THE GLOBAL ASSOCIATION OF RISK PROFESSIONALS

ANNUAL REPORT 2017



CREATING A CULTURE OF RISK AWARENESS®

THIS IS GARP

The Global Association of Risk Professionals, founded in 1996, is a non-partisan, not-for-profit membership organization dedicated to the education and certification of risk professionals at banking institutions, government agencies, central banks, academic institutions and corporations. GARP is globally recognized for excellence in developing and administering professional certification programs, supporting continuing education and career development for the risk professional and advocacy of best practices.

GARP promotes informed risk decisions at all levels. The Financial Risk Manager® and Energy Risk Professional® certification programs are universally accepted professional designations for financial risk managers and energy risk professionals around the world.

GARP sponsors and develops global research in risk management and facilitates collaboration among practitioners, academics and regulators. Its research is used to create educational content, analytics and outreach.

GARP is governed by a Board of Trustees comprised of leading risk-management professionals.

In 2017, GARP certified more than 5,000 financial risk managers and energy risk professionals. Its membership numbered 200,000, located in more than 190 countries and territories.

garp.org



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THE GARP MISSION

is to be the leading professional association for risk managers, dedicated to advancement of the risk profession through education, research and the promotion of best practices globally.

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LETTER TO OUR STAKEHOLDERS

September 1, 2018

To Our GARP Stakeholders,

The year 2017 was one of significant growth and change for the Global Association of Risk Professionals. Prior to its start, we identified strategic initiatives and goals for our global certification programs, for expanding GARP's global footprint to support certification holders and to move forward the risk-management profession. We are pleased that we progressed on all fronts.

GARP creates value for Financial Risk Manager and Energy Risk Professional certification holders by engaging in three critical and interlinked functions: education, research and benchmarking. Our research and benchmarking activities allow us to regularly update and reflect in our certification programs the current and evolving knowledge requirements of a risk manager.

In 2017, a record for FRM certification registrations was set, surpassing the 50,000 threshold with more than 56,500 applicants, a 21 percent increase over 2016. Interest in the FRM was strong around the world. For this we can credit the FRM Oversight Committee, whose efforts in developing the FRM curriculum continue to make it relevant, current and globally recognized. The Oversight Committee consists of practitioners, academics and regulators.

The ERP program also evolved, albeit in a smaller market. In 2017, we focused on expanding our global ERP business-development efforts. We also introduced the ERP program to numerous new energy-related organizations around the globe.

GARP educational outreach on behalf of the risk-management profession continued throughout 2017. We held local chapter meetings and produced a number of riskmanagement webcasts addressing issues of importance to the global financial-services industry. We also continued to look for opportunities to file non-partisan consultation-letter responses to regulatory initiatives.

The GARP Global Risk Forum series held its eighth annual forum in partnership with the Bank of England in November. These invitation-only gatherings bring together senior practitioners, academics and regulators for confidential discussion and debate around issues of importance to the global financial-services industry. Prior forums have been held in partnership with the Federal Reserve Bank of New York and the Hong Kong Monetary Authority. In 2018, the forum will be co-hosted, for the first time, with the Financial Services Agency of Japan. In further support of GARP's educational mission, we finalized plans to launch the GARP Risk Institute in January 2018, hiring leadership and developing objectives. The GARP Board of Trustees established GRI to expand our role as the globally accepted impartial convener of practitioners and regulators, to become the go-to organization for discussion and research related to important financial issues and to enhance GARP's brand value as it relates to our FRM and ERP certification holders.

The GARP Benchmarking Initiative also expanded activities in 2017. GBI engages in confidential cross-border studies on behalf of the financial services industry, overcoming myriad legal and practical issues endemic in global studies. GBI conducted 10 cross-border studies in 2017. The GBI participant list included nearly 80 international banks and industry associations. The objective analysis provided by GBI is regularly used by the global financial services industry in support of internal benchmarking activities and in discussions with regulators around the world.

We are proud of the progress and ongoing utility of GARP's three predominant activities:

- Certification through the FRM and ERP programs,
- Research, through the GARP Risk Institute, and
- Benchmarking, through the GARP Benchmarking Initiative.

Together, these allow GARP to promote its global brand, fulfill the educational and professional needs of certified FRM and ERP holders and contribute positively and objectively to the global risk-management profession.

We thank you for your continued support of GARP, and, as always, welcome any thoughts or ideas about how we can best continue our positive contributions to the risk-management profession.



William Wesley Martin Chairman of the Board of Trustees



Richard Apostolik President and Chief Executive Officer



GARP CERTIFICATION PROGRAMS

GARP created the world's first Financial Risk Manager professional certification program in 1997 to assess and validate the knowledge and skills of risk practitioners in financial services. In 2009, GARP introduced the Energy Risk Professional certification, to measure the risk-management skills of professionals in the energy industry. The FRM and ERP are two-part multiple-choice examinations offered yearly in May and November at approximately 100 locations around the globe.

FINANCIAL RISK MANAGER CERTIFICATION

The FRM reflects the dynamic nature of risk faced by those responsible for managing it. Its relevance and integrity are maintained through a rigorous creation and review process. Certification requires a passing grade on both Part I and Part II of the FRM exam, plus demonstration of a minimum of two years' full-time work experience in financial risk or a related field, such as trading, portfolio management, academia, industry research, auditing, risk-related consulting or risk technology. Preparation for the exam requires on average 250 to 275 hours of study.

In 2017, there were nearly 50,000 certified FRMs employed at major banks, asset management firms, hedge funds, consulting firms and regulatory agencies worldwide.

In 2017, registrations for the Financial Risk Manager certification program rose 21 percent to more than 56,500. Significant interest in FRM certification came from China, where registrations increased 44 percent. In India, registrations were up 17 percent. In North America, registrations advanced 10 percent. The 2017 exam pass rate for Part I was 42 percent and for Part II was 53 percent.

Once certified, FRMs maintain skills and knowledge through GARP's Continuing Professional Development program. GARP encourages, though does not require, FRMs to earn 40 credit hours every two years to maintain proficiency.

The Global Practice Analysis surveys risk managers to profile their day-to-day activities and catalog specific types of knowledge risk managers need to perform their jobs. Results are not only incorporated in the FRM exam content, but also support development of themes for the GARP Annual Risk Convention, webinar topics and other educational outreach programs. The survey has proven to be an effective means to strengthen ties amongst GARP, FRMs and the broader risk-management community.

In June 2017, GARP launched its third Global Practice Analysis, prepared and overseen by the GPA Advisory Committee. Participation in the 2017 GPA was more than double that in 2014, with 3,325 individuals representing 125 countries responding. Approximately half of the survey respondents hold FRM certification.

The GPA survey results will be released in 2018.

EXAM DEVELOPMENT

The FRM and ERP programs are developed under the guidance of the FRM Committee and the Energy Oversight Committee, respectively, comprised of prominent risk-management professionals from financial services and energy companies, global regulators and academics. Certified FRMs and ERPs are also consulted to ensure the test questions are industry relevant. Committees review and revise exam curriculums annually. In 2017, a fully integrated global-electricity section was prepared for inclusion in the 2018 ERP Part I curriculum.

From 2013 to 2017, annual FRM registrations increased more than

60%

NARIC RECOGNITION

An independent benchmarking study conducted by the National **Recognition Information** Centre for the United Kingdom found both the FRM and ERP are comparable to a master'slevel degree in 10 national and regional educational systems. An executive summary of the NARIC report is available at garp.org/frm for the FRM program and for ERPs at garp.org/erp.

The ERP program has grown significantly with areas of concentration in developed energy and commodity trading hubs.

ENERGY RISK PROFESSIONAL CERTIFICATION

The ERP examination is a comprehensive, practice-oriented assessment of knowledge related to physical energy commodity markets and the measurement and management of commercial energy risks. It was introduced in 2009. Similar in format to the FRM, it requires significant commitment to preparation (an average of 250 hours) and is a challenging exam, with a pass rate of approximately 55 percent.

Currently, certified ERPs are employed internationally across major industry sectors. These include crude oil exploration, production and refining, power generation and distribution, renewable energy project development, commodity trading, asset management, consulting, technology and market regulation.

The ERP program has grown significantly, with areas of concentration in developed energy and commodity trading hubs such as Houston, London, New York, Geneva, Singapore and Calgary. Interest from candidates in China has also increased with the development of financial energy markets and regulatory reform in local energy markets.

ERP certification requires a passing grade on both Part I and Part II of the ERP exam and a minimum of two years' full-time related work experience in commercial energy risk, physical commodity operations, engineering or a related field, such as commodity trading, portfolio management, academia, industry research, auditing, risk-related consulting or technology.

Once certified, ERPs are required to maintain their skills and knowledge by participating in GARP's Continuing Professional Development program.

In 2017, GARP debuted the first ERP Job Task Analysis, an international survey of energy-risk practitioners designed to gather data on tasks performed by global energy market professionals and the knowledge and skills necessary to successfully complete those tasks. The JTA also gauges the breadth of the potential market for the ERP in global energy markets. The survey, developed in collaboration with a 14-member task force consisting of certified ERPs, was administered in the first quarter 2018. Completion of the study is anticipated in the Fall of 2018. Results will inform the 2019 ERP program, including exam curriculum, CPD content, marketing strategy and institutional outreach campaigns. It will also offer direction for GARP events for the energy industry.



CONTINUING PROFESSIONAL DEVELOPMENT

The importance of Continuing Professional Development has increased in recent years as industry standards, regulations and technology evolve at an aggressive rate. The GARP CPD program has adapted to align with and support the lifelong learning objectives of FRMs and ERPs so they can keep pace with ever-changing market dynamics. While the CPD Program is optional for FRMs and mandatory for ERPs, both are strongly encouraged to participate by earning 40 credits (approximately 40 hours) every two years. Each CPD cycle spans 24 months, beginning January 1 and ending December 31 the following year. In 2017, global CPD participation increased 15 percent and total credit submissions were up 10 percent.

The CPD program offers multiple categories of accessible learning opportunities and tools to track individual progress. CPD credits are earned by participating in structured self-study, live or online learning activities that accommodate diverse schedules and learning styles.

Popular CPD credit-eligible readings in 2017 included:

- Basel IV: The Next Generation of Risk Weighted Assets
- Cyber Risk, Market Failures, and Financial Stability
- Electricity Market Design for a Decentralized Future: An Integrated Approach
- Implementing Enterprise Risk Management
- Are Credit Ratings Redundant When Market Prices Reflect Credit Crisis Risk?
- The Geopolitics of Renewable Energy
- Profitability in the CDS Market
- 2018 EUS-Wide Stress Test
- The Leverage Ratio, Risk-Taking and Bank Stability
- The Rise of China's Independent Refineries

ACADEMIC PARTNERSHIPS

The GARP Academic Partnership Program helps business schools and universities enhance risk-management course offerings. In 2017, the number of academic partners expanded to more than 60 institutions in 17 countries. GARP participated in 11 academic conferences in 2017 and delivered 15 presentations introducing the FRM and ERP to students in North America. Additionally, GARP funds research scholarships at partner schools for independent investigation of risk topics of global importance.

GARP BENCHMARKING

The GARP Benchmarking Initiative was founded to address the topic of systemic risk through independent regional and cross-border analysis. Initially, GBI "benchmarked" banks across national borders. In 2017, its fifth year, GBI expanded both the breadth of topics under study and the number of participating institutions to include asset-management firms, insurance companies and central counterparties.

Cross-border studies are critical in today's tightly linked global financial markets. GBI serves as a resource for understanding the impact of proposed regulatory framework revisions and for identifying system risk build-up. Studies of this nature require significant technological and personnel resources to compile. Cross-border issues present complex legal considerations and logistical data-collection challenges. Delays in report distribution can diminish the value of report content. GBI addresses these issues, which call for an independent, non-partisan platform to conduct studies in an efficient, secure and accurate manner.

2017 GBI ACTIVITIES OF NOTE

- GARP executives met in February in London with representatives from 25 GBI banks from the United Kingdom, the United States, Europe and Japan to review the GBI agenda and explore future initiatives.
- GBI submitted a comment letter on the Basel Consultative Report *Framework for Supervisory Stress Testing of Central Counterparties* (June 2017), proposing that GBI might serve as a model for a future framework. This would allow the regulatory community to meaningfully compare study results across jurisdictions and time.
- A dedicated, secure GBI website was launched to house GBI studies, both completed and ongoing.
- GBI installed a data-processing subsystem to transfer participant submissions to a relational database. This system is designed to aggregate results across studies as it processes, validates and produces statistics and reports based on the submission. All study data is now centrally stored in a single location with a consistent structure, allowing analysis across studies over time. All data is fully auditable.

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SAFE AND SECURE

Data security is critical to the GARP Benchmarking Initiative. The GBI system is compliant with the highest security standards as outlined by the U.S. Department of Commerce National Institute of Standards and Technology Cybersecurity Framework.

Sample GBI Topics for Future Studies

IFRS 9 / CECL

FINANCIAL CRIME RISK

STRESS TESTING

HYPOTHETICAL PORTFOLIO EXERCISES

GBI CROSS-BORDER STUDIES PUBLISHED

The Clearing House Study on Merchant Banking Risk-Based Capital Requirements

EBA 2017 Benchmarking Internal Approached— Market Risk Exposures

Basel Q1S7 FTRB Study

U.S. Executive Order Response—Product-Level HPE (included GBI development of hypothetical portfolio)

CCP Location Policy–Brexit Impact Study

Total Capital Impact—2017 Update on Capital Floors and Operational Risk Framework

In progress:

Basel Q1S8 FRTB Study

Basel Q1S8 Non-Modellable Risk Factors Study

Basel Q1S8 NSFR Study

EBA 2018 Benchmarking Internal Approaches—Valuation of Market Risk Exposures

GARP RISK INSTITUTE

The GARP Risk Institute, launched at the end of 2017, supports the GARP mission to advance the risk profession globally through research and engagement with industry practitioners, academics and the regulatory community. GRI builds coalitions between regulators and the financial services industry, bringing together risk professionals to discuss and study issues of importance to the global risk-management communities.

Toward this end, GRI will undertake research on topics of systemic or regional interest, publish non-partisan and objective responses to consultation requests from the perspective of the risk manager, develop global and regional forums and conduct impartial legislative educational outreach and testimony. Areas of focus for 2018 will include non-financial risk, technology and innovation, stress testing and big-picture risk.

GARP MEMBERSHIP, ACTIVITIES AND EVENTS



GARP MEMBERSHIP

GARP membership grew by nearly 40,000 in 2017, largely due to increasing interest in risk practices and principles in Asia. Membership initiatives included creating a plan for a members-only online community and the launch of a Subject Matter Expert program. Members register their SME areas of knowledge which can then be accessed to support chapter meetings, global events, articles, webcasts and podcasts, as well as for member-to-member consultations, discussions and networking. More than 3,500 SME records were registered with the program in 2017.

GARP ALUMNI ACTIVITIES

GARP engages recently certified FRMs and ERPs by offering a number of products, services and opportunities to expand their risk management skills and knowledge. This includes premium content on multiple channels, networking events, admission to GARP premium events and preferential rates for the GARP Annual Risk Convention.

GARP COMMUNITY

In the fourth quarter of 2017, GARP released a blueprint for the GARP Community, an online forum aiming to foster discussion about risk and risk practices among risk practitioners. Here, members will engage with peers to discuss topics such as best practices, to solicit resource referrals and make useful connections.

GLOBAL LEADERSHIP FORUM

GARP is an active participant in high-level leadership forums. It co-hosted the Bank of England | GARP Global Risk Forum in London in 2017. These events, which began in 2010, have been previously co-hosted by the Federal Reserve and Hong Kong Monetary Authority, among others. They are invitationonly meetings for global regulators, senior financial-market practitioners and practicedriven academics who confer in closed-door working sessions. The 2017 Forum examined how regulators and financial institutions are expected to identify, manage and monitor institutional-level and systemic financial risks in today's post-crisis landscape. It also considered how to identify and debate approaches that will allow regulators and financial institutions to perform their roles better in the future.

BUY-SIDE RISK MANAGERS FORUM

The GARP Buy-Side Risk Managers Forum brings together senior risk professionals from large asset-management firms and investmentmanagement subsidiaries of banks and insurance companies to discuss current and emerging risks in investment management. Since 2014, the Forum has met biannually to discuss and develop risk-management best practices relevant to the firms represented by the Forum's membership.

GARP Buy-Side Risk Managers Forum membership is by invitation-only and limited to senior executives in risk management and chief risk officers (or their equivalents) positioned at large investment firms with assets under management in the top quintile of the industry.

THE GARP 18[™] ANNUAL RISK CONVENTION

The 18th Annual Risk Management Convention was held March 7 and 8 at the New York Marriott Marquis. Leading risk-management experts, policy makers and financial-risk academics met to delineate, discuss and define risk-management issues. The schedule included keynotes, briefings and consortia showcasing 80 speakers from more than 30 countries.

The 2017 agenda introduced **Learning Labs**, 90-minute sessions delivered in a collaborative environment, and *Ideas* **That Count**, short talks exploring inspirational perspectives, insights and experiences delivered by industry leaders. With 550 riskmanagement professionals in attendance, networking opportunities abounded. Conference participants were eligible to earn 15.5 GARP Continuing Professional Development credit hours and 13.5 CFA Institute Continuing Education credit hours.

GARP COMMUNICATIONS AND CONTENT



RISK INTELLIGENCE

Risk Intelligence is GARP's flagship digital publication, featuring breaking news, analysis and commentary in reported articles, columns bylined by leading risk professionals and video content. Areas of focus include risks inherent in technology, culture, governance, energy, operations, credit and markets. Editorial coverage in 2017 examined topical issues such as cybersecurity and geopolitical uncertainty, offering relevant content that at times anticipated coverage in the mainstream media. An average of three new articles were posted a week, available to some 330,000 subscribers to the GARP Daily and Weekly Newsletter. Timely topics featured in *Risk Intelligence* in 2017 included:

- Analysis of the Wells Fargo Bank scandal and its repercussions
- Future Federal Reserve chairman Powell's plans for bank director responsibilities
- Hiring trends in the crypto world
- Fintech and blockchain
- Artificial Intelligence
- Data governance and privacy compliance
- Cyber risk governance and metrics
- Emerging technologies

INTERACTIVE MULTIMEDIA

GARP maintains a robust library of digital content. In 2017, 18 **on-demand webcasts** were added, exploring topics ranging from modeling and forecasting to introductory certification sessions. Two informational webcasts were hosted in Mandarin. Some 13,000 webcast registrations were recorded in 2017.

Popular webcasts in 2017 included Risk Data Aggregation – Building the Foundation for Operational Risk Insight and Modeling and Forecasting Volatility Clustering.

The **GARP video library** added 28 new offerings in 2017, bringing the total number of videos to 157. The library was accessed more than 32,000 times, with nearly a quarter of this traffic generated from India in 2017.

Videos in high demand included the FRM Information Session, Risk Data Aggregation, Modeling and Forecasting Volatility Clustering and CECL: The Road Ahead and Staying Focused.

Production of **GARP podcasts** began in October 2017. Risk experts recruited to create segments for release in early 2018 included Jeh Johnson, former U.S. Secretary of Homeland Security; Steve Durbin, Managing Director of the Information Security Forum; and Jack Tomarchio, former Principal Deputy Under-Secretary for Intelligence and Analysis, U.S. Department of Homeland Security. Between October and the end of 2017, the initial inventory of podcasts was accessed 4,500 times. The Future of Risk: Climate-Related Financial Disclosures podcast was downloaded

1,400 times in 2017.

2017 FINANCIALS

The following highlights are from the GARP Consolidated Financial Statements as of December 31, 2017 and December 31, 2016. For a full set of financials, please contact **memberservices@garp.com**.

GLOBAL ASSOCIATION OF RISK PROFESSIONALS, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

<u>ASSETS</u>	<u>2017</u>	<u>2016</u>
Total assets	\$40,897,010	\$31,118,294
LIABILITIES AND NET ASSETS		
Total liabilities	\$12,800,139	\$10,471,028
Net assets—unrestricted	\$28,096,871	\$20,647,266
Total liabilities and net assets	\$40,897,010	\$31,118,294

CONSOLIDATED STATEMENTS OF ACTIVITIES FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

REVENUES AND OTHER SUPPORT

Total revenues and other support	\$36,786,491	\$28,568,133
<u>EXPENSES</u>		
Total expenses	\$29,336,886	\$25,516,295
Change in net assets	\$7,449,605	\$3,051,838
Net assets—unrestricted, beginning of year	\$20,647,266	\$17,595,428
Net assets—unrestricted, end of year	\$28,096,871	\$20,647,266

GOVERNANCE



Chairman, Board of Trustees, William Martin Chief Risk Officer, ADIA



Chairman, Compensation Committee, Jacques Longerstay Chairman, Compensation Committee, Chief Investment Officer, Investment Risk, Wells Fargo



Chairman, Audit and Risk Committee, Dr. René Stulz, Everett D. Reese Chair of Banking and Monetary Economics, The Ohio State University



Chairman, Audit and Risk Committee, Victor Ng, Managing Director, Chief Risk Architect, Market Risk Management and Analysis, Goldman Sachs



Ken Abbott Chief Risk Officer, Americas, Barclays



Richard Apostolik President and CEO, GARP



Michelle McCarthy Beck Managing Director, Risk Management, Nuveen



Laura Dottori-Attanasio Senior Executive Vice-President and Chief Risk Officer, CIBC



Stuart Lewis Chief Risk Officer, Deutsche Bank



Ben Golub Chief Risk Officer, BlackRock, Inc



Andrew Gray

Managing Director,

Cecilia Reyes Group Chief Risk Officer, Zurich



Geoffrey Greener Chief Risk Officer, Bank of America



Bradford Hu Chief Risk Officer, Citigroup



Andrew Kuritzkes **Executive Vice** President and Chief Risk Officer, State Street Corporation



Jonathan Stein Chief Risk Officer, Hess Corporation



Lewis O'Donald

Group Chief Risk

Officer, Nomura

Holdings, Inc.

Peter Tufano Peter Moores Dean and Professor of Finance, University of Oxford



Insurance



Frank Roncey Group Chief Risk Officer, BNP Paribas



Jacob Rosengarten Enterprise Chief Risk Officer, XL Group Ltd



Alan Smith Global Head of Risk Strategy and Senior Executive Officer, Group Risk, HSBC







GARP RISK MANAGER OF THE YEAR

Since its founding in 1996, GARP has honored a prominent risk professional as the GARP Risk Manager of the Year in recognition of outstanding achievement in and career contributions to the risk management profession. In 2017, the GARP Manager of the Year Award was bestowed upon Dr. Andrew Lo, professor at MIT Sloan School of Management.

Dr. Lo was lauded by GARP President and Chief Executive Officer Richard Apostolik as "an inspiration to all of us who believe that risk management is everyone's responsibility and should be solidly embedded in the culture and decisionmaking processes of every organization."



Andrew Lo, Charles E. and Susan T. Harris Professor of Finance and Director of the Laboratory for Financial Engineering at the MIT Sloan School of Management

GARP creates value for the certified Financial Risk Manager and Energy Risk Professional by engaging in three critical and interlinked functions: education, research and benchmarking.





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