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The Benefits of Managed Futures in Volatile Markets

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Date: November 2011

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Agenda

- Liquidity
- Introduction to Managed Futures
- Lintner Study
- Statistical Properties & Diversification benefits
- Conclusion

Liquidity, Transparency and Technology

"Liquidity is the first line of Defense."

- Daniel MacDonald, CFA, Portfolio Manager, Alternative Investments
  Ontario Teachers Pension Plan

Liquidity, Transparency and Technology

What is Managed Futures (a.k.a. CTAs)?

Liquid subset of the Hedge Fund universe, trading futures, forwards, and options

– A group of hedge fund sub-strategies employed by professional money managers who trade a diversified mix of liquid global markets utilizing futures, forwards and options on the foregoing

– Asset classes include interest rates, equity indices, currencies and commodities

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Diversity of Managed Futures

Flexibility of Managers

– Broad range of markets and the ability to go long, short, or neutral, as well as take relative value or spread positions

– Taking both long and short positions may enable managers to produce returns that are uncorrelated with traditional assets

– Wide diversity of trading styles and holding periods may also yield returns that exhibit low correlations to traditional assets – like different radio receivers that "tune in" to different market frequencies

– Ability to actively manage risk and quickly shift positions to exploit opportunities

Strategies/Styles/Sectors/Time

– Managers focus on absolute return strategies:

- Diversified Trend following; Counter-trend; Global Macro; Fundamental/Value; Short-term Trading ; Natural Resources; Foreign Exchange (FX); Sector specialists; Statistical/Quantitative, Multi-Strategy; Relative Value
- Systematic, Discretionary, & Hybrid
- Equity Futures, Fixed Income Futures, FX, Natural Resources/Commodities

(*Please note: not all managers focus in all these strategies at all times, and managed futures strategies may have material directional elements.*)

Lintner Revisited

Dr. John Lintner Ph.D., **Harvard University**

- One of the **co-creators of the Capital Asset Pricing Model**
- Presented "**The Potential Role of Managed Commodity-Financial Futures Accounts (and/or Funds) in Portfolios of Stocks and Bonds**" at the Annual Conference of the Financial Analysts Federation in Toronto in May 1983.

"Indeed, […] the return/risk trade-offs provided by augmented portfolios consisting partly of funds invested with appropriate groups of futures managers (or funds) combined with funds invested in portfolios of stocks alone (or in mixed portfolios of stocks and bonds), clearly dominate the trade-offs available from portfolios of stocks alone (or from portfolios of stocks and bonds). [Lintner, pages 105-106]

Mistaking Liquidity for Alpha

Consider the Following:

- Hedge Fund A has a two-year lock-up with annual redemption and trades illiquid instruments
- Hedge Fund B has no lock-up with monthly redemption and trades liquid instruments
- Both hedge funds have a five-year track record

How can the two investments be compared

- Empirical Research conducted on the returns of 1,904 hedge funds over the three year period from June 2004 – June 2007 neither supported nor refuted the existence of a liquidity premium in the returns of illiquid hedge funds.
  - Bhaduri and Art, "Liquidity Buckets, Liquidity Indices, Liquidity Duration and their Applications to Hedge Funds," Alternative Investment Quarterly, Second Quarter, 2008.
- Illiquid hedge funds with lock-ups have since underperformed liquid hedge funds in general – is there any reason to invest with illiquid managers?
- Lock-ups hold the investor prisoner!

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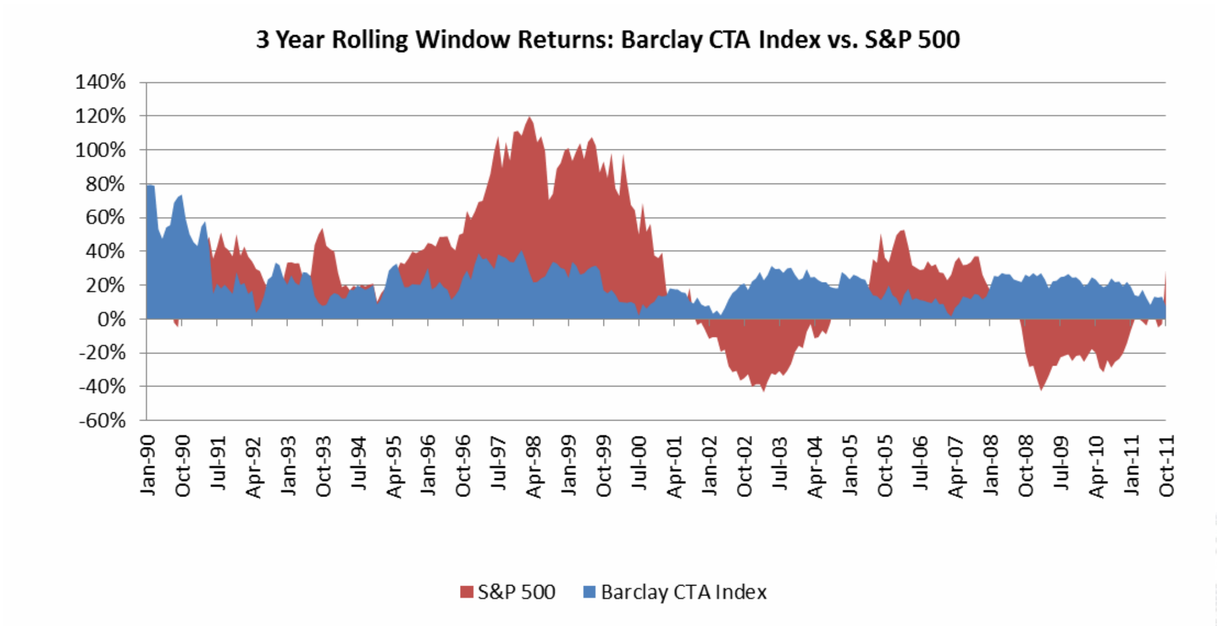
Managed Futures Risk Management

- 3 -Year Rolling Returns: Various Traditional and Alternative Indices,
- January 1990 – October 2011



	Barclay CTA Index
Maximum	**79.43%**
Average	**22.50%**
Minimum	**1.50%**
Negative Returns	**0**

Source: AlphaMetrix Alternative Investment Advisors, CME Group, Bloomberg
Past results are not necessarily indicative of future results.

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Managed Futures Risk Management

- 3 -Year Rolling Returns: Various Traditional and Alternative Indices,
- January 1993 – October 2011

	S&P 500 Index	Barclays Bond Composite Global Index	S&P Goldman Sachs Commodity Total Return Index	HFR Equity Hedge Index	HFRI Fund Weighted Index	Barclay CTA Index	Barclay BTOP50 Index
Number of 3 Year Rolling Negative Periods (out of n = 226)	69	0	81	22	5	0	0

*Barclays Bond Composite Global Index did not report returns for Sep 2008 and Oct 2008
Source: AlphaMetrix Alternative Investment Advisors, CME Group, Bloomberg

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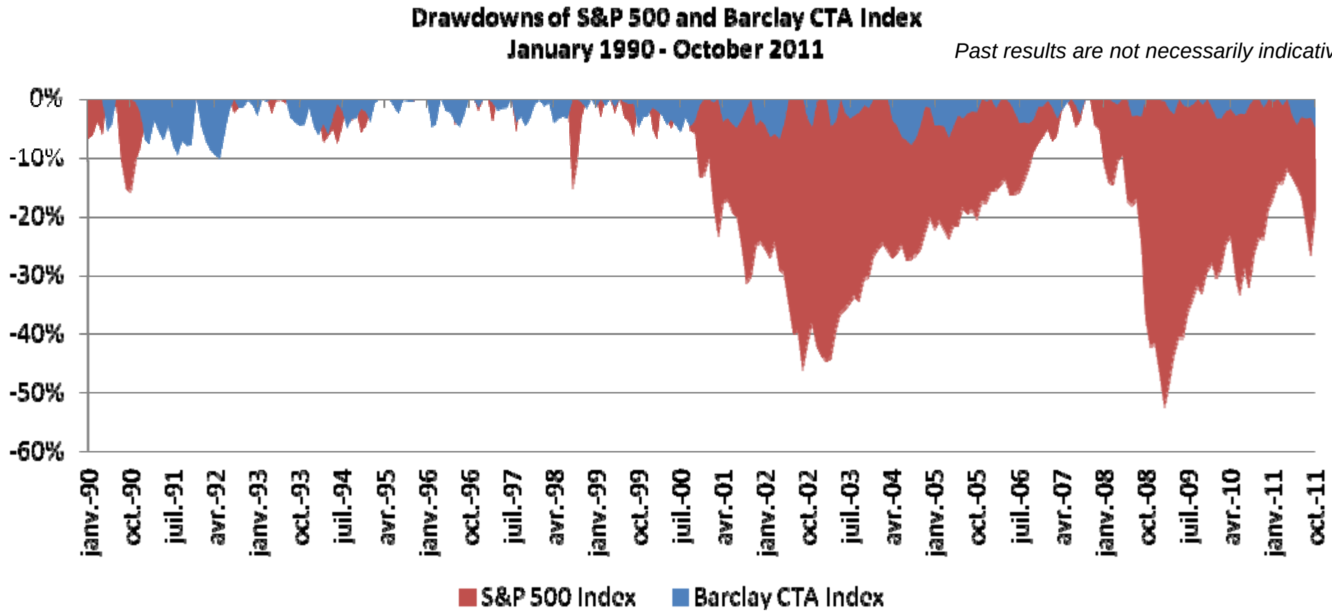
Managed Futures Risk Management



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- CTAs generally employ active risk management which typically includes disciplined adherence to well-defined stop-loss limits

- Managed futures programs also have the ability to go long, short, or neutral which also may help CTAs to recover more quickly from drawdowns by generating returns in falling markets

- Indices of managed products are not indicative of the performance of any individual account.

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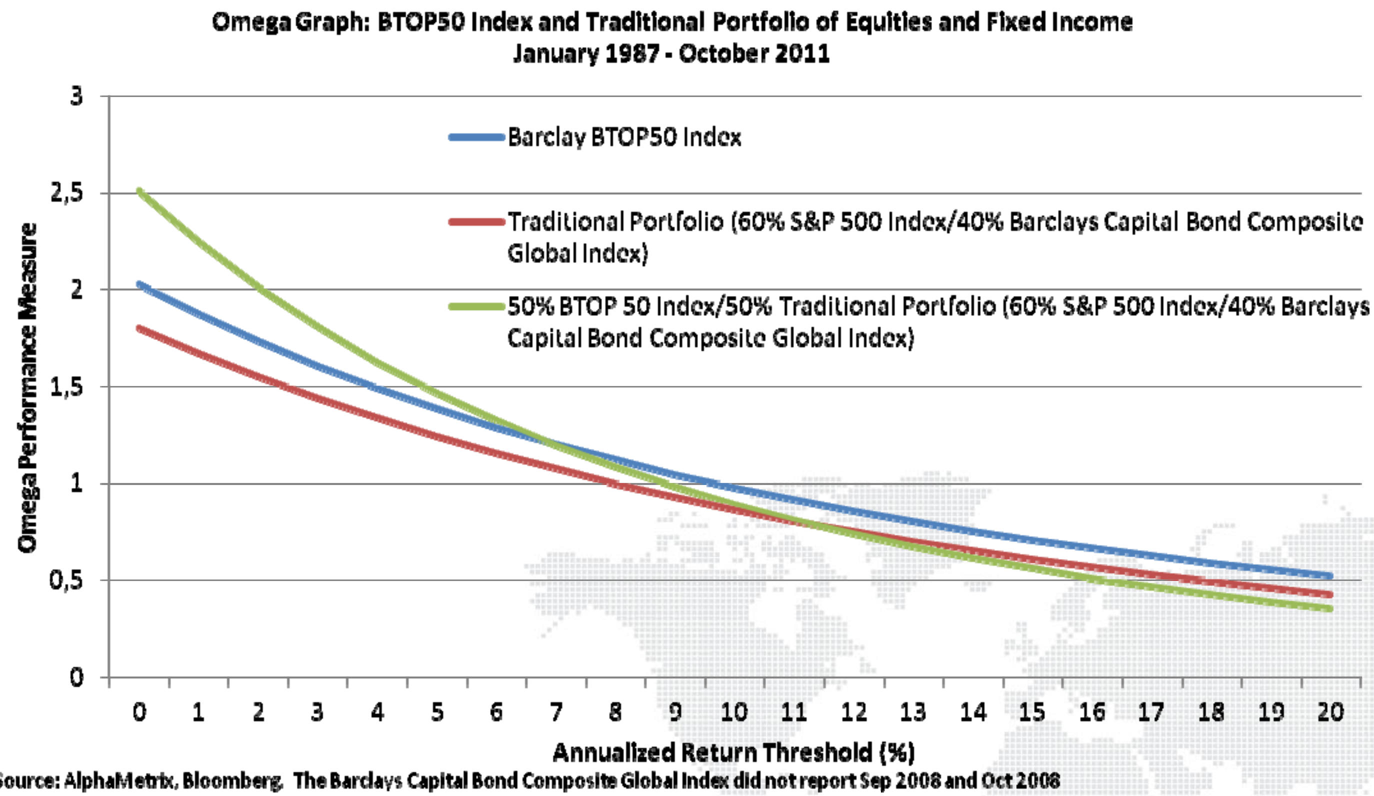
The Case for Diversification: Omega Functions



Source: AlphaMetrix, Bloomberg. The Barclays Capital Bond Composite Global Index did not report Sep 2008 and Oct 2008
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The Case for Diversification: Correlations

- Managed futures have potential to show low correlation to broader market indices
- (Jan 1990 – October 2011)

	S&P 500 Index	Barclays Capital Bond Composite Global Index	S&P Goldman Sachs Commodity Total Return Index	HFR Equity Hedge Index	HFRI Fund Weighted Index	Barclay BTOP50 Index	Barclay CTA Index
S&P 500 Index	1.00						
Barclays Capital Bond Composite Global Index	0.14	1.00					
S&P Goldman Sachs Commodity Total Return Index	0.17	0.05	1.00				
HFRI Fund Weighted Index	0.74	0.07	0.30	1.00			
HFR Equity Hedge Index	0.73	0.06	0.35	0.95	1.00		
Barclay BTOP50 Index	-0.11	0.26	0.14	-0.02	-0.03	1.00	
Barclay CTA Index	-0.10	0.21	0.19	0.02	0.01	0.92	1.00

*Barclays Bond Composite Global Index did not report returns for Sep 2008 and Oct 2008
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Managed Futures – Performance During Equity Market Drawdowns

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Performance of the Barclay CTA Index during 15 Worst Quarters of S&P 500 Index Performance				
Title	Events	SPX Index	Barclay BTOP 50 Index	Difference
Fourth Quarter of 1987	Black Monday – Global Stock Markets Crash	-23.23%	16.88%	40.11%
Fourth Quarter of 2008	Bear Market in U.S. Equities led by Financials	-22.56%	9.14%	31.69%
Third Quarter of 2002	WorldCom Scandal	-17.63%	9.42%	27.05%
Third Quarter of 2001	Terrorist Attacks on World Trade Center and Pentagon	-14.98%	4.12%	19.10%
Third Quarter of 1990	Iraq Invades Kuwait	-14.52%	11.23%	25.75%
Third Quarter of 2011	Libya Civil War, Egyptian Revolution	-14.33%	1.71%	16.04%
Second Quarter of 2002	Continuing Aftermath of Technology Bubble Bursting	-13.73%	8.51%	22.25%
First Quarter of 2001	Bear Market in U.S. Equities led by Technology	-12.11%	5.97%	18.09%
Second Quarter of 2010	European Sovereign Debt Crisis, “Flash Crash” in U.S. Equities	-11.86%	-1.93%	9.93%
First Quarter of 2009	Pressure on Home Prices Continued	-11.67%	-1.75%	9.91%
Third Quarter of 1998	Russia Defaults on Debt, LTCM Crisis	-10.30%	10.54%	20.85%
First Quarter of 2008	Credit Crisis, Commodity Prices Rally	-9.92%	6.43%	16.35%
Third Quarter of 2008	Credit Crisis, Government-Sponsored Bailout of Banks	-8.88%	-4.11%	4.77%
Fourth Quarter of 2000	DotCom Bubble Bursts	-8.09%	19.78%	27.87%
Third Quarter of 1999	Anxiety during Run Up to Y2K	-6.56%	-0.67%	5.89%

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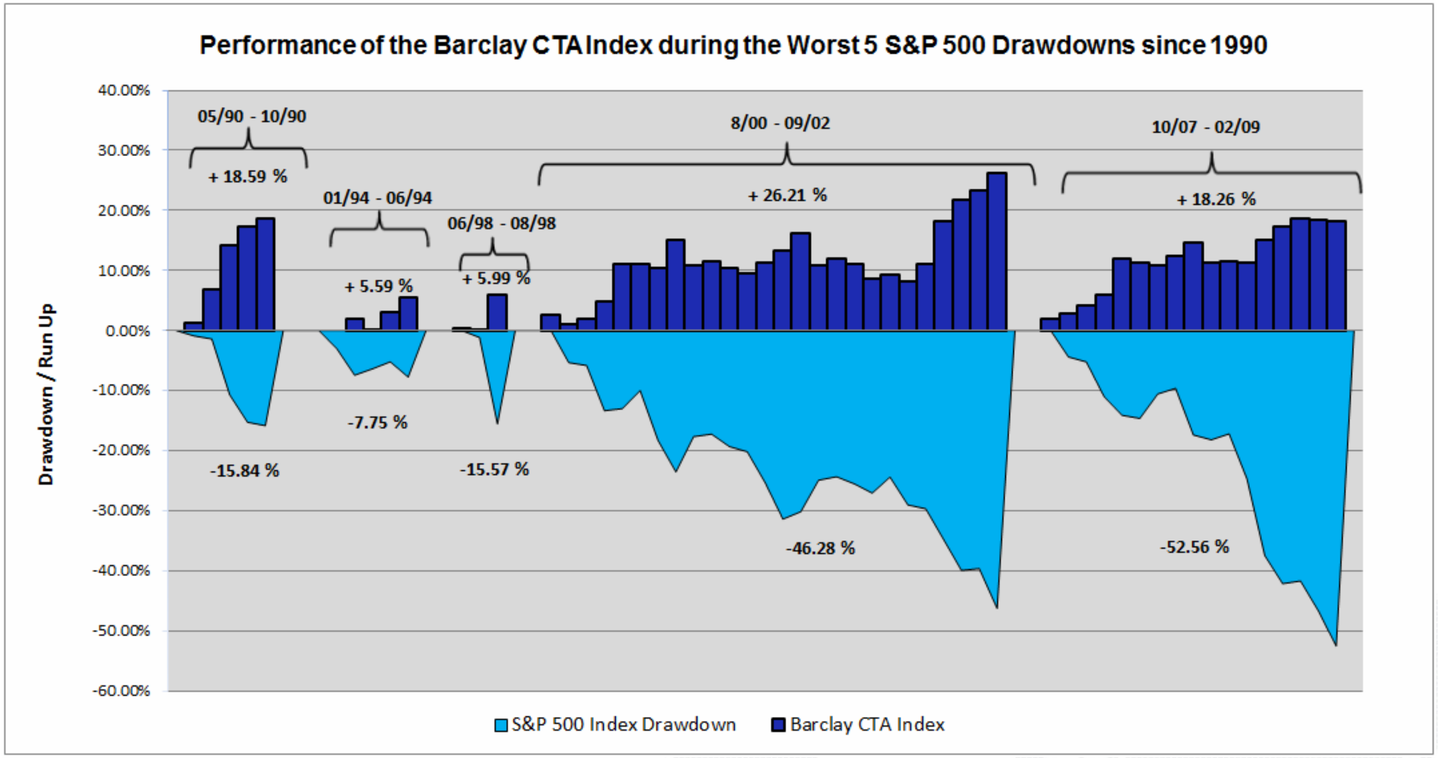
Managed Futures – Performance During Equity Market Drawdowns



- While not a hedge, managed futures has historically tended to perform well during periods that have been difficult for equities and many other hedge fund strategies.
- This effect may possibly enhance the benefits from diversification managed futures offer by potentially contributing to an investor's portfolio during periods that may be difficult for other investments

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True / False

a) All CTAs trade only commodities - **X – FALSE**

b) All CTAs are very volatile - **X – FALSE**

c) All CTAs are systematic - **X – FALSE**

d) In general, CTAs are just a cost (i.e. insurance premium), that do not provide an attractive risk-adjusted return on its own. **X – FALSE**

e) CTAs are great investments – one does not need to do rigorous due diligence. **X – FALSE**

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Conclusion

1. Liquidity, Transparency and Technology are all interrelated and reinforce one another
2. Behavioral Finance – we tend to underestimate the value of liquidity.

3. Why invest in illiquid strategies when it may be possible to generate similar returns with liquid strategies?

4. Managed Futures gives liquid alpha.

5. Diversification is the only free lunch in finance, and CTAs are a proven diversifier and proven performer. Like anything else, prudent and rigorous due diligence is required.
6. Very diverse set of CTAs

7. If a pension, endowment, foundation do not invest in CTAs, they should be forced to articulate WHY they are not doing so in a written piece, since it contradicts what has been established in both literature and practice.

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References

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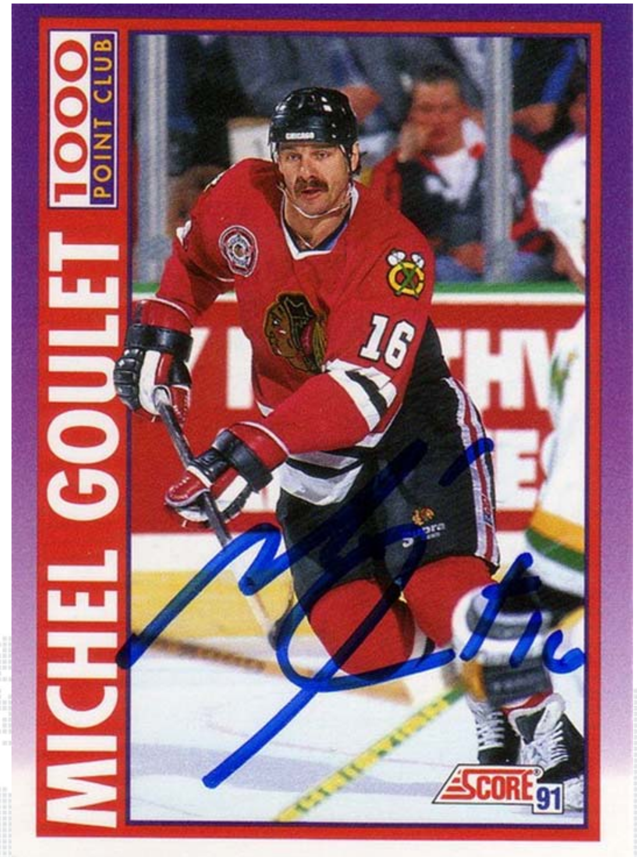
Acknowledgements

TMX | Montréal Exchange

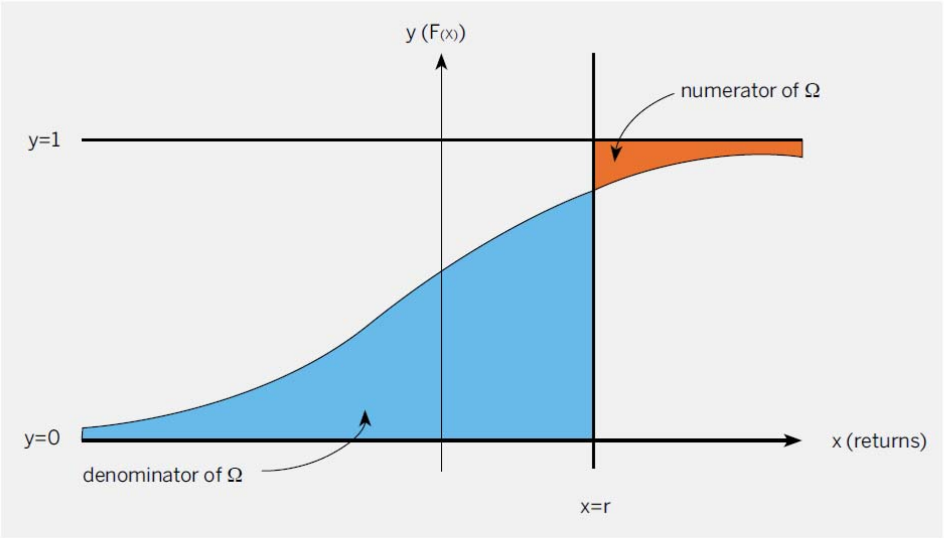
- Christiane Lavallée
- Brian Gelfand
- Claude Cyr
- Joanne Elkaim
- Laurent Terrasse
- Riva Hemond



Appendix

$$\Omega(r) := \frac{\int_r^b [1-F(x)]dx}{\int_a^b F(x)dx}$$

Source: Keating and Shadwick, 2002



Source: Bhaduri and Kaneshige, 2005

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