



STATE STREET GLOBAL MARKETS.

TRANSITION MANAGEMENT

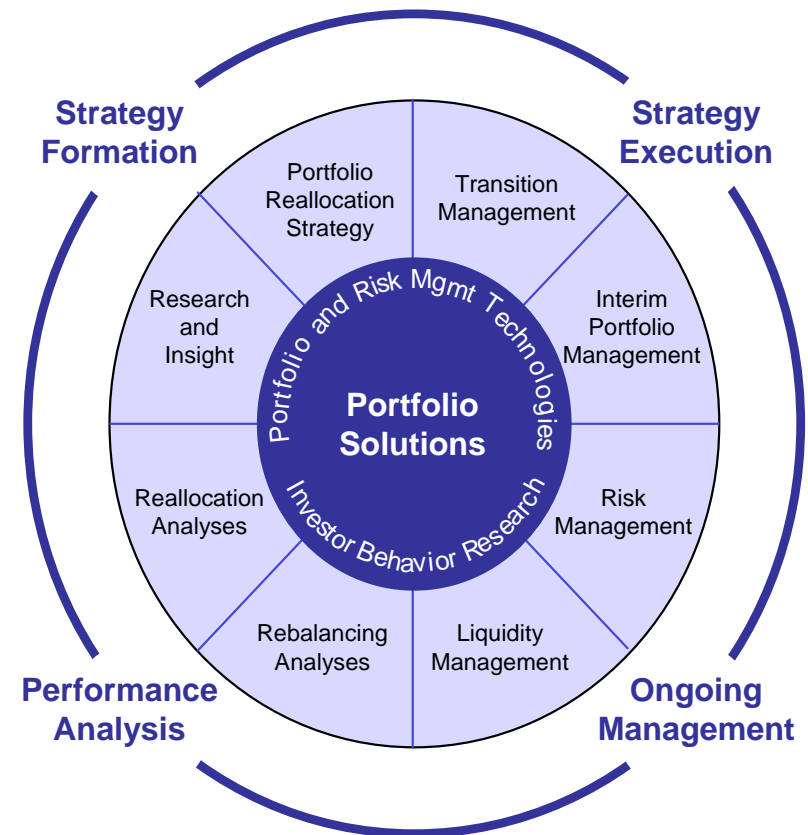
Preserving Portfolio Value Through Acquisitions, Transitions, and Liquidity Periods

Ross McLellan, CFA

Managing Director, State Street Global Markets

Pension Solutions

- > Research and execution to assist our clients in every step of the investment process
- > State Street liquidity available to clients beyond transition management
- > Research group a resource for our clients



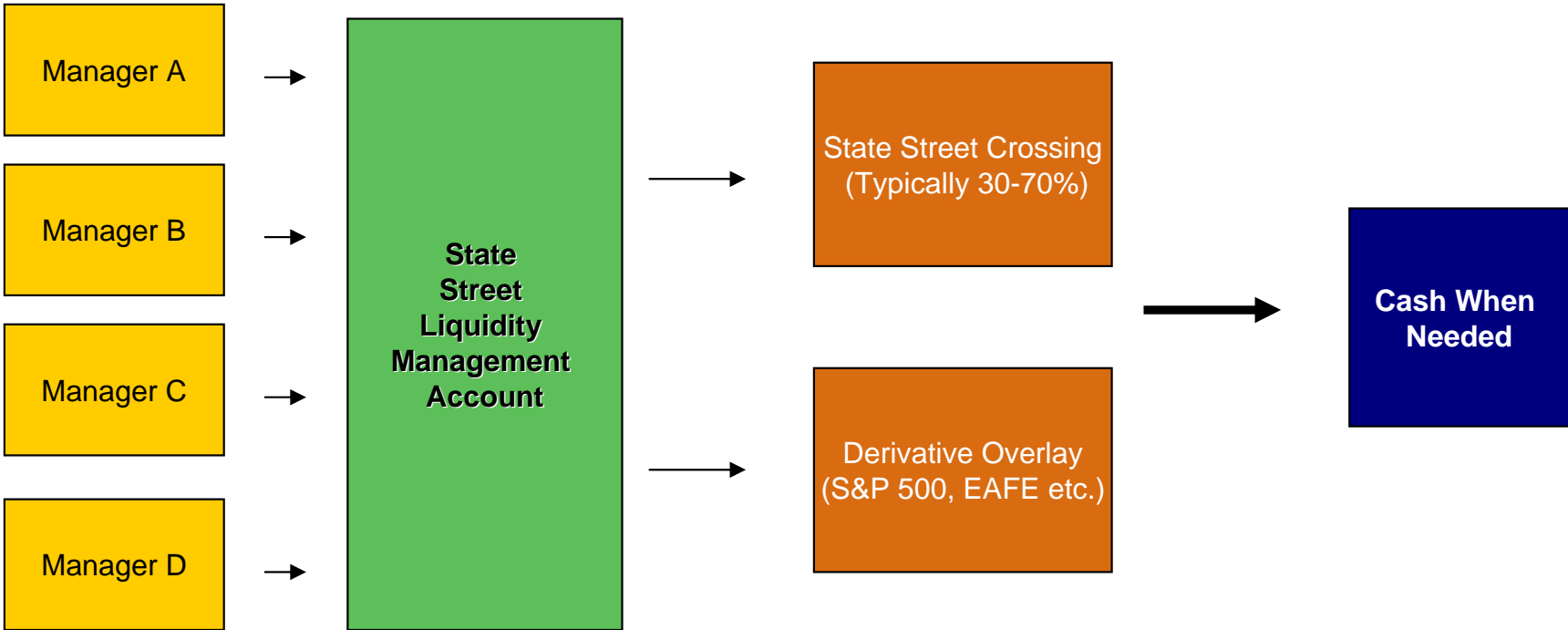
Liquidity Management

Better Management of Cash Flows

- > Poor funding levels is requiring cash infusions
- > Maturation of work force puts many pension plans in a negative cash flow situation requiring cash withdrawals from managers
- > New pension law
 - > Encourages increased fixed income exposure
 - > Increased focus on diversification and education within 401K plans
- > Low expected return environment requires innovative strategies

Liquidity Management

Example: Raising \$50 million for benefits



Liquidity Management

Example: Raising \$50 million for benefits

CURRENT PORTFOLIO			AFTER \$50 MILLION REDUCTION			RESULTING ACTIVITY	
Fund Mangers		Current MV (000)	Fund Mangers		Current MV (000)	Net Change	Activity
Manager	A	\$ 100,000	Manager	A	\$ 65,000	\$ (35,000)	Transfer \$35 million in securities to rebal account
Manager	B	\$ 75,000	Manager	B	\$ 75,000	\$ -	Nothing
Manager	C	\$ 50,000	Manager	C	\$ 40,000	\$ (10,000)	Transfer \$10 million in securities to rebal account
Manager	D	\$ 100,000	Manager	D	\$ 100,000	\$ -	Nothing
Manager	E	\$ 50,000	Manager	E	\$ 50,000	\$ -	Nothing
Manager	F	\$ 30,000	Manager	F	\$ 30,000	\$ -	Nothing
Manager	G	\$ 45,000	Manager	G	\$ 40,000	\$ (5,000)	Transfer \$5 million in securities to rebal account
Totals		\$ 450,000	Totals		\$ 400,000	\$ (50,000)	Transfer \$50 million in securities to rebal account

- > Client determines which managers to take assets from
- > Managers of separate accounts have ability to cherry pick assets to sell

Liquidity Management

Benchmarking of Results

- > Time weighted return for period the cash is in futures
- > Benchmark is determined by Client prior to start of program
- > Assets can remain in program for as long as client desires

CLIENT BENCHMARK

Benchmark	Allocation	Current Month Performance
S&P 500	45.0%	0.01%
Russell 1000	0.0%	0.03%
S&P 400	15.0%	0.02%
Russell 2000	15.0%	0.68%
Russell 2500	0.0%	0.54%
Russell 3000	0.0%	0.42%
EAFE	0.0%	-0.21%
EAFE & Canada	0.0%	-0.29%
Lehman Aggregate	25.0%	0.21%
Benchmark Performance		0.16%
Client Performance		0.14%
Relative Performance		-0.02%

State Street Liquidity

Results of all transition trading from 2004-2005 – Over \$1trillion in executions

- > State Street internal crossing represents largest “unsolicited” crossing platform in the world – No information leakage exists
- > External crossing is a lower cost but still has costs – Many firms refer to this as their internal crossing
- > Market Trading always most expensive

	Internal Crossing	External Crossing	Market Trading
Commissions	0.0 bps	5.1 bps	5.2 bps
Bid Ask Spread	0.0 bps	0.0 bps	8.7 bps
Fees	0.6 bps	1.0 bps	1.1 bps
Impact and Opp. Cost	6.5 bps	24.7 bps	24.5 bps
Total Imp. Shortfall	7.1 bps	30.8 bps	39.6 bps

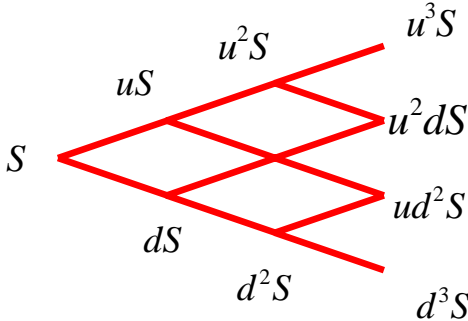
Liquidity Management

Operational Workflow

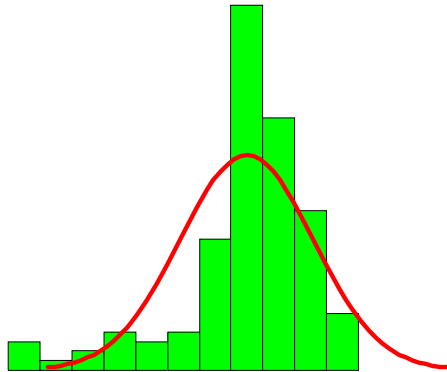
- > Dedicated account established at master custodian
- > Small cash balance maintained as margin on futures
- > All securities moved into liquidity management account and liquidated by State Street
- > Derivatives are used to equitize cash until need at pre-determined time
- > Daily reporting on performance

Manager Reallocation Analysis

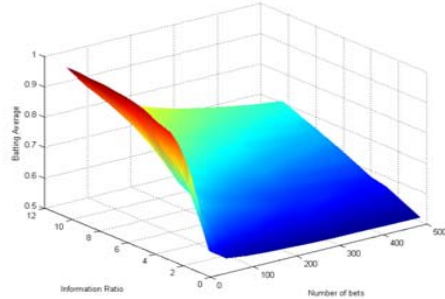
IR's, Batting Averages and Opportunity Sets can be related to each other in a unique way using binomial trees



Good Batters are Skewed: Given equivalent IR's choose the manager with the lowest batting average to avoid blow ups



IR's and Batting Averages Measure Different Properties: High IR's from low batting averages and low IR's from high batting averages are both possible



Optimal Portfolios of Managers can be constructed from expected alphas and correlations.

Manager	Weight
A	23.44%
B	32.23%
C	15.91%
D	20.84%
E	7.58%

Liquidity Management

Benefits

- > No cash drag
- > State Street liquidity provides for cheaper execution (explicit and implicit costs)
- > Success of program easy to gauge via daily benchmarking
- > Small cash position can always be maintained for liquidity purposes without sacrificing return
- > Manager's performance is reflective of their skill not cash flow decisions

Cash Equitization

Strategies to more efficiently manage your plan

- > Active managers typically maintain between 1-5% uninvested cash with some as high as 10%
- > Cash receives STIF return but no market return
- > Cash equitization programs expose uninvested cash
- > No leverage
- > Cash equitization plan would have added value in seven of the last ten years
- > Average client value added has been 45 bps per annum net of all costs

Historical Returns

	S&P 500 Benchmark	S&P 400 Benchmark	Russell 2000 Benchmark	MSCI EAFE Benchmark
1% Avg. Cash	0.09%	0.14%	0.09%	0.06%
2% Avg. Cash	0.18%	0.28%	0.18%	0.11%
3% Avg. Cash	0.27%	0.42%	0.28%	0.17%
4% Avg. Cash	0.36%	0.55%	0.37%	0.23%
5% Avg. Cash	0.45%	0.69%	0.46%	0.28%
Best Year (3% Cash)	0.93%	1.02%	1.36%	1.06%
Worst Year (3% Cash)	-0.70%	-0.46%	-0.65%	-0.68%