Getting Leverage.
Going Short.

Live Webinar
May 14, 2009 2:00 – 3:00 pm EDT
Definitions

A leveraged ETF attempts to provide returns equivalent to a multiple (2x, 3x) of a benchmark, over a specific period of time.

An inverse ETF attempts to provide returns opposite, and often leveraged, to a benchmark, over a specific period of time.
History

First leveraged index fund
Rydex Nova Fund, 1.5x S&P 500

First leveraged ETFs
ProShares 2x ETFs


Continued Expansion

First inverse fund
Rydex URSA Fund, -1x S&P 500

ProFunds and Potomac (now Direxion)
• ProFunds – 2 beta funds
• Potomac – 1.25 beta

Direxion launches 3x ETFs

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Tremendous Growth

Most major asset classes

Range from 3x to -3x

Over 100 ETFs and ETNs

> $30 billion in assets

27% of daily trading volume
Tremendous Growth

Leveraged/Inverse Assets
US$, Millions

<table>
<thead>
<tr>
<th>Month</th>
<th>Amount</th>
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<tbody>
<tr>
<td>April-06</td>
<td>4,775</td>
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<td>April-07</td>
<td>17,254</td>
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<td>April-08</td>
<td>30,466</td>
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<td>April-09</td>
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Brought to you by...

direxion

Direxion shares

IndexUniverse.com
The World of indexing... and Beyond

IndexUniverse.com
IndexUniverse.com

FA
Financial Advisor
Tremendous Growth

2009 Flows (through April)

Long (Traditional)

Short-Levered

Short

Long-Levered

US$, Millions

-4,000 -2,000 0 2,000 4,000 6,000 8,000 10,000 12,000
Tremendous Growth

April 2009 ETF Assets

- Long (Traditional): 94%
- Long-Levered: 2%
- Short: 1%
- Short-Levered: 3%
Tremendous Growth

April 2009 ETF Volume

- Long (Traditional): 73%
- Long-Levered: 9%
- Short Levered: 18%
- Short: 0%
Headline Horror!

“Warning: Leveraged and Inverse ETFs Kill Portfolios
Too many people are making sucker bets with these products.”

Morningstar, 1/22/09
The Big Myths

1. They deliver x% of an index’s long-term return
   Wrong – it’s all about holding period

2. They have huge tracking error
   No – they generally track very well

3. People use them incorrectly
   Not if you look at the volumes

4. They’re ETFs, so they must be tax efficient
   Shorting and leverage are rarely tax efficient

5. They’re poison
   No; they’re a very, very sharp tool in the drawer
How They Work

Exposure through derivatives
- Swaps are the vehicle of choice

The Swap
- Contract with a counterparty
- An agreement to pay a daily return
- Not a traded security (like a bond)
- Rebalanced regularly
- Minimal risk – settlement gap
Long-Term Returns
Tracking Error? Not Really

Compounding

Path Dependency

Leverage Drag
Short Term: No Problem
It’s All About Timing!
It’s by design
Tracking Error? Not Really

Day 1: Index Level: 100
   -200% ETF Level: 100

Day 2: Index up 10%
   Index Level: 110
   -200% ETF Level: 80

Day 3: Index down 10%
   Index Level: 99
   -200% ETF Level: 96
## Complex Structure of Leverage

<table>
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<tr>
<th>Index (1-yr)</th>
<th>300% Inverse</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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How Long Can You Hold?

Journal of Indexes Study, March 2009

ProShares Ultra Dow30 (NYSE Arca: DDM)
ProShares Short Dow30 (NYSE Arca: DOG)
ProShares UltraShort Dow30 (NYSE Arca: DXD)
How Long Can You Hold?

1-Day Tracking Error

- DDM
- DOG
- DXD

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How Long Can You Hold?

95% Interval
1-Day Tracking Error

DDM  DOG  DXD

0.06%  0.09%  0.13%
-0.13% -0.06% -0.13%
How Long Can You Hold?

95% Interval
1-Week Index Variance

DDM
DOG
DXD

0.22%
-0.74%
0.26%
-1.00%
0.54%
-2.78%
How Long Can You Hold?

95% Interval
1-Month Index Variance

<table>
<thead>
<tr>
<th>Index</th>
<th>Variance</th>
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<tbody>
<tr>
<td>DDM</td>
<td>0.54%</td>
</tr>
<tr>
<td>DOG</td>
<td>0.94%</td>
</tr>
<tr>
<td>DXD</td>
<td>1.94%</td>
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<tr>
<td>DXD Holding In Review</td>
<td>1-Day</td>
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<tr>
<td>-----------------------</td>
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<tr>
<td>Worst Case</td>
<td>-0.47%</td>
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<tr>
<td>95% Interval</td>
<td>-0.13%</td>
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<tr>
<td>Best Case</td>
<td>0.39%</td>
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## Solving the Tracking Issue

<table>
<thead>
<tr>
<th>Day 1:</th>
<th>Index Level:</th>
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<tbody>
<tr>
<td></td>
<td>Initial -200% ETF Investment:</td>
<td>$100</td>
</tr>
<tr>
<td>Day 2:</td>
<td>Index up 10%</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Index Level:</td>
<td>110</td>
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<tr>
<td></td>
<td>ETF Investment:</td>
<td>$80</td>
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<tr>
<td></td>
<td><strong>Additional Investment:</strong></td>
<td>$30</td>
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<tr>
<td></td>
<td>Total ETF Investment:</td>
<td>$110</td>
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<tr>
<td>Day 3:</td>
<td>Index down 5%</td>
<td>104.5</td>
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<tr>
<td></td>
<td>Index Level:</td>
<td>104.5</td>
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<tr>
<td></td>
<td>ETF Investment:</td>
<td>$121</td>
</tr>
</tbody>
</table>

Net result: Index up 4.5%, position loss of 9% on initial investment
A Different Path: Monthly?

Shifting Math

Funds should track as expected if:
- You get in on day 1
- You get out on reset

Intra-period entries get different exposure
A Different Path: Monthly?

<table>
<thead>
<tr>
<th></th>
<th>Day 1</th>
<th>Day 15</th>
<th>Day 30</th>
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<tbody>
<tr>
<td>Index</td>
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<tr>
<td>3x Return</td>
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<td>15%</td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>3x Return</td>
<td></td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>Index</td>
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</tr>
<tr>
<td>3x Return</td>
<td></td>
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</tbody>
</table>

Midmonth investor gets less exposure per dollar invested (when the month is positive), or more exposure when the month is negative.
Key Issue: Liquidity

It’s all about spreads

RTG (Rydex 2x Tech):
Average Volume: ~6,000 shares
Spread: 3.5%

QLD (ProShares 2x QQQ):
Average Volume: ~30 million shares
Spread: Consistently a penny
## Key Issue: Taxes

### The Rydex Problem: 2008 Cap Gains

<table>
<thead>
<tr>
<th>ETF Name</th>
<th>Ticker</th>
<th>Short-Term</th>
<th>Long-Term</th>
<th>Total Gains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rydex Inverse 2X S&amp;P Select Sector Energy</td>
<td>REC</td>
<td>86.61%</td>
<td>0.00%</td>
<td>86.61%</td>
</tr>
<tr>
<td>Rydex Inverse 2X S&amp;P Select Sector Technology</td>
<td>RTW</td>
<td>59.46%</td>
<td>0.00%</td>
<td>59.46%</td>
</tr>
<tr>
<td>Rydex Inverse 2X S&amp;P Select Sector Financial</td>
<td>RFN</td>
<td>42.35%</td>
<td>7.32%</td>
<td>49.67%</td>
</tr>
</tbody>
</table>
Panel Discussion

Louis Stanasolovich
CEO & President
Legend Financial Advisors, Inc.

Dan D. O’Neill
President & CIO
Direxionfunds Direxionshares

• Editor of the monthly newsletter, Risk-Controlled Investing
• Worth “Top Wealth Advisors’ 12 consecutive years
• Three times member of Investment Advisor’s “IA 25”

• Responsible for Trading & Operations
• Designer of Direxion product offerings
• Experienced alternative-strategies portfolio manager