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Structured Retail Products

IOSCO Seminar Training Programme 2011
Kuala Lumpur, Malaysia
November 29, 2011

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Session Objectives

After today's session, participants should have a working knowledge to answer the following questions

1. What are structured retail products (SRP)?
2. How do they work?
3. What type of risk do they pose?
4. How to address these risks and regulate structured retail products?

What are Structured Retail Products?

Structured Retail Products (SRPs) are securities that are derived from or based on a single security, a basket of securities, an index, indices, a commodity, basket of commodities, a debt issuance and/or foreign currency

- In the US, there is no standardized legal definition of a structured retail product (SRP)
- Typically have two components - a note and a derivative
 - The note component pays interest to the investor at a specified rate and interval
 - The derivative component provides a payment at maturity
- Full or partial return of principal
- Does not represent ownership but instead represent obligations of the issuer of the SRP
- Despite the derivative component of a structured product, they are usually marketed to investors and just bonds
- Typically designed to pay at maturity, which can range up to 10 years
- Complex features present unique set of risks that banks, brokers, dealers and regulators must help manage: credit risk, liquidity risk, call risk, interest rate risk, f/x risk, yield curve risk, volatility risk, etc.

What are Structured Products?

Background

- Sales of structured products began in the 1980s
- Became popular with institutional investors in the 1990s
- In the last decade, became popular with retail investors
 - Marketed with many popular "household names" such as "Blue Chip," "S&P," "Nikkei 225," "DAX," etc.
- In the US, in the wake of the 2008 financial crisis, we are seeing upward sales trends, rising from (estimated sales to retail customers) US\$34 billion in 2009 to US\$45 billion in 2010
- Source of cheaper funding for issuers compared to conventional bonds
- Failure of Lehman Brothers in 2008 left investors holding more than US\$18.6 billion face value of what had been previously sold as low risk investments, but are not virtually worthless
- The failure of Lehman Brothers highlighted the primary risk with investing in structured notes: credit risk

How Do They Work?

Common types of retail structures

- Principal Protected Notes
- Reverse Convertible Notes
- Enhanced Yield or Enhanced Return Notes
- Absolute Barrier Notes

How do they work? – Principal Protected Notes

PRINCIPAL PROTECTED NOTES (also referred to as Capital Guarantee, Absolute Return, Minimum Return, etc.)

- A. Typically combined a fixed income product (typically a zero coupon bond) with an option or other derivative whose payoff is linked to an underlying asset, index or benchmark
- B. The bond component provides the investor with protection of principal invested
- C. The derivative component has the potential to provide the investor with additional, enhanced returns
- D. Typically have returns linked to broad based indices such as the S&P 500, Nikkei 225, Eurostoxx50, DAX, Nasdaq, etc.
- E. Principal guarantee is subject to the credit worthiness of the issuer
- F. Principal protection levels vary - Some offer 100% of principal guaranteed while others can guarantee as little as 10%, even if the underlying asset declines
- G. Principal guarantee only applies to the notes that are held to maturity
- H. Very limited secondary markets
- I. Typically have the lowest yields of the Structured Products due to their principal protection component
- J. Lehman Brothers issued a wide assortment of PPNs with names like:
 - 100% Principal Protected Absolute Return Barrier Notes linked to a Basket of Global Indices"
 - "100% Principal Protected Notes Linked to an Asian Currency Basket"
 - Return Optimization Securities with Partial Protection Linked to a Portfolio of Common Stock"

How do they work? - Principal Protected Notes

Example 1

Some principal protected notes have complicated payout structures that make it difficult for salespeople and customers to accurately assess their risk and potential for growth.

For instance, a 5-year principal protected structured note that guarantees a 10% return of principal might be structured so that, if at any time up and including maturity date, the underlying index gains more than 30%, the payout at maturity would be as follows:

A gain of more than 30%	10%	110% of principal returned	The Nikkei 225 index rises to 140% of its initial level prior to the maturity date, then the structured note will return 110% of its principal
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How do they work? - Principal Protected Notes

Example 1 (continued)

However, if the underlying index does not gain by more than 30% at any time during the life of the note, then the investor payout would be as follows:

Loss or Gain	Underlying Index Return	Principal Returned	Investor Payout
A loss of more than 10%	The underlying index return + 10%	From 10% up to 100% of the principal returned	The index loses 100% as of the maturity date, then the note loses 90% (only 10% of the principal is returned to the investor) The index loses 50% as of the maturity date, then the note loses 40% (only 60% of the principal is returned to the investor)
A loss of up to 10%	0%	100% of principal returned	The index loses 2% as of the maturity date, then the note returns 100% of the principal
0%	0%	100% of principal returned	
A gain of up to 30%	The underlying Index return	More than 100%, up to 130% of the principal returned	Index rises 25% as of maturity, then the note returns 125%

How do they work? - Principal Protected Notes

Example 2

A Principal Protected SRP offers 100% principal protection and is linked to the spread between the 30-year and 2-year constant maturity swap rates. It might be structured so that in the first year, the note pays the investor a fixed coupon of 10% regardless of the spread:

Loss or Gain	Underlying Index Return	Principal Returned	Investor Payout
Any	10% for the first year	10% the first year	Regardless of the spread, the investor receives a coupon of 10% at the end of the first year

How do they work? - Principal Protected Notes

Example 2 (continued)

However, after the first year:

Spread	Coupon	Principal	Example
Always less than 70 basis points during the year	0% for that year	No coupon payment that year	Spreads fluctuate but is always around 40 basis points during the year. No coupon will be paid to the investor
Greater than 70 basis points on #% of the days in the year (on at least one day but not all of the days during the year)	10% multiplied by #% for that year	More than 0% but less than 10% for that year, paid as a coupon	Spread exceeds 70 basis points on half of the days during the year. A 5% coupon will be paid to the investor
Always greater than 70 basis points during the year	10% for that year	10% for that year, paid as a coupon	Spread fluctuates but always exceeds 75% during the year so a 10% coupon will be paid to the investor

How do they work? - Reverse Convertible Notes

REVERSE CONVERTIBLE NOTES

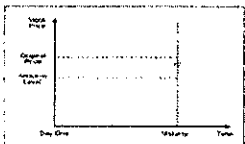
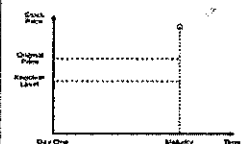
Typically combined a high-yield short term bond linked to the performance of an unrelated reference asset, usually stock, basket of stocks, an index, benchmark, etc.

- The high yield bond may return less than a full return of principal if the value of the reference asset falls below a certain level, often referred to a "knock-in" or "barrier" level
- Low initial investment amount (typically US\$1000)
- Brief maturities ranging from three months to two years
- In effect, investors in reverse convertibles are selling the issuer a put option on the reference asset in exchange for an above market coupon during the life of the note
- Each reverse convertible note has its own unique terms and conditions, but generally, of the price of the reference asset remains above the knock-in level throughout the life of the note, the investor will receive a full return of principal
- In some cases, full return of principal to the investor if the price of the reference asset remains above the knock out rate
- Depending on the underlying asset, investors could receive a predetermined number of shares of common stock (or cash equivalent), which would amount to less than original investment amount

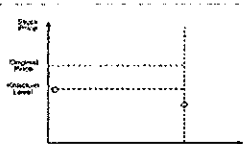
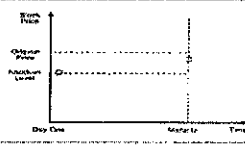
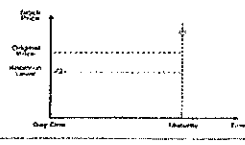
How do they work? - Reverse Convertible Notes

Reverse convertibles have complex pay out structures involving multiple variables that can make it difficult for salespeople and customers to accurately assess risks, costs and potential benefits.

Example: The payout structure of reverse convertibles with common stock as the reference asset could result in the following:

<p>1. The stock price never declines below the knock-in level, but ends <u>below</u> the original price</p>		<p>Full return of principal in cash plus and fixed coupon payments</p>
<p>2. The stock price never declines below the knock-in level, and ends <u>above</u> the original price</p>		<p>Full return of principal in cash, plus any fixed coupon payments, but no participation in the increase in stock price</p>

How do they work? - Reverse Convertible Notes

<p>3. The stock price ends below the knock-in level</p>		<p>Predetermined number of shares of stock (or cash equivalent), worth less than the principal amount, plus and fixed coupon amounts</p>
<p>4. The stock price declines below the knock-in level, but ends between the original price and knock-in level</p>		<p>Predetermined number of shares of stock (or stock equivalent) worth less than the principal amount, plus any fixed coupon payments</p>
<p>5. The stock price declines below the knock-in level, but ends above the original price</p>		<p>Full return of principal in cash plus any fixed coupon payments, but no participation in the increase of the stock price</p>

How do they work? - Enhanced Income/Yield/Return Notes

ENHANCED INCOME/YIELD/RETURN NOTES

Structure that promises enhanced returns compared to conventional debt and has returns tied to the value /performance of the underlying asset (typically stocks, basket of stocks, indices, etc.)

Exposes investors to the downside in the stock or stock index linked to them.

The enhanced yield or return in part is compensation for the embedded option on the underlying security of the structured product

Example

If the closing price of the common stock of ABC Company at the note's maturity exceeded the closing price on January 1, 2008 and the issuer remains solvent, the investor receives the face value of the note plus an additional return defined to be three times the capital appreciation of ABC Company's stock price during the term of the note, subject to a maximum of 46%. If ABC Company stock price declined over the term of the note, the investor suffers the same percentage capital loss applied to the face value of their investment.

How do they work? – Participation Notes

PARTICIPATION NOTES

Leveraged or enhanced participation notes offer a leveraged upside (with a leveraged risk downside). These notes will typically pay a return two or three times the return based on what is known as a "participation rate."

The participation rate indicates the note's level of exposure to changes in the price of the underlying and represents how leveraged the notes are. How much of the return derived from the underlying assets will contribute to the overall returns.

- An 80% participation rate means that only 80% of the returns gained from the underlying asset will contribute to the overall return of the note
- A 200% participation rate indicates that the SRP benefits from two times, or double, the price change in the underlying

How do they work - Absolute Barrier Notes

ABSOLUTE BARRIER NOTES

Structure that pays a coupon equal to the absolute value of the change in the value on some underlying asset during the term of the note.

Example

If the a basket's cumulative returns remain within a predetermined "Barrier" or "Range" every day during the term, the investor is returned the face value of the investment and the absolute value of the basket's return. Otherwise the note repays only the face value.

What are the risks?

SRPs are often quite complex and can present wide-ranging risks and regulatory issues, including:

Regulatory Issues

- Customer Suitability
- Disclosure Concerns
- Limited Liquidity
- Opaque and often expensive fee structures
- Difficulty in pricing
- Secondary Market trading
- Supervisory and Sales Training
- Compliance

Product Risks

- Credit Risk
- Liquidity Risk
- Call Risk
- Interest Rate Risk
- Foreign Exchange Rate Risk
- Yield Curve Risk
- Volatility Risk

SRPs – 2011 US SEC Report on Structured Products

On July 27, 2011, the US Securities and Exchange Commission released a report summarizing common deficiencies noted in structured product sales programs in the US. The report summarizes the results of a sweep examination of the retail structured securities products business of 11 broker-dealers and noted that the broker-dealers might have:

- recommended unsuitable structured securities products to retail investors;
- traded at prices disadvantageous to retail investors;
- omitted material facts about structured securities products offered to retail investors;
- engaged in questionable sales practices with customers.

Potential supervisory deficiencies were observed as well. In particular, there appears to have been a lack of training requirements for supervisors and registered representatives that market structured products to their customers.

SRP Promotion - What does the retail investor see?

As a retail investor, which SRP would you prefer?

PRODUCT A

3-yr maturity focused on growth

100% capital protection

The product offers 70% of the growth of the DJ Eurostoxx 50 Index

PRODUCT B

5-yr maturity focused on growth

100% capital protection

The product offers 100% of the average* growth of the DJ Eurostoxx 50 Index, S&P500 and Nikkei Index

* The final index level is calculated as the average of monthly readings taken over the last 24 months of the investment

SRP Promotion - What does the retail investor see?

Product A

100% capital protection

70% of the growth

Product B

100% capital protection

100% of the growth

Issues with SRP Promotion

Sales material and oral presentations must be fair and balanced with respect to risks and rewards


- SRPs should not be marketed as “conservative” or a source of “predictable current income” if indeed they are not
- When promoting the interest rate and credit worthiness of the issuer, firms should balance the promotional materials with the risks which may include:
 - Discussion of the derivative component
 - Fair and balanced disclosure - should not market based on returns alone
 - Loss of some or all of the principal
 - At the end of the maturity, the investor may own the reference asset at a depressed price
 - Credit risk and credit ratings – relates to the credit worthiness of the issuer and is not indicative of the market risk associated with the underlying or linked assets
 - Promotion should be careful not to confuse investor that credit rating pertains to the safety of principal invested
 - Lack of liquidity
 - High fees and expenses (is it cheaper for the client to construct own structure at a lower cost)

How to regulate - Issues to look for

1. Banks, brokers and dealers should have a strong new product approval process, policies and procedures
2. Banks, brokers and dealers must have controls to adequately review customer suitability, especially retail customers
 - Compliance Policies and Procedures
 - Controls to help ensure suitability - structures offered must coincide with the client's investment objectives, financial profile and risk tolerances
 - Supervisory Procedures
3. Requiring banks, brokers, and dealers to require that, both their salespeople and the individuals responsible for supervising and monitoring SRP sales activities, participate in specialized training prior to selling SRPs
4. Disclosing material facts regarding the Structured Products being offered – prospectus too voluminous?
5. Reporting and transparency - properly reflecting structured product positions on customer statements

BANK OF WEST  | pg. 23**How to regulate – Issues to look for**

6. Banks, brokers and dealers having controls to independently review their Desk prices of Structured Products in the secondary market
7. Having adequate procedures and controls in place to prevent and detect possible abuses in the secondary market

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Best Practices at Banks, Brokers and Dealers

- Approved Accounts - Consider whether purchasers of some or all SRPs should be limited to investors that have been pre-qualified. For instance, for accounts that have been pre-approved to trade options and/derivatives
- Discretionary or Managed Accounts - Barriers to prevent the conflicts of allocating SRPs to managed or discretionary accounts
- Distinction between "Reasonable Basis" suitability and "Customer Specific" suitability

SRP References and Resources

US Securities and Exchange Commission Summary Report of Sweep Examinations of Structured Products Sold to Retail Investors: <http://www.sec.gov/news/press/2011/2011-157.htm>

US Financial Industry Regulatory Authority Notice (FINRA) 05-59 "Structured Products": <http://www.finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p014997.pdf>

"The ABCs of Structured Notes" August 3, 2011 by Keith Styracula and Ari Brandes
<http://structuredproducts.org/education/the-abcs-of-structured-notes/>

