Building a Better Portfolio Around the Traditional Asset Mix

Benchmarks: Cornerstones or Millstones
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Reviewing Recent Experience

- Valuation levels established during the 1970's, together with a relatively benign economic environment, made the 1980's and the 1990's the best of times for financial assets.
- Canadian market performance somewhat unusual – bonds better than equities.

Asset	1980's	1990's	2000's
Canadian Equity	12.2%	10.6%	5.6%
US Equity	17.6%	18.2%	-1.0%
Cdn. Fixed Income	13.2%	10.1%	6.7%
US Fixed Income	12.4%	7.7%	6.3%

60/40 Portfolio Performance

• Real returns were over 7% in Canada and 10% in the U.S. during the 1980's and 1990's. The next decade brought sharply reduced real returns, especially in the U.S.

• Search for the prior level of returns provided impetus for the adoption of the so-called **Endowment model**.

Portfolio Returns

	Canada[1.]	U.S.[2.]
1980's	13.0%	15.9%
1990's	10.7%	14.1%
2000's	6.5%	2.4%
1980-2009	10.0%	10.6%
Std. Dev.	11.9%	10.8%

1.S&P/TSX Composite and DEX Universe quarterly data.
2. S&P500 and Barclay's Aggregate quarterly data

What Characterizes the Endowment Model?

- Dates back to the work of the Ford Foundation, Markowitz and Sharpe and the importance of diversification directed toward longer term outcomes.
- Also fueled by a growing awareness of return premia associated with assets having non-traditional features (e.g., illiquidity, longer investment horizons, etc.).
- Adoption further accelerated by the publication of *Pioneering Portfolio Management* (D. Swenson) in 2000.
- Starts from the proposition that long term investors should have a strong equity bias.
- Generally implemented through:

  - global multi-asset diversified portfolio;
  - reduced allocations to domestic equity and to fixed income;
  - sizeable allocations to alternative investment strategies;
  - early identification of, and entry into, new strategies;
  - active management through meticulous manager selection and portfolio construction; and,
  - strong infrastructure and investment team.

- Most appropriate for <u>perpetual</u> pools of capital.

Evolution of Harvard's Policy Portfolio

	1991	1995	2000	2005	2010	2012
Equity						
Domestic	40	38	22	15	11	12
Foreign	18	15	15	10	11	12
Emerging		5	9	5	11	12
Private	12	12	15	13	13	12
Total Equities	**70**	**70**	**61**	**43**	**46**	**48**
Fixed Income						
Domestic	15	15	10	11	4	4
Foreign	5	5	4	5	2	3
Inflation-indexed			7	6	2	4
High-yield	2	2	3	5	5	2
Total Fixed Income	**22**	**22**	**24**	**27**	**13**	**13**
Real Assets						
Liquid Commodities	6	6	3	13	14	14
Timber / Agricultural			3			
Real Estate	7	7	7	10	9	9
Total Real Assets	**13**	**13**	**13**	**23**	**23**	**23**
Absolute Return			**5**	**12**	**16**	**16**
Cash	**-5**	**-5**	**-3**	**-5**	**2**	**0**
TOTAL	100	100	100	100	100	100

Source: Harvard Management Company Endowment Reports

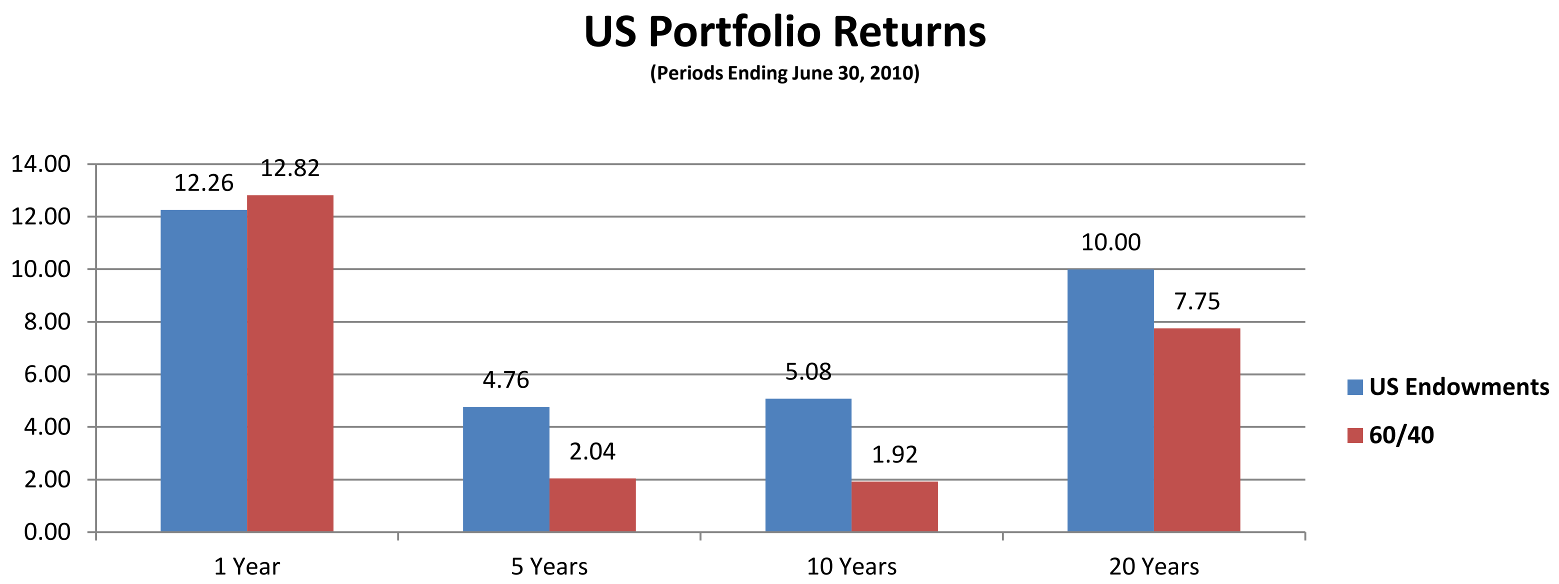
Asset Allocation of Yale Endowment

	1990	1995	2000	2005	2010
Equity					
Domestic	48.0	21.8	14.2	14.1	7.0
Foreign	15.2	12.5	9.0	13.7	9.9
Private	6.7	17.2	25.0	14.8	30.3
Total Equity	69.9	51.5	48.2	42.6	47.2
Fixed Income	21.2	12.2	9.4	4.9	4.0
Real Assets	8.0	13.5	14.9	25.0	27.5
Absolute Return	0.0	21.0	19.5	25.7	21.0
Cash	0.9	1.8	8.1	1.9	0.4
	100	100	100	100	100

Source: Yale Endowment Reports

Long Term Endowment Model Performance

- Long term performance of U.S. endowments employing this approach has consistently exceeded that of traditional benchmarks.
- These comparisons, however, reveal little about strategies pursued, leverage employed, risk assumed, etc.



Source: Cambridge Associates LLC

‘Risk Exposures’ Versus ‘Asset Classes’

- At the asset class level, the concept of diversifying away from dependence on the ‘equity risk premium’ is well understood.
- During the global crisis, however, many investors discovered that while portfolios may have been well diversified for normal times, the same was not true with respect to periods of substantial stress.
- One key factor in understanding this difference is the reality that each asset class has a number of underlying return drivers and many asset class returns are related to a mixture of similar factors.
- A more robust approach to portfolio analysis and construction is to isolate the exposures to the underlying return drivers and to diversify between return drivers as opposed to asset classes.
- A simplified example of this framework applied to the **Reference Portfolio** is outlined in the next slide. A more detailed approach would further sub-divide the ‘main risk drivers’ and show the asset class ‘basic building blocks’ as having exposures to several of these risk drivers.

Re-Examining a Simple Reference Portfolio

-- 'Risk Exposures' versus 'Asset Classes' --

Main Risk Drivers	Basic Building Blocks	Portfolio Weight(%)	Primary Objectives	Benchmark
Growth / Equity	Cdn. Public Equity	30	- Achieve higher returns from accessing economic growth	TSX Composite
	U.S. Public Equity	15	- Achieve some long-term inflation protection	S&P 500
	EAFE Public Equity	15	-Diversify Canada centric risk	MSCI EAFE Index
Income / Credit	Canadian Investment Grade Corporates	9.3	-Provide income -Outperform Gov't Bonds	Dex Corporate Bond Index
Rates	Canadian Government Bonds	25.7	-Diversify equity risk -Provide income -Hedge deflation risk -Hedge liabilities -Provide liquidity	Dex Government Bonds Index
Inflation	Cdn. Real Return Bonds	5	-Diversify equity risk -Hedge inflation -Hedge liabilities -Provide liquidity	Dex RRB Overall Index
Currency	USD and EAFE Currencies+	15	-Diversify equity risk	Volatility and Draws

+ 50% of FX exposure is hedged

Considering Alternative Strategies and Assets

Main Risk Drivers	Basic Building Blocks	Additional Possibilities
Growth / Equity	Cdn. & Internat'l Developed Market Equities	Emerging Market Equities, Frontier Market Equities, Small Cap Equities, Equity Long/Short, Venture Capital, Buyouts, Portable Alpha, etc.
Income / Credit	Canadian Investment Grade Corporates	High Yield, Mortgages, Foreign Corporate Bonds, Credit Long/Short, Structured Credit, Senior Loans, etc.
Rates	Canadian Government Bonds	Foreign Sovereign Debt, Cash, Absolute Return Funds, etc.
Inflation	Cdn. Real Return Bonds	Core Real Estate, Infrastructure, Forestland, Agricultural Land, Commodities, etc.

Possible Evaluation Criteria: Return-to-risk trade-off, Diversification properties, Liquidity, Explainability, Benchmark ease, Cost

Thinking About a 'Better Beta' Portfolio

- Hedge funds and private equity are not asset classes.
- Instead they bundle up different types of risk factors in sometimes expensive, leveraged and non-transparent investment vehicles.

Main Risk Drivers	Building Blocks		Reference Portfolio		Target Portfolio	
Equity	**Canada**	-Public	30.0%		?	
		-Long / Short			?	
		-Private			?	?
	US	-Public	15.0%		?	
		-Long / Short			?	
		-Private			?	?
	EAFE	-Public	15.0%		?	
		-Long / Short			?	
		-Private			?	?
	Emerging	-Public			?	
		-Long / Short			?	
		-Private			?	?
	Total			**60.0%**		**?**
Credit	**Inv. Grade**		9.3%		?	
	High Yield					
	Emerging Markets Debt					
	Mortgages				?	
	Private Debt					
	Credit Long / Short			**9.3%**		**?**
Rates	**Cdn. Government**		25.7%	**25.7%**	?	**?**
Inflation	**RRB's**		5.0%			
	Core Real Estate (PE)				?	
	Core Infrastructure(PE)			**5.0%**		**?**
Other	**HF - Absolute Return**				?	
	Foreign Exchange			15.0%	?	
	Cash			**0.0%**	?	**?**
Total				**100.0%**		**100.0%**

Is the Model Easily Portable to Another Country?

- Approach should not be adopted lightly as implementation issues are significant.
- Currency exposure matters.
- Will a home-country bias be retained?
- Starting valuations matter.
- Need to understand the portfolio’s risk exposures and liquidity framework.
- A more granular approach to risk budgeting is required.
- Need to invest in educating your stakeholders.
- **Benchmarking performance against a low cost, simple and passive ‘shadow’ portfolio (i.e., a Reference Portfolio) provides a true test of whether this more complex ‘active’ management approach is adding value.**

Concluding Comments

-- Hope Is Not A Strategy --

The current and expected environment seems likely to prove challenging for those expecting that portfolios comprised solely of traditional assets and strategies will deliver returns matching their current expectations.

(2010 UTAM Annual Report)