
An Introduction to Securities Lending

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The Pan Asian Securities Lending Association

- PASLA was incorporated in Hong Kong in 1995, and is an association of firms that are active in the business of borrowing and/or lending securities of Asian markets
- Currently 60 members from 18 lenders, 33 borrowers, 2 alternative investment funds, and 7 other institutions.
- PASLA aims to:
 - Represent the common interests of institutions engaged in the lending or borrowing of securities in the Asian and International securities lending markets.
 - Assist in the orderly, efficient and competitive development of these markets.
 - Establish agreed global standards and good working practices taking into account local regulations.
 - Liaise with Regulators and other organizations to promote and develop appropriate regulatory frameworks for the industry.
 - Develop and maintain a standardized legal agreements for use in the securities lending industry.



Today's Program

- I. What is Securities Lending?
- II. Why Securities Lending?
- III. Securities Lending Market
- IV. Market Overview
- V. Market Trends
- VI. Securities Lending Cash Collateral Investment

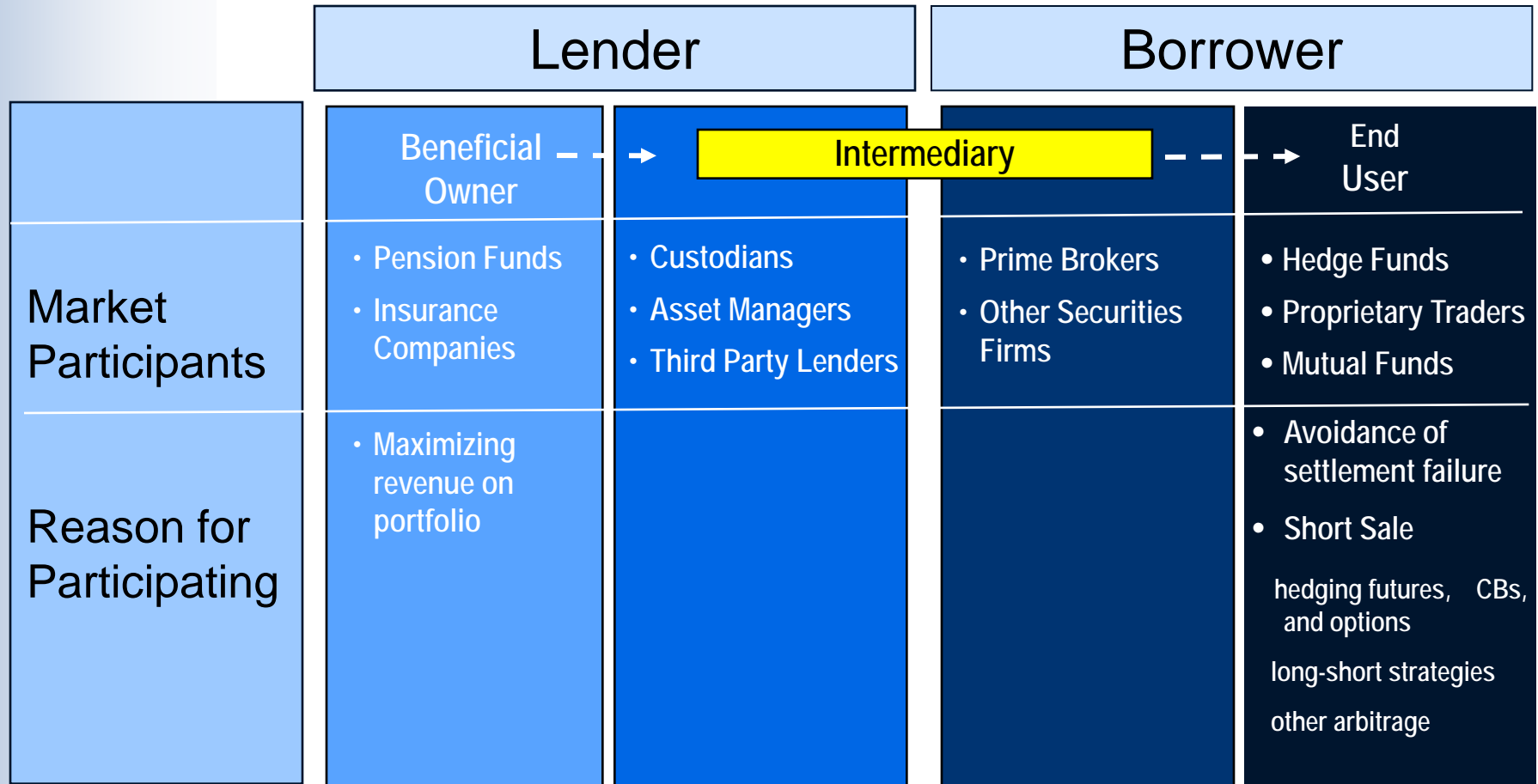
I. What Is Securities Lending?



Definition

- Securities Lending is a **temporary** loan of securities by a lender to a borrower
- Lender may recall securities at any time, allowing shares to be returned within normal market settlement cycle
- Borrower may return securities at any time

Market Participants





Securities Lending

- Borrower generally provides collateral and pays a borrowing fee and any distributions incurred to the lender
 - Loan is generally marked to market daily and collateral adjusted accordingly
 - Borrower return equivalent economic value of any distributions incurred during the loan – i.e., manufactured dividends, stock splits, and any other corporate actions
- Securities title transfers from the lender to the borrower unencumbered and regained upon return of loan
 - Lender gives up right to the proxy voting
 - Lender may recall securities at any time, allowing shares to be returned within normal market settlement cycle
- Intermediaries are often used in order to match the needs of end users and beneficial owners
 - Due diligence, credit review
 - Collateral management
 - Contract negotiations, documentations

II. Why Securities Lending?



Benefits of Securities Lending

- It promotes market efficiency and liquidity
 - Reduces market volatility by reducing bid/offer spread and increasing bid/offer depth
 - Allows price discovery and the arbitrage of pricing inefficiencies
 - Important part of risk management by allowing managers to hedge their positions
 - Supports the development of the capital markets by facilitating various investment strategies
 - Used for fail coverage to ensure smooth settlement cycles
- It provides lender incremental return to a portfolio
 - Securities lending fees enhances returns to an otherwise dormant securities and may be used to offset management fees and custody fees.

Demand for Borrowing

- The reasons for borrowing vary
 - To complete a settlement obligation to the market
 - To support a short trading strategy
 - To manage risks by hedging positions

Individual Stocks	CB / Warrant Arbitrage	Risk Arbitrage
Option Hedge	Sector Arbitrage	Long / Short Programs
Index Arbitrage	ADR / GDR Arbitrage	Fail Coverage

III. Securities Lending Market

Signing Agreements

Types of Agreements

- Agreements between lender and borrower must be in place before SBL transaction negotiated
 - Securities Lending Authorisation Agreement between beneficial owner and lending agent
 - Master Securities Lending Agreement between lender and borrower
 - Standardized Master Agreements
 - OSLA / GMSLA – International market standard
 - USMSLA – US market standard



Signing Agreements

Securities Lending Authorization Agreement

- Outlines relationship between the owner of the securities and the agent lender.
 - the responsibilities of the agent
 - Types of collateral acceptable to the owner
 - Cash
 - Non-cash
 - Currency, etc
 - Cash collateral investment policies

Signing Agreements

Master Securities Lending Agreement

- Standard agreements - OSLA / GMSLA / USMSLA
- Outlines relationship and responsibilities of lender and borrower
 - Collateral
 - Types of collateral
 - Margins – typically 102%~110%
 - Marked to Market
 - Reinvestment
 - Fee
 - Calculation methods
 - Distributions
 - Corporate Actions
 - Voting Rights
 - Dividends

Signing Agreements

Master Securities Lending Agreement

- Outlines continued...
 - Recall/Return Clause
 - Lender may recall securities at any time by allowing standard settlement cycle for delivery with a notice, in a event of failed delivery lender may pass fail/buy-in cost to the borrower
 - Borrower may return securities at any time
 - Representation and Warranties
 - Capacity and authority of each parties concerned
 - Termination of the contract
 - Either party may terminate with written notice provided in an agreed upon date
 - Obligation will continue to exist until all outstanding loans are closed and collateral returned

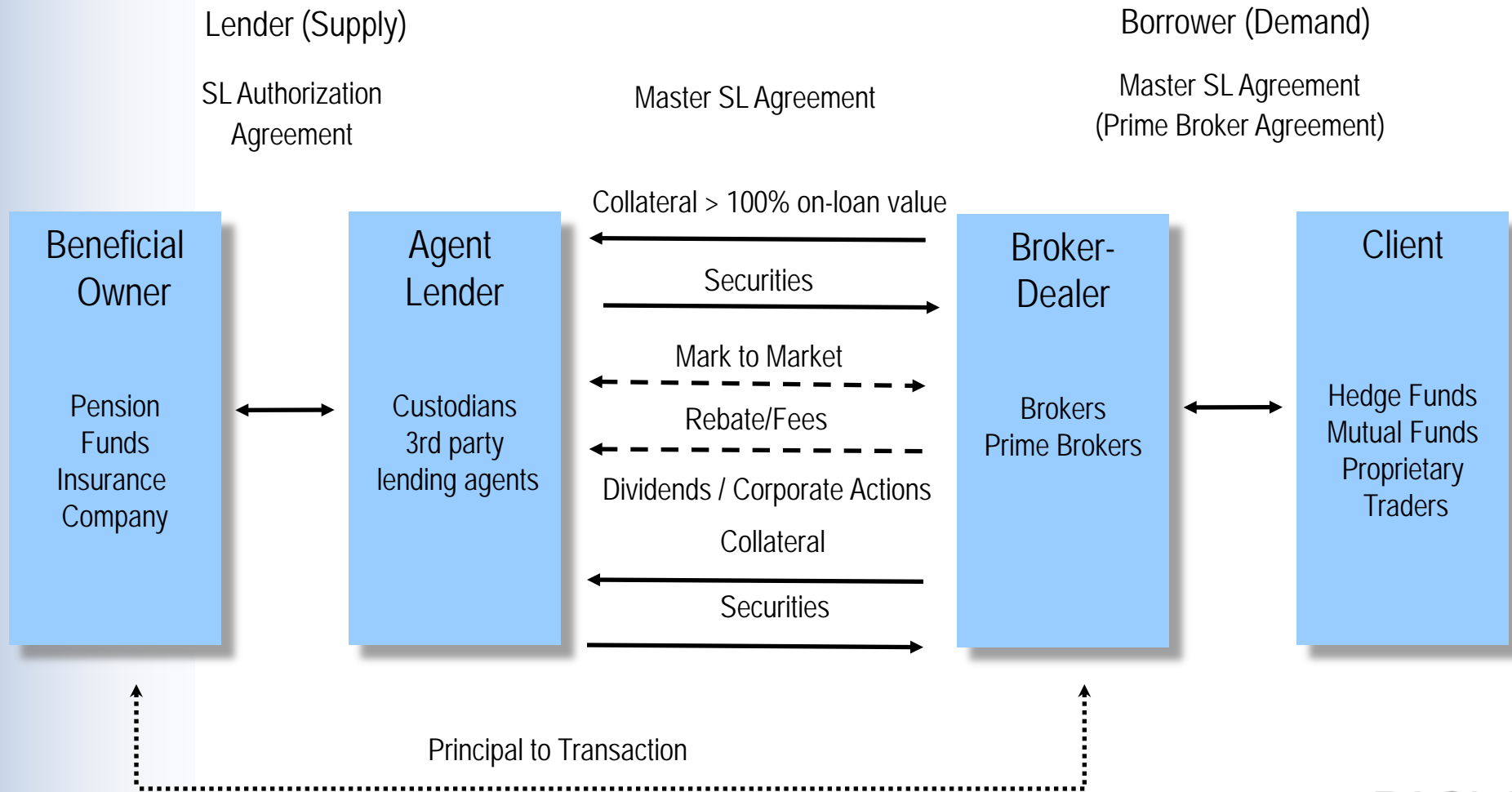


Signing Agreements

Master Securities Lending Agreement

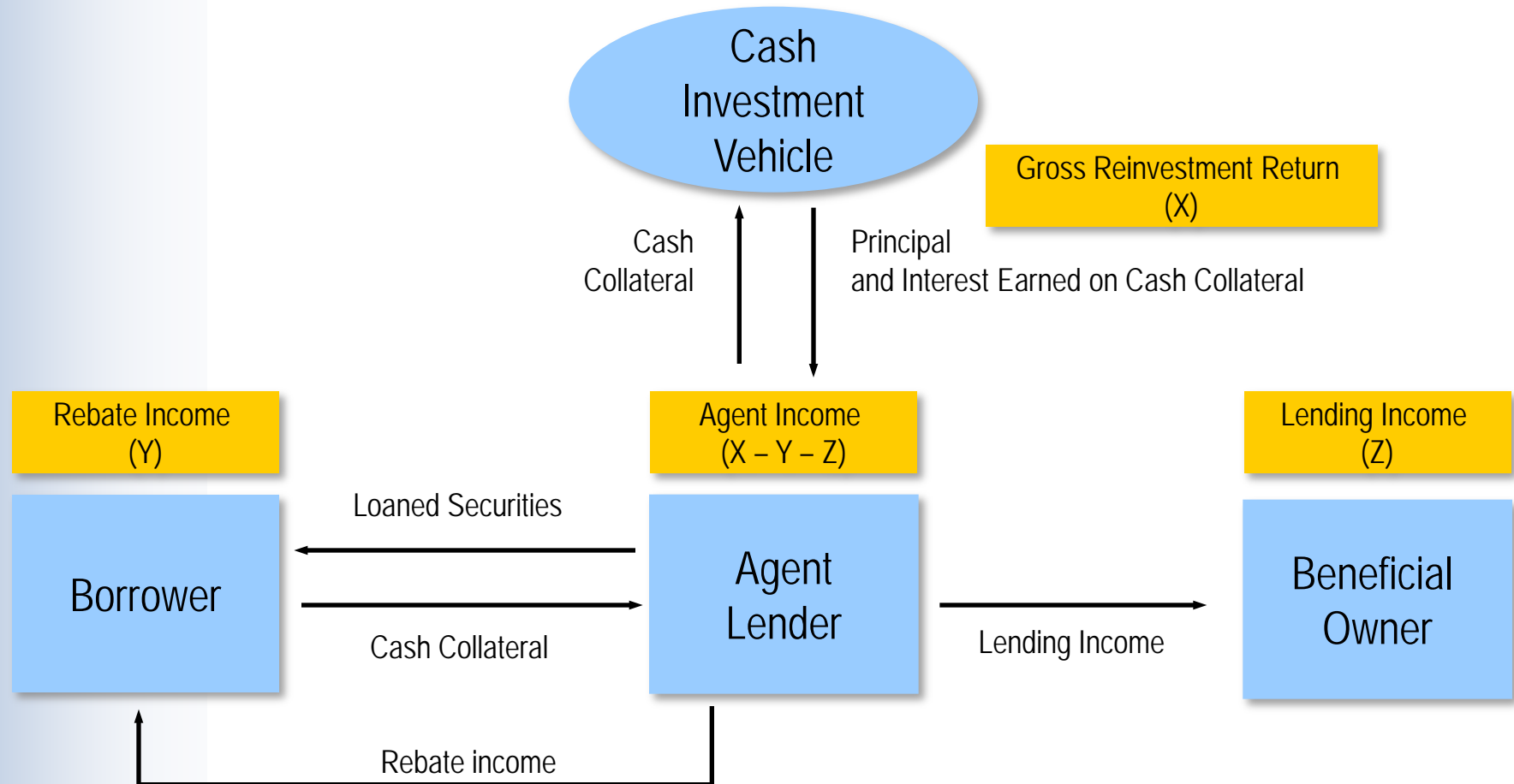
- Key Features
 - 2-way agreement
 - Beneficial owner and borrower are principal to the transaction
 - Borrower free to on-lend securities
 - Commercial terms cannot override regulatory issues
 - Any market anomalies specific to a certain market are covered by an additional rider/addendum specified by the counterparties

Transaction Flow



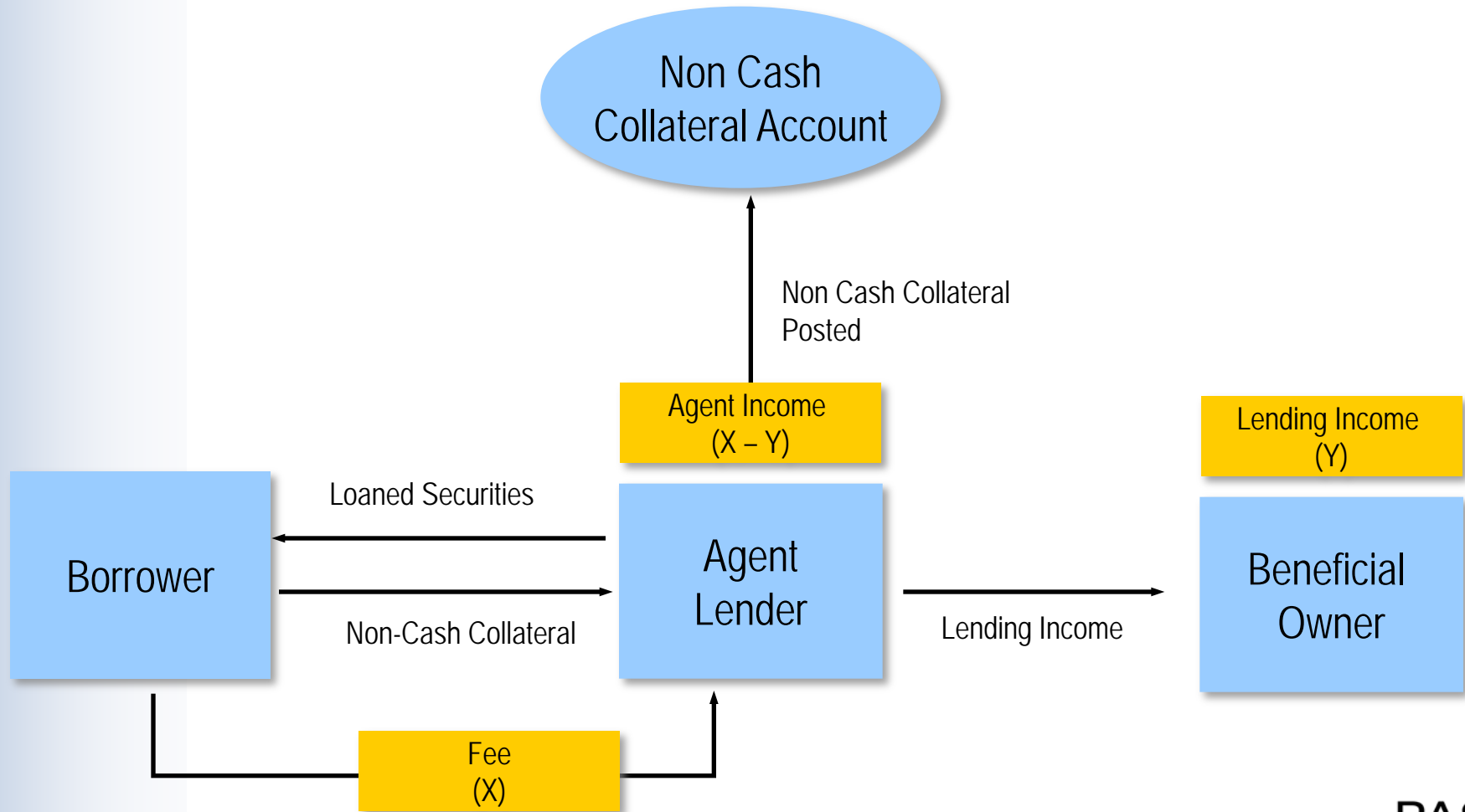
Transactions

Cash Collateral Via Agent Lender



Transactions

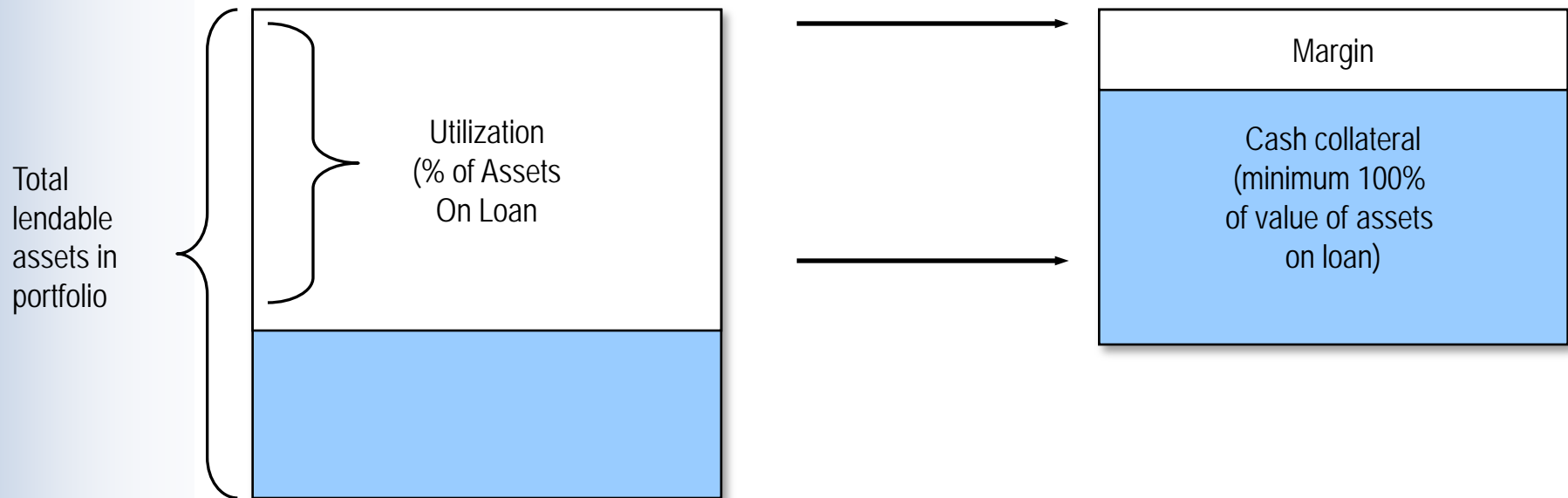
Non-cash Collateral Via Agent Lender



Revenue Components

Portfolio Utilization

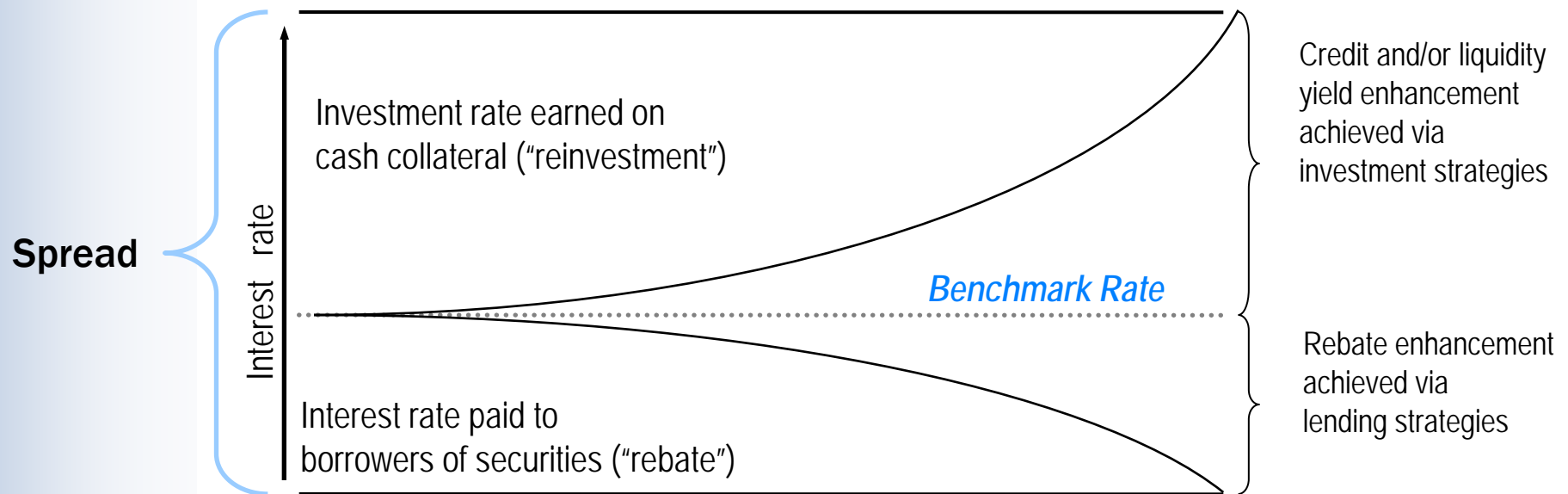
- Utilization is the percentage of assets on loan
 - Describes how much of the portfolio is on loan.
 - The cash held as collateral for outstanding loans earns income equal to the spread between investment rate received and rebate rate paid.



Revenue Components

Spread Computation

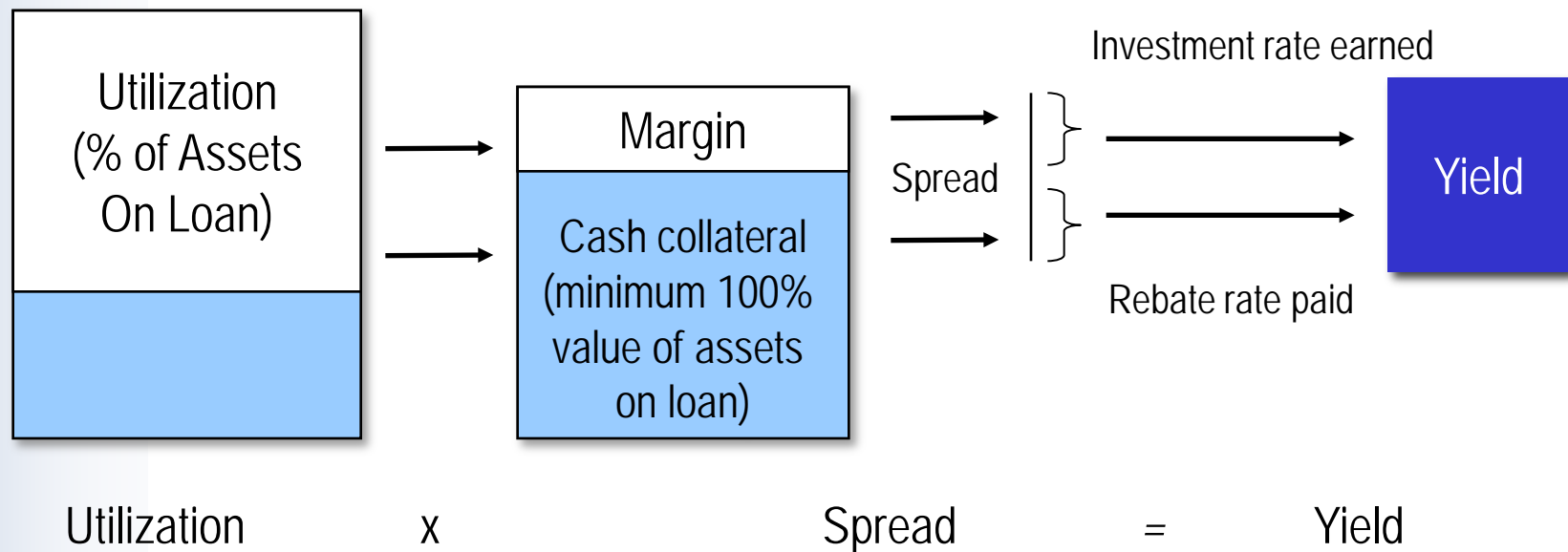
- Spread is the sum of:
 - Rebate enhancement, based on the value of the particular securities lent, plus Yield enhancement, based on the maturity and/or credit quality of investments



Revenue Components

What is Yield?

- Yield is the incremental return to the entire lendable portfolio.
 - This return can be enhanced by any combination of lending more assets, earning a higher investment return, or paying lower rates to borrowers.



Managing Risks

Reinvestment Risk

Market Risk

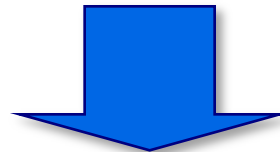
Counterparty Risk

Securities Lending
is a low risk activity
but risk must be
managed

Macro Risks

Regulatory Risk

Operational Risks
Corporate Actions
Failed Settlements



Know your customer
Know your market



Managing Risks

- **Counterparty Risk**
 - Counterparty's inability to fulfill obligations under the contract
 - Need for proper due diligence and appropriate credit limits
- **Collateral Risk**
 - Total value of lent securities exceed total value of collateral at the time of counterparty default
 - Need for daily marked to market
 - Need for proper management of collateral
- **Reinvestment Risk**
 - Invested vehicle may downgrade or default
- **Operational Risk**
 - Settlement fail risk
 - Corporate Action notification
 - Need for established operational process

Managing Risks

How to Protect Loaned Assets

Over Collateralization

Loans are generally over collateralized

- Typically 102%~110%

Daily Mark-to-Market

Ensures that collateral received from borrowers is maintained at their specified collateral level, reflecting daily moves in security prices

Extensive Legal Review

- Default trigger
- Credit rating
- Liabilities
- Repurchase of securities
- Fees, dividends, corporate actions

Borrower Default Procedure

Confirm documented procedure is in place for

- Collateral unwind
- Repurchase of securities
- Reclaim process

Issues

Taxation

- Stamp Duties and Transaction Taxes
- Tax on manufactured dividends
- Tax on securities lending fee income
- Capital Gains Tax
- Commercial requirements of the transaction
- Does the product bring an entity on shore and subject it to local taxes?

Issues

Market Limitations and Regulations

- Treatment of failed orders
 - Buy-Ins
 - Investment License Suspension
- On shore versus off shore regulations and cross border limits
 - Korea
 - Taiwan
 - India
- Regulations on short sales
 - Up-tick rules
 - Limits on short sale transactions
 - Linking of short sale and SBL regulations
 - Treatment of securities that have been lent out
- Limitations on Collateral
 - Local Currency collateral
- Documentary Registrations and Filings

IV. Market Overview









Market Statistics

(\$MM)	Lendable Asset	Percent Lendable	On Loan vs. Cash Collateral	On Loan vs. Non-Cash Collateral	Total On Loan	Percent On Loan
Total Equities	\$5,709,074		\$334,160	\$86,628	\$420,789	7%
Pac-Rim Equities	\$686,805	12.0%	\$30,234	\$28,958	\$59,191	9%
<i>All Other Pacific Rim Equities</i>	<i>\$104,906</i>	<i>1.8%</i>	<i>\$3,572</i>	<i>\$5,661</i>	<i>\$9,233</i>	<i>8%</i>
Total Bonds	\$3,309,945		\$353,503	\$283,844	\$637,347	19%

*All Other Pacific Rim Equities: Asia Ex Japan, Hong Kong, and Australia
RMA Securities Lending Quarterly Aggregate Composite (Q4 2011)*

Asia Market Size

As of January 31st, 2012

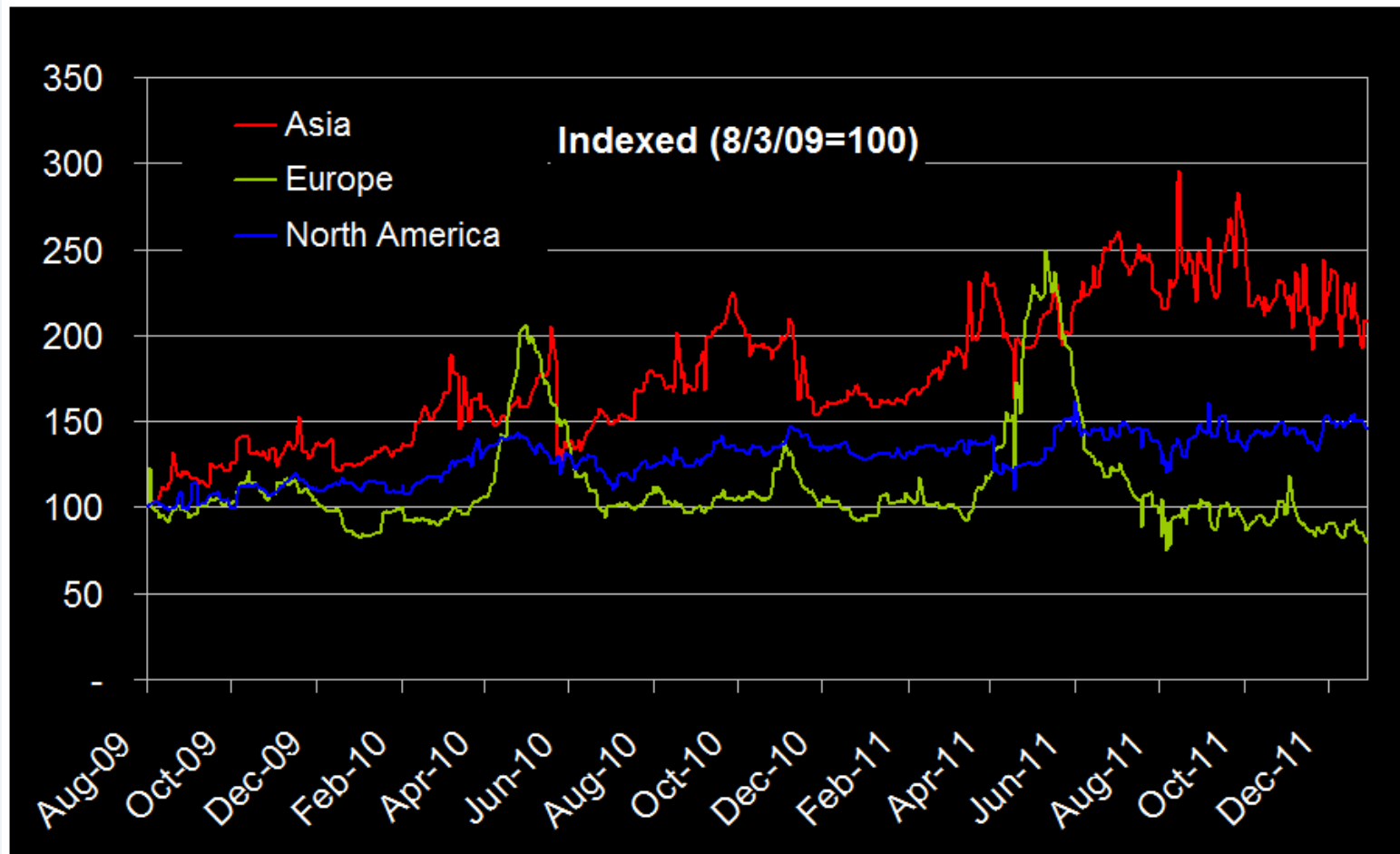
	Market	Total Balance on Loan (USD)
	Japan	36,764,300,000
	Hong Kong	29,519,500,000
	Australia	20,824,100,000
	Taiwan	4,184,800,000
	South Korea	4,124,200,000
	Singapore	4,073,100,000
	Thailand	310,300,000
	New Zealand	111,200,000

Source: Data Explorers Limited – information available on www.performanceexplorer.com

V. Market Trends

Market Trends

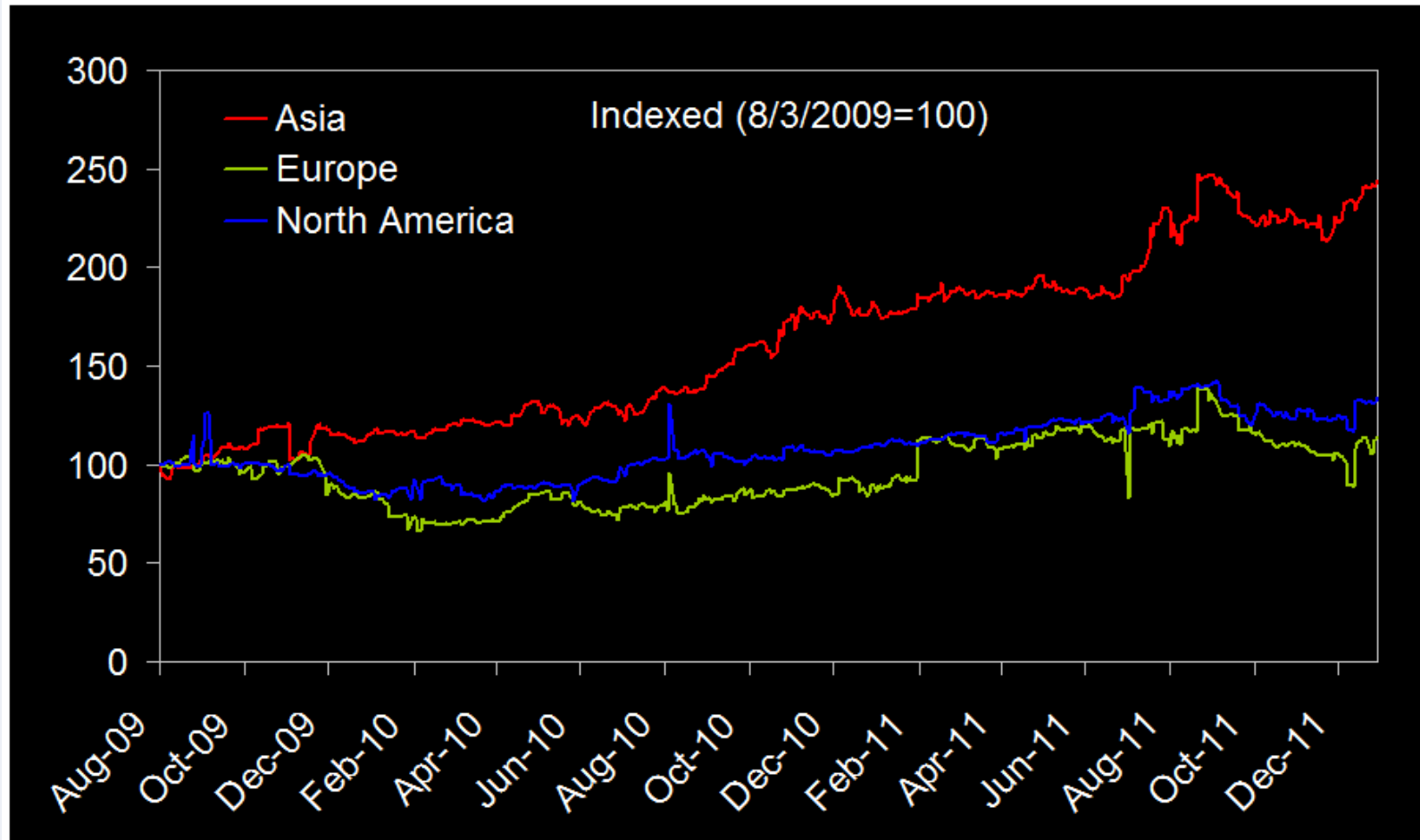
Equity Market Value on Loan by Region



Data Source: Sungard Astec Analytics Lending Pit, information available on www.lendingpit.com (08/01/2009 – 12/31/2011).

Market Trends

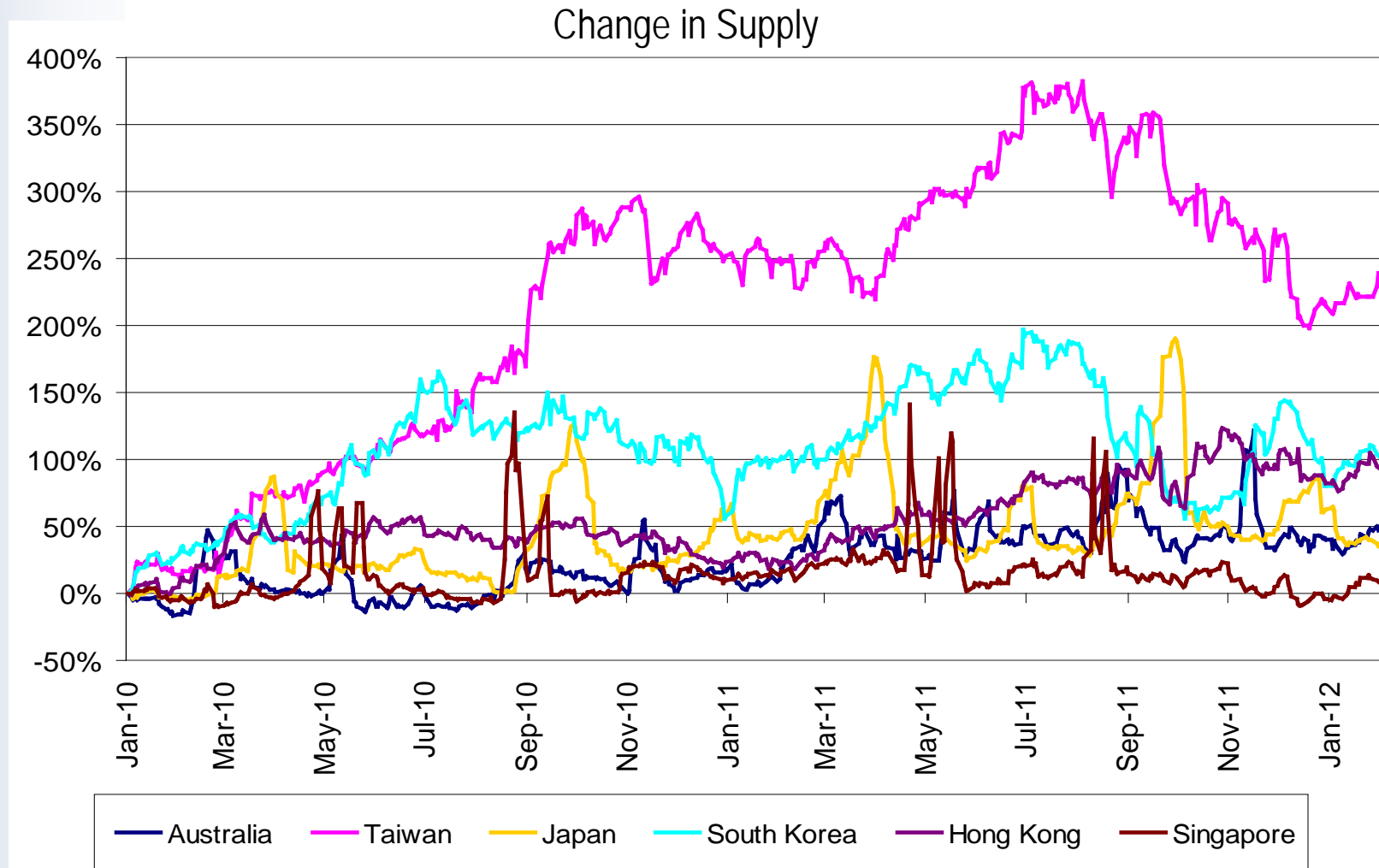
Fixed Income Market Value on Loan by Region



Data Source: Sungard Astec Analytics Lending Pit, information available on www.lendingpit.com (08/01/2009 – 12/31/2011).

Market Trend

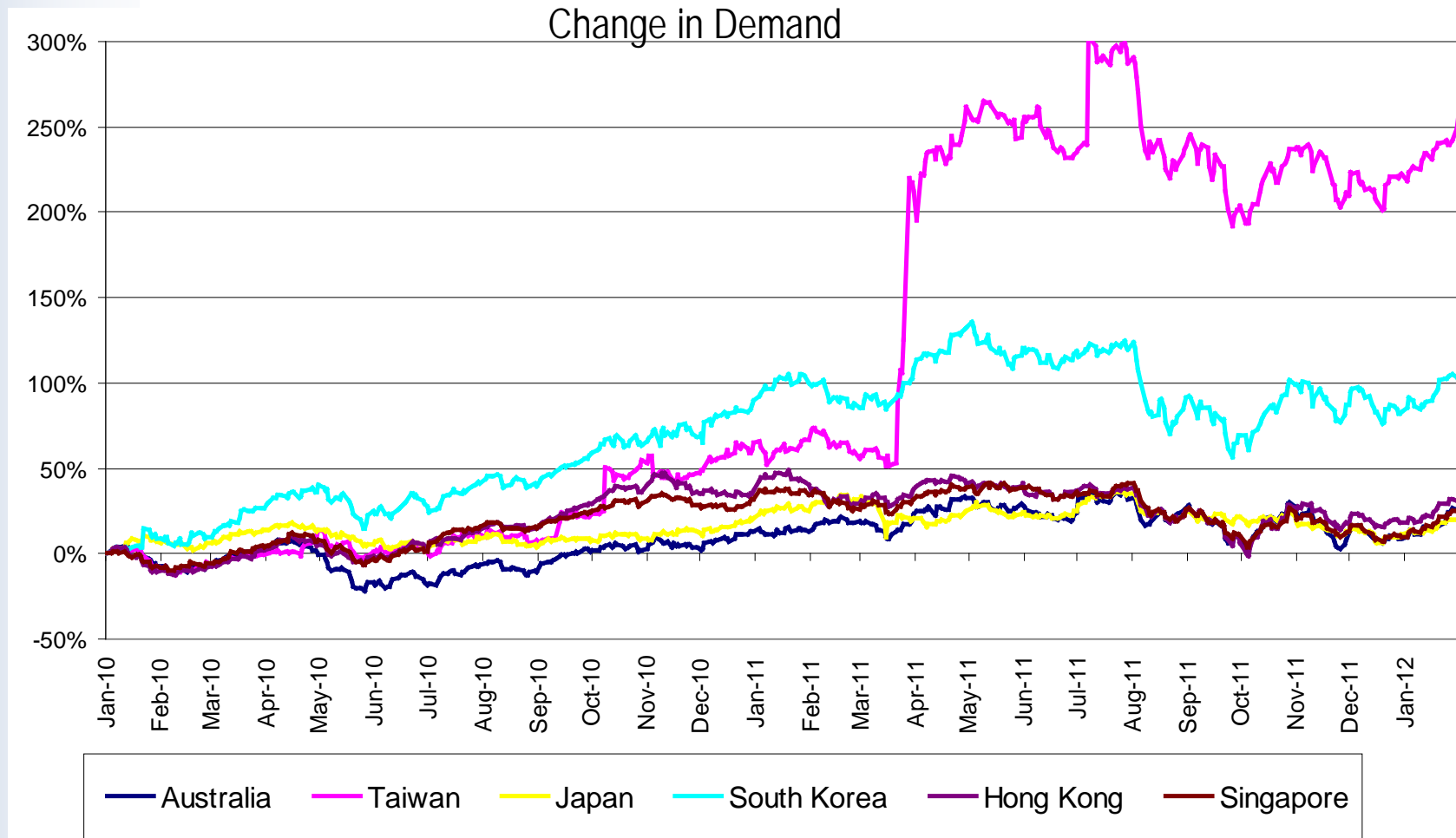
Asian Region: Change in Supply & Demand (1)



Data Source: Bloomberg for Index data, and Performance Explorer for On-loan data, information available on www.performanceexplorer.com

Market Trend

Asian Region: Change in Supply & Demand (2)



Data Source: Bloomberg for Index data, and Performance Explorer for On-loan data, information available on www.performanceexplorer.com

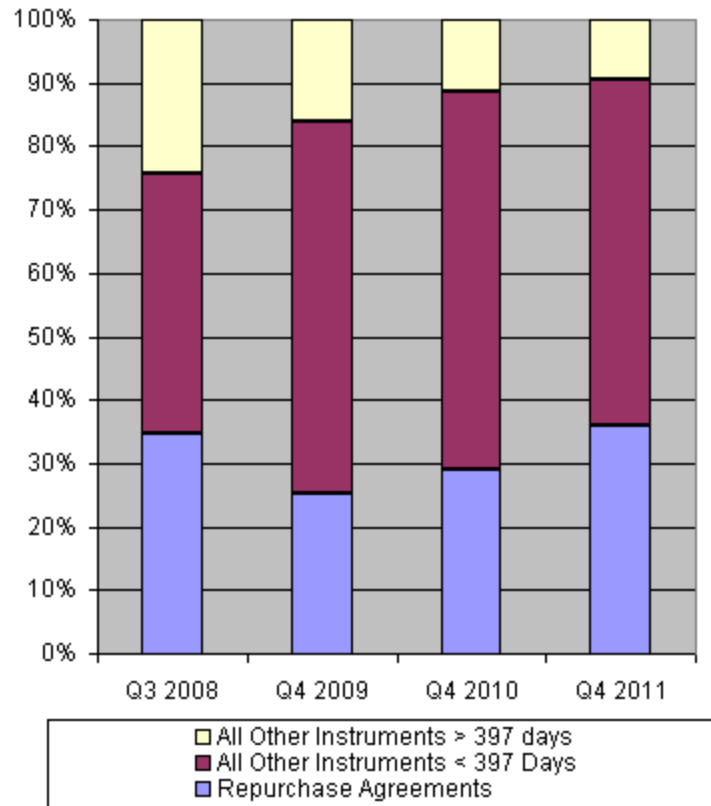
VI. Securities Lending Cash Collateral Reinvestment

Investment Instruments Types

- Repurchase Agreements
- Commercial Paper
- Time Deposits and Certificates of Deposit
- Mortgage-backed Securities
- Asset-backed Securities
- Funding Agreements
- Master Notes
- Whole Loans
- Corporate Bonds

Securities Lending Cash Collateral Management

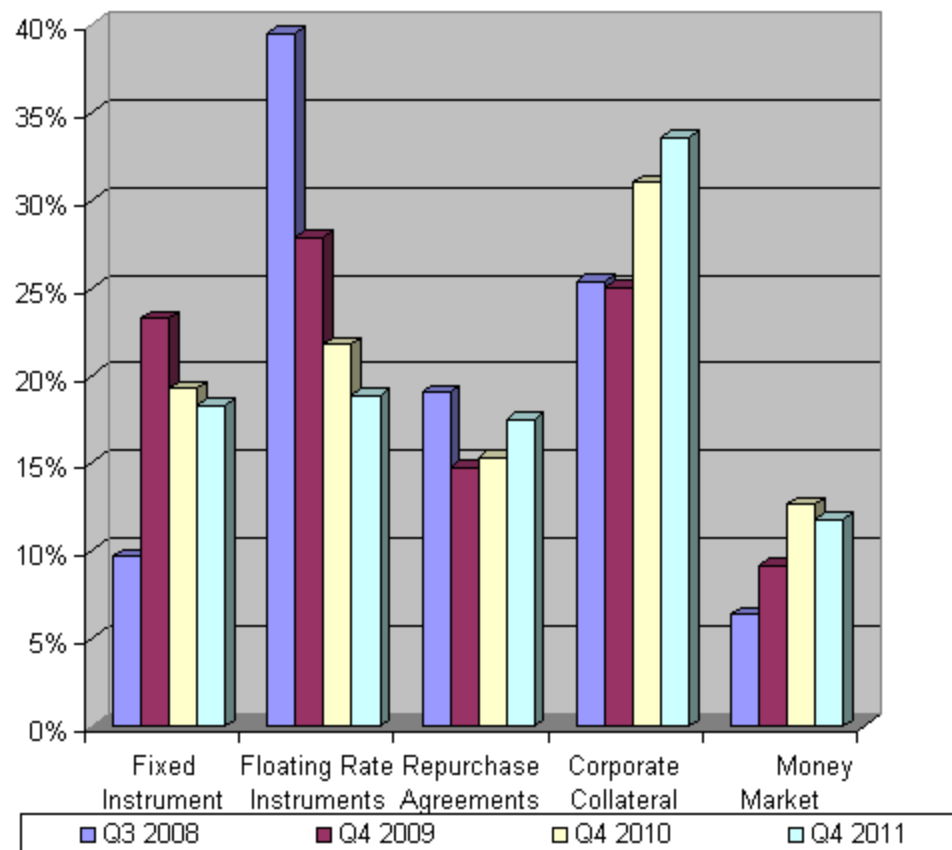
Cash Collateral Breakdown (1)



	Q3 2008	Q4 2009	Q4 2010	Q4 2011
Repurchase Agreements	34.67%	25.33%	29.01%	35.86%
A1(+) and P1	34.38%	23.75%	25.85%	32.43%
Split Rated A1(+) or P1	0.25%	0.00%	0.00%	0.62%
A2 and P2 (or lower)	0.00%	0.11%	0.53%	1.17%
Unrated	0.04%	1.47%	2.63%	1.64%
Floating Rate Instruments	41.14%	58.48%	59.54%	54.61%
A1 and P1 (Specifically Rated)	37.31%	39.95%	39.81%	39.13%
2(a)7 Eligible	3.12%	17.65%	19.17%	15.03%
A2 and P2 (Specifically Rated)	0.71%	0.88%	0.56%	0.45%
All Other Instruments > 397 days	24.13%	16.19%	11.46%	9.52%
AAA	13.03%	10.40%	6.05%	3.14%
AA	6.44%	2.31%	2.74%	3.28%
A/Investment Grade	4.21%	2.00%	1.52%	1.75%
Non-Investment Grade	0.45%	1.48%	1.15%	1.35%

Securities Lending Cash Collateral Management

Cash Collateral Breakdown (2)



	Q3 2008	Q4 2009	Q4 2010	Q4 2011
Fixed Rate Instrument	9.68%	23.24%	19.27%	18.30%
Commercial Paper (ex. Asset Backed Paper)	2.98%	9.28%	8.15%	6.21%
Asset Backed Securities	4.73%	3.49%	1.94%	4.19%
Funding Agreements	0.02%	0.03%	0.03%	0.03%
Other Corporates (ex. Repo Collateral)	1.95%	10.44%	9.15%	7.87%
Floating Rate Instruments	39.49%	27.84%	21.77%	18.89%
Commercial Paper (ex. Asset Backed Paper)	0.15%	0.15%	0.83%	0.88%
Asset Backed Securities	10.53%	10.28%	5.63%	4.53%
Funding Agreements	3.21%	0.03%	0.02%	0.04%
Other Corporates (ex. Repo Collateral)	25.60%	17.38%	15.29%	13.44%
Repurchase Agreements	19.05%	14.76%	15.33%	17.51%
U.S. Treasuries	1.61%	1.82%	5.32%	6.07%
U.S. Government Agencies	17.44%	12.94%	10.01%	11.44%
Corporate Collateral	25.37%	25.03%	30.99%	33.53%
Investment Grade (A or Better)	9.52%	6.12%	6.72%	8.13%
Non-Investment Grade	1.84%	2.90%	2.69%	2.53%
Equities	1.13%	3.10%	7.49%	7.96%
Whole Loans	0.73%	0.00%	0.00%	0.00%
Time Deposits	4.18%	4.41%	3.85%	4.28%
Certificates of Deposit	7.70%	8.16%	9.98%	8.76%
Other Bank Deposits	0.27%	0.34%	0.26%	1.87%
Money Market Funds	6.37%	9.14%	12.64%	11.76%
External Managed Funds (2(a) Type)	4.67%	6.13%	5.46%	5.21%
External Managed Funds (Non-2(a) Type)	0.00%	0.85%	7.07%	5.61%
Other Vehicles	1.70%	2.16%	0.11%	0.94%
TOTAL	100%	100%	100%	100%

Risk Types

Reinvestment Risk

- Credit Risk
 - Creditworthiness of the issuer - Will the issuer be able to pay the interest and repay the principal?
 - Default on principal or interest, or even late payments, can cause a loss of money
 - Downgraded investment could result in a loss
- Duration Risk (Duration Mismatch)
 - As short-term rates rise, long-term spread is reduced significantly, or can go negative
- Liquidity Risk
 - Regardless of whether the lender or borrower initiates the return, the lender **MUST** have sufficient cash on hand to receive them from the borrower
 - Agent Lenders should keep enough overnight investments for each lender so that liquidity is always sufficient to retrieve securities

Risk Types

Liquidity Risk at Borrower Default

- **Liquidity of the collateral**
 - Speed at which the lender can sell
 - Price that is reasonably close to the market value at which the lender is carrying the collateral
- **What are the sizes of the investments?**
 - Hundreds of small issues are much less liquid than several large pieces that constitute the same dollar value
- **Where is the market?**
 - Trying to sell a bankrupt security is more difficult and probably going to result in a much lower price than is shown on the pricing screen
 - a large demand for the security will generate market quoted prices or better
- **Who is going to do the sale?**
 - Lending desks should have a “belly-up” plan
 - Prearranged strategy with a large broker dealer to sell the securities into the market as best as possible rather than the securities lending desk selling the security

Reinvestment Guidelines

- Minimum Credit Ratings
 - Short-term rating typically rated A1/P1 or equivalent
 - Some lending agencies do their own internal credit reviews
- Concentration Limits
 - Can be expressed as an absolute number or as a percentage
 - Investors treat repos as a category of investments worthy of much different concentration limits
- Maturity Limits
 - To control both credit risk and duration risk associated with maturities, lenders set two maturity limits
 - A time until maturity or next interest rate reset (whichever comes first) helps to control the interest rate risk
 - Date until final maturity helps to control the credit exposure to the issuer

Cash Vehicle Types

Individual Accounts: Advantages

- Managing an individual cash collateral investment account for each customer
- Advantages
 - The customer owns 100% of every investment in the account
 - Agents buys and sells investments for a single customer and keeps those investments segregated from the investments of other customers
 - Easily Customized - Only limitation is the lending agent's ability to track and comply with all of the restrictions
 - Flexible Restrictions - Easily change restrictions as markets change
 - No Commingling - Requirement of some funds that their assets not be commingled with any other assets

Cash Vehicle Types

Individual Accounts: Disadvantages

- Managing an individual cash collateral investment account for each customer
- Disadvantages
 - As number of agent's customers becomes larger, it becomes hard to track complicated investment restrictions on each account
 - Small Purchase Sizes - Best prices are given to bulk buyers. In order to achieve diversification within a portfolio, customers typically limit concentrations with any one issuer to 5% or 10% of the portfolio. For a small portfolio this would mean small purchases.
 - Liquidity Costs - Individual account liquidity needs usually increase costs

Cash Vehicle Types

Cash Pool: Advantages

- Combines the investments of several different customers into a pool, with each customer owning a portion of the pool in proportion to the amount to of money invested by that customer
- Advantages
 - Buy in bulk and obtain best prices for investment instruments
 - Provide better diversification than an individual account, thereby lowering their risks
 - Decreased Liquidity Need - When enough investors have combined their reinvestment cash into a pool, the volatility of the pool tends to decrease significantly
 - Compliance is easier with one set of restrictions to monitor and audit
 - The easiest way to engage in pooling is to invest money in a publicly available mutual fund, such as a money market fund

Cash Vehicle Types

Cash Pool: Disadvantages

- Combines the investments of several different customers into a pool, with each customer owning a portion of the pool in proportion to the amount to of money invested by that customer
- Disadvantages
 - Additional Fees - Accounting and shareholder record keeping can become very complex and expensive
 - Inability to Customize
 - Can only have one set of investment guidelines. If customer does not like guidelines, the only option is to not invest in the pool
 - Customers may feel that a pool is too risky, or not aggressive enough
 - Some customers may be prohibited by law from investing because the pool contains investments that they are not authorized to hold



Questions?

Thank you for your time and consideration.

Enjoy the remainder of the Conference.