

## Presentation to Exchange Traded Funds Roundtable

The Role of Market Making in ETFs

Monday, September, 23, 2013

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Presented By



## What is the Role of an ETF market Maker?

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- Act as a fund underwriter
  - Subscribe / redeem units
- Provide bids / offers for ETFs on exchange
  - Keep ETF price close to NAV (if possible)
- Handle buy / sell orders from clients (retail / institutional)
- Manage inventory of hedged ETF / underlying positions

## Unique Characteristics of ETFs

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- Underlying fund holdings transparent (ETF provider websites)
- Ability to create / redeem units at NAV
- Real-time trading on exchange

## Canadian ETF Space

- 272 ETFs equal to close to \$60 billion listed on TSX
- 8 ETF providers
- Top 10 ETFs (by Asset under Management)

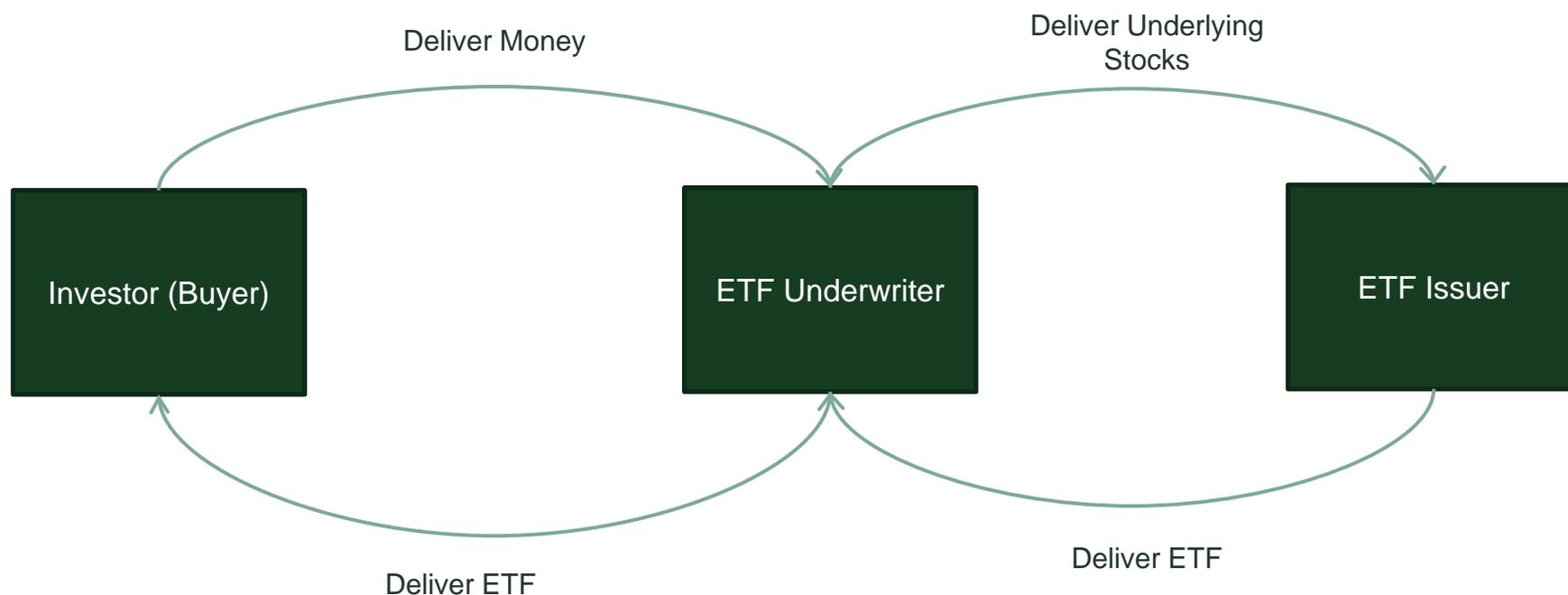
Ticker	Name	AUM (MM)	3-Month ADV		MER
			000 shrs	000 \$	
XIU	ISHARES S&P/TSX 60 INDEX FUN	11,695	5,363	5,466	0.15%
XSB	ISHARES DEX SHORT TERM BOND	2,300	298	301	0.25%
XSP	ISHARES S&P 500 INDEX FUND C	1,864	784	590	0.01%
CBO	ISHARES 1-5 YEAR LADDERED CO	1,721	283	850	0.25%
XCB	ISHARES CDN DEX ALL CORPORAT	1,677	2,123	624	0.40%
XBB	ISHARES DEX UNIVERSE BOND IN	1,614	542	377	0.30%
CPD	ISHARES S&P/TSX CANADIAN PRE	1,330	567	797	0.45%
XRE	ISHARES S&P/TSX CAPPED REIT	1,290	207	319	0.55%
XIC	ISHARES S&P/TSX CAPPED COMPO	1,271	149	124	0.25%
XDV	ISHARES DOW JONES CANADA SEL	1,266	118	99	0.50%

## Why do Investors Use ETFs?

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- Liquidity (a bit of a myth)
- Simplicity (the real reason)
- Transparency (dangerous – see John Bogle – Vanguard – leads to over-trading)
- Access (there are truly some situations where ETFs are the only investor access to asset class)

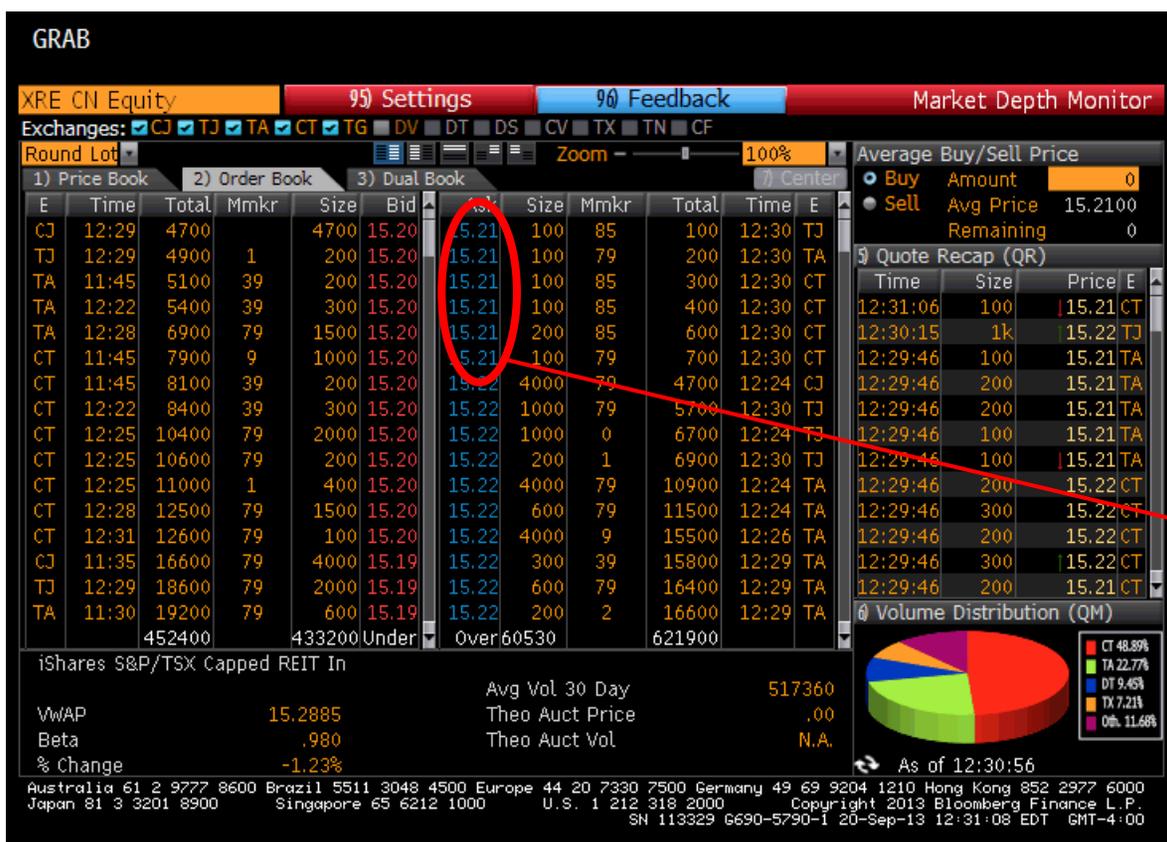
## ETF Creation Process (Redemption process in reverse)



- ETF Underwriter sells the ETF to the investor and buy the underlying basket that replicates the ETF.
- ETF Underwriter's position on the book: short the ETF and long the basket.
- Then ETF Underwriter would process a creation with the ETF Issuer. This would require the ETF Underwriter to deliver the shares that it is long of the underlying basket to the issuer and it would, in turn, receive the shares of the ETF.
- ETF Underwriter's position would be flat, and the ETF Issuer would have increased the shares outstanding in the fund, simultaneously increasing the AUM.
- In reality, the market maker may hold inventory of various ETFs against a short position on the underlying basket

## Sample ETF Trade – XRE

- Institutional Investor A wants to buy 50,000 iShares S&P/TSX Capped REIT Index Fund (XRE – TSX) and calls an ETF market maker to arrange the trade
- Suppose the ETF market maker agrees to sell the entire size to them at \$15.21



- The first XRE bid / ask in the open market: \$15.20 / \$15.21, Size 9800 / 13,700

## XRE Underlying – S&P/TSX Capped REIT Index

S&P/TSX Capped REIT Index	How Much Should We Purchase		
Bloomberg Ticker	Shares (per 50,000 XRE)	Offer Price	Offer Size
REI-U CN	<b>6,144</b>	<b>24.22</b>	<b>1600</b>
HR-U CN	<b>5,203</b>	<b>21.08</b>	<b>100</b>
D-U CN	<b>2,092</b>	<b>30.05</b>	<b>600</b>
REF-U CN	<b>1,384</b>	<b>41.31</b>	<b>300</b>
CWT-U CN	<b>2,064</b>	<b>24.52</b>	<b>1200</b>
BEI-U CN	<b>793</b>	<b>57.12</b>	<b>300</b>
CUF-U CN	<b>2,335</b>	<b>19.01</b>	<b>1000</b>
AP-U CN	<b>1,372</b>	<b>32.21</b>	<b>200</b>
CAR-U CN	<b>2,051</b>	<b>20.41</b>	<b>1600</b>
AX-U CN	2,558	14.05	2900
GRT-U CN	<b>949</b>	<b>36.72</b>	<b>100</b>
CSH-U CN	<b>3,467</b>	<b>10.01</b>	<b>100</b>
NPR-U CN	646	28.54	800
DI-U CN	<b>1,891</b>	<b>9.35</b>	<b>400</b>
CRR-U CN	1,071	12.84	2000

- Assuming the market maker can cover the short position by purchasing each stock on the offering price, then this equates to an ETF purchase price of \$ \$15.2047
- Note: This is a simplified model of XRE for example purposes, assuming exact share count and no cash held by XRE

(1) Stocks in bold do not have enough to offer.

## The Thankless Part of ETF Market Making

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- Managing daily cash flows (interest / dividends / corporate actions)
- Liaising with ETF providers (ensuring underlying basket information is accurate – VERY IMPORTANT)
- Ensuring technology backbone for real-time quoting is robust
- Adjusting for portfolio changes to underlying baskets

## Example: Rebalance – Market Vectors

### Gold ETF (GDX-N) – September 20, 2013

- **Event:** On September 20 at the close, the NYSE Arca Gold Miners Index added 6 names, removed 14 and rebalanced weightings for the balance of the 22 current constituents.
- **Market Maker Action:** for existing long or short hedged ETF positions, ETF market maker must rebalance hedges to reflect index changes
- Separately, the market maker may be asked by ETF manager to execute fund rebalancing trades
- Let's say market maker is long 200,000 units against a hedged short position in the underlying securities in index.
- To maintain perfect hedge, the market maker must sell the adds, buy the deletes, and adjust positions in the weighting changes
- These rebalancing trades are normally executed at the close on the day of the index change. In this case, a GDX market maker would have been active in Friday's market on close books globally (TSX, LSE, NYSE etc)

**Note:** Risk that fund manager underperforms index on rebalancing, resulting in losses for market makers with hedged positions.

## Conclusion

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- ETF market makers are the glue that hold together the ETF structure
- The role of an ETF market maker is much more than simply “making markets”
- While the profile of the ETF market makers’ position is measured in volume, profitability is often dictated by attention to details.

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