The information provided herein may include certain non-GAAP financial measures. The reconciliation of such measures to the comparable GAAP figures are included in the Company’s Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and the Company’s Current Reports on Form 8-K, as applicable, including any amendments thereto, which are available on www.morganstanley.com.

This presentation may contain forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they are made, which reflect management’s current estimates, projections, expectations or beliefs and which are subject to risks and uncertainties that may cause actual results to differ materially. For a discussion of risks and uncertainties that may affect the future results of the Company, please see the Company’s Annual Report on Form 10-K, the Company’s Quarterly Reports on Form 10-Q and the Company’s Current Reports on Form 8-K, as applicable, including any amendments thereto. This presentation is not an offer to buy or sell any security.

Please note this presentation is available at www.morganstanley.com.
Strategic Moves Continue to Enhance Revenue Stability and Funding Durability

Key Drivers

- **Wealth Management & Investment Management**
  - Revenue stability: ~50% of revenues in 1H13 vs. ~28% in 2006
  - Efficient, stable deposit funding: growing to 25% of funding stack by 2015 YE
  - Contractual earnings upside from 100% ownership of wealth management JV beginning July 1, 2013

- **Equity Sales & Trading**
  - Top 1-2 globally with strength across geographies and products, including cash, derivatives and prime brokerage

- **Investment Banking**
  - Leadership positions in M&A, Equity Underwriting and Debt Underwriting

- **Fixed Income Sales & Trading**
  - Enhancing consistency and increasing capital efficiency

- **Strategic partnership with MUFG**
  - Top broker on Tokyo Stock Exchange
  - Leading Investment Banking franchise in Japan

- **Durable funding, strong capital and liquidity**

---

**Revenue Split**

- 2% Other
- 16% WM & IM
- 12% Equity S&T
- 20% IBD
- 50% Fixed Income S&T

**Funding Stack**

- 37% Shareholders’ Equity
- 33% Deposits
- 17% Long-Term Debt
- 13% Secured Funding

---

(1) Revenues exclude the negative impact of $142 million from DVA in 1H13. Revenue ex-DVA is a non-GAAP measure the Company considers useful for investors to allow comparability of period to period operating performance.

(2) Assumes total deposits of $138 billion at year-end 2015, pro-forma for completed transfer of Citi deposits associated with former wealth management joint venture. Assumes no changes to other balance sheet items versus 2Q13.

(3) Figures may not sum due to rounding.

This slide is part of a presentation by Morgan Stanley and is intended to be viewed as part of that presentation. The presentation is based on information generally available to the public and does not contain any material, non-public information. The presentation has not been updated since it was originally presented.
Morgan Stanley Today

Leading global franchises increasingly benefitting from **two Morgan Stanley-specific differentiators**

1. We Will Be the **Tenth Largest Bank** in the United States \(^{(1),(2)}\)
   - Stable, cost-efficient deposits
   - Deposits support lending growth in:
     - Institutional Securities: Building on pre-existing client franchise and domain expertise
     - Wealth Management: Leveraging existing clients and product set
   - Leading with risk management; sizable investment and conservative philosophy
   - Our Banks have strong capital and governance

2. We Have a **Powerful Technology** Platform
   - Award winning technology platform contributes to global leadership of Institutional Equities
     - Trading / Analytics / Prime Brokerage suite
   - Technology investments position Morgan Stanley Fixed Income well for market structure change and evolving regulatory requirements
     - Trading / Analytics / Clearing

\(^{(1)}\) Morgan Stanley deposits include both MSBNA and MSPBNA deposits and reflects the contractual transfer of deposits from Citi to Morgan Stanley after the closing of the acquisition. Organic account balance growth is assumed to be flat.

\(^{(2)}\) Excludes U.S. subsidiaries of foreign based banks. Based on company SEC Filings as of 2Q13.
1 Morgan Stanley Is A Top 10 US-Based Depository Institution – Pro-forma

<table>
<thead>
<tr>
<th></th>
<th>($Bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. JP Morgan Chase &amp; Co.</td>
<td>$1,203</td>
</tr>
<tr>
<td>2. Bank of America Corporation</td>
<td>1,081</td>
</tr>
<tr>
<td>3. Wells Fargo &amp; Company</td>
<td>1,022</td>
</tr>
<tr>
<td>4. Citigroup Inc.</td>
<td>938</td>
</tr>
<tr>
<td>5. U.S. Bancorp</td>
<td>252</td>
</tr>
<tr>
<td>6. Bank of New York Mellon Corporation</td>
<td>245</td>
</tr>
<tr>
<td>7. PNC Financial Services Group, Inc.</td>
<td>212</td>
</tr>
<tr>
<td>8. Capital One Financial Corporation</td>
<td>210</td>
</tr>
<tr>
<td>9. State Street Corporation</td>
<td>167</td>
</tr>
<tr>
<td><strong>10. Pro-forma Morgan Stanley</strong></td>
<td><strong>138</strong></td>
</tr>
<tr>
<td>10. BB&amp;T Corporation</td>
<td>131</td>
</tr>
<tr>
<td>11. SunTrust Banks, Inc.</td>
<td>128</td>
</tr>
<tr>
<td>12. Fifth Third Bancorp</td>
<td>93</td>
</tr>
<tr>
<td>13. Regions Financial Corporation</td>
<td>92</td>
</tr>
<tr>
<td>14. Charles Schwab Corporation</td>
<td>84</td>
</tr>
<tr>
<td>15. Morgan Stanley</td>
<td>82</td>
</tr>
<tr>
<td>16. Northern Trust Corporation</td>
<td>77</td>
</tr>
<tr>
<td>17. Goldman Sachs Group, Inc.</td>
<td>69</td>
</tr>
<tr>
<td>18. KeyCorp</td>
<td>68</td>
</tr>
<tr>
<td>19. M&amp;T Bank Corporation</td>
<td>66</td>
</tr>
<tr>
<td>20. Comerica Incorporated</td>
<td>51</td>
</tr>
<tr>
<td>21. Huntington Bancshares Incorporated</td>
<td>46</td>
</tr>
<tr>
<td>22. Zions Bancorporation</td>
<td>45</td>
</tr>
<tr>
<td>23. Discover Financial Services</td>
<td>43</td>
</tr>
<tr>
<td>24. American Express Company</td>
<td>41</td>
</tr>
<tr>
<td>25. First Republic Bank</td>
<td>28</td>
</tr>
</tbody>
</table>

(1) Excludes U.S. subsidiaries of foreign based banks.
(2) Source: SNL Financial as of 2Q13. Based on company SEC Filings as of 2Q13.
(3) Firmwide pro-forma deposit growth reflects the contractual transfer of deposits from Citi to Morgan Stanley after the closing of the acquisition. Organic account balance growth is assumed to be flat.
Deposit Growth is Formulaic and Contractual… Which Supports Business Growth Over Time

- Morgan Stanley will receive approximately $57Bn of deposits from Citi by mid-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>02Q13</th>
<th>2H13</th>
<th>1H14</th>
<th>2H14</th>
<th>1H15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit</td>
<td>$82</td>
<td>$26</td>
<td>$10</td>
<td>$10</td>
<td>$10</td>
<td>$138</td>
</tr>
</tbody>
</table>

(1) Firmwide pro-forma deposit growth reflects the contractual transfer of deposits from Citi to Morgan Stanley after the closing of the acquisition. Organic account balance growth is assumed to be flat. Figures may not sum due to rounding.
Morgan Stanley Wealth Management Deposits Are a Stable Source of Funding

- Sourced from our retail customers, our deposits are sticky and stable
  - Default sweep for clients’ excess cash – effectively working capital in client accounts – rooted in deep and broad franchise relationships anchored in investment advice; highly tenured client based
  - Stable over economic cycles and observed periods of both market and idiosyncratic stress
- Bank Deposit Program (BDP) total balances of $127Bn as of June 30, 2013 (1)
  - Comprised of ~7% of Wealth Management total client assets, sourced from ~3MM households with ~$1.8Tr of assets

(1) As of June 30, 2013 approximately $70 billion was held at Morgan Stanley banks and $57 billion was held at former joint venture partner.
Additional Deposits Support Retail and Institutional Business Growth Over Time

Slowly and Prudently Building Bank Assets; Targeting Core Client Franchise – Leading with Risk Management

Total Combined Bank Assets with Allocated Liquidity

- Loan-to-Deposit Ratio: ~55%
- Loan-to-Deposit Ratio: ~70%

- PLA (Portfolio Loan Account) represents non-purpose securities-based lending.
- Institutional Lending initiatives include Project Finance Lending, SPG Warehouse Lending and Equity Margin Lending.

Morgan Stanley
Retail Product Overview – Addressing Client Needs

**Strategy:** Prudent build of retail bank assets to address requirements of existing Wealth Management clients

- Since 2009, built team of ~200 private bankers to collaborate with and support Financial Advisors

<table>
<thead>
<tr>
<th>Securities Based Loans (e.g. PLA)</th>
<th>Residential Mortgages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Credit lines to clients secured by brokerage account assets</td>
<td>• Mortgage loans and home equity products to high credit-quality clients</td>
</tr>
<tr>
<td>• More flexible product than margin lending</td>
<td>• Average LTV ~60%</td>
</tr>
<tr>
<td>• Provides liquidity to clients while leaving client portfolio strategies intact</td>
<td>• Average FICO &gt; 750</td>
</tr>
<tr>
<td>• Average loan size of ~$1.2MM</td>
<td>• Predominantly floating rate</td>
</tr>
<tr>
<td>• Significantly over-collateralized</td>
<td>• Virtually no delinquencies to date</td>
</tr>
<tr>
<td>• Virtually no credit losses to date</td>
<td></td>
</tr>
</tbody>
</table>

**Result:** Increase client penetration from ~5% current state to ~10% industry average over several years

- Lending products deepen Financial Advisor & client relationship
- In addition to retail products, Bank assets include AFS portfolio
Retail Bank Asset Growth Drives Upside in Net Interest Income

- Net interest income (NII) as a percentage of total revenues in Wealth Management is lower than peers due to relative penetration of retail product suite
- NII growth has and will continue to be driven by an increase in retail lending products, as well as AFS portfolio
- Growth in NII is highly accretive to pre-tax margin

<table>
<thead>
<tr>
<th>Morgan Stanley Wealth Management Net Interest Income ($MM)</th>
<th>2011</th>
<th>2012</th>
<th>1H13 Annualized</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,000</td>
<td>1,100</td>
<td>+20%</td>
</tr>
</tbody>
</table>

Net Interest Income as a Percentage of Wealth Management Revenue

- Based on full-year 2012 results.
- Wells Fargo represents Wells Fargo Wealth, Brokerage and Retirement and Bank of America represents Bank of America Global Wealth Management.
Institutional Product Overview – Leveraging Existing Capabilities

**Strategy:** Leverage our leading Institutional Securities franchise
- Product growth strategy benefits from areas where Firm has deep domain expertise, strong embedded client base, and robust risk management and governance infrastructure

### Commercial Real Estate Lending
- Source transactions from existing flows and relationships
- Complementary product set to existing securitization business
- Expected ROE of 20%+

### Corporate Lending
- Operational leverage from existing infrastructure
- Ability to monetize relationships and flows
- Expected ROE of 15%+

### Warehouse Lending
- Expansion and deepening of existing relationships
- Expansion of assets accepted for financing
- Expected ROE of 15%+

### Relationship and Event Lending
- Predominately syndicated, undrawn corporate loan commitments
- More mature book with modest growth anticipated
Two Banks Support Client Activity

- Institutional Securities products are extensions of existing businesses
- Wealth Management products include deposit accounts, lending and trust services

<table>
<thead>
<tr>
<th>Retail</th>
<th>MSBNA ($66Bn of Deposits)(^{(1)})</th>
<th>MSPBNA ($14Bn of Deposits)(^{(1)})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Mortgages</td>
<td></td>
<td></td>
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<tr>
<td>Trust Services</td>
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<td></td>
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<tr>
<td>Tailored Lending</td>
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<tr>
<td>Securities Based Lending (PLA)</td>
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<tr>
<td>Institutional</td>
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<td>Senior Lending</td>
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<td>Foreign Exchange Derivatives</td>
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<td>Project Finance Lending</td>
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<tr>
<td>Commercial Real Estate Lending</td>
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<tr>
<td>Equity Margin Lending</td>
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<tr>
<td>Prime Brokerage Custody</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{(1)}\) As of June 30, 2013.
Banks Well Capitalized to Support Growth

<table>
<thead>
<tr>
<th>Tier 1 Capital Ratio (1)</th>
<th>Total Capital Ratio (1)</th>
<th>Leverage Ratio (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(%)</strong></td>
<td><strong>(%)</strong></td>
<td><strong>(%)</strong></td>
</tr>
<tr>
<td><strong>MSPBNA</strong> 26</td>
<td><strong>MSPBNA</strong> 27</td>
<td><strong>MSPBNA</strong> 11</td>
</tr>
<tr>
<td><strong>MSBNA</strong> 14</td>
<td><strong>MSBNA</strong> 16</td>
<td><strong>MSBNA</strong> 13</td>
</tr>
<tr>
<td><strong>GS Bank</strong> 15</td>
<td><strong>GS Bank</strong> 15</td>
<td><strong>GS Bank</strong> 17</td>
</tr>
<tr>
<td><strong>Citi, NA</strong> 13</td>
<td><strong>Citi, NA</strong> 15</td>
<td><strong>Citi, NA</strong> 9</td>
</tr>
<tr>
<td><strong>BAC, NA</strong> 12</td>
<td><strong>BAC, NA</strong> 14</td>
<td><strong>BAC, NA</strong> 9</td>
</tr>
<tr>
<td><strong>JPM, NA</strong> 10</td>
<td><strong>JPM, NA</strong> 13</td>
<td><strong>JPM, NA</strong> 6</td>
</tr>
<tr>
<td><strong>Reg Min. (2)</strong> 6</td>
<td><strong>Reg Min. (2)</strong> 10</td>
<td><strong>Reg Min. (2)</strong> 5</td>
</tr>
</tbody>
</table>

(1) Morgan Stanley and peer capital ratios as of June 30, 2013 and based on Call Reports from the Federal Financial Institutions Examination Council.
(2) Regulatory minimum for a well-capitalized bank.
Bank Governance and Oversight Functions: Investments, Infrastructure and Experience

- Credit Risk Management
- Market Risk Management
- Liquidity Management
- Compliance Risk Management
- Asset-Liability Management
- New Product Approval

Morgan Stanley
• Morgan Stanley’s Banks have independent, comprehensive, multi-tiered, and well-defined risk governance

• Bank-level governance is aligned with Firmwide risk management framework

• MSBNA and MSPBNA have separate Boards of Directors and Management Committees
  – Each Management Committee is authorized to implement or recommend appropriate risk limits for its area of oversight

• Our Banks are conservatively managed:
  – Significant investments by the Firm in the platforms, infrastructure, risk management, compliance and controls of the banks since each converted to a national charter in 2008
  – Decision-making regarding clients and credit risk has a particular focus on bank compliance standards and size restrictions given the uniqueness of the two banks
    • Conservative in our approach to interest rate, credit, and market risk
  – Transparent and measurable risk; relatively low complexity of product mix, asset mix, and the liability structure
  – Rigorous new business approval process
  – Built on a foundation of operational excellence
Credit Risk Management

- Bank-specific Credit Limits Framework (CLF) ensures limits are sized to reflect respective capital levels at each bank
  - Firm-level CLF vs. Bank-specific CLFs
- Separate Firm vs. Bank credit approval authorities
- Bank Board-level underwriting criteria reflect specific or unique risk tolerance of each bank
- Separate Firm vs. Bank Credit Policies
  - Credit Policy and Governance Subcommittees at both Firm and Bank level
- Firm-level Oversight Committee for Credit Risk Metrics – includes representatives from each Bank
- Firm and Bank level ALLL assessments and reporting
- Multiple levels of regulatory oversight of Credit Risk Management at Firm and Bank levels

Market Risk Management

- MSBNA and MSPBNA employ bank-appropriate risk limits consistent with the Firm’s market risk management framework
- Market risk limits are determined by each Bank’s size and are governed by each Bank Board’s risk appetite
- Transparency and measurability of risk in the Banks is increased by the relatively low complexity of:
  - Product mix
  - Asset mix
  - Liability structure
- Levels and types of risk differ between MSBNA and MSPBNA given differences in product and asset mix
In-Depth Example – Credit Risk Management

**Board**
- Defines each Bank’s credit risk tolerance in relation to total capital
- Authorizes development of the Credit Limits Framework to management
- Establishes Board-level Limits, including product and regulatory limits

**Management Committee (MC)**
- Approves and oversees the development and maintenance of Credit Limits Framework
- Establishes Management Committee level Limits including single name and product limits
- Management Committee limits established within the Board limits

**Credit Committee (CC)**
- Establishes Credit Committee-level Limits, including single name and product limits
- Credit Committee limits are more granular than Board and Management Committee limits and support risk management activities performed by Credit Risk Management
- Credit Committee limits established within the Management Committee limits

**Credit Risk Management (CRM)**
- Maintains detailed delegated authority single name limits by obligor
- Tailored to the specific risk attributes of a given obligor and typically established within Bank Board, Management Committee, and Credit Committee limits
- Approved by Bank Credit professionals in accordance with established credit approval authorities
Liquidity Management

- Liquidity is sized, stress tested and managed at the legal entity level across the Firm, including MSBNA and MSPBNA.
- Portion of the AFS portfolio is included in Bank liquidity.
  - As Citi deposits are on-boarded, the AFS portfolio and Bank liquidity will increase in the medium term, then moderate as some deposits are deployed into lending and other bank-appropriate products.
- Parent stress test model represents the sum of all legal entities and does not assume diversification benefit across legal entities.
- Stress tests assume the banks will initially use their own liquidity before drawing from the parent.
- Parent does not have access to subsidiaries’ excess liquidity due to regulatory, legal or tax constraints.

**Bank Liquidity**

($Bn)

<table>
<thead>
<tr>
<th></th>
<th>1Q11</th>
<th>2Q11</th>
<th>3Q11</th>
<th>4Q11</th>
<th>1Q12</th>
<th>2Q12</th>
<th>3Q12</th>
<th>4Q12</th>
<th>1Q13</th>
<th>2Q13</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Bn</td>
<td>$63</td>
<td>$63</td>
<td>$65</td>
<td>$63</td>
<td>$65</td>
<td>$60</td>
<td>$60</td>
<td>$71</td>
<td>$68</td>
<td>$64</td>
</tr>
</tbody>
</table>
Compliance Risk Management

• Bank Compliance Committee oversees a compliance risk management program for identifying, assessing, measuring, monitoring, testing, mitigating and reporting on regulatory compliance risks

• Specific Committee responsibilities include:
  – Promoting a strong “culture of compliance”
  – Maintaining a risk-based compliance monitoring and testing program
  – Overseeing the Bank Secrecy Act / Anti-Money Laundering Program
  – Providing management with advice, guidance and training concerning laws, regulations and policies
  – Maintaining an independent and effective compliance function

Asset-Liability Management

• Both Banks have well established Asset-Liability management processes with Asset-Liability Committees that are charged with overseeing:
  – Liquidity risk under normal and stressed operating environments, including maintenance of Contingency Funding and Liquidity Crisis Plans
  – Capital planning and adequacy on a spot and forward looking basis
  – Structural interest rate risk of each Bank

• Asset-Liability Management Metrics include:
  – Liquidity gaps and liquidity ratios
  – Capital levels and ratios
  – Net interest income variability
  – Investment portfolio size and composition
## New Product Approval

### NPA Process
- NPA process is an essential control that helps ensure new products are properly evaluated before launch.
- NPA process provides that:
  - Adequate infrastructure is in place to support execution.
  - Risks are well understood, appropriate in size, and able to be monitored effectively.
  - Products under consideration conform with both regulatory and Bank control guidelines.
  - Products are suitable for intended client base.

### Senior Management Review
- Regular meetings between Bank Management Committees and their primary regulator to review existing and new businesses.
- New products or material growth in pre-existing products must receive approval prior to launch.
- The process considers:
  - Product structure
  - Control environment
  - Governance
  - Financial impact.

### Planning and Review
- Bank Management Committees review and amend strategic plans.
- Plans are reviewed by the Banks’ Board of Directors and primary regulator.
- Plans examine current and forecasted financial results, product mix as well as associated capital and liquidity metrics.
- Additionally, the Banks also participate in the Dodd-Frank Asset Stress Test ("DFAST").
  - DFAST is an annual stress test to ensure the Banks remain sustainable through hypothetical adverse economic scenarios.

### Significant Investment
- Morgan Stanley continues to invest significantly in infrastructure to ensure appropriate controls.
- These investments strengthen:
  - Booking models
  - Regulatory and operational support
  - Anti-money laundering processes
  - Model management
  - Counterparty and credit risk processes
  - Finance processing and improved valuation controls to produce required regulatory reporting
  - Transfer pricing processes.

---

**Unanimous consent required from functional control areas, with no flexibility for business unit override.**

**The process is to help ensure new products do not jeopardize the Banks’ safety or soundness.**

**These planning activities help to ensure the Banks’ product mix and financial performance are continuously monitored and evaluated.**

**These enhancements to controls and infrastructure at both the bank and Firm level directly benefit the bank.**
We Benefit from Leading Franchises Across Institutional Securities Businesses: Technology is a Differentiator

Institutional Equities
- Top 1-2 Equity Sales & Trading franchise globally
- Leader in Cash Equities, strong position in Derivatives, and leading player in Prime Brokerage
- Significant investments in technology
  - Hybrid voice and electronic model: client-centric, market-leading offering
  - Market-leading content/insights, technology-enabled customized delivery
  - Market access, service excellence and innovative solutions

Investment Banking
- Leading Global Investment Banking practice
- Leading M&A and Equity Underwriting franchises
- Leveraging partnership with MUFG around the world
- Building synergies and opportunities with Wealth Management

Fixed Income & Commodities
- Leading credit and mortgages franchises
- Improved position in macro products, with upside potential
- Ongoing market share gains in electronic trading
- Successfully building and investing in clearing
- Executing on RWA reduction plan
- Focus on ROE improvement and consistency

Morgan Stanley
Our Consistent Investments in Sales and Trading Technology Drive Competitive Advantage

Success in Equities/Prime Brokerage & FX Provide Foundation For Clearing and Market Structure/Regulatory Change in Other Asset Classes

- Global Equities, Options, Futures, FX
- U.S. Treasuries
- PB Integration
- BD Access
- Trade Access 24 hours / 6 days
- Matrix
- Swaps, Governments and Corporate Bonds
- Derivatives Central Clearing
- Other Fixed Income Products

2003 – 2008

2009 – 2012

2013 – Beyond

Assess and Adapt
Progressive Integration
Other Market
Sustainable Execution

Capital Commitment
Morgan Stanley
Our Technology Investments Well Recognized by 3rd Parties

Overall

• Best Global Equity House for the 2nd time in three years (1)
• 2012 Best Full Service Brokerage with Matrix cited as a factor (2)

Electronic Trading & Liquidity Sourcing

• 2012 Best Service to Leading and Large Clients (6)
• #1 Algorithmic Quality / #1 Client Service / #1 Dark Pools Strategy / #1 Liquidity Access/Smart Order Routing (7)
• 2012 Best Algo Product / Service category for NightOwl (8)
• 2012 #1 Algorithmic Provider for U.S. Clients (9)
• Top Broker for Cash Equity Trading in Europe in 1H13 (10)

Prime Brokerage & Clearing

• #1 Prime Brokerage with the biggest share of business from new launches in the US (3)
• #1 sole new European Prime Brokerage mandates (4)
• #1 non-cash Prime Brokerage – most innovative synthetics provider (5)

Content Provider & Service

• 2011 & 2012 Sellside IT Dept of the Year; 2012 Best Broker for Market Structure/Execution Consulting (8)
• 2012 #1 in Anonymity / #1 in Execution Consistency (9)
• Matrix was the winner of the ‘Market Mover’ award (11)
• Matrix ranked Best Research Platform (11)

---

(1) Euromoney magazine’s 2013 Awards for Excellence (July 2013)
(2) WatersTechnology Rankings 2012
(3) Absolute Return (February 2013)
(4) Eurohedge (April 2013)
(5) ISF Synthetic Survey (August 2012)
(6) The Trade Asia
(7) Thomson/Extel Europe 2013 Survey
(8) Financial News
(9) Global Algorithmic Trading Survey
(10) Markit (July 2013)
(11) Profit & Loss Magazine (May 2013)

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Morgan Stanley Electronic Trading: Benefitting From Long-Term Investments and Adaptation

Electronic Trading Evolution – Different Stages for Different Business Lines

<table>
<thead>
<tr>
<th>Evolved</th>
<th>Evolving</th>
<th>Early Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>Futures</td>
<td>Governments</td>
</tr>
<tr>
<td>FX</td>
<td></td>
<td>FID</td>
</tr>
</tbody>
</table>

Morgan Stanley Electronic Trading Client Offerings

- Clients transact directly via MS trading tools
- Cutting edge infrastructure
- Low latency market access
- Industry leading web portals
- 24 x 6 trading
- Real-time risk management
- Research / Ideas / Market Commentary
- Execution consultancy
- Real-time / Post-trade analytics
- Straight-through processing
- Optimized liquidity
- Trusted partner

Revenue Opportunities

- Commissions
- Maker / Taker
- Spread extraction / Market making
- Leveraging scale and flow
- Integration with clients / Consulting / Service
## Electronic Trading Evolution: Equity Market Case Study

### Historical Equity Market Structure (1 to 1 Model)
- Relatively simple “voice broker” model

### Catalysts for Equity Market Structure Change (Sizable Growth)
- Harmonized clearing
- Lower “cost of trade”
- Overlapping roles of exchanges and brokers
- “Pull” from buy-side demand
- “Push” by high frequency trading
- Influenced by regulation

### Current Equity Market Structure (Many to Many Model)
- Integrated, multi-venue market dominated by electronic trading
- Liquidity is a valuable, actively traded “asset”

### Future Market Structure Changes (Many to Many to Many and Velocity of Change)
- Evolution timeframe will be condensed relative to Equities due to regulatory changes and legislation
- Requirements to compete: 1) Understand where clients want to go 2) Understand economics of those client needs
- Will be global, multi-product, multi-asset, multi-client and fluid
### Building Blocks of an Electronic Trading Offering – Where are the Market Leaders?

#### We Believe We Lead or Are a Leader in All Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Old Paradigm</th>
<th>Present / Future Paradigm</th>
<th>Where are Market Leaders?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equities / Fixed Income</strong></td>
<td>• Voice and e-mail information to clients</td>
<td>• Direct connection to clients own trading systems</td>
<td></td>
</tr>
<tr>
<td><strong>Connectivity</strong></td>
<td>• Largely single sources (NYSE, London Stock Exchange, etc.), screens and brokers own liquidity</td>
<td>• Connecting via multiple market platforms to satisfy client demand</td>
<td><strong>Eq</strong></td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td>• OTC by nature, restricted</td>
<td>• Multiple exchanges/sources of liquidity (ECN's, dark pools, derivatives exchanges, etc.)</td>
<td><strong>Eq</strong></td>
</tr>
<tr>
<td><strong>Reach</strong></td>
<td>• Voice based relationship</td>
<td>• Touching dozens of markets &amp; over 100 venues with algorithmic capabilities</td>
<td><strong>Eq</strong></td>
</tr>
<tr>
<td><strong>Trust / Stability / Resiliency</strong></td>
<td>• Confirms and paper reports</td>
<td>• Insight and partnership with clients in complex markets</td>
<td><strong>Eq</strong></td>
</tr>
<tr>
<td><strong>Service Provision</strong></td>
<td>• Classic research report distribution and client interaction by phone</td>
<td>• Our infrastructure effectively becomes our clients’ infrastructure and must be reliable</td>
<td><strong>Eq</strong></td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td></td>
<td>• New market structures create new market dynamics and the platform must perform</td>
<td><strong>Eq</strong></td>
</tr>
</tbody>
</table>

**Morgan Stanley**

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And How Do We Get Paid for Our Electronic Trading Strengths?

We Believe We Lead or Are a Leader in All Categories

Equity Sales & Trading and Fixed Income Sales & Trading

Commissions

Payment for insight and access
- Classic payment for agency and agency-like executions and investment ideas in Equity and Fixed Income markets, requiring deep CRM Processes
- Managing client “bank” accounts

Market Making / Liquidity Sourcing

Payment for Liquidity provision
- Revenue driver in deep, liquid, transparent markets; incremental revenue capture in less liquid, less transparent markets

Scale

Payment for operating leverage
- Second 10 million Equity executions per day costs Morgan Stanley just 3% of the expense of the first 10 million executions

Integration

Payment for infrastructure / service
- Deeply integrated and hence stable client bases through technology and operational linkages
- Platform “rental” income, i.e. cost plus models

Morgan Stanley
Morgan Stanley OTC Clearing: Foundation of Over 15 Years of Clearing and Technology Investments

Morgan Stanley embraced Central Clearing early and made a significant investment in our offering: client activity began in 2009 with a gradual increase throughout 2012.

- Offering is logical progression of years of investments in all areas of sales & trading technology
- With the phase-in of mandatory clearing in 2013, there has been a significant increase in activity
- Three categories of mandatory clearing phase-in for certain interest rate swaps and CDX indices
  - First two categories in March and June executed smoothly without disrupting market activity

Select Technology Investments

<table>
<thead>
<tr>
<th>Category 1 Mandate</th>
<th>Category 2 Mandate</th>
<th>Category 3 Mandate</th>
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</thead>
<tbody>
<tr>
<td>March 11, 2013</td>
<td>June 10, 2013</td>
<td>Sept. 9, 2013</td>
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<tr>
<td>Clearing Determination Rule Published</td>
<td>December 13, 2012</td>
<td></td>
</tr>
<tr>
<td>List of Derivatives Clearing &amp; Settlement Investment</td>
<td>~2009</td>
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</tr>
<tr>
<td>New Settlement Platform basis for Stock Settlement Platform</td>
<td>~2000</td>
<td></td>
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<tr>
<td>Significant Reinvestment in Prime Brokerage Platform</td>
<td>~2009</td>
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<tr>
<td>Continuing Prime Brokerage Investment</td>
<td>~2001</td>
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<tr>
<td>Matrix Investment</td>
<td>~2008</td>
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Our leading Prime Brokerage platform provides the foundation for the client service and technology required by our OTC Clearing clients.

- Integrated client-service for all cleared products
- Best-in-class proprietary technology for client reporting and reconciliation
- Cross-asset and cross-product portfolio margining capabilities
- Deep value-added client consulting expertise
- Global reach of access to clearinghouses across regions and products
- Robust post-trade infrastructure for settling and clearing high volume trades

Fixed Income Markets evolving like Equities: Across execution, clearing and settlement – different clients will have different needs but being able to manage across the entire service and technology spectrum will be a critical differentiator.
Morgan Stanley’s OTC Derivative Clearing Offering: A Core Business Within the Firm

Morgan Stanley OTC Derivative Clearing Offering:
- Provides connectivity to all major clearinghouses and middleware
- Provides interface to clients, featuring our in-house platform, Matrix
- Best-in-class track record in client service; dedicated team for OTC Clearing that offers a single point of contact as well as a streamlined on-boarding team
- Holistic view of position reporting, margin calls, portfolio analytics, market information, live pricing, and customizable reporting of cleared and non-cleared trades across asset classes
- “What-If” Margin technology that enables clients to understand margin implications of both real and hypothetical trades
- Real-time view of client clearing limits
Conclusion

- Leading Global Franchises with Greater Revenue Stability
- Strong Capital and Liquidity
- Differentiated Bank with Clear and Prudent Growth Strategy
- Technology Investments Accretive to Firm and Important Contributor to the Upside in Fixed Income