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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, 2022

OR

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

For the transition period from _____ to _____

Commission file number 001-13908



Invesco Ltd.

(Exact Name of Registrant as Specified in Its Charter)

Bermuda	**98-0557567**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
1555 Peachtree Street, N.E., Suite 1800, Atlanta, GA	**30309**
(Address of Principal Executive Offices)	*(Zip Code)*

(404) 892-0896

(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, $0.20 par value	IVZ	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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 (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

At June 30, 2022, the aggregate market value of the voting stock held by non-affiliates was $7.7 billion, based on the closing price of the registrant's Common Shares, par value U.S. $0.20 per share, on the New York Stock Exchange. At January 31, 2023, the most recent practicable date, the number of Common Shares outstanding was 454,751,498.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant will incorporate by reference information required in response to Part III, Items 10-14 in its definitive Proxy Statement for its annual meeting of shareholders, to be filed with the Securities and Exchange Commission within 120 days after December 31, 2022.

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We include cross references to captions elsewhere in this Annual Report on Form 10-K, which we refer to as this "Report," where you can find related additional information. The following table of contents tells you where to find these captions.

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GLOSSARY OF DEFINED TERMS

APAC	—	Asia-Pacific
AUM	—	Assets under management
bps	—	Basis points
CDSC	—	Contingent deferred sales charge
CEO	—	Chief Executive Officer
CFTC	—	Commodity Future Trading Commission
CIP	—	Consolidated investment products
CLOs	—	Collateralized loan obligations
Companies Act	—	Companies Act 1981 of Bermuda
COSO	—	Committee of Sponsoring Organizations of the Treadway Commission
DOL	—	The Department of Labor
EBITDA	—	Earnings before income tax, depreciation and amortization
EMEA	—	Europe, Middle East and Africa
EMIR	—	European Market Infrastructure Regulation
EPS	—	Earnings per share
ERISA	—	Employee Retirement Income Security Act of 1974
ESG	—	Environmental, social and governance
ETFs	—	Exchange-traded funds
EU	—	European Union
FCA	—	Financial Conduct Authority
GDPR	—	General Data Protection Regulation
GEIP ST	—	2010 Global Equity Incentive Plan ST
IGW or Invesco Great Wall	—	Invesco Great Wall Fund Management Company Limited
LIBOR	—	The London Inter-Bank Offered Rate
MassMutual	—	Massachusetts Mutual Life Insurance Company
NAV	—	Net asset value
NYSE	—	New York Stock Exchange
PCAOB	—	Public Company Accounting Oversight Board
RSAs	—	Restricted stock awards
RSUs	—	Restricted stock units
S&P	—	Standard & Poor's
SEC	—	U.S. Securities and Exchange Commission
SFC	—	Securities Futures Commission of Hong Kong
the Parent	—	Invesco Ltd.
TRS	—	Total return swaps
UITs	—	Unit Investment Trusts
U.K.	—	United Kingdom
U.S.	—	United States
U.S. GAAP	—	U.S. Generally Accepted Accounting Principles
UCITS	—	Undertakings for the Collective Investment in Transferable Securities
UTBs	—	Unrecognized tax benefits
VIE	—	Variable interest entity
VOE	—	Voting interest entity
XBRL	—	Extensible Business Reporting Language

SPECIAL CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Report, other public filings and oral and written statements by us and our management, may include statements that constitute "forward-looking statements" within the meaning of the United States (U.S.) securities laws. These statements are based on the beliefs and assumptions of our management and on information available to us at the time such statements are made. Forward-looking statements include information concerning future results of our operations, expenses, earnings, liquidity, cash flows and capital expenditures, industry or market conditions, assets under management (AUM), geopolitical events and the COVID-19 pandemic and their respective potential impact on the company, acquisitions and divestitures, debt and our ability to obtain additional financing or make payments, regulatory developments, demand for and pricing of our products, the prospects for certain legal contingencies, and other aspects of our business or general economic conditions. In addition, when used in this Report or such other documents or statements, words such as "believes," "expects," "anticipates," "intends," "plans," "estimates," "projects," "forecasts," and future or conditional verbs such as "will," "may," "could," "should," and "would," and any other statement that necessarily depends on future events, are intended to identify forward-looking statements. None of this information should be considered in isolation from, or as a substitute for, historical financial statements.

Forward-looking statements are not guarantees and they involve risks, uncertainties and assumptions. There can be no assurance that actual results will not differ materially from our expectations. In most cases, such assumptions will not be expressly stated. We caution investors not to rely unduly on any forward-looking statements.

The following important factors, and other factors described elsewhere in this Report or contained in our other filings with the U.S. Securities and Exchange Commission (SEC), among others, could cause our results to differ materially from any results described in any forward-looking statements:

- significant fluctuations in the performance of capital and credit markets worldwide;
- adverse changes in the global economy;
- the performance of our investment products;
- significant changes in net asset flows into or out of the accounts we manage or declines in market value of the assets in, or redemptions or other withdrawals from, those accounts;
- competitive pressures in the investment management business, including consolidation, which may force us to reduce fees we earn;
- any inability to adjust our expenses quickly enough to match significant deterioration in markets;
- the effect of fluctuations in interest rates, liquidity and credit markets in the U.S. or globally, including regulatory reform of benchmarks, such as the London Inter-Bank Offered Rate (LIBOR);
- failure to maintain adequate corporate and contingent liquidity;
- our ability to acquire and integrate other companies into our operations successfully and the extent to which we can realize anticipated product sales, cost savings or synergies from such acquisitions;
- the occurrence of breaches and errors in the conduct of our business, including errors in our quantitative models and index tracking investment solutions, any failure to properly safeguard confidential and sensitive information, cyber-attacks or acts of fraud;
- our ability to attract and retain key personnel, including investment management professionals;
- limitations or restrictions on access to distribution channels for our products;
- our ability to develop, introduce and support new investment products and services;
- our ability to comply with client contractual requirements and/or investment guidelines despite preventative compliance procedures and controls;
- variations in demand for our investment products or services, including termination or non-renewal of our investment management agreements;
- harm to our reputation;
- our ability to maintain our credit ratings and access the capital markets in a timely manner;
- our debt and the limitations imposed by our credit facility;
- exchange rate fluctuations, especially as against the U.S. Dollar;
- pandemics or other widespread health crises and governmental responses to the same;
- the effect of political, economic or social instability in or involving countries in which we invest or do business (including the effect of terrorist attacks, war and other hostilities);
- the effect of failures or delays in support systems or customer service functions, and other interruptions of our operations;
- the effect of systems and other technological limitations on our ability to manage and grow our business;
- the effect of non-performance by our counterparties, third-party service providers and other key vendors to fulfill their obligations;

- impairment of goodwill and other intangible assets;
- adverse results in litigation and any other regulatory or other proceedings, governmental investigations and enforcement actions;
- the selling of our common stock by our significant shareholders; and
- enactment of adverse federal, state or foreign legislation or changes in government policy or regulation (including accounting standards) affecting our operations, our capital requirements or the way in which our profits are taxed.

Other factors and assumptions not identified above were also involved in the derivation of these forward-looking statements, and the failure of such other assumptions to be realized may also cause actual results to differ materially from those projected. For more discussion of the risks affecting us, please refer to Item 1A, “Risk Factors.”

You should consider the areas of risk described above in connection with any forward-looking statements that may be made by us and our businesses generally. We expressly disclaim any obligation to update any of the information in this or any other public report if any forward-looking statement later turns out to be inaccurate, whether as a result of new information, future events or otherwise. For all forward-looking statements, we claim the “safe harbor” provided by Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

PART I

Item 1. *Business*

Introduction

Invesco Ltd. (the Parent) and its consolidated subsidiaries (collectively, Invesco or the company) is an independent investment management firm dedicated to delivering an investment experience that helps people get more out of life. Our comprehensive range of active, passive and alternative investment capabilities has been constructed over many years to help clients achieve their investment objectives. We draw on this comprehensive range of capabilities to provide customized solutions designed to deliver key outcomes aligned to client needs.

With approximately 8,600 employees and an on-the-ground presence in more than 20 countries, Invesco is well positioned to meet the needs of investors across the globe. We have specialized investment teams managing investments across a broad range of asset classes, investment styles and geographies. For decades, individuals and institutions have viewed Invesco as a trusted partner for a comprehensive set of investment needs. We have a significant presence in the retail and institutional markets within the investment management industry in the Americas, Europe, Middle East and Africa (EMEA) and Asia-Pacific (APAC), serving clients in more than 110 countries. As of December 31, 2022, the firm managed approximately $1.4 trillion in assets for investors around the world.

The key drivers of success for Invesco are long-term investment performance, high-quality client service and effective distribution relationships delivered across a diverse spectrum of investment management capabilities, distribution channels, geographic areas and market exposures. Through our focus on these areas, we seek to deliver better outcomes for clients and generate competitive investment results, positive net flows, increased AUM and associated revenues.

We measure relative investment performance by comparing our investment capabilities to competitors' products, industry benchmarks and client investment objectives. Generally, distributors, investment advisors and consultants take into consideration longer-term investment performance (e.g., three-year and five-year performance) in their selection of investment products and manager recommendations to their clients. Third-party ratings may also influence client investment decisions. We monitor the quality of client service in a variety of ways, including periodic client satisfaction surveys, analysis of response times and redemption rates, competitive benchmarking of services and feedback from investment consultants.

The company is organized under the laws of Bermuda. Our common shares are listed and traded on the New York Stock Exchange (NYSE) under the symbol “IVZ.” We maintain a website at www.invesco.com/corporate. (Information contained on our website shall not be deemed to be part of, or be incorporated into, this document.)

Strategy

The company focuses on four key long-term strategic objectives that are designed to sharpen our focus on client needs, further strengthen our business over time and help ensure our long-term success:

- **Achieve strong, long-term investment performance** across distinct investment capabilities with clearly articulated investment philosophies and processes, aligned with client needs;
- **Be instrumental to our clients' success** by delivering our distinctive investment capabilities worldwide to meet their needs;
- **Harness the power of our global platform** by continuously improving execution effectiveness to enhance quality and productivity, and allocating our resources to the opportunities that will best benefit clients and our business; and
- **Perpetuate a high-performance organization** by driving greater transparency, accountability, diversity of thought, fact-based decision making and execution at all levels.

As an integrated global investment manager, we are keenly focused on meeting clients' needs and operating effectively and efficiently. We take a unified approach to our business and present our financial statements and other disclosures under the single operating segment “investment management.”

We believe one of Invesco's greatest strengths is our separate, distinct investment teams in multiple markets across the globe. A key focus of our business is fostering a strong investment culture and providing the support that enables our investment teams to maintain well-performing investment capabilities. We believe the ability to leverage the capabilities of our investment teams to help clients across the globe achieve their investment objectives is a significant differentiator for our firm.

Industry Trends

Trends around the world continue to transform the investment management industry and underscore the need to be well diversified with broad capabilities globally and across asset classes:

- Distribution partners are becoming more selective and continuing to maintain fewer relationships and partners, reducing the number of trusted investment managers with whom they work. Invesco provides a comprehensive range of capabilities, a robust set of value-added services and investment solutions that deliver key outcomes aligned to their investment objectives.
- Clients and distribution partners are also demanding more from investment managers. While investment performance remains paramount, competitive pricing, client engagement and value-added services (including portfolio analytics and consultative solutions) increasingly differentiate managers. Clients and distribution partners are also increasingly discerning and focused on greater value for their money. Invesco delivers competitive pricing, investor education, thought leadership, digital platforms and other value-added services that enhance the client experience. The firm is also working to enhance the client user experience through digital marketing (web, mobile, social) and improved service.
- Investors continue to demand alternative, passive and smart beta strategies. As a consequence, the industry is seeing client demand for certain active core equities portfolios decline as a share of global flows. Invesco is the 4th largest exchange-traded funds (ETFs) provider globally. Invesco sponsors 72 ETFs each with greater than $500 million in AUM. Invesco also has a strong lineup of alternative and multi-asset strategies supported by ongoing product development.
- Environmental, social and governance (ESG) investing is one of the fastest-growing segments of the asset management industry. Invesco offers a broad range of ESG investment capabilities, which enables clients to align their investments with their values. Our approach is "client-led" and "investment-driven" – that is, we seek to offer clients investment products tailored to their specific investment objectives. We offer a broad range of ESG capabilities for clients seeking strategies that align with their interests and investment objectives. We deliver these capabilities through equities, fixed income, multi-asset, alternatives, real estate, ETFs and custom solutions. We also integrate financially material ESG considerations in our investment capabilities.
- The asset management industry is experiencing pressure on net revenue yield, arising from increased use of low-fee passive products and further concentration within channel distribution partners (which increases their ability to negotiate pricing).
- Regulatory activity remains at increased levels and is influencing competitive dynamics. Increased regulatory scrutiny of asset managers has focused on many areas, including transparency/unbundling of fees, inducements, conflicts of interest, capital, liquidity, solvency, leverage, operational risk management, controls and compensation. Invesco continues to work proactively with regulators around the world to better understand and help shape the evolving regulatory landscape. Efforts to further modernize and strengthen our global platform will enhance our ability to

compete effectively across markets while complying with the variety of applicable regulatory regimes. This is a key differentiator for large, scaled firms such as Invesco.

- Although the developed markets in the U.S. and Europe are the two largest markets for financial assets by a wide margin, other key emerging markets in the world, such as Greater China, are growing faster and are positioned for greater future growth over the long term. In particular, the Chinese mutual fund management industry has grown from zero to nearly $4 trillion, and it is expected to become the second-largest fund management market in the world by 2025 with nearly $6 trillion in assets. Building on nearly two decades' presence in the market, Invesco is the largest foreign-owned asset manager with an onshore presence in China. Additionally, population age differences between emerging and developed markets will result in differing investment needs and horizons among countries. Asset allocation and retirement savings schemes also differ substantially among countries. We believe firms such as Invesco, with experience across a variety of key markets and diversified investment capabilities and product types, are best positioned to meet clients' needs in this global competitive landscape.
- Technology advances are impacting core elements of the investment management industry, which lags other industries in its use of technology. Clients increasingly seek to interact digitally with their investment portfolios. This is leading to established managers investing in and/or acquiring technology platforms. As the investment management business becomes more complex, automation will become increasingly important to serve clients effectively and efficiently. Invesco is leveraging technology across its business and exploring opportunities to work with third-party technology firms to enhance our clients' investment experience. In addition, over the past few years, Invesco has made investments in its digital wealth business, intelliflo.

These dynamics are driving fundamental changes within the industry and, we believe, will drive increasing consolidation. We believe the steps we have taken over the past decade strengthened our ability to understand, anticipate and meet client needs and will help ensure Invesco is well-positioned to compete within our industry over the long term.

Investment Management Capabilities

We believe that the proven strength of our distinct and globally located investment teams and their well-defined investment disciplines and risk management approaches provide us with a robust competitive advantage. There are few independent investment managers with teams as globally diverse as Invesco's and with the same breadth and depth of investment capabilities and vehicles. We offer multiple investment objectives within the various asset classes and products that we manage. Our asset classes, broadly defined, include equity, fixed income, balanced, alternatives and money market. We offer custom solutions across all asset classes and increasingly incorporate financially material ESG considerations into our investment capabilities and processes. Our Global ESG team provides support and analysis, while our investment managers maintain discretion on portfolio decisions.

The following sets forth our major managed investment objectives by asset class:

Equity	Fixed Income	Balanced	Alternatives	Money Market
● Custom Solutions	● Custom Solutions	● Custom Solutions	● Custom Solutions	● Custom Solutions
● Environmental, Social and Governance	● Environmental, Social and Governance	● Environmental, Social and Governance	● Environmental, Social and Governance	● Cash Plus
● Core/Value/Growth Style	● Buy and Hold	● Balanced Risk	● Absolute Return	● Government/Treasury
● Emerging Markets	● Convertibles	● Global/Regional	● Commodities	● Prime
● International/Global	● Core/Core Plus	● Single Country	● Currencies	● Taxable
● Large/Mid/Small Cap	● Emerging Markets	● Target Date	● Direct Lending	● Tax-Free
● Low Volatility/Defensive	● Government Bonds	● Target Risk	● Distressed Debt	
● Passive/Enhanced	● High-Yield Bonds	● Traditional Balanced	● Financial Structures	
● Regional/Single Country	● International/Global		● Global Macro	
● Smart Beta/Factor-based	● Investment Grade Credit		● Infrastructure and MLPs	
● Thematic/Sector	● Multi-Sector		● Long/Short Equity	
	● Municipal Bonds		● Managed Futures	
	● Passive/Enhanced		● Multi-Alternatives	
	● Regional/Single Country		● Private Real Estate	
	● Short/Ultra-Short Duration		● Public Real Estate Securities	
	● Stable Value		● Senior Secured Loans	
	● Structured Securities			
	● Smart Beta/Factor-based			

Distribution Channels

Retail AUM typically originate from clients investing into funds available to the public in the form of shares or units. Institutional AUM originate from entities such as individual corporate clients, insurance companies, endowments, foundations, government authorities, universities or charities. AUM disclosed as retail channel AUM include AUM distributed by the company's retail sales team. AUM disclosed as institutional channel AUM include AUM distributed by the company's institutional sales team.

The company operates as an integrated global investment manager, presenting itself as a single firm to clients around the world. Dedicated sales forces deliver our investment strategies through a variety of vehicles that meet the needs of retail and institutional clients. Note that not all products sold in the retail distribution channel are in "retail" vehicles, and not all products sold in the institutional channel are in "institutional" vehicles, as described in the table below. This aggregation, however, is viewed as a proxy for presenting AUM in the retail and institutional markets in which we operate.

The following lists our primary investment vehicles by distribution channel:

Retail	Institutional
● Closed-end Mutual Funds	● Collective Trust Funds
● ETFs	● ETFs
● Individual Savings Accounts	● Institutional Separate Accounts
● Investment Companies with Variable Capital	● Open-end Mutual Funds
● Investment Trusts	● Private Funds
● Open-end Mutual Funds	
● Separately Managed Accounts	
● Société d'investissement à Capital Variable	
● Unit Investment Trusts (UITs)	
● Variable Insurance Funds	

Retail

Retail AUM were $872.3 billion at December 31, 2022. We offer retail products within all of the major asset classes. Our retail products are primarily distributed through third-party financial intermediaries, including major wire houses, fund supermarkets, regional broker-dealers, insurance companies, banks and financial planners in the Americas, and independent brokers and financial advisors, banks and supermarket platforms in EMEA and APAC.

The Americas and EMEA retail operations rank among the largest by AUM in their respective markets. As of December 31, 2022, Invesco's U.S. retail business, including our ETFs franchise, is a top 10 asset manager in the U.S. by total AUM, and Invesco's retail business in EMEA is among the largest non-proprietary investment managers in the retail channel. In addition, Invesco Great Wall Fund Management Company Limited (IGW or Invesco Great Wall), our joint venture in China, is one of the largest Sino-foreign managers of equity products in China, with total AUM of approximately $89.3 billion at December 31, 2022. We provide our retail clients with one of the industry's most robust and comprehensive product lines.

Institutional

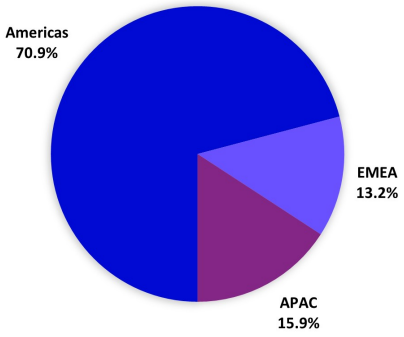
Institutional AUM were $536.9 billion at December 31, 2022. We offer a broad suite of domestic and global strategies, including traditional and quantitative equities, fixed income (including money market funds for institutional clients), real estate, financial structures and absolute return strategies. Regional sales forces distribute our products and provide services to clients and intermediaries around the world. We have a diversified client base that includes major public and private entities, unions, non-profit organizations, endowments, foundations, pension funds, financial institutions and sovereign wealth funds. Invesco's institutional money market funds serve some of the largest financial institutions, government entities and companies in the world.

AUM Diversification

One of Invesco's competitive strengths is the diversification of AUM by client domicile, distribution channel and asset class. We serve clients in more than 110 countries. The following tables present a breakdown of AUM by client domicile, distribution channel and asset class as of December 31, 2022. Additionally, the fourth table below illustrates the split of our AUM as Passive and Active. Passive AUM include index-based ETFs, UITs, non-management fee earning AUM and other passive mandates. Active AUM are total AUM less Passive AUM. See the company's disclosures regarding the changes in AUM for the year ended December 31, 2022 in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations - Assets Under Management" section for additional information regarding the changes in AUM.

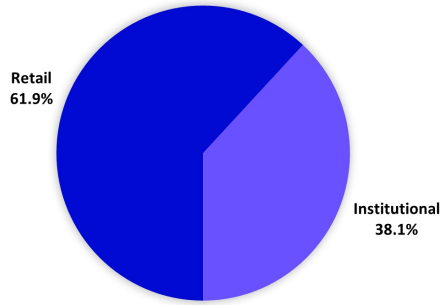
By Client Domicile

($ in billions)	Total	1-Yr Change
Americas	999.4	(11.8)%
EMEA	186.3	(19.4)%
APAC	223.5	(9.6)%
Total	1,409.2	



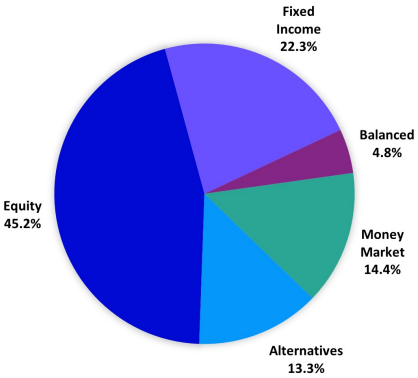
By Distribution Channel

($ in billions)	Total	1-Yr Change
Retail	872.3	(21.2)%
Institutional	536.9	6.4 %
Total	1,409.2	



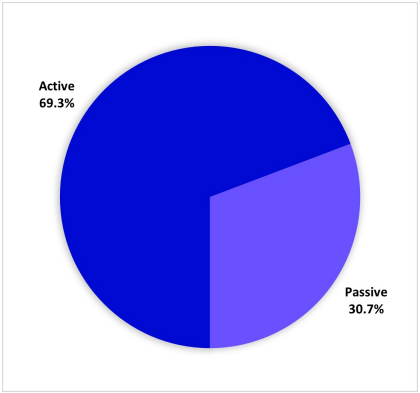
By Asset Class

($ in billions)	Total	1-Yr Change
Equity	637.0	(24.3)%
Fixed Income	313.7	(6.3)%
Balanced	67.1	(24.3)%
Money Market	203.5	36.8 %
Alternatives	187.9	(4.7)%
Total	1,409.2	



Active vs. Passive

($ in billions)	Total	1-Yr Change
Active	976.2	(9.8)%
Passive	433.0	(18.1)%
Total	1,409.2	



Corporate Responsibility and Human Capital

Invesco's long-term success depends on our ability to retain, develop, engage and attract top talent. Invesco invests significantly in talent development, health and welfare programs, technology and other resources that support our employees in developing their full potential both personally and professionally. We believe that an employee community that is diverse and inclusive, engaged in community involvement and invested in employee well-being will drive positive outcomes for our clients and shareholders.

We believe that diversity and inclusion are both moral and business imperatives. We are committed to further strengthening diversity at all levels and in all functions across our global business as evidenced by our Chief Executive Officer (CEO) and senior managing directors including a diversity and inclusion goal in their performance goals. Increasing representation of women and other underrepresented employees remains a focus for Invesco, as does building a more inclusive work environment. At the end of 2022, our global workforce was 40% female and 60% male (2021: 39% female and 61% male), with

37% of senior managers worldwide being women (2021: 35%). All new employees are required to take unconscious bias training. Our employees are also encouraged to participate in any of our twelve business resource groups where employees with diverse backgrounds, experiences and perspectives can connect. Our business resource groups are sponsored by senior leaders and are designed by employees, for employees.

As of December 31, 2022, the company had 8,611 employees with an on-the-ground presence in over 20 countries (December 31, 2021: 8,513). Our employees are not covered under collective bargaining agreements.

The company is committed to reducing our impact on the environment. Across Invesco offices, we carefully manage our operational activities with a focus on using natural resources wisely, increasing efficiencies wherever possible and providing a safe and healthy workplace for employees and visitors. This is the foundation of our environmental, health and safety management approach.

Competition

The investment management business is highly competitive, with points of differentiation including investment performance, fees, range of products offered, brand recognition, business reputation, financial strength, depth and continuity of relationships and quality of service. We compete with a large number of investment management firms, commercial banks, investment banks, broker-dealers, hedge funds, insurance companies and, increasingly, firms outside the traditional financial services industry, such as technology providers. Many of these competitors have greater financial resources and higher brand recognition than Invesco. However, we believe our experience as a trusted partner to clients, the quality and diversity of our investment capabilities, product types and channels of distribution, and our commitment to innovation enable us to compete effectively in the global investment management business. There are few independent investment managers with teams as globally diverse as Invesco's and with the same breadth and depth of investment capabilities and vehicles. We offer multiple investment objectives within the various asset classes and products that we manage. We also believe being an independent investment manager is a competitive advantage, as our business model avoids conflicts that are inherent within institutions that both manage and distribute and/or service those products. Lastly, we believe continued execution against our strategic objectives will further strengthen our long-term competitive position.

Management Contracts

We derive substantially all of our revenues from investment management contracts. Fees vary with the type of assets being managed, with higher fees earned on actively managed equity and balanced accounts, along with real estate and other alternative asset products, and lower fees earned on fixed income, money market and stable value accounts and ETFs. Investment management contracts are generally terminable upon thirty or fewer days' notice. Typically, retail investors may withdraw their funds at any time without prior notice and institutional clients may elect to terminate their relationship with investment managers or reduce the aggregate amount of AUM with very short notice periods.

Risk Management

Invesco is committed to continually strengthening and evolving our risk management approach and activities to ensure they keep pace with business change and client expectations. We believe a key factor in our ability to manage through challenging market conditions and significant business change is our integrated and global approach to risk management. We seek to embed risk management in our day-to-day decision-making as well as our strategic planning process, while our global risk management framework seeks to enable consistent and meaningful risk dialogue up, down and across the company.

Our framework leverages two governance structures: (i) our Global Performance and Risk Committee oversees the management of core investment risks; and (ii) our Enterprise Risk Management Committee oversees the management of all other business- and strategy-related risks. A network of regional, business unit and risk-specific management committees, with oversight by the Enterprise Risk Management Committee, provides ongoing identification, assessment, management and monitoring of existing and emerging risks across all domains of our business.

Available Information

The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers at www.sec.gov. We make available free of charge on our website, www.invesco.com/corporate, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy statement and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

Item 1A. ***Risk Factors***

Risks Related to Market Dynamics and Volatility

Volatility and disruption in global or regional capital and credit markets, as well as adverse changes in the global economy, could negatively affect our AUM, revenues, net income and liquidity.

In recent years, capital and credit markets have experienced substantial volatility. In this regard:

- In the event of extreme circumstances, including economic, political or business crises, such as a widespread systemic failures or disruptions in the global or regional financial systems or failures of firms that have significant obligations as counterparties on financial instruments, we may suffer significant declines in AUM and severe liquidity or valuation issues in managed investment products in which client and company assets are invested, all of which would adversely affect our operating results, financial condition, liquidity, credit ratings, ability to access capital markets and ability to retain and attract key employees. Additionally, these factors could impact our ability to realize the carrying value of our goodwill and other intangible assets.
- Illiquidity and/or volatility of the global or regional fixed income and/or equity markets could negatively affect our ability to manage client inflows and outflows or to timely meet client redemption requests.
- Uncertainties regarding geopolitical developments, such as nation state sovereignty, border disputes, diplomatic developments, social instability or changes in governmental policies, can produce volatility in global financial markets. This may impact the levels and composition of our AUM and also negatively impact investor sentiment, which could result in reduced or negative flows.
- Changes to U.S. tax, tariff and import/export regulations and economic sanctions may have a negative effect on global or regional economic conditions, financial markets and our business. Any changes with respect to trade policies, treaties, taxes, government regulations and tariffs, or the perception that any of these changes could occur, may have a material adverse effect on global or regional economic conditions and the stability of global financial markets, and may significantly reduce global trade or trade between certain nations. Given we are a global business, we could be more adversely affected than others by such market uncertainties.

Our revenues and net income would likely be adversely affected by any reduction in AUM as a result of either a decline in market value of such assets or net outflows, each of which would reduce the investment management fees we earn.

We derive substantially all our revenues from investment management contracts with clients. Under these contracts, the investment management fees paid to us are generally based on the market value of AUM. AUM may decline for various reasons. For any period in which revenues decline, our net income and operating margin would likely decline by a greater proportion because a majority of our expenses remain fixed. Factors that could decrease AUM, revenues, and net income include the following:

Declines in the market value of AUM in client portfolios. Our AUM as of January 31, 2023 were $1,482.7 billion. We cannot predict whether volatility in the markets will result in substantial or sustained declines in the markets generally or result in price declines in market segments in which our AUM are concentrated. Any of the foregoing could negatively impact the market value of our AUM, revenues and net income.

Redemptions and other withdrawals from, or shifting among, client portfolios. These changes could be caused by investors reducing their investments in client portfolios in general or in the market segments in which we focus; investors taking profits from their investments; and portfolio risk characteristics, which could cause investors to move assets to other investment managers. Poor performance relative to other competing products tends to result in decreased sales and increased redemptions with corresponding decreases in our revenues, which may have a material adverse effect on us. Furthermore, the fees we earn vary with the types of assets being managed, with higher fees earned on actively managed equity and balanced accounts, real estate and other alternative asset products, and lower fees earned on fixed income, stable value accounts and passively managed products. Our revenues may decline if clients continue to shift their investments to lower fee accounts.

Our revenues and net income from money market and other fixed income assets may be harmed by interest rates, liquidity and credit volatility.

Inflation is currently at its highest level in 40 years in the U.S. and is hitting decade-long highs in other countries. Central banks, such as the Federal Reserve, are raising interest rates in response to the increase in inflation, which has negatively
impacted and may materially and negatively continue to affect the value of the assets that we manage. Certain institutional investors using money market products and other short-term duration fixed income products for cash management purposes may shift these investments to direct investments in comparable instruments in order to realize higher yields. These redemptions would reduce AUM, thereby reducing our revenues. If securities within a money market portfolio default or investor redemptions force the portfolio to realize losses, there could be negative pressure on its net asset value (NAV). Although money market investments are not guaranteed instruments, the company might decide, under such a scenario, that it is in its best interest to provide support in the form of a support agreement, capital infusion or other methods to help stabilize a declining NAV, which may have an adverse impact on our profitability. Additionally, we have investments in fixed income assets, including collateralized loan obligations (CLOs), real estate-related loans, commercial loans and seed money in fixed income funds, the valuation of which could change with changes in interest and default rates. Declines in the values of AUM could lead to reduced revenues as management fees are generally calculated based upon the size of AUM.

Certain changes in the manner in which interest rates are calculated could also impact our client portfolios. LIBOR will be eliminated as a benchmark reference rate as a result of regulatory reform. We are transitioning our corporate exposure at a corporate and client portfolio level away from LIBOR to alternative short-term rates (such as the Secured Overnight Financing Rate) according to regulatory timelines and guidance. We continue to actively monitor client portfolios holding LIBOR based instruments and strategies utilizing LIBOR as a benchmark and/or performance target and remediate as necessary. Despite our preparations, the discontinuance of LIBOR may adversely affect our client portfolios or products we manage. These changes may also impact the market liquidity and market value of these portfolio investments decreasing AUM, and therefore revenues and net income of the company.

Our financial condition and liquidity would be adversely affected by losses on our seed capital and co-investments.

The company has investments in managed investment products that invest in a variety of asset classes, including equities, fixed income products, commodities, derivatives, other similar financial instruments, real estate and other alternative investments. Investments in these products are generally made to establish a track record, meet purchase size requirements for trading blocks or demonstrate economic alignment with other investors in our funds. Adverse market conditions may result in the need to write down the value of these seed capital and co-investments, which may adversely affect our results of operations or liquidity. As of December 31, 2022, we had approximately $909.2 million in seed capital and co-investments, including direct investments in consolidated investment products (CIP).

Since many of our subsidiary operations are located outside of the U.S. and have functional currencies other than the U.S. Dollar, changes in the exchange rates to the U.S. Dollar affect our reported financial results from one period to the next.

The largest component of our net assets, revenues and expenses, as well as our AUM, is presently denominated in U.S. Dollars. However, we have a large number of subsidiaries outside of the U.S. whose functional currencies are not the U.S. Dollar. As a result, fluctuations in the exchange rates to the U.S. Dollar affect our reported financial results from one period to the next. Consequently, significant strengthening of the U.S. Dollar relative to the U.K. Pound Sterling, Euro or Canadian Dollar, among other currencies, could have a material negative impact on our reported financial results.

Risks Related to Investment Performance and Competition

Poor investment performance of our products could reduce the level of our AUM or affect our sales, and negatively impact our revenues and net income.

Our investment performance is critical to the success of our business. Strong investment performance often stimulates sales of our products. Poor investment performance (on a relative or absolute basis) as compared to third-party benchmarks or competitive products has in the past led, and could in the future lead, to a decrease in sales of our products and stimulate redemptions from existing products, each of which could lower the overall level of AUM and reduce our management fees. There is no assurance that past or present investment performance in our products will be indicative of future performance. If we fail, or appear to fail, to address successfully and promptly the underlying causes of any poor investment performance, we

may be unsuccessful in reversing such under performance and our future business prospects would likely be negatively affected and redemptions could negatively impact our revenues and net income.

Competitive pressures may force us to reduce the fees we charge to clients, which could reduce our profitability.

The investment management business is highly competitive, and we compete based on a variety of factors, including investment performance, range of products offered, brand recognition, business reputation, financial strength, stability and continuity of client and financial intermediary relationships, quality of service, level of fees charged for services and the level of compensation paid and distribution support offered to financial intermediaries. We continue to face market pressures regarding fee levels in many products, including low fee, passively managed products which compete with our actively managed products.

Our competitors include many investment management firms and other financial institutions. Some of these institutions have greater capital and other resources, and offer more comprehensive lines of products and services, than we do. There are relatively few barriers to entry by new investment management firms, and the successful efforts of new entrants around the world have also resulted in increased competition. Industry consolidation has increased in recent years, both in the area of distributors and asset managers. Further consolidation may occur in these areas in the future.

Our competitors can increase their market share to our detriment by reducing fees. The increasing size and market influence of certain distributors of our products and of certain direct competitors may have a negative impact on our ability to compete at the same levels of profitability in the future.

In addition, technology is subject to rapid advancements and changes and our competitors may, from time to time, implement newer technologies or more advanced platforms for their services and products, including digital advisers and other advanced electronic systems, which could adversely affect our business if we are unable to remain competitive.

We may be unable to develop new products and services and the development of new products and services may expose us to additional costs or operational risk.

Our financial performance depends, in part, on our ability to develop, market and manage new investment products and services. The development and introduction of new products and services requires continued innovative efforts on our part and may require significant time and resources as well as ongoing support and investment. Substantial risk and uncertainties are associated with the introduction of new products and services, including the implementation of new and appropriate operational controls and procedures, shifting client and market preferences, the introduction of competing products or services and compliance with regulatory requirements. New products often must be in the market place for three or more years in order to generate the track records required to attract significant AUM inflows. Increasingly, clients and intermediaries are looking to investment managers to be able to deliver investment outcomes tailored to particular circumstances and needs, and to augment traditional investment management products and services with additional value-added services. A failure to continue to innovate and introduce successful new products and services or to manage effectively the risks associated with such products and services may impact our market share relevance and may cause our AUM, revenue and earnings to decline.

The failure or negative performance of products offered by competitors may have a negative impact on similar Invesco products irrespective of our performance.

Many competitors offer similar products to those offered by us, and the failure or negative performance of competitors' products could lead to a loss of confidence in similar Invesco products, irrespective of the performance of our products. Any loss of confidence in a product type could lead to withdrawals, redemptions and liquidity issues in such products, which could have a material adverse effect on our results of operations, financial condition or liquidity.

Risks Related to Operations and Technology

Our investment management professionals and other key employees are a vital part of our ability to attract and retain clients, and the loss of key individuals or a significant portion of those professionals could result in a reduction of our AUM, revenues and net income.

Retaining highly skilled investment management and other in-high demand personnel is important to our ability to attract and retain our clients. The market for skilled investment management professionals and other key personnel is highly competitive. Our policy has been to provide our investment management professionals and other key personnel with a supportive professional working environment and compensation and benefits that we believe are competitive with other leading investment management firms. However, we may not be successful in retaining our investment management professionals and other key personnel, and the loss of significant investment professionals or other key personnel could reduce the attractiveness of our products and services to potential and current clients and could, therefore, adversely affect our AUM, revenues and net income.

Changes in the distribution channels on which we depend could reduce our net income and hinder our growth.

We sell substantially all of our retail investment products through a variety of third-party financial intermediaries. Increasing competition for these distribution channels could nevertheless cause our distribution costs to rise, which would lower our net income. Certain of the third-party intermediaries upon whom we rely to distribute our investment products also sell their own competing proprietary investment products, which could limit the distribution of our products. Similarly, particularly in the U.S., certain distributors have substantially reduced the number of investment funds they make available to their customers. If a material portion of our distributors were to substantially narrow their product offerings, it could have a significant adverse effect on our AUM, revenues and net income. More broadly, in both retail and institutional channels, intermediaries (distribution firms and consultants) are seeking to reduce the number of investment management firms they do business with. While this offers opportunities to the company to have broader and deeper relationships with firms that continue to do business with us, it also poses risks of additional lost business if a particular firm chooses to stop or significantly reduce its business relationship with the company. Any failure to maintain strong business relationships with these intermediaries due to any of the above-described factors would impair our ability to sell our products, which in turn could have a negative effect on our AUM, revenues and net income.

Investors, particularly in the institutional market, rely on external consultants and other third parties for advice on the choice of investment manager. These consultants and third parties tend to exert a significant degree of influence over their clients' choices, and they may favor one of our competitors over us as better meeting their particular clients' needs. There is no assurance that our investment products will be among their recommended choices in the future. Any failure to maintain strong business relationships with the consultant community would impair our ability to sell our products, which in turn could have a negative effect on our AUM, revenues and net income.

Failure to comply with client contractual requirements and/or investment guidelines could result in costs of correction, damage awards or regulatory fines and penalties against us and loss of revenues due to client terminations.

Many of the investment management agreements under which we manage assets or provide products or services specify investment guidelines or requirements, such as adherence to investment restrictions or limits, that we are required to observe in the provision of our services. Laws and regulations impose similar requirements for certain investment products. A failure to comply with these guidelines or requirements could result in damage to our reputation or in our clients seeking to recover losses, withdrawing their assets or terminating their contracts. Regulators likewise may commence enforcement actions for violations of such requirements, which could lead to fines and penalties against the company. Any such effects could cause our AUM, revenues and net income to decline. We maintain various compliance procedures and other controls to seek to prevent, detect and correct such errors. When an error is detected, a payment will typically be made into the applicable client account to correct it. Significant errors for which we are responsible could impact our reputation, results of operations, financial condition or liquidity.

Our investment advisory agreements are subject to termination or non-renewal, and our fund and other investors may withdraw their assets at any time.

Substantially all our revenues are derived from investment management agreements. Investment management agreements are generally terminable upon 30 or fewer days' notice. Agreements with U.S. registered funds may be terminated with notice, or terminated in the event of an "assignment" (as defined in the Investment Company Act of 1940, as amended), and must be renewed annually by the disinterested members of each fund's Board of Trustees or Directors, as required by law. In addition, the Boards of Trustees or Directors of certain other funds generally may terminate these investment management agreements upon written notice for any reason. Open-end registered fund and unit trust investors may generally withdraw their funds at any time without prior notice. Institutional clients may elect to terminate their relationships with us or reduce the aggregate amount of AUM, generally on short notice. Any termination of or failure to renew a significant number of these agreements, or any other loss of a significant number of our clients or AUM, would adversely affect our revenues, net income, and liquidity.

The quantitative models we use and our index tracking investment solutions may contain errors, which could result in financial losses or adversely impact product performance and client relationships.

We use various quantitative models to support investment decisions and investment processes, including those related to portfolio management, portfolio risk analysis, and client investment guidance. While we maintain controls to seek to prevent, detect and correct any errors, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Any errors in the underlying models or model assumptions could have unanticipated and adverse consequences on our business and reputation. In addition, we offer index tracking investment solutions for our passive products, and any errors or disruptions in our ability to accurately track a subject index could materially adversely affect our business or reputation, which would adversely affect our AUM, revenues, net income, and liquidity.

Climate change-related risks could adversely affect our business, products, operations and clients, which may cause our AUM, revenue and net income to decline.

Our business and those of our clients could be impacted by climate change-related risks. Climate change may present risk to us through changes in the physical climate or from the climate change-related legislative and regulatory initiatives and the transition to a lower-carbon economy. Climate-related physical risks arise from the direct impacts of a changing climate, such as extreme weather events and changes in temperature, which may damage infrastructure and facilities as well as disrupt connectivity or supply chains. Impacts associated with climate change-related legislative and regulatory initiatives and the transition to a low carbon economy may result in operational changes and additional expenditures that could adversely affect us. Our reputation and business prospects may also be damaged if we do not, or are perceived not to, effectively prepare for the potential business and operational opportunities and risks associated with climate change, including through the development and marketing of effective and competitive new products and services designed to address our clients' climate risk-related investment objectives. These risks include negative market perception, diminished sales effectiveness and regulatory and litigation consequences associated with greenwashing claims or driven by association with clients, industries or
products that may be inconsistent with our other clients' ESG priorities or stated positions on climate change issues.

If our reputation is harmed, we could suffer losses in our AUM, revenues and net income.

Our business depends on earning and maintaining the trust and confidence of clients, other market participants and regulators, and our good reputation is critical to our business. Our reputation is vulnerable to many threats that can be difficult or impossible to control, and costly or impossible to remediate. Regulatory inquiries, investigations or findings of wrongdoing, intentional or unintentional misrepresentation of our products and services in advertising materials, public relations information, social media or other external communications, operational failures (including portfolio management errors or cyber breaches), employee dishonesty or other misconduct and rumors, among other things, can substantially damage our reputation, even if they are baseless or eventually satisfactorily addressed.

Our business also requires us to continuously manage actual and potential conflicts of interest, including situations where our services to a particular client conflict, or are perceived to conflict, with the interests of other clients or those of Invesco. The willingness of clients to enter into transactions in which such a conflict might arise may be affected if we fail - or appear to fail - to deal appropriately with conflicts of interest. In addition, potential or perceived conflicts could give rise to litigation or regulatory enforcement actions.

We have procedures and controls that are designed to address and manage these risks, but this task can be complex and difficult, and if our procedures and controls fail, our reputation could be damaged. Any damage to our reputation could impede our ability to attract and retain clients and key personnel, and lead to a reduction in the amount of our AUM, any of which could have a material adverse effect on our revenues, net income or liquidity.

The soundness of other financial institutions could adversely affect us or the client portfolios we manage.

Financial services institutions are interrelated as a result of trading, clearing, counterparty or other relationships. We, and the client portfolios that we manage, have exposure to many different industries and counterparties, and routinely execute transactions with counterparties in the financial services industry. Many of these transactions expose us or such client portfolios to credit risk in the event of default of their counterparties. While we regularly conduct assessments of such risk posed by counterparties, an event of default may occur due to market factors, such as sudden swings in the financial and credit markets that may occur swiftly and without warning. Such event of default could produce a financial loss for the company or the client portfolios we manage.

We depend on information technology, and any failures of or damage to, attack on or unauthorized access to our information technology systems or facilities, or those of third parties with which we do business or that facilitate our business activities, including as a result of cyber-attacks, could result in significant limits on our ability to conduct our operations and activities, costs and reputational damage.

We are highly dependent upon the use of various proprietary and third-party information and security technology, software applications and other technology systems to operate our business. We are also dependent on the effectiveness of our information and cyber security infrastructure, policies, procedures and capabilities to protect our computer and telecommunications systems and the data that reside on or are transmitted through them. We use our technology to, among other things, manage and trade portfolio investments, obtain securities pricing information, process client transactions, protect the privacy of clients', employees' and business partners' data, support our other operations and provide other services to our clients.

In recent years, several financial services firms suffered cyber-attacks launched both domestically and from abroad, resulting in the disruption of services to clients, loss or misappropriation of confidential data, litigation and regulatory enforcement actions and reputational harm. Cyber security incidents and cyber-attacks have been occurring globally at a more frequent and severe level. Our status as a global financial institution and the nature of our client base may enhance the risk that we are targeted by such cyber threats. Although we take protective measures, including measures to effectively secure information through system security technology, and seek to continually monitor and develop our systems to protect our technology infrastructure and data from misappropriation or corruption, our technology systems may still be vulnerable to unauthorized access as a result of an external attack, actions by employees or vendors with access to our systems, computer malware or other events that have a security impact and that result in the disclosure or release of confidential information inadvertently or through malfeasance, or result in the loss (temporarily or permanently) of data, applications or systems. The third parties with which we do business or which facilitate our business activities, including financial intermediaries and technology infrastructure, data storage and service providers, are also susceptible to the foregoing risks (including those related to the third parties with which they are similarly interconnected or on which they otherwise rely), and our or their business operations and activities may therefore be adversely affected, perhaps materially, by failures, terminations, errors or malfeasance by, or attacks or constraints on, one or more financial, technology or infrastructure institutions or intermediaries with whom we or they are interconnected or conduct business. Further, third-party service providers may have limited indemnification obligations to us in the event a cyber incident causes us to incur loss or damages.

A breach of our technology systems could damage our reputation and could result in the unauthorized disclosure or modification or loss of sensitive or confidential information (including client data); unauthorized disclosure, modification or loss of proprietary information relating to our business; inability to process client or company transactions and processes; breach and termination of client contracts; liability for stolen assets, information or identity; remediation costs to repair damage caused by the breach, including damage to systems and recovery of lost data; additional security costs to mitigate against future incidents; regulatory actions (including fines and penalties, which could be material) and litigation costs resulting from the incident. Such consequences could result in material financial loss and have a negative effect on our AUM, revenues and net income.

Our ability to manage and grow our business successfully can be impeded by systems and other technological limitations.

Our continued success in effectively managing and growing our business depends on our ability to integrate our varied accounting, financial, information and operational systems on a global basis. Moreover, adapting or developing the existing technology systems we use to meet our internal needs, as well as client needs, industry demands and new regulatory requirements, is also critical for our business. The introduction of new technologies presents new challenges and new potential risks to us. On an ongoing basis, we need to upgrade and improve our technology, including our data processing, financial, accounting, shareholder servicing and trading systems. Implementing any such upgrades, updates or other changes or replacements for our systems may be expensive and time-consuming, could divert management's focus away from core business activities and may adversely affect our business if additional or unanticipated time or resources are necessary to complete any such changes to our systems, if such changed systems do not operate as anticipated or if other unforeseen issues arise in connection with any such changes to our systems. Further, we also must be proactive and prepared to implement new technology when growth opportunities present themselves, whether as a result of a business acquisition or rapidly increasing business activities in particular markets or regions. These needs could present operational issues or require significant capital spending and may require us to reevaluate the current value and/or expected useful lives of the technology we use, which could negatively impact our AUM, revenues, and net income.

As a result of the global market reactions to the COVID-19 pandemic, our AUM, revenues and net income have at times been negatively impacted and we have in the past and may in the future face various potential operational challenges due to the pandemic.

As a result of the global market reactions to the COVID-19 pandemic, our AUM, revenues and net income declined significantly during the early phases of the pandemic as governments enacted social containment measures and central banks and governments sought to enact economic relief measures. While many global markets, and our AUM, revenues and net income, have improved materially since the early stages of the pandemic, further negative market reactions may occur as a result of failures to limit infections or deaths due to the COVID-19 virus, delays in developing and/or delivering effective treatments for the virus, increased infections due to new variants or vaccine hesitancy, and reduced support or positive impact of central banks and government economic relief measures. Additional negative market reactions could further negatively impact our AUM, revenues and net income. The volatility in the global markets has also adversely affected the liquidity of certain managed investment products in which client and company assets are invested.

Our efforts to mitigate the impact of the COVID-19 pandemic have required, and will continue to require, a significant investment of time and resources across our business. Going forward, the vast majority of employees will be working in their assigned office location at least part of the time, but we expect a significant degree of remote work to continue for the foreseeable future. To date, our own employees and, we believe, the employees of our key service providers, have not experienced any material degree of illness due to the COVID-19 virus. If our or their workforce, or key components thereof, were to experience significant illness levels, our ability to operate our business could be materially adversely disrupted.

The extent to which our business, revenues, AUM and net income are further affected by the COVID-19 pandemic will largely depend on future developments, which cannot be accurately predicted and are uncertain, including the duration and severity of the pandemic and the length of time it will take for the economy to recover, along with potentially more permanent impacts on how we operate and serve our clients. In addition, many of the risk factors described herein may be heightened by the effects of the COVID-19 pandemic and related economic conditions.

If we are unable to successfully recover from a disaster or other business continuity problem, we could suffer material financial loss, loss of human capital, regulatory actions, reputational harm or legal liability.

If we were to experience a disaster or other business continuity problem, such as a pandemic or other natural or man-made disaster, our continued success will depend, in part, on the 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 believe our operational size, multiple office locations and our existing back-up systems should mitigate adverse impacts. Nevertheless, we could still experience near-term operational problems with regard to particular areas of our operations. Although we seek to assess regularly and improve our existing business continuity plans, a major disaster, a disaster that affected certain important operating areas, or our inability to recover successfully should we experience a disaster or other business continuity problem, could materially interrupt our business operations and cause material financial loss, loss of human capital, regulatory actions, reputational harm or legal liability.

Our business is vulnerable to deficiencies and failures in support systems and customer service functions that could lead to breaches and errors or reputational harm, resulting in loss of customers or claims against us or our subsidiaries.

In addition to investment management, our services include fund administration, sales, distribution, marketing, shareholder servicing and trust, custody and other fiduciary services and portfolio management software services. We must properly perform our responsibilities associated with the forgoing services, including portfolio recordkeeping and accounting, security pricing, corporate actions, investment restrictions compliance, daily NAV computations, account reconciliations and required distributions to fund shareholders. The ability to consistently and reliably perform such services is essential to our continuing success. Certain types of securities may experience liquidity constraints that could impact fair value pricing, which is dependent on certain subjective judgments that have the potential to be challenged. Any delays or inaccuracies in obtaining pricing information, processing such transactions or such reports or other breaches and errors and any inadequacies in other customer service, could result in reimbursement obligations or other liabilities, or alienate clients or distributors and potentially give rise to claims against us. Our customer service capability, as well as our ability to obtain prompt and accurate securities pricing information and to process transactions and reports, is highly dependent on communications and information systems and on third-party service providers and their related technology systems and platforms. Certain of these processes involve a degree of manual input, and thus problems could occur from time-to-time due to human error. Our failure to properly perform and monitor our operations or our otherwise suffering deficiencies and failures in these systems or service functions due to a failure of a third-party service provider or other key vendor could result in material financial loss or costs, regulatory actions, breach of client contracts, reputational harm or legal claims and liability, which in turn could have a negative effect on our AUM, revenues and net income.

Risks Related to Accounting, Capital Management and Liquidity

The carrying value of goodwill and other intangible assets on our balance sheet could become impaired, which would adversely affect our results of operations.

We have goodwill and indefinite-lived intangible assets on our balance sheet that are subject to annual impairment reviews. We also have definite-lived intangible assets on our balance sheet that are subject to impairment testing. Goodwill and intangible assets totaled $8,557.7 million and $7,141.2 million, respectively, at December 31, 2022. We may not realize the value of such assets. We perform impairment reviews of the book values of these assets on an annual basis, or more frequently if impairment indicators are present. A variety of factors could cause such book values to become impaired. Should valuations be deemed to be impaired, a write-down of the related assets would occur, adversely affecting our results of operations for the period. See Item 7, “Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies - Goodwill” and “- Intangibles,” for additional details of our impairment analysis process.

Our credit facility imposes operating covenants that impact our ability to conduct certain activities and, if amounts borrowed under it were subject to accelerated repayment, we might not have sufficient assets or liquidity to repay such amounts in full.

Our credit facility requires us to maintain specified financial ratios, including maximum debt-to-earnings and minimum interest coverage ratios. The credit facility also contains customary affirmative operating covenants and negative covenants that, among other things, restrict certain of our subsidiaries' ability to incur debt and restrict our ability to transfer assets, merge, make loans and other investments and create liens. The breach of any covenant could result in a default under the credit facility. In the event of any such default, lenders that are party to the credit facility could refuse to make further extensions of credit to us and require all amounts borrowed under the credit facility, together with accrued interest and other fees, to be immediately due and payable. If any indebtedness under the credit facility were subject to accelerated repayment and if we had at that time a significant amount of outstanding debt under the credit facility, we might not have sufficient liquid assets to repay such indebtedness in full.

We issued perpetual preferred stock having a value of approximately $4 billion, which could adversely affect our ability to raise additional capital and may limit our ability to fund other priorities.

We issued approximately $4 billion of 5.9% fixed rate perpetual preferred stock in connection with the acquisition of OppenheimerFunds Inc. in May 2019. This issuance may limit our ability to obtain additional financing for working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes, may restrict our ability to pay dividends to holders of common shares in certain circumstances, may increase our vulnerability to general economic and industry conditions, and will require a significant portion of cash flow from operations to make required dividend payments to preferred shareholders.

Failure to maintain adequate corporate and contingent liquidity may cause our AUM, liquidity and net income to decline, as well as harm our prospects for growth.

Our ability to meet anticipated cash needs depends upon a number of factors, including our creditworthiness and ability to generate operating cash flows. Failure to maintain adequate liquidity could lead to unanticipated costs and force us to revise existing strategic and business initiatives. Our access to equity and debt markets on reasonable terms may be limited by adverse market conditions, including tax and interest rates, a reduction in our long- or short-term credit ratings, or changes in government regulations. Failure to obtain funds and/or financing, or any adverse change to the cost of obtaining such funds and/or financing, may cause our AUM, revenue and net income to decline, curtail our operations and limit or impede our prospects for growth.

Distribution of earnings of our subsidiaries may be subject to limitations, including net capital requirements.

Substantially all of our operations are conducted through our subsidiaries. As a result, our cash flow and our ability to fund operations are dependent upon the earnings of our subsidiaries and the distribution of earnings, intercompany loans or other payments by our subsidiaries to us. Any payments to us by our subsidiaries could be subject to statutory, regulatory or contractual restrictions and are contingent upon our subsidiaries' earnings and business or regulatory considerations. For example, certain of our subsidiaries are required under applicable laws and regulations to maintain appropriate levels of capital. Our financial condition or liquidity could be adversely affected if certain of our subsidiaries are unable to distribute funds to us.

All of our regulated European Union (EU) and U.K. subsidiaries are subject to consolidated capital requirements under applicable EU and U.K. requirements, and we maintain capital within this European sub-group to satisfy these regulations. We meet these requirements in part by holding cash and cash equivalents. This retained cash can be used for general business purposes in the European sub-group in the countries where it is located. Due to the capital restrictions, the ability to transfer cash between certain jurisdictions may be limited. In addition, transfers of cash between international jurisdictions may have adverse tax consequences. As of December 31, 2022, our minimum regulatory capital requirement was $639.8 million. Complying with our regulatory commitments may result in an increase in the capital requirements applicable to the European sub-group. As a result of regulatory requirements, certain of these subsidiaries may be required to limit their dividends to the company.

Risks Related to Strategic Transactions

We may engage in strategic transactions that could create risks.

We regularly review, and from time-to-time engage in strategic transactions, some of which may be material. Strategic transactions also pose the risk that any business we acquire may lose customers or employees or could underperform relative to expectations. We could also experience financial or other setbacks if potential or actual transactions encounter unanticipated problems, including problems related to closing or integration. Following the completion of a strategic transaction, we may have to rely on the seller to provide administrative and other support, including financial reporting and internal controls, to the acquired business for a period of time. There can be no assurance that such sellers will do so in a manner that is acceptable to us.

Risks Related to our Significant Shareholders

Future sales of shares of our common stock could adversely impact the trading price of our common stock.

If our significant shareholders sell substantial amounts of our common stock, or express an intention to sell or there is the perception that such sales may occur, that action could have a significant impact on our common share trading price. In addition, if we sell substantial amounts of our common stock in the public market, or there is a perception that such sales may occur, the market price of our common stock could be negatively impacted.

Massachusetts Mutual Life Insurance Company (MassMutual) has the ability to significantly influence our business, and MassMutual's interest in our business may be different from that of other shareholders.

MassMutual is entitled to designate an individual to serve on our board so long as it beneficially owns at least (i) 10% of our issued and outstanding shares of common stock or (ii) (x) 5% of our issued and outstanding shares of common stock and (y) $2.0 billion in aggregate liquidation preference of our Series A preferred shares. Additionally, we are not permitted to take certain actions without the prior written approval of MassMutual, including making certain changes in our capital structure or our organizational documents, adopting a shareholder rights plan or effectuating certain business combination transactions. MassMutual's level of ownership and influence may make some transactions (such as those involving mergers, material share issuances or changes in control) more difficult or impossible without the support of MassMutual, which in turn could adversely affect the market price of our shares of common stock or prevent our shareholders from realizing a premium over the market price for their shares of our common stock. The interests of MassMutual may conflict with the interests of other shareholders.

Further, MassMutual has made significant capital or seed investments in several of our products. If MassMutual decides not to provide additional capital or seed investments in the future or to withdraw material amounts of capital or seed investments in existing products, it could impact our ability to timely launch new products or impact existing products.

Risks Related to Regulatory and Legal Matters

We operate in an industry that is highly regulated in most countries, and any enforcement action or significant changes in the laws or regulations governing our business or industry or enforcement actions against us could decrease our AUM, revenues and net income.

As with all investment management companies, our activities are highly regulated in almost every country in which we conduct business. The regulatory environment in which we operate frequently changes, and we have seen a significant increase in regulatory changes, actions and scrutiny in recent years. Without limiting the generality of the foregoing, regulators in the U.S. and other jurisdictions have taken and can be expected to continue to take a more aggressive posture on bringing enforcement proceedings. Laws and regulations generally grant governmental agencies and industry self-regulatory authorities broad administrative discretion over our activities, including the power to require registration or licenses, limit or restrict our business activities, conduct examinations, risk assessments, investigations and capital adequacy reviews and impose remedial programs to address perceived deficiencies. As a result of regulatory oversight, we could face requirements or actions which negatively impact the way in which we conduct business, delay or deny approval for new products or service offerings, cause or contribute to reduced sales or increased redemptions of our products or services, impair the investment performance of other products or services, impact product mix, increase compliance costs and/or impose additional capital requirements. Our regulators likewise have the authority to commence enforcement actions which could lead to sanctions up to and including the revocation of licenses to operate certain businesses, the suspension or expulsion from a particular jurisdiction or market of any of our business organizations or their key personnel or the imposition of fines and censures on us or our employees. Further, regulators across borders could coordinate actions against us as issues arise resulting in impacts on our business in multiple jurisdictions. Judgments or findings of wrongdoing by regulatory or governmental authorities, or in private litigation against us, could affect our reputation, increase our costs of doing business and/or negatively impact our revenues. Any of the effects discussed above could have a material negative impact on our AUM, revenue, net income or liquidity.

A substantial portion of the products and services we offer are regulated by the SEC, Financial Industry Regulatory Authority, the Commodity Future Trading Commission (CFTC), the National Futures Association, the Department of Labor (DOL) and the Texas Department of Banking in the United States and by the Financial Conduct Authority (FCA), the Prudential Regulatory Authority in the United Kingdom and the Securities Futures Commission of Hong Kong (SFC) and the China Securities Regulatory Commission. Subsidiaries operating in the EU are mainly regulated by the Commission de Surveillance du Secteur Financier in Luxembourg, the Central Bank of Ireland, and the Bundesanstalt für Finanzdienstleistungsaufsicht in Germany. Such subsidiaries are also subject to various EU Directives, which generally are implemented by member state national legislation and by EU Regulations. Our operations elsewhere in the world are regulated by similar organizations.

Regulators in the U.S., U.K. and the EU, in particular, have promulgated or are considering various new or revised regulatory measures pertaining to financial services, including investment managers. Such measures are progressing at various stages, but several may become effective around the same time, which would put additional pressure on our subsidiaries. Such measures in the EU generally have been, are being or will or would be implemented by national legislation in member states.

Regulatory developments and changes specific to our business will or may include, without limitation:

- Regulations pertaining to the privacy and use, security, transfer and management of personal data with respect to clients, employees and business partners. Privacy regulations such as the General Data Protection Regulation (GDPR) in Europe have strengthened privacy rules for organizations handling personal data, granting individuals more rights and control over the use of their personal data, and greatly increasing penalties for non-compliance. In many other jurisdictions in which our subsidiaries operate, there is ongoing change to update and strengthen privacy regulations in a manner similar to GDPR. For example, in the U.S., the passage of the California Privacy Rights Act created additional responsibilities for organizations processing the personal data of California residents and a new regulatory body, the California Protection Agency, becoming the first regulatory body in the U.S. to have sole jurisdiction and resources to regulate a state privacy law and issue penalties for non-compliance. In addition, recent new or updated rules and legal requirements for international transfers of personal data from Europe and Asia have created additional complexity for global organizations around the use and management of personal data within these legal frameworks, particularly in light of our ongoing migration to integrated global cloud-based systems and services.
- Regulations promulgated to address perceptions that the asset management industry, or certain of its entities or activities, pose systematic risks to the financial system, including regulations aiming at addressing liquidity concerns in open-end funds (in particular bank loan, fixed income and money market funds). In the EU, the ongoing review of the undertakings for the collective investment in transferable securities (UCITS) and alternative investment fund managers directive frameworks is expected to introduce new rules regarding the use of certain liquidity management tools (e.g., swing pricing, anti-dilution and side pockets etc.) by UCITS and alternative investment funds, including enhanced reporting on the use of such tools. A new pan-EU regime for loan funds is also expected to be introduced, with potential implications for the structuring of such funds. The SEC has proposed new rules with respect to liquidity in money market funds and open-end funds, including proposing to implement further restrictions on certain open-end funds holding non-liquid instruments and swing pricing.
- An increased focus on the use of leverage by funds (in particular, leverage attained through derivatives), an example of which is the SEC's new rules with respect to the use of derivatives and derivatives risk management programs applicable to certain types of registered U.S. funds. New regulations in this area could negatively impact our existing products that employ leverage or derivatives and could impede our ability to bring new products to market.
- EU and U.K. regulations pertaining to integrating ESG topics have materially impacted the asset management industry in EU member states and in the U.K. In particular, the integration of sustainability risks, the disclosure of information on the ESG characteristics of EU products and the integration of the investors' ESG preferences at the point of sale have had a significant impact on the features of EU products and on investment management activities. In the UK, climate-related disclosures for asset managers are being introduced and discussions with the FCA on new sustainability disclosures and product sustainability labels continue. The SEC and other regulators in the U.S. are pursuing similar initiatives albeit with varying requirements and definitions, and the SEC has increased its enforcement activity relating to ESG disclosures and practices. Equally, a number of Asian jurisdictions are introducing climate-related risk and reporting requirements as well as ESG product disclosure standards.
- Requirements pertaining to the trading of securities and other financial instruments, such as swaps and other derivatives, including certain provisions of the Dodd-Frank Act and European Market Infrastructure Regulation (EMIR); these include significant reporting requirements, designated trading venues, mandated central clearing arrangements, restrictions on proprietary trading by certain financial institutions, rules improving settlement discipline, other conduct requirements and potentially new taxes or similar fees. A review of EMIR is due to start in 2023. Also in the EU, the European Commission is preparing amendments to the Markets in Financial Instruments Directive/Markets in Financial Instruments Regulation framework to amend trading and improve transparency rules. In the U.K., an in-depth reshape of wholesale market rules is being debated and will aim at improving the functioning and competitiveness of the U.K. financial markets following the exit from the EU.
- Limitations on holdings of certain physical commodity futures contracts and other physical commodity related derivatives positions under regulations of the CFTC which could result in capacity constraints for our products that employ physical commodities as part of their investment strategy.
- Regulations impacting the standard of care that financial intermediaries providing investment recommendations owe to retail investors, under the SEC's Regulation Best Interest and retirement plans and account holders, under the DOL's Employee Retirement Income Security Act of 1974 (ERISA) fiduciary investment advice rules. In the U.K., a new principle requires firms to act to deliver good outcomes for retail customers. This new "consumer duty" will impact the product governance rules and the distribution of our retail products in the U.K. In the EU, a new Retail Investment Strategy will be published in early 2023 to enhance retail investors' participation in capital markets. It is expected that the Retail Investment Strategy will introduce a number of legislative changes to the retail investment rules, in particular on product disclosures, investors' protection, inducement, and retail products governance areas.

- Enhanced licensing and qualification requirements for key personnel, including the United Kingdom Senior Managers and Certification Regime and the SFC's Manager-in-Charge Regime that could make it more difficult for the company to hire and retain key personnel.
- Strengthening standards regarding various ethical matters, including compliance with the Foreign Corrupt Practices Act, the U.K. Bribery Act and anti-money-laundering laws and regulations that will increase compliance and record keeping obligations of the company.
- Regulations promulgated to address risks of fraud, malfeasance or other adverse consequences stemming from cyber-attacks, and ensure the digital operational resilience of firms. In particular, the new EU Digital Operational Resilience Act will harmonize the requirements applying to Information and Communication Technology risk management, outsourcing and operational resilience in the financial sector.
- The application of antitrust and similar competition laws to the asset management industry, including proposed amendments to the U.S. Hart-Scott-Rodino Act that could require investment managers to make numerous pre-merger notification filings with the U.S. Federal Trade Commission and Department of Justice and the potential for antitrust regulators to limit common ownership of competitive companies by a single fund or affiliated funds. These developments in the application of antitrust and competition laws to our business could impede our ability to provide certain products or limit the AUM of certain investment strategies that we provide.
- Guidelines regarding the structure and components of fund manager compensation and other additional rules and regulations and disclosure requirements. Certain provisions impose additional disclosure burdens on public companies. Certain proposals could impose requirements for more widespread disclosures of compensation to highly-paid individuals. Depending upon the scope of any such requirements, Invesco could be disadvantaged in retaining key employees vis-à-vis private companies, including hedge fund sponsors.
- With respect to certain privately offered investment vehicles, the SEC has proposed rules to prohibit certain activities of the managers of such vehicles, including obtaining exculpation or limitations on liability for negligent acts, potentially increasing our potential liability as managers of these products. These proposals would materially increase reporting to the SEC for certain in-scope vehicles, potentially increasing compliance burdens and costs. Further, additional proposals mandate incremental reporting to investors which may levy additional costs on these vehicles impacting performance.
- Other changes impacting the identity or organizational structure of regulators with supervisory authority over us.

We cannot at this time predict the full impact of potential legal and regulatory changes, changes in the interpretation of existing laws and regulations or possible enforcement proceedings on our business. Such changes have imposed, and may continue to impose, new compliance costs and/or capital requirements or impact Invesco in other ways that could have a material adverse impact on our revenue, net income or liquidity. Moreover, certain legal or regulatory changes could require us to modify our strategies, businesses or operations, and we may incur other new constraints or costs, including the investment of significant management time and resources in order to satisfy new regulatory requirements or to compete in a changed business environment. In recent years, certain regulatory developments have also added downward pressures regarding fee levels.

Civil litigation and governmental investigations and enforcement actions could adversely affect our AUM and future net income and increase our costs of doing business.

Invesco and certain related entities have in recent years been subject to various legal proceedings, including civil litigation and governmental investigations and enforcement actions. These actions can arise from normal business operations and/or matters that have been the subject of previous regulatory reviews. As a global company with investment products registered in numerous countries and subject to the jurisdiction of one or more regulators in each country, at any given time, our business operations may be subject to review, investigation or disciplinary action. For example, governmental authorities regularly make inquiries, hold investigations and administer market conduct examinations with respect to the company's compliance with applicable laws and regulations. Lawsuits or regulatory enforcement actions arising out of these inquiries may in the future be filed against the company and related entities and individuals. Judgments in civil litigation or findings of wrongdoing by regulatory or governmental authorities against us could affect our reputation, increase our costs of doing business and/or negatively impact our revenues, any of which could have a material negative impact on our AUM, revenues, net income or liquidity.

Legislative and other measures that may be taken by governmental authorities could materially increase our tax burden or otherwise adversely affect our net income or liquidity.

The international tax environment continues to change as a result of both coordinated actions by governments and unilateral measures designed by individual countries, both intended to tackle concerns over base erosion and profit shifting and perceived international tax avoidance techniques. The Organization for Economic Cooperation and Development, the EU, the U.K. and an increasing number of other jurisdictions are accelerating coordinated activity, including the publication of detailed proposals for global anti-base erosion rules intended to ensure large multinational enterprise groups pay a 15% minimum level of tax on a jurisdictional basis.

We continually assess the impact of various U.S. federal, state and foreign legislative proposals and modifications to existing tax treaties, which could result in a material increase in our tax liability. We cannot predict the outcome of any specific legislative proposals. However, if unfavorable legislation were to be enacted, or if modifications were to be made to certain existing tax treaties, the consequences could have a materially adverse impact on the company, including increasing our tax burden, increasing the cost of our tax compliance or otherwise adversely affecting our future net income and liquidity.

In addition, changes in individual and corporate income tax rates, including the capital gains and dividend tax rates, could cause investors to view certain investment products less favorably and reduce investor demand for the products and services we offer, which could have an adverse effect on our AUM, revenues and net income.

Examinations and audits by tax authorities could result in additional tax payments for prior periods.

The company and its subsidiaries are subject to income and non-income based taxes in numerous jurisdictions as well as current and potentially future tax audits. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations in a multitude of jurisdictions. Tax authorities may disagree with certain positions we have taken and assess additional taxes (and, in certain cases, interest, fines or penalties). We record tax liabilities for anticipated tax audit issues based on our estimate of whether, and the extent to which, additional taxes will be due. We adjust these liabilities periodically due to changes in interpretations of tax laws, status of tax authority examinations and new regulatory or judicial guidance that could impact the relative merits and risks of tax positions. Due to the complexity of some of these uncertainties, the ultimate resolution may result in a payment of tax that is materially different from our current estimate of tax liabilities, an increase in the cost of our tax compliance or adversely affect our future net income and liquidity.

Bermuda law differs from the laws in effect in the U.S. and may afford less protection to shareholders.

Our shareholders may have more difficulty protecting their interests than shareholders of a company incorporated in a jurisdiction of the U.S. As a Bermuda company, we are governed by the Companies Act 1981 of Bermuda (Companies Act). The Companies Act differs in some material respects from laws generally applicable to U.S. corporations and shareholders, including provisions relating to interested directors, mergers, amalgamations and acquisitions, takeovers, shareholder lawsuits and indemnification of directors.

Under Bermuda law, the duties of directors and officers of a company are generally owed to the company only. Shareholders of Bermuda companies do not generally have rights to take action against directors or officers of the company, and may only do so in limited circumstances described in the following paragraph. However, directors and officers may owe duties to a company's creditors in cases of impending insolvency. Directors and officers of a Bermuda company must, in exercising their powers and performing their duties, act honestly and in good faith with a view to the best interests of the company and must exercise the care and skill that a reasonably prudent person would exercise in comparable circumstances. Directors have a duty not to put themselves in a position in which their duties to the company and their personal interests may conflict and also are under a duty to disclose any personal interest in any material contract or proposed material contract with the company or any of its subsidiaries. If a director or officer of a Bermuda company is found to have breached such director’s duties to that company, the director may be held personally liable to the company in respect of that breach of duty.

Class actions and derivative actions are generally not available to shareholders under the laws of Bermuda. However, the Bermuda courts ordinarily would be expected to follow English case law precedent, which would permit a shareholder to commence an action in a company's name against the directors and officers to remedy a wrong done to the company where the act complained of is alleged to be beyond the company's corporate power or is illegal or would result in the violation of the company's memorandum of association or Bye-Laws. Furthermore, consideration would be given by the court to acts that are alleged to constitute a fraud against the minority shareholders or where an act requires the approval of a greater percentage of shareholders than actually approved it. Under our Bye-Laws, each of our shareholders agrees to waive any claim or right of action, both individually and on our behalf, other than those involving fraud or dishonesty, against the company or any of our officers, directors or employees. The waiver applies to any action taken by a director, officer or employee, or the failure of such person to take any action, in the performance of his or her duties, except with respect to any matter involving any fraud or dishonesty on the part of the director, officer or employee. This waiver limits the right of shareholders to assert claims against our directors, officers and employees unless the act or failure to act involves fraud or dishonesty.

Our Bye-Laws also provide for indemnification of our directors and officers in respect of any loss arising or liability attaching to them in respect of any negligence, default, breach of duty or breach of trust of which a director or officer may be guilty in relation to the company other than in respect of his or her own fraud or dishonesty, which is the maximum extent of indemnification permitted under the Companies Act.

Because we are incorporated in Bermuda, it may be difficult for shareholders to enforce non-monetary judgments against us or any judgment against us or our directors and officers. Shareholders may have to seek independent advice regarding the commencement of proceedings or service of foreign process in Bermuda.

The company is organized under the laws of Bermuda. In addition, certain of our officers and directors reside in countries outside the U.S. A substantial portion of the company's assets and the assets of these officers and directors are or may be located outside the U.S. Investors may have difficulty effecting service of process within the U.S. on our directors and officers who reside outside the U.S., even though the company has appointed an agent in the U.S. to receive service of process.

Further, it may not be possible in Bermuda or in countries other than the U.S. where the company has assets to enforce court judgments obtained in the U.S. against the company based on the civil liability provisions of U.S. federal or state securities laws. We have been advised by our legal advisors in Bermuda that the U.S. and Bermuda do not currently have a treaty providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. Some remedies available under the laws of the U.S. or the states therein, including some remedies available under the U.S. federal securities laws, may not be allowed in Bermuda courts because they may be found to be contrary to Bermuda public policy. Therefore, a final judgment for the payment of money rendered by any federal or state court in the U.S. based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not automatically be enforceable in Bermuda. Similarly, those judgments may not be enforceable in other countries other than the U.S.

We have anti-takeover provisions in our Bye-Laws that may discourage a change of control.

Our Bye-Laws contain provisions that could make it more difficult for a third-party to acquire us or to obtain majority representation on our Board of Directors without the consent of our Board. As a result, shareholders may be limited in their ability to obtain a premium for their shares under such circumstances.

Specifically, our Bye-Laws contain the following provisions that may impede or delay a third-party to acquire or obtain majority representation on our Board of Directors:

- we are prohibited from engaging, under certain circumstances, in a business combination (as defined in our Bye-Laws) with any interested shareholder (as defined in our Bye-Laws) for three years following the date that the shareholder became an interested shareholder;
- our Board of Directors, without further shareholder action, is permitted by our Bye-Laws to issue preference shares, in one or more series, and determine by resolution any designations, preferences, qualifications, privileges, limitations, restrictions or special or relative rights of an additional series. The rights of preferred shareholders may supersede the rights of common shareholders;
- shareholders may only remove directors for “cause” (defined in our Bye-Laws to mean willful misconduct or gross negligence which is materially injurious to the company, fraud or embezzlement, or a conviction of, or a plea of “guilty” or “no contest” to, a felony);

- our Board of Directors is authorized to expand its size and fill vacancies; and
- shareholders cannot act by written consent unless the consent is unanimous.

General Risk Factors

Our ability to maintain our credit ratings and to access the capital markets in a timely manner should we seek to do so depends on a number of factors.

Our access to the capital markets depends significantly on our credit ratings. We have received credit ratings of A3/Stable, BBB+/Stable and A/Stable from Moody's Investor Services, Standard & Poor's (S&P), and Fitch Ratings, respectively, as of the date hereof. We anticipate that the rating agencies will continue to review our ratings regularly based on our results of operations and developments in our business. We believe that, in addition to factors specific to our company, rating agency concerns include the fact that our revenues are exposed to equity market volatility and the potential impact from regulatory changes to the industry. Additionally, the rating agencies could decide to downgrade the entire investment management industry, based on their perspective of future growth and solvency. As further described below, material deterioration of these factors, and others defined by each rating agency, could result in downgrades to our credit ratings, thereby limiting our ability to access additional financing, the cost of such financing and our ability to maintain investment management mandates, particularly in the institutional channel.

Our credit facility borrowing rates are tied to our credit ratings. A reduction in our long-term credit ratings could increase our borrowing costs, could limit our access to the capital markets and may result in outflows, thereby reducing AUM, revenues and net income. Volatility in global finance markets may also affect our ability to access the capital markets should we seek to do so. If we are unable to access capital markets in a timely manner, our business could be adversely affected.

Insurance may not be available at a reasonable cost to protect us from loss or liability.

We face the inherent risk of loss or liability related to claims from clients, third-parties, actions taken by regulatory agencies and costs and losses associated with operations failures (which could include cyber incidents). To help protect against these risks, we purchase insurance in amounts, and against potential losses and liabilities, that we consider appropriate, where such insurance is available at prices we deem reasonable. There can be no assurance, however, that a claim or claims will be covered by insurance or, if covered, will not exceed coverage limits, or that an insurer will meet its obligations regarding coverage, or that coverage will continue to be available on a cost effective basis. Insurance costs are impacted by market conditions, claims made on policies and the risk profile of the insured and may increase significantly over relatively short periods. In addition, certain insurance coverage may not be available or may only be available at prohibitive costs. Renewals of insurance policies may expose us to additional costs through higher premiums or the assumption of higher deductibles or co-insurance liability.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Our registered office is located in Hamilton, Bermuda, and our corporate headquarters is in leased office space at 1555 Peachtree Street N.E., Suite 1800, Atlanta, Georgia, 30309, U.S.A. In addition, Invesco's future headquarters, which will also be leased, will be located at 1331 Spring Street, Suite 2500, Atlanta, Georgia, 30309, U.S.A. Our principal regional centers are maintained in leased facilities, except as noted below, in the following locations:

- Americas: 11 Greenway Plaza, Houston, Texas 77046; 225 Liberty St, New York City, New York 10281
- EMEA: Perpetual Park, Henley-on-Thames, Oxfordshire, RG9 1HH, United Kingdom (owned facilities)
- APAC: Champion Tower, No. 3 Garden Road, Hong Kong

We maintain a global enterprise center in Hyderabad, India in leased facilities at DivyaSree Orion in the Ranga Reddy District of Hyderabad, India. We lease office space in over 20 countries.

Item 3. ***Legal Proceedings***

See Item 8, Financial Statements and Supplementary Data, Note 18, "Commitments and Contingencies" for information regarding legal proceedings.

Item 4. ***Mine Safety Disclosures***

Not applicable.

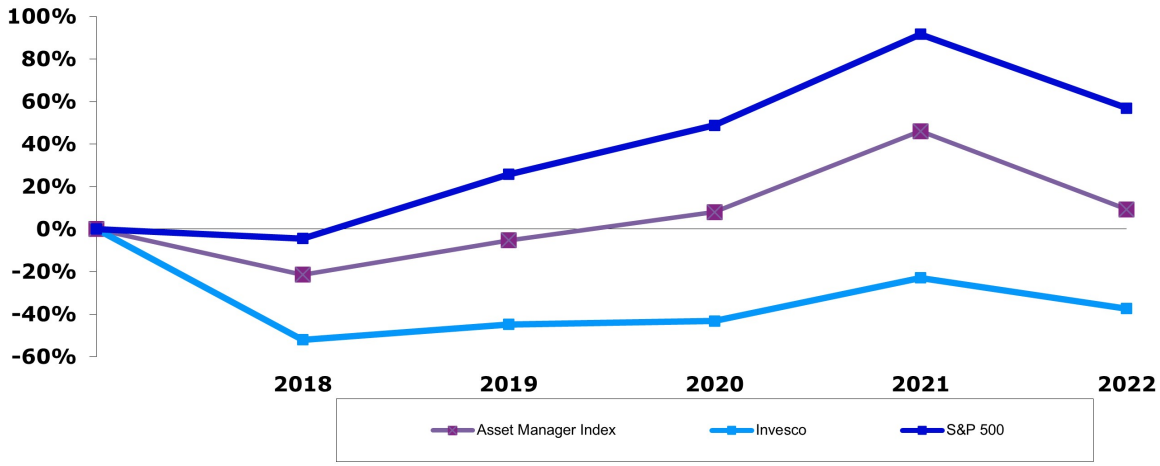
PART II

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

Our common shares are listed and traded on the NYSE under the symbol "IVZ." At January 31, 2023, there were approximately 5,000 holders of record of our common shares.

The following graph illustrates the cumulative total shareholder return of our common shares over the five-year period beginning from the market close on the last trading day of 2017 through and including the last trading day in the fiscal year ended December 31, 2022 and compares it to the cumulative total return of the S&P 500 Index and to a group of peer investment management companies. This table is not intended to forecast future performance of our common shares.

Cumulative Shareholder Returns



Note: Asset Manager Index includes Alliance Bernstein, Bank of New York Mellon, BlackRock, Franklin Resources, Invesco Ltd., Janus Henderson, Lazard, Northern Trust, State Street and T. Rowe Price.

Securities Authorized for Issuance under Equity Compensation Plans

The equity compensation plan information required in Item 201(d) of Regulation S-K is set forth in the definitive Proxy Statement for the company's annual meeting of shareholders, which will be filed with the SEC no later than 120 days after the close of the fiscal year ended December 31, 2022 and is incorporated by reference in this Report.

Repurchases of Equity Securities

The following table shows common share repurchase activity during the three months ended December 31, 2022:

Month	Total Number of Common Shares Purchased [1]	Average Price Paid Per Common Share	Total Number of Common Shares Purchased as Part of Publicly Announced Plans or Programs [2]	Approximate Dollar Value of Common Shares that May Yet Be Purchased Under the Plans or Programs [2] (millions)
October 1 - 31, 2022	8,697	$ 14.24	—	$ 532.2
November 1 - 30, 2022	6,407	$ 19.26	—	$ 532.2
December 1 - 31, 2022	201,989	$ 19.01	—	$ 532.2
	217,093		—	

(1) An aggregate of 217,093 common shares were surrendered to us by Invesco employees to satisfy tax withholding obligations in connection with the vesting of equity awards during the three months ended December 31, 2022.

(2) At December 31, 2022, a balance of $532.2 million remains available under the common share repurchase authorization approved by the Board on July 22, 2016.

Item 6. ***[Reserved]***

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

The discussion and analysis disclosed herein apply to material changes in the Consolidated Financial Statements for 2022 and 2021. For the comparison of 2021 and 2020, see the Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7 of the company's 2021 Annual Report on Form 10-K, filed with the SEC on February 18, 2022. The following discussion and analysis of the results of operations and financial condition of Invesco should be read in conjunction with the "Forward-looking Statements" disclosure set forth in Part I and the "Risk Factors" set forth in Item 1A of Part I of this Annual Report on Form 10-K, each of which describe our risks, uncertainties and other important factors in more detail.

Executive Overview

The following executive overview summarizes the significant trends affecting our results of operations and financial condition for the periods presented. This overview and the remainder of this management's discussion and analysis supplements and should be read in conjunction with the Consolidated Financial Statements of Invesco and the notes thereto contained elsewhere in this Annual Report on Form 10-K.

Global capital markets in 2022 were challenging for the asset management industry and for Invesco, as investors reacted to uncertainty associated with rising interest rates and high inflation in most major economies as well as geopolitical tensions. The table below summarizes the year ended December 31 returns based on price appreciation/(depreciation) of several major market indices for 2022 and 2021:

		Year ended December 31,	
Equity Index	**Index expressed in currency**	**2022**	**2021**
S&P 500	U.S. Dollar	(19.4)%	26.9%
FTSE 100	British Pound	0.9%	14.3%
FTSE 100	U.S. Dollar	(9.8)%	13.3%
S&P/TSX 60 Index	Canadian Dollar	(9.2)%	24.4%
S&P/TSX 60 Index	U.S. Dollar	(15.1)%	25.5%
MSCI Emerging Markets	U.S. Dollar	(22.4)%	(4.6)%
Bond Index			
Barclays U.S. Aggregate Bond	U.S. Dollar	(13.0)%	(1.5)%

The company's financial results are impacted by the fluctuations in exchange rates against the U.S. Dollar, as discussed in the "Results of Operations" section below.

Invesco benefits from our long-term efforts to ensure a diversified base of AUM. One of Invesco's core strengths, and a key differentiator for the company within the industry, is our broad diversification across client domiciles, asset classes and distribution channels. Our geographic diversification recognizes growth opportunities in different parts of the world. This broad diversification mitigates the impact on Invesco of different market cycles and enables the company to take advantage of growth opportunities in various markets and channels.

Despite the volatile markets, our diversified product lineup maintained net long-term inflows in certain key capabilities, notably ETFs, Fixed Income, Greater China, and the Institutional Channel.

We remain highly focused on our capital priorities, investing in our key capabilities, and efficiently allocating our resources. Consistent with our commitment to improve our leverage profile, we continue to manage our debt to lower levels. We redeemed $600 million of senior notes in May 2022, ended the year with no balance on our credit facility and our cash and cash equivalents balance increased to over $1.2 billion. Our debt of $1.5 billion is the lowest level in ten years. The progress we have made in our efforts to build financial flexibility has Invesco well-positioned to navigate volatile market conditions and deliver long-term growth. We remain committed to returning capital to shareholders longer term through a combination of modestly increasing dividends and share repurchases.

We are nearing completion of our strategic evaluation of the business that we began in 2020 and expect to be complete by the end of first quarter of 2023. Our strategic evaluation was primarily focusing on four key areas of our expense base: our organizational model, our real estate footprint, management of third-party spend and technology and operations efficiency.

Through this evaluation, we invested and will continue to invest in key areas of growth aligned with our strategic plan, including ETFs, Fixed Income, China, Solutions, Alternatives and Global Equities, which has had a positive impact on the company's results. We achieved $213 million in annualized savings in 2022, surpassing our original goal of $200 million of savings. We remain focused on identifying areas of expense improvement that will deliver positive operating leverage when markets recover and organic growth resumes.

On February 8, 2023 we announced that Martin L. Flanagan will retire as President and CEO of the company and as a member of the Board of Directors effective June 30, 2023. Andrew R. Schlossberg will succeed Mr. Flanagan as President and CEO and as a member of the Board of Directors effective June 30, 2023. Mr. Schlossberg is currently Senior Managing Director and Head of Americas and has served in multiple leadership roles across the company's businesses and locations since joining the company in 2001. Upon his retirement, Mr. Flanagan will serve as Chairman Emeritus for the company and will provide advice, guidance and support to Mr. Schlossberg through December 31, 2024.

Presentation of Management's Discussion and Analysis of Financial Condition and Results of Operations - Impact of Consolidated Investment Products

The company provides investment management services to, and has transactions with, various retail mutual funds and similar entities, private equity, real estate, fund-of-funds, CLOs and other investment entities sponsored by the company for the investment of client assets in the normal course of business. The company serves as the investment manager, making day-to-day investment decisions concerning the assets of the products. The company is required to consolidate certain of these managed funds from time-to-time, as discussed more fully in Item 8, Financial Statements and Supplementary Data, Note 1, "Accounting Policies -- Basis of Accounting and Consolidation." Investment products that are consolidated are referred to in this Report as CIP. The company's economic risk with respect to each investment in CIP is limited to its equity ownership and any uncollected management and performance fees.

The majority of the company's CIP balances are CLO-related. The collateral assets of the CLOs are held solely to satisfy the obligations of the CLOs. The company has no right to the benefits from, nor does it bear the risks associated with, the collateral assets held by the CLOs, beyond the company's direct investments in, and management and performance fees generated from, the CLOs. If the company were to liquidate, the collateral assets would not be available to the general creditors of the company, and as a result, the company does not consider them to be company assets. Likewise, the investors in the CLOs have no recourse to the general credit of the company for the notes issued by the CLOs. The company therefore does not consider this debt to be a company liability.

Due to the significant impact that CIP has on the presentation of the company's Consolidated Financial Statements, the company has elected to deconsolidate these products in its non-GAAP disclosures (among other adjustments). See "Schedule of Non-GAAP Information" for additional information regarding these adjustments. The following discussion therefore combines the results presented under U.S. Generally Accepted Accounting Principles (U.S. GAAP) with the company's non-GAAP presentation.

To assess the impact of CIP on the company's Results of Operations and Balance Sheet Discussion, refer to Part II, Item 8, Financial Statements, Note 19, "Consolidated Investment Products."

Summary Operating Information

Wherever a non-GAAP measure is referenced, a disclosure will follow in the narrative or in the note referring the reader to the Schedule of Non-GAAP Information, where additional details regarding the use of the non-GAAP measure by the company are disclosed, along with reconciliations of the most directly comparable U.S. GAAP measures to the non-GAAP measures. To further enhance the readability of the Results of Operations section, separate tables for each of the revenue, expense and other income and expenses (non-operating income/expense) sections of the income statement introduce the narrative that follows, providing a section-by-section review of the company's income statements for the periods presented.

Summary operating information for 2022, 2021 and 2020 is presented in the table below.

$ in millions, other than per common share amounts, operating margins and AUM	Year ended December 31,		
U.S. GAAP Financial Measures Summary	**2022**	**2021**	**2020**
Operating revenues	6,048.9	6,894.5	6,145.6
Operating income	1,317.7	1,788.2	920.4
Operating margin	21.8 %	25.9 %	15.0 %
Net income attributable to Invesco Ltd.	683.9	1,393.0	524.8
Diluted earnings per share (EPS)	1.49	2.99	1.13
Non-GAAP Financial Measures Summary[1]			
Net revenues	4,645.0	5,261.1	4,501.0
Adjusted operating income	1,614.8	2,182.6	1,664.5
Adjusted operating margin	34.8 %	41.5 %	37.0 %
Adjusted net income attributable to Invesco Ltd.	773.2	1,439.6	892.9
Adjusted diluted earnings per share (EPS)	1.68	3.09	1.93
Assets Under Management			
Ending AUM (billions)	1,409.2	1,610.9	1,349.9
Average AUM (billions)	1,452.5	1,499.9	1,194.9

(1) Net revenues, Adjusted Operating Income (and by calculation, adjusted operating margin), and Adjusted Net Income (and by calculation, adjusted diluted EPS) are non-GAAP financial measures, based on methodologies other than U.S. GAAP. See "Schedule of Non-GAAP Information" for a reconciliation of the most directly comparable U.S. GAAP measures to the non-GAAP measures.

Investment Capabilities Performance Overview

Invesco's first strategic objective is to achieve strong investment performance over the long-term for our clients. The table below presents the one-, three-, five-, and ten-year performance of our actively managed investment products measured by the percentage of AUM in the top half of benchmark and in the top half of peer group.[1]

	Benchmark Comparison				Peer Group Comparison			
	% of AUM In Top Half of Benchmark				% of AUM In Top Half of Peer Group			
	1yr	3yr	5yr	10yr	1yr	3yr	5yr	10yr
Equities [2]								
U.S. Core (4%)	43 %	42 %	31 %	16 %	22 %	27 %	27 %	— %
U.S. Growth (5%)	— %	46 %	46 %	46 %	— %	30 %	31 %	31 %
U.S. Value (7%)	91 %	91 %	91 %	87 %	86 %	60 %	47 %	42 %
Sector (1%)	— %	10 %	1 %	52 %	10 %	34 %	25 %	53 %
UK (1%)	56 %	38 %	45 %	44 %	93 %	30 %	43 %	38 %
Canadian (<1%)	100 %	100 %	66 %	58 %	87 %	100 %	42 %	— %
Asian (4%)	44 %	65 %	85 %	91 %	77 %	25 %	74 %	84 %
Continental European (2%)	78 %	80 %	21 %	93 %	92 %	78 %	37 %	92 %
Global (5%)	22 %	22 %	4 %	83 %	15 %	7 %	— %	22 %
Global Ex U.S. and Emerging Markets (8%)	16 %	32 %	95 %	99 %	14 %	12 %	14 %	11 %
Fixed Income [2]								
Money Market (29%)	83 %	95 %	97 %	100 %	86 %	86 %	85 %	98 %
U.S. Fixed Income (11%)	23 %	78 %	80 %	97 %	35 %	64 %	76 %	92 %
Global Fixed Income (6%)	48 %	87 %	94 %	90 %	62 %	66 %	75 %	93 %
Stable Value (6%)	100 %	100 %	100 %	100 %	17 %	97 %	97 %	100 %
Other [2]								
Alternatives (6%)	24 %	39 %	31 %	33 %	45 %	45 %	41 %	41 %
Balanced (7%)	80 %	93 %	63 %	62 %	81 %	79 %	80 %	94 %

(1) Excludes passive products, closed-end funds, private equity limited partnerships, non-discretionary funds, UITs, fund of funds with component funds managed by Invesco, stable value building block funds and CDOs. Certain funds and products were excluded from the analysis because of limited benchmark or peer group data. Had these been available, results may have been different. These results are preliminary and subject to revision.

AUM measured in the one, three, five and ten year quartile rankings represents 47%, 47%, 46% and 42% of total Invesco AUM, respectively, and AUM measured versus benchmark on a one, three, five and ten year basis represents 61%, 58%, 57% and 51% of total Invesco AUM as of December 31, 2022. Peer group rankings are sourced from a widely-used third-party ranking agency in each fund's market (e.g., Morningstar, IA, Lipper, eVestment, Mercer, Galaxy, SITCA, Value Research) and asset-weighted in USD. Rankings are as of prior quarter-end for most institutional products and prior month-end for Australian retail funds due to their late release by third parties. Rankings are calculated against all funds in each peer group. Rankings for the primary share class of the most representative fund in each composite are applied to all products within each composite. Performance assumes the reinvestment of dividends. Past performance is not indicative of future results and may not reflect an investor's experience.

(2) Numbers in parenthesis reflect AUM for each investment product (see Note 1 above for exclusions) as a percentage of the total AUM for the 5 year peer group ($651.3 billion).

Assets Under Management

The following presentation and discussion of AUM includes Passive and Active AUM. Passive AUM include index-based ETFs, UITs, non-management fee earning AUM and other passive mandates. Active AUM are Total AUM less Passive AUM.

Non-management fee earning AUM includes non-management fee earning ETFs, UITs and product leverage. The net flows in non-management fee earning AUM can be relatively short-term in nature and, due to the relatively low revenue yield, these can have a significant impact on overall net revenue yield.

The AUM tables and the discussion below refer to certain AUM as long-term. Long-term inflows and the underlying reasons for the movements in this line item include investments from new clients, existing clients adding new accounts/funds or contributions/subscriptions into existing accounts/funds. Long-term outflows reflect client redemptions from accounts/funds and include the return of invested capital on the maturity. We present net flows into money market funds separately because shareholders of those funds typically use them as short-term funding vehicles and because their flows are particularly sensitive to short-term interest rate movements.

Changes in AUM were as follows:

	2022			2021			2020		
$ in billions	**Total AUM**	**Active**	**Passive**	**Total AUM**	**Active**	**Passive**	**Total AUM**	**Active**	**Passive**
January 1	1,610.9	1,082.5	528.4	1,349.9	979.3	370.6	1,226.2	929.2	297.0
Long-term inflows	330.3	197.9	132.4	426.8	260.2	166.6	310.9	204.3	106.6
Long-term outflows	(330.8)	(226.2)	(104.6)	(345.4)	(242.0)	(103.4)	(326.6)	(236.1)	(90.5)
Net long-term flows	(0.5)	(28.3)	27.8	81.4	18.2	63.2	(15.7)	(31.8)	16.1
Net flows in non-management fee earning AUM	(3.2)	—	(3.2)	20.6	(0.1)	20.7	(5.1)	—	(5.1)
Net flows in money market funds	56.4	56.4	—	39.7	39.7	—	14.3	14.3	—
Total net flows	52.7	28.1	24.6	141.7	57.8	83.9	(6.5)	(17.5)	11.0
Reinvested distributions	15.2	15.2	—	31.6	31.6	—	16.9	16.9	—
Market gains and losses	(243.5)	(125.6)	(117.9)	94.0	18.3	75.7	103.0	40.8	62.2
Foreign currency translation	(26.1)	(24.0)	(2.1)	(6.3)	(4.5)	(1.8)	10.3	9.9	0.4
December 31	1,409.2	976.2	433.0	1,610.9	1,082.5	528.4	1,349.9	979.3	370.6
Average AUM									
Average long-term AUM	1,104.8	820.8	284.0	1,177.1	919.1	258.0	952.0	784.6	167.4
Average AUM	1,452.5	988.2	464.3	1,499.9	1,050.2	449.7	1,194.9	893.0	301.9
Average QQQ AUM	169.1	—	169.1	176.0	—	176.0	115.2	—	115.2

	2022	2021	2020
Revenue yield (bps) [1]			
U.S. GAAP gross revenue yield	44.5	48.7	53.7
Net revenue yield ex performance fees ex QQQ [2]	35.5	39.1	40.7
Active net revenue yield ex performance fees	40.7	44.0	45.2
Passive net revenue yield ex QQQ [2]	18.1	20.1	19.2

(1) U.S. GAAP gross revenue yield is not considered a meaningful effective fee rate measure. Gross revenue yield on AUM is equal to U.S. GAAP annualized total operating revenues divided by average AUM, excluding IGW AUM. It is appropriate to exclude the average AUM of IGW as the revenues resulting from these AUM are not presented in U.S. GAAP operating revenues. The average AUM for Invesco Great Wall was $93.5 billion in 2022 (2021: $84.0 billion, 2020: $50.0 billion). Additionally, the U.S. GAAP gross revenue yield is not a good measure because the numerator of the U.S. GAAP gross revenue yield excludes the management fees earned from CIP; however, the denominator of the measure includes the AUM of these investment products. Net revenue yield metrics include the net revenues and average AUM of IGW and CIP. See “Schedule of Non-GAAP Information” for a reconciliation of operating revenues to net revenues.

(2) Performance fees are earned when certain performance metrics are achieved and QQQ ETFs do not earn net revenues. Therefore, net revenue yield is calculated excluding performance fees and QQQ AUM. Passive net revenue yield is calculated excluding QQQ AUM.

Flows

There are numerous drivers of AUM inflows and outflows, including individual investor decisions to change investment preferences, fiduciaries and other gatekeepers making broad asset allocation decisions on behalf of their clients and reallocation of investments within portfolios. We are not a party to these asset allocation decisions, as the company does not generally have access to the underlying investor's decision-making process, including their risk appetite or liquidity needs.

Average AUM during the year ended December 31, 2022 were $1,452.5 billion, as compared to $1,499.9 billion for the year ended December 31, 2021.

Market Returns

Market gains and losses include the net change in AUM resulting from changes in market values of the underlying securities from period to period. The table in the "Executive Overview" section of this Management's Discussion and Analysis of Financial Condition and Results of Operations summarizes returns based on price appreciation/(depreciation) of several major market indices for the years ended December 31, 2022 and December 31, 2021.

Foreign Exchange Rates

During the year ended December 31, 2022, we experienced a decrease in AUM of $26.1 billion due to changes in foreign exchange rates (December 31, 2021: AUM decreased by $6.3 billion).

Changes in our AUM by channel, asset class, and client domicile, and average AUM by asset class, are presented below:

Total AUM by Channel [1]

$ in billions	Total	Retail	Institutional
December 31, 2021	1,610.9	1,106.5	504.4
Long-term inflows	330.3	243.9	86.4
Long-term outflows	(330.8)	(257.5)	(73.3)
Net long-term flows	(0.5)	(13.6)	13.1
Net flows in non-management fee earning AUM	(3.2)	0.9	(4.1)
Net flows in money market funds	56.4	1.8	54.6
Total net flows	52.7	(10.9)	63.6
Reinvested distributions	15.2	14.8	0.4
Market gains and losses	(243.5)	(227.3)	(16.2)
Foreign currency translation	(26.1)	(10.8)	(15.3)
December 31, 2022	1,409.2	872.3	536.9
December 31, 2020	1,349.9	947.1	402.8
Long-term inflows	426.8	301.2	125.6
Long-term outflows	(345.4)	(265.7)	(79.7)
Net long-term flows	81.4	35.5	45.9
Net flows in non-management fee earning AUM	20.6	20.2	0.4
Net flows in money market funds	39.7	3.3	36.4
Total net flows	141.7	59.0	82.7
Reinvested distributions	31.6	31.1	0.5
Market gains and losses	94.0	69.0	25.0
Foreign currency translation	(6.3)	0.3	(6.6)
December 31, 2021	1,610.9	1,106.5	504.4
December 31, 2019	1,226.2	878.2	348.0
Long-term inflows	310.9	221.6	89.3
Long-term outflows	(326.6)	(267.6)	(59.0)
Net long-term flows	(15.7)	(46.0)	30.3
Net flows in non-management fee earning AUM	(5.1)	7.2	(12.3)
Net flows in money market funds	14.3	2.0	12.3
Total net flows	(6.5)	(36.8)	30.3
Reinvested distributions	16.9	16.3	0.6
Market gains and losses	103.0	85.4	17.6
Foreign currency translation	10.3	4.0	6.3
December 31, 2020	1,349.9	947.1	402.8

See accompanying notes immediately following these AUM tables.

Active AUM by Channel [1]

$ in billions	Total	Retail	Institutional
December 31, 2021	1,082.5	631.7	450.8
Long-term inflows	197.9	117.0	80.9
Long-term outflows	(226.2)	(157.5)	(68.7)
Net long-term flows	(28.3)	(40.5)	12.2
Net flows in money market funds	56.4	1.8	54.6
Total net flows	28.1	(38.7)	66.8
Reinvested distributions	15.2	14.8	0.4
Market gains and losses	(125.6)	(115.6)	(10.0)
Foreign currency translation	(24.0)	(10.1)	(13.9)
December 31, 2022	976.2	482.1	494.1
December 31, 2020	979.3	601.1	378.2
Long-term inflows	260.2	163.5	96.7
Long-term outflows	(242.0)	(167.9)	(74.1)
Net long-term flows	18.2	(4.4)	22.6
Net flows in non-management fee earning AUM	(0.1)	(0.1)	—
Net flows in money market funds	39.7	3.3	36.4
Total net flows	57.8	(1.2)	59.0
Reinvested distributions	31.6	31.1	0.5
Market gains and losses	18.3	(0.1)	18.4
Foreign currency translation	(4.5)	0.8	(5.3)
December 31, 2021	1,082.5	631.7	450.8
December 31, 2019	929.2	602.4	326.8
Long-term inflows	204.3	128.0	76.3
Long-term outflows	(236.1)	(178.6)	(57.5)
Net long-term flows	(31.8)	(50.6)	18.8
Net flows in non-management fee earning AUM	—	(0.1)	0.1
Net flows in money market funds	14.3	2.0	12.3
Total net flows	(17.5)	(48.7)	31.2
Reinvested distributions	16.9	16.3	0.6
Market gains and losses	40.8	27.5	13.3
Foreign currency translation	9.9	3.6	6.3
December 31, 2020	979.3	601.1	378.2

See accompanying notes immediately following these AUM tables.

Passive AUM by Channel [1]

$ in billions	Total	Retail	Institutional
December 31, 2021	528.4	474.8	53.6
Long-term inflows	132.4	126.9	5.5
Long-term outflows	(104.6)	(100.0)	(4.6)
Net long-term flows	27.8	26.9	0.9
Net flows in non-management fee earning AUM	(3.2)	0.9	(4.1)
Total net flows	24.6	27.8	(3.2)
Market gains and losses	(117.9)	(111.7)	(6.2)
Foreign currency translation	(2.1)	(0.7)	(1.4)
December 31, 2022	433.0	390.2	42.8
December 31, 2020	370.6	346.0	24.6
Long-term inflows	166.6	137.7	28.9
Long-term outflows	(103.4)	(97.8)	(5.6)
Net long-term flows	63.2	39.9	23.3
Net flows in non-management fee earning AUM	20.7	20.3	0.4
Total net flows	83.9	60.2	23.7
Market gains and losses	75.7	69.1	6.6
Foreign currency translation	(1.8)	(0.5)	(1.3)
December 31, 2021	528.4	474.8	53.6
December 31, 2019	297.0	275.8	21.2
Long-term inflows	106.6	93.6	13.0
Long-term outflows	(90.5)	(89.0)	(1.5)
Net long-term flows	16.1	4.6	11.5
Net flows in non-management fee earning AUM	(5.1)	7.3	(12.4)
Total net flows	11.0	11.9	(0.9)
Market gains and losses	62.2	57.9	4.3
Foreign currency translation	0.4	0.4	—
December 31, 2020	370.6	346.0	24.6

See accompanying notes immediately following these AUM tables.

Total AUM by Asset Class [2]

$ in billions	Total	Equity	Fixed Income	Balanced	Money Market	Alternatives
December 31, 2021	1,610.9	841.6	334.8	88.6	148.8	197.1
Long-term inflows	330.3	143.7	119.3	15.2	—	52.1
Long-term outflows	(330.8)	(152.5)	(102.4)	(20.9)	—	(55.0)
Net long-term flows	(0.5)	(8.8)	16.9	(5.7)	—	(2.9)
Net flows in non-management fee earning AUM	(3.2)	1.0	(4.2)	—	—	—
Net flows in money market funds	56.4	—	—	—	56.4	—
Total net flows	52.7	(7.8)	12.7	(5.7)	56.4	(2.9)
Reinvested distributions	15.2	11.1	1.6	1.2	—	1.3
Market gains and losses	(243.5)	(198.8)	(27.3)	(13.2)	1.1	(5.3)
Foreign currency translation	(26.1)	(9.1)	(8.1)	(3.8)	(2.8)	(2.3)
December 31, 2022	1,409.2	637.0	313.7	67.1	203.5	187.9
Average AUM	1,452.5	697.1	315.1	73.3	167.6	199.4
% of total average AUM	100.0 %	48.0 %	21.7 %	5.1 %	11.5 %	13.7 %
December 31, 2020	1,349.9	689.6	296.4	78.9	108.5	176.5
Long-term inflows	426.8	205.0	118.1	48.5	—	55.2
Long-term outflows	(345.4)	(182.1)	(76.8)	(40.8)	—	(45.7)
Net long-term flows	81.4	22.9	41.3	7.7	—	9.5
Net flows in non-management fee earning AUM	20.6	20.6	—	—	—	—
Net flows in money market funds	39.7	—	—	—	39.7	—
Total net flows	141.7	43.5	41.3	7.7	39.7	9.5
Reinvested distributions	31.6	25.4	1.9	2.7	—	1.6
Market gains and losses	94.0	85.9	(2.0)	(1.1)	—	11.2
Foreign currency translation	(6.3)	(2.8)	(2.8)	0.4	0.6	(1.7)
December 31, 2021	1,610.9	841.6	334.8	88.6	148.8	197.1
Average AUM	1,499.9	778.3	316.1	86.5	131.1	187.9
% of total average AUM	100.0 %	51.9 %	21.1 %	5.8 %	8.7 %	12.5 %
December 31, 2019	1,226.2	598.8	283.5	67.3	91.4	185.2
Long-term inflows	310.9	134.6	102.9	30.5	—	42.9
Long-term outflows	(326.6)	(167.4)	(76.8)	(29.7)	—	(52.7)
Net long-term flows	(15.7)	(32.8)	26.1	0.8	—	(9.8)
Net flows in non-management fee earning AUM	(5.1)	17.2	(22.3)	—	—	—
Net flows in money market funds	14.3	—	—	—	14.3	—
Total net flows	(6.5)	(15.6)	3.8	0.8	14.3	(9.8)
Reinvested distributions	16.9	11.5	2.3	1.8	—	1.3
Market gains and losses	103.0	92.2	4.7	7.1	1.2	(2.2)
Foreign currency translation	10.3	2.7	2.1	1.9	1.6	2.0
December 31, 2020	1,349.9	689.6	296.4	78.9	108.5	176.5
Average AUM	1,194.9	573.1	275.3	65.1	108.4	173.0
% of total average AUM	100.0 %	48.0 %	23.0 %	5.4 %	9.1 %	14.5 %

See accompanying notes immediately following these AUM tables.

Active AUM by Asset Class [2]

$ in billions	Total	Equity	Fixed Income	Balanced	Money Market	Alternatives
December 31, 2021	1,082.5	389.6	293.1	87.4	148.8	163.6
Long-term inflows	197.9	54.2	98.1	15.2	—	30.4
Long-term outflows	(226.2)	(83.3)	(89.7)	(20.8)	—	(32.4)
Net long-term flows	(28.3)	(29.1)	8.4	(5.6)	—	(2.0)
Net flows in money market funds	56.4	—	—	—	56.4	—
Total net flows	28.1	(29.1)	8.4	(5.6)	56.4	(2.0)
Reinvested distributions	15.2	11.1	1.6	1.2	—	1.3
Market gains and losses	(125.6)	(86.4)	(22.4)	(12.9)	1.1	(5.0)
Foreign currency translation	(24.0)	(7.7)	(7.7)	(3.8)	(2.8)	(2.0)
December 31, 2022	976.2	277.5	273.0	66.3	203.5	155.9
Average AUM	988.2	309.6	275.2	72.3	167.5	163.6
% of total average AUM	100.0 %	31.3 %	27.8 %	7.3 %	17.0 %	16.6 %
December 31, 2020	979.3	383.2	259.4	77.9	108.5	150.3
Long-term inflows	260.2	70.9	103.5	48.3	—	37.5
Long-term outflows	(242.0)	(98.9)	(67.9)	(40.8)	—	(34.4)
Net long-term flows	18.2	(28.0)	35.6	7.5	—	3.1
Net flows in non-management fee earning AUM	(0.1)	(0.1)	(0.1)	0.1	—	—
Net flows in money market funds	39.7	—	—	—	39.7	—
Total net flows	57.8	(28.1)	35.5	7.6	39.7	3.1
Reinvested distributions	31.6	25.4	1.9	2.7	—	1.6
Market gains and losses	18.3	10.8	(1.3)	(1.2)	—	10.0
Foreign currency translation	(4.5)	(1.7)	(2.4)	0.4	0.6	(1.4)
December 31, 2021	1,082.5	389.6	293.1	87.4	148.8	163.6
Average AUM	1,050.2	401.5	275.0	85.4	131.1	157.2
% of total average AUM	100.0 %	38.2 %	26.2 %	8.1 %	12.5 %	15.0 %
December 31, 2019	929.2	381.7	224.6	66.4	91.4	165.1
Long-term inflows	204.3	61.2	90.3	30.4	—	22.4
Long-term outflows	(236.1)	(104.4)	(65.3)	(29.7)	—	(36.7)
Net long-term flows	(31.8)	(43.2)	25.0	0.7	—	(14.3)
Net flows in money market funds	14.3	—	—	—	14.3	—
Total net flows	(17.5)	(43.2)	25.0	0.7	14.3	(14.3)
Reinvested distributions	16.9	11.5	2.3	1.8	—	1.3
Market gains and losses	40.8	30.8	5.5	7.1	1.2	(3.8)
Foreign currency translation	9.9	2.4	2.0	1.9	1.6	2.0
December 31, 2020	979.3	383.2	259.4	77.9	108.5	150.3
Average AUM	892.9	335.7	234.5	64.1	108.4	150.2
% of total average AUM	100.0 %	37.6 %	26.3 %	7.2 %	12.1 %	16.8 %

See accompanying notes immediately following these AUM tables.

Passive AUM by Asset Class [2]

$ in billions	Total	Equity	Fixed Income	Balanced	Money Market	Alternatives
December 31, 2021	528.4	452.0	41.7	1.2	—	33.5
Long-term inflows	132.4	89.5	21.2	—	—	21.7
Long-term outflows	(104.6)	(69.2)	(12.7)	(0.1)	—	(22.6)
Net long-term flows	27.8	20.3	8.5	(0.1)	—	(0.9)
Net flows in non-management fee earning AUM	(3.2)	1.0	(4.2)	—	—	—
Total net flows	24.6	21.3	4.3	(0.1)	—	(0.9)
Market gains and losses	(117.9)	(112.4)	(4.9)	(0.3)	—	(0.3)
Foreign currency translation	(2.1)	(1.4)	(0.4)	—	—	(0.3)
December 31, 2022	433.0	359.5	40.7	0.8	—	32.0
Average AUM	464.3	387.6	39.9	0.9	—	35.9
% of total average AUM	100.0 %	83.5 %	8.6 %	0.2 %	— %	7.7 %
December 31, 2020	370.6	306.4	37.0	1.0	—	26.2
Long-term inflows	166.6	134.1	14.6	0.2	—	17.7
Long-term outflows	(103.4)	(83.2)	(8.9)	—	—	(11.3)
Net long-term flows	63.2	50.9	5.7	0.2	—	6.4
Net flows in non-management fee earning AUM	20.7	20.7	0.1	(0.1)	—	—
Total net flows	83.9	71.6	5.8	0.1	—	6.4
Market gains and losses	75.7	75.1	(0.7)	0.1	—	1.2
Foreign currency translation	(1.8)	(1.1)	(0.4)	—	—	(0.3)
December 31, 2021	528.4	452.0	41.7	1.2	—	33.5
Average AUM	449.7	376.8	41.1	1.1	—	30.7
% of total average AUM	100.0 %	83.8 %	9.2 %	0.2 %	— %	6.8 %
December 31, 2019	297.0	217.1	58.9	0.9	—	20.1
Long-term inflows	106.6	73.4	12.6	0.1	—	20.5
Long-term outflows	(90.5)	(63.0)	(11.5)	—	—	(16.0)
Net long-term flows	16.1	10.4	1.1	0.1	—	4.5
Net flows in non-management fee earning AUM	(5.1)	17.2	(22.3)	—	—	—
Total net flows	11.0	27.6	(21.2)	0.1	—	4.5
Market gains and losses	62.2	61.4	(0.8)	—	—	1.6
Foreign currency translation	0.4	0.3	0.1	—	—	—
December 31, 2020	370.6	306.4	37.0	1.0	—	26.2
Average AUM	301.9	237.5	40.8	0.8	—	22.9
% of total average AUM	100.0 %	78.6 %	13.5 %	0.3 %	— %	7.6 %

See accompanying notes immediately following these AUM tables.

Total AUM by Client Domicile [3]

$ in billions	Total	Americas	APAC	EMEA[4]
December 31, 2021	1,610.9	1,132.5	247.3	231.1
Long-term inflows	330.3	184.0	76.6	69.7
Long-term outflows	(330.8)	(193.8)	(62.5)	(74.5)
Net long-term flows	(0.5)	(9.8)	14.1	(4.8)
Net flows in non-management fee earning AUM	(3.2)	(3.6)	1.1	(0.7)
Net flows in money market funds	56.4	58.3	(0.3)	(1.6)
Total net flows	52.7	44.9	14.9	(7.1)
Reinvested distributions	15.2	14.9	—	0.3
Market gains and losses	(243.5)	(191.3)	(22.6)	(29.6)
Foreign currency translation	(26.1)	(1.6)	(16.1)	(8.4)
December 31, 2022	1,409.2	999.4	223.5	186.3
December 31, 2020	1,349.9	959.9	171.3	218.7
Long-term inflows	426.8	213.2	139.0	74.6
Long-term outflows	(345.4)	(197.7)	(71.8)	(75.9)
Net long-term flows	81.4	15.5	67.2	(1.3)
Net flows in non-management fee earning AUM	20.6	15.9	2.4	2.3
Net flows in money market funds	39.7	35.7	4.1	(0.1)
Total net flows	141.7	67.1	73.7	0.9
Reinvested distributions	31.6	31.2	0.1	0.3
Market gains and losses	94.0	74.4	5.9	13.7
Foreign currency translation	(6.3)	(0.1)	(3.7)	(2.5)
December 31, 2021	1,610.9	1,132.5	247.3	231.1
December 31, 2019	1,226.2	879.5	128.6	218.1
Long-term inflows	310.9	176.2	64.1	70.6
Long-term outflows	(326.6)	(206.7)	(44.8)	(75.1)
Net long-term flows	(15.7)	(30.5)	19.3	(4.5)
Net flows in non-management fee earning AUM	(5.1)	3.6	0.7	(9.4)
Net flows in money market funds	14.3	10.9	3.1	0.3
Total net flows	(6.5)	(16.0)	23.1	(13.6)
Reinvested distributions	16.9	16.6	0.1	0.2
Market gains and losses	103.0	79.3	13.7	10.0
Foreign currency translation	10.3	0.5	5.8	4.0
December 31, 2020	1,349.9	959.9	171.3	218.7

See accompanying notes immediately following these AUM tables.

Active AUM by Client Domicile [3]

$ in billions	Total	Americas	APAC	EMEA[4]
December 31, 2021	1,082.5	724.5	208.8	149.2
Long-term inflows	197.9	104.0	69.3	24.6
Long-term outflows	(226.2)	(133.4)	(56.1)	(36.7)
Net long-term flows	(28.3)	(29.4)	13.2	(12.1)
Net flows in non-management fee earning AUM	—	—	0.1	(0.1)
Net flows in money market funds	56.4	58.3	(0.3)	(1.6)
Total net flows	28.1	28.9	13.0	(13.8)
Reinvested distributions	15.2	14.9	—	0.3
Market gains and losses	(125.6)	(96.0)	(16.3)	(13.3)
Foreign currency translation	(24.0)	(1.5)	(14.5)	(8.0)
December 31, 2022	976.2	670.8	191.0	114.4
December 31, 2020	979.3	656.9	163.4	159.0
Long-term inflows	260.2	113.6	110.5	36.1
Long-term outflows	(242.0)	(125.4)	(67.4)	(49.2)
Net long-term flows	18.2	(11.8)	43.1	(13.1)
Net flows in non-management fee earning AUM	(0.1)	(0.2)	0.1	—
Net flows in money market funds	39.7	35.7	4.1	(0.1)
Total net flows	57.8	23.7	47.3	(13.2)
Reinvested distributions	31.6	31.2	0.1	0.3
Market gains and losses	18.3	12.8	0.3	5.2
Foreign currency translation	(4.5)	(0.1)	(2.3)	(2.1)
December 31, 2021	1,082.5	724.5	208.8	149.2
December 31, 2019	929.2	639.5	123.7	166.0
Long-term inflows	204.3	108.6	61.3	34.4
Long-term outflows	(236.1)	(147.2)	(42.6)	(46.3)
Net long-term flows	(31.8)	(38.6)	18.7	(11.9)
Net flows in money market funds	14.3	10.9	3.1	0.3
Total net flows	(17.5)	(27.7)	21.8	(11.6)
Reinvested distributions	16.9	16.6	0.1	0.2
Market gains and losses	40.8	27.9	12.0	0.9
Foreign currency translation	9.9	0.6	5.8	3.5
December 31, 2020	979.3	656.9	163.4	159.0

See accompanying notes immediately following these AUM tables.

Passive AUM by Client Domicile [3]

$ in billions	Total	Americas	APAC	EMEA[4]
December 31, 2021	528.4	408.0	38.5	81.9
Long-term inflows	132.4	80.0	7.3	45.1
Long-term outflows	(104.6)	(60.4)	(6.4)	(37.8)
Net long-term flows	27.8	19.6	0.9	7.3
Net flows in non-management fee earning AUM	(3.2)	(3.6)	1.0	(0.6)
Total net flows	24.6	16.0	1.9	6.7
Market gains and losses	(117.9)	(95.3)	(6.3)	(16.3)
Foreign currency translation	(2.1)	(0.1)	(1.6)	(0.4)
December 31, 2022	433.0	328.6	32.5	71.9
December 31, 2020	370.6	303.0	7.9	59.7
Long-term inflows	166.6	99.6	28.5	38.5
Long-term outflows	(103.4)	(72.3)	(4.4)	(26.7)
Net long-term flows	63.2	27.3	24.1	11.8
Net flows in non-management fee earning AUM	20.7	16.1	2.3	2.3
Total net flows	83.9	43.4	26.4	14.1
Market gains and losses	75.7	61.6	5.6	8.5
Foreign currency translation	(1.8)	—	(1.4)	(0.4)
December 31, 2021	528.4	408.0	38.5	81.9
December 31, 2019	297.0	240.0	4.9	52.1
Long-term inflows	106.6	67.6	2.8	36.2
Long-term outflows	(90.5)	(59.5)	(2.2)	(28.8)
Net long-term flows	16.1	8.1	0.6	7.4
Net flows in non-management fee earning AUM	(5.1)	3.6	0.7	(9.4)
Total net flows	11.0	11.7	1.3	(2.0)
Market gains and losses	62.2	51.4	1.7	9.1
Foreign currency translation	0.4	(0.1)	—	0.5
December 31, 2020	370.6	303.0	7.9	59.7

(1) Channel refers to the internal distribution channel from which the AUM originated. Retail AUM represent AUM distributed by the company's retail sales team. Institutional AUM represent AUM distributed by our institutional sales team. This aggregation is viewed as a proxy for presenting AUM in the retail and institutional markets in which the company operates.

(2) Asset classes are descriptive groupings of AUM by common type of underlying investments.

(3) Client domicile disclosure groups AUM by the domicile of the underlying clients.

(4) EMEA includes U.K. net long-term outflows of $6.1 billion for the year ended December 31, 2022. Ending AUM of U.K. as of December 31, 2022 was $44.4 billion.

Results of Operations for the Year Ended December 31, 2022 compared to December 31, 2021

The discussion below includes the use of non-GAAP financial measures. See “Schedule of Non-GAAP Information” for additional details and reconciliations of the most directly comparable U.S. GAAP measures to the non-GAAP measures.

Operating Revenues and Net Revenues

The main categories of revenues, and the dollar and percentage change between the periods, are as follows:

				Variance			
	Years ended December 31,			2022 vs 2021		2021 vs 2020	
$ in millions	2022	2021	2020	$ Change	% Change	$ Change	% Change
Investment management fees	4,358.4	4,995.9	4,451.0	(637.5)	(12.8)%	544.9	12.2 %
Service and distribution fees	1,405.5	1,596.4	1,419.0	(190.9)	(12.0)%	177.4	12.5 %
Performance fees	68.2	56.1	65.6	12.1	21.6 %	(9.5)	(14.5)%
Other	216.8	246.1	210.0	(29.3)	(11.9)%	36.1	17.2 %
Total operating revenues	6,048.9	6,894.5	6,145.6	(845.6)	(12.3)%	748.9	12.2 %
Revenue Adjustments:							
Investment management fees	(764.7)	(844.1)	(779.8)	79.4	(9.4)%	(64.3)	8.2 %
Service and distribution fees	(961.1)	(1,087.5)	(986.1)	126.4	(11.6)%	(101.4)	10.3 %
Other	(160.4)	(217.7)	(181.7)	57.3	(26.3)%	(36.0)	19.8 %
Total Revenue Adjustments [1]	(1,886.2)	(2,149.3)	(1,947.6)	263.1	(12.2)%	(201.7)	10.4 %
Invesco Great Wall	432.7	473.5	263.2	(40.8)	(8.6)%	210.3	79.9 %
CIP	49.6	42.4	39.8	7.2	17.0 %	2.6	6.5 %
Net revenues [2]	4,645.0	5,261.1	4,501.0	(616.1)	(11.7)%	760.1	16.9 %

(1) Total revenue adjustments include pass through investment management, service and distribution, and other revenues and equal the same amount as the third-party distribution, service and advisory expenses.

(2) See "Schedule of Non-GAAP Information" for additional important disclosures regarding the use of net revenues.

The impact of foreign exchange rate movements decreased operating revenues by $153.1 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021 ($87.6 million increase in 2021).

Our revenues are directly influenced by the level and composition of our AUM. Therefore, movements in global capital market levels, net business inflows (or outflows), changes in the mix of investment products between asset classes and geographies may materially affect our revenues from period to period. See the company's disclosures regarding the changes in AUM during the year ended December 31, 2022 and December 31, 2021 in the "Assets Under Management" section above for additional information.

Passive AUM generally earn a lower effective fee rate than active asset classes, and therefore, changes in the mix of AUM have an impact on revenues and net revenue yield. In addition, as a significant proportion of our AUM are based outside of the U.S., changes in foreign exchange rates can result in a change to the mix of U.S. Dollar denominated AUM for AUM denominated in other currencies. As fee rates differ across geographic locations, changes to exchange rates have an impact on revenues and net revenue yields.

Average AUM were $1,452.5 billion in the year ended December 31, 2022, as compared to $1,499.9 billion in the year ended December 31, 2021. In addition to the impact of lower AUM, investors continued to shift AUM toward lower yield passive products, such as ETFs, during 2022. As a result, net revenue yield ex performance fees ex QQQ declined from 39.1 basis points (bps) for the year ended December 31, 2021 to 35.5 bps for the year ended December 31, 2022.

Investment Management Fees

Investment management fees were $4,358.4 million for year ended December 31, 2022 as compared to $4,995.9 million for year ended December 31, 2021. The impact of foreign exchange rate movements decreased investment management fees by $127.5 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange movements, investment management fees decreased by $510.0 million as a result of decline in average AUM and lower revenue yields when compared to the 2021 period.

Service and Distribution Fees

For the year ended December 31, 2022, service and distribution fees were $1,405.5 million, as compared to $1,596.4 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased service and distribution fees by $20.9 million in the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange movements, service and distribution fees decreased by $170.0 million. The total decrease is driven primarily by lower distribution fees of $92.2 million, transfer agency fees of $41.3 million and administrative fees of $37.1 million. The decrease is primarily driven by lower AUM to which these fees apply.

Performance Fees

For the year ended December 31, 2022, performance fees were $68.2 million, as compared to $56.1 million for the year ended December 31, 2021. Performance fees in 2022 were primarily generated from real estate, institutional, bank loans and private equity products. Performance fees in 2021 were primarily generated from real estate, institutional products and various institutional mandates in Japan.

Other Revenues

In the year ended December 31, 2022, other revenues were $216.8 million, as compared to $246.1 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased other revenues by $2.1 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. The decrease in other revenues was primarily driven by lower front end fees of $53.7 million which were partially offset by higher real estate transaction fees and other revenues of $13.1 million and $13.3 million, respectively.

Invesco Great Wall

The company’s most significant joint venture is our 49% investment in IGW. Management reflects 100% of IGW's results in its net revenues and adjusted operating expenses because it is important to evaluate the contribution that IGW is making to the business. The company’s non-GAAP operating results reflect the economics of these holdings on a basis consistent with the underlying AUM and flows. Adjusted net income is reduced by the amount of earnings attributable to the 51% noncontrolling interests. See “Schedule of Non-GAAP Information” for additional disclosures regarding the use of net revenues.

Net revenues from IGW were $432.7 million and average AUM was $93.5 billion for the year ended December 31, 2022 (net revenues were $473.5 million and average AUM was $84.0 billion, for the year ended December 31, 2021). The impact of foreign exchange rate movements decreased net revenues from IGW by $16.7 million for the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange movements, net revenues from IGW were $449.4 million. The decrease in revenue was primarily due to a change in the mix of AUM and lower performance fees.

Management, performance and other fees earned from CIP

Management believes that the consolidation of investment products may impact a reader's analysis of our underlying results of operations and could result in investor confusion or the production of information about the company by analysts or external credit rating agencies that is not reflective of the underlying results of operations and financial condition of the company. Accordingly, management believes that it is appropriate to adjust operating revenues for the impact of CIP in calculating net revenues. As management and performance fees earned by Invesco from the consolidated products are eliminated upon consolidation of the investment products, management believes that it is appropriate to add these operating revenues back in the calculation of net revenues. See “Schedule of Non-GAAP Information” for additional disclosures regarding the use of net revenues.

Management and performance fees earned from CIP were $49.6 million in the year ended December 31, 2022, as compared to $42.4 million for the year ended December 31, 2021. The increase is due to higher management fees earned from newly launched retail funds.

Operating Expenses

The main categories of operating expenses, and the dollar and percentage changes between periods, are as follows:

				Variance			
	Years ended December 31,			2022 vs 2021		2021 vs 2020	
$ in millions	**2022**	**2021**	**2020**	**$ Change**	**% Change**	**$ Change**	**% Change**
Third-party distribution, service and advisory	1,886.2	2,149.3	1,947.6	(263.1)	(12.2)%	201.7	10.4 %
Employee compensation	1,725.1	1,911.3	1,807.9	(186.2)	(9.7)%	103.4	5.7 %
Marketing	114.9	98.6	83.3	16.3	16.5 %	15.3	18.4 %
Property, office and technology	539.8	526.0	512.3	13.8	2.6 %	13.7	2.7 %
General and administrative	380.2	424.1	480.8	(43.9)	(10.4)%	(56.7)	(11.8)%
Transaction, integration and restructuring	21.2	(65.9)	330.8	87.1	N/A	(396.7)	N/A
Amortization of intangibles [(1)]	63.8	62.9	62.5	0.9	1.4 %	0.4	0.6 %
Total operating expenses	4,731.2	5,106.3	5,225.2	(375.1)	(7.3)%	(118.9)	(2.3)%

The table below sets forth these expense categories as a percentage of total operating expenses and operating revenues, which we believe provides useful information as to the relative significance of each type of expense.

$ in millions	**2022**	**% of Total Operating Expenses**	**% of Operating Revenues**	**2021**	**% of Total Operating Expenses**	**% of Operating Revenues**	**2020**	**% of Total Operating Expenses**	**% of Operating Revenues**
Third-party distribution, service and advisory	1,886.2	39.9 %	31.2 %	2,149.3	42.1 %	31.2 %	1,947.6	37.3 %	31.7 %
Employee compensation	1,725.1	36.5 %	28.5 %	1,911.3	37.4 %	27.7 %	1,807.9	34.6 %	29.4 %
Marketing	114.9	2.4 %	1.9 %	98.6	1.9 %	1.4 %	83.3	1.6 %	1.4 %
Property, office and technology	539.8	11.5 %	8.8 %	526.0	10.4 %	7.7 %	512.3	9.8 %	8.3 %
General and administrative	380.2	8.0 %	6.3 %	424.1	8.3 %	6.2 %	480.8	9.2 %	7.8 %
Transaction, integration and restructuring	21.2	0.4 %	0.4 %	(65.9)	(1.3)%	(1.0)%	330.8	6.3 %	5.4 %
Amortization of intangibles [(1)]	63.8	1.3 %	1.1 %	62.9	1.2 %	0.9 %	62.5	1.2 %	1.0 %
Total operating expenses	4,731.2	100.0 %	78.2 %	5,106.3	100 %	74.1 %	5,225.2	100.0 %	85.0 %

(1) In prior periods, amortization of intangible assets was included in the transaction, integration and restructuring line item. From the beginning of 2021, amortization of intangible assets was presented on a separate line item. There was no impact on operating expenses, operating income or net income.

Operating expenses decreased $375.1 million in 2022 compared to 2021. The impact of foreign exchange rate movements decreased operating expenses by $146.2 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021.

Third-Party Distribution, Service and Advisory

Third-party distribution, service and advisory expenses include periodic “renewal” commissions paid to brokers and independent financial advisors for the continuing oversight of their clients' assets over the time they are invested and are payments for the servicing of client accounts. Renewal commissions are calculated based upon a percentage of the AUM value and apply to much of the company's non-U.S. retail operations. The revenues from the company’s U.S. retail operations include 12b-1 distribution fees, which are largely passed through to brokers who sell the funds as third-party distribution expenses along with additional marketing support distribution costs. Both the revenues and the costs are dependent on the underlying AUM of the brokers' clients. Third-party distribution expenses also include the amortization of upfront commissions paid to broker-dealers for sales of fund shares with a contingent deferred sales charge (a charge levied to the investor for client redemption of AUM within a certain contracted period of time). The upfront distribution commissions are amortized over the redemption period. Also included in third-party distribution, service and advisory expenses are sub-transfer agency fees that are paid to third parties for processing client common share purchases and redemptions, call center support and client reporting. These costs are reimbursed by the related funds.

Third-party distribution service and advisory expenses were $1,886.2 million for the year ended December 31, 2022, as compared to $2,149.3 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased third-party costs by $44.7 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange rate changes, the decrease in costs was $218.4 million. The decrease was primarily due to decreases of $113.6 million in service fees, $59.5 million in renewal commissions, $40.8 million in transaction fees, and $16.1 million in front end commissions, partially offset by $11.6 million of higher administrative and other third-party management fees. The decrease is primarily driven by lower average AUM, partially offset by changes in AUM mix as discussed above. See "Schedule of Non-GAAP Information" for additional disclosures.

Employee Compensation

Employee compensation includes salary, cash bonuses and long-term incentive plans designed to attract and retain the highest caliber employees. Employee staff benefit plan costs and payroll taxes are also included in employee compensation.

Employee compensation was $1,725.1 million in the year ended December 31, 2022, as compared to $1,911.3 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased employee compensation by $58.6 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange rate changes, the decrease in employee compensation was $127.6 million. This decrease was due to decreases of $79.9 million in variable compensation as a result of lower revenues in 2022 compared to 2021 and $95.7 million related to mark-to-market losses on deferred compensation liabilities. These decreases were partially offset by an increase of $41.9 million in salaries, staff costs and benefits as well as a $5.6 million increase in deferred compensation expenses.

Headcount at December 31, 2022 was 8,611 (December 31, 2021; 8,513).

Marketing

Marketing expenses include the cost of direct advertising of our products through trade publications, television and other media, and public relations costs, such as the marketing of the company's products through conferences or other sponsorships, and the cost of marketing-related employee travel.

Marketing expenses were $114.9 million in the year ended December 31, 2022, as compared to $98.6 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased marketing expenses by $5.0 million. After allowing for foreign exchange rate movements, marketing expenses increased $21.3 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. The increase was related to increased client events and marketing travel and entertainment costs as travel activity returned to more normalized levels with the easing of COVID-19 related travel restrictions.

Property, Office and Technology

Property, office and technology expenses include rent and utilities for our various leased facilities, depreciation of company-owned property, capitalized software and computer equipment costs, minor non-capitalized computer equipment and software purchases and related maintenance payments, and costs related to externally provided operations, technology, middle office and back office management services.

Property, office and technology expenses were $539.8 million in the year ended December 31, 2022, as compared to $526.0 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased property, office and technology expenses by $16.6 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange rate movements, property, office and technology expenses increased $30.4 million. The increase was primarily driven by increased technology costs including software maintenance costs of $24.7 million related to investments in foundational technology projects that will enable future scale in our operating platform. Property expense also increased by $4.2 million due to higher property and office costs as a result of overlapping rent associated with the move of our new Atlanta headquarters which we expect to complete in mid-2023 and higher outsourced administration costs of $6.6 million, which were partially offset by lower depreciation and other expense of $5.2 million.

General and Administrative

General and administrative expenses include professional services costs, such as information service subscriptions, irrecoverable indirect taxes, non-marketing related employee travel expenditures, consulting fees, audit, tax and legal fees, professional insurance costs and recruitment and training costs.

General and administrative expenses were $380.2 million in the year ended December 31, 2022, as compared to $424.1 million for the year ended December 31, 2021. The impact of foreign exchange rate movements decreased general and administrative expenses by $21.3 million during the year ended December 31, 2022, as compared to the year ended December 31, 2021. After allowing for foreign exchange rate movements, the decrease was $22.6 million. The decrease is due to $70 million of recoveries received during the year relating to losses incurred in prior periods, a $16.6 million decrease in the impact of CIP on general and administrative expenses, and $11.5 million in charitable contributions to the Invesco foundation and other charitable causes in the prior year. The decrease was partially offset by increases of $24.0 million in professional services costs relating to our investment in foundational technology projects, $29.3 million in fund-related client and administrative expenses, $11.5 million in travel and entertainment expenses, and $10.8 million in market data services costs.

Transaction, Integration and Restructuring

Transaction, integration and restructuring expenses include costs related to the acquisition and integration of a business and costs incurred by the company to restructure business operations to improve overall efficiency and longer-term profit, including legal, regulatory, advisory, valuation, professional services and consulting fees as well as costs for travel, severance, temporary staff and contract terminations.

Transaction, integration and restructuring charges were $21.2 million during the year ended December 31, 2022 (year ended December 31, 2021: $65.9 million benefit).

Transaction and integration expense (excluding restructuring) was a benefit to expense of $43.6 million in the year ended December 31, 2022, as compared to a benefit to expense of $186.5 million in the year ended December 31, 2021. The benefit in 2022 was primarily due to $55.0 million of recoveries related to the previously disclosed OppenheimerFunds acquisition-related matter. The benefit in 2021 was primarily due to a $131.1 million reduction to the OppenheimerFunds acquisition-related liability and $100.0 million of recoveries received related to the matter (See Item 8, Financial Statements and Supplementary Data, - Note 18, "Commitments and Contingencies," for additional details).

Restructuring costs were $64.8 million for the year ended December 31, 2022 (year ended December 31, 2021: $120.6 million). Restructuring costs related to the strategic evaluation were $41.0 million for the year ended December 31, 2022 (year ended December 31, 2021: $100.5 million) and are primarily composed of compensation and property, office and technology costs (see Item 8, Financial Statements and Supplementary Data, - Note 13, "Restructuring," for additional details). The remaining restructuring costs are primarily composed of professional service costs related to other initiatives.

Operating Income, Adjusted Operating Income, Operating Margin and Adjusted Operating Margin

Operating income was $1,317.7 million in the year ended December 31, 2022, as compared to $1,788.2 million for the year ended December 31, 2021. Operating margin (operating income divided by operating revenues), decreased to 21.8% for the year ended December 31, 2022 from 25.9% in the year ended December 31, 2021. Adjusted operating income decreased to $1,614.8 million for the year ended December 31, 2022 from $2,182.6 million in the year ended December 31, 2021. Adjusted operating margin decreased to 34.8% for the year ended December 31, 2022 from 41.5% in the year ended December 31, 2021. See “Schedule of Non-GAAP Information” for a reconciliation of operating revenues to net revenues, a reconciliation of operating income to adjusted operating income and additional important disclosures regarding net revenues, adjusted operating income and adjusted operating margin.

Other Income and Expenses

The main categories of other income and expenses, and the dollar and percentage changes between periods are as follows:

	Years ended December 31,			Variance			
				2022 vs 2021		2021 vs 2020	
$ in millions	2022	2021	2020	$ Change	% Change	$ Change	% Change
Equity in earnings of unconsolidated affiliates	106.1	152.3	72.7	(46.2)	(30.3)%	79.6	109.5 %
Interest and dividend income	24.4	25.2	20.5	(0.8)	(3.2)%	4.7	22.9 %
Interest expense	(85.2)	(94.7)	(129.3)	9.5	(10.0)%	34.6	(26.8)%
Other gains and losses, net	(139.5)	120.5	44.9	(260.0)	N/A	75.6	168.4 %
Other income/(expense) of CIP, net	24.2	509.0	139.9	(484.8)	(95.2)%	369.1	263.8 %
Total other income and expenses	(70.0)	712.3	148.7	(782.3)	N/A	563.6	379.0 %

Equity in earnings of unconsolidated affiliates

Equity in earnings of unconsolidated affiliates decreased to $106.1 million for the year ended December 31, 2022, as compared to the year ended December 31, 2021. The decrease is primarily driven by decreases in private equity investments and our joint venture investment in IGW due to lower revenue as discussed above, which were partially offset by an increase in the earnings of the real estate investments.

Interest expense

Interest expense was $85.2 million in the year ended December 31, 2022, as compared to $94.7 million for the year ended December 31, 2021. The decrease is primarily driven by the early redemption of $600 million of our senior notes in May 2022.

Other gains and losses, net

Other gains and losses was a net loss of $139.5 million for the year ended December 31, 2022, compared to a net gain of $120.5 million for the year ended December 31, 2021. The net loss in 2022 included $17.9 million of losses related to the mark-to-market on seed money investments and $132.5 million of losses on investments and instruments held for our deferred compensation plans which were partially offset by $9.7 million of gains on pension and other investments.

Other income/(expense) of CIP

Other income/(expense) of CIP includes interest and dividend income, interest expense, and realized and unrealized gains and losses on the underlying investments and debt owned by CIP. For the year ended December 31, 2022, interest and dividend income of CIP increased by $94.6 million to $374.3 million (year ended December 31, 2021: $279.7 million). Interest expense of CIP increased by $62.5 million to $223.2 million for the year ended December 31, 2022 (year ended December 31, 2021: $160.7 million). The increase in interest income and interest expense was primarily due to higher net interest income earned by the CLOs in 2022. For the year ended December 31, 2022, other gains and losses of CIP were a net loss of $126.9 million, as compared to a net gain of $390.0 million for the year ended December 31, 2021. The net loss during 2022 was attributable to market-driven losses on investments held by consolidated funds.

Net impact of CIP and related noncontrolling interests in consolidated entities

The consolidation of investment products did not have an impact on net income attributable to Invesco for the years ended December 31, 2022 and 2021. The adjustment to net income for the net income/(loss) attributable to noncontrolling interests in consolidated entities represent the CIP profit or loss attributable to third-party investors. The impact of any realized or unrealized gains or losses attributable to the interests of third-parties which is reflected in other income/(expense) of CIP, is offset by this adjustment to arrive at net income attributable to Invesco. Also, the net income or loss of CIP are taxed at the investor level, not at the product level; therefore, a tax provision is not reflected in the net impact of CIP.

Additionally, CIP represent less than 1% of the company's AUM. Therefore, the net gains or losses of CIP are not indicative of the performance of the company's aggregate AUM.

Income Tax Expense

Our effective tax rate increased to 25.8% for the year ended December 31, 2022 from 21.2% for the year ended December 31, 2021 primarily due to the decline in income attributable to CIP and the change in the mix of income across tax jurisdictions. For additional income tax information, refer to Note 15, "Taxation," in Item 8. Financial Statements and Supplementary Data.

Schedule of Non-GAAP Information

We utilize the following non-GAAP performance measures: net revenue (and by calculation, net revenue yield on AUM), adjusted operating income, adjusted operating margin, adjusted net income attributable to Invesco and adjusted diluted EPS. The company believes the adjusted measures provide valuable insight into the company's ongoing operational performance and assist in comparisons to its competitors. These measures also assist the company's management with the establishment of operational budgets and forecasts. The most directly comparable U.S. GAAP measures are operating revenues (and by calculation, gross revenue yield on AUM), operating income, operating margin, net income attributable to Invesco and diluted EPS. Each of these measures is discussed more fully below.

The following are reconciliations of operating revenues, operating income (and by calculation, operating margin) and net income attributable to Invesco (and by calculation, diluted EPS) on a U.S. GAAP basis to a non-GAAP basis of net revenues, adjusted operating income (and by calculation, adjusted operating margin) and adjusted net income attributable to Invesco (and by calculation, adjusted diluted EPS). These non-GAAP measures should not be considered as substitutes for any U.S. GAAP measures and may not be comparable to other similarly titled measures of other companies. Additional reconciling items may be added in the future to these non-GAAP measures if deemed appropriate. The tax effects related to the reconciling items have been calculated based on the tax rate attributable to the jurisdiction to which the transaction relates. Notes to the reconciliations follow the tables.

Reconciliation of Operating revenues to Net revenues:

$ in millions	**2022**	**2021**	**2020**
Operating revenues, U.S. GAAP basis	6,048.9	6,894.5	6,145.6
Revenue Adjustments: [2]			
Investment management fees	(764.7)	(844.1)	(779.8)
Service and distribution fees	(961.1)	(1,087.5)	(986.1)
Other	(160.4)	(217.7)	(181.7)
Total Revenue Adjustments	(1,886.2)	(2,149.3)	(1,947.6)
vesco Great Wall [1]	432.7	473.5	263.2
CIP [3]	49.6	42.4	39.8
Net revenues	4,645.0	5,261.1	4,501.0

Reconciliation of Operating income to Adjusted operating income:

$ in millions	2022	2021	2020
Operating income, U.S. GAAP basis	1,317.7	1,788.2	920.4
Invesco Great Wall [1]	262.7	276.6	143.7
CIP [3]	65.7	67.7	62.0
Transaction, integration and restructuring [4]	21.2	(65.9)	330.8
Amortization of intangible assets [5]	63.8	62.9	62.5
Compensation expense related to market valuation changes in deferred compensation plans [6]	(46.3)	53.1	39.8
General and administrative [7]	(70.0)	—	105.3
Adjusted operating income	1,614.8	2,182.6	1,664.5
Operating margin*	21.8 %	25.9 %	15.0 %
Adjusted operating margin**	34.8 %	41.5 %	37.0 %

Reconciliation of Net income attributable to Invesco to Adjusted net income attributable to Invesco:

$ in millions, except per common share data	2022	2021	2020
Net income attributable to Invesco Ltd., U.S. GAAP basis	683.9	1,393.0	524.8
CIP [3]	—	—	(9.4)
Transaction, integration and restructuring, net of tax [4]	15.1	(52.8)	253.5
Amortization of intangible assets and related tax benefits [5]	78.0	83.7	86.2
Deferred compensation plan market valuation changes and dividend income less compensation expense, net of tax [6]	57.5	0.3	(20.1)
General and administrative, net of tax [7]	(54.5)	—	80.0
Change in contingent consideration, net of tax [8]	—	(7.7)	(11.5)
Impact of income tax rate changes [9]	(6.8)	23.1	(0.7)
Other reconciling items, net of tax [10]	—	—	(9.9)
Adjusted net income attributable to Invesco Ltd.	773.2	1,439.6	892.9
Average common shares outstanding - diluted	459.5	465.4	462.5
Diluted EPS	$1.49	$2.99	$1.13
Adjusted diluted EPS***	$1.68	$3.09	$1.93

* Operating margin is equal to operating income divided by operating revenues.

** Adjusted operating margin is equal to adjusted operating income divided by net revenues.

*** Adjusted diluted EPS is equal to adjusted net income attributable to Invesco Ltd. divided by the weighted average number of common and restricted common shares outstanding.

(1) *Invesco Great Wall:* The company reflects 100% of Invesco Great Wall in its net revenues and adjusted operating expenses. The company's non-GAAP operating results reflect the economics of these holdings on a basis consistent with the underlying AUM and flows. Adjusted net income is reduced by the amount of earnings attributable to noncontrolling interests.

(2) *Revenue Adjustments:* The company calculates net revenues by reducing operating revenues to exclude fees that are passed through to external parties who perform functions on behalf of, and distribute, the company's managed funds. The net revenue presentation assists in identifying the revenue contribution generated by the company, removing distortions caused by the differing distribution channel fees and allowing for a fair comparison with U.S. peer investment managers and within Invesco's own investment units. Additionally, management evaluates net revenue yield on AUM, which is equal to net revenues divided by average AUM during the reporting period, as an indicator of the basis point net revenues we receive for each dollar of AUM we manage.

Investment management fees are adjusted by renewal commissions and certain administrative fees. Service and distribution fees are primarily adjusted by distribution fees passed through to broker dealers for certain share classes and pass through fund-related costs. Other is primarily adjusted by transaction fees passed through to third parties.

(3) *CIP:* See Item 8, Financial Statements and Supplementary Data, Note 19, "Consolidated Investment Products," for a detailed analysis of the impact to the company's Consolidated Financial Statements from the consolidation of CIP. The reconciling items increase net revenues to reflect the management and performance fees earned by Invesco on the CIP, which are eliminated upon consolidation, and remove the underlying revenues and expenses of the CIP that have been included in the U.S. GAAP Consolidated Statements of Income.

The company believes that the consolidation of investment products may impact a reader's analysis of our underlying results of operations and could result in investor confusion or the production of information about the company by analysts or external credit rating agencies that is not reflective of the underlying results of operations and financial condition of the company. Accordingly, management believes that it is appropriate to adjust operating revenues and operating income for the impact of CIP in calculating the respective net revenues and adjusted operating income.

(4) *Transaction, integration and restructuring related adjustments:* The company believes it is useful to investors and other users of our Consolidated Financial Statements to adjust for the transaction, integration and restructuring charges in arriving at adjusted operating income, adjusted operating margin and adjusted diluted EPS, as this will aid comparability of our results period to period, and aid comparability with peer companies that may not have similar acquisition and restructuring related charges. See "Results of Operations for the Year Ended December 31, 2022 compared to December 31, 2021 -- Transaction, Integration and Restructuring" for additional details.

(5) *Amortization of intangible assets:* The company believes it is useful to investors and other users of our financial statements to remove amortization expense related to acquired assets net of the tax benefits realized on the tax amortization of goodwill and intangible assets in arriving at adjusted operating income, adjusted operating margin and adjusted diluted EPS, as this will aid comparability of our results period to period, and aid comparability with peer companies that may not have similar acquisition-related charges.

(6) *Market movement on deferred compensation plan liabilities:* Certain deferred compensation plan awards involve a return to the employee linked to the appreciation (depreciation) of specified investments. Invesco hedges economically the exposure to market movements for these investments.

Since these plans are hedged economically, management believes it is useful to reflect the offset ultimately achieved from hedging the market exposure in the calculation of adjusted operating income (and by calculation, adjusted operating margin) and adjusted net income (and by calculation, adjusted diluted EPS) to produce results that will be more comparable period to period.

(7) *General and administrative:* The adjustments in 2022 and 2020 related to the previously disclosed S&P 500 equal weight funds rebalancing correction. The 2022 adjustment removes insurance recoveries related to the fund-related loss. The 2020 adjustment removes the fund-related loss from adjusted operating income and adjusted net income.

(8) *Change in contingent consideration:* The adjustments in 2021 and 2020 represents the change in the fair value of contingent consideration liabilities for acquired investment management contracts.

(9) *Impact of income tax rate changes:* The company believes it is useful to investors and other users of our financial statements to remove non-cash income tax (benefits)/expense related to the remeasurement of deferred tax assets and liabilities due to enactment of changes in corporate income tax rates.

(10) *Other reconciling items:* The adjustment in 2020 primarily relates to a tax benefit related to the reversal of an accrual for an unrecognized tax benefit. This benefit has been removed from the company's non-GAAP results to be consistent with the exclusion of the tax expense for the accrual in a prior period.

Balance Sheet Discussion [1]

The following table represents a reconciliation of the balance sheet information presented on a U.S. GAAP basis to the balance sheet information excluding the impact of CIP and policyholder balances for the reasons outlined in footnote 1 to the table:

Balance sheet information $ in millions	As of December 31, 2022				As of December 31, 2021			
	U.S. GAAP	Impact of CIP	Impact of Policyholders	As Adjusted	U.S. GAAP	Impact of CIP	Impact of Policyholders	As Adjusted
ASSETS								
Cash and cash equivalents	1,234.7	—	—	1,234.7	1,896.4	—	—	1,896.4
Investments	996.6	(376.8)	—	1,373.4	926.3	(454.8)	—	1,381.1
Assets of CIP:								
Investments and other assets of CIP	8,735.1	8,735.1	—	—	9,575.1	9,575.1	—	—
Cash and cash equivalents of CIP	199.4	199.4	—	—	250.7	250.7	—	—
Assets held for policyholders	668.7	—	668.7	—	1,893.6	—	1,893.6	—
Goodwill and intangible assets, net	15,698.9	—	—	15,698.9	16,110.5	—	—	16,110.5
Other assets [2]	2,223.4	(9.8)	—	2,233.2	2,033.0	(6.4)	—	2,039.4
Total assets	29,756.8	8,547.9	668.7	20,540.2	32,685.6	9,364.6	1,893.6	21,427.4
LIABILITIES								
Liabilities of CIP:								
Debt of CIP	6,590.4	6,590.4	—	—	7,336.1	7,336.1	—	—
Other liabilities of CIP	329.6	329.6	—	—	846.3	846.3	—	—
Policyholder payables	668.7	—	668.7	—	1,893.6	—	1,893.6	—
Debt	1,487.6	—	—	1,487.6	2,085.1	—	—	2,085.1
Other liabilities [3]	3,838.3	—	—	3,838.3	3,845.7	—	—	3,845.7
Total liabilities	12,914.6	6,920.0	668.7	5,325.9	16,006.8	8,182.4	1,893.6	5,930.8
EQUITY								
Total equity attributable to Invesco Ltd.	15,213.6	(0.1)	—	15,213.7	15,495.8	(0.1)	—	15,495.9
Noncontrolling interests [4]	1,628.6	1,628.0	—	0.6	1,183.0	1,182.3	—	0.7
Total equity	16,842.2	1,627.9	—	15,214.3	16,678.8	1,182.2	—	15,496.6
Total liabilities and equity	29,756.8	8,547.9	668.7	20,540.2	32,685.6	9,364.6	1,893.6	21,427.4

(1) These tables include non-GAAP presentations. Assets of CIP are not available for use by Invesco. Additionally, there is no recourse to Invesco for CIP debt. Policyholder assets and liabilities are equal and offsetting and have no impact on Invesco's shareholder's equity.

(2) Amounts include accounts receivable, prepaid assets, property, equipment and software, right-of-use assets and other assets.

(3) Amounts include accrued compensation and benefits, accounts payable and accrued expenses, lease liability and deferred tax liabilities.

(4) Amounts include redeemable noncontrolling interests in consolidated entities and equity attributable to nonredeemable noncontrolling interests in consolidated entities.

Cash and cash equivalents

Cash and cash equivalents decreased by $661.7 million from $1,896.4 million at December 31, 2021 to $1,234.7 million at December 31, 2022. See "Cash Flows Discussion" in the following section within this Management's Discussion and Analysis for additional discussion regarding the movements in cash flows during the periods. See Item 8, Financial Statements and Supplementary Data - Note 1, "Accounting Policies - Cash and Cash Equivalents," regarding capital adequacy requirements in certain jurisdictions.

Investments

As disclosed in Note 3, Investments, balances comprise largely equity method investments in our Chinese joint venture, seed money and co-investments in affiliated funds, and investments related to the company's deferred compensation plans.

As of December 31, 2022, the company had $909.2 million in seed capital and co-investments (December 31, 2021: $856.7 million), including direct investments in CIP. Total seed capital and co-investments is presented as a helpful measure for investors and represents our net investment including our net investment in CIP, net of deferred compensation investments, joint ventures and other investments. The following table reconciles the investment balance to the total seed capital and co-investment balance.

	As of	
$ in millions	**December 31, 2022**	**December 31, 2021**
Investments	996.6	926.3
Net investment in CIP	376.8	454.8
Less: Investments related to deferred compensation plans, joint ventures, and other investments	(464.2)	(524.4)
Total seed capital and co-investments [1]	909.2	856.7

(1) Included in the total seed and co-investment balance as of December 31, 2022 is $305.4 million of seed capital and $603.8 million of co-investments (December 31, 2021: $304.7 million of seed capital and $552.0 million of co-investments).

Assets held for policyholders and policyholder payables

One of our subsidiaries, Invesco Pensions Limited, is an insurance company that was established to facilitate retirement savings plans in the U.K. The entity holds assets that are managed for its clients on its balance sheet with an equal and offsetting liability. The decrease in the balance of these accounts from $1,893.6 million at December 31, 2021 to $668.7 million at December 31, 2022, resulted from net business outflows of $1,038.2 million and negative foreign exchange rate movements of $64.8 million, and negative market movements of $121.9 million.

Liquidity and Capital Resources

Our capital structure, together with available cash balances, cash flows generated from operations, existing capacity under our credit facility and further capital market activities, if necessary, should provide us with sufficient resources to meet present and future cash needs, including operating, debt and other obligations as they come due and anticipated future capital requirements.

Sources of Liquidity by Type

	As of	
$ in millions	**December 31, 2022**	**December 31, 2021**
Cash and Cash Equivalents	1,234.7	1,896.4
Available Revolver	1,500.0	1,500.0
Total Sources of Liquidity by Type	2,734.7	3,396.4

On May 6, 2022, the company completed an early redemption of the $600 million, 3.125% Senior Notes due on November 30, 2022 and successfully managed debt down to $1.5 billion, the lowest level in 10 years. As of December 31, 2022, the balance on the $1.5 billion capacity credit facility was zero.

In the ordinary course of business, Invesco enters into contracts or purchase obligations with third parties whereby the third parties provide services to or on behalf of Invesco. Purchase obligations represent fixed-price contracts, which are either non-cancelable or cancellable with a penalty. As of December 31, 2022, the company's purchase obligations totaled $770.7 million (December 31, 2021: $619.7 million) and primarily reflect standard service contracts for portfolio, market data, office-related services and third-party marketing and promotional services. Purchase obligations are recorded as liabilities in the company's Consolidated Financial Statements when services are provided.

Capital Management

Our capital management priorities have evolved with the growth and success of our business and include, in no particular order of priority: reinvestment in the business, maintaining a strong balance sheet and returning capital to shareholders longer term through a combination of modestly increasing dividends and share repurchases.

Our capital process is executed in a manner consistent with our desire to maintain strong, investment grade credit ratings. As of the date of our filing, Invesco held credit ratings of A3/Stable, BBB+/Stable and A/Stable from Moody's, S&P, and Fitch, respectively.

Other Items

Certain of our subsidiaries are required to maintain minimum levels of capital. Such requirements may change from time-to-time as additional guidance is released based on a variety of factors, including balance sheet composition, assessment of risk exposures and governance, and review from regulators. These and other similar provisions of applicable laws and regulations may have the effect of limiting withdrawals of capital, repayment of intercompany loans and payment of dividends by such entities. Our financial condition or liquidity could be adversely affected if certain of our subsidiaries are unable to distribute funds to us.

All of our regulated European Union (EU) and U.K. subsidiaries are subject to consolidated capital requirements under applicable EU and U.K. requirements, and we maintain capital within this European sub-group to satisfy these regulations. We meet these requirements in part by holding cash and cash equivalents. This retained cash can be used for general business purposes in the European sub-group in the countries where it is located. Due to the capital restrictions, the ability to transfer cash between certain jurisdictions may be limited. In addition, transfers of cash between international jurisdictions may have adverse tax consequences. We are in compliance with all regulatory minimum net capital requirements. As of December 31, 2022, the company's minimum regulatory capital requirement was $639.8 million (December 31, 2021: $724.9 million); the decrease was primarily driven by the impact of foreign exchange rate movements in the U.K. The total amount of non-U.S. cash and cash equivalents was $755.4 million at December 31, 2022 (December 31, 2021: $1,088.3 million).

The consolidation of $8,934.5 million and $6,590.4 million of total assets and debt of CIP as of December 31, 2022, respectively, did not impact the company’s liquidity and capital resources. See Item 8, Financial Statements and Supplementary Data - Note 19, “Consolidated Investment Products,” for additional details.

Cash Flows Discussion

The ability to consistently generate cash flow from operations in excess of dividend payments, common share repurchases, capital expenditures and ongoing operating expenses is one of our company's fundamental financial strengths. Operations continue to be financed from current earnings and borrowings.

The following table represents a reconciliation of the cash flow information presented on a U.S. GAAP basis to the cash flow information, excluding the impact of the cash flows of CIP for the reasons outlined in footnote 1 to the table:

Cash flows information [1]	**Year ended December 31, 2022**			**Year ended December 31, 2021**			**Year ended December 31, 2020**		
$ in millions	**U.S. GAAP**	**Impact of CIP**	**Excluding CIP**	**U.S. GAAP**	**Impact of CIP**	**Excluding CIP**	**U.S. GAAP**	**Impact of CIP**	**Excluding CIP**
Cash, cash equivalents and restricted cash, beginning of the period [2]	2,147.1	250.7	1,896.4	1,839.3	301.7	1,537.6	1,701.2	652.2	1,049.0
Cash flows from operating activities [1]	703.2	(414.1)	1,117.3	1,078.1	(436.1)	1,514.2	1,230.3	(72.7)	1,303.0
Cash flows from investing activities	(375.6)	(81.5)	(294.1)	(847.9)	(755.4)	(92.5)	(859.6)	(729.9)	(129.7)
Cash flows from financing activities	(966.9)	449.4	(1,416.3)	117.3	1,148.0	(1,030.7)	(285.9)	426.3	(712.2)
Increase/(decrease) in cash and cash equivalents	(639.3)	(46.2)	(593.1)	347.5	(43.5)	391.0	84.8	(376.3)	461.1
Foreign exchange movement on cash and cash equivalents	(73.7)	(5.1)	(68.6)	(39.7)	(7.5)	(32.2)	53.3	25.8	27.5
Cash, cash equivalents and restricted cash, end of the period	1,434.1	199.4	1,234.7	2,147.1	250.7	1,896.4	1,839.3	301.7	1,537.6
Cash and cash equivalents	1,234.7	—	1,234.7	1,896.4	—	1,896.4	1,408.4	—	1,408.4
Restricted cash[2]	—	—	—	—	—	—	129.2	—	129.2
Cash and cash equivalents of CIP	199.4	199.4	—	250.7	250.7	—	301.7	301.7	—
Total cash, cash equivalents and restricted cash per consolidated statement of cash flows	1,434.1	199.4	1,234.7	2,147.1	250.7	1,896.4	1,839.3	301.7	1,537.6

(1) These tables include non-GAAP presentations. Cash held by CIP is not available for use by Invesco. Additionally, there is no recourse to Invesco for CIP debt. The cash flows of CIP do not form part of the company's cash flow management processes, nor do they form part of the company's significant liquidity evaluations and decisions.

(2) Restricted cash of $129.2 million as of December 31, 2020 is recorded in Other assets on the Consolidated Balance Sheets. There was no restricted cash as of December 31, 2021 or 2022.

Operating Activities

Operating cash flows include the receipt of investment management and other fees generated from AUM, offset by operating expenses and changes in operating assets and liabilities. Although some receipts and payments are seasonal, particularly bonus payments which are paid out during the first quarter, in general, after allowing for the change in cash held by CIP and investment activities, our operating cash flows move in the same direction as our operating income.

Cash inflows for the year ended December 31, 2022, excluding the impact of CIP, included a $470.5 million decrease in operating income, net investment purchase of $41.0 million, including seed money and deferred compensation investments (2021: net investment redemptions of $62.1 million) and an Invesco Great Wall dividend of $65.5 million (2021: $38.8 million). Inflows were partially offset by net outflows from the changes in payables and receivables due to the timing of payments and receipts.

Investing Activities

Cash outflows for the year ended December 31, 2022, excluding the impact of CIP, includes a net outflow of $101.2 million, which is comprised of purchases of investments of $274.3 million (year ended December 31, 2021: $210.7 million), partially offset by collected proceeds of $173.1 million from sales and returns of capital of investments (year ended December 31, 2021: $227.0 million).

During the year ended December 31, 2022, the company had capital expenditures of $192.9 million (2021: $108.8 million). Our capital expenditures related principally to technology initiatives related to investments in foundational technology projects as well as facilities costs. A portion of these facilities costs relate to leasehold improvements made to various buildings and workspaces in several global locations, including preparations for our move to our new Atlanta headquarters.

Financing Activities

Financing cash outflows during the year ended December 31, 2022 included the $600.0 million redemption of the senior notes due November 2022 (2021: none), $334.8 million of common dividend payments for dividends declared in January, April, July and October 2022 (year ended December 31, 2021: dividends paid of $307.7 million), $236.8 million of preferred dividend payments for dividends declared in January, April, July and October 2022 (year ended December 31, 2021: $236.8 million), the repurchase of $200 million of common stock (year ended December 31, 2021: none), and the payment of $44.7 million to meet employees' withholding tax obligations on common share vestings (2021: $60.9 million). The year ended December 31, 2021 also included a $309.4 million settlement of the forward contracts on treasury shares, the return of $104.1 million of net collateral on the forward contracts to the counterparty, and a repayment of $11.8 million of contingent consideration. Net borrowings under the credit facility were zero during the years ended December 31, 2022 and December 31, 2021.

Dividends

When declared, Invesco pays dividends on a quarterly basis in arrears. Holders of our preferred shares are eligible to receive dividends at an annual rate of 5.9% of the liquidation preference of $1,000 per share, or $59 per share per annum. The preferred stock dividend is payable quarterly on a non-cumulative basis when, if and as declared by our board of directors. However, if we have not declared and paid or set aside for payment full quarterly dividends on the preferred stock for a particular dividend period, we may not declare or pay dividends on, or redeem, purchase or acquire, our common stock or other junior securities in the next succeeding dividend period. In addition, if we have not declared and paid or set aside for payment quarterly dividends on the preferred stock for six quarterly periods, whether or not consecutive, the number of directors of the company will be increased by two and the holders of the preferred shares shall have the right to elect such two additional members of the Board of Directors.

On January 24, 2023 the company declared a fourth quarter 2022 dividend of $0.1875 per common share to the holders of common shares, payable on March 2, 2023, to shareholders of record at the close of business on February 16, 2023 with an ex-dividend date of February 15, 2023.

On January 24, 2023, the company announced a preferred dividend of $14.75 per preferred share to the holders of preferred shares, representing the period from December 1, 2022 through February 28, 2023, payable on March 1, 2023, to shareholders of record at the close of business on February 15, 2023.

The declaration, payment and amount of any future dividends will depend upon, among other factors, our earnings, financial condition and capital requirements at the time such declaration and payment are considered. The company has a policy of managing dividends in a prudent fashion, with due consideration given to profit levels, overall debt levels and historical dividend payouts.

Common Share Repurchase Plan

During 2022, the company repurchased 8.9 million shares in the open market at a cost of $200 million. The company did not purchase any of its shares in the open market during the year ended December 31, 2021. At December 31, 2022, approximately $532.2 million remained authorized under the company's common share repurchase authorization approved by the Board on July 22, 2016 (December 31, 2021: $732.2 million).

Debt

The carrying value of our debt at December 31, 2022 was $1,487.6 million (December 31, 2021: $2,085.1 million), See Item 8, Financial Statements and Supplementary Data, Note 8, “Debt,” for additional disclosures.

For the year ended December 31, 2022, the company's weighted average cost of debt was 4.15% (year ended December 31, 2021: 3.95%).

Financial covenants under the credit facility agreement include: (i) the quarterly maintenance of an Adjusted debt/Earnings before income tax, depreciation and amortization (EBITDA) leverage ratio, as defined in the credit facility agreement, of not greater than 3.25:1.00, (ii) an interest coverage ratio (EBITDA, as defined in the credit facility agreement/interest payable for the four consecutive fiscal quarters ended before the date of determination) of not less than 4.00:1.00. As of December 31, 2022, we were in compliance with our financial covenants. At December 31, 2022, our leverage ratio was 0.78:1.00 (December 31, 2021: 0.79:1.00), and our interest coverage ratio was 19.51:1.00 (December 31, 2021: 25.21:1.00).

The December 31, 2022 and 2021 coverage ratio calculations are as follows:

$ millions	Last four quarters ended December 31, 2022	December 31, 2021
Net income attributable to Invesco Ltd.	683.9	1,393.0
Dividends on preferred shares	236.8	236.8
Tax expense	322.2	531.1
Amortization/depreciation	195.3	205.3
Interest expense	85.2	94.7
Common share-based compensation expense	106.2	140.1
Unrealized (gains)/losses from investments, net [1]	87.7	17.9
OppenheimerFunds acquisition-related matter recoveries [2]	(55.0)	(231.1)
EBITDA [3]	1,662.3	2,387.8
Adjusted debt [3]	$1,290.3	$1,888.1
Leverage ratio (Adjusted debt/EBITDA - maximum 3.25:1.00)	0.78	0.79
Interest coverage (EBITDA/Interest Expense - minimum 4.00:1.00)	19.51	25.21

(1) Adjustments for unrealized gains and losses from investments, as defined in our credit facility, may also include non-cash gains and losses on investments to the extent that they do not represent anticipated future cash receipts or expenditures.

(2) Unusual or otherwise non-recurring gains and losses, as defined in our credit facility, are adjusted for in the determination of EBITDA. The insurance recoveries related to the OppenheimerFunds acquisition-related matter are considered unusual and have been removed from the determination of EBITDA.

(3) EBITDA and Adjusted debt are non-GAAP financial measures that are used by management in connection with certain debt covenant calculations under our credit agreement. The calculation of EBITDA above (a reconciliation from net income attributable to Invesco Ltd.) is defined by our credit facility agreement, and therefore net income attributable to Invesco is the most appropriate GAAP measure from which to reconcile to EBITDA. The calculation of Adjusted debt is defined in our credit facility and equals debt of $1,487.6 million plus $2.7 million in letters of credit less $200.0 million of excess unrestricted cash (cash and cash equivalents less the minimum regulatory capital requirement, not to exceed $200 million).

The discussion that follows identifies risks associated with the company's liquidity and capital resources. The Item 1. Business -- Risk Management section contains a broader discussion of the company's overall approach to risk management.

Credit and Liquidity Risk

The company manages its capital by reviewing annual and projected cash flow forecasts and by monitoring credit, liquidity and market risks, such as interest rate and foreign currency risks (as discussed in Item 7A, “Quantitative and Qualitative Disclosures About Market Risk”), through measurement and analysis. The company is primarily exposed to credit risk through its cash and cash equivalent deposits, which are held by external firms. The company invests its cash balances in its own institutional money market products, as well as with external high credit-quality financial institutions. These arrangements create exposure to concentrations of credit risk.

Credit Risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to meet an obligation. All cash and cash equivalent balances are subject to credit risk, as they represent deposits made by the company with external banks and other institutions. As of December 31, 2022, our maximum exposure to credit risk related to our cash and cash equivalent balances is $1,234.7 million. See Item 8, Financial Statements and Supplementary Data - Note 2, "Fair Value of Assets and Liabilities" for information regarding cash and cash equivalents invested in affiliated money market funds.

The company does not utilize credit derivatives or similar instruments to mitigate the maximum exposure to credit risk. The company does not expect any counterparties to its financial instruments to fail to meet their obligations.

Liquidity Risk

Liquidity risk is the risk that the company will encounter difficulty in meeting obligations associated with its financial liabilities as the same become due. The company is exposed to liquidity risk through its $1,487.6 million in total debt. The company actively manages liquidity risk by preparing cash flow forecasts for future periods, reviewing them regularly with senior management, maintaining a committed credit facility, scheduling significant gaps between major debt maturities and engaging external financing sources in regular dialogue.

Effects of Inflation

Inflation can impact our organization primarily in two ways. First, inflationary pressures can result in increases in our cost structure, especially to the extent that large expense components such as compensation are impacted. To the degree that these expense increases are not recoverable or cannot be counterbalanced through pricing increases due to the competitive environment, our net income could be negatively impacted. Secondly, the value of the assets that we manage may be negatively impacted when inflationary expectations result in a rising interest rate environment. A decline in the value of AUM could lead to reduced revenues as management fees are generally calculated based upon the size of AUM.

Off Balance Sheet Commitments

See Item 8, Financial Statements and Supplementary Data - Note 18, “Commitments and Contingencies,” for more information regarding undrawn capital commitments.

Critical Accounting Policies and Estimates

Our significant accounting policies are disclosed in Item 8, Financial Statements and Supplementary Data - Note 1, “Accounting Policies." Critical accounting policies and estimates are those that require complex management judgment regarding matters that are highly uncertain at the time policies were applied and estimates were made. Different estimates reasonably could have been used in the current period that would have had a material effect on these Consolidated Financial Statements, and changes in these estimates are likely to occur from period-to-period in the future. The discussion below provides information on the significant judgments and assumptions applied in each area and should be read in conjunction with the significant accounting policies footnote previously referenced.

Goodwill

During our annual impairment test in 2022 and 2021, management performed the optional qualitative approach which indicated that a quantitative assessment of the goodwill impairment test was not necessary. The company cannot predict the occurrence of future events that might adversely affect the reported value of goodwill that totaled $8,557.7 million and $8,882.5 million at December 31, 2022 and December 31, 2021, respectively. Such events include, but are not limited to, strategic decisions made in response to economic and competitive conditions, the impact of the economic environment on the company's AUM or any other material negative change in AUM and related fee rates.

When management utilizes the option to first assess goodwill impairment on a qualitative basis, the sum of certain events and circumstances is assessed to determine if it is more likely than not that the fair value of the reporting unit is less than its carrying amount. Such events and circumstances include macroeconomic conditions, industry and market considerations, overall financial performance of the company and/or significant changes in share price. If the qualitative assessment indicates that an impairment may be likely or management elected to not perform the qualitative assessment, management performs a quantitative test to determine the fair value of the reporting unit. The fair value of the reporting unit is generally determined using an income approach where estimated future cash flows are discounted to arrive at a single present value amount. The income approach includes inputs that require significant management judgment, including AUM growth rates, projected effective fee rates, pre-tax profit margins, effective tax rates and discount rates.

The quantitative test includes assumptions updated for current market conditions, including the company's updated forecasts for changes in AUM due to market gains or losses, net long-term flows and the corresponding changes in revenue and expenses. Market gains are based upon historical returns of the S&P 500 index, treasury bond returns and treasury bill returns, as applicable to the company's AUM mix on the testing date. The most sensitive of these assumptions are the AUM growth rate, fee rates, operating expense and the discount rate to determine present value. The discount rates used are estimates of the weighted average cost of capital for the investment management sector reflecting the overall industry risks associated with future cash flows and have been calculated consistently from period to period. While the company believes all assumptions

utilized in our assessment are reasonable and appropriate, changes in these estimates could produce different fair value amounts and therefore different goodwill impairment assessments.

Intangible Assets

Where evidence exists that the underlying agreements have a high likelihood of continued renewal at little or no cost to the company, the intangible asset is assigned an indefinite life and reviewed for impairment on an annual basis. Similar to goodwill, management has the option to first assess indefinite-lived intangible assets for qualitative factors to determine whether it is necessary to perform a quantitative impairment test. Definite-lived intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable (i.e., the carrying amount exceeds the fair value of the intangible asset). In addition, management's judgment is required to estimate the period over which definite-lived intangible assets will contribute to the company's cash flows and the pattern in which these assets will be consumed. A change in the remaining useful life of any of these assets, or the reclassification of an indefinite-lived intangible asset to a definite-lived intangible asset, could have a significant impact on the company's amortization expense, which was $63.8 million, $62.9 million and $62.5 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Intangible assets not subject to amortization are tested for impairment annually as of October 1 or more frequently if events or changes in circumstances indicate that the asset might be impaired. If a quantitative assessment is required, the impairment test consists of a comparison of the fair value of an intangible asset with its carrying amount. If the carrying amount of the intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. If required, fair value is generally determined using an income approach where estimated future cash flows are discounted to arrive at a single present value amount. The income approach includes inputs that require significant management judgment, including AUM growth rates, product mix, projected effective fee rates, pre-tax profit margins, effective tax rates and discount rates. The most sensitive of these assumptions to the determination of the estimated fair value are the AUM growth rate, fee rates, operating expense and discount rate, which is a weighted average cost of capital including consideration of company size premiums. Changes in these estimates could produce different fair value amounts and therefore different impairment conclusions. During 2022 and 2021, our annual impairment reviews of indefinite-lived intangible assets determined that no impairment existed at the respective review dates, the classifications of indefinite-lived and definite-lived remain appropriate, and no changes to the expected lives of the definite-lived intangible assets were required.

Income Taxes

The company files U.S. federal, state and numerous foreign income tax returns. The income tax laws are complex and subject to different interpretations by the taxpayer and the relevant taxing authorities. Significant judgment is required in the determination of our annual income tax provision, which includes the assessment of deferred tax assets and uncertain tax positions, as well as the interpretation and application of existing and newly enacted tax laws, regulation changes and new judicial rulings. Therefore, it is possible that actual results will vary from those recognized in our Consolidated Financial Statements due to changes in the interpretation of applicable guidance or as a result of examinations by taxing authorities.

Deferred tax assets, net of any associated valuation allowance, have been recognized based on management's belief that taxable income of the appropriate character, more likely than not, will be sufficient to realize the benefits of these assets over time. In the event that actual results differ from our expectations, or if our historical trends of positive operating income changes, we may be required to record a valuation allowance on some or all of these deferred tax assets, which may have a significant effect on our financial condition and results of operations. In assessing whether a valuation allowance should be established against a deferred income tax asset, the company considers all available evidence, which includes the nature, frequency and severity of recent losses, forecasts of future profitability and the duration of statutory carry back and carry forward periods, among other factors.

In the assessment of uncertain tax positions, significant judgment is required to estimate the range of possible outcomes and determine the probability, on a more likely than not basis, of favorable or unfavorable outcomes upon ultimate settlement of an issue. Changes in estimate of uncertain tax positions occur periodically due to changes in interpretations of tax laws, the status of examinations by tax authorities and new regulatory or judicial guidance that could impact the relative merits and risk of tax positions. These changes, when they occur, impact tax expense and can materially impact results of operations. The company recognizes any interest and penalties related to unrecognized tax benefits on the Consolidated Statements of Income as components of income tax expense.

CIP

Assessing if an entity is a variable interest entity (VIE) or voting interest entity (VOE) involves judgment and analysis on a structure-by-structure basis. Factors assessed as part of the analysis include the legal organization of the entity, the company's contractual involvement with the entity and any related party or de facto agent implications of the company's involvement with the entity.

Recent Accounting Standards

See Item 8, Financial Statements and Supplementary Data - Note 1, “Accounting Policies - Accounting Pronouncements Recently Adopted and Pending Accounting Pronouncements.”

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

In the normal course of its business, the company is primarily exposed to market risk in the form of AUM market price risk, securities market risk, interest rate risk and foreign exchange rate risk.

AUM Market Price Risk

The company's investment management revenues are comprised of fees based on the value of AUM. Declines in the market prices of equity and fixed income securities, commodities and derivatives, or other similar financial instruments held in client portfolios could cause revenues to decline because of lower investment management fees by:

- Causing the value of AUM to decrease.
- Causing the returns realized on AUM to decrease (impacting performance fees).
- Causing clients to withdraw funds in favor of investments in markets that they perceive to offer greater opportunity and that the company does not serve.
- Causing clients to rebalance assets away from investments that the company manages into investments that the company does not manage.
- Causing clients to reallocate assets away from products that earn higher revenues into products that earn lower revenues.

Underperformance of client accounts relative to competing products could exacerbate these factors.

Assuming the revenue yield on AUM for the year remains unchanged, a decline in the average AUM for the year would result in a corresponding decline in revenue. Certain expenses, including distribution and compensation expenses, may not vary in proportion with the changes in the market value of AUM. As such, the impact on operating margin or net income of a decline in the market values of AUM may be greater or less than the percentage decline in the market value of AUM.

Securities Market Risk

The company's exposure to market risk from financial instruments measured at fair value arises primarily from its investments. The following table summarizes the impact of a 10% increase or decrease in the fair values of these financial instruments:

	December 31, 2022		
$ in millions	Fair Value	Fair Value assuming 10% increase	Fair Value assuming 10% decrease
Equity investments [1]	325.0	357.5	292.5
Total assets measured at fair value exposed to market risk	325.0	357.5	292.5
Net investments in CIP [2]	376.8	454.8	339.1

(1) If such a 10% increase or decrease in fair values were to occur, the change attributable to $325.0 million of these equity investments would result in a corresponding increase or decrease in our pre-tax earnings. At December 31, 2022, $146.1 million of these equity investments are held to hedge economically certain deferred compensation plans in which the company's employees participate. In addition to holding equity investments, in 2017, the company purchased a total return swap to economically hedge certain deferred compensation plans. The notional value of the total return swap at December 31, 2022 was $326.6 million. The company recognizes as compensation expense the appreciation or depreciation of the compensation liability over the award's vesting period in proportion to the vested amount of the award. The company immediately recognizes the appreciation or depreciation of these investments, which is included in other gains and losses. This creates a timing difference between the recognition of the compensation expense and the investment gain or loss impacting net income, which will reverse and will offset to zero over the life of the award at the end of the multi-year vesting period.

(2) Upon consolidation, the company's net investments in CIP are eliminated, and the assets and liabilities of the CIP are consolidated in the Consolidated Balance Sheets, which are offset by a noncontrolling interest balance representing the portion of the CIP owned by third parties. The assets of CIP include investments which are measured at fair value. If a 10% increase or decrease in the fair values of Invesco’s net investments in CIP were to occur, it would result in a corresponding increase or decrease in our net income attributable to Invesco.

Cash balances invested in money market funds of $760.8 million have been excluded from the table above. These are valued under the market approach at the NAV of the underlying funds, which is maintained at $1. Assets held for policyholders of $668.7 million have also been excluded from the table above. The entity holds assets that are managed for its clients on its balance sheet with an equal and offsetting liability to the policyholders, which is linked to the value of the investments. The investments and the policyholder payables held by this business are carried in the Consolidated Balance Sheets as separate account assets and liabilities at fair value in accordance with ASC Topic 944, “Financial Services - Insurance.” Changes in fair value are recorded and offset to zero in the Consolidated Statements of Income in other operating revenues. Increases or decreases in the fair value of these investments will therefore have no impact to our pre-tax earnings.

Interest Rate Risk

Interest rate risk relates to the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The company is exposed to interest rate risk primarily through its external debt and cash and cash equivalent investments. On December 31, 2022, the interest rates on 100.0% of the company's borrowings were fixed for a weighted average period of 7.0 years, and the company had a balance of zero on its floating rate credit facility.

The interest rate profile of the financial liabilities of the company on December 31 was:

$ in millions	December 31, 2022	December 31, 2021
Debt		
Fixed rate	1,487.6	2,085.1
Floating rate	—	—
Total	1,487.6	2,085.1
Weighted average interest rate percentage	4.2 %	4.0 %
Weighted average period for which rate is fixed in years	7.0	5.9

See Item 8, Financial Statements and Supplementary Data, Note 8, “Debt,” for additional disclosures relating to the U.S. Dollar floating and fixed rate obligations.

The sensitivity of our financial assets to interest rate risk is immaterial.

Foreign Exchange Rate Risk

The company has transactional currency exposures that occur when any of the company’s subsidiaries receive or pay cash in a currency different from its functional currency. Such exposure arises from sales or purchases by operating subsidiaries in currencies other than the subsidiaries’ functional currencies. These exposures are not actively managed.

The company also has certain investments in foreign operations, whose net assets and results of operations are exposed to foreign currency translation risk when translated into U.S. Dollars upon consolidation into Invesco. A strengthening U.S. Dollar has a negative impact on the company's foreign currency denominated earnings when presented in U.S. Dollars. The company's most significant foreign exchange rate risk exposure relates to the translation of Pound Sterling-denominated and Euro-denominated transactions into the U.S. Dollar reporting currency. Item 8, Financial Statements and Supplementary Data, Note 17, "Geographic Information," contains disclosure of revenue by geography.

The company is also exposed to foreign currency translation risk on monetary assets and liabilities that are held by subsidiaries in different functional currencies than the subsidiaries' functional currencies. The impact of the revaluation is recorded in the Consolidated Statements of Income. Net foreign exchange revaluation gains were $2.4 million in 2022 (2021: $1.1 million of losses) and are included in general and administrative expenses and other gains and losses, net on the Consolidated Statements of Income.

Item 8. ***Financial Statements and Supplementary Data***

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Annual Report of Management on Internal Control over Financial Reporting

Management of the company is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in the Securities Exchange Act of 1934 Rules 13a-15(f) and 15d-15(f). The 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. 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.

Under the supervision, and with the participation of the chief executive officer and chief financial officer, management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2022. In making this assessment, management used the criteria set forth by the Internal Control - Integrated Framework (2013) issued by Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management concluded that the company's internal control over financial reporting was effective as of December 31, 2022.

The company's independent registered public accounting firm, PricewaterhouseCoopers LLP, has issued a report on the effectiveness of our internal control over financial reporting, which is included herein.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Invesco Ltd.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Invesco Ltd. and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of income, of comprehensive income, of changes in equity and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Annual Report of Management on Internal Control over Financial Reporting appearing under Item 8. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

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

Accounting for Income Taxes

As described in Notes 1 and 15 to the consolidated financial statements, the Company recorded income tax expense of $322.2 million for the year ended December 31, 2022, and had net deferred tax assets of $249.1 million, including a valuation allowance of $93.5 million, and total gross unrecognized income tax benefits of $100.2 million as of December 31, 2022, $83.5 million of which would affect the Company's effective tax rate if recognized in future periods. The Company files U.S. federal, U.S. state and local, and numerous foreign income tax returns. As disclosed by management, significant judgment is required in the determination of the Company's annual income tax provision, which includes the assessment of deferred tax assets and uncertain tax positions, as well as the interpretation and application of existing and newly enacted tax laws, regulation changes, and new judicial rulings. The principal considerations for our determination that performing procedures relating to the accounting for income taxes is a critical audit matter are the significant judgment by management when determining the provision for income taxes, including the interpretation and application of newly enacted tax laws, regulation changes, and new judicial rulings; this in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence relating to management's interpretation and application of newly enacted tax laws, regulation changes, and new judicial rulings. Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the provision for income taxes, including controls over the interpretation and application of newly enacted tax laws, regulation changes, and new judicial rulings. These procedures also included, among others, (i) evaluating management's assessment of the applicability of newly enacted tax laws, regulation changes, and new judicial rulings; (ii) testing management's income tax calculations, including testing the completeness and accuracy of the underlying data and considering the Company's compliance with tax laws; and (iii) evaluating the status and results of income tax audits with the relevant tax authorities.

/s/ PricewaterhouseCoopers LLP
Atlanta, Georgia
February 22, 2023

We have served as the Company's auditor since 2013.

Invesco Ltd.
Consolidated Balance Sheets

$ in millions, except per share data	As of December 31, 2022	As of December 31, 2021
ASSETS		
Cash and cash equivalents	1,234.7	1,896.4
Accounts receivable	801.8	785.0
Investments	996.6	926.3
Assets of CIP:		
Cash and cash equivalents of CIP	199.4	250.7
Accounts receivable and other assets of CIP	203.7	532.6
Investments of CIP	8,531.4	9,042.5
Assets held for policyholders	668.7	1,893.6
Other assets	860.5	729.9
Property, equipment and software, net	561.1	518.1
Intangible assets, net	7,141.2	7,228.0
Goodwill	8,557.7	8,882.5
Total assets	29,756.8	32,685.6
LIABILITIES		
Accrued compensation and benefits	860.8	1,062.3
Accounts payable and accrued expenses	1,314.8	1,157.1
Liabilities of CIP:		
Debt of CIP	6,590.4	7,336.1
Other liabilities of CIP	329.6	846.3
Policyholder payables	668.7	1,893.6
Debt	1,487.6	2,085.1
Deferred tax liabilities, net	1,662.7	1,626.3
Total liabilities	12,914.6	16,006.8
Commitments and contingencies (See Note 18)		
TEMPORARY EQUITY		
Redeemable noncontrolling interests in consolidated entities	998.7	510.8
PERMANENT EQUITY		
Equity attributable to Invesco Ltd.:		
Preferred shares ($0.20 par value; $1,000 liquidation preference; 4.0 million authorized, issued and outstanding as of December 31, 2022 and 2021)	4,010.5	4,010.5
Common shares ($0.20 par value; 1,050.0 million authorized; 566.1 million shares issued as of December 31, 2022 and 2021)	113.2	113.2
Additional paid-in-capital	7,554.9	7,688.0
Treasury shares	(3,040.9)	(3,043.6)
Retained earnings	7,518.3	7,169.2
Accumulated other comprehensive income/(loss), net of tax	(942.4)	(441.5)
Total equity attributable to Invesco Ltd.	15,213.6	15,495.8
Equity attributable to nonredeemable noncontrolling interests in consolidated entities	629.9	672.2
Total permanent equity	15,843.5	16,168.0
Total liabilities, temporary and permanent equity	29,756.8	32,685.6

See accompanying notes.

Invesco Ltd.
Consolidated Statements of Income

$ in millions, except per common share data	Years ended December 31, 2022	2021	2020
Operating revenues:			
Investment management fees	4,358.4	4,995.9	4,451.0
Service and distribution fees	1,405.5	1,596.4	1,419.0
Performance fees	68.2	56.1	65.6
Other	216.8	246.1	210.0
Total operating revenues	6,048.9	6,894.5	6,145.6
Operating expenses:			
Third-party distribution, service and advisory	1,886.2	2,149.3	1,947.6
Employee compensation	1,725.1	1,911.3	1,807.9
Marketing	114.9	98.6	83.3
Property, office and technology	539.8	526.0	512.3
General and administrative	380.2	424.1	480.8
Transaction, integration and restructuring	21.2	(65.9)	330.8
Amortization of intangibles	63.8	62.9	62.5
Total operating expenses	4,731.2	5,106.3	5,225.2
Operating income	1,317.7	1,788.2	920.4
Other income/(expense):			
Equity in earnings of unconsolidated affiliates	106.1	152.3	72.7
Interest and dividend income	24.4	25.2	20.5
Interest expense	(85.2)	(94.7)	(129.3)
Other gains/(losses), net	(139.5)	120.5	44.9
Other income/(expense) of CIP, net	24.2	509.0	139.9
Income before income taxes	1,247.7	2,500.5	1,069.1
Income tax provision	(322.2)	(531.1)	(261.6)
Net income	925.5	1,969.4	807.5
Net (income)/loss attributable to noncontrolling interests in consolidated entities	(4.8)	(339.6)	(45.9)
Dividends declared on preferred shares	(236.8)	(236.8)	(236.8)
Net income attributable to Invesco Ltd.	683.9	1,393.0	524.8
Earnings per common share:			
-basic	$1.50	$3.01	$1.14
-diluted	$1.49	$2.99	$1.13

See accompanying notes.

Invesco Ltd.
Consolidated Statements of Comprehensive Income

$ in millions	Years ended December 31, 2022	2021	2020
Net income	925.5	1,969.4	807.5
Other comprehensive income/(loss), net of tax:			
Currency translation differences on investments in foreign subsidiaries	(463.1)	(73.4)	182.7
Actuarial gain/(loss) related to employee benefit plans	(38.8)	28.3	(6.3)
Other comprehensive income/(loss), net of tax	1.0	8.1	6.4
Other comprehensive income/(loss)	(500.9)	(37.0)	182.8
Total comprehensive income/(loss)	424.6	1,932.4	990.3
Comprehensive loss/(income) attributable to noncontrolling interests in consolidated entities	(4.8)	(339.6)	(45.9)
Dividends declared on preferred shares	(236.8)	(236.8)	(236.8)
Comprehensive income/(loss) attributable to Invesco Ltd.	183.0	1,356.0	707.6

See accompanying notes.

Invesco Ltd.
Consolidated Statements of Cash Flows

$ in millions	Years ended December 31, 2022	2021	2020
Operating activities:			
Net income	925.5	1,969.4	807.5
Adjustments to reconcile net income to net cash provided by/(used in) operating activities:			
Amortization and depreciation	195.3	205.3	203.5
Common share-based compensation expense	106.2	140.1	188.5
Other (gains)/losses, net	139.5	(120.5)	(44.9)
Other (gains)/losses of CIP, net	126.9	(390.0)	(32.1)
Equity in earnings of unconsolidated affiliates	(106.1)	(152.3)	(72.7)
Distributions from equity method investees	74.2	48.2	33.9
Changes in operating assets and liabilities:			
(Purchase)/sale of investments by CIP, net	(359.2)	(421.6)	(48.2)
(Purchase)/sale of investments, net	(27.6)	93.8	263.1
(Increase)/decrease in receivables	912.8	5,581.2	3,744.4
Increase/(decrease) in payables	(1,284.3)	(5,875.5)	(3,812.7)
Net cash provided by/(used in) operating activities	703.2	1,078.1	1,230.3
Investing activities:			
Purchase of property, equipment and software	(192.9)	(108.8)	(115.0)
Purchase of investments by CIP	(2,717.2)	(5,981.8)	(4,548.6)
Sale of investments by CIP	2,638.4	5,281.5	3,782.3
Purchase of investments	(217.8)	(191.1)	(153.6)
Sale of investments	97.9	129.2	143.2
Capital distribution from equity method investees	32.6	44.9	26.6
Net cash inflows/(outflows) upon consolidation/deconsolidation of CIP	(16.6)	(21.8)	5.5
Net cash provided by/(used in) investing activities	(375.6)	(847.9)	(859.6)
Financing activities:			
Purchases of treasury shares	(244.7)	(60.9)	(47.1)
Dividends paid - preferred	(236.8)	(236.8)	(236.8)
Dividends paid - common	(334.8)	(307.7)	(357.4)
Third-party capital invested into CIP	709.2	628.9	185.8
Third-party capital distributed by CIP	(284.8)	(395.5)	(236.4)
Borrowings of debt of CIP	30.1	3,411.9	1,268.0
Repayments of debt of CIP	(5.1)	(2,497.3)	(791.1)
Repayment of senior notes	(600.0)	—	—
Settlement of forward contracts on treasury shares	—	(309.4)	(190.6)
Collateral received/(returned), net	—	(104.1)	142.0
Payment of contingent consideration	—	(11.8)	(22.3)
Net cash provided by/(used in) financing activities	(966.9)	117.3	(285.9)
Increase/(decrease) in cash and cash equivalents	(639.3)	347.5	84.8
Foreign exchange movement on cash and cash equivalents	(68.6)	(32.2)	27.5
Foreign exchange movement on cash and cash equivalents of CIP	(5.1)	(7.5)	25.8
Cash, cash equivalents and restricted cash, beginning of period [1]	2,147.1	1,839.3	1,701.2
Cash, cash equivalents and restricted cash, end of period	1,434.1	2,147.1	1,839.3
Cash and cash equivalents	1,234.7	1,896.4	1,408.4
Restricted cash [1]	—	—	129.2
Cash and cash equivalents of CIP	199.4	250.7	301.7
Total cash, cash equivalents and restricted cash per consolidated statement of cash flows	1,434.1	2,147.1	1,839.3
Supplemental Cash Flow Information:			
Interest paid	(67.4)	(85.7)	(93.1)
Interest received	8.7	0.7	2.7
Taxes paid	(301.4)	(431.7)	(223.8)

(1) Restricted cash of $129.2 million as of December 31, 2020 is recorded in Other assets on the Consolidated Balance Sheets.

See accompanying notes.

Invesco Ltd.
Consolidated Statements of Changes in Equity

	Equity Attributable to Invesco Ltd.									
$ in millions, except per share data	**Preferred Shares**	**Common Shares**	**Additional Paid-in-Capital**	**Treasury Shares**	**Retained Earnings**	**Accumulated Other Comprehensive Income/(Loss)**	**Total Equity Attributable to Invesco Ltd.**	**Nonredeemable Noncontrolling Interests in Consolidated Entities**	**Total Permanent Equity**	**Redeemable Noncontrolling Interests in Consolidated Entities/Temporary Equity**
January 1, 2022	4,010.5	113.2	7,688.0	(3,043.6)	7,169.2	(441.5)	15,495.8	672.2	16,168.0	510.8
Net income	—	—	—	—	920.7	—	920.7	8.8	929.5	(4.0)
Other comprehensive income/(loss)	—	—	—	—	—	(500.9)	(500.9)	—	(500.9)	—
Change in noncontrolling interests in consolidated entities, net	—	—	—	—	—	—	—	(51.1)	(51.1)	491.9
Dividends declared - preferred ($59.00 per share)	—	—	—	—	(236.8)	—	(236.8)	—	(236.8)	—
Dividends declared - common ($0.73 per share)	—	—	—	—	(334.8)	—	(334.8)	—	(334.8)	—
Employee common share plans:										
Common share-based compensation	—	—	106.2	—	—	—	106.2	—	106.2	—
Vested common shares	—	—	(228.6)	228.6	—	—	—	—	—	—
Other common share awards	—	—	(10.7)	18.8	—	—	8.1	—	8.1	—
Purchase of common shares	—	—	—	(244.7)	—	—	(244.7)	—	(244.7)	—
December 31, 2022	4,010.5	113.2	7,554.9	(3,040.9)	7,518.3	(942.4)	15,213.6	629.9	15,843.5	998.7

See accompanying notes.

Invesco Ltd.
Consolidated Statements of Changes in Equity (continued)

	Equity Attributable to Invesco Ltd.									
$ in millions, except per share data	**Preferred Shares**	**Common Shares**	**Additional Paid-in-Capital**	**Treasury Shares**	**Retained Earnings**	**Accumulated Other Comprehensive Income/(Loss)**	**Total Equity Attributable to Invesco Ltd.**	**Nonredeemable Noncontrolling Interests in Consolidated Entities**	**Total Permanent Equity**	**Redeemable Noncontrolling Interests in Consolidated Entities/Temporary Equity**
January 1, 2021	4,010.5	113.2	7,811.4	(3,253.8)	6,085.0	(404.5)	14,361.8	447.1	14,808.9	211.8
Net income	—	—	—	—	1,629.8	—	1,629.8	301.6	1,931.4	38.0
Other comprehensive income/(loss)	—	—	—	—	—	(37.0)	(37.0)	—	(37.0)	—
Change in noncontrolling interests in consolidated entities, net	—	—	—	—	—	—	—	(76.5)	(76.5)	261.0
Dividends declared - preferred ($59.00 per share)	—	—	—	—	(236.8)	—	(236.8)	—	(236.8)	—
Dividends declared - common ($0.67 per share)	—	—	—	—	(308.8)	—	(308.8)	—	(308.8)	—
Employee common share plans:										
Common share-based compensation	—	—	140.1	—	—	—	140.1	—	140.1	—
Vested common shares	—	—	(263.0)	263.0	—	—	—	—	—	—
Other common share awards	—	—	(0.5)	8.1	—	—	7.6	—	7.6	—
Purchase of common shares	—	—	—	(60.9)	—	—	(60.9)	—	(60.9)	—
December 31, 2021	4,010.5	113.2	7,688.0	(3,043.6)	7,169.2	(441.5)	15,495.8	672.2	16,168.0	510.8

See accompanying notes.

Invesco Ltd.
Consolidated Statements of Changes in Equity (continued)

	Equity Attributable to Invesco Ltd.									
$ in millions, except per share data	**Preferred Shares**	**Common Shares**	**Additional Paid-in-Capital**	**Treasury Shares**	**Retained Earnings**	**Accumulated Other Comprehensive Income/(Loss)**	**Total Equity Attributable to Invesco Ltd.**	**Nonredeemable Noncontrolling Interests in Consolidated Entities**	**Total Permanent Equity**	**Redeemable Noncontrolling Interests in Consolidated Entities/Temporary Equity**
January 1, 2020	4,010.5	113.2	7,860.8	(3,452.5)	5,917.8	(587.3)	13,862.5	455.8	14,318.3	383.5
Net income	—	—	—	—	761.6	—	761.6	34.7	796.3	11.2
Other comprehensive income (loss)	—	—	—	—	—	182.8	182.8	—	182.8	—
Change in noncontrolling interests in consolidated entities, net	—	—	—	—	—	—	—	(43.4)	(43.4)	(182.9)
Dividends declared - preferred ($59.00 per share)	—	—	—	—	(236.8)	—	(236.8)	—	(236.8)	—
Dividends declared - common ($0.78 per share)	—	—	—	—	(357.6)	—	(357.6)	—	(357.6)	—
Employee common share plans:										
Common share-based compensation	—	—	188.5	—	—	—	188.5	—	188.5	—
Vested common shares	—	—	(227.3)	227.3	—	—	—	—	—	—
Other common share awards	—	—	(10.6)	18.5	—	—	7.9	—	7.9	—
Purchase of common shares	—	—	—	(47.1)	—	—	(47.1)	—	(47.1)	—
December 31, 2020	4,010.5	113.2	7,811.4	(3,253.8)	6,085.0	(404.5)	14,361.8	447.1	14,808.9	211.8

See accompanying notes.

Invesco Ltd.
Notes to the Consolidated Financial Statements

1. ACCOUNTING POLICIES

Corporate Information

The company provides retail and institutional clients with an array of global investment management capabilities. The company operates globally and its sole business is investment management.

Basis of Presentation

The Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States and with rules and regulations of the SEC and consolidate the financial statements of the Parent and all of its controlled subsidiaries. In the opinion of management, the Consolidated Financial Statements reflect all adjustments, consisting of normal recurring accruals, which are necessary for the fair presentation of the financial condition and results of operations for the periods presented. All significant intercompany transactions, balances, revenues and expenses are eliminated upon consolidation. Certain reclassifications have been made to prior period amounts to conform to the current period presentation.

The Consolidated Financial Statements have been prepared primarily on the historical cost basis; however, certain items are presented using other bases such as fair value, where such treatment is required or voluntarily elected. The financial statements of subsidiaries, with the exception of certain CIP, are prepared for the same reporting period as the Parent and use consistent accounting policies, which, where applicable, have been adjusted to U.S. GAAP from local generally accepted accounting principles or reporting regulations. The financial information of certain CIP is included in the company's Consolidated Financial Statements on a one-month or a three-month lag based upon the availability of fund financial information. Noncontrolling interests in consolidated entities represents the interests in certain entities consolidated by the company either because the company has control over the entity or has determined that it is the primary beneficiary, but of which the company does not own all of the entity's equity. To the extent that noncontrolling interests represent equity which is redeemable or convertible for cash or other assets at the option of the equity holder, these are deemed to represent temporary equity, and are classified as equity attributable to redeemable noncontrolling interests in the Consolidated Balance Sheets. Nonredeemable noncontrolling interests are classified as a component of permanent equity.

Basis of Accounting and Consolidation

In addition to consolidating the financial statements of the Parent and all of its controlled subsidiaries, the Consolidated Financial Statements include the consolidation of certain investment products that meet the definition of either a VOE, if the company is deemed to have a controlling financial interest in the fund, or a VIE, if the company has been deemed to be the primary beneficiary of the fund.

Certain of these investment products, typically CLOs, funds that are structured as partnership entities (such as private equity funds, real estate funds and fund-of-funds) and certain non-U.S. mutual funds, are considered, for accounting and consolidation analysis purposes, to be VIEs if the VIE criteria are met. A VIE, in the context of the company and its managed funds, is a fund that does not have sufficient equity to finance its operations without additional subordinated financial support, or a fund for which the risks and rewards of ownership are not directly linked to voting interests. If the company is deemed to have the power to direct the activities of the fund that most significantly impact the fund's economic performance, and the obligation to absorb losses/right to receive benefits from the fund that could potentially be significant to the fund, then the company is deemed to be the fund's primary beneficiary and is required to consolidate the fund.

The company's economic risk with respect to each investment in a CIP is limited to its equity ownership and any uncollected management and performance fees. See Note 19, "Consolidated Investment Products," for additional information regarding the impact of CIP.

The company assesses modifications to existing funds on an ongoing basis to determine if a significant reconsideration event has occurred. The consolidation analysis includes a detailed review of the terms of the fund's governing documents and a comparison of the significant terms against the consolidation criteria in ASC Topic 810, including a determination of whether the fund is a VIE or a VOE. Seed money and co-investments in managed funds in which the company has determined that it is the primary beneficiary or in which the company has a controlling financial interest are consolidated if the impact of doing so is deemed material. If the company subsequently determines that it no longer controls the managed funds in which it has invested, or no longer has an obligation to absorb losses or rights to receive benefits, the company will deconsolidate the funds. If there are any remaining holdings in the managed funds or if the managed funds are not required to be consolidated, the investment is no longer accounted for as CIP and is moved to the investments line item in the balance sheet and is accounted for as described in the "Investments" accounting policy below.

All of the investments held by VIEs are presented at fair value in the company's Consolidated Balance Sheets at December 31, 2022 and 2021. The company has elected the fair value option under ASC Topic 825-10-25 to measure the assets of all consolidated CLOs at fair value. The notes issued by consolidated CLOs are measured under the measurement alternative that requires the reporting entity to measure both the financial assets and the fair value of the financial liabilities of the CLOs using the more observable of the fair value of the financial assets and the fair value of the financial liabilities. The company’s earnings from consolidated CLOs reflect changes in fair value of its own economic interests in the CLOs. Gains or losses on assets and liabilities of the CLOs are not attributed to noncontrolling interests but are offset in other gains/(losses) of CIP.

Use of Estimates

In preparing the Consolidated Financial Statements, management is required to make estimates and assumptions that affect reported revenues, expenses, assets, liabilities and disclosure of contingent liabilities. The primary estimates and assumptions relate to goodwill and intangible impairment, certain investments which are carried at fair value, post-employment benefit plan obligations, income taxes and contingent losses. Additionally, estimation is involved when determining investment and debt valuation for certain CIP; however, changes in the fair values of these amounts are largely offset by noncontrolling interests. Use of available information and application of judgment are inherent in the formation of estimates. Actual results in the future could differ from such estimates, and the differences may be material to the Consolidated Financial Statements.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash held at banks and short-term investments with a maturity upon acquisition of three months or less (primarily held in affiliated money market funds). Cash and cash equivalents of CIP are not available for general use by the company.

Cash balances may not be readily accessible to the Parent due to capital adequacy requirements of certain of our subsidiaries. We meet these requirements in part by holding cash and cash equivalents. This retained cash can be used for general business purposes in the countries where it is located and is therefore not considered restricted cash.

Restricted cash (in 2020) primarily consisted of cash collateral related to the company's share repurchase forward contracts. Cash and cash equivalents and restricted cash are presented separately on the Consolidated Statements of Cash Flows.

Investments

The majority of the company’s investment balances relate to balances held in affiliated funds and equity method investees. In the normal course of business, the company invests in various types of affiliated investment products, either as “seed money” or as longer-term investments alongside third-party investors, typically referred to as “co-investments.” Seed money investments are investments held in Invesco managed funds with the purpose of providing capital to the funds during their development periods to allow the funds to achieve critical mass, establish their track records and obtain third-party investments. Seed money may also be held for regulatory purposes in certain jurisdictions. Co-investments are often required of the investment manager by third-party investors in closed-ended funds to demonstrate an aligning of the investment manager’s interests with those of the third-party investors. The company also invests in affiliated funds in connection with its deferred compensation plans, whereby certain employees defer portions of their annual bonus into funds.

Investments are categorized as equity investments, equity method investments, foreign time deposits and other investments. See Note 3, “Investments,” for additional details.

Equity investments include seed money, investments held to settle the company's deferred compensation plan liabilities and other equity securities. Equity investments are securities bought and held principally for the purpose of selling them in the near term. Equity investments are measured at fair value. Gains or losses arising from changes in the fair value of equity investments are included in income.

Equity method investments include investments over which the company is deemed to have significant influence, including corporate joint ventures and non-controlled entities, and co-investments in certain managed funds generally structured as partnerships or similar vehicles. Investments in joint ventures are investments jointly controlled by the company and external parties. The equity method of accounting requires that the investment is initially recorded at cost, including any excess value paid over the book value of the investment acquired. The carrying amount of the investment is increased or decreased to recognize the company's common share of the after-tax profit or loss of the investee after the date of acquisition and is decreased as distributions are received. Distributions received from equity method investees are classified in the Consolidated Statements of Cash Flows as either operating or investing activities based on the nature of the distribution. The proportionate share of income or loss is included in equity in earnings of unconsolidated affiliates in the Consolidated Statements of Income.

Fair Value

Fair value is determined using a valuation hierarchy (discussed in Note 2, “Fair Value of Assets and Liabilities”), generally by reference to an active trading market, using quoted closing or bid prices as of each reporting period end. When a readily ascertainable market value does not exist for an investment, the fair value is calculated based on the expected cash flows of its underlying net asset base, taking into account applicable discount rates and other factors. Judgment is used to ascertain if a formerly active market has become inactive and in determining fair values when markets have become inactive. As a practical expedient, the company may elect to use NAV as the fair value for certain CIP.

Assets Held for Policyholders and Policyholder Payables

One of the company's subsidiaries, Invesco Pensions Limited, is an insurance entity that was established to facilitate retirement savings plans in the U.K. The entity holds assets that are managed for its clients on its balance sheet with an equal and offsetting liability to the policyholders, which is linked to the value of the investments. The investments are legally segregated and are generally not subject to claims that arise from any of the company's other businesses. Investments and policyholder payables held by this business meet the definition of financial instruments and are carried in the Consolidated Balance Sheets as separate account assets and liabilities at fair value in accordance with ASC Topic 944, “Financial Services - Insurance.” Changes in fair value are recorded and offset to zero in the Consolidated Statements of Income.

Deferred Sales Commissions

Mutual fund shares sold without a sales commission at the time of purchase typically have an asset-based fee (12b-1 fee) that is charged to the fund over a period of years and a Contingent deferred sales charge (CDSC). The CDSC is an asset-based fee that is charged to investors that redeem during a stated period. Commissions paid at the date of sale to brokers and dealers for sales of mutual funds that have a CDSC are capitalized and amortized over a period not to exceed the redemption period of the related fund (generally up to six years). The deferred sales commission asset, which is included in prepaid assets in our Consolidated Balance Sheets, is reviewed periodically for impairment by reviewing the recoverability of the asset based on estimated future fees to be collected.

Property, Equipment, Software and Depreciation

Property, equipment and software includes owned property, leasehold improvements, computer hardware/software and other equipment and is stated at cost less accumulated depreciation or amortization and any previously recorded impairment in value. Expenditures for major additions and improvements are capitalized; minor replacements, maintenance and repairs are charged to expense as incurred. Amounts incurred are presented as work-in-progress until the construction or purchase of the property and equipment is substantially complete and ready for its intended use, which, at that point, will begin to be depreciated or amortized. Depreciation or amortization is provided on property, equipment and software at rates calculated to write off the cost, less estimated residual value, of each asset on a straight-line basis over its expected useful life: owned buildings over 50 years, leasehold improvements over the shorter of the lease term or useful life of the improvement; and computers and other equipment between three and seven years.

Purchased and internally developed software is capitalized if the costs can be measured reliably, and it is probable that the asset will generate future economic benefits. For internally developed software, the company capitalizes certain internal and external costs incurred related to software development activities that will generate future economic benefits. These capitalized costs are amortized into operating expenses on a straight-line basis over its useful life, generally over five to seven years. Depreciation or amortization expense is included in Property, office and technology expense on the Consolidated Income Statement.

The company reevaluates the useful life determination for property, equipment and software each reporting period to determine whether events and circumstances warrant a revision to the remaining useful life. Upon a sale or retirement, the asset cost and related accumulated depreciation or amortization are removed from the Consolidated Financial Statements and any related gain or loss is reflected in income.

The carrying amounts of property, equipment and software are reviewed for impairment when events or changes in circumstances indicate that the carrying values may not be recoverable. At each reporting date, an assessment is made to identify any indicators of impairment. An impairment test is performed if an impairment indicator is identified.

Intangible Assets

Intangible assets identified on the acquisition of a business are capitalized separately from goodwill if the fair value can be measured reliably on initial recognition (transaction date). Intangible assets consist primarily of mutual fund and other client management contracts, customer relationships and distribution agreements. Certain management contracts are managed and operated on a single global platform and are therefore reviewed in aggregate as one unit of valuation. These contracts are considered interchangeable because investors may freely transfer between funds.

Intangible assets that are determined to be finite-lived are amortized on a straight-line basis over their useful lives, from two to twelve years, which reflects the pattern in which the economic benefits are realized. The company reviews intangible assets each reporting period to determine whether events or circumstances have occurred that indicate the expected period of economic benefit may no longer be appropriate or there is an indication of impairment. If there is an indication of impairment, management will perform an impairment analysis. The company considers its own assumptions, which require management's judgment, about renewal or extension of the term of the arrangement, consistent with its expected use of the asset.

Where evidence exists that the underlying agreements have a high likelihood of continued renewal at little or no cost to the company, the intangible asset is assigned an indefinite life and reviewed for impairment on an annual basis. Intangible assets not subject to amortization are tested for impairment annually as of October 1 or more frequently if events or changes in circumstances indicate that the asset might be impaired. When testing intangible assets for impairment, management has the option to first perform a qualitative assessment. If the qualitative assessment indicates that an impairment may be likely or management elected to not perform the qualitative assessment, management performs a quantitative test to determine the fair value of the intangible assets and compares the fair value with its carrying amount. If the carrying amount of the intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. Fair value is generally determined using an income approach where estimated future cash flows are discounted to arrive at a single present value amount.

Goodwill

Goodwill represents the excess of cost over the identifiable net assets of businesses acquired and is recorded in the functional currency of the acquired entity. Goodwill is recognized as an asset and is reviewed for impairment annually as of October 1 and between annual tests when events and circumstances indicate that impairment may have occurred.

The company has determined that it has one reporting unit for goodwill impairment testing purposes which is consistent with internal management reporting and management's oversight of operations. The company evaluated the components of its business, which are business units one level below the operating segment level in making this determination. The company's operating segment represents one reporting unit because all of the components are similar due to the common nature of products and services offered, type of clients, methods of distribution, manner in which each component is operated, extent to which they share assets and resources and the extent to which they support and benefit from common product development efforts.

The company has the option to first qualitatively assess whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If not utilized, a quantitative impairment test is performed at the reporting unit level. If the carrying amount of the reporting unit exceeds its fair value, then goodwill is impaired, and the amount of the impairment loss equals the amount by which the carrying value exceeds fair value, not to exceed the total amount of goodwill allocated to the reporting unit.

The principal method of determining fair value of the reporting unit is an income approach where estimated future cash flows are discounted to arrive at a single present value amount. The discount rate used is derived based on the time value of money and the risk profile of the stream of future cash flows. Recent results and projections based on expectations regarding revenue, expenses, capital expenditure and acquisition earn out payments produce a present value for the reporting unit. The present value produced for the reporting unit is the fair value of the reporting unit.

Debt Issuance Costs

Debt issuance costs related to the issuance of Senior Notes are presented as a deduction from the carrying amount of the related debt liability. Debt issuance costs related to the company's credit facility are presented as a deferred asset within Other Assets on the company's Consolidated Balance Sheets. After initial recognition, debt issuance costs are measured at amortized cost. Debt issuance costs are amortized over the term of the debt using the effective interest method. Interest charges are recognized in the Consolidated Statements of Income in the period in which they are incurred.

Revenue Recognition

Revenue is measured and recognized based on the five step process outlined in ASC Topic 606, "Revenue from Contracts with Customers." Revenue is determined based on the transaction price negotiated with the customer, net of discounts, value added tax and other sales-related taxes.

Investment management fees are derived from providing professional services to manage client accounts and sponsored investment vehicles. Investment management services are satisfied over time as the services are provided and are typically based upon a percentage of the value of the client’s AUM. Investment management fees for certain arrangements include fees for distribution and administrative-related services. Any fees collected in advance are deferred and recognized as income over the period in which services are rendered.

Service fees are earned for services rendered relating to fund accounting, transfer agent, administrative and/or other maintenance activities performed for sponsored investment vehicles. Service fees are generally based upon a percentage of the value of the AUM. Service fees are also earned from the delivery of digital solutions to our customers. All of these services are satisfied over time.

The company provides distribution services to certain sponsored investment vehicles. Fees are generally earned based upon a percentage of the value of the AUM, as the fee amounts do not crystallize completely upon the sale of a share or unit. Accordingly, the distribution fee revenues are recognized over time as the amount of the fees becomes known. For example, U.S. distribution fees can include 12b-1 fees earned from certain mutual funds to cover allowable sales and marketing expenses for those funds and also include asset-based sales charges paid by certain mutual funds for a period of time after the sale of those funds. Generally, retail products offered outside of the U.S. do not generate a separate distribution fee; the quoted management fee rate is inclusive of these services. The company also has certain arrangements whereby the distribution fees are paid upon the subscription or redemption of a share or unit.

Performance fee revenues, including carried interests and performance fees related to partnership investments and separate accounts, are generated on certain management contracts when performance hurdles are achieved. Such fee revenues are recorded in operating revenues when the contractual performance criteria have been met and when it is probable that a significant reversal of revenue recognized will not occur in future reporting periods. Cash receipt of performance fees generally occurs after the performance fee revenue is earned; however, the company may receive, from time-to-time, cash distributions of carried interest before any revenue is earned. Such distributions are reflected as deferred carried interest liabilities within accounts payable and accrued expenses on the Consolidated Balance Sheets. Given the uniqueness of each fee arrangement, performance fee contracts are evaluated on an individual basis to determine the timing of revenue recognition.

Other revenues include fees derived primarily from transaction commissions earned upon the sale of new investments into certain of our funds and fees earned upon the completion of transactions in our real estate and private equity asset groups. These transaction fees are recorded in the Consolidated Statements of Income on the date when Invesco’s services are complete, which typically coincides with when the transactions are legally complete.

Principal versus Agent

The company utilizes third-party service providers to fulfill certain performance obligations in its revenue agreements. Generally, the company is deemed to be the principal in these arrangements because the company controls the investment management and other related services before they are transferred to customers. Such control is evidenced by the company's primary responsibility to customers, the ability to negotiate the third-party contract price and select and direct third-party service providers, or a combination of these factors. Therefore, investment management and service and distribution fee revenues and the related third-party distribution, service and advisory expenses are reported on a gross basis.

As discussed above, the revenues from the company's U.S. retail operations include 12b-1 distribution fees, which are largely passed through to brokers who sell the funds as third-party distribution expenses along with additional marketing support distribution costs. Both the revenues and the costs are dependent on the underlying AUM of the brokers' clients. Third-party distribution expenses also include the amortization of upfront commissions paid to broker-dealers for sales of fund shares with a CDSC (a charge levied to the investor for client redemption of AUM within a certain contracted period of time). The upfront distribution commissions are amortized over the redemption period. Also included in third-party distribution, service and advisory expenses are sub-transfer agency fees that are paid to third parties for processing client common share purchases and redemptions, call center support and client reporting. These costs are reimbursed by the related funds and are included in service and distribution fees.

Money Market Fee Waivers

The company is currently providing voluntary yield support waivers of its revenues on certain money market funds to ensure that they maintain a minimum level of daily net investment income. During the year ended December 31, 2022, yield support waivers resulted in a reduction of total gross operating revenues of $33.8 million (year ended December 31, 2021: $153.7 million). A significant portion of our money market AUM arises from the institutional distribution channel, where relationships with our distribution partners allow us to share the waiver impact. Gross waivers are partially offset by a reduction of payments to these intermediaries, which are included in third-party distribution, service and advisory expenses.

Common Share-Based Compensation

The company issues equity-settled common share-based awards to certain employees, which are measured at fair value at the date of grant. The fair value determined at the grant date is expensed, based on the company's estimate of common shares that will eventually vest, on a straight-line or accelerated basis over the vesting period. The initial forfeiture rate applied to most grants is 3% per year, based upon the company's historical experience with respect to employee turnover. Fair value for the common share awards representing equity interests identical to those associated with common shares traded in the open market is determined using the market price at the date of grant.

Deferred Compensation

The company grants deferred cash awards to certain employees which are linked in value to investment products. During the vesting period, employees earn a return linked to the appreciation or depreciation of specified investments. The company currently hedges economically the exposure to market movements on certain of these awards by holding the investments on its balance sheet and through a total return swap financial instrument. The company recognizes as compensation expense the value of the liability to employees, including the appreciation or depreciation of the liability, over the award's vesting period in proportion to the vested amount of the award. The company immediately recognizes the full value of the related investment, and any subsequent appreciation or depreciation of the investment, in Other gains/ (losses), net.

Pensions

For defined contribution plans, contributions payable related to the accounting period are expensed and included in Employee compensation expense. For defined benefit plans, the cost of providing benefits is separately determined for each plan using the projected unit credit method, based on actuarial valuations performed at each balance sheet date. The company's annual measurement date is December 31. A portion of actuarial gains and losses is expensed and included in other gains/(losses), net if the net cumulative unrecognized actuarial gain or loss at the end of the prior period exceeds the greater of 10.0% of the present value of the defined benefit obligation (before deducting plan assets) at that date and 10.0% of the fair value of any plan assets.

Leases

The company determines whether an arrangement is a lease at contract inception. Lease liabilities and right-of-use assets are recognized on the lease commencement date based on the net present value of fixed lease payments over the lease term. The company includes options to extend or terminate a lease within the lease term when it is reasonably certain the option will be exercised. Leases with an initial term of 12 months or less are not recorded on the balance sheet. Lease liabilities represent an obligation to make lease payments arising from a lease while right-of-use assets represent a right to use an underlying asset during the lease term. Right-of-use assets exclude capital improvement funding and other lease concessions provided by the landlord.

As the company's leases generally do not have a readily determinable implicit rate, the company uses its incremental borrowing rate to determine the present value of fixed lease payments based on information available at the lease commencement date. Fixed lease expenses for operating leases are generally recognized on a straight-line basis over the lease term. The company combines lease components and non-lease components such as fixed maintenance and other costs into a single lease component, which results in the capitalization of all fixed payments within lease liabilities and right-of-use assets. Variable lease payments, such as variable maintenance costs or payments based on an index rate or usage, are expensed as incurred and excluded from lease liabilities and right-of-use assets.

Taxation

Deferred tax assets and liabilities are recorded for temporary differences between the reported amounts of assets and liabilities in the financial statements and their respective tax bases, using the enacted statutory tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the income tax provision in the period in which the change is enacted. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets to the amount that is more likely than not to be realized. The company recognizes all excess tax benefits and deficiencies related to common share-based awards as a discrete item in the income tax provision in the period in which the awards vest. The company records a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. The company recognizes interest and penalties related to income tax matters in the income tax provision.

Earnings Per Common Share

Basic and diluted EPS are computed using the two-class method, which treats unvested restricted common shares as if they were a separate class of common shares. Under the two-class method, net income attributable to Invesco. is adjusted for the allocation of earnings to the unvested restricted common shares. In addition, the weighted-average common shares outstanding is adjusted for unvested restricted common shares. There is no difference between the calculated EPS amounts attributable to Invesco. and the calculated EPS amounts under the two-class method.

Comprehensive Income

The company's other comprehensive income/(loss) consists of foreign currency translation adjustments and employee benefit plan liability adjustments. Such amounts are recorded net of applicable taxes.

Translation of Foreign Currencies

Transactions in foreign currencies (currencies other than the functional currencies of the company's subsidiaries) are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are remeasured into the functional currencies of the company's subsidiaries at the rates prevailing at the balance sheet date. The revaluation of these transactions is included in the Consolidated Statements of Income.

The company's reporting currency and the functional currency of the Parent is U.S. Dollars. On consolidation, the assets and liabilities of the company's subsidiaries whose functional currencies are currencies other than the U.S. Dollar are translated at the rates of exchange prevailing at the balance sheet date. Income and expense items included in the Consolidated Statements of Income are translated at the weighted average rates for the year, which approximate actual exchange rates with the foreign exchange impact recorded to the Consolidated Statements of Income. Exchange differences arising on the translation of the assets and liabilities of foreign operations are recorded directly to accumulated other comprehensive income in equity until the disposal of the net investment, at which time they are recognized in the Consolidated Statements of Income. Goodwill and other fair value adjustments arising on acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and are translated at rates of exchange prevailing at the balance sheet date.

The company may, from time to time, designate certain intercompany debt as non-derivative net investment hedging instruments against foreign currency exposure related to its net investment in foreign operations. In the management of its cross-border fund operations, foreign currency forward and swap contracts are purchased daily to hedge against foreign exchange rate movements during the four-day client money settlement period. Certain CIP may also utilize such instruments.

2. FAIR VALUE OF ASSETS AND LIABILITIES

The fair value of financial instruments are presented in the below summary table. The fair value of financial instruments held by CIP are presented in Note 19, "Consolidated Investment Products."

	December 31, 2022	December 31, 2021
$ in millions	**Fair Value**	**Fair Value**
Cash and cash equivalents	1,234.7	1,896.4
Equity investments	325.0	337.9
Foreign time deposits [(1)]	25.7	30.4
Assets held for policyholders	668.7	1,893.6
Policyholder payables [(1)]	(668.7)	(1,893.6)
Total return swaps related to deferred compensation plans	(1.6)	1.6

(1) These financial instruments are not measured at fair value on a recurring basis. Foreign time deposits are measured at cost plus accrued interest, which approximates fair value, and are accordingly classified as Level 2 securities. Policyholder payables are indexed to the value of the assets held for policyholders and changes in fair value are recorded and offset to zero in other operating revenues.

A three-level valuation hierarchy exists for disclosure of fair value measurements based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

- Level 1 - inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3 - inputs to the valuation methodology are unobservable and significant to the fair value measurement.

An asset or liability's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The following table presents, for each of the hierarchy levels described above, the carrying value of the company's assets and liabilities, including major security type for equity and debt securities, which are measured at fair value on the company's Consolidated Balance Sheets as of December 31, 2022 and December 31, 2021, respectively:

	As of December 31, 2022			
$ in millions	Fair Value Measurements	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents:				
Money market funds [1]	760.8	760.8	—	—
Investments: [2]				
Equity investments:				
Seed money	177.9	177.9	—	—
Investments related to deferred compensation plans	146.1	146.1	—	—
Other equity securities	1.0	1.0	—	—
Assets held for policyholders [3]	668.7	668.7		—
Total	1,754.5	1,754.5	—	—
Liabilities:				
Total return swaps related to deferred compensation plans	(1.6)	—	(1.6)	—
Contingent consideration liability	(1.3)	—	—	(1.3)
Total	(2.9)	—	(1.6)	(1.3)

	As of December 31, 2021			
$ in millions	Fair Value Measurements	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents:				
Money market funds [1]	1,270.0	1,270.0	—	—
Investments: [2]				
Equity investments:				
Seed money	109.4	109.4	—	—
Investments related to deferred compensation plans	226.6	226.6	—	—
Other equity securities	1.9	1.9	—	—
Assets held for policyholders [3]	1,893.6	1,893.6		—
Total return swaps related to deferred compensation plans	1.6	—	1.6	—
Total	3,503.1	3,501.5	1.6	—
Liabilities:				
Contingent consideration liability	(1.3)	—	—	(1.3)
Total	(1.3)	—	—	(1.3)

(1) The balance primarily represents cash held in affiliated money market funds.

(2) Foreign time deposits of $25.7 million as of December 31, 2022 (December 31, 2021: $30.4 million) are excluded from this table. Equity method and other investments of $621.2 million and $24.7 million, respectively, as of December 31, 2022 (December 31, 2021: $550.1 million and $7.9 million, respectively) are also excluded from this table. These investments are not measured at fair value, in accordance with applicable accounting standards.

(3) The majority of assets held for policyholders are held in affiliated funds.

Total Return Swaps

In addition to holding equity investments, the company has total return swaps (TRS) to hedge economically certain deferred compensation liabilities. The notional value of the TRS at December 31, 2022 was $326.6 million, and the fair value of the TRS was a liability of $1.6 million (December 31, 2021 notional value was $343.1 million and the fair value was an asset of $1.6 million). During the year ended December 31, 2022, market valuation losses related to the TRS were $74.3 million (December 31, 2021: $26.8 million of net gains).

The fair value of the TRS was determined under the market approach using quoted prices of the underlying investments and, as such, is classified as level 2 of the valuation hierarchy. The TRS are not designated for hedge accounting.

3. INVESTMENTS

The disclosures below include details of the company's investments. Investments held by CIP are detailed in Note 19, "Consolidated Investment Products."

$ in millions	December 31, 2022	December 31, 2021
Equity investments:		
Seed money	177.9	109.4
Investments related to deferred compensation plans	146.1	226.6
Other equity securities	1.0	1.9
Equity method investments	621.2	550.1
Foreign time deposits	25.7	30.4
Other	24.7	7.9
Total investments [1]	996.6	926.3

(1) The majority of the company’s investment balances relate to balances held in affiliated funds and equity method investees.

Equity investments

Net losses recorded in Other gains/(losses) in the Consolidated Statements of Income resulting from equity investments and TRS for the year ended December 31, 2022, were $150.4 million (December 31, 2021: $58.1 million net gain). The unrealized gains and losses for the year ended December 31, 2022, that relate to equity investments still held at December 31, 2022, was a $44.0 million net loss (December 31, 2021: $8.8 million net gain related to equity investments still held at December 31, 2021).

Equity method investments

Following are the company's investments in joint ventures and affiliates, which are accounted for using the equity method and are recorded as investments on the Consolidated Balance Sheets:

Name of Company	Country of Incorporation	% Voting Interest Owned
Huaneng Invesco Private Equity Management Company Ltd.	China	50.0%
Invesco Great Wall Fund Management Company Limited	China	49.0%
Pocztylion - ARKA	Poland	29.3%

Undistributed earnings from equity method investees have not been a material restriction on the company's ability to pay dividends to shareholders. Equity method investments also include the company's investments in certain of its managed private equity, real estate and other investment entities. These entities include variable interest entities for which the company has determined that it is not the primary beneficiary and other investment products structured as partnerships for which the company is the general partner and the other limited partners possess either substantive kick-out, liquidation or participation rights. See Note 1, “Accounting Policies,” for additional information.

4. PROPERTY, EQUIPMENT AND SOFTWARE

The following is a summary of property, equipment and software:

$ in millions	December 31, 2022	December 31, 2021
Technology and Other Equipment	273.2	289.1
Software	930.6	901.0
Land and Buildings	87.8	98.7
Leasehold Improvements	226.2	233.9
Work in Process	173.1	74.3
Property, Equipment and Software, Gross	1,690.9	1,597.0
Less: Accumulated Depreciation	(1,121.0)	(1,074.5)
Less: Accumulated Impairment [1]	(8.8)	(4.4)
Property, Equipment and Software, Net	561.1	518.1

(1) During the year ended December 31, 2022, the company recorded an impairment expense to transaction, integration and restructuring expense related to a property, of which $4.4 million related to leasehold improvements. The company did not recognize any impairment expense during the year ended December 31, 2021.

Depreciation expense related to property, equipment and software was $131.5 million, $142.4 million and $141.0 million for the years ended December 31, 2022, 2021 and 2020, respectively.

The following is a summary of accumulated depreciation:

$ in millions	December 31, 2022	December 31, 2021
Beginning balance	(1,074.5)	(1,006.1)
Depreciation expense	(131.5)	(142.4)
Property, equipment, and software retirements and disposals	61.6	70.4
Foreign currency translation adjustment	23.4	3.6
Ending balance	(1,121.0)	(1,074.5)

5. INTANGIBLE ASSETS

The following table presents the major classes of the company's intangible assets at December 31, 2022 and 2021:

$ in millions	Gross Book Value	Accumulated Amortization	Net Book Value
December 31, 2022			
Management contracts - indefinite-lived	6,949.7	N/A	6,949.7
Management contracts - finite-lived	318.3	(189.2)	129.1
Developed technology	90.5	(78.8)	11.7
Other [1]	104.8	(54.1)	50.7
Total	7,463.3	(322.1)	7,141.2
December 31, 2021			
Management contracts - indefinite-lived	6,968.3	N/A	6,968.3
Management contracts - finite-lived	319.2	(151.4)	167.8
Developed technology	98.1	(68.2)	29.9
Other [1]	109.7	(47.7)	62.0
Total	7,495.3	(267.3)	7,228.0

(1) Includes indefinite-lived non-management contracts intangible assets of $19.1 million for the years ended December 31, 2022 and 2021.

Amortization expense was $63.8 million during the year ended December 31, 2022 (December 31, 2021: $62.9 million; December 31, 2020: $62.5 million). Estimated amortization expense for each of the five succeeding fiscal years based upon the company's intangible assets at December 31, 2022 is as follows:

$ in millions Years Ended December 31,	Estimated Amortization Expense
2023	(51.0)
2024	(45.8)
2025	(38.8)
2026	(31.8)
2027	(3.4)

6. GOODWILL

The table below details changes in the goodwill balance:

$ in millions	Net Book Value
January 1, 2022	8,882.5
Foreign exchange	(324.8)
December 31, 2022	8,557.7
January 1, 2021	8,916.3
Business combinations	1.6
Foreign exchange	(35.4)
December 31, 2021	8,882.5

7. OTHER LIABILITIES

The table below details the components of other liabilities:

	As of	
$ in millions	December 31, 2022	December 31, 2021
Compensation and benefits	87.8	121.2
Accrued bonus and deferred compensation	773.0	941.1
Accrued compensation and benefits	860.8	1,062.3
Accruals and other liabilities	606.5	655.7
Lease liability (See Note 14)	480.2	289.8
Accounts payable	59.6	39.2
Unsettled funds payable	79.4	91.8
Income taxes payable	89.1	80.6
Accounts payable and accrued expenses	1,314.8	1,157.1

8. DEBT

The issuer of the senior notes, Invesco Finance PLC, is an indirect 100% owned finance subsidiary of the Parent, and the Parent fully and unconditionally guarantees the securities. As discussed in Note 1, "Accounting Policies - Cash and Cash Equivalents," certain of our subsidiaries are required to maintain minimum levels of capital. These and other similar provisions of applicable law may have the effect of limiting withdrawals of capital, repayment of intercompany loans and payment of dividends by such entities.

The disclosures below include details of the company's debt. Debt of CIP is detailed in Note 19, “Consolidated Investment Products.”

$ in millions	December 31, 2022		December 31, 2021	
	Carrying Value [4]	Fair Value	Carrying Value [4]	Fair Value
$1.5 billion floating rate credit facility expiring April 26, 2026 [1]	—	—	—	—
Unsecured Senior Notes [2]:				
$600 million 3.125% - due November 30,2022 [3]	—	—	599.4	613.8
$600 million 4.000% - due January 30, 2024	598.8	591.5	597.8	633.7
$500 million 3.750% - due January 15, 2026	497.9	486.4	497.3	541.2
$400 million 5.375% - due November 30, 2043	390.9	397.3	390.6	536.8
Debt	1,487.6	1,475.2	2,085.1	2,325.5

(1) On April 26, 2021, Invesco and its indirect subsidiary, Invesco Finance PLC, amended and restated the $1.5 billion floating rate credit facility, extending the expiration date from August 11, 2022 to April 26, 2026.

(2) The company's senior note indentures contain certain restrictions on mergers or consolidations. Beyond these items, there are no other restrictive covenants in the indentures.

(3) On May 6, 2022, Invesco Finance PLC, an indirect subsidiary of Invesco, completed redemption of the $600 million Senior Notes due on November 30, 2022.

(4) The difference between the principal amounts and the carrying values of the senior notes in the table above reflect the unamortized debt issuance costs and discounts.

The fair market value of the company's senior notes was determined by market quotes provided by a third-party pricing service, which utilizes Level 2 valuation inputs. In the absence of an active market, the company relies upon the average price quoted by brokers for determining the fair market value of the debt.

At December 31, 2022, the outstanding balance on the credit facility was zero. Borrowings under the credit facility will bear interest at (i) LIBOR for specified interest periods or (ii) a floating base rate (based upon the highest of (a) the Bank of America prime rate, (b) the Federal Funds rate plus 0.50% and (c) LIBOR for an interest period of one month plus 1.00%), plus, in either case, an applicable margin determined with reference to the higher of the available credit ratings of the company or its indirect subsidiary Invesco Finance PLC. Based on credit ratings of the company as of December 31, 2022 and December 31, 2021, the applicable margin for LIBOR-based loans was 1.13% and for base rate loans was 0.13%. In addition, the company is required to pay the lenders a facility fee on the aggregate commitments of the lenders (whether or not used) at a rate per annum which is based on the higher of the available credit ratings of the company or its indirect subsidiary Invesco Finance PLC. Based on credit ratings as of December 31, 2022 and December 31, 2021, the annual facility fee was equal to 0.13% for both periods.

The credit facility agreement governing the credit facility contains customary restrictive covenants on the company and its subsidiaries. Restrictive covenants in the credit facility agreement include, but are not limited to: prohibitions on creating, incurring or assuming any liens; entering into merger arrangements; selling, leasing, transferring or otherwise disposing of assets; making a material change in the nature of the business; making a significant accounting policy change in certain situations; entering into transactions with affiliates; and incurring indebtedness through the subsidiaries (other than the borrower, Invesco Finance PLC). Many of these restrictions are subject to certain minimum thresholds and exceptions. Financial covenants under the credit facility agreement include: (i) the quarterly maintenance of a debt/EBITDA leverage ratio, as defined in the credit facility agreement, of not greater than 3.25:1.00, (ii) an interest coverage ratio (EBITDA, as defined in the credit facility agreement/interest payable for the four consecutive fiscal quarters ended before the date of determination) of not less than 4.00:1.00. The company is in compliance with all restrictive debt covenants as of December 31, 2022.

The credit facility agreement governing the credit facility also contains customary provisions regarding events of default which could result in an acceleration or increase in amounts due, including (subject to certain materiality thresholds and grace periods) payment default, failure to comply with covenants, material inaccuracy of representation or warranty, bankruptcy or insolvency proceedings, change of control, certain judgments, ERISA matters, cross-default to other debt agreements, governmental action prohibiting or restricting the company or its subsidiaries in a manner that has a material adverse effect and failure of certain guaranty obligations.

9. SHARE CAPITAL

The preferred shares have a $0.20 par value, liquidation preference of $1,000 per share and fixed cash dividend rate of 5.90% per annum, payable quarterly on a non-cumulative basis. Shares of preferred stock are not redeemable prior to the 21st anniversary of their original issue date of May 24, 2019. The number of preferred shares issued and outstanding is represented in the table below:

	As of	
in millions	**December 31, 2022**	**December 31, 2021**
Preferred shares issued [1]	4.0	4.0
Preferred shares outstanding [1]	4.0	4.0

(1) Preferred shares are held by MassMutual and are subject to a lock-up period of five years, which prohibits the sale of preferred shares by MassMutual until May 24, 2024.

The number of common shares and common share equivalents issued are represented in the table below:

In millions	**December 31, 2022**	**December 31, 2021**	**December 31, 2020**
Common shares issued	566.1	566.1	566.1
Less: Treasury shares for which dividend and voting rights do not apply	(111.3)	(104.9)	(107.0)
Common shares outstanding	454.8	461.2	459.1

During the year ended December 31, 2022, the company repurchased 8.9 million common shares in the open market at a cost of $200.0 million (December 31, 2021: none). Separately, an aggregate of 2.4 million shares were withheld on vesting events during the year ended December 31, 2022 to meet employees' withholding tax obligations (December 31, 2021: 2.7 million). The fair value of the common shares withheld at the respective withholding dates was $44.7 million (December 31, 2021: $60.9 million). At December 31, 2022, approximately $532.2 million remained authorized under the company's common share repurchase authorization approved by the Board on July 22, 2016 (December 31, 2021: $732.2 million).

Total treasury shares at December 31, 2022 were 119.5 million (December 31, 2021: 115.7 million), including 8.2 million unvested restricted common stock awards (December 31, 2021: 10.8 million) for which dividend and voting rights apply. The market price of common shares at the end of 2022 was $17.99. The total market value of the company's 119.5 million treasury shares was $2.1 billion at December 31, 2022.

Movements in Treasury Shares comprise:

	Year ended		
In millions	**December 31, 2022**	**December 31, 2021**	**December 31, 2020**
Beginning balance	115.7	121.6	128.2
Acquisition of common shares	11.3	2.7	3.4
Distribution of common shares	(7.1)	(8.4)	(9.3)
Common shares distributed to meet ESPP obligation	(0.4)	(0.2)	(0.7)
Ending balance	119.5	115.7	121.6

10. OTHER COMPREHENSIVE INCOME/(LOSS)

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

	2022		
$ in millions	**Foreign currency translation**	**Employee benefit plans**	**Total**
Other comprehensive income/(loss), net of tax:			
Currency translation differences on investments in foreign subsidiaries	(463.1)	—	(463.1)
Actuarial gain/(loss) related to employee benefit plans	—	(38.8)	(38.8)
Other comprehensive income/(loss), net	—	1.0	1.0
Other comprehensive income/(loss), net of tax	(463.1)	(37.8)	(500.9)
Beginning balance	(351.9)	(89.6)	(441.5)
Other comprehensive income/(loss), net of tax	(463.1)	(37.8)	(500.9)
Ending balance	(815.0)	(127.4)	(942.4)

	2021		
$ in millions	**Foreign currency translation**	**Employee benefit plans**	**Total**
Other comprehensive income/(loss) net of tax:			
Currency translation differences on investments in foreign subsidiaries	(73.4)	—	(73.4)
Actuarial gain/(loss) related to employee benefit plans	—	28.3	28.3
Other comprehensive income/(loss), net	—	8.1	8.1
Other comprehensive income/(loss), net of tax	(73.4)	36.4	(37.0)
Beginning balance	(278.5)	(126.0)	(404.5)
Other comprehensive income/(loss), net of tax	(73.4)	36.4	(37.0)
Ending balance	(351.9)	(89.6)	(441.5)

	2020		
$ in millions	**Foreign currency translation**	**Employee benefit plans**	**Total**
Other comprehensive income/(loss) net of tax:			
Currency translation differences on investments in foreign subsidiaries	182.7	—	182.7
Actuarial gain/(loss) related to employee benefit plans	—	(6.3)	(6.3)
Other comprehensive income/(loss), net	—	6.4	6.4
Other comprehensive income/(loss), net of tax	182.7	0.1	182.8
Beginning balance	(461.2)	(126.1)	(587.3)
Other comprehensive income/(loss), net of tax	182.7	0.1	182.8
Ending balance	(278.5)	(126.0)	(404.5)

11. COMMON SHARE-BASED COMPENSATION

The company recognized total compensation expense of $106.2 million, $140.1 million and $188.5 million related to equity-settled common share-based payment transactions in 2022, 2021 and 2020, respectively. The income tax benefit recognized in the Consolidated Statements of Income for common share-based compensation arrangements was $21.7 million for 2022 (2021: $30.0 million; 2020: $27.8 million).

Employee common share awards are broadly classified into two categories: time-vested and performance-vested. Time-vested awards vest ratably over a defined period of continued employee service. Performance-vested awards vest upon (i) the company's attainment of certain pre-established performance criteria, and (ii) a defined period of continued employee service. Time-vested and performance-vested equity awards are granted in the form of restricted stock awards (RSAs) or restricted stock units (RSUs). With respect to the performance-vested awards granted in February 2020, 2021 and 2022, vesting is tied to the achievement of specific levels of adjusted operating margin and relative total shareholder return with vesting ranging from 0% to 150%.

Employee common share awards are measured at fair value based on Invesco's common stock price at the date of grant and are expensed, based on the company's estimate of common shares that will eventually vest, on a straight-line or accelerated basis over the vesting period.

With respect to time-vested awards, dividends accrue directly to the employee holder of RSAs, and cash payments in lieu of dividends are made to employee holders of certain RSUs. With respect to performance-vested awards, cash payments in lieu of dividends are deferred and are paid at the same rate as on the underlying shares if and to the extent the award vests.

The 2016 Global Equity Incentive Plan, which was originally approved by the company's common shareholders in May 2016 and most recently amended and restated in May 2021, authorizes the issuance of up to 16.0 million shares. In May 2010, the board approved the 2010 Global Equity Incentive Plan ST (GEIP ST). The GEIP ST authorizes the issuance of up to 8.5 million shares. With respect to the GEIP ST, awards are only granted as employment inducement awards in connection with a strategic transaction and, as a result, do not require shareholder approval under the rules of the NYSE or otherwise.

Movements on employee common share awards during the years ended December 31, are detailed below:

	2022			2021		2020	
Millions of common shares, except fair values	Time-Vested	Performance-Vested	Weighted Average Grant Date Fair Value ($)	Time-Vested	Performance-Vested	Time-Vested	Performance-Vested
Unvested at the beginning of year	13.5	1.9	18.88	18.1	1.6	18.7	1.1
Granted during the year	3.6	1.0	21.23	3.4	0.6	8.8	0.9
Forfeited during the year	(0.3)	(0.1)	19.31	(0.4)	—	(0.5)	—
Vested and distributed during the year	(6.5)	(0.7)	20.10	(7.6)	(0.3)	(8.9)	(0.4)
Unvested at the end of the year	10.3	2.1	19.03	13.5	1.9	18.1	1.6

The total fair value of common shares that vested during 2022 was $141.8 million (2021: $187.9 million; 2020: $124.6 million). The weighted average grant date fair value of the U.S. dollar share awards that were granted during 2022 was $21.23 (2021: $22.61; 2020: $14.09).

At December 31, 2022, there was $140.9 million of total unrecognized compensation cost related to non-vested common share awards; that cost is expected to be recognized over a weighted average period of 2.28 years.

12. RETIREMENT BENEFIT PLANS

Defined Contribution Plans

The company operates defined contribution retirement benefit plans for all qualifying employees. The assets of the plans are held separately from those of the company in funds under the control of trustees. When employees leave the plans prior to vesting fully in the contributions, the contributions payable by the company are reduced by the amount of forfeited contributions.

The total amounts charged to the Consolidated Statements of Income for the year ended December 31, 2022 of $76.4 million (December 31, 2021: $81.2 million, December 31, 2020: $86.4 million) represent contributions paid or payable to these plans by the company at rates specified in the rules of the plans. As of December 31, 2022, accrued contributions of $28.3 million (December 31, 2021: $31.1 million) for the current year will be paid to the plans.

Defined Benefit Plans

The company maintains legacy defined benefit pension plans for qualifying employees of its subsidiaries in the U.K., Ireland, Germany and Taiwan. All defined benefit plans are closed to new participants.

The most recent actuarial valuations of plan assets and the present value of the defined benefit obligation were valued as of December 31, 2022. The benefit obligation, related current service cost and prior service cost were measured using the projected unit credit method.

Benefit Obligations and Funded Status

The amounts included in the Consolidated Balance Sheets arising from the company's obligations and plan assets in respect of its defined benefit retirement plans are as follows:

	Retirement Plans	
$ in millions	**2022**	**2021**
Benefit obligation	(303.0)	(512.8)
Fair value of plan assets	335.8	577.0
Funded status	32.8	64.2
Amounts recognized in the Consolidated Balance Sheets:		
Other assets	39.7	82.8
Accrued compensation and benefits	(6.9)	(18.6)
Funded status	32.8	64.2

Changes in the benefit obligations were as follows:

	Retirement Plans	
$ in millions	**2022**	**2021**
January 1	512.8	587.1
Service cost	—	0.6
Interest cost	8.8	8.9
Actuarial (gains)/losses	(154.3)	(37.0)
Exchange difference	(50.7)	(11.2)
Benefits paid	(13.6)	(10.2)
Curtailment (gains)/losses	—	(0.3)
Settlement	—	(25.1)
December 31	303.0	512.8

Key assumptions used in plan valuations are detailed below. Appropriate local mortality tables are also used. The weighted average assumptions used to determine defined benefit obligations at December 31, 2022, and 2021 are as follows:

	Retirement Plans	
	2022	2021
Discount rate	4.55 %	1.91 %
Expected rate of salary increases	2.97 %	3.10 %
Future pension trend rate increases	3.35 %	3.29 %

Changes in the fair value of plan assets in the current period were as follows:

	Retirement Plans	
$ in millions	2022	2021
January 1	577.0	585.0
Actual return on plan assets	(195.0)	26.4
Foreign currency changes	(57.6)	(7.9)
Contributions from the company	25.0	13.8
Benefits paid	(13.6)	(10.1)
Settlement and other	—	(30.2)
December 31	335.8	577.0

The components of the amount recognized in accumulated other comprehensive income at December 31, 2022 and 2021 are as follows:

	Retirement Plans	
$ in millions	2022	2021
Prior service cost/(credit)	5.6	6.6
Net actuarial loss/(gain)	149.5	96.8
Total	155.1	103.4

The amounts in accumulated other comprehensive income expected to be amortized into the Consolidated Income Statement during the year ending December 31, 2023 are as follows:

$ in millions	Retirement Plans
Prior service cost/(credit)	0.2
Net actuarial loss/(gain)	3.6
Total	3.8

The total accumulated and projected benefit obligation and fair value of plan assets for plans with accumulated and projected benefit obligations in excess of plan assets are as follows:

	Retirement Plans	
$ in millions	**2022**	**2021**
Plans with accumulated and projected benefit obligation in excess of plan assets:		
Accumulated and projected benefit obligation	41.7	64.8
Fair value of plan assets	34.8	46.2

Net Periodic Benefit Cost

The components of net periodic benefit cost in respect of these defined benefit plans are as follows:

	Retirement Plans		
$ in millions	**2022**	**2021**	**2020**
Service cost	—	0.6	2.4
Interest cost	8.8	8.9	9.2
Expected return on plan assets	(13.5)	(16.8)	(23.7)
Amortization of prior service cost/(credit)	0.2	0.2	0.2
Amortization of net actuarial (gain)/loss	0.8	2.7	3.6
Settlement	—	4.4	8.0
Curtailment (gain)/loss	—	(0.3)	—
Net periodic benefit cost/(credit)	(3.7)	(0.3)	(0.3)

The weighted average assumptions used to determine net periodic benefit cost for the years ended December 31, 2022, 2021 and 2020 are:

	Retirement Plans		
	2022	**2021**	**2020**
Discount rate	1.91 %	1.83 %	1.93 %
Expected return on plan assets	3.28 %	3.01 %	4.69 %
Expected rate of salary increases	3.10 %	2.85 %	2.95 %
Future pension rate increases	3.29 %	2.64 %	2.74 %

In developing the expected rate of return, the company considers long-term compound annualized returns based on historical and current market data. Using this reference information, the company develops forward-looking return expectations for each asset category and an expected long-term rate of return for a targeted portfolio. Discount rate assumptions were based upon AA-rated corporate bonds of suitable terms and currencies.

Plan Assets

The analysis of the plan assets as of December 31, 2022 was as follows:

$ in millions	**Retirement Plans**	**% of Plan Assets**
Cash and cash equivalents	33.1	9.8 %
Fund investments	86.3	25.7 %
Equity securities	14.9	4.4 %
Government debt securities	9.6	2.9 %
Guaranteed investments contracts	96.0	28.6 %
Other investments	95.9	28.6 %
Total	335.8	100.0 %

The analysis of the plan assets as of December 31, 2021 was as follows:

$ in millions	Retirement Plans	% of Plan Assets
Cash and cash equivalents	27.7	4.8 %
Fund investments	296.8	51.4 %
Equity securities	23.9	4.1 %
Government debt securities	13.1	2.3 %
Guaranteed investments contracts	9.8	1.7 %
Other investments	205.7	35.7 %
Total	577.0	100.0 %

On June 28, 2022, the company entered into a pension buy-in agreement for the U.K. defined benefit pension plan with a third-party insurer. The agreement does not relieve the company of the primary responsibility to fund the pension obligations. The company transferred plan assets of £88.8 million ($107.4 million) in exchange for an insurance asset, which was recorded at fair value. The plan assets were transferred from Fund investments to Guaranteed investments contracts. The transaction did not have a material impact on the company's results of operations or financial condition.

Plan assets are not held in company stock. The investment policies and strategies for plan assets held by defined benefit plans include:

- Funding - to have sufficient assets available to pay members benefits;
- Security - to maintain the minimum Funding Requirement;
- Stability - to have due regard to the employer's ability in meeting contribution payments given their size and incidence.

The following is a description of the valuation methodologies used for each major category of plan assets measured at fair value. Information about the valuation hierarchy levels used to measure fair value is detailed in Note 2, "Fair Value of Assets and Liabilities."

Cash and cash equivalents

Cash equivalents include cash in the bank and cash investments in money market funds. Cash investments in money market funds are valued under the market approach through the use of quoted market prices in an active market, which is the NAV of the underlying funds, and are classified within level 1 of the valuation hierarchy.

Fund investments

These plan assets are primarily invested in affiliated funds and are classified within level 1 of the valuation hierarchy. They are valued at the NAV of common shares held by the plan at year end.

Equity securities, government debt securities, and other investments

These plan assets are classified within level 1 of the valuation hierarchy and are valued at the closing price reported on the active market on which the individual securities are traded.

Guaranteed investment contracts

These plan assets are classified within level 3 of the valuation hierarchy and are valued through use of unobservable inputs by discounting the related cash flows based on current yields of similar instruments with comparable durations considering the credit-worthiness of the issuer.

Cash Flows

The estimated amounts of contributions expected to be paid to the plans during 2023 are $0.2 million. There are no future annual benefits of plan participants covered by insurance contracts issued by the employer or related parties.

The benefits expected to be paid in each of the next five fiscal years and in the five fiscal years thereafter are as follows:

$ in millions	Retirement Plans
Expected benefit payments:	
2023	8.6
2024	8.8
2025	9.2
2026	9.5
2027	9.8
Thereafter in the succeeding five years	55.8

13. RESTRUCTURING

In 2020, the company initiated a strategic evaluation focusing on four key areas of our expense base: our organizational model, our real estate footprint, management of third-party spend and technology and operations efficiency.

Restructuring expenses related to the strategic evaluation were $41.0 million for the year ended December 31, 2022 (December 31, 2021: $100.5 million). Restructuring expenses are recorded to transaction, integration and restructuring expenses on the Consolidated Statements of Income.

The following table shows the roll-forward of the restructuring liability as of December 31, 2022 and total restructuring charges for the year ended December 31, 2022 and December 31, 2021. The company recorded the liability to accrued compensation and benefits, accounts payable and accrued liabilities on the Consolidated Balance Sheets.

	For the twelve month period ended December 31, 2022	For the twelve month period ended December 31, 2021
Beginning balance	34.8	44.5
Accrued charges	13.9	78.0
Payments	(41.6)	(87.7)
Ending balance	7.1	34.8
Cumulative non-cash charges [1]	74.5	47.4
Cumulative charges incurred	260.5	219.5

(1) Non-cash charges include stock-based compensation, accelerated depreciation of certain assets and location strategy costs (including the impairment charges referenced in Note 4, "Property, Equipment Software", and in Note 14, "Operating Leases").

The company will continue to incur restructuring expenses related to the strategic evaluation through the first quarter of 2023, primarily comprised of compensation and property, office and technology costs.

14. OPERATING LEASES

The company leases office space in almost all its business locations and data centers and has certain equipment under non-cancelable operating leases. The operating leases have a weighted-average remaining lease term of 10.27 years for the year ended December 31, 2022 (2021: 5.41 years) and generally include one or more options to renew, with renewal terms that can extend the lease term from 1 to 10 years. Certain lease arrangements include an option to terminate the lease if a notification is provided to the landlord within 1 to 6.2 years prior to the end of the lease term. The company has sole discretion in exercising lease renewal and termination options. The lease terms used in the company’s lease measurements do not include renewal options as they are not reasonably certain to be exercised as of the date of this report.

The company elected to combine lease and non-lease components in calculating the lease liability and right-of-use asset for operating leases.

Variable lease payments are determined based on the terms and conditions outlined in the lease contracts and are primarily determined in relation to the extent of the company's usage of the right-of use-asset or the nature and extent of services received from the lessor. Variable lease costs consists primarily of common area maintenance and other operating expenses as negotiated with the lessor.

As of December 31, 2022, the right-of-use asset of $360.8 million was included in other assets, and the lease liability of $480.2 million was included in accounts payable and accrued expenses, on the Consolidated Balance Sheets.

The components of lease expense for the year ended December 31, 2022, December 31, 2021 and December 31, 2020 were as follows:

$ in millions	Year ended December 31, 2022	Year ended December 31, 2021	Year ended December 31, 2020
Operating lease cost	82.9	81.4	91.6
Variable lease cost	19.0	25.5	23.4
Less: sublease income	(1.6)	(1.9)	(2.1)
Total lease expense	100.3	105.0	112.9

During the year ended December 31, 2022, the company recorded an impairment charge to transaction, integration and restructuring expense related to a property, of which $14.9 million related to right-of-use assets.

Supplemental cash flow information related to leases for the year ended December 31, 2022 and December 31, 2021 was as follows:

$ in millions	Year ended December 31, 2022	Year ended December 31, 2021
Cash outflows from operating leases included in the measurement of lease liabilities	70.7	86.0
Right-of-use assets obtained in exchange for new operating lease liabilities	214.8	7.7

In determining the discount rate, the company considered the interest rate yield for specific interest rate environments and the company's credit spread at the inception of the lease.

The weighted-average discount rate for the operating lease liability for the year ended December 31, 2022 was 3.78% (2021: 3.35%).

As of December 31, 2022, the maturities of the company's lease liabilities (primarily related to real estate leases) were as follows:

$ in millions Year Ending December 31,2022	Lease Liabilities
2023	73.8
2024	70.6
2025	62.6
2026	58.9
2027	52.7
Thereafter	268.8
Total lease payments	587.4
Less: interest	(107.2)
Present value of lease liabilities	480.2

Included in the tables above is the operating lease for the company's new Atlanta headquarters that was entered into during third quarter of 2019, and commenced in February 2022. The expected future lease payments are approximately $231.8 million which will be paid over an expected lease term of 15 years.

15. TAXATION

The components of the company's income tax expense (benefit) for the years ended December 31, 2022, 2021 and 2020 are as follows:

$ in millions	2022	2021	2020
Current:			
Federal	214.1	287.5	125.1
State	50.2	68.7	19.7
Foreign	9.6	95.2	35.5
	273.9	451.4	180.3
Deferred:			
Federal	35.2	72.7	57.6
State	(1.1)	22.2	5.2
Foreign	14.2	(15.2)	18.5
	48.3	79.7	81.3
Total income tax expense (benefit)	322.2	531.1	261.6

A reconciliation between the statutory U.S. federal income tax rate and the effective tax rate per the Consolidated Statements of Income for the years ended December 31, 2022, 2021 and 2020 is as follows:

	2022	2021	2020
Statutory rate	21.0 %	21.0 %	21.0 %
Effect of foreign statutory income tax rates	0.5 %	(0.4)%	0.5 %
State taxes, net of federal tax effect	3.1 %	2.9 %	1.9 %
Share-based compensation	(0.1)%	(0.1)%	1.3 %
Effect of income attributable to noncontrolling interests in consolidated entities	(0.1)%	(2.9)%	(0.9)%
Effect of income attributable to equity method investments in corporate joint ventures	(1.7)%	(0.9)%	(1.0)%
Other	3.1 %	1.6 %	1.7 %
Effective tax rate per Consolidated Statements of Income	25.8 %	21.2 %	24.5 %

The company’s effective tax rate is affected by the tax rates in foreign jurisdictions, which are different than the U.S. federal statutory tax rate of 21%, and the relative amount of income earned in those jurisdictions. As a result, the effective tax rate will vary from year to year depending on the mix of the profits and losses from each jurisdiction.

The components of income before taxes for the years ended December 31, 2022, 2021 and 2020 are as follows:

$ in millions	2022	2021	2020
Domestic	1,212.0	2,089.5	845.8
Foreign	35.7	411.0	223.3
Income before income taxes	1,247.7	2,500.5	1,069.1

The components of the deferred tax assets and liabilities reflected in the Consolidated Balance Sheets at December 31, 2022 and 2021 include the following:

$ in millions	2022	2021
Deferred tax assets:		
Compensation and benefits	97.8	175.1
Lease obligations	67.2	36.4
Net operating loss carryforwards	124.4	119.0
Fixed Assets	7.1	—
Accrued liabilities	37.1	29.7
Other	9.0	1.4
Total deferred tax assets	342.6	361.6
Valuation allowance	(93.5)	(86.7)
Deferred tax assets, net of valuation allowance	249.1	274.9
Deferred tax liabilities:		
Goodwill and intangibles	(1,796.1)	(1,787.1)
Leased assets	(58.4)	(33.3)
Fixed assets	—	(18.2)
Other	(27.3)	(42.7)
Total deferred tax liabilities	(1,881.8)	(1,881.3)
Net deferred tax liability	(1,632.7)	(1,606.4)

Deferred income tax assets and liabilities are recorded net when related to the same tax jurisdiction. At December 31, 2022, the company recorded on the Consolidated Balance Sheets net deferred tax assets of $30.0 million in other assets and net deferred tax liabilities of $1,662.7 million. At December 31, 2021, the company recorded on the Consolidated Balance Sheets net deferred tax assets of $19.9 million in other assets and net deferred tax liabilities of $1,626.3 million.

At December 31, 2022, the company had state net operating loss carryforwards of $35.5 million, which will expire, if not utilized, between 2023 and 2038 except for approximately $3.9 million which have an indefinite life. At December 31, 2022, the company also had federal and foreign net operating loss carryforwards of $88.9 million, of which approximately $13.9 million will expire over several years starting in 2023, with the remaining $75.0 million having an indefinite life. A valuation allowance has been recorded against certain carryforwards and certain deferred tax assets related to tax jurisdictions in which it is unlikely that the deferred tax asset will be realized.

Deferred tax liabilities are recognized for taxes that would be payable on the unremitted earnings of the company's foreign subsidiaries and corporate joint ventures, except where it is our intention to indefinitely reinvest the undistributed earnings. A deferred tax liability has not been recognized for our Canadian unremitted earnings, which are indefinitely reinvested, of approximately $1,034.0 million and $1,090.0 million at December 31, 2022 and 2021, respectively. If these earnings were distributed as a dividend, Canadian withholding tax of 5.0% would be due on the dividend. There are no other significant jurisdictions for which a deferred tax liability has not been recognized on unremitted earnings.

A reconciliation of the gross unrecognized tax benefits (UTBs) for the years ended December 31, 2022, 2021 and 2020 is as follows:

$ in millions	2022	2021	2020
Balance at January 1	86.6	61.9	69.9
Additions for tax positions related to the current year	16.2	15.9	6.6
Additions for tax positions related to prior years	3.1	14.2	2.2
Reductions for tax positions related to prior years	(1.2)	(3.5)	(9.9)
Reductions related to lapse of statute of limitations	(2.1)	(1.9)	(6.9)
Reductions related to settlements	(2.4)	—	—
Balance at December 31	100.2	86.6	61.9

The amount of UTBs that, if recognized, would favorably affect the company's effective tax rate was $83.5 million at December 31, 2022. The company recognizes accrued interest and penalties related to UTBs as a component of the income tax provision. The Consolidated Balance Sheets include accrued interest and penalties related to UTBs of $15.1 million, $14.8 million and $13.2 million at December 31, 2022, 2021 and 2020, respectively. The company recognized expense for interest and penalties related to UTBs of $1.4 million, $1.6 million and $1.7 million in 2022, 2021 and 2020, respectively.

The company files U.S. federal, U.S. state and local, and numerous foreign income tax returns. The company is periodically examined by various taxing authorities. With few exceptions, the company is no longer subject to income tax examinations for years prior to 2013. As a result of the completion of taxing authorities' examinations and the expiration of statutes of limitations, it is reasonably possible that the company's gross UTBs may decrease by as much as $25.0 million within the next twelve months.

16. EARNINGS PER COMMON SHARE

The calculation of EPS is as follows:

	Years ended December 31,		
In millions, except per share data	2022	2021	2020
Net income attributable to Invesco Ltd.	$683.9	$1,393.0	$524.8
Invesco Ltd:			
Weighted average common shares outstanding - basic	457.5	462.8	459.5
Dilutive effect of non-participating common share-based awards	2.0	2.6	3.0
Weighted average common shares outstanding - diluted	459.5	465.4	462.5
Earnings per common share:			
-basic	$1.50	$3.01	$1.14
-diluted	$1.49	$2.99	$1.13

There is no difference between the calculated EPS amounts presented above and the calculated EPS amounts under the two class method.

Certain performance-vested awards are excluded from diluted EPS share calculations as the designated contingency was not met.

17. GEOGRAPHIC INFORMATION

The company operates under one business segment, investment management. Geographical information is presented below. There are no revenues or long-lived assets attributed to the company's country of domicile, Bermuda.

$ in millions	Americas	APAC	EMEA[2]	Total
For the year ended December 31, 2022				
Total operating revenues [1]	4,665.1	284.9	1,098.9	6,048.9
Long-lived assets	395.4	28.0	137.7	561.1
For the year ended December 31, 2021				
Total operating revenues [1]	5,174.7	348.6	1,371.2	6,894.5
Long-lived assets	341.4	23.6	153.1	518.1
For the year ended December 31, 2020				
Total operating revenues [1]	4,541.6	326.1	1,277.9	6,145.6
Long-lived assets	384.0	23.1	156.7	563.8

(1) Operating revenues reflect the geographical regions from which services are provided.
(2) EMEA now includes UK which was previously disclosed separately.

18. COMMITMENTS AND CONTINGENCIES

Commitments and contingencies may arise in the ordinary course of business.

The company has committed to co-invest in certain investment products which may be called in future periods. At December 31, 2022, the company’s undrawn co-invest capital commitments were $336.1 million (December 31, 2021: $488.8 million).

Certain of our managed investment products have entered into revolving credit facilities with financial institutions. Pursuant to these arrangements, the company provided equity commitments and guarantees to certain of these investment products that are temporary in nature. The revolving credit facilities look first to the respective investment products for repayment and servicing. The company’s equity commitment or guarantee would only be called in the event a particular investment product is unable to meet its obligation. The company believes the likelihood of being required to fund its equity commitments or guarantees under these arrangements to be remote. To date, the company has not been required to fund any equity commitments or guarantees under these arrangements. The maximum amount of future payments under the commitments is $273.9 million and under the guarantees is $30.0 million. The fair value of the guarantee liability is not significant to the consolidated financial statements.

The company and some of its subsidiaries have entered into agreements with financial institutions to guarantee certain obligations of other company subsidiaries. The company would be required to perform under these guarantees in the event of certain defaults. The company has not had prior claims or losses pursuant to these contracts and expects the risk of loss to be remote.

Legal Contingencies

The company is from time to time involved in pending or threatened litigation relating to claims arising in the ordinary course of its business. The nature and progression of litigation can make it difficult to predict the impact a particular lawsuit or claim will have on the company. There are many reasons that the company cannot make these assessments, including, among others, one or more of the following: the proceeding is in its early stages (or merely threatened); the damages sought are unspecified, unsupportable, unexplained or uncertain; the claimant is seeking relief other than compensatory damages; the matter presents novel legal claims or other meaningful legal uncertainties; discovery has not started or is not complete; there are significant facts in dispute; and there are other parties who may share in any ultimate liability.

In assessing the impact that a legal or regulatory matter will have on the company, management evaluates the need for an accrual on a case-by-case basis. If the likelihood of a loss is deemed probable and is reasonably estimable, the estimated loss is accrued. If the likelihood of a loss is assessed as less than probable, or an amount or range of loss cannot be reasonably estimated, a loss is not accrued. In management's opinion, adequate accrual has been made as of December 31, 2022 to provide for any such losses that may arise from matters for which the company could reasonably estimate an amount and are deemed probable. Management is of the opinion that the ultimate resolution of claims will not materially affect the company's business, revenue, net income or liquidity.

The investment management industry also is subject to extensive levels of ongoing regulatory oversight and examination. In the U.S., U.K. and other jurisdictions in which the company operates, governmental authorities regularly make inquiries, hold investigations and administer market conduct examinations with respect to the company's compliance with applicable laws and regulations. Additional lawsuits or regulatory enforcement actions arising out of these inquiries may in the future be filed against the company and related entities and individuals in the U.S., U.K. and other jurisdictions in which the company and its affiliates operate. Any material loss of investor and/or client confidence as a result of such inquiries and/or litigation could result in a significant decline in AUM, which would have an adverse effect on the company's future financial results and its ability to grow its business.

19. CONSOLIDATED INVESTMENT PRODUCTS

The company's risk with respect to each investment in CIP is limited to its equity ownership and any uncollected management and performance fees. The company has no right to the benefits from, nor does it bear the risks associated with, these investments, beyond the company's direct investments in, and management and performance fees generated from, the investment products. If the company were to liquidate, these investments would not be available to the general creditors of the company, and as a result, the company does not consider investments held by CIP to be company assets. Additionally, the collateral assets of consolidated CLOs are held solely to satisfy the obligations of the CLOs, and the investors in the consolidated CLOs have no recourse to the general credit of the company for the notes issued by the CLOs. CIP are taxed at the investor level and not at the product level; therefore, there is no tax provision reflected in the net impact of CIP. The majority of CIP are VIEs. The following table presents the balances related to CIP that are included on the Consolidated Balance Sheets as well as Invesco's net investment in and net receivables from the CIP for each period presented.

	As of	
$ in millions	**December 31, 2022**	**December 31, 2021**
Cash and cash equivalents of CIP	199.4	250.7
Accounts receivable and other assets of CIP	203.7	532.6
Investments of CIP	8,531.4	9,042.5
Less: Debt of CIP	(6,590.4)	(7,336.1)
Less: Other liabilities of CIP	(329.6)	(846.3)
Less: Retained earnings	0.1	0.1
Less: Equity attributable to redeemable noncontrolling interests	(998.7)	(510.8)
Less: Equity attributable to nonredeemable noncontrolling interests	(629.3)	(671.5)
Invesco's net investment in and net receivables from CIP	386.6	461.2

The following table reflects the impact of consolidation of investment products into the Consolidated Statements of Income for the years ended December 31, 2022, 2021 and 2020.

	Years ended December 31,		
$ in millions	**2022**	**2021**	**2020**
Operating (income)/loss	65.7	67.7	62.0
Non-operating (income)/loss	(70.5)	(407.3)	(117.3)
Net (income)/loss attributable to noncontrolling interests in consolidated entities	(4.8)	(339.6)	(45.9)
Net (income)/loss attributable to Invesco	—	—	(9.4)

The following tables present the fair value hierarchy levels of certain CIP balances which are measured at fair value as of December 31, 2022 and December 31, 2021:

	As of December 31, 2022				
$ in millions	**Fair Value Measurements**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Investments Measured at NAV as a practical expedient[2]**
Assets:					
Bank loans[1]	6,315.1	—	6,069.8	245.3	—
Bonds	697.5	8.8	688.2	0.5	—
Equity securities	274.9	129.9	29.8	115.2	—
Equity and fixed income mutual funds	230.7	38.8	191.9	—	—
Investments in other private equity funds	461.2	—	—	7.6	453.6
Real estate investments	552.0	—	—	—	552.0
Total assets at fair value	8,531.4	177.5	6,979.7	368.6	1,005.6

$ in millions	As of December 31, 2021				
	Fair Value Measurements	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Measured at NAV as a Practical expedient[2]
Assets:					
Bank loans[1]	7,132.4	—	6,993.6	138.8	—
Bonds	714.9	22.3	692.4	0.2	—
Equity securities	219.1	103.9	29.7	85.5	—
Equity and fixed income mutual funds	243.2	20.1	223.1	—	—
Investments in other private equity funds	454.9	—	—	8.1	446.8
Real estate investments	278.0	—	—	—	278.0
Total assets at fair value	9,042.5	146.3	7,938.8	232.6	724.8

(1) Bank loan investments, which comprise the majority of consolidated CLOs portfolio collateral, are senior secured corporate loans from a variety of industries. Bank loan investments mature at various dates between 2023 and 2032, pay interest at LIBOR plus a spread of up to 10.00%, and typically range in S&P credit rating categories from BBB down to unrated. Notes issued by consolidated CLOs mature at various dates between 2030 and 2034 and have a weighted average maturity of ten years. The notes are issued in various tranches with different risk profiles. The interest rates are generally variable rates based on LIBOR plus a pre-defined spread, which varies from 0.40% for the more senior tranches to 8.68% for the more subordinated tranches. The investors in this debt are not affiliated with the company and have no recourse to the general credit of the company for this debt. The company elected the fair value option for collateral assets held and notes issued by its consolidated CLOs to eliminate the measurement and recognition inconsistency that would otherwise arise from measuring assets and liabilities and recognizing the related gains and losses on different accounting bases. By electing the fair value option, the notes issued by the CLOs are measured based on the fair value of the assets of the CLOs. At December 31, 2022, the unpaid principal balance exceeds the fair value of the senior secured bank loans and bonds by approximately $544.1 million (December 31, 2021: the unpaid principal balance exceeded the fair value of the senior secured bank loans and bonds by approximately $60.4 million). Approximately 0.49% of the collateral assets are in default as of December 31, 2022 (December 31, 2021: approximately 0.52% of the collateral assets were in default).

(2) The table below summarizes as of December 31, 2022 and December 31, 2021, the nature of investments that are valued using the NAV as a practical expedient. Private equity funds are not subject to redemption; however, for certain funds, investors may sell or transfer their interest. Real estate funds are generally subject to a redemption notice period that requires at least 45 days, and the frequency of redemptions is either quarterly or best efforts.

in millions, except term data	December 31, 2022			December 31, 2021		
	Fair Value	Total Unfunded Commitments	Weighted Average Remaining Term	Fair Value	Total Unfunded Commitments	Weighted Average Remaining Term
Private equity funds	453.6	74.7	6.4 years	446.8	61.7	6.9 years
Real estate investments	552.0	53.8	N/A	278.0	47.3	N/A

Non-consolidated VIEs

At December 31, 2022, the company's carrying value and maximum risk of loss with respect to VIEs in which the company is not the primary beneficiary was $111.5 million (December 31, 2021: $134.1 million).

20. RELATED PARTIES

MassMutual owns approximately 17.9% of the common stock of the company and owns all of the outstanding $4.0 billion in perpetual, non-cumulative preferred shares as of December 31, 2022. Based on the level of shares owned by MassMutual and the corresponding customary minority shareholder rights, which includes representation on Invesco's board of directors, the company considers MassMutual a related party.

Additionally, certain managed funds are deemed to be affiliated entities under the related party definition in ASC 850, "Related Party Disclosures." The majority of the company's operating revenues and receivables are from Invesco's managed funds. Related parties also include those defined in the company's proxy statement.

Refer to Note 2, "Fair Value of Assets and Liabilities" and Note 3, "Investments" for more information on balances invested in Invesco affiliated funds.

21. SUBSEQUENT EVENTS

On January 24, 2023, the company declared a fourth quarter 2022 dividend of $0.1875 per common share, payable on March 2, 2023, to common shareholders of record at the close of business on February 16, 2023 with an ex-dividend date of February 15, 2023.

On January 24, 2023, the company declared a preferred dividend of $14.75 per preferred share to the holders of preferred shares, representing the period from December 1, 2022 through February 28, 2023. The preferred dividend is payable on March 1, 2023, to preferred shareholders of record at the close of business on February 15, 2023.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None

Item 9A. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

Management, with the participation of the chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in the Securities and Exchange Act of 1934 Rules 13a-15(e) and 15d-15(e)) as of December 31, 2022. Based upon this evaluation, the chief executive officer and chief financial officer concluded that the company's disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding the required disclosure.

Management's report on internal control over financial reporting is located in Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K. Our independent registered public accounting firm PricewaterhouseCoopers LLP, has issued an attestation report on the effectiveness of our internal control over financial reporting for the year ended December 31, 2022.

Changes in Internal Control over Financial Reporting

In the third quarter of 2022, the company implemented new core financial systems. In connection with this implementation, we made changes to our internal control over financial reporting to align with the upgraded system functionality and updated processes.

There were no changes in internal control over financial reporting that occurred during the three months ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. ***Other Information***

None.

Item 9C. ***Disclosure Regarding Foreign Jurisdictions that Prevent Inspections***

Not applicable.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance***

Invesco filed the certification of its Chief Executive Officer with the NYSE in 2022 as required pursuant to Section 303A of the NYSE Listed Company Manual. In addition, Invesco filed the Sarbanes-Oxley Act Section 302 certifications of its Chief Executive Officer and Chief Financial Officer with the Securities and Exchange Commission, which certifications are attached hereto as Exhibit 31.1 and Exhibit 31.2, respectively.

The information required by this Item will be included in the definitive Proxy Statement for the company's annual meeting of shareholders, which will be filed with the SEC no later than 120 days after the close of the fiscal year ended December 31, 2022, under the captions “Our Executive Officers,” “Corporate Governance,” “Board of Directors,” "Delinquent Section 16(a) Reports" and possibly elsewhere therein. Such information is incorporated into this Item 10 by reference.

Item 11. ***Executive Compensation***

The information required by this Item will be included in the definitive Proxy Statement for the company's annual meeting of shareholders, which will be filed with the SEC no later than 120 days after the close of the fiscal year ended December 31, 2022, under the captions “Board of Directors - Director Compensation,” “Executive Compensation,” “Compensation Committee Interlocks and Insider Participation,” and possibly elsewhere therein. Such information is incorporated into this Item 11 by reference.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***

The information required by this Item will be included in the definitive Proxy Statement for the company's annual meeting of shareholders, which will be filed with the SEC no later than 120 days after the close of the fiscal year ended December 31, 2022, under the captions “Executive Compensation,” “Security Ownership of Principal Shareholders,” “Security Ownership of Management,” and possibly elsewhere therein. Such information is incorporated into this Item 12 by reference.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence***

The information required by this Item will be included in the definitive Proxy Statement for the company's annual meeting of shareholders, which will be filed with the SEC no later than 120 days after the close of the fiscal year ended December 31, 2022, under the captions “Corporate Governance,” “Certain Relationships and Related Transactions,” “Board of Directors,” “Related Person Transaction Policy,” and possibly elsewhere therein. Such information is incorporated into this Item 13 by reference.

Item 14. ***Principal Accountant Fees and Services***

The information required by this Item will be included in the definitive Proxy Statement for the company's annual meeting of shareholders, which will be filed with the SEC no later than 120 days after the close of the fiscal year ended December 31, 2022, under the captions “Fees Paid to Independent Registered Public Accounting Firm,” “Pre-Approval Process and Policy,” and possibly elsewhere therein. Such information is incorporated into this Item 14 by reference.

PART IV

Item 15. ***Exhibits and Financial Statement Schedule***

(a)(1) The Consolidated Financial Statements filed as part of this Report are listed in Item 8, "Financial Statements and Supplementary Data."

(a)(2) No financial statement schedules are required to be filed as part of this Report; therefore, all such schedules have been omitted. Such omission has been made on the basis that information is provided in the Consolidated Financial Statements or related footnotes in Item 8, "Financial Statements and Supplementary Data," or is not required to be filed as the information is not applicable.

(a)(3) The exhibits listed on the Exhibit Index are included with this Report.

Item 16. ***Form 10-K Summary***

Not applicable

Exhibit Index

(Note: Exhibits 10.3 through 10.19 and 10.21 through 10.24 are management contracts or compensatory plans or arrangements required to be filed as an exhibit to this Report pursuant to Item 15(b) of this Report. References herein to "AMVESCAP," or "AMVESCAP PLC" are to the predecessor registrant to Invesco Ltd.)

3.1	Memorandum of Association of Invesco Ltd., incorporating amendments up to and including December 4, 2007, incorporated by reference to exhibit 3.1 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 12, 2007
3.2	Third Amended and Restated Bye-Laws of Invesco Ltd., incorporating amendments up to and including May 11, 2017, incorporated by reference to exhibit 3.2 to Invesco's Quarterly Report on Form 10-Q for the period ended June 30, 2017, filed with the Securities and Exchange Commission on July 27, 2017
3.3	Certificate of Designation for the 5.900% fixed rate non-cumulative perpetual series A preference shares, par value $0.20 per share, of Invesco Ltd. incorporated by reference to Exhibit 3.1 to the Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 24, 2019
4.1	Specimen Certificate for Common Shares of Invesco Ltd., incorporated by reference to exhibit 4.1 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 12, 2007
4.2	Indenture, dated as of November 8, 2012, among Invesco Finance PLC, the Guarantors and The Bank of New York Mellon, as trustee, incorporated by reference to exhibit 4.1 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 9, 2012
4.3	Second Supplemental Indenture, dated November 12, 2013, for Invesco Finance PLC's 4.000% Senior Notes due 2024, among Invesco Finance PLC, the company and The Bank of New York Mellon, as trustee, incorporated by reference to exhibit 4.2 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 12, 2013
4.4	Third Supplemental Indenture, dated November 12, 2013, for Invesco Finance PLC's 5.375% Senior Notes due 2043, among Invesco Finance PLC, the company and The Bank of New York Mellon, as trustee, incorporated by reference to exhibit 4.2 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 12, 2013
4.5	Fourth Supplemental Indenture, dated October 14, 2015, for Invesco Finance PLC's 3.750% Senior Notes due 2026, among Invesco Finance PLC, the company and The Bank of New York Mellon, as trustee, incorporated by reference to exhibit 4.2 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 14, 2015
4.6	Form of 4.000% Senior Notes due 2024 (included in Exhibit 4.3)
4.7	Form of 5.375% Senior Notes due 2043 (included in Exhibit 4.4)
4.8	Form of 3.750% Senior Notes due 2026 (included in Exhibit 4.5)
4.9	Description of Securities of Invesco Ltd.', incorporated by reference to exhibit 4.11 to Invesco's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 2, 2020
10.1	Fifth Amended and Restated Credit Agreement, dated as of April 26, 2021, among Invesco Finance PLC, the company, the banks, financial institutions and other institutional lenders from time to time a party thereto and Bank of America, N.A., as administrative agent incorporated by reference to exhibit 10.6 to Invesco's Quarterly Report on Form 10-Q for the period ended March 30, 2021, filed with the Securities and Exchange Commission on April 30, 2021

10.2	Fifth Amended and Restated Guaranty, dated as of April 26, 2021, with respect to the Fifth Amended and Restated Credit Agreement by the company in favor of Bank of America, N.A., as administrative agent, and the lenders party incorporated by reference to exhibit 10.6 to Invesco's Quarterly Report on Form 10-Q for the period ended March 30, 2021, filed with the Securities and Exchange Commission on April 30, 2021 to the Fifth Amended and Restated Credit Agreement incorporated by reference to exhibit 10.7 to Invesco's Quarterly Report on Form 10-Q for the period ended March 30, 2021, filed with the Securities and Exchange Commission on April 30, 2021
10.3	Invesco Ltd. 2016 Global Equity Plan, incorporated by reference to exhibit 10.1 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 17, 2021
10.4	Invesco Ltd. 2010 Global Equity Incentive Plan (ST), as amended and restated on October 10, 2017, incorporated by reference to exhibit 4.2 to Invesco's Form S-8, filed with the Securities and Exchange Commission on May 14, 2019
10.5	First Amendment to the Invesco Ltd. 2010 Global Equity Incentive Plan (ST), as amended and restated on October 10, 2017, dated May 9, 2019, incorporated by reference to exhibit 4.3 to Invesco's Form S-8, filed with the Securities and Exchange Commission on May 14, 2019
10.6	Form of Restricted Stock Award Agreement - Time Vesting - under the Invesco Ltd. 2016 Global Equity Incentive Plan, incorporated by reference to exhibit 10.17 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the Securities and Exchange Commission on February 23, 2017
10.7	Form of Restricted Stock Award Agreement - Time Vesting - with respect to Martin L. Flanagan - under the Invesco Ltd. 2016 Global Equity Incentive Plan, incorporated by reference to exhibit 10.18 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the Securities and Exchange Commission on February 23, 2017
10.8	Form of Restricted Stock Unit Award Agreement - Time Vesting - under the Invesco Ltd. 2016 Global Equity Incentive Plan, incorporated by reference to exhibit 10.19 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the Securities and Exchange Commission on February 23, 2017
10.9	Form of Restricted Stock Unit Award Agreement - Performance Vesting under the Invesco Ltd. 2016 Global Equity Incentive Plan, as amended and restated (May 2021), incorporated by reference to exhibit 10.3 to Invesco's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the Securities and Exchange Commission on July 30, 2021
10.10	Form of Restricted Stock Unit Award Agreement - Performance Vesting with respect to Martin L. Flanagan under the Invesco Ltd. 2016 Global Equity Incentive Plan, as amended and restated (May 2021), incorporated by reference to exhibit 10.4 to Invesco's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the Securities and Exchange Commission on July 30, 2021
10.11	Form of Restricted Stock Unit Award Agreement - Time Vesting - for UCITS staff - under the Invesco Ltd. 2016 Global Equity Incentive Plan (Feb 2020), incorporated by reference to exhibit 10.1 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, filed with the Securities and Exchange Commission on April 23, 2020
10.12	Form of Restricted Stock Unit Award Agreement - Performance Vesting - for UCITS staff - under the Invesco Ltd. 2016 Global Equity Incentive Plan (Feb 2020), incorporated by reference to exhibit 10.2 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, filed with the Securities and Exchange Commission on April 23, 2020
10.13	Form of Restricted Fund Unit Agreement - Upfront Awards - for UCITS staff - under Invesco Ltd. Deferred Incentive Plan (Feb 2020), incorporated by reference to exhibit 10.3 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, filed with the Securities and Exchange Commission on April 23, 2020
10.14	Form of Restricted Fund Unit Agreement – Deferred Awards (Feb 2021) – for UCITS staff – under Invesco Ltd. Deferred Incentive Plan, incorporated by reference to exhibit 10.4 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, filed with the Securities and Exchange Commission on April 30, 2021
10.15	Form of Restricted Stock Award Agreement for Non-Executive Directors under the Invesco Ltd. 2016 Global Equity Incentive Plan, as amended and restated (May 2021), incorporated by reference to exhibit 10.1 to Invesco's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the Securities and Exchange Commission on July 30, 2021
10.16	Form of Restricted Stock Unit Award Agreement for Non-Executive Directors under the Invesco Ltd. 2016 Global Equity Incentive Plan, as amended and restated (May 2021), incorporated by reference to exhibit 10.2 to Invesco's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the Securities and Exchange Commission on July 30, 2021
10.17	Invesco Ltd. Amended and Restated 2005 Non-Qualified Deferred Compensation Plan, effective as of January 1, 2009, incorporated by reference to exhibit 10.8 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2008, filed with the Securities and Exchange Commission on February 27, 2009

10.18	Amendment No. 1 to Invesco Ltd. Amended and Restated 2005 Non-Qualified Deferred Compensation Plan, effective as of January 1, 2013, incorporated by reference to exhibit 10.19 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2020, filed with the Securities and Exchange Commission on February 19, 2021
10.19	Invesco Ltd. Deferred Incentive Plan, as amended and restated January 30, 2018, incorporated by reference to exhibit 10.1 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, filed with the Securities and Exchange Commission on April 26, 2018
10.20	Form of Aircraft Time Sharing Agreement incorporated by reference to exhibit 10.19 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2013, filed with the Securities and Exchange Commission on February 21, 2014
10.21	Invesco Ltd. Executive Incentive Bonus Plan, as amended and restated effective January 1, 2013, incorporated by reference to Appendix A to Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on April 1, 2013
10.22	Second Amended and Restated Master Employment Agreement, dated April 1, 2011, between the company and Martin L. Flanagan, incorporated by reference to exhibit 10.1 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, filed with the Securities and Exchange Commission on April 29, 2011
10.23	Global Partners Employment Contract, dated April 1, 2000, between INVESCO Pacific Holdings Limited and Andrew Lo, incorporated by reference to exhibit 10.17 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2007, filed with the Securities and Exchange Commission on February 29, 2008
10.24	Senior Managing Director Agreement, between Andrew Lo and Invesco Group Services, Inc., effective as of January 1, 2010, incorporated by reference to exhibit 10.32 to Invesco's Annual Report on Form 10-K for the year ended December 31, 2011, filed with the Securities and Exchange Commission on February 24, 2012
10.25	Agreement and Plan of Merger by and among MM Asset Management Holding LLC, Oppenheimer Acquisition Corp., Invesco Ltd., Gem Acquisition Corp. and Gem Acquisition Two Corp. dated as of October 17, 2018, incorporated by reference to exhibit 10.1 to Invesco's Quarterly Report on Form 10-Q for the period ended September 30, 2018, filed with the Securities and Exchange Commission on October 24, 2018
10.26	First Amendment, dated as of April 11, 2019, to the Agreement and Plan of Merger, dated as of October 17, 2018, by and among Invesco Ltd., Gem Acquisition Corp., Gem Acquisition Two Corp., MM Asset Management Holding LLC and Oppenheimer Acquisition Corp., incorporated by reference to exhibit 10.4 to Invesco's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed with the Securities and Exchange Commission on April 25, 2019
10.27	Second Amendment to the Agreement and Plan of Merger, dated May 24, 2019, by and among Invesco Ltd., Gem Acquisition Corp., Gem Acquisition Two Corp., MM Asset Management Holding LLC, and Oppenheimer Acquisition Corp., incorporated by reference to exhibit 2.3 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 24, 2019
10.28	Shareholder Agreement, dated May 24, 2019, by and between Invesco Ltd. and Massachusetts Mutual Life Insurance Company, incorporated by reference to exhibit 10.1 to Invesco's Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 24, 2019
21.0	List of Subsidiaries
23.1	Consent of PricewaterhouseCoopers LLP, dated February 22, 2023
31.1	Certification of Martin L. Flanagan pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of L. Allison Dukes pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Martin L. Flanagan pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of L. Allison Dukes pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	The following financial statements from the company's Quarterly Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Income, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Cash Flows, (v) Consolidated Statements of Changes in Equity, and (vi) Notes to Consolidated Financial Statements, tagged as blocks of text and including detailed tags
104	The cover page from the company's Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL

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.

Invesco Ltd.

By: /s/ MARTIN L. FLANAGAN
Name: **Martin L. Flanagan**
Title: **President and Chief Executive Officer**

Date: February 22, 2023

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 and on the dates indicated.

Name [1]	Title	Date
/s/ MARTIN L. FLANAGAN **Martin L. Flanagan**	Chief Executive Officer (Principal Executive Officer) and President; Director	February 22, 2023
/s/ L. ALLISON DUKES **L. Allison Dukes**	Senior Managing Director and Chief Financial Officer (Principal Financial Officer)	February 22, 2023
/s/ TERRY G. VACHERON **Terry G. Vacheron**	Chief Accounting Officer (Principal Accounting Officer)	February 22, 2023
/s/ G. RICHARD WAGONER, JR. **G. Richard Wagoner, Jr.**	Chairperson and Director	February 22, 2023
/s/ SARAH E. BESHAR **Sarah E. Beshar**	Director	February 22, 2023
/s/ THOMAS M. FINKE **Thomas M. Finke**	Director	February 22, 2023
/s/ WILLIAM F. GLAVIN, JR. **William F. Glavin, Jr.**	Director	February 22, 2023
/s/ C. ROBERT HENRIKSON **C. Robert Henrikson**	Director	February 22, 2023
/s/ DENIS KESSLER **Denis Kessler**	Director	February 22, 2023
/s/ SIR NIGEL SHEINWALD **Sir Nigel Sheinwald**	Director	February 22, 2023
/s/ PAULA C. TOLLIVER **Paula C. Tolliver**	Director	February 22, 2023
/s/ CHRISTOPHER C. WOMACK **Christopher C. Womack**	Director	February 22, 2023
/s/ PHOEBE A. WOOD **Phoebe A. Wood**	Director	February 22, 2023

(1) Elizabeth S. Johnson was appointed to the Board of Directors effective February 15, 2023 and accordingly did not sign this Report

Company Subsidiary Report

Company Name	Jurisdiction
Invesco Advisers, Inc.	USA
Invesco Capital Management LLC	USA
Invesco Great Wall Fund Management Company Limited	China
Invesco Group Services, Inc.	USA
Invesco Holding Company (US), Inc.	USA
Invesco Holding Company Limited	United Kingdom
Invesco Ltd.	Bermuda
Invesco UK Limited	United Kingdom
Intelliflo Advisers Inc.	USA
Invesco Asset Management (Bermuda) Ltd.	Bermuda
Invesco Asset Management (Japan) Limited	Japan
Invesco Asset Management Deutschland GmbH	Germany
Invesco Asset Management Limited	United Kingdom
Invesco Asset Management Pacific Limited	China
Invesco Canada Ltd./Invesco Canada Ltée	Canada
Invesco Capital Markets, Inc.	USA
Invesco Distributors, Inc.	USA
Invesco Far East Limited	United Kingdom
Invesco Finance PLC	United Kingdom
Invesco Fund Managers Limited	United Kingdom
Invesco Global Real Estate Asia Pacific Inc.	USA
Invesco Hong Kong Limited	China
Invesco International Holdings Limited	United Kingdom
Invesco Investment Management Limited	Ireland
Invesco Investment Services, Inc.	USA
Invesco Investments (Bermuda) Ltd.	Bermuda
Invesco OFI Global Asset Management LLC	USA
Invesco Pacific Group Limited	United Kingdom
Invesco Pension Limited	United Kingdom
Invesco Private Capital, Inc.	USA
Invesco Realty, Inc.	USA
Invesco Senior Secured Management, Inc.	USA
Oppenheimer Acquisition Corp	USA
OppenheimerFunds, Inc.	USA
Source Holdings Limited	Cayman Islands
W.L. Ross & Co., LLC	USA

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-258309) and Form S-8 (Nos. 333-166919; 333-181536; 333-212037; 333-231453; 333-231454; 333-257122 and 333-265880) of Invesco Ltd. of our report dated February 22, 2023 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Atlanta, GA
February 22, 2023

Certification Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Martin L. Flanagan, certify that:

1. I have reviewed this Annual Report on Form 10-K of Invesco Ltd.;

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

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

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

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

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

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

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

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

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

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

February 22, 2023

/s/ MARTIN L. FLANAGAN

Martin L. Flanagan
President and Chief Executive Officer

Certification Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, L. Allison Dukes, certify that:

1. I have reviewed this Annual Report on Form 10-K of Invesco Ltd.;

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

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

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

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

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

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

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

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

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

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

February 22, 2023

/s/ L. ALLISON DUKES

L. Allison Dukes
Senior Managing Director and Chief Financial Officer

Exhibit 32.1

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

In connection with Invesco Ltd.'s (the "Company") Annual Report on Form 10-K for the period ended December 31, 2022 (the "Report"), I, Martin L. Flanagan, do hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 22, 2023

/s/ MARTIN L. FLANAGAN

Martin L. Flanagan
President and Chief Executive Officer

Exhibit 32.2

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

In connection with Invesco Ltd.'s (the "Company") Annual Report on Form 10-K for the period ended December 31, 2022 (the "Report"), I, L. Allison Dukes, do hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 22, 2023

/s/ L. ALLISON DUKES

L. Allison Dukes
Senior Managing Director and Chief Financial Officer