

INVESTMENT STRATEGIES OF SOVEREIGN WEALTH FUNDS

KEITH BLACK, PHD, CFA, CAIA



@CAIA_Keith Black
@CAIAAssociation

SHOWCASE YOUR KNOWLEDGE



The Global Mark of Distinction in Alternative Investments

The global leader in alternative investment education

- Non-profit established in 2002, based in Amherst, MA, with offices in Hong Kong and London
- Over 8,000 current charter holders in more than 80 countries
- Over 20 vibrant chapters located in financial centers around the world
- More than 120 educational and networking events each year
- Offers AI education through the CAIA designation and the Fundamentals of Alternatives Certificate Program

Alternatives currently represent over \$12 trillion in assets under management and assets in liquid alternatives continue to grow rapidly.

The CAIA Association Mission:

- Establish the CAIA designation as the benchmark for alternative investment education worldwide
- Promote professional development through continuing education, innovative research and thought leadership
- Advocate high standards of professional ethics
- Connect industry professionals globally

Globally recognized credential for professionals managing, analyzing, distributing, or regulating alternative investments.

Highest standard of achievement in alternative investment education.

Comprehensive program comprised of a two-tier exam process:

- **Level I** assesses understanding of various alternative asset classes and knowledge of the tools and techniques used to evaluate the risk-return attributes of each one.
- **Level II** assesses application of the knowledge and analytics learned in Level I within a portfolio management context.
 - Both levels include segments on ethics and professional conduct.

The **Fundamentals of Alternative Investments Certificate Program** is a course that provides a foundation of core concepts in alternative investments.

Fills a critical education gap for those who need to understand the evolving landscape of alternative investments.

- Online, 20-hour, self-paced course
- Earns CE hours for the CIMA[®], CIMC[®], CPWA[®], CFP[®] designations
- Understand the core concepts in alternative investments
- Gain confidence in discussing and positioning alternatives

As of February 2015, the assets under management (AUM) of sovereign wealth funds (SWFs) totals \$7.1 trillion

- This AUM exceeds that of the global private equity and hedge fund industries
- Up from \$3.2 trillion at the end of 2007, SWFs will add assets as long as their economies tend to generate cash inflows
- Of the 78 funds tracked by the SWF Institute, 40 were started since 2005
- 11 funds now exceeding \$170 billion AUM, with the top 16 funds controlling over \$6 trillion

Impact on alternative asset markets

- The AUM of SWFs is large relative to that of alternative asset markets, leading to concerns of market impact on existing asset prices
- While much of the stock and bond assets are managed internally, demand for external managers continues to grow, as does the demand for education to train internal managers

SWF ASSETS



	Commodity-Based SWFs (\$Billion)		Export-Based SWFs (\$ Billion)
Norway	\$893.0	China - CIC	\$652.7
UAE-Abu Dhabi	\$773.0	China - SAFE	\$567.9
Saudi Arabia	\$757.2	Hong Kong	\$400.2
Kuwait	\$548.0	Singapore - GIC	\$320.0
Qatar	\$256.0	China - National Social Security	\$240.0
UAE-Dubai	\$90.0	Singapore - Temasek	\$177.0
Russia - Reserve	\$88.9	Australia	\$95.0
Russia - National Welfare	\$79.9	South Korea	\$84.7
AUM Largest eight funds(in \$billions)	\$3,486	AUM Largest eight funds(in \$billions)	\$2,537.5

Commodities

- Oil, gas, and metals can provide substantial income to a country
- Countries seek to build a savings account that can be used when commodity prices decline or commodity supplies are depleted

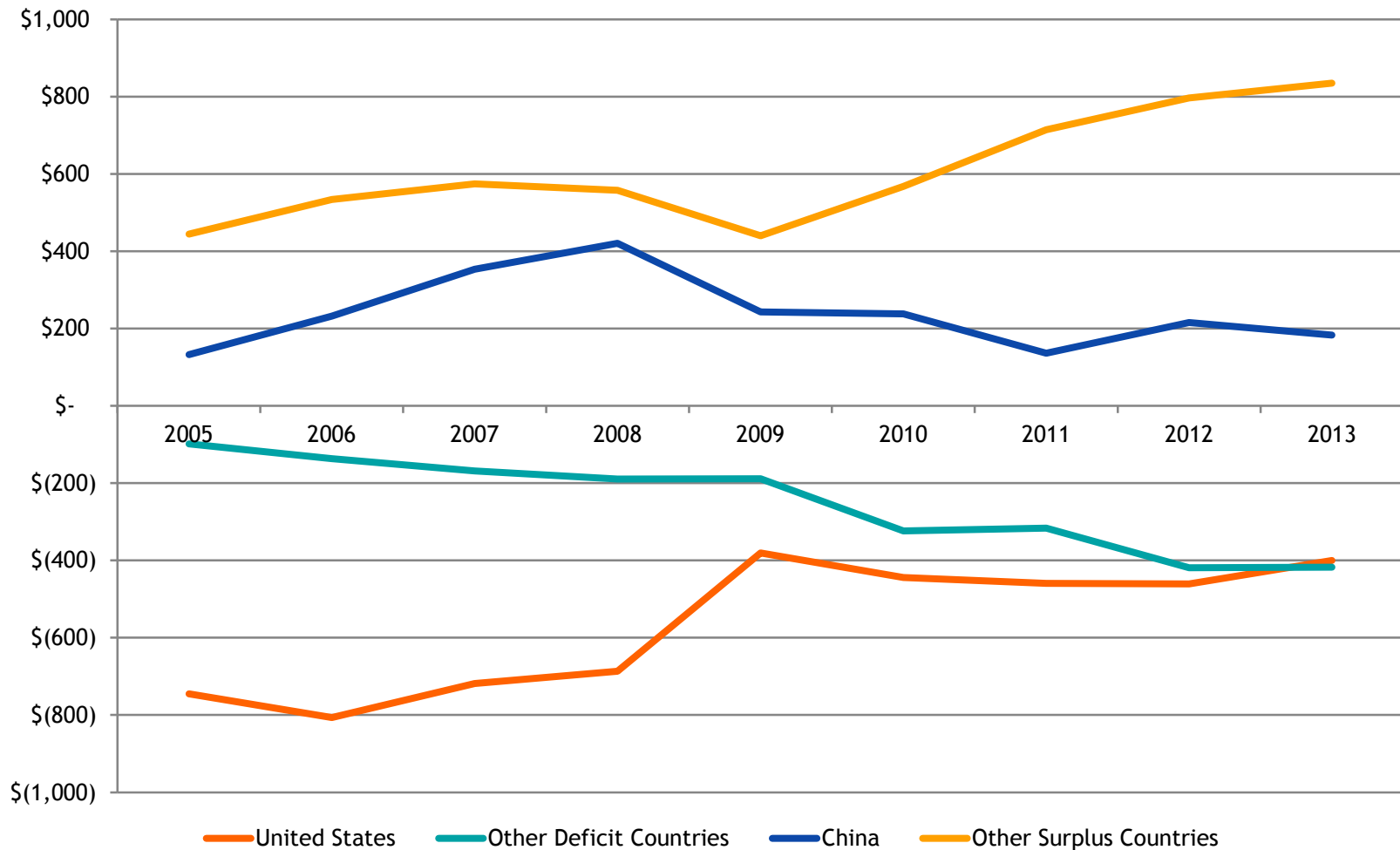
Other exports and currency reserves

- Countries whose exports of goods and services exceed the value of imports will see capital inflows
- Countries running a current account surplus will build currency reserves, especially when the currency is pegged or managed to an undervalued rate
 - That is, the US current account deficit requires borrowing that grows Chinese sovereign and corporate assets
- Freely-floating currencies will see smaller build-up of reserves as the value of the currency adjusts to imbalances in trade flows

Proceeds from some privatizations may also be added to funds

Focus first on central bank assets necessary to effect necessary currency operations, required pension contributions, and then invest in SWF

CURRENT ACCOUNT SURPLUS/DEFICIT



Source: World Bank, USD Billion/Year

Other Deficit Countries: UK, Brazil, Turkey, Canada, Australia, India

Other Surplus Countries: Singapore, Norway, Kuwait, S. Korea, Netherlands, Switzerland, Saudi Arabia, Germany

Many SWFs are drawing down assets rapidly due to recent market events

- The total reserves of China declined from \$4.1 trillion to below \$3.4 trillion since last June. This includes interventions in the equity and currency markets
- As oil revenues fall, Saudi Arabia is adding less to the SWF and withdrawing more. Since August 2015, the reserves have fallen by over \$100 billion to less than \$650 billion. At current oil prices, government deficits approaching \$100 billion per year. Now considering an IPO of Saudi Aramco.
- Oil and gas comprise over two-thirds of Russian exports. At lower prices, Russia may spend their entire \$80 billion in reserves in 2015 and 2016 and still have a government deficit.

The Cooperation for the Arab States of the Gulf

- Members: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates (UAE)

Building a common currency

- Four countries proposed the creation of common currency, with the goal of adding UAE and Oman
- Goal is to have the currency pegged to the value of the US Dollar even though there is more trade from the region to Europe
- If the common currency is pegged at a price below fair value, the union will accumulate US Dollar reserves
 - Many of the currencies of the individual countries are already pegged to the USD or a basket of currencies
- As with the Euro, differences in fiscal and monetary policy across countries can create economic tensions

Stabilization Funds

- Insulate the economy from external shocks, especially commodity prices

Savings Funds

- Invest current high income to benefit future generations without explicit liabilities

Pension Reserve Funds

- Similar to savings funds, but with explicit pension liabilities

Reserve Investment Funds

- Increase return on FX reserves above those earned on sovereign debt

Development Funds

- Develop infrastructure and domestic industry, especially to diversify away from commodity production

Investors from war-driven or dictator-driven economies

Countries with goals other than total return, especially development funds

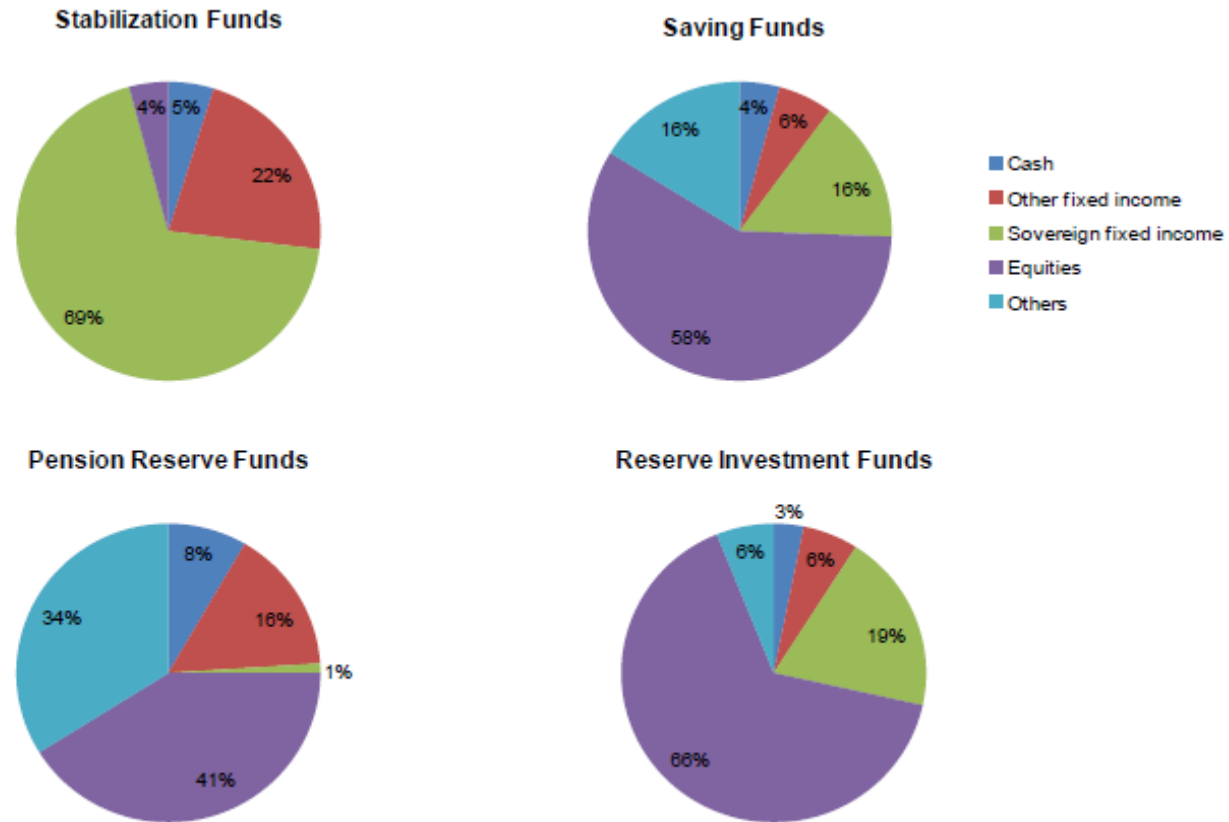
- Protecting or growing domestic industries
- Extract or import technology in sensitive industries
- Investing in sensitive industries, such as technology, defense, natural resources or financial exchanges

Many funds explicitly avoid political concerns

- Avoid investing in sensitive industries
- Invest through ETFs or internally managed passive equity funds

- **Maintain stable financial system and free flow of investments**
- **Comply with regulatory and disclosure requirements in countries where investments are made**
- **Invest on basis of total return considering economic and financial risks**
- **Implement a governance structure that provides for operational controls, risk management, and accountability**

Figure 1. Asset Allocations at Sovereign Wealth Fund, by Type of Fund



Source: IMF, Global Financial Stability Report (April 2012).

Source: Al-Hassan, Papaioannou, Skancke and Sung: “Sovereign Wealth Funds: Aspects of Governance Structures and Investment Management,” IMF, 2013

Predict future growth of SWF AUM

- Return on portfolio investments
- Additions from commodity or trade surpluses net of central bank reserve needs
- Reduced by spending to fund government deficits, investments, pensions, and commodity price shortfalls

Implications for alternative investments

- Project the AUM growth of SWFs investing in AI
- Project growth of AI allocations, including from new investors

Percentage Allocation to Alternative Assets by Select Sovereign Wealth Funds, 2010

In Percent



A Azerbaijan	E Alaska	I Norway	M KIC
B Chile	F ADIA	J New Zealand	N CIC
C US PUF	G US PSF	K Ireland	O GIC
D Alberta	H NSSF - China	L Australia	

Source: Associated SWF websites

Source: "By the Numbers: The Quest for Performance", Tufts University, 2012

SWF assets may be needed to assist when a liquidity crisis is facing the government or the local banking sector

Asset allocation should consider the entire sovereign balance sheet

- Income from taxes, privatization, and foreign trade
- Assets from the central bank, SWF, pensions, SOEs, and even commodities in the ground
 - If assets are commodity based, reduce SWF investments in commodities
- Liabilities include pensions, foreign and domestic debt, infrastructure needs, fiscal deficits, future generations, and assets needed for FX and banking stabilization

Optimal composition of sovereign wealth

- Performance-seeking portfolio and three hedging demands
 - Variability of the fiscal surplus, including commodities
 - External debt
 - Domestic debt

The purpose of the Government Pension Fund is to facilitate government savings to finance rising public pension expenditures, and support long-term considerations in the spending of government petroleum revenues. A sound long-term management of the Fund contributes to intergenerational equity, by allowing both current and future generations to benefit from the petroleum revenues.

A simple asset allocation

- 60% stocks, 35% bonds
 - Owns 2.5% of the European equity markets and 1.3% of the global equity markets
 - Fixed income investments primarily in sovereign debt
- Targeting just 5% in global real estate, but this \$40 billion allocation is large enough to move markets
- Managed mostly internally, with an annual cost of just 7 bp

Spending 4% of the GPFG annually contributes to government revenues

Invest to increase the return of currency reserves above that of sovereign debt holdings

Substantial tolerance for market risk and illiquidity risk

- 40% Public Equity
- 20% Fixed Income and Cash
- 12% Absolute Return (Hedge Funds)
- 28% Long-term Investment
 - Includes private equity and private natural resource and infrastructure companies

Central Huijin holds major stakes in Chinese State Owned Enterprises

Investments in financial services companies can facilitate later direct investments*

- \$10 billion invested in Blackstone, Morgan Stanley, JC Flowers, Blackrock, Apax Partners

* Castelli and Scacciavillani, “The New Economics of Sovereign Wealth Funds,” Wiley, 2012

Substantial exposure to Asian assets

- 31% Singapore
- 41% Asia ex-Singapore
- 28% Rest of world

Substantial exposure to illiquid assets

- 36% Liquid and sub-20% listed assets
- 34% Listed large blocks ($\geq 20\%$ share)
- 30% Unlisted assets

Substantial exposure to targeted industries

- 30% Financial Services
- 23% Telecomm, Media and Technology
- 20% Transportation and Industrials
- 14% Life Sciences

Seeding new businesses

- Invest to grow new businesses to benefit from trends or fill local needs

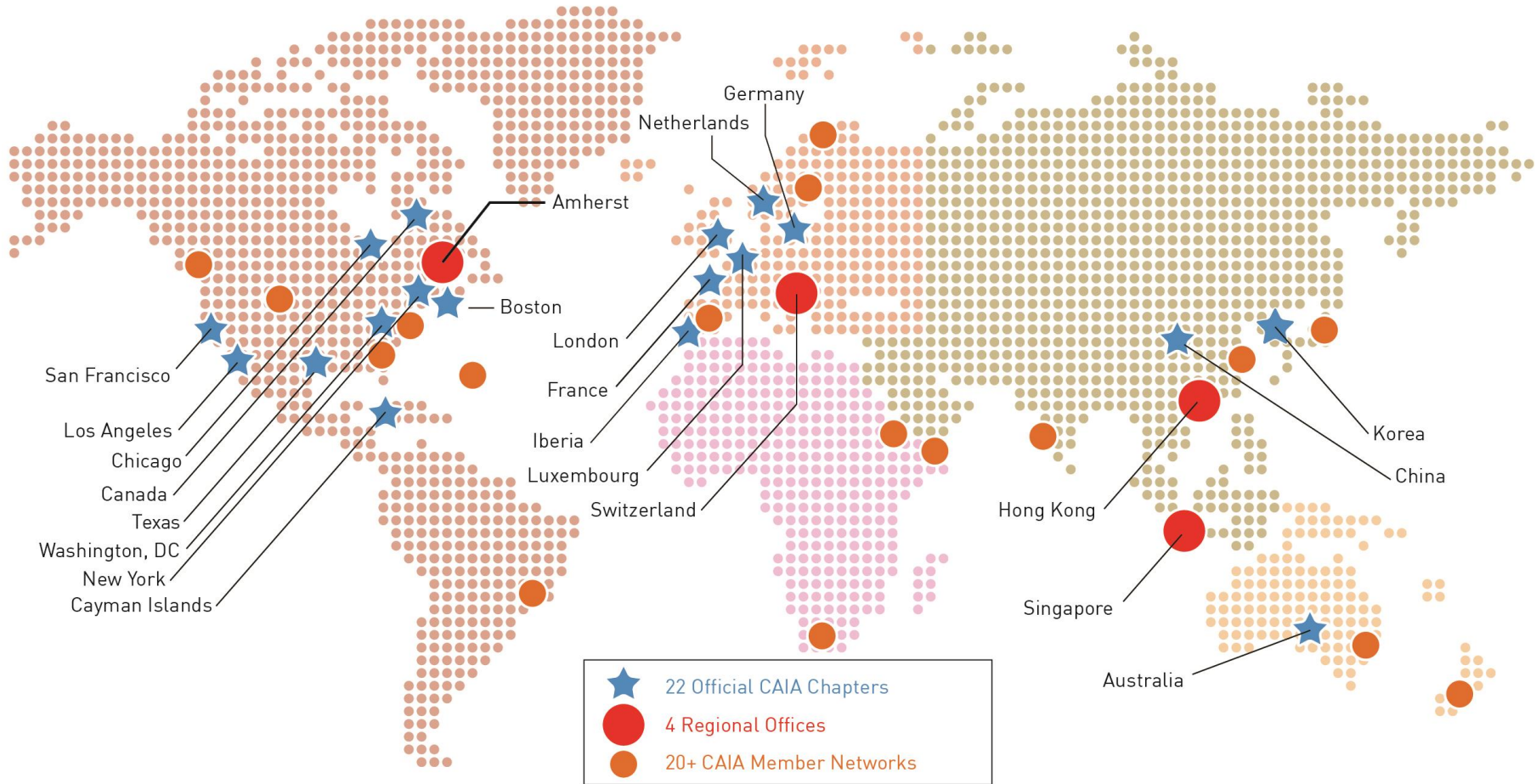
THE CAIA CHARTER

The Global Benchmark In Alternative Investment Education

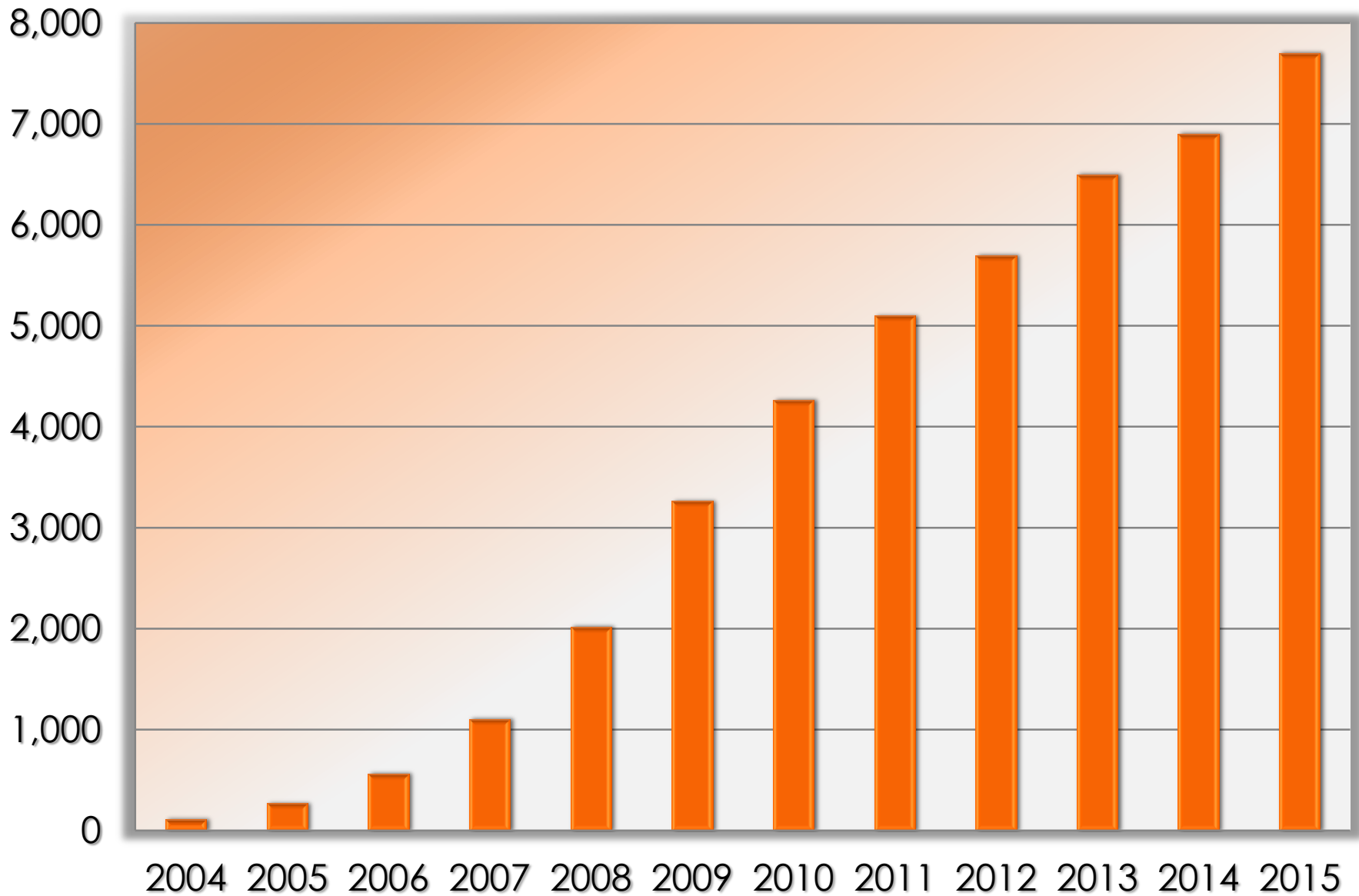


The Global Mark of Distinction in Alternative Investments

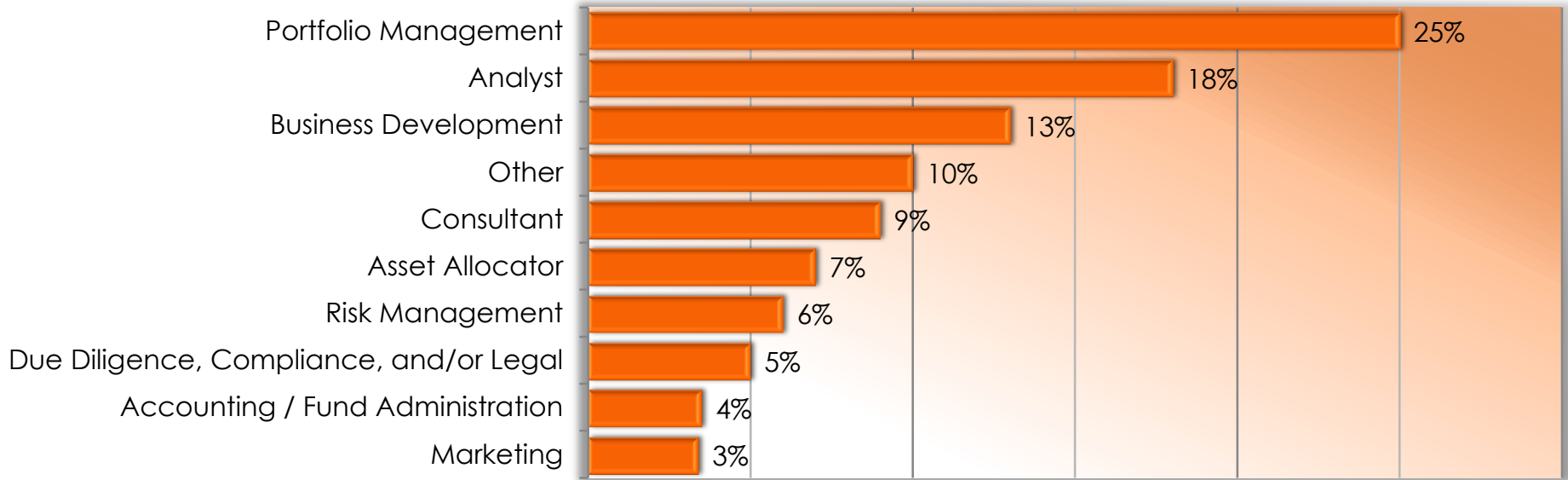
GLOBAL PRESENCE



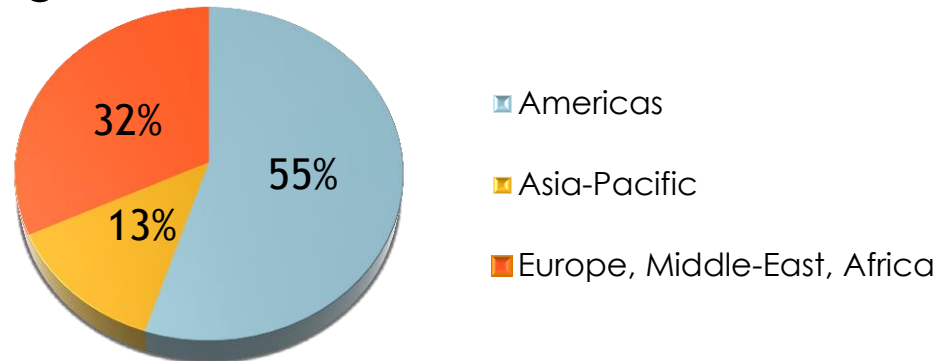
MEMBERSHIP GROWTH



CAIA Members by Profession*

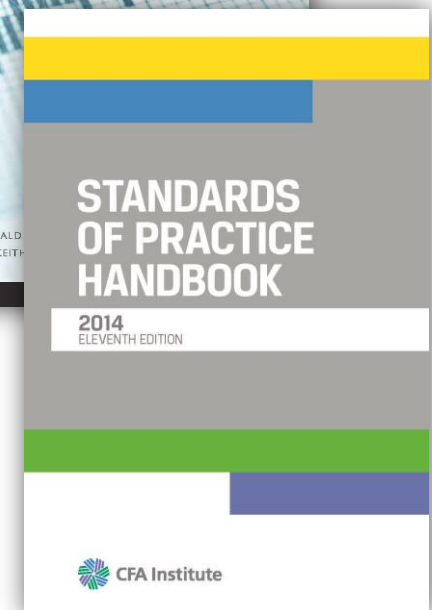


Regional Distribution of CAIA Members*



CORE CONCEPTS

- Professional Standards & Ethics
- Introduction to Alternative Investments
- Real Assets including Commodities
- Hedge Funds
- Private Equity
- Structured Products
- Risk & Portfolio Management



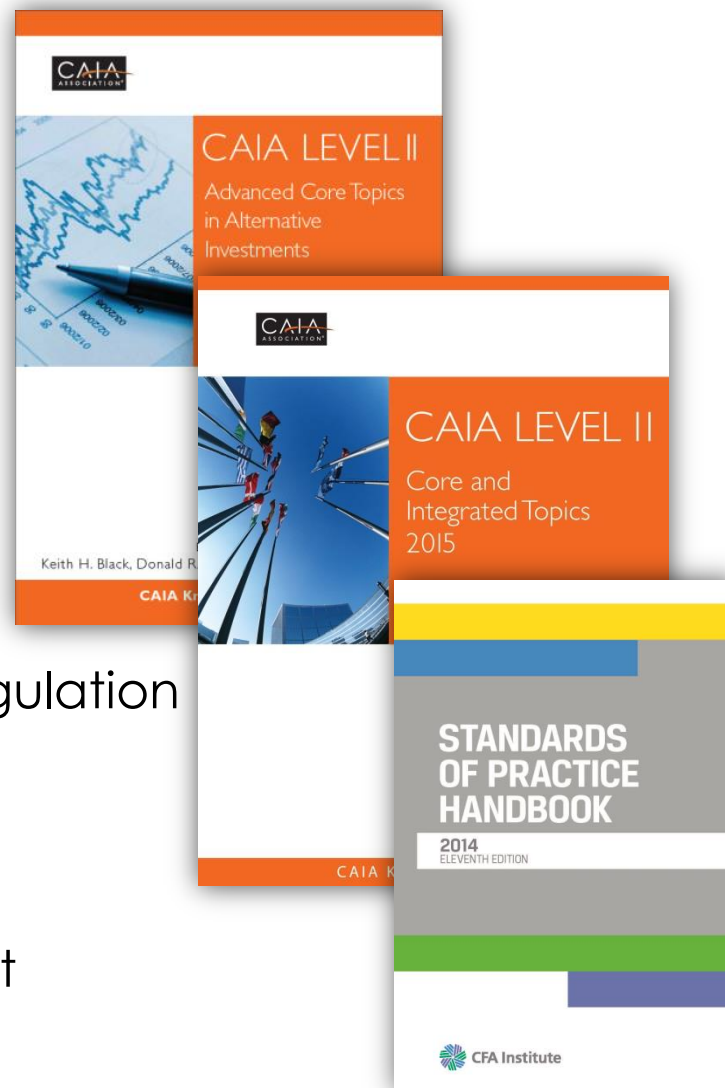
- **New/Updated Topic areas**
 - Liquid alternatives
 - New introduction chapter devoted to financial economics
 - Structured products expansion
 - Equity, commodity, and fixed income products
 - Real asset expansion
 - Natural resources

- **Enhanced applications**
 - Highlight and demonstrate numerical examples.

- **Additional review questions**
 - Review questions at the end of each chapter
 - Answers provided in the accompanying CAIA Level I Workbook.

ADVANCED CORE CONCEPTS

- Professional Standards & Ethics
- Venture Capital & Private Equity
- Hedge Funds & Managed Futures
- Real Estate/Real Assets
- Commodities
- Structured Products
- Manager Selection, Due Diligence & Regulation
- Research Issues & Current Topics
- Risk & Risk Management
- Asset Allocation & Portfolio Management



LEVEL I EXAM TOPICS

Level I Topic	Approximate Exam Weight
Professional Standards and Ethics	15% - 20%
Introduction to Alternative Investments	20% - 25%
Real Assets and Commodities	10% - 20%
Hedge Funds	10% - 20%
Private Equity	5% - 10%
Structured Products	10% - 15%
Risk Management and Portfolio Management	5% - 10%

LEVEL II EXAM TOPICS

Level II Topic	Approximate Exam Weight	
	Multiple-Choice	Constructed-Response
Professional Standards and Ethics	0%	10%
Private Equity	10% - 20%	0% - 10%
Commodities	5% - 15%	0% - 10%
Real Assets	10% - 20%	0% - 10%
Hedge Funds and Managed Futures	10% - 20%	0% - 10%
Structured Products, and Asset Allocation and Portfolio Management	5% - 15%	0% - 10%
Risk and Risk Management, Manager Selection, Due Diligence, and Regulation	5% - 15%	0% - 10%

LEVEL I

□ 200 Multiple Choice Questions

- Section 1 : 100 questions / 120 minutes
- Section 2 : 100 questions / 120 minutes

□ SAMPLE:

- Consider the case of a non-dividend-paying financial asset where $F > Se^{r(T-t)}$. How, in this case, can the hedge fund manager earn a profit?

LEVEL II

□ 100 Multiple Choice Questions + 3 Essays

- Section 1 : 100 questions / 120 minutes
- Section 2 : 3 essays / 120 minutes

□ SAMPLE:

- Recent studies argue that during tail-risk events, the returns earned by broad equity indices go to extremes. What are the primary forces driving this process?

- ❑ Study guides outlining keywords and learning objectives
- ❑ Workbooks with sample exercises
- ❑ Candidate orientation sessions
- ❑ Study calculator to plan your course of study
- ❑ Third Party Preparatory Course and Programs
- ❑ Level I & Level II sample exams



<i>(in USD)</i>	Level I	Level II
Program Enrollment	\$400	
Exam Registration	\$1250	\$1250
TOTAL	\$1650	\$1250
<i>Early Registration Discount</i>	-\$100	-\$100
Retake Fee	\$450	\$450

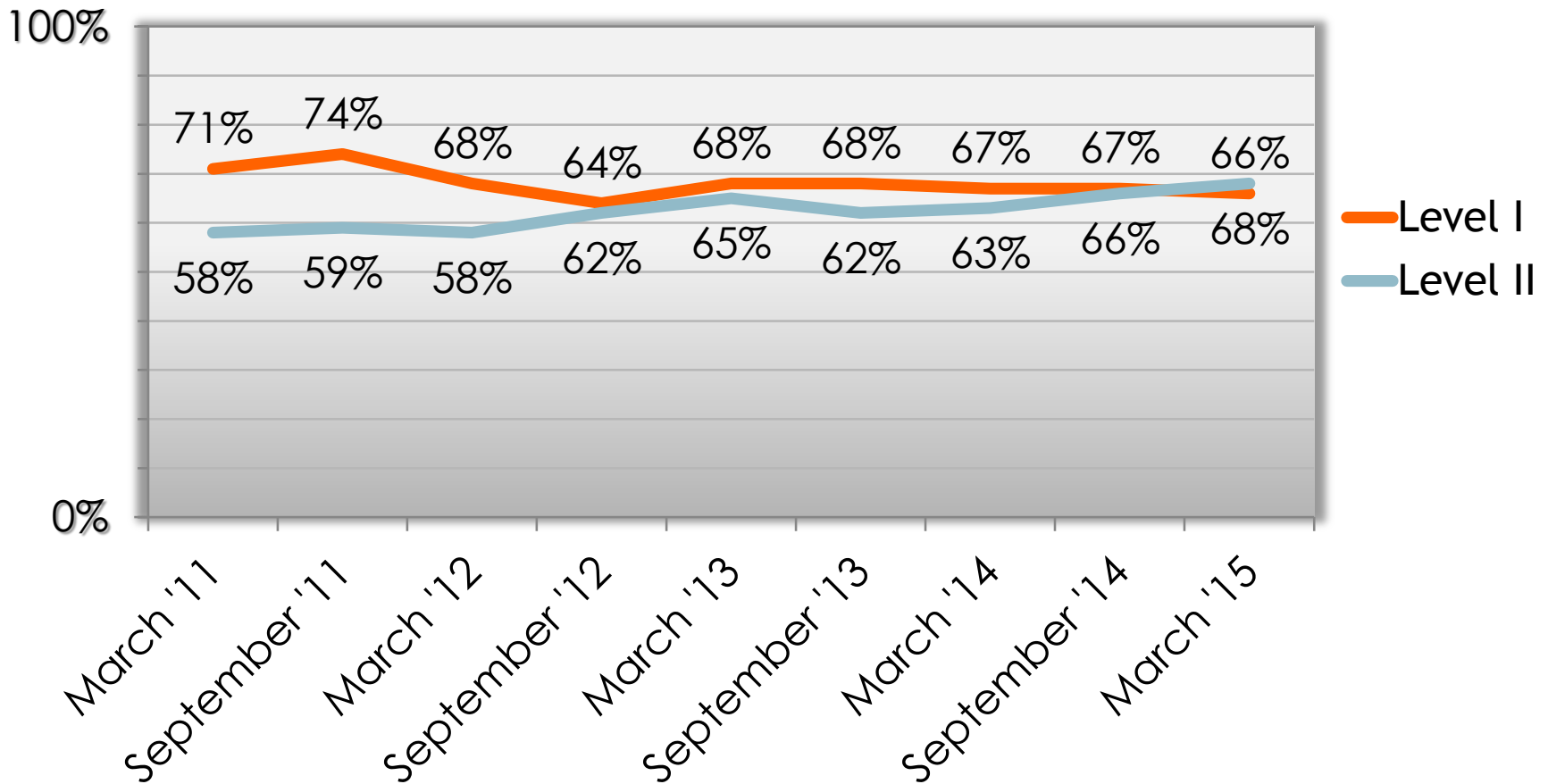
Membership (annually)	
Full	\$350
Affiliate	\$175
Retired	\$175

CURRICULUM COST

Approximate pricing (in USD):

- Level I Textbook US \$110 - 200
- Level II Textbook & Readings US \$310 - 400
- *Standards of Practice Handbook* US \$30 - 40

Pass Rates of Candidates Per Exam Cycle





The Chartered Alternative Investment Analyst Association's Board of Directors
does hereby confer the designation of

Chartered Alternative Investment Analyst

upon

Charter Number 12345

who has successfully completed all the requirements prescribed for this designation.

In Testimony Whereof, this Charter is granted under the seal of the
Chartered Alternative Investment Analyst Association this
twenty-second day of August, 2014.




Thomas Schneeweis
Director


Alexander Ineichen
Director


Andrew Baker
Director


Robert DeRito
Director


M. Jane Buchan
Director

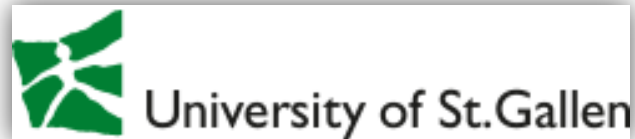

Mark Anson
Director


William Kelly
Chief Executive Officer

ACADEMIC PARTNERSHIPS – AMERICAS



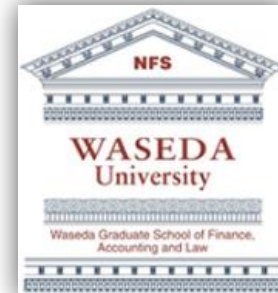
A complete list of CAIA's academic partners globally can be found at caia.org.



Amsterdam Business School

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can be found at caia.org.

ACADEMIC PARTNERSHIPS – APAC



A complete list of CAIA's academic partners globally can be found at caia.org.

ASSOCIATION PARTNERSHIPS



SAMPLE OF CAIA MEMBER EMPLOYERS

Banks

- HSBC
- Citi
- Credit Suisse
- UBS
- Barclays Capital
- Deutsche Bank

Consultants

- Cambridge Associates
- New England Pension Consultants
- Mercer
- Towers Watson

Fund Managers

- Blackrock
- Goldman Sachs
- J.P. Morgan
- Morgan Stanley
- State Street

Regulators

- U.S. SEC
- MAS Singapore
- SFC Hong Kong
- FCA UK
- CIMA Cayman

Pension Funds & Endowments

- APG
- Texas Retirement System
- Chicago Teachers
- Ontario Teachers
- CalPERS
- Harvard Management Co.

CAIA IS "PREFERRED"



Sample job postings from the CAIA Job Board. Top companies seek to hire CAIA Charterholders.



Risk Management - Associate

Industry certifications, such as a CFA, **CAIA**, or FRM, are a plus.



BNY MELLON

International Relationship Manager

CFA, **CAIA** or working toward preferred.



Equity Investment Research - Manager

CIMA, **CAIA**, and/or CFA charter holders or candidates will be looked favorably upon.



Senior Credit Specialist

CFA / **CAIA** / FRM / PRM is considered highly advantageous.



Senior Quantitative Research Analyst

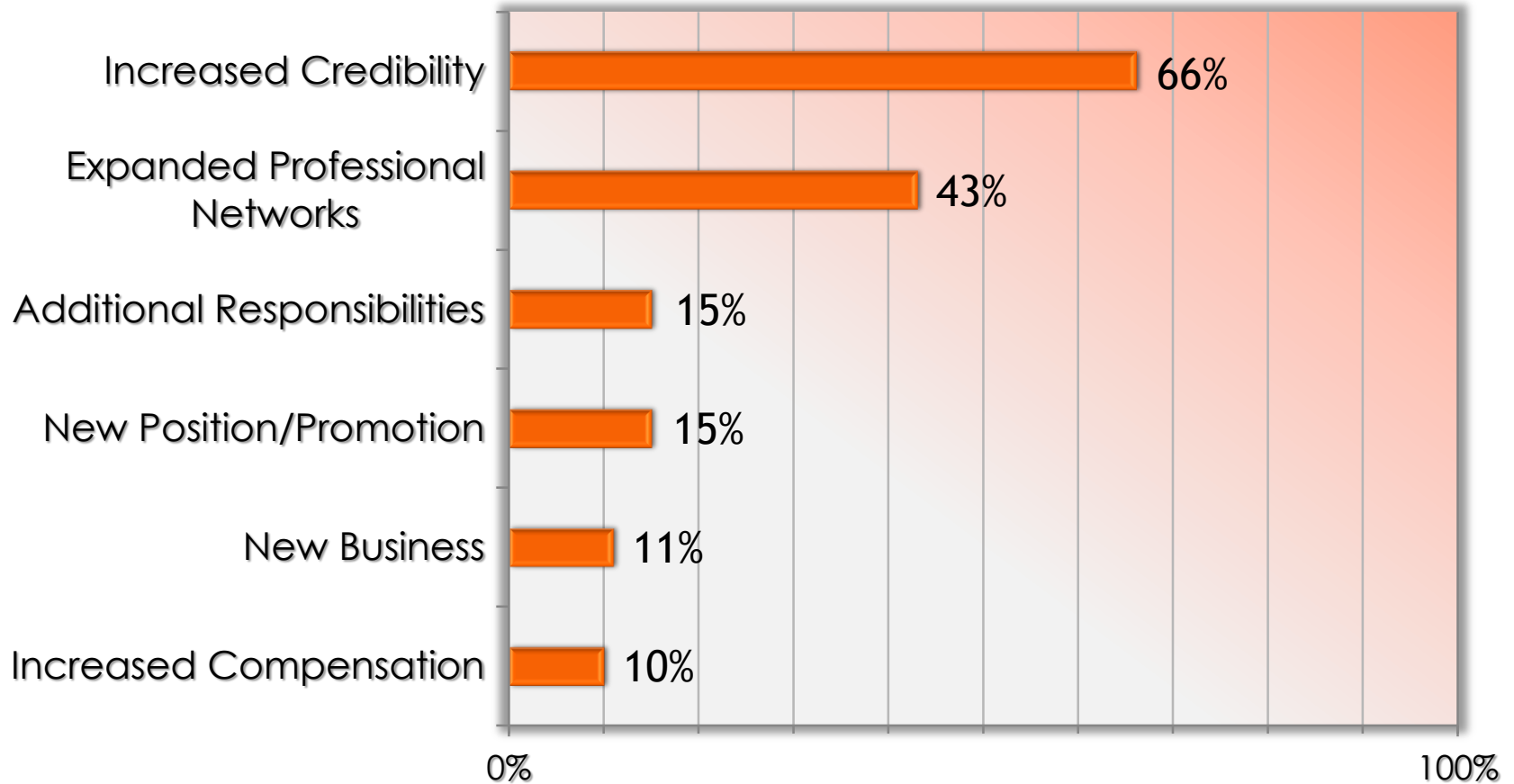
CFA, **CAIA**, CIMA

BLACKROCK

International Trading Manager

MBA, CFA, **CAIA** or CMT preferred

CAIA Members Report Positive Career Outcomes After Earning the CAIA Charter*



*From November 2014 CAIA Member Survey. Numbers represent approximately 19% of members.

- Use of CAIA marks in professional documents
- Chapter educational and networking events
- Global network of more than 7,700 members
- Globally-recognized designation
- CAIA.org Knowledge Center
- Self Evaluation Tool
- Ongoing education
- Job Board:
CAIA-Preferred
CAIA-Targeted



The Journal of
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All About Alpha.com
Research, Analysis & Opinion on Alternative Investments.



- Registration
 - Early: April 1– May 12, 2016
 - Regular: May 12, 2016 – August 5, 2016

- Level I Exam
 - September 12-23, 2016

- Level II Exam
 - September 5-16, 2016

GLOBAL BUSINESS DEVELOPMENT CONTACTS

AMERICAS

Millissa Allen, CAIA

Amherst
Managing Director of Business Development
direct: +1 413 549 3324
mallen@caia.org

Andrew Tetreault

Amherst
Business Development Manager
direct: +1 413 549 3317
atetreault@caia.org

Cody Durant

Amherst
Business Development Associate
direct: +1 413 549 3313
cdurant@caia.org

ASIA-PACIFIC

Joanne Murphy

Hong Kong
Managing Director, APAC
direct: +852 3655 0598
jmurphy@caia.org

Wendy Leung

Hong Kong
Events, Candidate & Member Services
Manager, Asia Pacific
direct: +852 3655 0568
wleung@caia.org

Peter Douglas, CAIA

Singapore
Principal
direct: +65 6536 4241
pdouglas@caia.org

EUROPE, MIDDLE-EAST, AFRICA

Laura Merlini, CAIA

Geneva
Managing Director of Business Development
direct: +41 796 154 491
lmerlini@caia.org

Tammy Johnston

London
Administrative Assistant
tjohnston@caia.org



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