3Q2013 IAC Meeting Materials

IAC Meeting – November 19, 2013

Alternative Investment Presentation

Commitment Modeling – Phase II

Alternative Investment Commitment Modeling – Phase II

Minnesota State Board of Investment

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Agenda

- Review of May IAC Presentation and Discussion
- Highlighted Issues
- Recommendations

Review of May IAC Presentation and Discussion

- At the May IAC meeting, Staff presented the results of its latest run of its Alternative Investment Commitment Model
- The results of the model, while merely an estimation, revealed the unlikelihood of the Alternative Investments reaching the 20% target allocation within the Combined Funds due to the SBI's self-imposed Market Value + Unfunded Commitments cap of 30% of Combined Funds
- Staff promised to further analyze the allocation limits and provide recommendations regarding the allocation limits and targeted spending levels

Commitment Model Outputs

MSBI Commitment Model

	RESTRICTION: 30% Target Alllocation for Market Value + Unfunded			GOAL: 20% Target Allocation for Market Value		
CASH FLOW SCENARIO 1 (MSBI historical cash flows)	ANNUAL COMMITMENT SIZE (in Billions)	MV %	MV + UNFUNDED %	ANNUAL COMMITMENT SIZE (in Billions)	MV %	MV + UNFUNDED %
BASE CASE **8.36% Growth**	**$2.53**	14.8%	30.0%	**$4.67**	20.0%	**44.9%**
BASE CASE + 10% 18.36% Growth for 2 yr, then Base	$3.35	14.1%	30.0%	$6.33	20.0%	**46.8%**
BASE CASE - 10% -1.64% Growth for 2 yr, then Base	$1.79	15.8%	30.0%	$3.16	20.0%	**42.2%**
CASH FLOW SCENARIO 2 (Top down / 5 year draw cash flows)	ANNUAL COMMITMENT SIZE (in Billions)	MV %	MV + UNFUNDED %	ANNUAL COMMITMENT SIZE (in Billions)	MV %	MV + UNFUNDED %
BASE CASE **8.36% Growth**	**$2.19**	17.1%	30.0%	**$3.20**	20.0%	**37.5%**
BASE CASE + 10% 18.36% Growth for 2 yr, then Base	$2.96	16.2%	30.0%	$4.56	20.0%	**39.5%**
BASE CASE - 10% -1.64% Growth for 2 yr, then Base	$1.48	18.2%	30.0%	$1.96	20.0%	**34.6%**

Issues to Consider

1. The Need for an increase to the Market Value + Unfunded Commitments cap of 30%
   - As shown on the previous slide, this rule will likely prevent the Alternative Investments allocation from reaching the target of 20% of the Combined Funds
2. Need for a Band around the Target Market Value allocation of 20% to provide a realistically achievable target
   - Based on further analysis, forecasting and conversations with other Institutional Limited Partners as well as Consultants, Staff has concluded that it is nearly impossible to achieve the 20% target exactly and maintain that target over time
3. Appropriate annual commitment levels

Issue and Recommendation #1

1. Market Value + Unfunded Commitment cap of 30% of Combined Funds

- Model suggests this cap will prevent the achievement of an Alternative Investments allocation of 20% of Combined Funds
- **Staff recommends lifting this cap to 35% of Combined Funds, with a further 3% buffer in the event of market anomalies.**
  - Current Model Output suggests that the SBI should consider a range of between 34.6% to 46.8% for this cap
  - The recommendation of 35% + a 3% buffer is on the low end of the range for two reasons:
    - The Model is very sensitive to its many variables and is based on a snapshot in time
      - The 2009 Model suggested the 30% cap was sufficient
    - Cash Flow Scenario 2 is probably a more appropriate assumption for cash flow patterns going forward
  - The 3% buffer will enable Staff and the IAC to continue to commit to new funds in the event the 35% limitation is reached if market anomalies are experienced.
- Is it possible that the Unfunded Commitments will be drawn down quickly and completely, thereby potentially breeching the 35% Market Value limitation on the Alternatives asset class?
  - Historical data shows this has not happened (See Appendix 1)
  - Over the past several years, Limited Partners have pushed for legal protections from events like this to be enshrined in the partnership documents
    - Today, it is typical to see drawdown limitations of 30-40% of Commitments PER YEAR in Alternative Investment partnership documents

Issue and Recommendation #2

2. <u>Adoption of a Band around the Target Market Value allocation of 20%</u>

- **Staff recommends there should be a percentage band of** +/- 4 **Percentage Points around the 20% market value target**
- Several uncontrollable factors make it nearly impossible to precisely achieve the 20% allocation and stay at that allocation over time
  - Drawdown and Distribution rates, asset class growth rates, cash outflow to Pensioners
- Why +/- 4% Points?
  - The liquid asset classes have bands of +/- 10% around their targets, so the illiquid asset class should require +/-20% (which amounts to +/- 4% Points when calculated on the 20% target) as a price on illiquidity
- Various other Institutional Limited Partners have instituted similar bands around their "illiquids" targets as recognition of the difficulty of achieving the exact target
  - PCA and Callan have also recommended utilizing bands
- If/when the Alternatives allocation reaches 24%, Staff will initiate a discussion with the IAC about appropriate steps to ensure the Program can continue to invest.

Issue and Recommendation #3

3. Annual Commitment Levels
   - Staff believes, going forward, that Cash Flow Scenario 2 is more likely given the recent extensions of holding periods at the portfolio company-level
     - According to Prequin, average portfolio company holding periods have increased from 3.9 years in 2008 to 4.9 years currently
     - Additionally, 2012 presented many LPs with abnormal distribution levels due to impending tax rate changes in 2013
   - This micro-level extension would mean an extended J-Curve, more closely resembling that of Cash Flow Scenario #2 (See Appendix 2)
   - **Targeting a 20% Market Value allocation, Staff recommends annual commitments of $2 – 3 billion**

Commitment Model Outputs

MSBI Commitment Model

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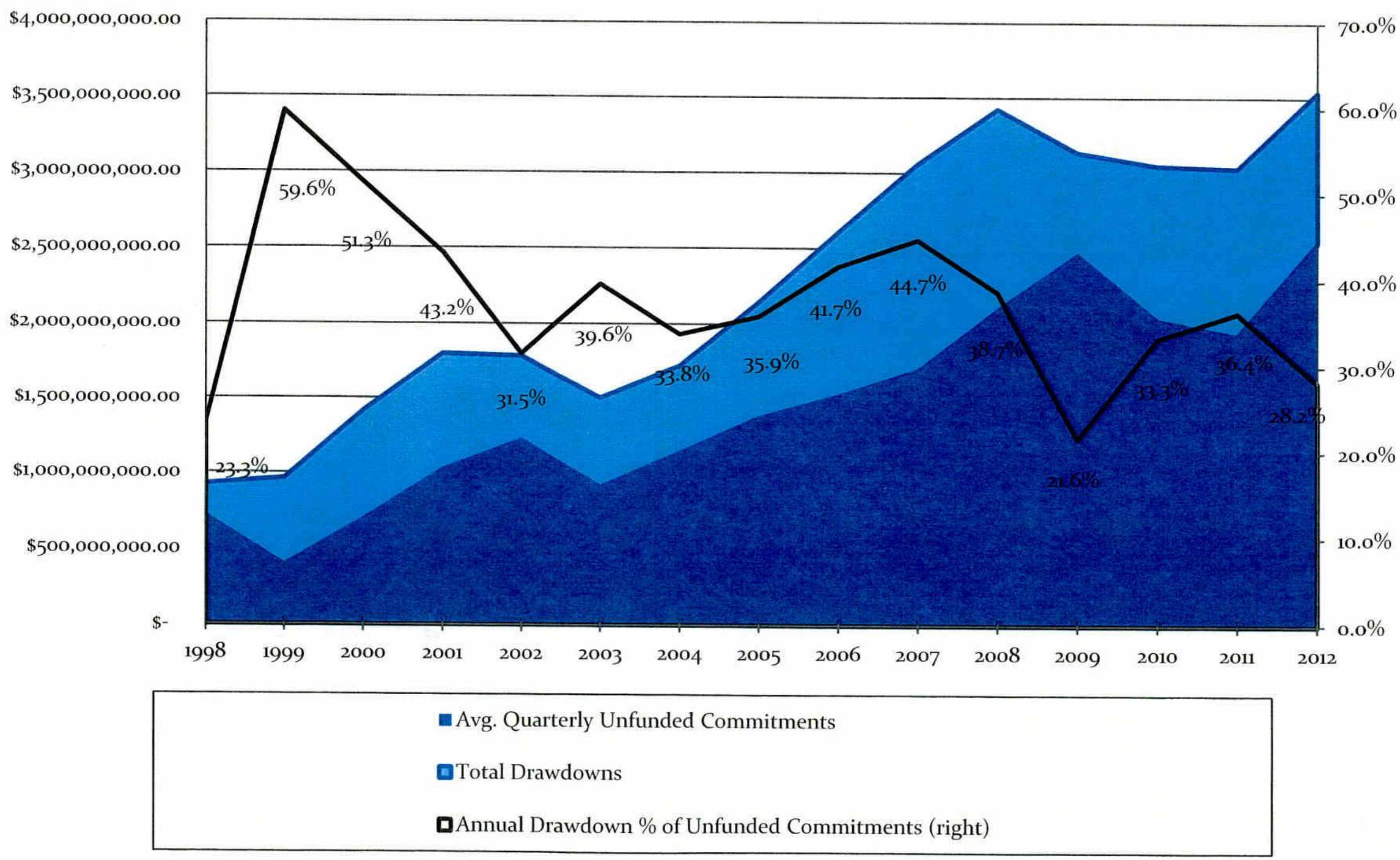
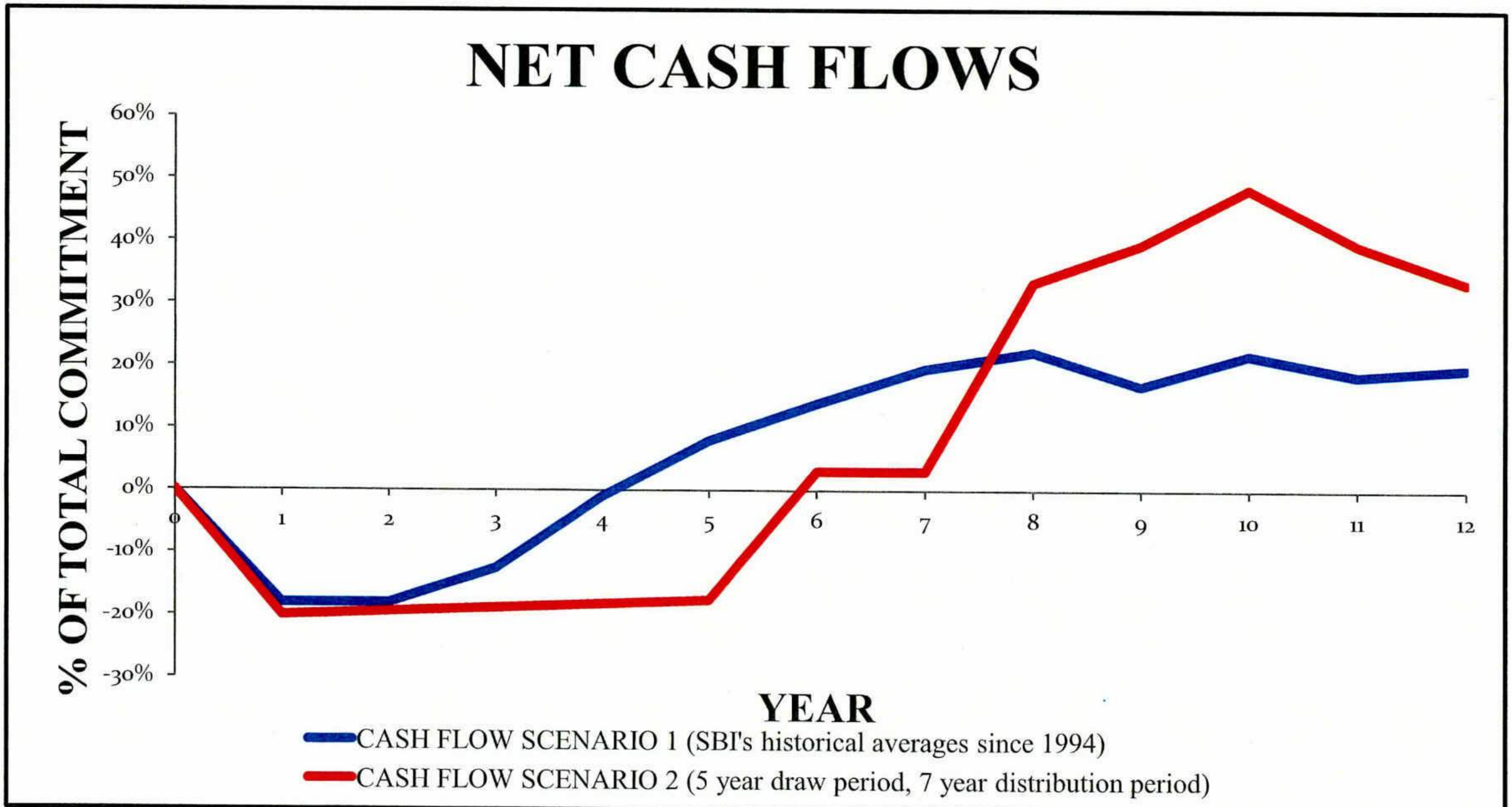
Questions?

Appendix 1

Unfunded Commitments LESS Total Drawdowns per Year, 1998 - 2012



Appendix 2



NET CASH FLOWS
% OF TOTAL COMMITMENT
60%
50%
40%
30%
20%
10%
0%
-10%
-20%
-30%
0
1
2
3
4
5
6
7
8
9
10
11
12
YEAR
CASH FLOW SCENARIO 1 (SBI's historical averages since 1994)
CASH FLOW SCENARIO 2 (5 year draw period, 7 year distribution period)

Appendix 3

Effect of the Financial Crisis on the Alternatives Allocation