**862**		817
Retained earnings		**15,199**		14,347
Accumulated other comprehensive loss		**(5,055)**		(4,647)
Non-controlling interests		**150**		73
		11,717		11,151
Less – treasury shares, at cost, 57,013,097 shares at December 31, 2019 and 56,804,468 shares at December 31, 2018		**(3,774)**		(3,567)
Total equity		**7,943**		7,584
	$	**31,357**	$	21,578

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

MARSH & McLENNAN COMPANIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Years Ended December 31, *(In millions)*	**2019**	2018	2017
Operating cash flows:			
Net income before non-controlling interests	**$ 1,773**	$ 1,670	$ 1,512
Adjustments to reconcile net income to cash provided by operations:			
Depreciation and amortization of fixed assets and capitalized software	**333**	311	312
Amortization of intangible assets	**314**	183	169
Non cash lease expense	**315**	—	—
Adjustments and payments related to contingent consideration liability	**27**	(4)	(24)
Loss on deconsolidation of entity	**—**	11	—
Charge for early extinguishment of debt	**32**	—	—
Provision (Benefit) for deferred income taxes	**84**	(39)	396
(Gain) loss on investments	**(22)**	12	(15)
Loss (gain) on disposition of assets	**56**	(48)	10
Share-based compensation expense	**252**	193	149
Change in fair value of acquisition-related derivative contracts	**8**	441	—
Changes in assets and liabilities:			
Net receivables	**(130)**	(78)	(454)
Other current assets	**(13)**	26	(3)
Other assets	**(1)**	(37)	(199)
Accounts payable and accrued liabilities	**120**	23	87
Accrued compensation and employee benefits	**154**	68	63
Accrued income taxes	**42**	(40)	37
Contributions to pension and other benefit plans in excess of current year expense/credit	**(369)**	(291)	(457)
Other liabilities	**(172)**	9	406
Operating lease liabilities	**(327)**	—	—
Effect of exchange rate changes	**(115)**	18	(96)
Net cash provided by operations	**2,361**	2,428	1,893
Financing cash flows:			
Purchase of treasury shares	**(485)**	(675)	(900)
Net increase in short term borrowings	**300**	—	—
Proceeds from issuance of debt	**6,459**	591	987
Repayments of debt	**(1,064)**	(263)	(315)
Payment of bridge loan fees	**—**	(35)	—
Payments for early extinguishment of debt	**(585)**	—	—
Purchase of non-controlling interests	**(80)**	—	—
Acquisition-related derivative payments	**(337)**	—	—
Shares withheld for taxes on vested units – treasury shares	**(89)**	(67)	(49)
Issuance of common stock from treasury shares	**158**	93	166
Payments of deferred and contingent consideration for acquisitions	**(65)**	(117)	(136)
Distributions of non-controlling interests	**(16)**	(30)	(22)
Dividends paid	**(890)**	(807)	(740)
Net cash provided by (used for) financing activities	**3,306**	(1,310)	(1,009)
Investing cash flows:			
Capital expenditures	**(421)**	(314)	(302)
Net sales (purchases) of long-term investments	**183**	4	(13)
Purchase of equity investment	**(91)**	—	—
Proceeds from sales of fixed assets	**10**	3	8
Dispositions	**229**	110	—
Acquisitions	**(5,505)**	(884)	(655)
Other, net	**(76)**	(8)	6
Net cash used for investing activities	**(5,671)**	(1,089)	(956)
Effect of exchange rate changes on cash and cash equivalents	**93**	(168)	251
Increase (Decrease) in cash and cash equivalents	**89**	(139)	179
Cash and cash equivalents at beginning of year	**1,066**	1,205	1,026
Cash and cash equivalents at end of year	**$ 1,155**	$ 1,066	$ 1,205

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

MARSH & McLENNAN COMPANIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY

For the Years Ended December 31, *(In millions, except per share figures)*	**2019**	2018	2017
COMMON STOCK			
Balance, beginning and end of year	**$ 561**	$ 561	$ 561
ADDITIONAL PAID-IN CAPITAL			
Balance, beginning of year	**$ 817**	$ 784	$ 842
Change in accrued stock compensation costs	**89**	66	63
Issuance of shares under stock compensation plans and employee stock purchase plans and related tax impact	**(44)**	(35)	(120)
Other	**—**	2	(1)
Balance, end of year	**$ 862**	$ 817	$ 784
RETAINED EARNINGS			
Balance, beginning of year	**$ 14,347**	$ 13,140	$ 12,388
Net income attributable to the Company	**1,742**	1,650	1,492
Cumulative effect of adoption of the revenue recognition standard (See Note 1)	**—**	364	**—**
Cumulative effect of adoption of other accounting standards (See Note 1)	**—**	**—**	**—**
Dividend equivalents declared and paid - (per share amounts: $1.74 in 2019, $1.58 in 2018, and $1.43 in 2017)	**(10)**	(7)	(6)
Dividends declared and paid – (per share amounts: $1.74 in 2019, $1.58 in 2018, and $1.43 in 2017)	**(880)**	(800)	(734)
Balance, end of year	**$ 15,199**	$ 14,347	$ 13,140
ACCUMULATED OTHER COMPREHENSIVE LOSS			
Balance, beginning of year	**$ (4,647)**	$ (4,043)	$ (5,093)
Cumulative effect of adoption of the financial instruments standard (See Note 1)	**—**	(14)	**—**
Other comprehensive (loss) income, net of tax	**(408)**	(590)	1,050
Balance, end of year	**$ (5,055)**	$ (4,647)	$ (4,043)
TREASURY SHARES			
Balance, beginning of year	**$ (3,567)**	$ (3,083)	$ (2,506)
Issuance of shares under stock compensation plans and employee stock purchase plans	**278**	191	323
Purchase of treasury shares	**(485)**	(675)	(900)
Balance, end of year	**$ (3,774)**	$ (3,567)	$ (3,083)
NON-CONTROLLING INTERESTS			
Balance, beginning of year	**$ 73**	$ 83	$ 80
Net income attributable to non-controlling interests	**31**	20	20
Distributions and other changes	**(27)**	(30)	(17)
Net non-controlling interests acquired	**73**	—	—
Balance, end of year	**$ 150**	$ 73	$ 83
TOTAL EQUITY	**$ 7,943**	$ 7,584	$ 7,442

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

1. Summary of Significant Accounting Policies

Nature of Operations: Marsh & McLennan Companies, Inc. (the "Company"), a global professional services firm, is organized based on the different services that it offers. Under this structure, the Company's two business segments are Risk and Insurance Services and Consulting.

The Risk and Insurance Services segment provides risk management solutions, services, advice and insurance broking, reinsurance broking and insurance program management services for businesses, public entities, insurance companies, associations, professional services organizations, and private clients. The Company conducts business in this segment through Marsh and Guy Carpenter.

The Company conducts business in its Consulting segment through Mercer and Oliver Wyman Group. Mercer provides consulting expertise, advice, services and solutions in the areas of health, wealth and career consulting services and products. Oliver Wyman Group provides specialized management and economic and brand consulting services.

On April 1, 2019, the Company completed the acquisition (the "Transaction") of all of the outstanding shares of Jardine Lloyd Thompson Group plc ("JLT"), a public company organized under the laws of England and Wales. JLT's results of operations for the period April 1, 2019 through December 31, 2019 are included in the Company's results of operations for 2019. JLT's results of operations for the period January 1 through March 31, 2019 and for the years ended 2018 and 2017 are not included in the Company's results of operations and therefore, affect comparability. Prior to being acquired by the Company, JLT operated in three segments: Specialty, Reinsurance and Employee Benefits. JLT operated in 41 countries, with significant revenue in the United Kingdom, Pacific, Asia and the United States. As of April 1, 2019, the historical JLT businesses were combined into MMC operations as follows: JLT Specialty is included by geography within Marsh, JLT Reinsurance is included in Guy Carpenter and the majority of JLT's Employee Benefits business is included in Mercer Health and Wealth.

Principles of Consolidation: The accompanying consolidated financial statements include all wholly-owned and majority-owned subsidiaries. All significant inter-company transactions and balances have been eliminated.

Fiduciary Assets and Liabilities: In its capacity as an insurance broker or agent, generally the Company collects premiums from insureds and after deducting its commissions, remits the premiums to the respective insurance underwriters. The Company also collects claims or refunds from underwriters on behalf of insureds. Unremitted insurance premiums and claims proceeds are held by the Company in a fiduciary capacity. Risk and Insurance Services revenue includes interest on fiduciary funds of $105 million, $65 million and $39 million in 2019, 2018 and 2017, respectively. The Consulting segment recorded fiduciary interest income of $4 million, $3 million and $4 million in 2019, 2018 and 2017, respectively. Since fiduciary assets are not available for corporate use, they are shown in the consolidated balance sheets as an offset to fiduciary liabilities.

Net uncollected premiums and claims and the related payables were $8.9 billion and $7.3 billion at December 31, 2019 and 2018, respectively. The increase reflects the inclusion of JLT's balances at December 31, 2019. The Company is not a principal to the contracts under which the right to receive premiums or the right to receive reimbursement of insured losses arises. Accordingly, net uncollected premiums and claims and the related payables are not assets and liabilities of the Company and are not included in the accompanying consolidated balance sheets.

In certain instances, the Company advances premiums, refunds or claims to insurance underwriters or insureds prior to collection. These advances are made from corporate funds and are reflected in the accompanying consolidated balance sheets as receivables.

Mercer manages assets in trusts or funds for which Mercer's management or trustee fee is not considered a variable interest, since the fees are commensurate with the level of effort required to provide those services. Mercer is not the primary beneficiary of these trusts or funds. Mercer's maximum exposure to loss of its interests is, therefore, limited to collection of its fees.

Revenue: The Company provides detailed discussion regarding its revenue policies in Note 2 to the consolidated financial statements.

Cash and Cash Equivalents: Cash and cash equivalents primarily consist of certificates of deposit and time deposits, with original maturities of three months or less, and money market funds. The estimated fair value of the Company's cash and cash equivalents approximates their carrying value. The Company is required to maintain operating funds primarily related to regulatory requirements outside the United States or as collateral under captive insurance arrangements. At December 31, 2019, the Company maintained $197 million related to these regulatory requirements.

Fixed Assets: Fixed assets are stated at cost less accumulated depreciation and amortization. Expenditures for improvements are capitalized. Upon sale or retirement of an asset, the cost and related accumulated depreciation and amortization are removed from the accounts and any gain or loss is reflected in income. Expenditures for maintenance and repairs are charged to operations as incurred.

Depreciation of buildings, building improvements, furniture, and equipment is provided on a straight-line basis over the estimated useful lives of these assets. Furniture and equipment is depreciated over periods ranging from three to ten years. Leasehold improvements are amortized on a straight-line basis over the periods covered by the applicable leases or the estimated useful life of the improvement, whichever is less. Buildings are depreciated over periods ranging from thirty to forty years. The Company periodically reviews long-lived assets for impairment whenever events or changes indicate that the carrying value of assets may not be recoverable.

The components of fixed assets are as follows:

December 31, *(In millions of dollars)*	**2019**	2018
Furniture and equipment	**$ 1,268**	$ 1,159
Land and buildings	**377**	377
Leasehold and building improvements	**1,214**	1,007
	2,859	2,543
Less-accumulated depreciation and amortization	**(2,001)**	(1,842)
	$ 858	$ 701

Investments: The caption "Investment income (loss)" in the consolidated statements of income comprises realized and unrealized gains and losses from investments recognized in earnings. It includes, when applicable, other than temporary declines in the value of securities, mark-to-market increases or decreases in equity investments with readily determinable fair values and equity method gains or losses on the Company's investments in private equity funds.

The Company holds investments in certain private equity funds. Investments in private equity funds are accounted for under the equity method of accounting using a consistently applied three-month lag period adjusted for any known significant changes from the lag period to the reporting date of the Company. The underlying private equity funds follow investment company accounting, where investments within the fund are carried at fair value. Investment gains or losses for its proportionate share of the change in fair value of the funds are recorded in earnings. Investments using the equity method of accounting are included in "other assets" in the consolidated balance sheets.

In 2019, the Company recorded investment income of $22 million compared to investment loss of $12 million in 2018 and investment income of $15 million in 2017. The investment gain in 2019 includes gains of $10 million related to mark-to-market changes in equity securities and gains of $12 million related to investments in private equity funds and other investments. The investment loss in 2018 includes an impairment charge of $83 million related to its investment in Alexander Forbes (see Note 10). The net investment loss in 2018 also includes gains of $54 million related to mark-to-market changes in equity securities and gains of $17 million related to investments in private equity funds and other investments. The investment income in 2017 was due to a gain on the sale of an equity investment and gains related to investments in private equity funds.

Goodwill and Other Intangible Assets: Goodwill represents acquisition costs in excess of the fair value of net assets acquired. Goodwill is reviewed at least annually for impairment. The Company performs an annual impairment test for each of its reporting units during the third quarter of each year. In accordance with applicable accounting guidance, a company can assess qualitative factors to determine whether it is necessary to perform a goodwill impairment test. Alternatively, the company may elect to proceed directly to the quantitative goodwill impairment test. When a quantitative test is performed, fair values of the reporting units are estimated using either a market approach or a discounted cash flow model. Carrying values for the reporting units are based on balances at the prior quarter-end and include directly identified assets and liabilities as well as an allocation of those assets and liabilities not recorded at the reporting unit level. As discussed in Note 6, the Company elected to perform a quantitative impairment assessment during 2019. Other intangible assets, which primarily consist of acquired customer lists, that are not deemed to have an indefinite life, are amortized over their estimated lives, typically ranging from 10 to 15 years, and reviewed for impairment upon the occurrence of certain triggering events in accordance with applicable accounting literature. The Company had no indefinite lived identified intangible assets at December 31, 2019 and 2018.

Capitalized Software Costs: The Company capitalizes certain costs to develop, purchase or modify software for the internal use of the Company. These costs are amortized on a straight-line basis over periods ranging from 3 to 10 years. Costs incurred during the preliminary project stage and post implementation stage, are expensed as incurred. Costs incurred during the application development stage are capitalized. Costs related to updates and enhancements are only capitalized if they will result in additional functionality. Capitalized computer software costs of $496 million and $435 million, net of accumulated amortization of $1.4 billion and $1.3 billion as of December 31, 2019 and 2018, respectively, are included in other assets in the consolidated balance sheets.

Legal and Other Loss Contingencies: The Company and its subsidiaries are subject to a significant number of claims, lawsuits and proceedings including claims for errors and omissions ("E&O"). The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires that a liability be recorded when a loss is both probable and reasonably estimable. Significant management judgment is required to apply this guidance. The Company utilizes case level reviews by inside and outside counsel, an internal actuarial analysis by Oliver Wyman Group, a subsidiary of the Company, and other methods to estimate potential losses, including estimated legal costs. The liability is reviewed quarterly and adjusted as developments warrant. In many cases, the Company has not recorded a liability, other than for legal fees to defend the claim, because we are unable, at the present time, to make a determination that a loss is both probable and reasonably estimable. Given the unpredictability of E&O claims and of litigation that could flow from them, it is possible that an adverse outcome in a particular matter could have a material adverse effect on the Company’s businesses, results of operations, financial condition or cash flow in a given quarterly or annual period.

In addition, to the extent that insurance coverage is available, significant management judgment is required to determine the amount of recoveries that are probable of collection under the Company’s various insurance programs.

The legal and other contingent liabilities described above are not discounted.

Income Taxes: The Company's effective tax rate reflects its income, statutory tax rates and tax planning in the various jurisdictions in which it operates. Significant judgment is required in determining the annual tax provision and in evaluating uncertain tax positions and the ability to realize deferred tax assets. See Part II, Item 7. ("Management’s Discussion and Analysis of Financial Condition and Results of Operations" - Income Taxes) for a discussion of accounting policies governing the Company’s income tax provision.

The Company reports a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. The evaluation of a tax position is a two-step process. The first step involves recognition. The Company determines whether it is more likely than not that a tax position will be sustained upon tax examination, including resolution of any related appeals or litigation, based on only the technical merits of the position. The technical merits of a tax position derive from both statutory and judicial authority (legislation and statutes, legislative intent, regulations, rulings, and case law) and

their applicability to the facts and circumstances of the tax position. If a tax position does not meet the more-likely-than-not recognition threshold, the benefit of that position is not recognized in the financial statements. The second step is measurement. A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured as the largest amount of benefit that is greater than 50 percent likely to be realized upon ultimate resolution with a taxing authority. Uncertain tax positions are evaluated based upon the facts and circumstances that exist at each reporting period. Subsequent changes in judgment based upon new information may lead to changes in recognition, de-recognition, and measurement. Adjustments may result, for example, upon resolution of an issue with the taxing authorities, or expiration of a statute of limitations barring an assessment for an issue. The Company recognizes interest and penalties, if any, related to unrecognized tax benefits in income tax expense.

Tax law may require items be included in the Company's tax returns at different times than the items are reflected in the financial statements. As a result, the annual tax expense reflected in the consolidated statements of income is different than that reported in the income tax returns. Some of these differences are permanent, such as expenses that are not deductible in the returns, and some differences are temporary and reverse over time, such as depreciation expense. Temporary differences create deferred tax assets and liabilities. Deferred tax assets generally represent items that can be used as a tax deduction or credit in tax returns in future years for which benefit has already been recorded in the financial statements. Valuation allowances are established for deferred tax assets when it is estimated that future taxable income will be insufficient to use a deduction or credit in that jurisdiction. Deferred tax liabilities generally represent tax expense recognized in the financial statements for which payment has been deferred, or expense for which a deduction has been taken already in the tax return but the expense has not yet been recognized in the financial statements.

Integration and Restructuring Charges: Severance and related costs are recognized based on amounts due under established severance plans or estimates of one-time benefits that will be provided. Typically, severance benefits are recognized when the impacted colleagues are notified of their expected termination and such termination is expected to occur within the legally required notification period. These costs are included in compensation and benefits in the consolidated statements of income.

Costs for real estate consolidation are recognized based on the type of cost, and the expected future use of the facility. For locations where the Company does not expect to sub-lease the property, the amortization of any right-of-use asset is accelerated from the decision date to the cease use date. For locations where the Company expects to sub-lease the properties subsequent to its vacating the property, the right-of-use asset is reviewed for potential impairment at the earlier of the cease use date or the date a sub-lease is signed. To determine the amount of impairment, the fair value of the right-of-use asset is determined based on the present value of the estimated net cash flows related to the property. Contractual costs outside of the right-of-use asset are recognized based on the net present value of expected future cash outflows for which the Company will not receive any benefit. Such amounts are reliant on estimates of future sub-lease income to be received and future contractual costs to be incurred.

These costs are included in other operating expenses in the consolidated statements of income.

Other costs related to integration and restructuring, such as moving, legal or consulting costs are recognized as incurred. These costs are included in other operating expenses in the consolidated statements of income.

Derivative Instruments: All derivatives, whether designated in hedging relationships or not, are recorded on the balance sheet at fair value. If the derivative is designated as a fair value hedge, the changes in the fair value of the derivative and of the hedged item attributable to the hedged risk are recognized in earnings. The fair value of the derivative is recorded in the consolidated balance sheet in other receivables or accounts payable and accrued liabilities. If the derivative is designated as a cash flow hedge, the effective portions of changes in the fair value of the derivative are recorded in other comprehensive income and are recognized in the income statement when the hedged item affects earnings. Changes in the fair value attributable to the ineffective portion of cash flow hedges are recognized in earnings. If a derivative is not designated as an accounting hedge, the change in fair value is recorded in earnings.

Concentrations of Credit Risk: Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, commissions and fees receivable and insurance recoverables. The Company maintains a policy providing for the diversification of cash and cash equivalent investments and places its investments in a large number of high quality financial institutions to limit the amount of credit risk exposure. Concentrations of credit risk with respect to receivables are generally limited due to the large number of clients and markets in which the Company does business, as well as the dispersion across many geographic areas.

Per Share Data: Basic net income per share attributable to the Company and income from continuing operations per share are calculated by dividing the respective after-tax income attributable to common shares by the weighted average number of outstanding shares of the Company's common stock.

Diluted net income per share attributable to the Company and income from continuing operations per share are calculated by dividing the respective after-tax income attributable to common shares by the weighted average number of outstanding shares of the Company's common stock, which have been adjusted for the dilutive effect of potentially issuable common shares. Reconciliations of the applicable components used to calculate basic and diluted EPS - Continuing Operations are presented below. The reconciling items related to the EPS calculation are the same for both basic and diluted EPS.

Basic and Diluted EPS Calculation - *Continuing Operations*			
(In millions, except per share figures)	**2019**	2018	2017
Net income from continuing operations	**$ 1,773**	$ 1,670	$ 1,510
Less: Net income attributable to non-controlling interests	**31**	20	20
	$ 1,742	$ 1,650	$ 1,490
Basic weighted average common shares outstanding	**506**	506	513
Dilutive effect of potentially issuable common shares	**5**	5	6
Diluted weighted average common shares outstanding	**511**	511	519
Average stock price used to calculate common stock equivalents	**$ 97.23**	$ 83.13	$ 77.30

Estimates: GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may vary from those estimates.

New Accounting Pronouncements Effective January 1, 2019:

The following new accounting standard was adopted using a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of January 1, 2019:

Leases

Effective January 1, 2019, the Company adopted new guidance intended to improve financial reporting for leases. Under the new guidance, a lessee is required to recognize assets and liabilities for leases. Consistent with legacy GAAP, the recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessee will depend on the classification of the lease as financing or operating. However, unlike legacy GAAP, which requires that only capital leases are recognized on the balance sheet, the new guidance requires that both operating and financing leases be recognized on the balance sheet. The Company adopted this new standard using a modified retrospective method, applying the new guidance as of the beginning of the year of adoption, with a cumulative effect of initially applying the guidance recognized as an adjustment to retained earnings at January 1, 2019. Therefore, prior period information has not been restated. The Company has elected the package of practical expedients, which among other things, allows historical lease classifications to be carried forward. The Company did not elect the hindsight practical expedient in determining lease term and impairment of an entity's Right of Use Assets ("ROU assets"). On January 1, 2019, the Company recognized a lease liability of $1.9 billion and ROU asset of $1.7 billion, related to real estate operating leases. The ROU asset also reflected reclassification adjustments primarily from other liabilities related to existing deferred rent, unamortized lease incentives and restructuring liabilities of approximately $200 million upon adoption. There was no

cumulative-effect adjustment required to be booked to retained earnings upon transition. The adoption of this standard did not have a material impact on our income statement as compared to prior periods.

The following new accounting standards were adopted prospectively as of January 1, 2019:

Derivatives and Hedging

Effective January 1, 2019, the Company adopted new guidance intended to refine and expand hedge accounting for both financial and commodity risks. The guidance creates more transparency around how economic results are presented in both the financial statements and the footnotes, as well as making targeted improvements to simplify the application of hedge accounting guidance. The Company adopted this guidance effective January 1, 2019. The adoption of this standard did not have an impact on the Company's financial position or results of operations.

Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

Effective January 1, 2019, the Company adopted new guidance that allowed an entity to reclassify the stranded tax effects resulting from the Tax Cuts and Job Act (the "TCJA") from accumulated other comprehensive income ("AOCI") to retained earnings. The guidance is effective for the period beginning January 1, 2019. The Company elected not to reclassify the stranded income tax effects of the TCJA from AOCI to retained earnings. The adoption of this standard had no impact on the Company's financial position or results of operations. The Company’s accounting policy related to releasing income tax effects from AOCI follows the portfolio approach.

New Accounting Pronouncements Effective January 1, 2018:

The following new accounting standards were adopted using a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of January 1, 2018:

Revenue Recognition

Effective January 1, 2018, the Company adopted new accounting guidance related to revenue from contracts with customers. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company adopted the new guidance effective January 1, 2018, using the modified retrospective method, which applies the new guidance beginning with the year of adoption, with the cumulative effect of initially applying the guidance recognized as an adjustment to retained earnings at January 1, 2018. The Company elected to apply the modified retrospective method to all contracts. The cumulative effect of adopting the standard, net of tax, on January 1, 2018 resulted in an increase to the opening balance of retained earnings of $364 million, with offsetting increases/decreases to other balance sheet accounts (accounts receivable, other assets and deferred income taxes).

Recognition and Measurement of Financial Instruments

Effective January 1, 2018, the Company adopted new guidance intended to improve the recognition and measurement of financial instruments. The new guidance requires investments in equity securities (except those accounted for under the equity method of accounting, or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income; requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (i.e., securities or loans and receivables) on the balance sheet or the accompanying notes to the financial statements; eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; and requires a reporting organization to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk (also referred to as "own credit") when the organization has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. The Company holds certain equity investments that under legacy GAAP were previously treated as available for sale securities, whereby the mark-to-market change was recorded to AOCI in its consolidated balance sheet. The Company adopted the new accounting guidance, effective January 1, 2018, and recorded a cumulative-

effect adjustment increase to retained earnings as of the beginning of the period of adoption of $14 million, reflecting the reclassification of cumulative unrealized gains, net of tax as of December 31, 2017 from AOCI to retained earnings.

Income Tax Consequences of Intra-Entity Transfers

Effective January 1, 2018, the Company adopted new guidance which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The new guidance eliminates the exception for an intra-entity transfer of an asset other than inventory. The new guidance is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The new guidance was applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. The Company adopted the new guidance effective January 1, 2018, and recorded a cumulative-effect adjustment decrease to retained earnings of approximately $14 million as of the beginning of the period of adoption.

Adoption of amended accounting standard using the retrospective application approach

Effective January 1, 2018, the Company adopted new guidance that changes the presentation of net periodic pension cost and net periodic postretirement cost ("net periodic benefit costs"). The new guidance requires employers to report the service cost component of net periodic benefit costs in the same line item as other compensation costs in the income statement. The other components of net periodic benefit costs are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. The new guidance required retrospective application for the presentation of the service cost component and the other components of net periodic benefit costs. Accordingly, the Company reclassified prior period information in the consolidated results of operations, segment data and related disclosures contained in our notes to the consolidated financial statements to reflect the retrospective adoption of this standard.

New Accounting Pronouncements Not Yet Adopted

In December 2019, the Financial Accounting Standards Board ("FASB") issued guidance related to the accounting for income taxes. The standard removes specific exceptions in the current rules and eliminates the need for an organization to analyze whether the following apply in a given period: (a) exception to the incremental approach for intraperiod tax allocation; (b) exceptions to accounting for basis differences when there are ownership changes in foreign investments and (c) exception in interim period income tax accounting for year-to-date losses that exceed anticipated losses. The standard also is designed to improve financial statement preparers' application of income tax-related guidance and simplify GAAP for (a) franchise taxes that are partially based on income; (b) transactions with a government that result in a step-up in the tax basis of goodwill; (c) separate financial statements of legal entities that are not subject to tax and (d) enacted changes in tax laws in interim periods. The standard takes effect for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. The Company is currently evaluating the impact this standard will have on the Company's financial position.

In August 2018, the FASB issued new guidance that amends required fair value measurement disclosures. The guidance adds new requirements, eliminates some current disclosures and modifies other required disclosures. The new disclosure requirements, along with modifications made to disclosures as a result of the change in requirements for narrative descriptions of measurement uncertainty, must be applied on a prospective basis. The effects of all other amendments included in the guidance must be applied retrospectively for all periods presented. The guidance is effective for fiscal years beginning after December 15, 2019, including interim periods therein. Early adoption is permitted. Adoption of this guidance will impact disclosures only and will not have an impact on the Company's financial position or results of operations.

In August 2018, the FASB issued new guidance that amends disclosures related to Defined Benefit Plans. The guidance removes disclosures that no longer are considered cost-beneficial, clarifies the specific requirements of certain disclosures, and adds disclosure requirements identified as relevant. The guidance must be applied on a retrospective basis. The guidance is effective for fiscal years ending after

December 15, 2020. Early adoption is permitted. Adoption of this guidance will impact disclosures only and will not have an impact on the Company's financial position or results of operations.

In January 2017, the FASB issued new guidance to simplify the test for goodwill impairment. The new guidance eliminates the second step in the current two-step goodwill impairment process, under which a goodwill impairment loss is measured by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill for that reporting unit. The new guidance requires a one-step impairment test, in which the goodwill impairment charge is based on the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. The guidance should be applied on a prospective basis with the nature of and reason for the change in accounting principle disclosed upon transition. The guidance is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company does not expect the adoption of this standard to have a material impact on its financial position or results of operations.

In June 2016, the FASB issued new guidance on the impairment of financial instruments. The new guidance adds an impairment model (known as the current expected credit loss (CECL) model) that is based on expected losses rather than incurred losses. Under the new guidance, an entity recognizes as an allowance its estimate of lifetime expected credit losses, which the FASB believes will result in more timely recognition of such losses. The new standard is also intended to reduce the complexity of U.S. GAAP by decreasing the number of credit impairment models that entities use to account for debt instruments. Further, the new standard makes targeted changes to the impairment model for available-for-sale debt securities. The new standard is effective for public companies for annual reporting periods beginning after December 15, 2019, and interim periods therein. The adoption of this standard will not have a material impact on the Company's financial position or results of operations.

2. Revenue

Effective January 1, 2018, the Company adopted new accounting guidance related to revenue from contracts with customers. The Company adopted the new guidance using the modified retrospective method, which applies the new guidance beginning in the year of adoption, with the cumulative effect of initially applying the guidance recognized as an adjustment to retained earnings at January 1, 2018. The Company elected to apply the modified retrospective method to all contracts. Results for reporting periods beginning after January 1, 2018 are presented under the new revenue recognition guidance, while 2017 and prior amounts are not adjusted and continue to be reported in accordance with legacy accounting guidance that were in effect for that period. The adoption of this new revenue recognition standard shifted revenue in the Risk and Insurance Services segment among quarters from historical patterns, but did not have a significant year-over-year impact on annual revenue in either segment.

The core principle of the revenue recognition guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that principle, the entity applies the following steps: identify the contract(s) with the customer, identify the performance obligations in the contract(s), determine the transaction price, allocate the transaction price to the performance obligations in the contract and recognize revenue when (or as) the entity satisfies a performance obligation.

Other revenue included in the consolidated statements of income that is not from contracts with customers is less than 1% of total revenue, and therefore is not presented as a separate line item.

Risk and Insurance Services

Risk and Insurance Services revenue reflects compensation for brokerage and consulting services through commissions and fees. Commission rates and fees vary in amount and can depend upon a number of factors, including the type of insurance or reinsurance coverage provided, the particular insurer or reinsurer selected, and the capacity in which the broker acts and negotiates with clients. For the majority of the insurance and reinsurance brokerage arrangements, advice and services provided which culminate in the placement of an effective policy are considered a single performance obligation.

Arrangements with clients may include the placement of a single policy, multiple policies or a combination of policy placements and other services. Consideration related to such "bundled arrangements" is allocated to the individual performance obligations based on their relative fair value. Revenue for policy placement is generally recognized on the policy effective date, at which point control over the services provided by the Company has transferred to the client and the client has accepted the services. In many cases, fee compensation may be negotiated in advance, based on the type of risk, coverage required and service provided by the Company and ultimately, the extent of the risk placed into the insurance market or retained by the client. The trends and comparisons of revenue from one period to the next can be affected by changes in premium rate levels, fluctuations in client risk retention and increases or decreases in the value of risks that have been insured, as well as new and lost business, and the volume of business from new and existing clients. For such arrangements, revenue is recognized using output measures, which correspond to the progress toward completing the performance obligation. Fees for non-risk transfer services provided to clients are recognized over time in the period the services are provided, using a proportional performance model, primarily based on input measures. These measures of progress provide a faithful depiction of the progress towards completion of the performance obligation.

Revenue related to reinsurance brokerage for excess of loss ("XOL") treaties is estimated based on contractually specified minimum or deposit premiums, and adjusted as additional evidence of the ultimate amount of brokerage is received. Revenue for quota share treaties is estimated based on indications of estimated premium income provided by the ceding insurer. The estimated brokerage revenue recognized for quota share treaties is constrained to an amount that is probable to not have a significant negative adjustment. The estimated revenue and the constraint are evaluated as additional evidence of the ultimate amount of underlying risks to be covered is received over the 12 to 18 months following the effective date of the placement.

In addition to commissions and fees from its clients, the Company also receives other compensation from insurance companies. This other insurer compensation includes, among other things, payments for consulting and analytics services provided to insurers, fees for administrative and other services provided to or on behalf of insurers (including services relating to the administration and management of quota shares, panels and other facilities in which insurers participate). The Company is also eligible for certain contingent commissions from insurers based on the attainment of specified metrics (i.e., volume and loss ratio measures) relating to Marsh's placements, particularly in Marsh & McLennan Agency ("MMA") and in parts of Marsh's international operations. Revenue for contingent commissions from insurers is estimated based on historical evidence of the achievement of the respective contingent metrics and recorded as the underlying policies that contribute to the achievement of the metric are placed. Due to the uncertainty of the amount of contingent consideration that will be received, the estimated revenue is constrained to an amount that is probable to not have a significant negative adjustment. Contingent consideration is generally received in the first quarter of the subsequent year.

A significant majority of the Company's Risk and Insurance Services revenue is for performance obligations recognized at a point in time. Marsh and Guy Carpenter also receive interest income on certain funds (such as premiums and claims proceeds) held in a fiduciary capacity for others.

Insurance brokerage commissions are generally invoiced on the policy effective date. Fee based arrangements generally include a percentage of the total fee due upon signing the arrangement, with additional fixed installments payable over the remainder of the year. Payment terms range from receipt of invoice up to 30 days from invoice date.

Reinsurance brokerage revenue is recognized on the effective date of the treaty. Payment terms depend on the type of reinsurance. For XOL treaties, brokerage revenue is typically collected in four installments during an annual treaty period based on a contractually specified minimum or deposit premium. For proportional or quota share treaties, brokerage is billed as underlying insured risks attach to the reinsurance treaty, generally over 12 to 18 months.

Consulting

The major component of revenue in the Consulting business is fees paid by clients for advice and services. Mercer, principally through its health line of business, also receives revenue in the form of commissions received from insurance companies for the placement of group (and occasionally individual) insurance contracts, primarily health, life and accident coverages. Revenue for Mercer’s investment

management business and certain of Mercer's defined benefit administration services consists principally of fees based on assets under delegated management or administration.

Consulting projects in Mercer's wealth and career businesses, as well as consulting projects in Oliver Wyman, typically consist of a single performance obligation, which is recognized over time as control is transferred continuously to customers. Typically, revenue is recognized over time using an input measure of time expended to date relative to total estimated time to be incurred at project completion. Incurred hours represent services rendered and thereby faithfully depicts the transfer of control to the customer.

On a limited number of engagements, performance fees may also be earned for achieving certain prescribed performance criteria. Revenue for achievement is estimated and constrained to an amount that is probable to not have a significant negative adjustment.

A significant majority of fee revenues in the Consulting segment is recognized over time.

For consulting projects, Mercer generally invoices monthly in arrears with payment due within 30 days of the invoice date. Fees for delegated management services are either deducted from the net asset value of the fund or invoiced to the client on a monthly or quarterly basis in arrears. Oliver Wyman typically bills its clients 30-60 days in arrears with payment due upon receipt of the invoice.

Health brokerage and consulting services are components of both Marsh, which includes MMA, and Mercer, with approximately 63% of such revenues reported in Mercer. Health contracts typically involve a series of distinct services that are treated as a single performance obligation. Revenue for these services is recognized over time based on the amount of remuneration the Company expects to be entitled in exchange for these services. Payments for health brokerage and consulting services are typically paid monthly in arrears from carriers based on insured lives under the contract.

The following schedule disaggregates various components of the Company's revenue:

	Twelve Months Ended December 31,		
	2019	2018	2017
Marsh:			
EMEA	**$ 2,482**	$ 2,132	$ 2,033
Asia Pacific	**953**	683	645
Latin America	**460**	400	404
Total International	**3,895**	3,215	3,082
U.S./Canada	**4,119**	3,662	3,322
Total Marsh	**8,014**	6,877	6,404
Guy Carpenter	**1,480**	1,286	1,187
Subtotal	**9,494**	8,163	7,591
Fiduciary interest income	**105**	65	39
Total Risk and Insurance Services	**$ 9,599**	$ 8,228	$ 7,630
Mercer:			
Wealth	**$ 2,369**	$ 2,185	$ 2,148
Health	**1,796**	1,735	1,648
Career	**856**	812	732
Total Mercer	**5,021**	4,732	4,528
Oliver Wyman	**2,122**	2,047	1,916
Total Consulting	**$ 7,143**	$ 6,779	$ 6,444

The following schedule provides contract assets and contract liabilities information from contracts with customers.

(In millions)	**December 31, 2019**	December 31, 2018	January 1, 2018
Contract Assets	**$ 207**	$ 112	$ 128
Contract Liabilities	**$ 593**	$ 545	$ 583

The Company records accounts receivable when the right to consideration is unconditional, subject only to the passage of time. Contract assets primarily relate to quota share reinsurance brokerage and contingent insurer revenue. The Company does not have the right to bill and collect revenue for quota share brokerage until the underlying policies written by the ceding insurer attach to the treaty. Estimated revenue related to achievement of volume or loss ratio metrics cannot be billed or collected until all related policy placements are completed and the contingency is resolved. The change in contract assets from January 1, 2019 to December 31, 2019 is primarily due to $437 million of additions during the period (including JLT), partly offset by $342 million transferred to accounts receivables, as the rights to bill and collect became unconditional. The change in contract assets from January 1, 2018 to December 31, 2018 is primarily due to $331 million of additions during the period offset by $347 million transferred to accounts receivables. Contract assets are included in other current assets in the Company's consolidated balance sheets. Contract liabilities primarily relate to the advance consideration received from customers. Contract liabilities are included in current liabilities in the Company's consolidated balance sheets. The change in contract liabilities from January 1, 2019 to December 31, 2019 includes cash received for performance obligations not yet fulfilled of $518 million and $42 million related to JLT, offset by revenue recognized in 2019 of $531 million that was included in the contract liability balance at the beginning of the year. The Company recognized revenue of $582 million in 2018 that was included in the contract liability balance at January 1, 2018. The amount of revenue recognized in 2019 and 2018 from performance obligations satisfied in previous periods, mainly due to variable consideration from contracts with insurers, quota share business and consulting contracts previously considered constrained was $79 million and $51 million, respectively. The 2019 amount includes a $17 million adjustment of previous estimates related to a multi-year Guy Carpenter contract in the third quarter of 2019.

The Company applies the practical expedient and therefore does not disclose the value of unsatisfied performance obligations for (1) contracts with original contract terms of one year or less and (2) contracts where the Company has the right to invoice for services performed. The revenue expected to be recognized in future periods during the non-cancellable term of existing contracts greater than one year that is related to performance obligations that are unsatisfied or partially satisfied at the end of the reporting period is approximately $39 million for Marsh, $104 million for Mercer and $4 million for Oliver Wyman. The Company expects revenue in 2020, 2021, 2022, 2023 and 2024 and beyond of $105 million, $36 million, $5 million, $1 million and $1 million, respectively, related to these performance obligations.

Costs to Obtain and Fulfill a Contract

Under the new standard, certain costs to obtain or fulfill a contract that were previously expensed as incurred have been capitalized.

The Company capitalized the incremental costs to obtain contracts primarily related to commissions or sales bonus payments in both segments. These deferred costs are amortized over the expected life of the underlying customer relationships.

In Risk and Insurance Services, the Company capitalizes certain pre-placement costs that are considered fulfillment costs that meet the following criteria: these costs (1) relate directly to a contract, (2) enhance resources used to satisfy the Company’s performance obligation and (3) are expected to be recovered through revenue generated by the contract. These costs are amortized at a point in time when the associated revenue is recognized.

In Consulting, the Company incurs implementation costs necessary to facilitate the delivery of the contracted services. These costs are capitalized and amortized over the initial contract term plus expected renewal periods.

At December 31, 2019, the Company's capitalized assets related to deferred implementation costs, costs to obtain and costs to fulfill were $30 million, $222 million and $262 million, respectively. At December 31, 2018, the Company's capitalized assets related to deferred implementation costs, costs to obtain and costs to fulfill were $41 million, $206 million, and $227 million, respectively. Costs to obtain and deferred implementation costs are primarily included in other assets and costs to fulfill are primarily included in other current assets in the Company's consolidated balance sheets. The Company recorded amortization of compensation and benefits expense of $1.2 billion and $1.0 billion for the years ended December 31, 2019 and 2018, respectively, related to these capitalized costs.

A significant portion of deferred costs to fulfill in Risk and Insurance Services is amortized within three to six months. Therefore, the deferral of the cost and its amortization often occur in the same annual period.

The Company has elected to use the practical expedient and recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets is one year or less.

3. Supplemental Disclosures

The following schedule provides additional information concerning acquisitions, interest and income taxes paid:

(In millions of dollars)	**2019**	2018	2017
Assets acquired, excluding cash	**$ 8,655**	$ 1,100	$ 898
Liabilities assumed	**(2,804)**	(83)	(134)
Non-controlling interests assumed	**(280)**	—	—
Contingent/deferred purchase consideration	**(66)**	(133)	(109)
Net cash outflow for acquisitions	**$ 5,505**	$ 884	$ 655

(In millions of dollars)	**2019**	2018	2017
Interest paid	**$ 427**	$ 264	$ 199
Income taxes paid, net of refunds	**$ 661**	$ 632	$ 583

The classification of contingent consideration payments in the consolidated statement of cash flows is dependent upon whether the payment was part of the initial liability established on the acquisition date (financing) or an adjustment to the acquisition date liability (operating).

The following amounts are included in the consolidated statements of cash flows as a financing activity. The Company paid deferred and contingent consideration of $65 million in the year ended December 31, 2019, consisting of deferred purchase consideration of $43 million and contingent purchase consideration of $22 million. In the year ended December 31, 2018, the Company paid deferred and contingent consideration of $117 million, consisting of deferred purchase consideration of $62 million and contingent consideration of $55 million, and in the year ended December 31, 2017 the Company paid deferred and contingent consideration of $136 million, consisting of deferred purchase consideration of $55 million and contingent consideration of $81 million.

The following amounts are included in the operating section of the consolidated statements of cash flows. For the year ended December 31, 2019, the Company recorded a net charge for adjustments to acquisition related accounts of $68 million and contingent consideration payments of $41 million. For the year ended December 31, 2018, the Company recorded a net charge for adjustments to acquisition related accounts of $32 million and contingent consideration payments of $36 million, and for the year ended December 31, 2017 the Company recorded a net charge for adjustments to acquisition related accounts of $3 million and contingent consideration payments of $27 million.

The Company had non-cash issuances of common stock under its share-based payment plan of $165 million, $130 million and $88 million for the years ended December 31, 2019, 2018 and 2017, respectively. The Company recorded stock-based compensation expense related to restricted stock units, performance stock units and stock options of $252 million, $193 million and $149 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Effective January 1, 2019, the Company adopted the new accounting guidance related to leases, which requires a lessee to recognize assets and liabilities for its leases. Upon adoption of this accounting standard, the Company recorded a non-cash ROU asset of $1.7 billion and lease liability of $1.9 billion in the first quarter of 2019.

An analysis of the allowance for doubtful accounts is as follows:

For the Years Ended December 31, *(In millions of dollars)*	**2019**	2018	2017
Balance at beginning of year	**$ 112**	$ 110	$ 96
Provision charged to operations	**32**	34	31
Accounts written-off, net of recoveries	**(16)**	(24)	(17)
Effect of exchange rate changes and other	**12**	(8)	—
Balance at end of year	**$ 140**	$ 112	$ 110

4. Accumulated Other Comprehensive Income (Loss)

The changes in the balances of each component of AOCI for the years ended December 31, 2019 and 2018, including amounts reclassified out of AOCI, are as follows:

(In millions of dollars)	**Unrealized Investment Gains (Losses)**	**Pension/Post-Retirement Plans Gains (Losses)**	**Foreign Currency Translation Adjustments**	**Total**
Balance as of January 1, 2019	**$ —**	**$ (2,953)**	**$ (1,694)**	**$ (4,647)**
Other comprehensive (loss) gain before reclassifications	**—**	**(643)**	**151**	**(492)**
Amounts reclassified from accumulated other comprehensive loss	**—**	**84**	**—**	**84**
Net current period other comprehensive (loss) gain	**—**	**(559)**	**151**	**(408)**
Balance as of December 31, 2019	**$ —**	**$ (3,512)**	**$ (1,543)**	**$ (5,055)**

(In millions of dollars)	Unrealized Investment Gains (Losses)	Pension/Post-Retirement Plans Gains (Losses)	Foreign Currency Translation Adjustments	Total
Balance as of January 1, 2018	$ 14	$ (2,892)	$ (1,165)	$ (4,043)
Cumulative effect of amended accounting standard	(14)	—	—	(14)
Other comprehensive loss before reclassifications	—	(205)	(529)	(734)
Amounts reclassified from accumulated other comprehensive loss	—	144	—	144
Net current period other comprehensive loss	—	(61)	(529)	(590)
Balance as of December 31, 2018	$ —	$ (2,953)	$ (1,694)	$ (4,647)

The components of other comprehensive income (loss) are as follows:

For the Year Ended December 31,	2019		
(In millions of dollars)	**Pre-Tax**	**Tax (Credit)**	**Net of Tax**
Foreign currency translation adjustments	**$ 148**	**$ (3)**	**$ 151**
Pension/post-retirement plans:			
Amortization of (gains) losses included in net periodic pension cost:			
Prior service credits (a)	**(2)**	**(1)**	**(1)**
Net actuarial losses (a)	**102**	**22**	**80**
Effect of curtailment (a)	**—**	**—**	**—**
Effect of settlement (a)	**6**	**1**	**5**
Effect of remeasurement (a)	**—**	**—**	**—**
Plan Termination (a)	**—**	**—**	**—**
Subtotal	**106**	**22**	**84**
Net losses arising during period	**(758)**	**(154)**	**(604)**
Foreign currency translation adjustments	**(50)**	**(11)**	**(39)**
Pension/post-retirement plans losses	**(702)**	**(143)**	**(559)**
Other comprehensive loss	**$ (554)**	**$ (146)**	**$ (408)**

(a) These components of net periodic pension cost are included in other net benefits credits in the Consolidated Statements of Income. Tax on prior service gains and net actuarial losses is included in income tax expense.

For the Year Ended December 31,	2018		
(In millions of dollars)	Pre-Tax	Tax (Credit)	Net of Tax
Foreign currency translation adjustments	$ (529)	$ —	$ (529)
Pension/post-retirement plans:			
Amortization of (gains) losses included in net periodic pension cost:			
Prior service credits (a)	(4)	(1)	(3)
Net actuarial losses (a)	145	32	113
Effect of settlement (a)	42	8	34
Subtotal	183	39	144
Net losses arising during period	(374)	(88)	(286)
Foreign currency translation adjustments	141	25	116
Other adjustments	(41)	(6)	(35)
Pension/post-retirement plans losses	(91)	(30)	(61)
Other comprehensive loss	$ (620)	$ (30)	$ (590)

(a) These components of net periodic pension cost are included in other net benefits credits in the consolidated statements of income. Tax on prior service gains and net actuarial losses is included in income tax expense.

For the Year Ended December 31,	2017		
(In millions of dollars)	Pre-Tax	Tax (Credit)	Net of Tax
Foreign currency translation adjustments	$ 717	$ 2	$ 715
Unrealized investment gains	(7)	(2)	(5)
Pension/post-retirement plans:			
Amortization of (gains) losses included in net periodic pension cost:			
Prior service credits (a)	(1)	—	(1)
Net actuarial losses (a)	167	30	137
Effect of curtailment (a)	(1)	—	(1)
Effect of settlement (a)	54	9	45
Subtotal	219	39	180
Net gains arising during period	374	62	312
Foreign currency translation adjustments	(201)	(36)	(165)
Other adjustments	16	3	13
Pension/post-retirement plans gains	408	68	340
Other comprehensive income	$ 1,118	$ 68	$ 1,050

(a) These components of net periodic pension cost are included in other net benefits credits in the consolidated statements of income. Tax on prior service gains and net actuarial losses is included in income tax expense.

The components of accumulated other comprehensive income (loss) are as follows:

(In millions of dollars)	**December 31, 2019**	December 31, 2018
Foreign currency translation adjustments (net of deferred tax asset of $14 in 2019 and net of deferred tax asset of $15 in 2018)	**$ (1,543)**	$ (1,694)
Net charges related to pension/post-retirement plans (net of deferred tax asset of $1,635 and $1,493 in 2019 and 2018, respectively)	**(3,512)**	(2,953)
	$ (5,055)	$ (4,647)

5. Acquisitions and Dispositions

The Company's acquisitions have been accounted for as business combinations. Net assets and results of operations are included in the Company's consolidated financial statements commencing at the respective purchase closing dates. In connection with acquisitions, the Company records the estimated values of the net tangible assets and the identifiable intangible assets purchased, which typically consist of customer relationships, developed technology, trademarks and non-compete agreements. The valuation of purchased intangible assets involves significant estimates and assumptions. The Company estimates the fair value of purchased intangible assets, primarily using the income approach, by determining the present value of future cash flows over the remaining economic life of the respective assets. The significant estimates and assumptions used in this approach include the determination of the discount rate, economic life, future revenue growth rates, expected account attrition rates and earnings margins. Refinement and completion of final valuation of net assets acquired could affect the carrying value of tangible assets, goodwill and identifiable intangible assets.

On April 1, 2019, the Company completed the JLT Transaction and purchased all of the outstanding shares of JLT. Under the terms of the Transaction, JLT shareholders received £19.15 in cash for each JLT share, which valued JLT's existing issued and to be issued share capital at approximately £4.3 billion (or approximately $5.6 billion based on an exchange rate of U.S. $1.31:£1). The Company also assumed existing JLT long-term indebtedness of approximately $1 billion. The Company implemented the Transaction by way of a scheme of arrangement under Part 26 of the United Kingdom Companies Act 2006, as amended.

The Company believes the Transaction strengthens MMC's leadership position in insurance and reinsurance broking, health and retirement. The addition of over 10,000 colleagues provides deeper industry expertise in almost every part of the Company. The Transaction also builds on MMC's efforts to expand in faster-growing geographies and market segments, and facilitates investment in data and analytics.

The Risk and Insurance Services segment completed five other acquisitions during 2019.

- February – MMA acquired Bouchard Insurance, Inc., a Florida-based full service agency and Employee Benefits Group, Inc., a Maryland-based independent insurance agency.
- April – MMA acquired Lovitt & Touche, Inc., an Arizona-based insurance agency and The Centurion Group, LLC, a Pennsylvania-based retirement consulting, asset management and benefit plan advisory firm.
- October – MMA acquired Benefits Reports Insurance Services, Inc., a Massachusetts-based independent insurance agency.

Total purchase consideration for acquisitions made during 2019 was approximately $5,927 million, which consisted of cash paid of $5,861 million and deferred purchase and estimated contingent consideration of $66 million. Contingent consideration arrangements are based primarily on earnings before interest, tax, depreciation and amortization ("EBITDA") or revenue targets over a period of two to four years. During 2019, the Company also paid $43 million of deferred purchase consideration and $63 million of contingent consideration related to acquisitions made in prior years. Estimated fair values of assets acquired and liabilities assumed are subject to adjustment when purchase accounting is finalized.

The following table presents the preliminary allocation of purchase consideration to the assets acquired and liabilities assumed during 2019 based on the estimated fair values for JLT and other acquisitions as of their respective acquisition dates:

Acquisitions for the Year-Ended December 31, 2019 *(In millions)*	JLT	Other	Total Acquisitions
Cash	**$ 5,568**	**$ 293**	**$ 5,861**
Estimated fair value of deferred/contingent consideration	**—**	**66**	**66**
Total consideration	**$ 5,568**	**$ 359**	**$ 5,927**
Allocation of purchase price:			
Cash and cash equivalents	**$ 349**	**$ 7**	**$ 356**
Accounts receivable, net	**695**	**6**	**701**
Other current assets	**132**	**—**	**132**
Fixed assets, net	**89**	**1**	**90**
Other intangible assets	**1,545**	**134**	**1,679**
Goodwill	**4,912**	**212**	**5,124**
Right of use assets	**382**	**—**	**382**
Deferred tax assets	**66**	**—**	**66**
Other assets	**473**	**8**	**481**
Total assets acquired	**8,643**	**368**	**9,011**
Current liabilities	**708**	**9**	**717**
Fiduciary liabilities	**1,275**	**—**	**1,275**
Less - fiduciary assets	**(1,275)**	**—**	**(1,275)**
Long-term debt	**1,044**	**—**	**1,044**
Long-term lease liability	**389**	**—**	**389**
Pension, post-retirement and post-employment liabilities	**248**	**—**	**248**
Liabilities for errors and omissions	**31**	**—**	**31**
Other liabilities	**375**	**—**	**375**
Total liabilities assumed	**2,795**	**9**	**2,804**
Non-controlling interests	**280**	**—**	**280**
Net assets acquired	**$ 5,568**	**$ 359**	**$ 5,927**

The purchase price allocation above is based on estimates that are preliminary in nature and subject to adjustments, which could be material. Any necessary adjustments must be finalized during the measurement period, which for a particular asset, liability, or non-controlling instrument ends once the acquirer determines that either (1) the necessary information has been obtained or (2) the information is not available. However, the measurement period for all items is limited to one year from the acquisition date. During the fourth quarter of 2019, the Company made certain adjustments to the above JLT purchase price allocation, which included an increase to goodwill of approximately $90 million, an increase to other liabilities, and decreases to net receivables, other assets and current liabilities.

Items subject to change include:

- Amounts of intangible assets, fixed assets, capitalized software assets and right-of-use assets, subject to finalization of valuation efforts;
- Amounts for contingencies, pending the finalization of the Company’s assessment of the portfolio of contingencies;

- Amounts for deferred tax assets and liabilities pending the finalization of valuations of the assets acquired, liabilities assumed and associated goodwill discussed below; and
- Amounts for income tax assets, receivables and liabilities, pending the filing of the acquired companies' pre-acquisition income tax returns and receipt of information from taxing authorities which may change certain estimates and assumptions used.

The estimation of fair value requires numerous judgments, assumptions and estimates about future events and uncertainties, which could materially impact these values, and the related amortization, where applicable, in the Company's results of operations.

The following chart provides information about intangible assets acquired during 2019:

Intangible assets through December 31, 2019 *(In millions)*	JLT	Other	Total	JLT Weighted Average Amortization Period	Other Weighted Average Amortization Period
Customer relationships	$ 1,435	$ 126	$ 1,561	13 years	12 years
Other	110	8	118	4 years	4 years
	$ 1,545	$ 134	$ 1,679		

Subsequent to the JLT acquisition, the Company purchased the outstanding non-controlling interests of several JLT subsidiaries for cash payments of approximately $79 million.

In January 2019, Marsh increased its equity ownership in Marsh India from 26% to 49%. Marsh India is accounted for under the equity method.

Prior Year Acquisitions

During 2018, the Risk and Insurance Services segment completed 12 acquisitions.

- February – MMA acquired Highsmith Insurance Agency, a North Carolina-based independent insurance brokerage firm.
- March – Marsh acquired Hoken Soken, Inc., a Japan-based insurance agency.
- May – Marsh acquired Mountlodge Limited, a Scotland-based independent insurance broker and Lorant Martínez Salas y Compañía Agente de Seguros y de Fianzas, S.A. de C.V., a Mexico-based multi-line insurance broker.
- June – MMA acquired Bleakley Insurance Services, a California-based provider of employee benefits solutions; Klein Agency, Inc., a Minnesota-based surety and property/casualty agency; and Insurance Associates, Inc., a Maryland-based independent insurance agency.
- August – Marsh acquired John L. Wortham & Son, L.P., a Houston-based independent insurance broker.
- October – MMA acquired Eustis Insurance, Inc., a Louisiana-based insurance agency.
- November – MMA acquired James P. Murphy & Associates, Inc., a Connecticut-based insurance agency.
- December – MMA acquired Otis-Magie Insurance Agency, Inc., a Minnesota-based insurance agency, and Marsh acquired Hector Insurance PCC Ltd, a U.K.-based captive management company.

The Consulting segment completed 8 acquisitions during 2018.

- January – Oliver Wyman acquired Draw Ltd., a U.K.-based digital transformation agency.
- March – Oliver Wyman acquired 8Works Limited, a U.K.-based design thinking consultancy.
- May – Mercer acquired EverBe SAS, a France-based Workday implementer and advisory firm; and Evolve Intelligence Pty Ltd., an Australia-based talent strategy firm.
- June – Mercer acquired India Life Capital Private Ltd., an India-based investment advisor.

- November – Mercer acquired Induslynk Training Services Private Ltd., an India-based talent assessment company, Pavilion Financial Corp., a Canada-based investment services firm and Summit Strategies Inc., a Missouri-based investment consulting firm.

Total purchase consideration for acquisitions made during 2018 was approximately $1.04 billion, which consisted of cash paid of $910 million and deferred purchase and estimated contingent consideration of $133 million. Contingent consideration arrangements are based primarily on EBITDA and/or revenue targets over periods of two to four years. The fair value of the contingent consideration was based on projected revenue and earnings of the acquired entities. Estimated fair values of assets acquired and liabilities assumed are subject to adjustment when purchase accounting is finalized. During 2018, the Company also paid $62 million of deferred purchase consideration and $91 million of contingent consideration related to acquisitions made in prior years.

Subsequent Event Transactions

During January 2020, MMA completed the acquisition of two independent insurance brokers, Momentous Insurance Brokerage ("Momentous") and Ironwood Insurance Services ("Ironwood"). Momentous is a California-based full-service risk management and employee benefits firm specializing in high net worth private client services and insurance solutions for the entertainment industry. Ironwood is an Atlanta-based broker that provides commercial property/casualty insurance, employee benefits, and private client solutions to mid-size businesses and individuals throughout the US.

At December 31, 2019, the Company owned approximately 34% of Alexander Forbes ("AF"). In January 2020, the Company announced that it would dispose of a substantial portion of its investment in AF in the form of two independent transactions. In February 2020, the Company, in a separate transaction, sold the shares not subject to the agreements above to an independent third party. The consummation of all three transactions will result in a total liquidation of the Company's investment in AF.

Pro-Forma Information

The following unaudited pro-forma financial data gives effect to the acquisitions made by the Company during 2019, 2018 and 2017. In accordance with accounting guidance related to pro-forma disclosures, the information presented for current year acquisitions is as if they occurred on January 1, 2018 and reflects acquisitions made in 2018 as if they occurred on January 1, 2017. The 2017 information includes 2017 acquisitions as if they occurred on January 1, 2016. The pro-forma information includes the effects of amortization of acquired intangibles and additional interest expense related to the issuance of debt related to the JLT Transaction. The unaudited pro-forma financial data is presented for illustrative purposes only and is not necessarily indicative of the operating results that would have been achieved if such acquisitions had occurred on the dates indicated, nor is it necessarily indicative of future consolidated results.

	Years Ended December 31,		
(In millions, except per share data)	**2019**	2018	2017
Revenue	**$ 17,095**	$ 17,106	$ 14,400
Net income attributable to the Company	**$ 1,866**	$ 1,302	$ 1,498
Basic net income per share attributable to the Company	**$ 3.69**	$ 2.58	$ 2.92
Diluted net income per share attributable to the Company	**$ 3.65**	$ 2.55	$ 2.89

The unaudited pro-forma information presented in the table above includes adjustments for acquisition related costs, the change in fair value of JLT acquisition related derivatives, bridge financing costs and the early extinguishment of debt, including $207 million of costs incurred in 2019 that were reflected in the 2018 pro-forma results presented above.

The consolidated statement of income for 2019 includes approximately $1.2 billion of revenue and an operating loss of $40 million related to acquisitions made during 2019. The consolidated statement of income for 2018 includes approximately $120 million of revenue and $2 million of operating income related to acquisitions made during 2018, and the consolidated statement of income for 2017 includes approximately $156 million of revenue and $19 million of operating income related to acquisitions made during 2017.

The Company incurred acquisition related costs, primarily related to legal, investment banking and U.K. stamp duty tax of $125 million for the year ended December 31, 2019, primarily related to the acquisition of JLT. These costs are included in other operating expenses in the Company's consolidated statement of income.

Acquisition-related expenses incurred in 2018 were $7 million.

Dispositions

During the third quarter of 2019, the Company completed the sale of a U.S. Specialty business at Marsh and a U.S. large market health and defined benefit business at Mercer for cash proceeds of approximately $60 million.

Also, on June 1, 2019, the Company completed its disposition of JLT's global aerospace business for cash proceeds of $165 million and contingent consideration receivable of approximately $65 million, based on the aerospace business achieving certain revenue milestones in 2020. The aerospace business was divested as part of the European Commission's approval of the JLT Transaction.

In September 2018, Marsh completed its sale of a risk management software and services business resulting in a pre-tax gain of $46 million, which is included in revenue in the consolidated statement of income.

6. Goodwill and Other Intangibles

The Company is required to assess goodwill and any indefinite-lived intangible assets for impairment annually, or more frequently if circumstances indicate impairment may have occurred. The Company performs the annual impairment assessment for each of its reporting units during the third quarter of each year. In accordance with applicable accounting guidance, a company can assess qualitative factors to determine whether it is necessary to perform a goodwill impairment test. Alternatively, the company may elect to proceed directly to the quantitative goodwill impairment test. In 2019, the Company elected to perform a quantitative impairment assessment. Fair values of the reporting units were estimated using a market approach. Carrying values for the reporting units are based on balances at the prior quarter end and include directly identified assets and liabilities, as well as an allocation of those assets and liabilities not recorded at the reporting unit level. The Company completed its 2019 annual assessment in the third quarter and concluded goodwill was not impaired, as the fair value of each reporting unit exceeded its carrying value by a substantial margin.

Other intangible assets that are not deemed to have an indefinite life are amortized over their estimated lives and reviewed for impairment upon the occurrence of certain triggering events in accordance with applicable accounting literature. The Company does not have any indefinite lived intangible assets.

Changes in the carrying amount of goodwill are as follows:

(In millions of dollars)	**2019**	2018
Balance as of January 1, as reported	**$ 9,599**	$ 9,089
Goodwill acquired (a)	**5,124**	626
Other adjustments (b)	**(52)**	(116)
Balance at December 31,	**$ 14,671**	$ 9,599

(a) Includes $4.9 billion from the acquisition of JLT in 2019.

(b) Primarily reflects the impact of dispositions in 2019 and foreign exchange translation in 2018.

The goodwill acquired of $5.1 billion in 2019 (approximately $213 million of which is deductible for tax purposes) is comprised of $5 billion related to the Risk and Insurance Services segment and $167 million related to the Consulting segment.

Goodwill allocable to the Company's reportable segments is as follows: Risk and Insurance Services, $11.7 billion and Consulting, $3 billion.

The gross cost and accumulated amortization of intangible assets at December 31, 2019 and 2018 are as follows:

(In millions of dollars)	**2019**			2018		
	Gross Cost	**Accumulated Amortization**	**Net Carrying Amount**	Gross Cost	Accumulated Amortization	Net Carrying Amount
Customer relationships	**$ 3,494**	**$ 897**	**$ 2,597**	$ 1,970	$ 639	$ 1,331
Other (a)	**380**	**203**	**177**	259	153	106
Amortized intangibles	**$ 3,874**	**$ 1,100**	**$ 2,774**	$ 2,229	$ 792	$ 1,437

(a) Primarily non-compete agreements, trade names and developed technology.

Aggregate amortization expense was $314 million for the year ended December 31, 2019, $183 million for the year ended December 31, 2018 and $169 million for the year ended December 31, 2017. The estimated future aggregate amortization expense is as follows:

For the Years Ending December 31, *(In millions of dollars)*	
2020	$ 344
2021	328
2022	299
2023	278
2024	267
Subsequent years	1,258
	$ 2,774

7. Income Taxes

For financial reporting purposes, income before income taxes includes the following components:

For the Years Ended December 31, *(In millions of dollars)*	**2019**	2018	2017
Income before income taxes:			
U.S.	**$ 657**	$ 460	$ 819
Other	**1,782**	1,784	1,824
	$ 2,439	$ 2,244	$ 2,643

The expense (benefit) for income taxes is comprised of:			
Current –			
U.S. Federal	**$ 70**	$ 82	$ 313
Other national governments	**455**	449	388
U.S. state and local	**57**	82	36
	582	613	737
Deferred –			
U.S. Federal	**69**	(30)	286
Other national governments	**(16)**	(1)	72
U.S. state and local	**31**	(8)	38
	84	(39)	396
Total income taxes	**$ 666**	$ 574	$ 1,133

The significant components of deferred income tax assets and liabilities and their balance sheet classifications are as follows:

December 31, *(In millions of dollars)*		**2019**		2018
Deferred tax assets:				
Accrued expenses not currently deductible	**$**	**492**	$	526
Differences related to non-U.S. operations [(a)]		**324**		170
Accrued U.S. retirement benefits		**438**		406
Net operating losses [(b)]		**70**		48
Income currently recognized for tax		**19**		20
Other		**27**		16
	$	**1,370**	$	1,186
Deferred tax liabilities:				
Differences related to non-U.S. operations	**$**	**400**	$	287
Depreciation and amortization		**594**		342
Accrued retirement & postretirement benefits - non-U.S. operations		**151**		171
Capitalized expenses currently recognized for tax		**77**		78
Other		**37**		49
	$	**1,259**	$	927

(a) Net of valuation allowances of $54 million in 2019 and $21 million in 2018.
(b) Net of valuation allowances of $72 million in 2019 and $45 million in 2018.

December 31, *(In millions of dollars)*		**2019**		2018
Balance sheet classifications:				
Deferred tax assets	**$**	**676**	$	680
Other liabilities	**$**	**565**	$	421

Taxes are not provided on the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries that are essentially permanent in duration, which, at December 31, 2019, the Company estimates amounted to approximately $1.8 billion. The determination of the unrecognized deferred tax liability with respect to these investments is not practicable.

A reconciliation from the U.S. Federal statutory income tax rate to the Company's effective income tax rate is shown below:

For the Years Ended December 31,	**2019**	2018	2017
U.S. Federal statutory rate	**21.0%**	21.0%	35.0%
U.S. state and local income taxes—net of U.S. Federal income tax benefit	**3.0**	2.3	1.5
Differences related to non-U.S. operations	**3.0**	3.3	(8.6)
U.S. Tax Reform	**—**	(0.3)	17.4
Equity compensation	**(1.3)**	(1.0)	(2.6)
Other	**1.6**	0.3	0.2
Effective tax rate	**27.3%**	25.6%	42.9%

The Company's consolidated effective tax rate was 27.3%, 25.6% and 42.9% in 2019, 2018 and 2017, respectively. The rates in 2019 and 2018 reflect ongoing impacts of the Tax Cuts and Jobs Act (TCJA) and certain tax planning benefits, largely offset by higher estimated tax costs from the TCJA quasi-territorial system, greater disallowance of certain expenses, a decrease in excess tax benefits related to share compensation primarily due to the 21% U.S. tax rate, lower Federal benefit for State tax deductions and State treatment of certain TCJA provisions. The 2019 rate includes certain tax costs of the JLT integration. The 2018 rate includes the effect of a charge related to the Company's investment in Alexander Forbes as discussed in Note 10. The tax rate in 2017 reflects the fact that foreign operations were generally taxed at rates lower than the U.S. statutory tax rate prior to the TCJA, as well as including a provisional estimate of the impact of the enactment of the TCJA.

The TCJA provided for a transition to a quasi-territorial tax system for taxing foreign earnings via a transition tax on undistributed earnings of non-U.S. subsidiaries. The Company recorded a provisional transition tax charge of $240 million upon enactment of the TCJA in 2017. The reduction of the U.S. corporate tax rate from 35% to 21% reduced the value of the U.S. deferred tax assets and liabilities; accordingly, a charge of $220 million was recorded. These amounts were decreased by $5 million and finalized in 2018.

A valuation allowance was recorded to adjust deferred tax assets to the amount that the Company believes is more likely than not to be realized. Valuation allowances had net increases of $60 million and $36 million in 2019 and 2018, respectively. There was no change to income tax expense as a result of adjustments of the beginning of the year valuation allowances in 2019. Adjustments of the beginning of the year balances of valuation allowances increased income tax expense by $1 million during 2018. Approximately 69% of the Company's net operating loss carryforwards expire from 2020 through 2040, and others are unlimited. The potential tax benefit from net operating loss carryforwards at the end of 2019 comprised federal, state and local, and non-U.S. tax benefits of $32 million, $34 million and $84 million, respectively, before reduction for valuation allowances.

Following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2019, 2018 and 2017:

(In millions of dollars)	**2019**	2018	2017
Balance at January 1,	**$ 78**	$ 71	$ 65
Additions, based on tax positions related to current year	**8**	6	1
Additions for tax positions of prior years	**15**	6	14
Reductions for tax positions of prior years	**(1)**	—	(6)
Settlements	**(1)**	(2)	—
Lapses in statutes of limitation	**(13)**	(3)	(3)
Balance at December 31,	**$ 86**	$ 78	$ 71

Of the total unrecognized tax benefits at December 31, 2019, 2018 and 2017, $75 million, $64 million and $56 million, respectively, represent the amount that, if recognized, would favorably affect the effective tax rate in any future periods. The total gross amount of accrued interest and penalties at December 31, 2019, 2018 and 2017, before any applicable federal benefit, was $31 million, $15 million and $12 million, respectively.

The Company is routinely examined by the jurisdictions in which it has significant operations. In the U.S. federal jurisdiction, the Company participates in the Internal Revenue Service's (IRS) Compliance Assurance Process (CAP), which is structured to be, in effect, a real-time audit. The IRS is currently examining the Company's 2017 and 2018 tax returns and is performing a pre-filing review of 2019. In 2019, the Company settled its federal audit for the year 2016.

New York is a significant jurisdiction for the Company. During 2019, New York State initiated an audit for the 2015 tax year. During 2018, New York State and New York City closed the examination of tax years 2007 through 2009. New York State and New York City have examinations underway for various entities covering the years 2010 through 2014.

The status of audits for significant jurisdictions outside the United States are summarized in the table below:

Tax Audit (Years)			
Jurisdiction:	**Initiated in 2019**	**Ongoing**	**Concluded**
Canada	2018		2013-2016 during 2019
France	2017-2018		2011-2012 during 2018
Germany	2013-2016		2009-2012 during 2018
Italy	2016	2015	
Singapore			2014-2016 during 2019
United Kingdom	2017	2016	2014-2015 during 2018

The Company has established liabilities for uncertain tax positions in relation to potential assessments in the jurisdictions in which it operates. The Company believes the resolution of tax matters will not have a material effect on the consolidated financial position of the Company, although a resolution of tax matters could have a material impact on the Company's net income or cash flows and on its effective tax rate in a particular future period. It is reasonably possible that the total amount of unrecognized tax benefits will decrease between zero and approximately $10 million within the next twelve months due to settlement of audits and expiration of statutes of limitation.

8. Retirement Benefits

The Company maintains qualified and non-qualified defined benefit pension plans for its U.S. and non-U.S. eligible employees. The Company’s policy for funding its tax qualified defined benefit retirement plans is to contribute amounts at least sufficient to meet the funding requirements set forth by U.S. law and the laws of the non-U.S. jurisdictions in which the Company offers defined benefit plans.

Combined U.S. and Non-U.S. Plans

The weighted average actuarial assumptions utilized for the U.S. and significant non-U.S. defined benefit plans and post-retirement benefit plans are as follows:

	Pension Benefits		Post-retirement Benefits	
	2019	2018	**2019**	2018
Weighted average assumptions:				
Discount rate (for expense)	**3.48%**	3.07%	**3.65%**	3.21%
Expected return on plan assets	**5.74%**	5.83%	**—**	—
Rate of compensation increase (for expense)*	**1.74%**	1.73%	**—**	—
Discount rate (for benefit obligation)	**2.57%**	3.48%	**2.72%**	3.65%
Rate of compensation increase (for benefit obligation)*	**1.76%**	1.74%	**—**	—

*Rate of compensation increase assumptions do not include a rate of compensation increase for the U.S. defined benefit plans since future benefit accruals were discontinued for those plans after December 31, 2016.

The Company uses actuaries from Mercer, a subsidiary of the Company, to perform valuations of its pension plans. The long-term rate of return on plan assets assumption is determined for each plan based on the facts and circumstances that exist as of the measurement date, and the specific portfolio mix of each plan’s assets. The Company utilizes a model developed by the Mercer actuaries to assist in the determination of this assumption. The model takes into account several factors, including: actual and target portfolio allocation; investment, administrative and trading expenses incurred directly by the plan trust; historical portfolio performance; relevant forward-looking economic analysis; and expected returns, variances and correlations for different asset classes. These measures are used to determine

probabilities using standard statistical techniques to calculate a range of expected returns on the portfolio. Generally, the Company does not adjust the rate of return assumption from year to year if, at the measurement date, it is within the range between the 25th and 75th percentile of the expected long-term annual returns. Historical long-term average asset returns of the most significant plans are also reviewed to determine whether they are consistent and reasonable compared with the rate selected. The expected return on plan assets is determined by applying the assumed long-term rate of return to the market-related value of plan assets. This market-related value recognizes investment gains or losses over a five-year period from the year in which they occur. Investment gains or losses for this purpose are the difference between the expected return calculated using the market-related value of assets and the actual return based on the market value of assets. Since the market-related value of assets recognizes gains or losses over a five-year period, the future market-related value of the assets will be impacted as previously deferred gains or losses are reflected.

The target asset allocation for the U.S. plans is 64% equities and equity alternatives and 36% fixed income. At the end of 2019, the actual allocation for the U.S. plans was 64% equities and equity alternatives and 36% fixed income. The target asset allocation for the U.K. plans, which comprise approximately 81% of non-U.S. plan assets, is 34% equities and equity alternatives and 66% fixed income. At the end of 2019, the actual allocation for the U.K. plans was 35% equities and equity alternatives and 65% fixed income. The assets of the Company's defined benefit plans are diversified and are managed in accordance with applicable laws and with the goal of maximizing the plans' real return within acceptable risk parameters. The Company uses threshold-based portfolio re-balancing to ensure the actual portfolio remains consistent with target asset allocation ranges.

The discount rate selected for each U.S. plan is based on a model bond portfolio with coupons and redemptions that closely match the expected liability cash flows from the plan. Discount rates for non-U.S. plans are based on appropriate bond indices adjusted for duration; in the U.K., the plan duration is reflected using the Mercer yield curve.

JLT Defined Benefit Pension Plans

As part of the JLT Transaction, the Company assumed responsibility for a number of pension plans throughout the world, with $255 million of net pension liabilities as of December 31, 2019 ($1,003 million in liabilities and $748 million of plan assets as of December 31, 2019), the most significant of which is the Jardine Lloyd Thompson U.K. Pension Scheme ("JLT U.K. plan"). The JLT U.K. plan has a defined benefit section which was frozen to future accrual in 2006 and a defined contribution section. The assets of the JLT U.K. plan are held in a trustee administered fund separate from the Company.

The components of the net periodic benefit cost for defined benefit and other post-retirement plans are as follows:

Combined U.S. and significant non-U.S. Plans	Pension			Post-retirement		
For the Years Ended December 31,	Benefits			Benefits		
(In millions of dollars)	**2019**	2018	2017	**2019**	2018	2017
Service cost	**$ 31**	$ 34	$ 76	**$ —**	$ 1	$ 1
Interest cost	**487**	463	497	**3**	3	4
Expected return on plan assets	**(863)**	(864)	(921)	**—**	—	—
Amortization of prior service (credit) cost	**—**	(2)	(2)	**(2)**	(2)	1
Recognized actuarial loss (gain)	**104**	146	167	**(1)**	(1)	—
Net periodic benefit (credit) cost	**$ (241)**	$ (223)	$ (183)	**$ —**	$ 1	$ 6
Curtailment (loss) gain	**—**	—	(1)	**—**	—	—
Settlement loss	**7**	42	54	**—**	—	—
Total (credit) cost	**$ (234)**	$ (181)	$ (130)	**$ —**	$ 1	$ 6

The following chart provides the amounts reported in the consolidated statements of income:

Combined U.S. and significant non-U.S. Plans For the Years Ended December 31,	Pension Benefits			Post-retirement Benefits		
(In millions)	**2019**	2018	2017	**2019**	2018	2017
Compensation and benefits expense (Operating income)	**$ 31**	$ 34	$ 76	**$ —**	$ 1	$ 1
Other net benefit (credit) cost	**(265)**	(215)	(206)	**—**	—	5
Total (credit) cost	**$ (234)**	$ (181)	$ (130)	**$ —**	$ 1	$ 6

Pension Settlement Charge

Defined Benefit Pension Plans in the U.K. and certain other countries allow participants an option for the payment of a lump sum distribution from plan assets before retirement in full satisfaction of the retirement benefits due to the participant as well as any survivor's benefit. The Company's policy under applicable U.S. GAAP is to treat these lump sum payments as a partial settlement of the plan liability if they exceed the total of interest plus service costs ("settlement thresholds"). Based on the amount of lump sum payments through December 31, 2018, the lump sum payments exceeded the settlement thresholds in two of the U.K. plans. The Company recorded non-cash settlement charges of $42 million and $54 million, in the consolidated statements of income for the twelve month periods ended December 31, 2018, and 2017, respectively, primarily related to these plans. The Company recorded $7 million of non-cash settlement charges in 2019 related to other non-U.S. plans.

Plan Assets

For the U.S. plans, investment allocation decisions are made by a fiduciary committee composed of senior executives appointed by the Company's Chief Executive Officer. For the non-U.S. plans, investment allocation decisions are made by local fiduciaries, in consultation with the Company for the larger plans. Plan assets are invested in a manner consistent with the fiduciary standards set forth in all relevant laws relating to pensions and trusts in each country. Primary investment objectives are (1) to achieve an investment return that, in combination with current and future contributions, will provide sufficient funds to pay benefits as they become due, and (2) to minimize the risk of large losses. The investment allocations are designed to meet these objectives by broadly diversifying plan assets among numerous asset classes with differing expected returns, volatilities, and correlations.

The major categories of plan assets include equity securities, equity alternative investments, and fixed income securities. For the U.S. plan, the category ranges are 59-69% for equities and equity alternatives, and 31-41% for fixed income. For the U.K. plans, the category ranges are 31-37% for equities and equity alternatives, and 63-69% for fixed income. Asset allocation is monitored frequently and re-balancing actions are taken as appropriate.

Plan investments are exposed to stock market, interest rate, and credit risk. Concentrations of these risks are generally limited due to diversification by investment style within each asset class, diversification by investment manager, diversification by industry sectors and issuers, and the dispersion of investments across many geographic areas.

Unrecognized Actuarial Gains/Losses

In accordance with applicable accounting guidance, the funded status of the Company's pension plans is recorded in the consolidated balance sheets and provides for a delayed recognition of actuarial gains or losses arising from changes in the projected benefit obligation due to changes in the assumed discount rates, differences between the actual and expected value of plan assets and other assumption changes. The unrecognized pension plan actuarial gains or losses and prior service costs not yet recognized in net periodic pension cost are recognized in Accumulated Other Comprehensive Income ("AOCI"), net of tax. These gains and losses are amortized prospectively out of AOCI over a period that approximates the remaining life expectancy of participants in plans where substantially all participants are inactive, or the average remaining service period of active participants for plans with active participants.

U.S. Plans

The following schedules provide information concerning the Company's U.S. defined benefit pension plans and post-retirement benefit plans:

	U.S. Pension Benefits		U.S. Post-retirement Benefits	
(In millions of dollars)	**2019**	2018	**2019**	2018
Change in benefit obligation:				
Benefit obligation at beginning of year	**$ 5,529**	$ 6,221	**$ 32**	$ 36
Interest cost	**241**	235	**1**	1
Employee contributions	**—**	—	**4**	4
Plan combination	**64**	—	**—**	—
Actuarial (gain) loss	**753**	(502)	**1**	(1)
Benefits paid	**(265)**	(425)	**(7)**	(8)
Benefit obligation, December 31	**$ 6,322**	$ 5,529	**$ 31**	$ 32
Change in plan assets:				
Fair value of plan assets at beginning of year	**$ 4,062**	$ 4,787	**$ 1**	$ 2
Actual return on plan assets	**834**	(330)	**—**	—
Employer contributions	**35**	30	**4**	3
Employee contributions	**—**	—	**4**	4
Benefits paid	**(265)**	(425)	**(7)**	(8)
Other	**49**	—	**—**	—
Fair value of plan assets, December 31	**$ 4,715**	$ 4,062	**$ 2**	$ 1
Net funded status, December 31	**$ (1,607)**	$ (1,467)	**$ (29)**	$ (31)
Amounts recognized in the consolidated balance sheets:				
Current liabilities	**$ (29)**	$ (28)	**$ (1)**	$ (2)
Non-current liabilities	**(1,578)**	(1,439)	**(28)**	(29)
Net liability recognized, December 31	**$ (1,607)**	$ (1,467)	**$ (29)**	$ (31)
Amounts recognized in other comprehensive income (loss):				
Net actuarial (loss) gain	**(2,114)**	(1,896)	**4**	6
Total recognized accumulated other comprehensive (loss) income, December 31	**$ (2,114)**	$ (1,896)	**$ 4**	$ 6
Cumulative employer contributions in excess of (less than) net periodic cost	**507**	429	**(33)**	(37)
Net amount recognized in consolidated balance sheet	**$ (1,607)**	$ (1,467)	**$ (29)**	$ (31)
Accumulated benefit obligation at December 31	**$ 6,322**	$ 5,529	**$ —**	$ —

	U.S. Pension Benefits		U.S. Post-retirement Benefits	
(In millions of dollars)	**2019**	2018	**2019**	2018
Reconciliation of net actuarial (loss) gain recognized in accumulated other comprehensive income (loss):				
Beginning balance	**$ (1,896)**	$ (1,766)	**$ 6**	$ 6
Recognized as component of net periodic benefit cost (credit)	**44**	55	**(1)**	(1)
Changes in plan assets and benefit obligations recognized in other comprehensive income (loss):				
Liability experience	**(753)**	502	**(1)**	1
Asset experience	**491**	(687)	**—**	—
Total (loss) gain recognized as change in plan assets and benefit obligations	**(262)**	(185)	**(1)**	1
Net actuarial (loss) gain, December 31	**$ (2,114)**	$ (1,896)	**$ 4**	$ 6

For the Years Ended December 31,	U.S. Pension Benefits			U.S. Post-retirement Benefits		
(In millions of dollars)	**2019**	2018	2017	**2019**	2018	2017
Total recognized in net periodic benefit cost and other comprehensive loss (income)	**$ 160**	$ 63	$ (10)	**$ 2**	$ —	$ 5

Estimated amounts that will be amortized from accumulated other comprehensive loss to net periodic pension cost in the next fiscal year:

	U.S. Pension Benefits	U.S. Post-retirement Benefits
(In millions of dollars)	2020	2020
Net actuarial loss	$ 72	$ 1

The weighted average actuarial assumptions utilized in determining expense during the year and benefit obligation at the end of the year for the U.S. defined benefit and other U.S. post-retirement plans are as follows:

	U.S. Pension Benefits		U.S. Post-retirement Benefits	
	2019	2018	**2019**	2018
Weighted average assumptions:				
Discount rate (for expense)	**4.45%**	3.86%	**4.24%**	3.67%
Expected return on plan assets	**7.95%**	7.95%	**—**	—
Discount rate (for benefit obligation)	**3.44%**	4.45%	**3.10%**	4.24%

The projected benefit obligation, accumulated benefit obligation and aggregate fair value of plan assets for U.S. pension plans with accumulated benefit obligations in excess of plan assets were $6.3 billion, $6.3 billion and $4.7 billion, respectively, as of December 31, 2019 and $5.5 billion, $5.5 billion and $4.1 billion, respectively, as of December 31, 2018.

The projected benefit obligation and fair value of plan assets for U.S. pension plans with projected benefit obligations in excess of plan assets was $6.3 billion and $4.7 billion, respectively, as of December 31, 2019 and $5.5 billion and $4.1 billion, respectively, as of December 31, 2018.

As of December 31, 2019, the U.S. qualified plan holds 2 million shares of the Company's common stock which were contributed to the qualified plan by the Company in 2005. This represented approximately 4.8% of that plan's assets as of December 31, 2019.

The components of the net periodic benefit cost (credit) for the U.S. defined benefit and other post-retirement benefit plans are as follows:

U.S. Plans only For the Years Ended December 31,	Pension Benefits			Post-retirement Benefits		
(In millions of dollars)	**2019**	2018	2017	**2019**	2018	2017
Interest cost	**241**	235	264	**1**	1	2
Expected return on plan assets	**(343)**	(357)	(357)	**—**	—	—
Amortization of prior service cost	**—**	—	—	**—**	—	3
Recognized actuarial loss (gain)	**44**	55	37	**(1)**	(1)	(1)
Net periodic benefit (credit) cost	**$ (58)**	$ (67)	$ (56)	**$ —**	$ —	$ 4

The assumed health care cost trend rate for Medicare eligibles and non-Medicare eligibles is approximately 6% in 2019, gradually declining to 4.5% in 2039. Assumed health care cost trend rates have a small effect on the amounts reported for the U.S. health care plans because the Company caps its share of health care trend at 5%. A one percentage point change in assumed health care cost trend rates would have no effect on the total service and interest cost components or the post-retirement benefit obligation.

Estimated Future Contributions

The Company expects to contribute approximately $76 million to its U.S. plans in 2020. The Company's policy for funding its tax-qualified defined benefit retirement plans is to contribute amounts at least sufficient to meet the funding requirements set forth in the U.S. and applicable foreign law.

Non-U.S. Plans

The following schedules provide information concerning the Company's non-U.S. defined benefit pension plans and non-U.S. post-retirement benefit plans:

	Non-U.S. Pension Benefits		Non-U.S. Post-retirement Benefits	
(In millions of dollars)	**2019**	2018	**2019**	2018
Change in benefit obligation:				
Benefit obligation at beginning of year	**$ 8,969**	$ 10,053	**$ 57**	$ 68
Service cost	**31**	34	**—**	1
Interest cost	**246**	228	**2**	2
Employee contributions	**2**	2	**—**	—
Plan combination	**915**	—	**—**	—
Actuarial loss (gain)	**1,339**	(450)	**3**	(8)
Plan amendments	**(1)**	44	**—**	—
Effect of settlement	**(25)**	(162)	**—**	—
Benefits paid	**(364)**	(290)	**(3)**	(3)
Foreign currency changes	**209**	(491)	**2**	(3)
Other	**—**	1	**—**	—
Benefit obligation, December 31	**$ 11,321**	$ 8,969	**$ 61**	$ 57
Change in plan assets:				
Fair value of plan assets at beginning of year	**$ 10,306**	$ 11,388	**$ —**	$ —
Plan combination	**683**	—	**—**	—
Actual return on plan assets	**1,367**	(141)	**—**	—
Effect of settlement	**(25)**	(162)	**—**	—
Company contributions	**87**	82	**3**	3
Employee contributions	**2**	2	**—**	—
Benefits paid	**(364)**	(290)	**(3)**	(3)
Foreign currency changes	**257**	(573)	**—**	—
Fair value of plan assets, December 31	**$ 12,313**	$ 10,306	**$ —**	$ —
Net funded status, December 31	**$ 992**	$ 1,337	**$ (61)**	$ (57)
Amounts recognized in the consolidated balance sheets:				
Non-current assets	**$ 1,632**	$ 1,687	**$ —**	$ —
Current liabilities	**(6)**	(5)	**(3)**	(3)
Non-current liabilities	**(634)**	(345)	**(58)**	(54)
Net asset (liability) recognized, December 31	**$ 992**	$ 1,337	**$ (61)**	$ (57)
Amounts recognized in other comprehensive (loss) income:				
Prior service credit	**$ (2)**	$ (2)	**$ 11**	$ 12
Net actuarial loss	**(3,055)**	(2,568)	**(5)**	(1)
Total recognized accumulated other comprehensive (loss) income, December 31	**$ (3,057)**	$ (2,570)	**$ 6**	$ 11
Cumulative employer contributions in excess of (less than) net periodic cost	**4,049**	3,907	**(67)**	(68)
Net asset (liability) recognized in consolidated balance sheets, December 31	**$ 992**	$ 1,337	**$ (61)**	$ (57)
Accumulated benefit obligation, December 31	**$ 11,079**	$ 8,752	**$ —**	$ —

	Non-U.S. Pension Benefits		Non-U.S. Post-retirement Benefits	
(In millions of dollars)	**2019**	2018	**2019**	2018
Reconciliation of prior service credit (cost) recognized in accumulated other comprehensive income (loss):				
Beginning balance	**$ (2)**	$ 43	**$ 12**	$ 15
Recognized as component of net periodic benefit credit:				
Amortization of prior service credit	**—**	(2)	**(2)**	(2)
Total recognized as component of net periodic benefit credit	**—**	(2)	**(2)**	(2)
Changes in plan assets and benefit obligations recognized in other comprehensive income:				
Plan amendments	**1**	(44)	**—**	—
Exchange rate adjustments	**(1)**	1	**1**	(1)
Prior service credit, December 31	**$ (2)**	$ (2)	**$ 11**	$ 12

	Non-U.S. Pension Benefits		Non-U.S. Post-retirement Benefits	
(In millions of dollars)	**2019**	2018	**2019**	2018
Reconciliation of net actuarial (loss) gain recognized in accumulated other comprehensive (loss) income:				
Beginning balance	**$ (2,568)**	$ (2,646)	**$ (1)**	$ (10)
Recognized as component of net periodic benefit cost:				
Amortization of net loss	**60**	91	**—**	—
Effect of settlement	**7**	42	**—**	—
Total recognized as component of net periodic benefit credit	**67**	133	**—**	—
Changes in plan assets and benefit obligations recognized in other comprehensive income (loss):				
Liability experience	**(1,339)**	450	**(3)**	8
Asset experience	**847**	(648)	**—**	—
Other	**—**	3	**—**	—
Total amount recognized as change in plan assets and benefit obligations	**(492)**	(195)	**(3)**	8
Exchange rate adjustments	**(62)**	140	**(1)**	1
Net actuarial loss, December 31	**$ (3,055)**	$ (2,568)	**$ (5)**	$ (1)

For the Years Ended December 31,	Non-U.S. Pension Benefits			Non-U.S. Post-retirement Benefits		
(In millions of dollars)	**2019**	2018	2017	**2019**	2018	2017
Total recognized in net periodic benefit cost and other comprehensive loss (income)	**$ 311**	$ (147)	$ (513)	**$ 5**	$ (5)	$ (14)

Estimated amounts that will be amortized from accumulated other comprehensive loss to net periodic pension cost in the next fiscal year:

	Non-U.S. Pension Benefits	Non-U.S. Post-retirement Benefits
(In millions of dollars)	**2020**	**2020**
Prior service credit	**$ —**	**$ (2)**
Net actuarial loss	**90**	**—**
Projected cost	**$ 90**	**$ (2)**

The weighted average actuarial assumptions utilized in determining expense during the year and benefit obligation at the end of the year for the non-U.S. defined benefit and post-retirement plans are as follows:

	Non-U.S. Pension Benefits		Non-U.S. Post-retirement Benefits	
	2019	2018	**2019**	2018
Weighted average assumptions:				
Discount rate (for expense)	**2.89%**	2.58%	**3.32%**	2.97%
Expected return on plan assets	**4.87%**	4.94%	**—**	—
Rate of compensation increase (for expense)	**2.82%**	2.80%	**—**	—
Discount rate (for benefit obligation)	**2.09%**	2.89%	**2.53%**	3.32%
Rate of compensation increase (for benefit obligation)	**2.75%**	2.82%	**—**	—

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for the non-U.S. pension plans with accumulated benefit obligations in excess of plan assets were $2.9 billion, $2.7 billion and $2.2 billion, respectively, as of December 31, 2019 and $1.7 billion, $1.6 billion and $1.3 billion, respectively, as of December 31, 2018.

The projected benefit obligation and fair value of plan assets for non-U.S. pension plans with projected benefit obligations in excess of plan assets was $3.0 billion and $2.3 billion, respectively, as of December 31, 2019 and $1.9 billion and $1.6 billion, respectively, as of December 31, 2018.

Non-U.S. Plan Amendments

In March 2017, the Company modified its defined benefit pension plans in Canada to discontinue further benefit accruals for participants after December 31, 2017 and replaced them with a defined contribution arrangement. The Company also amended its post-retirement benefits plan in Canada so that individuals who retire after April 1, 2019 will not be eligible to participate, except in certain situations. The Company re-measured the assets and liabilities of the plans, based on assumptions and market conditions on the amendment date.

Components of Net Periodic Benefits Costs

The components of the net periodic benefit cost for the non-U.S. defined benefit and other post-retirement benefit plans and the curtailment, settlement and termination expenses are as follows:

For the Years Ended December 31,	Non-U.S. Pension Benefits			Non-U.S. Post-retirement Benefits		
(In millions of dollars)	**2019**	2018	2017	**2019**	2018	2017
Service cost	**$ 31**	$ 34	$ 76	**$ —**	$ 1	$ 1
Interest cost	**246**	228	233	**2**	2	2
Expected return on plan assets	**(520)**	(507)	(564)	**—**	—	—
Amortization of prior service credit	**—**	(2)	(2)	**(2)**	(2)	(2)
Recognized actuarial loss	**60**	91	130	**—**	—	1
Net periodic benefit (credit) cost	**(183)**	(156)	(127)	**—**	1	2
Settlement loss	**7**	42	54	**—**	—	—
Curtailment (gain) loss	**—**	—	(1)	**—**	—	—
Total (credit) cost	**$ (176)**	$ (114)	$ (74)	**$ —**	$ 1	$ 2

The assumed health care cost trend rate was approximately 4.98% in 2019, gradually declining to 4.34% in 2029. Assumed health care cost trend rates can have a significant effect on the amounts reported for the non-U.S. health care plans. A one percentage point change in assumed health care cost trend rates would have the following effects:

(In millions of dollars)	1 Percentage Point Increase	1 Percentage Point Decrease
Effect on total of service and interest cost components	$ —	$ —
Effect on post-retirement benefit obligation	$ 6	$ (5)

Estimated Future Contributions

The Company expects to contribute approximately $84 million to its non-U.S. pension plans in 2020. Funding requirements for non-U.S. plans vary by country. Contribution rates are generally based on local funding practices and requirements, which may differ significantly from measurements under U.S. GAAP. Funding amounts may be influenced by future asset performance, the level of discount rates and other variables impacting the assets and/or liabilities of the plan. Discretionary contributions may also be affected by alternative uses of the Company's cash flows, including dividends, investments and share repurchases.

In the U.K., the assumptions used to determine pension contributions are the result of legally-prescribed negotiations between the Company and the plans' trustee that typically occurs every three years in conjunction with the actuarial valuation of the plans. Currently, this results in a lower funded status than under U.S. GAAP and may result in contributions irrespective of the U.S. GAAP funded status. For the MMC UK Pension Fund, in November 2016, the Company and the trustee agreed to a funding deficit recovery plan for the U.K. defined benefit pension plans. A new agreement was reached with the trustee in the fourth quarter of 2019 based on the surplus funding position at December 31, 2018. Under the agreement no deficit funding is required until 2023. The funding level will be re-assessed during 2022 to determine if contributions are required in 2023. As part of a long-term strategy, which depends on having greater influence over asset allocation and overall investment decisions, in November 2019 the Company renewed its agreement to support annual deficit contributions by the U.K. operating companies under certain circumstances, up to GBP 450 million over a seven-year period. In addition in the U.K. the Company assumed responsibility for the JLT's Pension Scheme (JLT U.K. plan). Deficit funding of approximately $28 million is expected during 2020 with a new funding agreement expected to be reached with the trustee during 2020.

Estimated Future Benefit Payments

The estimated future benefit payments for the Company's pension and post-retirement benefit plans are as follows:

For the Years Ended December 31,	Pension Benefits		Post-retirement Benefits	
(In millions of dollars)	U.S.	Non-U.S.	U.S.	Non-U.S.
2020	$ 281	$ 322	$ 4	$ 3
2021	$ 293	$ 328	$ 4	$ 3
2022	$ 305	$ 338	$ 3	$ 3
2023	$ 312	$ 358	$ 3	$ 3
2024	$ 318	$ 368	$ 3	$ 3
2025-2029	$ 1,675	$ 2,019	$ 11	$ 15

Defined Benefit Plans Fair Value Disclosures

The U.S. and non-U.S. plan investments are classified into Level 1, which refers to investments valued using quoted prices from active markets for identical assets; Level 2, which refers to investments not traded on an active market but for which observable market inputs are readily available; Level 3, which refers to investments valued based on significant unobservable inputs; and NAV, which refers to investments valued using net asset value as a practical expedient. Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

The following table sets forth, by level within the fair value hierarchy, a summary of the U.S. and non-U.S. plans' investments measured at fair value on a recurring basis at December 31, 2019 and 2018:

	Fair Value Measurements at December 31, 2019				
Assets *(In millions of dollars)*	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	NAV	Total
Common/collective trusts	**$ 492**	**$ —**	**$ —**	**$ 5,959**	**$ 6,451**
Corporate obligations	**—**	**4,063**	**—**	**—**	**4,063**
Corporate stocks	**2,871**	**34**	**1**	**—**	**2,906**
Private equity/partnerships	**—**	**—**	**—**	**1,055**	**1,055**
Government securities	**20**	**679**	**—**	**—**	**699**
Real estate	**—**	**—**	**—**	**660**	**660**
Short-term investment funds	**309**	**3**	**—**	**—**	**312**
Company common stock	**223**	**—**	**—**	**—**	**223**
Other investments	**15**	**17**	**682**	**2**	**716**
Total investments	**$ 3,930**	**$ 4,796**	**$ 683**	**$ 7,676**	**$ 17,085**

	Fair Value Measurements at December 31, 2018				
Assets *(In millions of dollars)*	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	NAV	Total
Common/collective trusts	$ 291	$ —	$ —	$ 5,329	$ 5,620
Corporate obligations	—	3,673	—	—	3,673
Corporate stocks	2,046	33	1	—	2,080
Private equity/partnerships	—	—	—	921	921
Government securities	15	535	—	—	550
Real estate	—	—	—	563	563
Short-term investment funds	286	—	—	—	286
Company common stock	319	—	—	—	319
Other investments	13	20	333	—	366
Total investments	$ 2,970	$ 4,261	$ 334	$ 6,813	$ 14,378

The tables below set forth a summary of changes in the fair value of the plans' Level 3 assets for the years ended December 31, 2019 and December 31, 2018:

Assets *(In millions)*	Fair Value, January 1, 2019	Purchases	Sales	Unrealized Gain/ (Loss)	Realized Gain/ (Loss)	Exchange Rate Impact	Transfers in/(out) and Other (a)	Fair Value, December 31, 2019
Other investments	**$ 333**	**$ 17**	**$ (14)**	**$ 72**	**$ 1**	**$ (9)**	**$ 282**	**$ 682**
Corporate stocks	**1**	**—**	**—**	**—**	**—**	**—**	**—**	**1**
Total assets	**$ 334**	**$ 17**	**$ (14)**	**$ 72**	**$ 1**	**$ (9)**	**$ 282**	**$ 683**

(a) Transfers in during 2019 are primarily related to the inclusion of JLT plan assets.

Assets *(In millions)*	Fair Value, January 1, 2018	Purchases	Sales	Unrealized Gain/ (Loss)	Realized Gain/ (Loss)	Exchange Rate Impact	Transfers in/(out) and Other	Fair Value, December 31, 2018
Other investments	$ 350	$ 20	$ (19)	$ (5)	$ 1	$ (14)	$ —	$ 333
Corporate stocks	2	—	—	—	—	—	(1)	1
Corporate obligations	20	—	—	—	—	—	(20)	—
Total assets	$ 372	$ 20	$ (19)	$ (5)	$ 1	$ (14)	$ (21)	$ 334

The following is a description of the valuation methodologies used for assets measured at fair value:

Company common stock: Valued at the closing price reported on the New York Stock Exchange.

Common stocks, preferred stocks, convertible equity securities, rights/warrants and real estate investment trusts (included in Corporate stocks): Valued at the closing price reported on the primary exchange.

Corporate bonds (included in Corporate obligations): The fair value of corporate bonds is estimated using recently executed transactions, market price quotations (where observable) and bond spreads. The spread data used are for the same maturity as the bond. If the spread data does not reference the issuer, then data that references a comparable issuer are used. When observable price quotations are not available, fair value is determined based on cash flow models.

Commercial mortgage-backed and asset-backed securities (included in Corporate obligations): Fair value is determined using discounted cash flow models. Observable inputs are based on trade and quote activity of bonds with similar features including issuer vintage, purpose of underlying loan (first or second lien), prepayment speeds and credit ratings. The discount rate is the combination of the appropriate rate from the benchmark yield curve and the discount margin based on quoted prices.

Common/Collective trusts: Valued at the net asset value of units of a bank collective trust. The net asset value as provided by the trustee, is used as a practical expedient to estimate fair value. The net asset value is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported net asset value.

U.S. government bonds (included in Government securities): The fair value of U.S. government bonds is estimated by pricing models that utilize observable market data including quotes, spreads and data points for yield curves.

U.S. agency securities (included in Government securities): U.S. agency securities are comprised of two main categories consisting of agency issued debt and mortgage pass-throughs. Agency issued debt securities are valued by benchmarking market-derived prices to quoted market prices and trade data for identical or comparable securities. Mortgage pass-throughs include certain "To-be-announced" (TBA) securities and mortgage pass-through pools. TBA securities are generally valued using quoted market prices or are benchmarked thereto. Fair value of mortgage pass-through pools are model driven with respect to spreads of the comparable TBA security.

Private equity and real estate partnerships: Investments in private equity and real estate partnerships are valued based on the fair value reported by the manager of the corresponding partnership and reported on a one quarter lag. The managers provide unaudited quarterly financial statements and audited annual financial statements which set forth the value of the fund. The valuations obtained from the managers are based on various analyses on the underlying holdings in each partnership, including financial valuation models and projections, comparable valuations from the public markets, and precedent private market transactions. Investments are valued in the accompanying financial statements based on the Plan’s beneficial interest in the underlying net assets of the partnership as determined by the partnership agreement.

Insurance group annuity contracts: The fair values for these investments are based on the current market value of the aggregate accumulated contributions plus interest earned.

Swap assets (included in Other investments): Fair values for interest rate swaps, equity index swaps and inflation swaps are estimated using a discounted cash flow pricing model. These models use observable market data such as contractual fixed rate, spot equity price or index value and dividend data. The fair values of credit default swaps are estimated using an income approach model which determines expected cash flows based on default probabilities from the issuer-specific credit spread curve and credit loss recovery rates, both of which are dependent on market quotes.

Short-term investment funds: Primarily high-grade money market instruments valued at net asset value at year-end.

Registered investment companies: Valued at the closing price reported on the primary exchange.

Defined Contribution Plans

The Company maintains certain defined contribution plans for its employees, including the Marsh & McLennan Companies 401(k) Savings & Investment Plan ("401(k) Plan"), that are qualified under U.S. tax laws. Under these plans, eligible employees may contribute a percentage of their base salary, subject to certain limitations. For the 401(k) Plan, the Company matches a fixed portion of the employees' contributions. In addition, as mentioned above, as part of the modification to its U.S. defined benefit pension plans, the Company also amended its U.S. defined contribution retirement plans for most of its U.S. employees to add an automatic Company contribution equal to 4% of eligible base pay beginning on January 1, 2017. The 401(k) Plan contains an Employee Stock Ownership Plan feature under U.S. tax law. Approximately $556 million of the 401(k) Plan's assets at December 31, 2019 and $444 million at December 31, 2018 were invested in the Company's common stock. If a participant does not choose an investment direction for his or her future contributions, they are automatically invested in a BlackRock LifePath Portfolio that most closely matches the participant's expected retirement year. The cost of these defined contribution plans was $139 million in 2019, $133 million in 2018 and $130 million in 2017. In addition, the Company has significant defined contribution plans in the U.K. As noted above, effective August 1, 2014, a newly formed defined contribution plan replaced the existing defined contribution and defined benefit plans with regard to future service. In addition, the Company has assumed responsibility for the defined contribution section of the JLT U.K. plan. The cost of the U.K. defined contribution plan was $100 million, $80 million and $75 million in 2019, 2018 and 2017, respectively.

9. Stock Benefit Plans

The Company maintains multiple stock-based payment arrangements under which employees are awarded grants of restricted stock units, stock options and other forms of stock-based benefits.

Marsh & McLennan Companies, Inc. Incentive and Stock Award Plans

On May 19, 2011, the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (the "2011 Plan") was approved by the Company's stockholders. The 2011 Plan replaced the Company's two previous equity incentive plans (the 2000 Senior Executive Incentive and Stock Award Plan and the 2000 Employee Incentive and Stock Award Plan).

The types of awards permitted under the 2011 Plan include stock options, restricted stock and restricted stock units payable in Company common stock or cash, and other stock-based and performance-based awards. The Compensation Committee of the Board of Directors (the "Compensation Committee") determines, at its discretion, which affiliates may participate in the 2011 Plan, which eligible employees will receive awards, the types of awards to be received, and the terms and conditions thereof. The right of an employee to receive an award may be subject to performance conditions as specified by the Compensation Committee. The 2011 Plan contains a provision which, in the event of a change in control of the Company, may accelerate the vesting of the awards. This provision requires both a change in control of the Company and a subsequent specified termination of employment for vesting to be accelerated.

The 2011 Plan retains the remaining share authority of the two previous plans as of the date the 2011 Plan was approved by stockholders. Thus, approximately 23.2 million shares of common stock, plus shares remaining unused under the previous plans, are available for awards over the life of the 2011 Plan.

The current practice is to grant non-qualified stock options, restricted stock units and/or performance stock units ("PSUs") on an annual basis to senior executives and a limited number of other employees as part of their total compensation. Restricted stock units are also granted to new hires or as retention awards for certain employees. Restricted stock has not been granted since 2005.

Stock Options: Options granted under the 2011 Plan may be designated as either incentive stock options or non-qualified stock options. The Compensation Committee determines the terms and conditions of the option, including the time or times at which an option may be exercised, the methods by which such exercise price may be paid, and the form of such payment. Options are generally granted with an exercise price equal to the market value of the Company's common stock on the date of grant. These option awards generally vest 25% per annum and have a contractual term of 10 years.

The estimated fair value of options granted is calculated using the Black-Scholes option pricing valuation model. This model takes into account several factors and assumptions. The risk-free interest rate is based on the yield on U.S. Treasury zero-coupon issues with a remaining term equal to the expected life assumption at the time of grant. The expected life (estimated period of time outstanding) is estimated using the contractual term of the option and the effects of employees' expected exercise and post-vesting employment termination behavior. The Company uses a blended volatility rate based on the following: (i) volatility derived from daily closing price observations for the 10-year period ended on the valuation date, (ii) implied volatility derived from traded options for the period one week before the valuation date and (iii) average volatility for the 10-year periods ended on 15 anniversaries prior to the valuation date, using daily closing price observations. The expected dividend yield is based on expected dividends for the expected term of the stock options.

The assumptions used in the Black-Scholes option pricing valuation model for options granted by the Company in 2019, 2018 and 2017 are as follows:

	2019	2018	2017
Risk-free interest rate	**2.51%**	2.73%	2.09%
Expected life (in years)	**6.0**	6.0	6.0
Expected volatility	**20.93%**	23.23%	23.23%
Expected dividend yield	**1.82%**	1.81%	1.86%

A summary of the status of the Company's stock option awards as of December 31, 2019 and changes during the year then ended is presented below:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value ($000)
Balance at January 1, 2019	**9,968,038**	**$ 53.94**		
Granted	**1,661,590**	**$ 91.15**		
Exercised	**(2,655,288)**	**$ 40.10**		
Forfeited	**(115,212)**	**$ 82.96**		
Balance at December 31, 2019	**8,859,128**	**$ 64.69**	**6.2 years**	**$ 414,756**
Options vested or expected to vest at December 31, 2019	**8,714,264**	**$ 64.43**	**6.1 years**	**$ 410,231**
Options exercisable at December 31, 2019	**5,133,064**	**$ 52.36**	**4.7 Years**	**$ 303,612**

In the above table, forfeited options are unvested options whose requisite service period has not been met. Expired options are vested options that were not exercised. The weighted-average grant-date fair value of the Company's option awards granted during the years ended December 31, 2019, 2018 and 2017 was $17.87, $18.29 and $15.01, respectively. The total intrinsic value of options exercised during the same periods was $136.7 million, $72.9 million and $195.3 million, respectively.

As of December 31, 2019, there was $19.0 million of unrecognized compensation cost related to the Company's option awards. The weighted-average period over which that cost is expected to be recognized is approximately 1.25 years. Cash received from the exercise of stock options for the years ended December 31, 2019, 2018 and 2017 was $106.5 million, $46.7 million and $126.7 million, respectively.

The Company's policy is to issue treasury shares upon option exercises or share unit conversion. The Company intends to issue treasury shares as long as an adequate number of those shares is available.

Restricted Stock Units and Performance Stock Units: Restricted stock units may be awarded under the Company's 2011 Incentive and Stock Award Plan. The Compensation Committee determines the restrictions on such units, when the restrictions lapse, when the units vest and are paid, and under what terms the units are forfeited. The cost of these awards is amortized over the vesting period, which is generally three years. Awards to senior executives and other employees may include three-year performance-based restricted stock units and three-year service-based restricted stock units. The payout of performance stock units (payable in shares of the Company's common stock) ranges, generally, from 0-200% of the number of units granted, based on the achievement of objective, pre-determined Company performance measure(s), generally, over a three-year performance period. The Company accounts for these awards as performance condition restricted stock units. The performance condition is not considered in the determination of grant date fair value of such awards. Compensation cost is recognized over the performance period based on management's estimate of the number of units expected to vest and shares to be paid and is adjusted to reflect the actual number of shares paid out at the end of the three-year performance period. Dividend equivalents are not paid out unless and until such time that the award vests and shares are distributed.

A summary of the status of the Company's restricted stock units and performance stock units as of December 31, 2019 and changes during the period then ended is presented below:

	Restricted Stock Units		Performance Stock Units	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Non-vested balance at January 1, 2019	**4,330,231**	**$ 76.49**	**698,798**	**$ 70.33**
Granted	**4,266,983**	**$ 92.50**	**245,065**	**$ 91.17**
Vested	**(2,023,355)**	**$ 72.96**	**(262,820)**	**$ 57.50**
Forfeited	**(616,122)**	**$ 89.55**	**(30,496)**	**$ 83.30**
Non-vested balance at December 31, 2019	**5,957,737**	**$ 87.80**	**650,547**	**$ 82.75**

The weighted-average grant-date fair value of the Company's restricted stock units granted during the years ended December 31, 2018 and 2017 was $83.05 and $73.23, respectively. The weighted average grant date fair value of the Company's performance stock units granted during the years ended December 31, 2018 and 2017 was $83.05 and $73.20, respectively. The total fair value of the shares distributed during the years ended December 31, 2019, 2018 and 2017 in connection with the Company's non-option equity awards was $211.9 million, $170.3 million and $117.1 million, respectively.

The payout of shares in 2019 with respect to the PSUs awarded in 2016 was 97% of target based on performance for the three-year performance period. In aggregate, 254,993 shares became distributable in respect to PSUs vested in 2019.

As of December 31, 2019, there was $357 million of unrecognized compensation cost related to the Company's restricted stock units and performance stock unit awards. The weighted-average period over which that cost is expected to be recognized is approximately 1.11 years.

Marsh & McLennan Companies Stock Purchase Plans

In May 1999, the Company's stockholders approved an employee stock purchase plan (the "1999 Plan") to replace the 1994 Employee Stock Purchase Plan (the "1994 Plan"), which terminated on September 30, 1999 following its fifth annual offering. Under the current terms of the Plan, shares are purchased four times during the plan year at a price that is 95% of the average market price on each quarterly purchase date. Under the 1999 Plan, after including the available remaining unused shares in the 1994 Plan and reducing the shares available by 10,000,000 consistent with the Company's Board of Directors' action in March 2007 and the addition of 4,750,000 shares due to a shareholder action in May 2018, no more than 40,350,000 shares of the Company's common stock may be sold. Employees purchased 405,872 shares during the year ended December 31, 2019 and at December 31, 2019, 5,272,708 shares were available for issuance under the 1999 Plan. Under the 1995 Company Stock Purchase Plan for International Employees (the "International Plan"), after reflecting the additional 5,000,000 shares of common stock for issuance approved by the Company's Board of Directors in July 2002, the addition of 4,000,000 shares due to a shareholder action in May 2007 and reducing the shares available by 1,000,000 consistent with the Company's Board of Directors' action in March 2018, no more than 11,000,000 shares of the Company's common stock may be sold. Employees purchased 103,635 shares during the year ended December 31, 2019 and there were 1,271,213 shares available for issuance at December 31, 2019 under the International Plan. The plans are considered non-compensatory.

10. Fair Value Measurements

Fair Value Hierarchy

The Company has categorized its assets and liabilities that are valued at fair value on a recurring basis into a three-level fair value hierarchy as defined by the FASB. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets and liabilities (Level 1) and lowest priority to unobservable inputs (Level 3). In some cases, the inputs used to measure fair value might fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy, for disclosure purposes, is determined based on the lowest level input that is significant to the fair value measurement. Assets and liabilities recorded in the consolidated balance sheets at fair value are categorized based on the inputs in the valuation techniques as follows:

Level 1. Assets and liabilities whose values are based on unadjusted quoted prices for identical assets or liabilities in an active market (examples include active exchange-traded equity securities and exchange-traded money market mutual funds).

Assets and liabilities using Level 1 inputs include exchange-traded equity securities, exchange-traded mutual funds and money market funds.

Level 2. Assets and liabilities whose values are based on the following:

a) Quoted prices for similar assets or liabilities in active markets;

b) Quoted prices for identical or similar assets or liabilities in non-active markets (examples include corporate and municipal bonds, which trade infrequently);

c) Pricing models whose inputs are observable for substantially the full term of the asset or liability (examples include most over-the-counter derivatives, including interest rate and currency swaps); and

d) Pricing models whose inputs are derived principally from or corroborated by observable market data through correlation or other means for substantially the full asset or liability (for example, certain mortgage loans).

Assets and liabilities using Level 2 inputs include treasury locks and an equity security.

Level 3. Assets and liabilities whose values are based on prices, or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These inputs reflect management's own assumptions about the assumptions a market participant would use in pricing the asset or liability (certain commercial mortgage whole loans, and long-dated or complex derivatives including certain foreign exchange options and long-dated options on gas and power).

Assets and liabilities using Level 3 inputs include liabilities for contingent purchase consideration and the deal contingent foreign exchange contract (the "FX Contract").

Valuation Techniques

Equity Securities, Money Market Funds and Mutual Funds - Level 1

Investments for which market quotations are readily available are valued at the sale price on their principal exchange or, for certain markets, official closing bid price. Money market funds are valued using a valuation technique that results in price per share at $1.00.

Treasury Locks - Level 2

In connection with the JLT Transaction, to hedge the risk of increases in future interest rates prior to its issuance of fixed rate debt in the fourth quarter of 2018, the Company entered into Treasury locks related to $2 billion of expected issuances of senior notes in January 2019. The fair value at December 31, 2018 was based on the published treasury rate plus forward premium as of December 31, 2018 compared to the all in rate at the inception of the contract. These treasury locks were settled during the first quarter of 2019.

Contingent Purchase Consideration Liability - Level 3

Purchase consideration for some acquisitions made by the Company includes contingent consideration arrangements. These arrangements typically provide for the payment of additional consideration if earnings and revenue targets are met over periods from two to four years. The fair value of contingent consideration is estimated as the present value of future cash flows resulting from the projected revenue and earnings of the acquired entities.

Foreign Exchange Forward Contract Liabilities - Level 3

In connection with the JLT Transaction, the Company entered into the FX Contract, to hedge the risk of appreciation of the GBP-denominated purchase price. The Company settled the FX contract on April 1, 2019, upon completion of the JLT Transaction.

The fair value at December 31, 2018, was determined using the probability distribution approach, comparing the all in forward rate to the foreign exchange rate for possible dates the JLT Transaction could close, discounted to the valuation date and adjusted for the fair value of the deal contingency feature. Determining the fair value of the FX Contract required significant management judgments or estimates about the potential closing dates of the transaction and remaining value of the deal contingency feature.

The following fair value hierarchy table presents information about the Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2019 and 2018:

(In millions of dollars)	Identical Assets (Level 1)		Observable Inputs (Level 2)		Unobservable Inputs (Level 3)		Total	
	12/31/19	12/31/18	**12/31/19**	12/31/18	**12/31/19**	12/31/18	**12/31/19**	12/31/18
Assets:								
Financial instruments owned:								
Exchange traded equity securities [(a)]	**$ 4**	$ 133	**$ —**	$ —	**$ —**	$ —	**$ 4**	$ 133
Mutual funds[(a)]	**166**	151	**—**	—	**—**	—	**166**	151
Money market funds[(b)]	**55**	118	**—**	—	**—**	—	**55**	118
Other equity investment[(a)]	**—**	—	**8**	8	**—**	—	**8**	8
Contingent purchase consideration asset[(a)]	**—**	—	**—**	—	**84**	—	**84**	—
Total assets measured at fair value	**$ 225**	$ 402	**$ 8**	$ 8	**$ 84**	$ —	**$ 317**	$ 410
Fiduciary Assets:								
Money market funds	**$ 360**	$ 80	**$ —**	$ —	**$ —**	$ —	**$ 360**	$ 80
U.S. Treasury Bills	**40**	20	**—**	—	**—**	—	**40**	20
Total fiduciary assets measured at fair value	**$ 400**	$ 100	**$ —**	$ —	**$ —**	$ —	**$ 400**	$ 100
Liabilities:								
Contingent purchase consideration liability[(c)]	**$ —**	$ —	**$ —**	$ —	**$ 225**	$ 183	**$ 225**	$ 183
Acquisition related derivative contracts	**—**	—	**—**	116	**—**	325	**—**	441
Total liabilities measured at fair value	**$ —**	$ —	**$ —**	$ 116	**$ 225**	$ 508	**$ 225**	$ 624

(a) Included in other assets in the consolidated balance sheets.
(b) Included in cash and cash equivalents in the consolidated balance sheets.
(c) Included in accounts payable and accrued liabilities and other liabilities in the consolidated balance sheets.

The level 3 assets in the above chart reflects contingent purchase consideration from the sale of businesses during 2019, including accretion of approximately $2 million.

During the year ended December 31, 2019, there were no assets or liabilities that were transferred between any of the levels.

The table below sets forth a summary of the changes in fair value of the Company's Level 3 liabilities for the years ended December 31, 2019 and December 31, 2018.

(In millions)	**2019**	2018
Balance at January 1,	**$ 508**	$ 189
Additions	**36**	54
Payments	**(63)**	(91)
Revaluation Impact	**70**	32
Change in fair value of acquisition related derivative contracts	**(325)**	325
Other [(a)]	**(1)**	(1)
Balance at December 31,	**$ 225**	$ 508

(a) Primarily reflects the impact of foreign exchange.

The fair value of the contingent purchase consideration asset and liability is based on projections of revenue and earnings for the acquired or disposed entities that are reassessed on a quarterly basis. As set forth in the table above, based on the Company's ongoing assessment of the fair value of contingent consideration, the Company recorded a net increase in the estimated fair value of such liabilities for prior period acquisitions of $70 million for the year ended December 31, 2019. A 5% increase in the above mentioned projections would increase the liability by approximately $25 million. A 5% decrease in the above mentioned projections would decrease the liability by approximately $28 million.

Long-Term Investments

The Company holds investments in certain private equity investments, public companies and private companies that are accounted for using the equity method of accounting. The carrying value of these investments was $434 million and $287 million at December 31, 2019 and 2018, respectively.

Investments Accounted For Using the Equity Method of Accounting

Investments in Public and Private Companies

Alexander Forbes: The Company owns approximately 34% of the common stock of Alexander Forbes, a South African company listed on the Johannesburg Stock Exchange, which it purchased in 2014 for 7.50 South African Rand per share. In the third quarter of 2018, the Company concluded the decline in value of the investment was other than temporary and recorded a charge of $83 million in 2018. As of December 31, 2019, the carrying value of the Company's investment in Alexander Forbes was approximately $144 million. As of December 31, 2019, the market value of the approximately 443 million shares of Alexander Forbes owned by the Company, based on the December 31, 2019 closing share price of 5.55 South African Rand per share, was approximately $173 million. See Note 5 to the consolidated financial statements for additional information regarding the pending sale of the Company's remaining investment in AF.

The Company has other investments in private insurance and consulting companies with a carrying value of $183 million and $61 million at December 31, 2019 and December 31, 2018, respectively.

The Company's investment in Alexander Forbes and its other equity investments in private insurance and consulting companies are accounted for using the equity method of accounting, the results of which are included in revenue in the consolidated income statements and the carrying value of which is included in other assets in the consolidated balance sheets. The Company records its share of income or loss on its equity method investments on a one quarter lag basis.

Private Equity Investments

The Company's investments in private equity funds were $107 million and $82 million at December 31, 2019 and December 31, 2018, respectively. The carrying values of these private equity investments approximates fair value. The underlying private equity funds follow investment company accounting, where investments within the fund are carried at fair value. The Company records in earnings, investment gains/losses for its proportionate share of the change in fair value of the funds. These investments are included in other assets in the consolidated balance sheets. The Company recorded net investment

income of $13 million and $16 million for the years ended December 31, 2019 and 2018, respectively, related to these investments.

Other Investments

At December 31, 2019 and December 31, 2018 the Company held certain equity investments with readily determinable market values of $19 million and $146 million, respectively. In 2019 and 2018, the Company recorded investment gains of $10 million and $54 million, respectively, which reflects the mark-to-market changes in equity securities. The Company also held investments without readily determinable market values of $67 million and $75 million at December 31, 2019 and 2018, respectively. The Company recorded a net loss of approximately $1 million in 2019 and a net gain of approximately $1 million in 2018 on these investments. In March 2019, the Company disposed of its investment in BenefitFocus for total proceeds of approximately $132 million. The Company received $115 million in the first quarter of 2019 and $17 million in April 2019 as final settlement on the sale. During the second quarter of 2019, the Company disposed of its investment in Payscale and received proceeds of approximately $47 million.

The summarized financial information presented below reflects the aggregated financial information of all equity method investees as of and for the twelve months ended September 30 of each year (or portion of those twelve months the Company owned its investment), consistent with the Company's recognition of the results of its equity method investments on a one quarter lag. The investment income information presented below reflects the net realized and unrealized gains/losses, net of expenses, related to the Company's investment in Alexander Forbes and several private equity funds. Certain of the Company's equity method investments, including Alexander Forbes, have unclassified balance sheets. Therefore, the asset and liability information presented below are not split between current and non-current.

Below is a summary of the financial information for the Company's equity method investees:

For the Twelve Months Ended September 30, *(In millions of dollars)*		**2019**		2018		2017
Revenue	**$**	**719**	$	733	$	628
Net investment income (a)	**$**	**959**	$	1,699	$	1,834
Net income	**$**	**482**	$	554	$	476

As of September 30, *(In millions of dollars)*		**2019**		2018
Total assets	**$**	**23,366**	$	24,644
Total liabilities	**$**	**21,013**	$	22,257
Non-controlling interests	**$**	**23**	$	22

(a) Net investment income in 2019, 2018 and 2017 includes approximately $645 million, $1.2 billion and $1.5 billion, respectively, related to Alexander Forbes, substantially all of which is credited to policy holders.

11. Derivatives

On September 20, 2018, the Company entered into the FX Contract to purchase £5.2 billion at a contracted exchange rate, to hedge the risk of appreciation of the GBP-denominated purchase price of JLT, which was settled on April 1, 2019 upon the closing of the JLT Transaction. The FX Contract did not qualify for hedge accounting treatment under applicable accounting guidance, which required the Company to record the change in the fair value of the FX Contract on each reporting date to the statement of income. The Company recorded a gain of $31 million in the consolidated statement of income for the year ended December 31, 2019, related to the FX Contract. An unrealized loss of $325 million related to the change in fair value of the FX contract was recorded in the consolidated statement of income during 2018.

In connection with the JLT Transaction, to hedge the economic risk of changes in future interest rates prior to its issuance of fixed rate debt, in the fourth quarter of 2018, the Company entered into Treasury locks related to $2 billion of senior notes issued in January 2019. The fair value of the Treasury locks at

December 31, 2018 was based on the published treasury rate plus the forward premium as of December 31, 2018 compared to the all in rate at the inception of the contract. The contracts were not designated as an accounting hedge. The Company recorded an unrealized loss of $116 million related to the change in the fair value of this derivative in the consolidated statement of income for the twelve months ended December 31, 2018. In January 2019, upon issuance of the $5 billion of senior notes, the Company settled the treasury lock derivatives and made a payment to its counter party for $122 million. An additional charge of $6 million was recorded in the first quarter of 2019 related to the settlement of the Treasury lock derivatives.

In March 2019, the Company issued €1.1 billion of senior notes related to the JLT Transaction. See Note 14 for additional information related to the Euro senior note issuances. In connection with the senior note issuances, the Company entered into a forward exchange contract to hedge the economic risk of changes in foreign exchange rates from the issuance date to settlement date of the Euro senior notes. The Company recorded a charge of $7.3 million in the consolidated statement of income for the year ended December 31, 2019, related to the settlement of this contract.

Acquired JLT Derivatives and Hedging Activity

A significant portion of JLT's outstanding senior notes at the time of completion of the Transaction were denominated in U.S. dollars. In order to hedge its exposure against the risk of fluctuations between the GBP and the U.S. dollar, JLT entered into foreign exchange contracts and interest rate swaps, which were designated as fair value hedges. In June, 2019, the Company redeemed these U.S. dollar denominated senior notes and settled the related derivative contracts. The offsetting changes in fair value of the debt and the change in fair value of the derivative contracts were recorded in the consolidated statement of income for the year ended December 31, 2019.

JLT also had a number of foreign exchange contracts to hedge the risk of foreign exchange movements between the U.S. dollar and the GBP, related to JLT’s U.S. dollar denominated revenue in the U.K. Prior to the acquisition, these derivative contracts were designated as cash flow hedges. Upon completion of the JLT Transaction, these derivative contracts were not re-designated as cash flow hedges by the Company. The contracts were settled in June 2019. The change in fair value between the acquisition date and the settlement date resulted in a charge of $26 million for the year ended December 31, 2019. The charge is recorded as a change in fair value of acquisition related derivative contracts in the consolidated statement of income.

Net Investment Hedge

The Company has investments in various subsidiaries with Euro functional currencies. As a result, the Company is exposed to the risk of fluctuations between the Euro and U.S. dollar exchange rates. The Company designated its €1.1 billion senior note debt instruments ("euro notes") as a net investment hedge (the "Hedge") of its Euro denominated subsidiaries. The Hedge effectiveness is re-assessed each quarter to confirm that the designated equity balance at the beginning of each period continues to equal or exceed 80% of the outstanding balance of the Euro debt instrument and that all the critical terms of the hedging instrument and the hedged net investment continue to match. If the Company concludes that the hedge is highly effective, the change in the debt balance related to foreign exchange fluctuations will be recorded in foreign currency translation gains (losses) in the consolidated balance sheet. The Company concluded that the hedge continues to be highly effective as of December 31, 2019. During 2019, the U.S. dollar value of the euro notes decreased $28 million through December 31, 2019 due to the impact of foreign exchange rates, with a corresponding increase to foreign currency translation gains (losses).

12. Leases

A lease is defined as a party obtaining the right to use an asset legally owned by another party. The Company determines if an arrangement is a lease at inception. For operating leases entered into prior to January 1, 2019, the ROU assets and operating lease liabilities are recognized in the balance sheet based on the present value of the remaining future minimum payments over the lease term from the implementation date of the standard, January 1, 2019. The ROU asset was adjusted for unamortized lease incentives and restructuring liabilities that were reported, prior to January 1, 2019, as other liabilities in the consolidated balance sheet. For leases entered into subsequent to January 1, 2019, the operating

lease ROU asset and operating lease liabilities are based on the present value of minimum payments over the lease term at the commencement date of the lease.

The Company uses discount rates to determine the present value of future lease payments. The Company primarily uses its incremental borrowing rate adjusted to reflect a secured rate, based on the information available for leases, including the lease term and interest rate environment in the country in which the lease exists. The lease terms used to calculate the ROU asset and lease liability may include options to extend or terminate when it is reasonably certain that the Company will exercise that option.

The Company leases office facilities under non-cancelable operating leases with terms generally ranging between 10 and 25 years. The Company utilizes these leased office facilities for use by its employees in countries in which the Company conducts its business. Leases are negotiated with third-parties and, in some instances contain renewal, expansion and termination options. The Company also subleases certain office facilities to third-parties when the Company no longer utilizes the space. None of the Company's leases restrict the payment of dividends or the incurrence of debt or additional lease obligations, or contain significant purchase options. In addition to the base rental costs, our lease agreements generally provide for rent escalations resulting from increased assessments for real estate taxes and other charges. A portion of our real estate lease portfolio contains base rents subject to annual changes in the Consumer Price Index ("CPI") as well as charges for operating expenses which are reimbursable to the landlord based on actual usage. Changes to the CPI and payments for such reimbursable operating expenses are considered variable and are recognized as variable lease costs in the period in which the obligation for those payments was incurred.

As a practical expedient, the Company has elected an accounting policy not to separate non-lease components from lease components and instead, accounts for these components as a single lease component. The Company has made an accounting policy election not to recognize ROU assets and lease liabilities for leases that, at the commencement date, are for 12 months or less. Approximately 99% of the Company's lease obligations are for the use of office space. All of the Company's material leases are operating leases.

On April 1, 2019, the Company assumed approximately $400 million, of ROU assets and lease liabilities from the JLT Transaction. As part of the Company's real estate rationalization plan related to the JLT Transaction, the Company has determined that approximately $9 million of its ROU assets have been impaired, and therefore, recorded a charge to the consolidated statement of income for the twelve month period ended December 31, 2019, with an offsetting reduction to ROU assets. The Company expects additional impairments as it continues to assess its future real estate requirements.

The following chart provides additional information about the Company's property leases:

For the Year Ended December 31, 2019 *(In millions)*		
Lease Cost:		
Operating lease cost	**$**	**371**
Short-term lease cost		**8**
Variable lease cost		**150**
Sublease income		**(18)**
Net lease cost	**$**	**511**
Other information:		
Operating cash outflows from operating leases	**$**	**392**
Right of use assets obtained in exchange for new operating lease liabilities	**$**	**140**
Weighted-average remaining lease term – real estate		**8.78 years**
Weighted-average discount rate – real estate leases		**3.10%**

Future minimum lease payments for the Company's operating leases as of December 31, 2019 are as follows:

Payment Dates *(In millions)*	Real Estate Leases
2020	**$ 413**
2021	**359**
2022	**335**
2023	**288**
2024	**241**
Subsequent years	**974**
Total future lease payments	**2,610**
Less: Imputed interest	**(342)**
Total	**2,268**
Current lease liabilities	**342**
Long-term lease liabilities	**1,926**
Total lease liabilities	**$ 2,268**

Note: Table excludes obligations for leases with original terms of 12 months or less which have not been recognized as a right to use asset or liability in the consolidated balance sheets.

As of December 31, 2019, the Company had additional operating real estate leases that had not yet commenced of $45 million. These operating leases will commence over the next 12 months.

The consolidated statements of income include net rental costs of $383 million and $354 million in 2018 and 2017, respectively, after deducting rentals from subleases ($8 million in 2018 and 2017). These net rental costs exclude rental costs and sublease income for previously accrued restructuring charges related to vacated space.

At December 31, 2018, the aggregate future minimum rental commitments under all non-cancelable operating lease agreements were:

For the Years Ended December 31, *(In millions of dollars)*	Gross Rental Commitments	Rentals from Subleases	Net Rental Commitments
2019	$ 361	$ 32	$ 329
2020	$ 340	$ 31	$ 309
2021	$ 277	$ 12	$ 265
2022	$ 252	$ 10	$ 242
2023	$ 214	$ 9	$ 205
Subsequent years	$ 753	$ 32	$ 721

13. Debt

The Company's outstanding debt is as follows:

December 31, *(In millions)*	**2019**	2018
Short-term:		
Current portion of long-term debt	**1,215**	$ 314
	1,215	314
Long-term:		
Senior notes – 2.35% due 2019	**—**	300
Senior notes – 2.35% due 2020	**500**	499
Senior notes – 3.50% due 2020	**698**	—
Senior notes – 4.80% due 2021	**499**	499
Senior notes – Floating rate due 2021	**298**	—
Senior notes – 2.75% due 2022	**498**	497
Senior notes – 3.30% due 2023	**349**	348
Senior notes – 4.05% due 2023	**249**	249
Senior notes – 3.50% due 2024	**597**	597
Senior notes – 3.875% due 2024	**994**	—
Senior notes – 3.50% due 2025	**497**	496
Senior notes – 1.349% due 2026	**609**	—
Senior notes – 3.75% due 2026	**597**	596
Senior notes – 4.375% due 2029	**1,499**	—
Senior notes – 1.979% due 2030	**607**	—
Senior notes – 5.875% due 2033	**298**	297
Senior notes – 4.75% due 2039	**494**	—
Senior notes – 4.35% due 2047	**492**	492
Senior notes – 4.20% due 2048	**592**	592
Senior notes – 4.90% due 2049	**1,237**	—
Mortgage – 5.70% due 2035	**345**	358
Other	**7**	4
	11,956	5,824
Less current portion	**1,215**	314
	$ 10,741	$ 5,510

The senior notes in the table above are registered by the Company with the Securities and Exchange Commission, and are not guaranteed.

The Company has established a short-term debt financing program of up to $1.5 billion through the issuance of commercial paper. The proceeds from the issuance of commercial paper are used for general corporate purposes. The Company had no commercial paper outstanding at December 31, 2019.

Bridge Loan Financing

On September 18, 2018, the Company entered into a bridge loan agreement to finance the JLT acquisition. The bridge loan agreement provided for commitments in the aggregate principal amount of £5.2 billion. In 2018, the Company paid approximately $35 million of customary upfront fees related to the bridge loan at the inception of the loan commitment, of which $30 million was amortized in 2018 and $5 million in the first quarter of 2019 as interest expense. The Company terminated its bridge loan agreement on April 1, 2019.

Senior Notes

In January 2020, the Company closed on $500 million one-year and $500 million two-year term loan facilities. The interest rate on these facilities is based on LIBOR plus a fixed margin which varies with the Company's credit ratings. The facilities require the Company to maintain coverage ratios and leverage ratios consistent with the revolving credit facility discussed below. The Company has no current borrowings outstanding under these facilities. The facility includes a provision for determining a LIBOR successor rate in the event LIBOR reference rates are no longer available, which is expected to occur by the end of 2021.These facilities are expected to expire on or around the time that LIBOR is expected to be replaced by a successor rate.

In September 2019, the Company repaid $300 million of maturing senior notes.

In connection with the closing of the JLT Transaction, the Company assumed approximately $1 billion of historical JLT indebtedness. In April and June of 2019, the Company repaid approximately $450 million and $553 million, respectively, representing all of JLT's debt it acquired upon the closing of the JLT Transaction. The Company incurred debt extinguishment costs of $32 million due to the debt repayments.

In March 2019, the Company closed on $300 million one-year and $300 million three-year term loan facilities. The interest rate on these facilities was based on LIBOR plus a fixed margin which varies with the Company's credit ratings. In August 2019, the Company terminated the $300 million three-year term facility. The Company had $300 million of borrowings outstanding under the one-year term facility at September 30, 2019, which was repaid and terminated in December 2019.

Also in March 2019, the Company issued €550 million of 1.349% Senior Notes due 2026 and €550 million of 1.979% Senior Notes due 2030. In addition, in March 2019, the Company issued an additional $250 million of 4.375% Senior Notes due 2029. These notes constitute a further issuance of the 4.375% Senior Notes due 2029, of which $1.25 billion aggregate principal amount was issued in January 2019 (see above). After giving effect to the issuance of the notes, the Company has $1.5 billion aggregate principal amount of 4.375% Senior Notes due 2029. The Company used part of the net proceeds from these offerings, along with the $5 billion of Senior Notes issued in January 2019 (discussed above) primarily to fund the acquisition of JLT, including the payment of related fees and expenses, and to repay certain JLT indebtedness, as well as for general corporate purposes.

In January 2019, the Company issued $700 million of 3.50% Senior Notes due 2020, $1.0 billion of 3.875% Senior Notes due 2024, $1.25 billion of 4.375% Senior Notes due 2029, $500 million of 4.75% Senior Notes due 2039, $1.25 billion of 4.90% Senior Notes due 2049 and $300 million of Floating Rate Senior Notes due 2021. The floating rate notes are based on LIBOR plus a fixed margin. These notes are due prior to the date that LIBOR is expected to be replaced by a successor rate.

In October 2018 the Company repaid $250 million of maturing senior notes.

In March 2018, the Company issued $600 million of 4.20% senior notes due 2048. The Company used the net proceeds for general corporate purposes.

Other Credit Facilities

In October 2018, the Company and certain of its foreign subsidiaries increased its multi-currency five-year unsecured revolving credit facility from $1.5 billion to $1.8 billion. The interest rate on this facility is based on LIBOR plus a fixed margin which varies with the Company's credit ratings. This facility expires in October 2023 and requires the Company to maintain certain coverage and leverage ratios which are tested quarterly. There were no borrowings outstanding under this facility at December 31, 2019. The facility includes a provision for determining a LIBOR successor rate in the event LIBOR reference rates are no longer available. In such case, the rate would be determined using an alternate reference rate that has been broadly accepted by the syndicated loan market in the United States in lieu of LIBOR (the “LIBOR successor rate”). If no LIBOR successor rate has been determined, the rate will be based on the higher of the rate announced publicly by Citibank, New York, NY, as its base rate or the fed funds rate plus a fixed margin.

Additional credit facilities, guarantees and letters of credit are maintained with various banks, primarily related to operations located outside the United States, aggregating $598 million at December 31, 2019

and $594 million at December 31, 2018. There were no outstanding borrowings under these facilities at December 31, 2019 and December 31, 2018.

Scheduled repayments of long-term debt in 2020 and in the four succeeding years are $1.2 billion, $815 million, $515 million, $617 million and $1.6 billion, respectively.

Fair value of Short-term and Long-term Debt

The estimated fair value of the Company's short-term and long-term debt is provided below. Certain estimates and judgments were required to develop the fair value amounts. The fair value amounts shown below are not necessarily indicative of the amounts that the Company would realize upon disposition, nor do they indicate the Company's intent or need to dispose of the financial instrument.

	December 31, 2019		December 31, 2018	
(In millions of dollars)	**Carrying Amount**	**Fair Value**	Carrying Amount	Fair Value
Short-term debt	**$ 1,215**	**$ 1,229**	$ 314	$ 313
Long-term debt	**$ 10,741**	**$ 11,953**	$ 5,510	$ 5,437

The fair value of the Company's short-term debt consists primarily of term debt maturing within the next year and its fair value approximates its carrying value. The estimated fair value of a primary portion of the Company's long-term debt is based on discounted future cash flows using current interest rates available for debt with similar terms and remaining maturities. Short- and long-term debt would be classified as Level 2 in the fair value hierarchy.

14. Integration and Restructuring Costs

JLT Related Integration and Restructuring

The Company is currently integrating JLT, which will involve combining the business practices and co-locating colleagues in most geographies, rationalization of real estate leases around the world, realization of synergies and migration of legacy JLT systems onto the Company's information technology environment and security protocols, consulting fees related to integration management processes and legal fees related to the rationalization of legal entity structures that will reduce costs, mitigate risks and improve operational transparency.

Costs will be recognized based on applicable accounting guidance which includes accounting for disposal or exit activities, guidance related to impairment of long lived assets (for right of use assets related to real estate leases), as well as other costs resulting from accelerated depreciation or amortization of leasehold improvements and other property and equipment. Based on its current estimates, the Company expects to incur costs of approximately $700 million in connection with the integration and restructuring of the combined businesses, primarily related to severance, real estate rationalization, information technology rationalization, consulting fees related to the management of the integration processes and legal fees related to the rationalization of legal entity structures. The Company has incurred $335 million in 2019 and expects most of the remaining costs to be incurred in 2020, with a modest amount in 2021. These integration and restructuring plans are still being finalized, which may change our current cost and related savings estimates, as the Company continues to refine its detailed plans for each business and location.

In connection with the JLT integration and restructuring, for the twelve month period ended December 31, 2019, costs incurred were $229 million in RIS, $18 million in Consulting, and $88 million in Corporate. The severance and related costs were included in compensation and benefits and the other costs were included in other operating expenses in the consolidated statement of income.

Details of the JLT integration and restructuring activity from January 1, 2019 through December 31, 2019, are as follows:

(In millions)	Severance	Real Estate Related Costs (a)	Information Technology (a)	Consulting and Other Outside Services (b)	Total
Liability at 1/1/19	$ —	$ —	$ —	$ —	$ —
2019 Charges	154	38	45	98	335
Cash payments	(112)	(14)	(45)	(94)	(265)
Non-cash charges	—	(19)	—	(4)	(23)
Liability at 12/31/19	$ 42	$ 5	$ —	$ —	$ 47

(a) Includes data center contract termination costs and temporary infrastructure leasing costs.

(b) Includes consulting fees related to the management of the integration processes and legal fees related to the rationalization of legal entity structures.

Other Restructuring

During 2018 and 2019, Marsh initiated programs to simplify its organization structure and realign and rebrand certain of its businesses. The Company incurred severance and consulting costs of $34 million for the twelve month period ended December 31, 2019, related to these initiatives.

During the fourth quarter of 2018, Mercer initiated a program to restructure its business to further optimize the way Mercer operates, setting up the Company for a more fluid and nimble structure and operating model for the future. The Company incurred restructuring severance and consulting costs of $56 million for the twelve month period ended December 31, 2019 related to this initiative.

In addition to the changes discussed above, the Company incurred at Corporate $22 million of restructuring costs primarily related to future rent under non-cancelable leases.

Details of the restructuring liability activity from January 1, 2018 through December 31, 2019, including actions taken prior to 2019, are as follows:

(In millions)	Balance at 1/1/18	Amounts Accrued	Cash Paid	Other	Liability at 12/31/18	Amounts Accrued	Cash Paid	Other	**Balance at 12/31/19**
Severance	$ 15	$ 137	$ (77)	$ (2)	$ 73	$ 73	$ (91)	$ (4)	**$ 51**
Future rent under non-cancelable leases and other costs	50	24	(37)	2	39	39	(21)	(6)	**51**
Total	$ 65	$ 161	$ (114)	$ —	$ 112	$ 112	$ (112)	$ (10)	**$ 102**

As of January 1, 2017, the liability balance related to restructuring activity was $93 million. In 2017, the Company accrued $40 million and had cash payments and other adjustments of $68 million related to restructuring activities that resulted in the liability balance at December 31, 2017 reported above.

The expenses associated with the above initiatives are included in compensation and benefits and other operating expenses in the consolidated statements of income. The liabilities associated with these initiatives are classified on the consolidated balance sheets as accounts payable and accrued liabilities, other liabilities or accrued compensation and employee benefits, depending on the nature of the items. These programs are substantially completed as of December 31, 2019.

15. Common Stock

During 2019, the Company repurchased 4.8 million shares of its common stock for total consideration of $485 million. In November 2019, the Board of Directors of the Company authorized the Company to repurchase up to $2.5 billion of the Company's common stock, which superseded any prior authorizations. The Company remains authorized to purchase additional shares of its common stock up to

a value of approximately $2.4 billion. There is no time limit on the authorization. During 2018, the Company purchased 8.2 million shares of its common stock for total consideration of $675 million.

The Company issued approximately 4.6 million and 3.3 million shares related to stock compensation and employee stock purchase plans during the years ended December 31, 2019 and 2018, respectively.

16. Claims, Lawsuits and Other Contingencies

Acquisition of Jardine Lloyd Thompson Group plc

On April 1, 2019, the Company completed its previously announced acquisition of all of the outstanding shares of JLT. See Note 5 to the consolidated financial statements for additional information. Upon the consummation of the acquisition of JLT, the Company assumed the legal liabilities and became responsible for JLT's litigation and regulatory exposures as of April 1, 2019.

Litigation Matters

The Company and its subsidiaries are subject to a significant number of claims, lawsuits and proceedings in the ordinary course of business. Such claims and lawsuits consist principally of alleged errors and omissions in connection with the performance of professional services, including the placement of insurance, the provision of actuarial services for corporate and public sector clients, the provision of investment advice and investment management services to pension plans, the provision of advice relating to pension buy-out transactions and the provision of consulting services relating to the drafting and interpretation of trust deeds and other documentation governing pension plans. These claims may seek damages, including punitive and treble damages, in amounts that could be significant. In establishing liabilities for errors and omissions claims in accordance with FASB guidance on Contingencies - Loss Contingencies, the Company uses case level reviews by inside and outside counsel, and internal actuarial analysis by Oliver Wyman Group, a subsidiary of the Company, and other methods to estimate potential losses. A liability is established when a loss is both probable and reasonably estimable. The liability is reviewed quarterly and adjusted as developments warrant. In many cases, the Company has not recorded a liability, other than for legal fees to defend the claim, because we are unable, at the present time, to make a determination that a loss is both probable and reasonably estimable. To the extent that expected losses exceed our deductible in any policy year, the Company also records an asset for the amount that we expect to recover under any available third-party insurance programs. The Company has varying levels of third-party insurance coverage, with policy limits and coverage terms varying significantly by policy year.

Governmental Inquiries and Enforcement Matters

Our activities are regulated under the laws of the United States and its various states, the European Union and its member states, and the other jurisdictions in which the Company operates.

Risk and Insurance Services Segment

In April 2017, the Financial Conduct Authority in the United Kingdom (the "FCA") commenced a civil competition investigation into the aviation insurance and reinsurance sector. In connection with that investigation, the FCA carried out an on-site inspection at the London offices of Marsh Limited, our Marsh and Guy Carpenter operating subsidiary in the United Kingdom, and JLT Specialty Ltd., JLT's U.K. operating subsidiary. The FCA indicated that it had reasonable grounds for suspecting that Marsh Limited, JLT Specialty Ltd. and other participants in the market had been sharing competitively sensitive information within the aviation insurance and reinsurance broking sector.

In October 2017, the Company received a notice that the Directorate-General for Competition of the European Commission had commenced a civil investigation of a number of insurance brokers, including both Marsh and JLT, regarding "the exchange of commercially sensitive information between competitors in relation to aviation and aerospace insurance and reinsurance broking products and services in the European Economic Area ("EEA"), as well as possible coordination between competitors." In light of the action taken by the European Commission, the FCA informed Marsh Limited and JLT Specialty Ltd. that it had discontinued its investigation under U.K. competition law. In May 2018, the FCA advised that it would not be taking any further action with Marsh Limited or JLT Specialty Ltd. in connection with this matter.

In January 2019, the Company received a notice that the Administrative Council for Economic Defense anti-trust agency in Brazil had commenced an administrative proceeding against a number of insurance brokers, including both Marsh and JLT, and insurers “to investigate an alleged sharing of sensitive commercial and competitive confidential information" in the aviation insurance and reinsurance sector.

We are cooperating with these investigations and are conducting our own reviews. At this time, we are unable to predict their likely timing, outcome or ultimate impact. There can be no assurance that the ultimate resolution of these or any related matters will not have a material adverse effect on our consolidated results of operations, financial condition or cash flows.

Consulting Segment

In 2014, the FCA conducted a thematic review of the suitability of financial advice provided to individuals by a number of firms, including JLT’s employee benefits business, relating to enhanced transfer value ("ETV") pension transfers. In January 2015, the FCA notified JLT that it was commissioning a Skilled Person review of JLT’s ETV advice. In February 2019, prior to the completion of the acquisition, JLT recorded a gross liability of approximately £59 million (or approximately $77 million) arising from the Skilled Person report and ETV review. Pending the outcome of the FCA’s review, and based on our review as of December 31, 2019, the Company has a gross liability of approximately £65 million (or approximately $85 million) recorded on its consolidated balance sheet for the estimated liabilities and costs arising from this matter. We expect this gross liability to be partially offset by insurance and indemnification claims under existing arrangements.

Other Contingencies-Guarantees

In connection with its acquisition of U.K.-based Sedgwick Group in 1998, the Company acquired several insurance underwriting businesses that were already in run-off, including River Thames Insurance Company Limited ("River Thames"), which the Company sold in 2001. Sedgwick guaranteed payment of claims on certain policies underwritten through the Institute of London Underwriters (the "ILU") by River Thames. The policies covered by this guarantee were reinsured up to £40 million by a related party of River Thames. Payment of claims under the reinsurance agreement is collateralized by segregated assets held in a trust. As of December 31, 2019, the reinsurance coverage exceeded the best estimate of the projected liability of the policies covered by the guarantee. To the extent River Thames or the reinsurer is unable to meet its obligations under those policies, a claimant may seek to recover from the Company under the guarantee.

From 1980 to 1983, the Company owned indirectly the English & American Insurance Company ("E&A"), which was a member of the ILU. The ILU required the Company to guarantee a portion of E&A's obligations. After E&A became insolvent in 1993, the ILU agreed to discharge the guarantee in exchange for the Company's agreement to post an evergreen letter of credit that is available to pay claims by policyholders on certain E&A policies issued through the ILU and incepting between July 3, 1980 and October 6, 1983. Certain claims have been paid under the letter of credit and the Company anticipates that additional claimants may seek to recover against the letter of credit.

* * * *

The pending proceedings described above and other matters not explicitly described in this Note 16 on Claims, Lawsuits and Other Contingencies may expose the Company or its subsidiaries to liability for significant monetary damages, fines, penalties or other forms of relief. Where a loss is both probable and reasonably estimable, the Company establishes liabilities in accordance with FASB guidance on Contingencies - Loss Contingencies. Except as described above, the Company is not able at this time to provide a reasonable estimate of the range of possible loss attributable to these matters or the impact they may have on the Company's consolidated results of operations, financial position or cash flows. This is primarily because these matters are still developing and involve complex issues subject to inherent uncertainty. Adverse determinations in one or more of these matters could have a material impact on the Company's consolidated results of operations, financial condition or cash flows in a future period.

17. Segment Information

The Company is organized based on the types of services provided. Under this structure, the Company's segments are:

- **Risk and Insurance Services**, comprising insurance services (Marsh) and reinsurance services (Guy Carpenter); and
- **Consulting**, comprising Mercer and Oliver Wyman Group

The accounting policies of the segments are the same as those used for the consolidated financial statements described in Note 1. Segment performance is evaluated based on segment operating income, which includes directly related expenses, and charges or credits related to integration and restructuring but not the Company's corporate-level expenses. Revenues are attributed to geographic areas on the basis of where the services are performed.

Prior to being acquired by the Company, JLT operated in three segments: Specialty, Reinsurance and Employee Benefits. JLT operated in 41 countries, with significant revenue in the United Kingdom, Pacific, Asia and the United States. As of April 1, 2019, the historical JLT businesses were combined into MMC operations as follows: JLT Specialty is included by geography within Marsh, JLT Reinsurance is included in Guy Carpenter and the majority of JLT's Employee Benefits business was included in Mercer Health and Wealth.

Selected information about the Company's segments and geographic areas of operation are as follows:

For the Year Ended December 31, *(In millions of dollars)*	Revenue	Operating Income (Loss)	Total Assets	Depreciation and Amortization	Capital Expenditures
2019 –					
Risk and Insurance Services	**$ 9,599 (a)**	**$ 1,833**	**$ 26,098 (d)**	**$ 416**	**$ 184**
Consulting	**7,143 (b)**	**1,210**	**9,722 (e)**	**156**	**150**
Total Segments	**16,742**	**3,043**	**35,820**	**572**	**334**
Corporate/Eliminations	**(90)**	**(366)**	**(4,463) (c)**	**75**	**87**
Total Consolidated	**$ 16,652**	**$ 2,677**	**$ 31,357**	**$ 647**	**$ 421**
2018 –					
Risk and Insurance Services	$ 8,228 (a)	$ 1,864	$ 15,868 (d)	$ 290	$ 158
Consulting	6,779 (b)	1,099	8,003 (e)	130	97
Total Segments	15,007	2,963	23,871	420	255
Corporate/Eliminations	(57)	(202)	(2,293) (c)	74	59
Total Consolidated	$ 14,950	$ 2,761	$ 21,578	$ 494	$ 314
2017 –					
Risk and Insurance Services	$ 7,630 (a)	$ 1,731	$ 16,490 (d)	$ 282	$ 139
Consulting	6,444 (b)	1,110	8,200 (e)	129	88
Total Segments	14,074	2,841	24,690	411	227
Corporate/Eliminations	(50)	(186)	(4,261) (c)	70	75
Total Consolidated	$ 14,024	$ 2,655	$ 20,429	$ 481	$ 302

(a) Includes inter-segment revenue of $8 million, $6 million and $5 million in 2019, 2018 and 2017, respectively, interest income on fiduciary funds of $105 million, $65 million and $39 million in 2019, 2018 and 2017, respectively, and equity method income of $25 million, $13 million and $14 million in 2019, 2018 and 2017, respectively and $40 million related to the sale of business in 2018.

(b) Includes inter-segment revenue of $82 million, $51 million and $45 million in 2019, 2018 and 2017, respectively, interest income on fiduciary funds of $4 million, $3 million and $4 million in 2019, 2018 and 2017, respectively, and equity method income of $16 million, $8 million and $17 million in 2019, 2018 and 2017, respectively.

(c) Corporate assets primarily include insurance recoverables, pension related assets, the owned portion of the Company headquarters building and intercompany eliminations.

(d) Includes equity method investments of $179 million, $57 million and $60 million at December 31, 2019, 2018 and 2017, respectively.

(e) Includes equity method investments of $149 million, $148 million and $269 million at December 31, 2019, 2018 and 2017, respectively.

Details of operating segment revenue are as follows:

For the Years Ended December 31, *(In millions of dollars)*	**2019**	2018	2017
Risk and Insurance Services			
Marsh	**$ 8,085**	$ 6,923	$ 6,433
Guy Carpenter	**1,514**	1,305	1,197
Total Risk and Insurance Services	**9,599**	8,228	7,630
Consulting			
Mercer	**5,021**	4,732	4,528
Oliver Wyman Group	**2,122**	2,047	1,916
Total Consulting	**7,143**	6,779	6,444
Total Segments	**16,742**	15,007	14,074
Corporate/Eliminations	**(90)**	(57)	(50)
Total	**$ 16,652**	$ 14,950	$ 14,024

Information by geographic area is as follows:

For the Years Ended December 31, *(In millions of dollars)*	**2019**	2018	2017
Revenue			
United States	**$ 7,840**	$ 7,219	$ 6,870
United Kingdom	**2,679**	2,243	2,112
Continental Europe	**2,837**	2,694	2,197
Asia Pacific	**2,001**	1,616	1,517
Other	**1,385**	1,235	1,378
	16,742	15,007	14,074
Corporate/Eliminations	**(90)**	(57)	(50)
Total	**$ 16,652**	$ 14,950	$ 14,024

For the Years Ended December 31, *(In millions of dollars)*	**2019**	2018	2017
Fixed Assets, Net			
United States	**$ 462**	$ 403	$ 399
United Kingdom	**149**	91	91
Continental Europe	**68**	59	57
Asia Pacific	**101**	74	78
Other	**78**	74	87
Total	**$ 858**	$ 701	$ 712

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Marsh & McLennan Companies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Marsh & McLennan Companies, Inc. and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, cash flows, and equity for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 20, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Liability for Errors and Omissions - Refer to Notes 1 and 16 to the financial statements

Critical Audit Matter Description

The Company is subject to a significant number of claims, lawsuits and proceedings in the ordinary course of business. Such claims and lawsuits consist principally of alleged errors and omissions ("E&O") in connection with the performance of professional services. These claims may seek damages, including punitive and treble damages, in amounts that could be significant. The Company uses case level reviews performed by inside and outside counsel, internal actuarial analysis and other methods to estimate potential losses resulting from reported and unreported claims.

Given that the determination of the liability for E&O requires management to make significant estimates and assumptions in projecting ultimate settlement values of reported and unreported claims, performing audit procedures to evaluate the reasonableness of such estimates and assumptions required a high degree of auditor judgment, including the need to involve our actuarial specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the determination of the liability for E&O included the following, among others:

- We tested the effectiveness of internal controls related to the determination of the liability for E&O, including controls over the projection of ultimate settlement values of reported and unreported claims determined through internal actuarial analyses and management's independent review of case level estimates provided by inside and outside counsel, as applicable.
- For selected E&O matters, we made inquiries of the Company's inside and outside counsel, as applicable, regarding the status of these matters and likelihood of settlement.
- We compared total incurred losses and current case estimates as of the balance sheet date to amounts reported in prior periods to evaluate trends and developments in reported cases.
- With the assistance of our actuarial specialists, we evaluated the reasonableness of the assumptions and methodologies involved in the development of the liability for E&O by:
  - Testing the underlying data that served as the basis for the actuarial analysis, including historical claims, to evaluate whether the inputs to the actuarial estimate were reasonable.
  - Comparing management's prior-year assumptions of expected development and ultimate loss to actual amounts incurred during the current year to identify potential bias in the determination of the liability for E&O.
  - Developing a range of independent estimates and comparing those to the liability for E&O recorded by the Company.

Other Intangible Assets - Valuation of Customer Relationship Intangible Assets for the Jardine Lloyd Thompson Group plc ("JLT") Transaction - Refer to Note 5 to the financial statements

Critical Audit Matter Description

The Company completed the acquisition of JLT for approximately $5.6 billion on April 1, 2019. The Company accounted for the acquisition under the acquisition method of accounting for business combinations. Accordingly, the purchase price was allocated to the assets acquired and liabilities assumed based on their respective fair values, including customer relationship intangible assets of $1,435 million. Management estimated the fair value of customer relationship intangible assets using the income approach, which determines the fair value as the present value of future cash flows over the remaining economic life of the asset. The fair value determination of customer relationship intangible assets involves significant estimates and assumptions related to future cash flows and the selection of the respective discount rates.

Given that the fair value determination of customer relationship intangible assets requires management to make significant estimates and assumptions in determining the forecasted future cash flows and the selection of discount rates, performing audit procedures to evaluate the reasonableness of these estimates and assumptions required a high degree of auditor judgment and an increased extent of effort, including the need to involve our valuation specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the determination of future cash flows and the selection of the discount rates relating to the customer relationship intangible assets included the following, among others:

- We tested the effectiveness of internal controls over the assumptions related to the determination of forecasted future cash flows, selection of the discount rates and the valuation methodology used.
- With the assistance of our valuation specialists, we evaluated the reasonableness of the determination of the forecasted future cash flows, discount rates and valuation methodology by:
  - Testing the source information underlying the determination of the discount rates and testing the mathematical accuracy of the calculations.
  - Developing a range of independent estimates of discount rates for each selected customer relationship intangible asset and comparing those to the respective discount rates utilized by management.
  - Evaluating the reasonableness of the estimated economic life of each selected customer relationship intangible asset.
- When assessing the reasonableness of assumptions related to future cash flows for each selected customer relationship intangible asset, specifically the assumptions relating to revenue growth, attrition rates and earnings margins, we evaluated whether the assumptions used were reasonable considering the past performance of the acquired company and the Company's historical experience related to similar acquisitions.
- We evaluated whether the estimated future cash flows were consistent with evidence obtained in other areas of the audit, such as assumptions utilized by the Company in the determination of their budget.

/s/ Deloitte & Touche LLP

New York, New York
February 20, 2020

We have served as the Company's auditor since 1989.

Marsh & McLennan Companies, Inc. and Subsidiaries
SELECTED QUARTERLY FINANCIAL DATA AND SUPPLEMENTAL INFORMATION (UNAUDITED)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
(In millions, except per share figures)				
2019:				
Revenue	**$ 4,071**	**$ 4,349**	**$ 3,968**	**$ 4,264**
Operating income	**$ 938**	**$ 680**	**$ 467**	**$ 592**
Net income before non-controlling interests	**$ 727**	**$ 344**	**$ 306**	**$ 396**
Net income attributable to the Company	**$ 716**	**$ 332**	**$ 303**	**$ 391**
Basic Per Share Data:				
Net income attributable to the Company	**$ 1.42**	**$ 0.66**	**$ 0.60**	**$ 0.77**
Diluted Per Share Data:				
Net income attributable to the Company	**$ 1.40**	**$ 0.65**	**$ 0.59**	**$ 0.76**
Dividends Paid Per Share	**$ 0.415**	**$ 0.415**	**$ 0.455**	**$ 0.455**
2018:				
Revenue	$ 4,000	$ 3,734	$ 3,504	$ 3,712
Operating income	$ 908	$ 691	$ 541	$ 621
Net income before non-controlling interests	$ 696	$ 536	$ 279	$ 159
Net income attributable to the Company	$ 690	$ 531	$ 276	$ 153
Basic Per Share Data:				
Net income attributable to the Company	$ 1.36	$ 1.05	$ 0.55	$ 0.30
Diluted Per Share Data:				
Net income attributable to the Company	$ 1.34	$ 1.04	$ 0.54	$ 0.30
Dividends Paid Per Share	$ 0.375	$ 0.375	$ 0.415	$ 0.415

As of February 18, 2020, there were 4,875 stockholders of record.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures. Based on their evaluation, as of the end of the period covered by this annual report on Form 10-K, the Company's chief executive officer and chief financial officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934) are effective.

Internal Control over Financial Reporting.

(a) *Management's Annual Report on Internal Control Over Financial Reporting*

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Marsh & McLennan Companies, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

The Company's internal control over financial reporting includes those policies and procedures relating to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; the recording of all necessary transactions to permit the preparation of the Company's consolidated financial statements in accordance with generally accepted accounting principles; the proper authorization of receipts and expenditures in accordance with authorizations of the Company's management and directors; and the prevention or timely detection of the unauthorized acquisition, use or disposition of assets that could have a material effect on the Company's consolidated financial statements.

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

Management evaluated the effectiveness of the Company's internal control over financial reporting as of December 31, 2019 under the supervision and with the participation of the Company's principal executive and principal financial officers. In making this evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control—Integrated Framework issued in 2013. Based on its evaluation, management determined that the Company maintained effective internal control over financial reporting as of December 31, 2019.

As allowed by SEC guidance, management excluded from its assessment the internal control over financial reporting at JLT, which was acquired on April 1, 2019. JLT accounted for approximately 5% of the Company's total assets as of December 31, 2019 and JLT's revenue from the acquisition date through December 31, 2019 comprised 7% of the Company's consolidated revenue for the year ended December 31, 2019.

Deloitte & Touche LLP, the Independent Registered Public Accounting Firm that audited and reported on the Company's consolidated financial statements included in this annual report on Form 10-K, also issued an audit report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2019.

(b) *Audit Report of the Registered Public Accounting Firm.*

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Marsh & McLennan Companies, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Marsh & McLennan Companies, Inc. and subsidiaries (the "Company") as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 20, 2020, expressed an unqualified opinion on those financial statements.

As described in Management's Annual Report on Internal Control over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Jardine Lloyd Thompson Group plc ("JLT"), which was acquired on April 1, 2019, and whose financial statements constitute 5% of total assets and 7% of total revenue of the Company's consolidated financial statement amounts as of and for the year ended December 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at JLT.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance

regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ Deloitte & Touche LLP

New York, New York
February 20, 2020

(c) *Changes in Internal Control Over Financial Reporting*

There were no changes in the Company's internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) or 15d-15(d) under the Securities Exchange Act of 1934 that occurred during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Information as to the directors and nominees for the board of directors of the Company is incorporated herein by reference to the material set forth under the heading "Item 1: Election of Directors" in the 2020 Proxy Statement.

The executive officers and executive officer appointees of the Company are Peter J. Beshar, Dominic Burke, John Q. Doyle, Martine Ferland, E. Scott Gilbert, Daniel S. Glaser, Peter Hearn, Laurie Ledford, Scott McDonald and Mark C. McGivney. Information with respect to these individuals is provided in Part I, Item 1 above under the heading "Executive Officers of the Company".

The information set forth in the 2020 Proxy Statement in the sections "Corporate Governance—Codes of Conduct", "Board of Directors and Committees—Committees—Audit Committee" and "Additional Information—Transactions with Management and Others" is incorporated herein by reference.

Item 11. Executive Compensation.

The information set forth in the sections "Additional Information—Director Compensation" and "Executive Compensation—Compensation of Executive Officers" in the 2020 Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information set forth in the sections "Additional Information—Stock Ownership of Directors, Management and Certain Beneficial Owners" and "Additional Information—Equity Compensation Plan Information" in the 2020 Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information set forth in the sections "Corporate Governance—Director Independence", "Corporate Governance—Review of Related-Person Transactions" and "Additional Information—Transactions with Management and Others" in the 2020 Proxy Statement is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information set forth under the heading "Item 3: Ratification of Selection of Independent Registered Public Accounting Firm—Fees of Independent Registered Public Accounting Firm" in the 2020 Proxy Statement is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules. †

The following documents are filed as a part of this report:

(1) Consolidated Financial Statements:

Consolidated Statements of Income for each of the three years in the period ended December 31, 2019

Consolidated Statements of Comprehensive Income for each of the three years in the period ended December 31, 2019

Consolidated Balance Sheets as of December 31, 2019 and 2018

Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2019

Consolidated Statements of Shareholders Equity for each of the three years in the period ended December 31, 2019

Notes to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

Other:

Selected Quarterly Financial Data and Supplemental Information (Unaudited) for fiscal years 2019 and 2018

Five-Year Statistical Summary of Operations

(2) All required Financial Statement Schedules are included in the Consolidated Financial Statements or the Notes to Consolidated Financial Statements.

(3) The following exhibits are filed as a part of this report:

(2.1) Stock Purchase Agreement, dated as of June 6, 2010, by and between Marsh & McLennan Companies, Inc. and Altegrity, Inc. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010)

(2.2) Rule 2.7 Announcement, dated as of September 18, 2018 (incorporated by reference to the Company's Current Report on Form 8-K dated September 18, 2018)

---

†As permitted by Item 601(b)(4)(iii)(A) of Regulation S-K, the Company has not filed with this Form 10-K certain instruments defining the rights of holders of long-term debt of the Company and its subsidiaries because the total amount of securities authorized under any of such instruments does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis. The Company agrees to furnish a copy of any such agreement to the Commission upon request.

(2.3) Co-operation Agreement, dated as of September 18, 2018, by and among Marsh & McLennan Companies, Inc., MMC Treasury Holdings (UK) Limited and Jardine Lloyd Thompson Group plc. (incorporated by reference to the Company's Current Report on Form 8-K dated September 18, 2018)

(3.1) Restated Certificate of Incorporation of Marsh & McLennan Companies, Inc. (incorporated by reference to the Company's Current Report on Form 8-K dated July 17, 2008)

(3.2) Amended and Restated By-Laws of Marsh & McLennan Companies, Inc. (incorporated by reference to the Company's Current Report on Form 8-K dated January 12, 2017)

(4.1) Indenture dated as of June 14, 1999 between Marsh & McLennan Companies, Inc. and State Street Bank and Trust Company, as trustee (incorporated by reference to the Company's Registration Statement on Form S-3, Registration No. 333-108566)

(4.2) Third Supplemental Indenture dated as of July 30, 2003 between Marsh & McLennan Companies, Inc. and U.S. Bank National Association (as successor to State Street Bank and Trust Company), as trustee (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2003)

(4.3) Indenture dated as of March 19, 2002 between Marsh & McLennan Companies, Inc. and State Street Bank and Trust Company, as trustee (incorporated by reference to the Company's Registration Statement on Form S-4, Registration No. 333-87510)

(4.4) Indenture, dated as of July 15, 2011, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)

(4.5) First Supplemental Indenture, dated as of July 15, 2011, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)

(4.6) Form of Third Supplemental Indenture between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K dated September 24, 2013)

(4.7) Form of Fourth Supplemental Indenture between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K dated May 27, 2014)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(4.8) Form of Fifth Supplemental Indenture between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K dated September 10, 2014)

(4.9) Sixth Supplemental Indenture, dated as of March 6, 2015, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015)

(4.10) Seventh Supplemental Indenture, dated as of September 14, 2015, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K filed on September 14, 2015)

(4.11) Eighth Supplemental Indenture, dated as of March 14, 2016, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Quarterly Report on Form 10-Q filed on May 2, 2016)

(4.12) Ninth Supplemental Indenture, dated as of January 12, 2017, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Annual Report on Form 10-K filed on February 24, 2017)

(4.13) Tenth Supplemental Indenture, dated as of March 1, 2018, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K filed on March 1, 2018)

(4.14) Eleventh Supplemental Indenture, dated January 15, 2019, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K filed on January 15, 2019)

(4.15) Twelfth Supplemental Indenture, dated March 21, 2019, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as trustee (incorporated by reference to the Company's Current Report on Form 8-K filed on March 21, 2019)

(4.16) Description of Marsh & McLennan Companies, Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934

(10.1) *Marsh & McLennan Companies, Inc. U.S. Employee 1996 Cash Bonus Award Voluntary Deferral Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1996)

(10.2) *Marsh & McLennan Companies, Inc. U.S. Employee 1997 Cash Bonus Award Voluntary Deferral Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1997)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.3) *Marsh & McLennan Companies, Inc. U.S. Employee 1998 Cash Bonus Award Voluntary Deferral Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1998)

(10.4) *Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1999)

(10.5) *Amendments to Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2005)

(10.6) *Form of Awards under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004)

(10.7) *Additional Forms of Awards under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005)

(10.8) *Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2001)

(10.9) *Form of Awards under the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004)

(10.10) *Additional Forms of Awards under the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005)

(10.11) *Form of Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.12) *Form of 2007 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007)

(10.13) *Form of 2008 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008)

(10.14) *Form of 2009 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009)

(10.15) *Form of 2010 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010)

(10.16) *Form of 2011 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011)

(10.17) *Form of 2011 Long-term Incentive Award dated as of June 1, 2011 under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011)

(10.18) *Form of 2012 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012)

(10.19) *Form of 2013 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)

(10.20) *Form of 2014 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.21) *Form of 2015 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015)

(10.22) *Form of 2016 Long-term Incentive Award under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016)

(10.23) *Form of Deferred Stock Unit Award, dated as of February 24, 2012, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012)

(10.24) *Form of Deferred Stock Unit Award, dated as of March 1, 2013, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)

(10.25) *Form of Deferred Stock Unit Award, dated as of March 1, 2014, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014)

(10.26) *Form of Deferred Stock Unit Award, dated as of March 1, 2015, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015)

(10.27) *Form of Deferred Stock Unit Award, dated as of March 1, 2016 under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016)

(10.28) *Form of Deferred Stock Unit Award, with grant dates from March 1, 2017 through February 1, 2018, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017)

(10.29) *Form of Deferred Stock Unit Award, with grant dates from March 1, 2018 through February 1, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018)

(10.30) *Form of Deferred Stock Unit Award, with grant dates from March 1, 2019 through February 1, 2020, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.31) *Form of Deferred Stock Unit Award, with grant dates from May 1, 2019 through February 1, 2020, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan - Form A (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

(10.32) *Form of Deferred Stock Unit Award, with grant dates from May 1, 2019 through February 1, 2020, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan - Form B (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

(10.33) *Form of Restricted Stock Unit Award, dated as of April 1, 2016 under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2016)

(10.34) *Form of Restricted Stock Unit Award, dated as of February 22, 2017 under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2017)

(10.35) *Form of Restricted Stock Unit Award, dated as of February 21, 2018 under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018)

(10.36) *Form of Restricted Stock Unit Award, dated as of February 19, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)

(10.37) *Form of Restricted Stock Unit Award, dated as of May 1, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan - Form A (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

(10.38) *Form of Restricted Stock Unit Award, dated as of May 1, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan - Form B (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

(10.39) *Form of Restricted Stock Unit Award, dated as of May 1, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan - Form C (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.40) *Form of Performance Stock Unit Award, dated as of February 22, 2017, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017)

(10.41) *Form of Performance Stock Unit Award, dated as of February 21, 2018, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018)

(10.42) *Form of Performance Stock Unit Award, dated as of February 19, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)

(10.43) *Form of Performance Stock Unit Award, dated as of May 1, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

(10.44) *Form of Stock Option Award, dated as of February 22, 2017, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017)

(10.45) *Form of Stock Option Award, dated as of February 21, 2018, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018)

(10.46) *Form of Stock Option Award, dated as of February 19, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)

(10.47) *Form of Stock Option Award, dated as of May 1, 2019, under the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019)

(10.48) *Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company’s Registration Statement on Form S-8 dated August 5, 2011, Registration No. 333-176084)

(10.49) *Amendment to the Marsh & McLennan Companies, Inc. 2011 Incentive and Stock Award Plan (incorporated by reference to the Company’s Annual Report on Form 10-K for the year ended December 31, 2018)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.50) *Amendments to Certain Marsh & McLennan Companies Equity-Based Awards Due to U.S. Tax Law Changes Affecting Equity-Based Awards granted under the Marsh & McLennan Companies, Inc. 2000 Senior Executive Incentive and Stock Award Plan and the Marsh & McLennan Companies, Inc. 2000 Employee Incentive and Stock Award Plan, effective January 1, 2009 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2008)

(10.51) *Section 409A Amendment Document, effective as of January 1, 2009 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2008)

(10.52) *Section 409A Amendment Regarding Payments Conditioned Upon Employment-Related Action to Any and All Plans or Arrangements Entered into by the Marsh & McLennan Companies, Inc., or any of its Direct or Indirect Subsidiaries, that Provide for the Payment of Section 409A Nonqualified Deferred Compensation, effective December 21, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)

(10.53) *Marsh & McLennan Companies Supplemental Savings & Investment Plan (formerly the Marsh & McLennan Companies Stock Investment Supplemental Plan) Restatement, effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)

(10.54) *First Amendment to the Marsh & McLennan Companies Supplemental Savings & Investment Plan Restatement effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2016)

(10.55) *Second Amendment to the Marsh & McLennan Companies Supplemental Savings & Investment Plan Restatement effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2017)

(10.56) *Third Amendment to the Marsh & McLennan Companies Supplemental Savings & Investment Plan Restatement effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2018)

(10.57) *Marsh & McLennan Companies Benefit Equalization Plan and Marsh & McLennan Companies Supplemental Retirement Plan as Restated, effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2012)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.58) *First Amendment to the Marsh & McLennan Companies Benefit Equalization Plan and Marsh & McLennan Companies Supplemental Retirement Plan as Restated effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2016)

(10.59) *Second Amendment to the Marsh & McLennan Companies Benefit Equalization Plan and Marsh & McLennan Companies Supplemental Retirement Plan as Restated effective January 1, 2012 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2016)

(10.60) *Marsh & McLennan Companies, Inc. Senior Executive Severance Pay Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the Quarter ended March 31, 2008)

(10.61) *Amendment to the Marsh & McLennan Companies, Inc. Senior Executive Severance Pay Plan, effective December 31, 2009 (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2009)

(10.62) *Marsh & McLennan Companies, Inc. Senior Management Incentive Compensation Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1994)

(10.63) *Marsh & McLennan Companies, Inc. Directors' Stock Compensation Plan - May 31, 2009 Restatement (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009)

(10.64) *Marsh & McLennan Companies International Retirement Plan As Amended and Restated Effective January 1, 2009 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014)

(10.65) *Description of compensation arrangements for independent directors of Marsh & McLennan Companies, Inc. effective June 1, 2016 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016)

(10.66) *Letter Agreement, effective as of March 20, 2013, between Marsh & McLennan Companies, Inc. and Daniel S. Glaser (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013)

(10.67) *Non-Competition and Non-Solicitation Agreement, effective as of September 18, 2013, between Marsh & McLennan Companies, Inc. and Daniel S. Glaser (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.68) *Letter Agreement, effective as of May 14, 2014, between Marsh & McLennan Companies, Inc. and Daniel S. Glaser (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014)

(10.69) *Letter Agreement, effective as of February 22, 2016, between Marsh & McLennan Companies, Inc. and Daniel S. Glaser (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016)

(10.70) *Letter Agreement, effective as of February 22, 2017, between Marsh & McLennan Companies, Inc. and Daniel S. Glaser (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017)

(10.71) *Letter Agreement, dated as of September 18, 2019, between Marsh & McLennan Companies, Inc. and Daniel S. Glaser (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019)

(10.72) *Letter Agreement, effective as of January 1, 2016, between Marsh & McLennan Companies, Inc. and Mark C. McGivney (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015)

(10.73) *Non-Competition and Non-Solicitation Agreement, effective as of January 1, 2016, between Marsh & McLennan Companies, Inc. and Mark C. McGivney (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015)

(10.74) *Letter Agreement, effective as of January 17, 2018, between Marsh & McLennan Companies, Inc. and Mark C. McGivney (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2017)

(10.75) Letter Agreement, effective as of January 16, 2019, between Marsh & McLennan, Inc. and Mark C. McGivney (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2018)

(10.76) *Letter Agreement, effective as of March 20, 2013, between Marsh & McLennan Companies, Inc. and Julio A. Portalatin (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31 2013)

(10.77) Calculation Agency Agreement, dated as of January 15, 2019, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as calculation agent (incorporated by reference to the Company's Current Report on Form 8-K filed on January 15, 2019)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.78) Paying Agency Agreement, dated as of March 21, 2019, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, London Branch, as paying agent (incorporated by reference to the Company's Current Report on Form 8-K filed on March 21, 2019)

(10.79) *Non-Competition and Non-Solicitation Agreement, effective as of November 21, 2013, between Marsh & McLennan Companies, Inc. and Julio A. Portalatin (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2013)

(10.80) *Letter Agreement, effective as of May 14, 2014, between Marsh & McLennan Companies, Inc. and Julio A. Portalatin (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014)

(10.81) *Letter Agreement, effective as of May 18, 2016, between Marsh & McLennan Companies, Inc. and Julio A. Portalatin (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016)

(10.82) *Letter Agreement, effective as of July 12, 2017, between Marsh & McLennan Companies, Inc. and Julio A Portalatin (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017)

(10.83) *Letter Agreement, effective as of March 1, 2019, between Marsh & McLennan Companies, Inc. and Julio A. Portalatin (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2018)

(10.84) *Waiver and Release Agreement, dated as of February 14, 2019, between Marsh & McLennan Companies, Inc. and Julio A. Portalatin (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2018)

(10.85) *Letter Agreement, effective as of July 5, 2017, between Marsh & McLennan Companies, Inc. and John Q. Doyle (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018)

(10.86) *Non-Competition and Non-Solicitation Agreement, dated as of February 25, 2016, between Marsh & McLennan Companies, Inc. and John Q. Doyle (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018)

(10.87) *Letter Agreement, effective as of February 19, 2019, between Marsh & McLennan Companies, Inc. and Peter C. Hearn (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)

---

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

(10.88)	*Non-Competition and Non-Solicitation Agreement, effective as of June 1, 2016, between Marsh & McLennan Companies, Inc. and Peter C. Hearn (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)
(10.89)	Shareholder Undertaking, dated as of September 18, 2018 (incorporated by reference to the Company's Current Report on Form 8-K dated September 18, 2018)
(10.90)	Form of Director Undertaking, dated as of September 18, 2018 (incorporated by reference to the Company's Current Report on Form 8-K dated September 18, 2018)
(10.91)	Bridge Loan Agreement, dated as of September 18, 2018 by and between Marsh & McLennan Companies, Inc., the lenders party thereto and Goldman Sachs Bank USA, as administrative agent (incorporated by reference to the Company's Current Report on Form 8-K dated September 18, 2018)
(10.92)	Calculation Agency Agreement, dated as of January 15, 2019, between Marsh & McLennan Companies, Inc. and The Bank of New York Mellon, as calculation agent (incorporated by reference to the Company's Current Report on Form 8-K filed on January 15, 2019)
(14.1)	Code of Ethics for Chief Executive and Senior Financial Officers (incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 2002)
(21.1)	List of Subsidiaries of Marsh & McLennan Companies, Inc.
(23.1)	Consent of Independent Registered Public Accounting Firm
(24.1)	Power of Attorney (included on signature page)
(31.1)	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer
(31.2)	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer
(32.1)	Section 1350 Certifications
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
104.	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

*Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

MARSH & McLENNAN COMPANIES, INC.

Dated: February 20, 2020

By /S/ DANIEL S. GLASER
Daniel S. Glaser
President and Chief Executive Officer

Each person whose signature appears below hereby constitutes and appoints Katherine J. Brennan and Connor Kuratek, and each of them singly, such person's lawful attorneys-in-fact and agents, with full power to them and each of them to sign for such person, in the capacity indicated below, any and all amendments to this Annual Report on Form 10-K filed with the Securities and Exchange Commission.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated this 20th day of February, 2020.

Name	Title	Date
/S/ DANIEL S. GLASER Daniel S. Glaser	Director, President & Chief Executive Officer	February 20, 2020
/S/ MARK C. MCGIVNEY Mark C. McGivney	Chief Financial Officer	February 20, 2020
/S/ STACY M. MILLS Stacy M. Mills	Vice President & Controller (Chief Accounting Officer)	February 20, 2020
/S/ ANTHONY K. ANDERSON Anthony K. Anderson	Director	February 20, 2020
/S/ OSCAR FANJUL Oscar Fanjul	Director	February 20, 2020
/S/ H. EDWARD HANWAY H. Edward Hanway	Director	February 20, 2020
/S/ DEBORAH C. HOPKINS Deborah C. Hopkins	Director	February 20, 2020
/S/ TAMARA INGRAM Tamara Ingram	Director	February 20, 2020
/S/ STEVEN A. MILLS Steven A. Mills	Director	February 20, 2020
/S/ BRUCE P. NOLOP Bruce P. Nolop	Director	February 20, 2020
/S/ MARC D. OKEN Marc D. Oken	Director	February 20, 2020
/S/ MORTON O. SCHAPIRO Morton O. Schapiro	Director	February 20, 2020
/S/ LLOYD M. YATES Lloyd M. Yates	Director	February 20, 2020
/S/ R. DAVID YOST R. David Yost	Director	February 20, 2020

Exhibit 31.1

CERTIFICATIONS

I, Daniel S. Glaser, certify that:

1. I have reviewed this Annual Report on Form 10-K of Marsh & McLennan Companies, Inc. (the "registrant");

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

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

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

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

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

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

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

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

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

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

Date: February 20, 2020

/s/ Daniel S. Glaser

Daniel S. Glaser

President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Mark C. McGivney, certify that:

1. I have reviewed this Annual Report on Form 10-K of Marsh & McLennan Companies, Inc. (the "registrant");

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

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

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

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

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

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

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

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

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

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

Date: February 20, 2020

/s/ Mark C. McGivney

Mark C. McGivney

Chief Financial Officer

Exhibit 32.1

Certification of Chief Executive Officer and Chief Financial Officer

The certification set forth below is being submitted in connection with the Annual Report on Form 10-K for the year ended December 31, 2019 of Marsh & McLennan Companies, Inc. (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Daniel S. Glaser, the President and Chief Executive Officer, and Mark C. McGivney, the Chief Financial Officer, of Marsh & McLennan Companies, Inc. each certifies that, to the best of his knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Marsh & McLennan Companies, Inc.

Date: February 20, 2020

/s/ Daniel S. Glaser

Daniel S. Glaser

President and Chief Executive Officer

Date: February 20, 2020

/s/ Mark C. McGivney

Mark C. McGivney

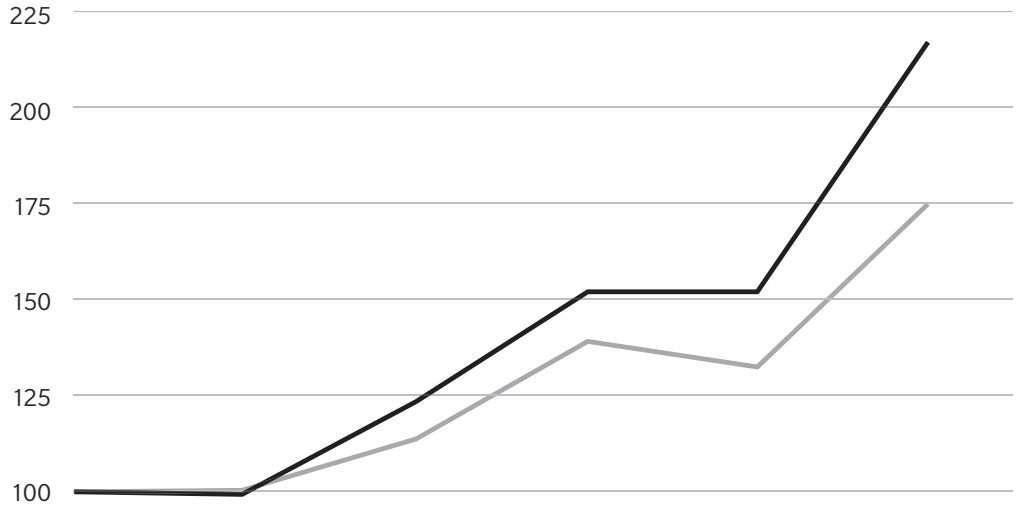
Chief Financial Officer

STOCK PERFORMANCE GRAPH

The following graph compares the annual cumulative stockholder return for the five-year period ended December 31, 2019 of Marsh & McLennan Companies common stock with the Standard & Poor's 500® Stock Index, assuming an investment of $100 on December 31, 2014, with dividends reinvested.

COMPARISON OF CUMULATIVE TOTAL STOCKHOLDER RETURN

($100 INVESTED 12/31/14 WITH DIVIDENDS REINVESTED)



	2014	2015	2016	2017	2018	2019
Marsh & McLennan Companies	100	99	123	151	151	215
S&P 500	100	101	113	138	132	174

STOCKHOLDER INFORMATION

ANNUAL MEETING
The 2020 Annual Meeting of Stockholders will be held at 10:00 a.m., Thursday, May 21, 2020, at the principal executive offices of Marsh & McLennan Companies, Inc. at the following location:

1166 Avenue of the Americas
New York, NY 10036

INVESTOR INFORMATION
Stockholders of record inquiring about reinvestment and payment of dividends, consolidation of accounts, stock certificate holdings, stock certificate transfers and address changes should contact:
EQ Shareowner Services
P.O. Box 64854
St. Paul, MN 55164-0854
Telephone: 800 457 8968 or
651 450 4064 (Outside US/Canada)

Mailing Address:
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120-4100
EQ's website:
shareowneronline.com

Stockholders who hold shares of Marsh & McLennan Companies beneficially through a broker, bank or other intermediary organization should contact that organization for these services.

DIRECT PURCHASE PLAN
Stockholders of record and other interested investors can purchase Marsh & McLennan Companies common stock directly through the Company's transfer agent and the Administrator for the Plan, EQ Shareowner Services. A brochure on the Plan is available on the EQ Shareowner Services website or by contacting EQ Shareowner Services directly:

EQ Shareowner Services
P.O. Box 64854
St. Paul, MN 55164-0854
Telephone: 800 457 8968 or
651 450 4064 (Outside US/Canada)
EQ's website:
shareowneronline.com

FINANCIAL INFORMATION
Copies of Marsh & McLennan Companies annual reports and Forms 10-K and 10-Q are available on the Company's website. These documents also may be requested by contacting:

Marsh & McLennan Companies, Inc.
Investor Relations
1166 Avenue of the Americas
New York, NY 10036
Telephone: 212 345 1227
Website: mmc.com

STOCK LISTINGS
Marsh & McLennan Companies common stock (NYSE ticker symbol: MMC) is listed on the New York, Chicago and London Stock Exchanges.

PROCEDURES FOR RAISING COMPLAINTS AND CONCERNS REGARDING ACCOUNTING MATTERS
Marsh & McLennan Companies is committed to complying with all applicable accounting standards, internal accounting controls, audit practices and securities laws and regulations (collectively, "Accounting Matters"). To raise a complaint or concern regarding Accounting Matters, you may contact the Company by mail, telephone or online. You may review the Company's procedures for handling complaints and concerns regarding Accounting Matters at mmc.com.

By mail:
Marsh & McLennan Companies, Inc.
Audit Committee
c/o Katherine J. Brennan,
Corporate Secretary
1166 Avenue of the Americas
New York, NY 10036

By telephone or online:
Visit ethicscomplianceline.com for dialing instructions or to raise a concern online.

Important Notices
Mercer may calculate worldwide assets under management differently than other responding firms. The assets under advisement data (AUA Data) reported here include aggregated assets under advisement for Mercer Investments LLC and their affiliated companies globally (Mercer). The AUA Data have been derived from a variety of sources, including, but not limited to, third-party custodians or investment managers, regulatory filings, and client self-reported data. Mercer has not independently verified the AUA Data. Where available, the AUA Data are provided as of the date indicated (the Reporting Date). To the extent information was not available as of the Reporting Date, information from a date closest in time to the Reporting Date, which may be of a date more recent in time than the Reporting Date, was included in the AUA Data. The AUA Data include assets of clients that have engaged Mercer to provide project-based services within the 12-month period ending on the Reporting Date, as well as assets of clients that subscribe to Mercer's Manager Research database delivered through the MercerInsight® platform.

The assets under management data (the AUM Data) reported here include aggregated assets for which Mercer Investments LLC (Mercer Investments) and their global affiliates provide discretionary investment management services as of the dates indicated. The AUM Data reported here may differ from regulatory assets under management reported in the Form ADV for Mercer Investments. For regulatory assets under management, please see the Form ADV for Mercer Investments, which is available upon request by contacting Compliance Department, Mercer Investments, 99 High Street, Boston, MA 02110.

FSC www.fsc.org
MIX
Paper from responsible sources
FSC® C132107

Marsh & McLennan Companies
1166 Avenue of the Americas, New York, NY 10036
mmc.com