



Pennsylvania Association of Public Employee Retirement Systems

GRAYSTONE CONSULTING

CUSTOMIZED SUITE OF SERVICES FOR INSTITUTIONAL CLIENTS

MARCH 2016

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MORGAN STANLEY - A STRONG FIDUCIARY PARTNER



THE STRENGTH OF MORGAN STANLEY

\$76.1 billion in Equity Capital
\$1.8 billion in Net Earnings for Q2 2015 ¹
\$2 trillion in Morgan Stanley Wealth Management client assets
\$244 billion in Institutional Advisory client assets²
Insurance Protection

- Fidelity/Fiduciary bond with coverage of \$250 million (with \$20 million deductible)
- Advisors Errors and Omissions Policy with coverage of \$15 million (\$100,000 deductible)

EXTENSIVE OVERSIGHT

A deep and experienced team of Legal, Compliance and Risk professionals who advise the business, support regulatory obligations and provide supervisory oversight

40+ attorneys (70+ legal professionals including paralegals & analysts), 250 compliance professionals, and 470 risk personnel

Financial information for Morgan Stanley as of June 30, 2015, unless otherwise noted

¹ Net income (loss) applicable to Morgan Stanley common shareholders

² As of December 31, 2014

GRAYSTONE - INSTITUTIONAL CONSULTING LEADERSHIP



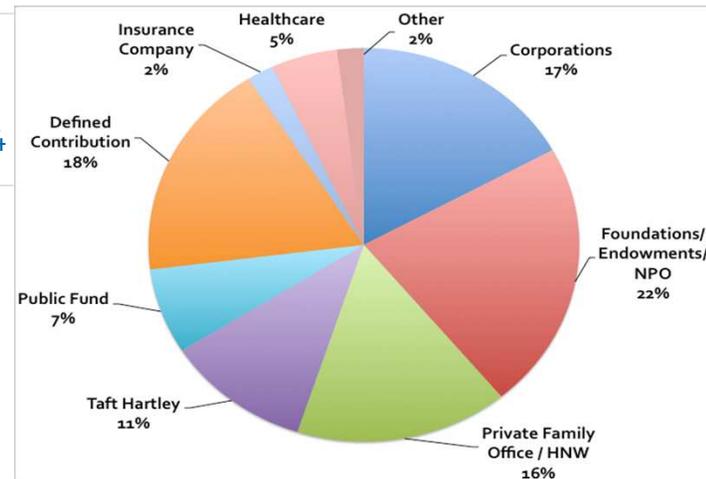
A LEADING INSTITUTIONAL CONSULTANT

- #1 Number of public/government clients
- #1 Number of nonprofit clients
- #2 Number of foundation and endowments
- #2 Number of defined benefit (DB) plans
- #3 Number of Taft-Hartley clients
- #1 Managed accounts platform by assets

ASSETS UNDER MANAGEMENT

- Morgan Stanley \$2.0 trillion
- Morgan Stanley Consulting & Advisory Services: \$783 billion
- Graystone Consulting: \$240 billion
- Discretionary AUM: \$43 billion

COMPOSITION OF CLIENTS ASSETS:
DECEMBER 31, 2014



Graystone maintains the #1 managed accounts platform by assets, enabling our clients to access to a wider array of rigorously reviewed and vetted investment managers at competitive prices.*

* Cerulli Associates, 1Q 2015 Managed Accounts Summary. See the disclosures at the end of this presentation for additional information.

** Morgan Stanley Wealth Management. Unless otherwise noted, the source for these statistics is Plan Sponsor Magazine, Consultants Survey.

CHOOSING A FIDUCIARY PARTNER WISELY

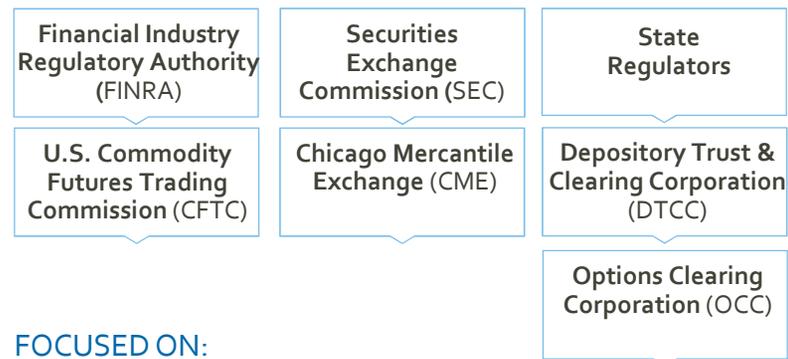
Internal Oversight



FOCUSED ON:

- Inspections
- Surveillance and Technology Initiatives
- Regulatory Obligations
- Field and Home Office Compliance and Risk
- Operations, Technology and Data

Regulatory Oversight

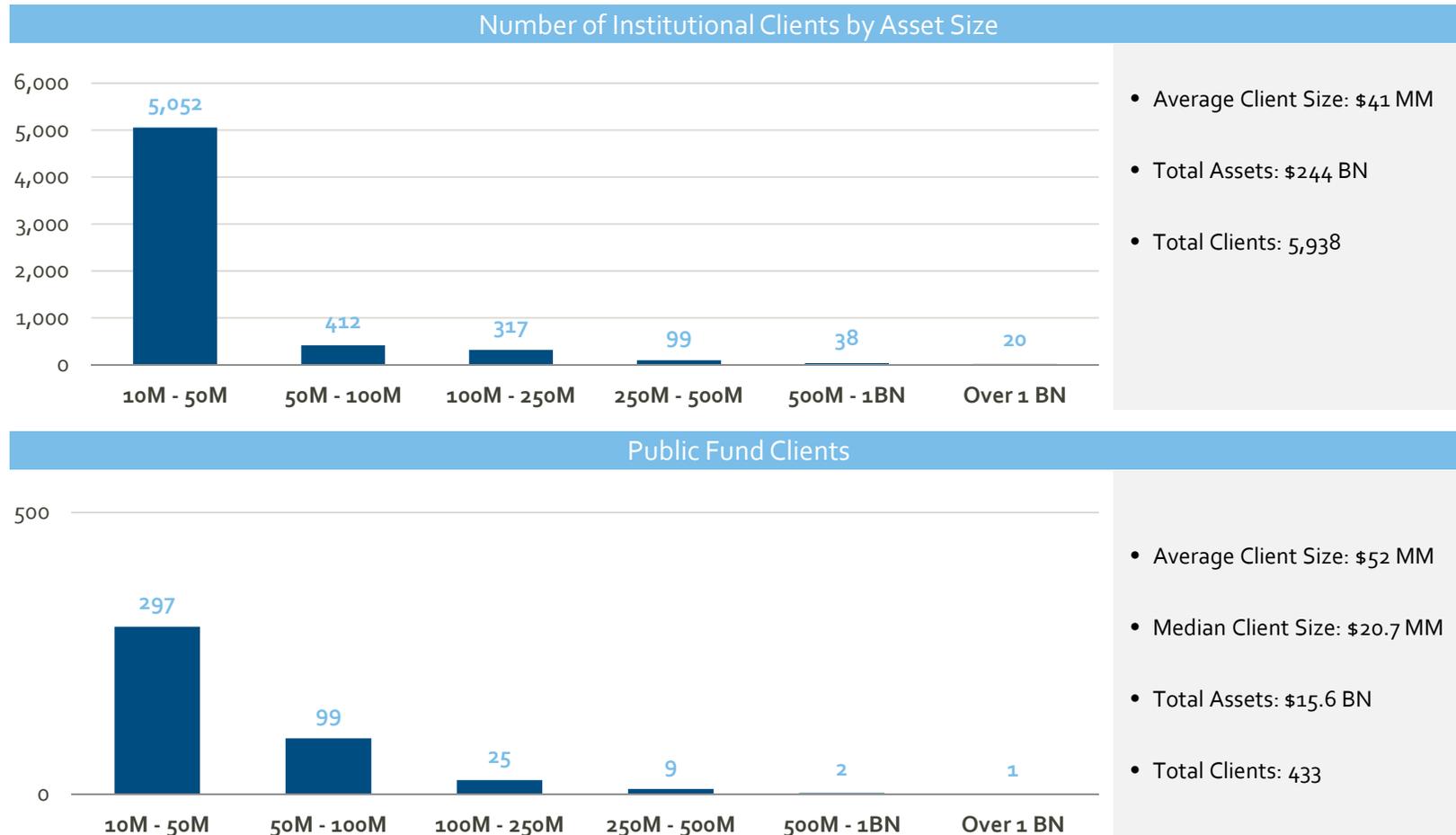


FOCUSED ON:

- Firm Examinations
- Rule Enforcement
- Investor Protection
- Advisor Registration and Licensing
- Maintaining Efficient Markets

A deep and experienced team of Legal, Compliance and Risk professionals who support regulatory obligations and supervisory oversight of the Firm's Institutional Consulting business.

INSTITUTIONAL CONSULTING EXPERIENCE



GRAYSTONE: EXPERIENCED, FOCUSED, RESOURCED



INDUSTRY LEADERSHIP

Graystone Consulting has over 40 years of experience with institutional clients, offering the service capabilities of a boutique firm with the resources of a global financial services institution. 5,938 client relationships

RECOGNIZED EXCELLENCE

- Consistently leading score in Greenwich Quality Index :
 - ✓ Capability of Consultant
 - ✓ Credibility with Investment Committee
 - ✓ Reasonable Fees Relative to Value
 - ✓ Depth/Quality of Resources
 - ✓ Advice on Long-Term Asset Allocation

INDEPENDENCE & OBJECTIVITY

- Open architecture platform
- Independent, non-proprietary investment solutions

COST-EFFICIENT, INTEGRATED SOLUTION

- Unbundled pricing structure
- Negotiated investment manager fees

GLOBAL REACH

As a business of Morgan Stanley, Graystone Consulting can provide access to a full range of global financial services designed to meet our clients' evolving needs.

GRAYSTONE: EXPERIENCED, FOCUSED, RESOURCED



UNMATCHED RESEARCH ASSETS

- > 150 Research Professionals
- Global Research & Portfolio Design
 - 22 macro & asset class specialists ON Global Investment Committee
 - 7 professional portfolio solutions team
- 115 Manager Research Analysts
 - 80 manager analysts covering traditional asset class & hedge FOF
 - 35 manager analysts covering all alternative asset classes (hedge funds, private capital, real assets etc.)
 - 8 dedicated operational due diligence professionals

EXTENSIVE BREADTH & EXPERIENCE

- 135 Institutional Consultants
- 604 Professional Staff
- 50 U.S. offices
- Senior team consultants average 22 years of industry experience

MORGAN STANLEY CONSULTING'S APPROACH: A FULL SPECTRUM OF SERVICES

We serve as fiduciaries offering a complete range of investment consulting services tailored to address each client's needs.

TRADITIONAL CONSULTING

Project-oriented approach driven by client's investment committee needs

- Consultant provides information on specific subjects to help committee make informed decisions:
 - Manager search
 - Special studies
- Committee retains responsibility for portfolio construction and implementation
- Consultant provides portfolio monitoring and performance reporting

NON-DISCRETIONARY

Collaborative approach between client's investment committee and consultant

- Assists with investment objectives and guidelines
- Tailored portfolio construction advice
- Collaborative portfolio management
- Client determines which investment decisions require approval
- Provides portfolio monitoring and performance reporting
- Either Morgan Stanley or client responsible for portfolio construction and implementation

DISCRETIONARY

Outsourced CIO approach overseen by client's investment committee

- Assists with investment objectives and guidelines
- Tailored portfolio construction advice
- Full discretionary portfolio management
- Full responsibility for:
 - Asset allocation
 - Manager due diligence, selection, replacement
 - Rebalancing;
 - Portfolio construction and implementation
 - Risk management
 - Portfolio monitoring and performance reporting

IMPORTANT DISCLOSURES

To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets. International investing may not be for everyone. Small capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies.

All mutual fund products and exchange traded funds are sold by prospectus, which contains more complete information about the fund. Please contact your Financial Advisor for copies. Please read the prospectus and consider the fund's objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund.

Bonds are subject to interest rate risk. When interest rates rise bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

Investing in alternative investments is speculative, not suitable for all clients, and intended for experienced and sophisticated investors who are willing to bear the high economic risks of the investment, which can include:

- loss of all or a substantial portion of the investment due to leveraging, short-selling or other speculative investment practices;
- lack of liquidity in that there may be no secondary market for the fund and none expected to develop;
- volatility of returns;
- restrictions on transferring interests in the fund;
- potential lack of diversification and resulting higher risk due to concentration of trading authority with a single advisor;
- absence of information regarding valuations and pricing;
- delays in tax reporting;
- less regulation and higher fees than mutual funds; and
- advisor risk.

Although the statements and data in this report have been obtained from, and are based upon, sources that the Firm believes to be reliable, we do not guarantee their accuracy, and any such information may be incomplete or condensed. All opinions included in this report constitute the presenters judgment as of the date of this report and are subject to change without notice. This report is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security. Past performance is not a guarantee of future results.

Actual returns would be reduced by expenses that may include management fees and costs of transactions. Expected return and risk (standard deviation) calculations are based on historical data for periods indicated.

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