

UofT Pension Committee

UTAM investment performance and related risk issues

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June 10, 2011 presentation to the UofT Pension Committee (PC)
with accompanying memo

Pension Plan Investment Risks?

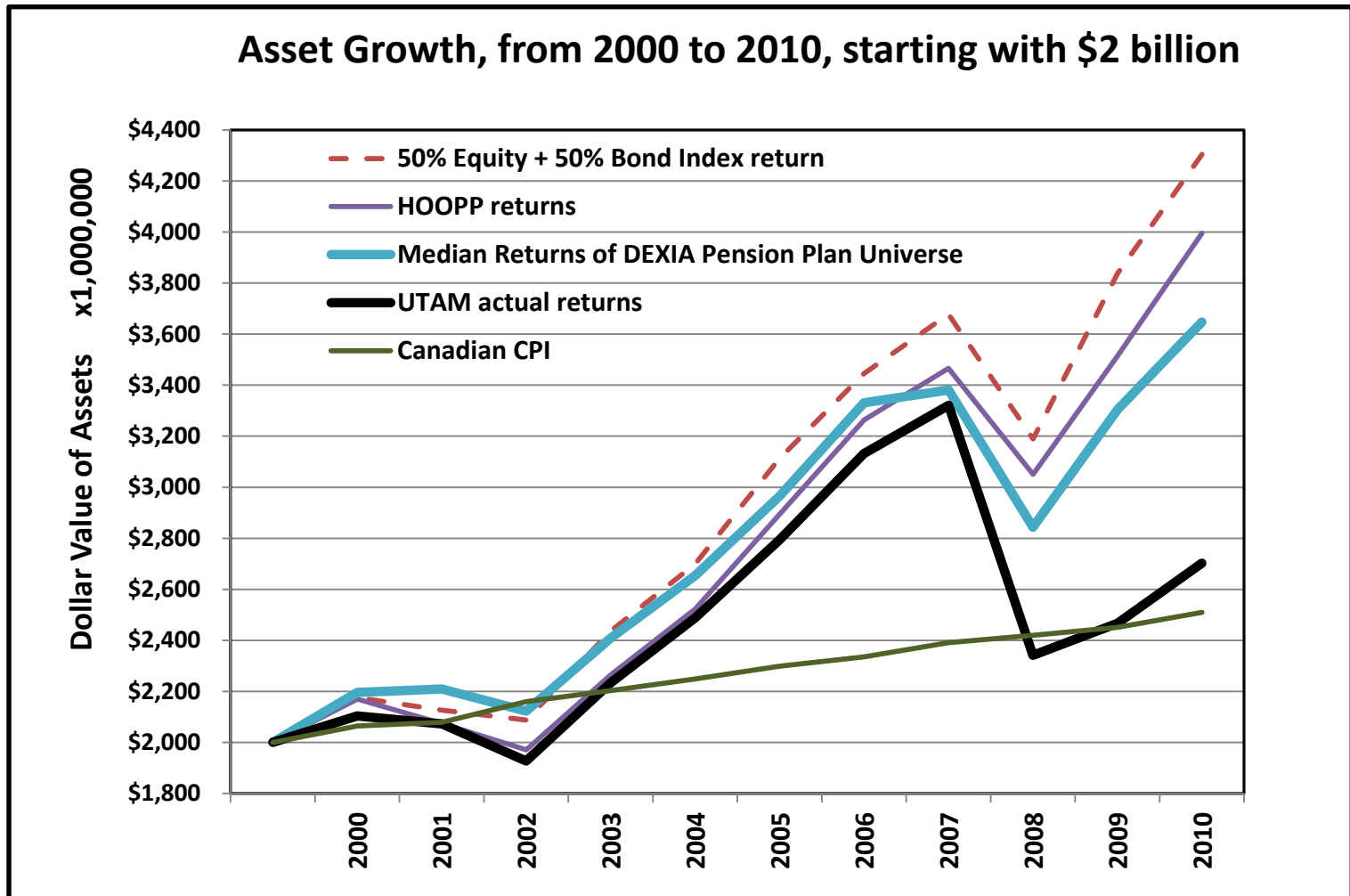
What issues should concern PC members?

- (i) **Transparency** of investments & assets? Do we know where pension funds are invested?
- (ii) **Complexity** of investments? Do we really understand how assets are invested?
- (iii) Validity of **valuations** for illiquid assets?
- (iv) Investment **cost** issues. Why are UTAM unit costs so high? Costs raise the bar on required returns.
- (v) Investment management **people** issue.

Pension plan & Comparator returns – UTAM years vs pre-UTAM years

Annualized Investments Returns		
for the		
UofT Pension Plan and Comparators		
2000-2010 11 years UTAM	1985-1999 15 years pre-UTAM	
2.7%	11.7%	UofT Pension Plan
5.6%	11.8%	Median Return, DEXIA all pension universe
7.2%	11.5%	50% TSX Index + 50% All Can Bond Index
2.1%	2.9%	CPI in Canada

Performance Comparison



Note the significant \$ differences in total returns by 2010

- **\$1.6 billion** gap between Index and UTAM
- **\$1.3 billion** gap between HOOPP and UTAM
- **\$1.0 billion** between DEXIA Median and UTAM
- [Note: Today the UofT pension plan has a deficit of about \$1 billion or \$2 billion – depending on who you ask.]

UTAM issues for 2000 to 2010:

- **2000 to 2007 - Why did UTAM underperform the mean return for the pension universe?**
- **2008 – Why the 30% decline? Others less so.**
- **2009 & 2010 – Why no recovery from 2008?**

Volatility and Risk Issues

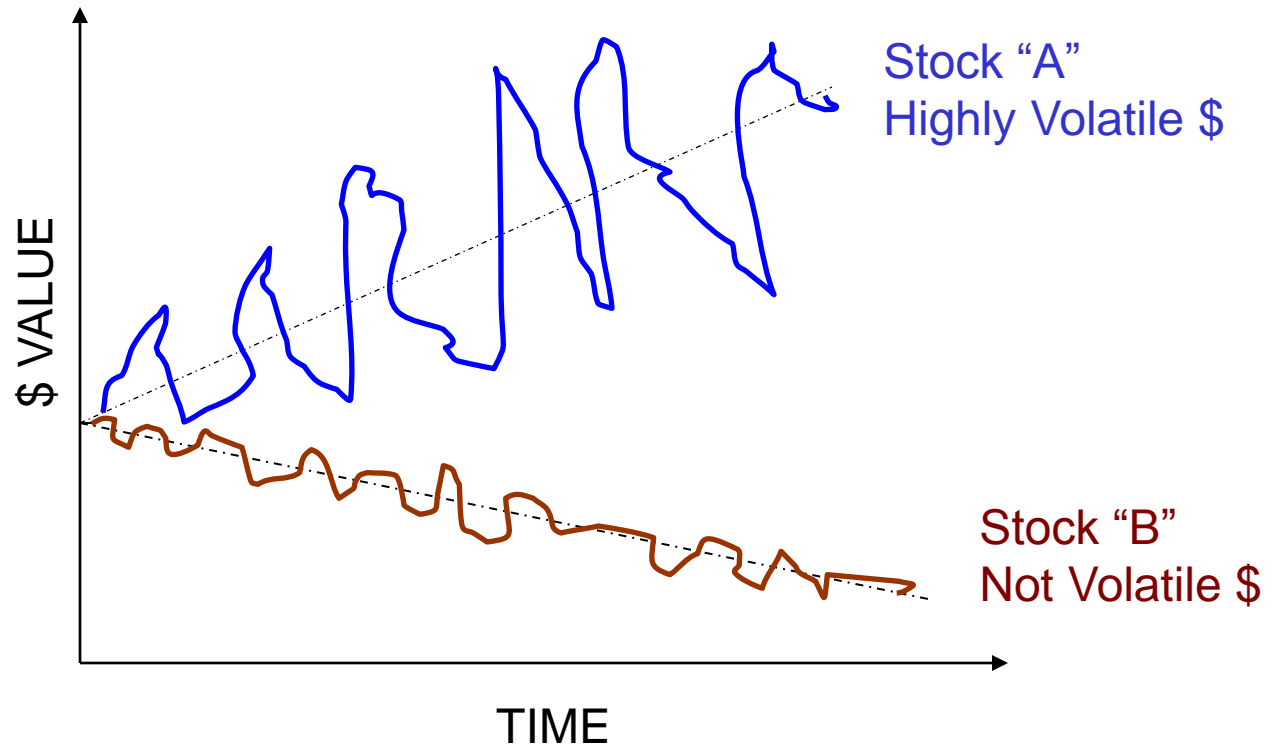
- Volatility is **not** the same as investment risk!

and

- Investment Risk is

Volatility is not Investment Risk

- One sketch illustration by GL:



Volatility - (or Variability)

- “Volatility does not measure risk.

Beta, which is a measure of volatility, is nice and mathematical, and wrong. Past volatility does not measure the risk of investing now. Risk comes from the nature of being in certain kinds of businesses and from not knowing what you're doing.”

Warren Buffett

Volatility - (or Variability)

- “Volatility is a symptom that people have no idea on the underlying value.”

Jeremy Grantham (GMO)

- “**Volatility creates opportunity** and is not necessarily a risk at all unless you absolutely need to sell the day that the price is low.”

Seth Klarman (Baupost Group)

Volatility - (or Variability)

- (Volatility) can provide **camouflage for lethal assets**, thus acting as a Trojan Horse of the markets.

With volatility as your main tool, it can be quite easy to hide the true risks of a play.

Pablo Triana (Financial Times, Sept 5, 2010)

Volatility - (or Variability)

- “I have never believed volatility was useful as a measure of risk in the real world but it does help investment managers convince their board and potential clients that they are more sophisticated than they are and, it helps increase compensation.”

- U of T Alumnus

Study=>Lower Returns correlate with Higher Volatility

- “Over the past 41 years, high volatility and high beta stocks have substantially underperformed low volatility and low beta stocks in U.S. markets. ...”
- From a 2010 academic study: Benchmarks as Limits to Arbitrage: Understanding the Low Volatility Anomaly
- by Malcolm Baker (Harvard Business School and NBER), Brendan Bradley, (Acadian Asset Management), Jeffrey Wurgler (NYU Stern School of Business and NBER)
- <http://ssrn.com/abstract=1585031>

INVESTMENT RISK ...

- - is first and foremost – the likelihood of losing money
- - risk isn't quantifiable, even in retrospect

Howard Marks (Oaktree Capital) and author of The Most Important Thing

- - equates to Ben Graham's *permanent loss of capital*
- - three primary (although interrelated) sources of such danger can be identified:
 - (i) valuation risk,
 - (ii) business/earnings risk, and
 - (iii) balance sheet/financial risk.

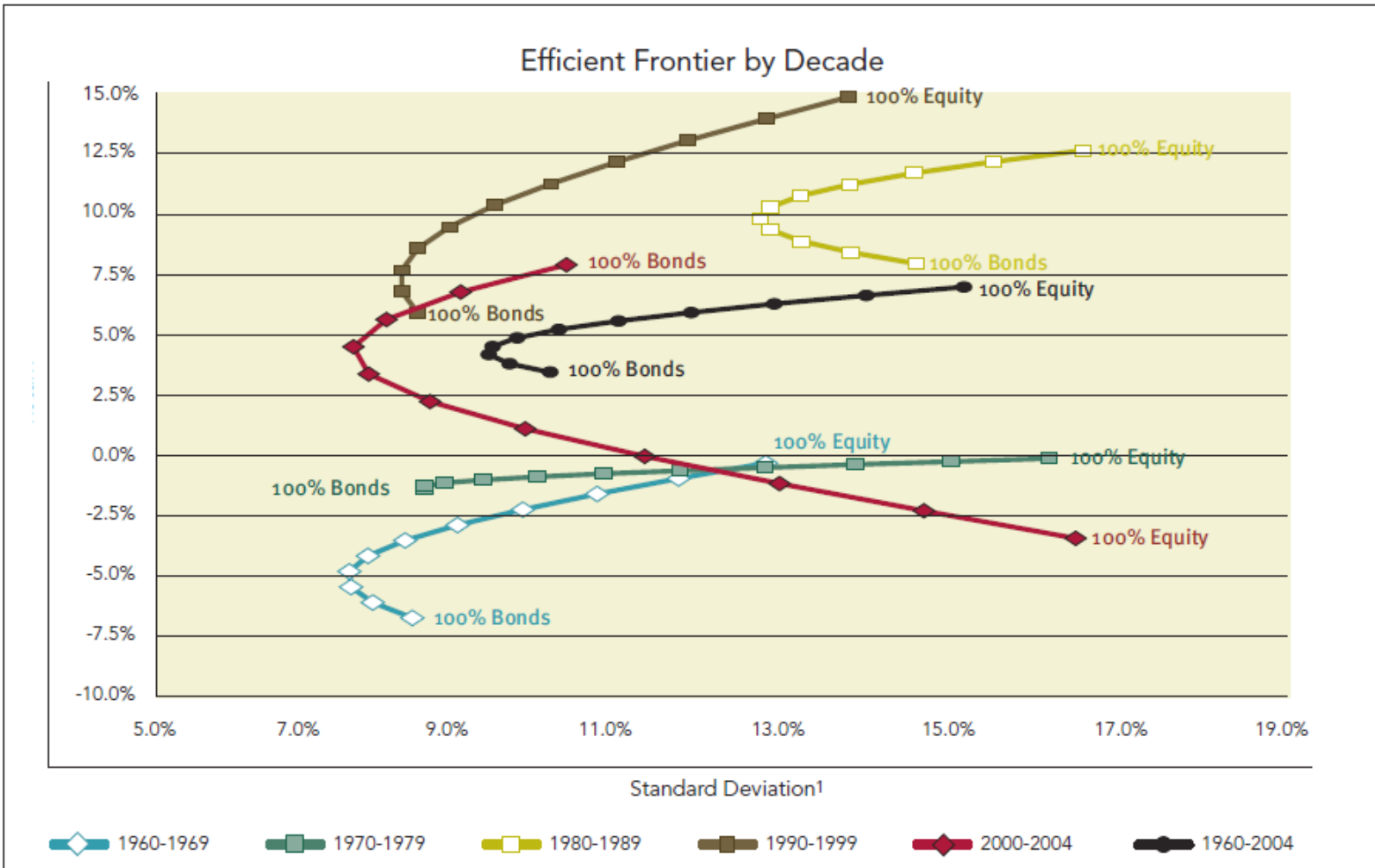
James Montier (GMO) and author of Value Investing

Risk Management

- “Modern risk management is a farce; it is pseudoscience of the worst kind. The idea that the risk of an investment, or indeed, a portfolio of investments can be reduced to a single number is utter madness. In essence, the problem with risk management is that it assumes that volatility equals risk. Nothing could be further from the truth. Volatility creates opportunity. For instance, was the stock market more risky in 2007 or 2009? According to views of risk managers, 2007 was the less risky year, it had low volatility, which they happily fed into their risk models and concluded (falsely) that the world was a safe place to take risk.”

James Montier

The Efficient Frontier has **NO** Predictive Power – as illustrated via the following graphs [and SD is **not** investment risk]



Pension Plan Investment Risks?

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Implementing the main recommendation of the Jackman-Wasser Committee report would resolve most of the concerns raised here:

- “In short, we believe that the pension and endowment funds should be invested primarily in publicly traded stocks and bonds.”

Appendix:

Performance Tables, 1985 to 2010

for UofT Pension Plan and
Comparators

Annualized UofT Pension Plan Returns

- for the UTAM years

UTAM Annualized UofT Pension Plan Investment Performance during the UTAM Years											
Year Ending Dec 31	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years	Eight Years	Nine Years	Ten Years	Eleven Years
2010	9.5%	7.4%	-6.7%	-3.7%	-0.7%	1.4%	2.8%	4.2%	2.9%	2.5%	2.7%
2009	5.3%	-13.8%	-7.7%	-3.1%	-0.2%	1.7%	3.5%	2.1%	1.7%	2.1%	
2008	-29.5%	-13.6%	-5.7%	-1.5%	1.0%	3.2%	1.7%	1.3%	1.7%		
2007	6.0%	9.0%	10.1%	10.4%	11.4%	8.1%	6.7%	6.5%			
2006	12.1%	12.2%	12.0%	12.8%	8.5%	6.8%	6.5%				
2005	12.3%	11.9%	13.0%	7.6%	5.7%	5.6%					
2004	11.5%	13.3%	6.1%	4.2%	4.4%						
2003	15.2%	3.5%	1.8%	2.6%							
2002	-7.0%	-4.3%	-1.2%								
2001	-1.5%	1.8%									
2000	5.2%										

Comparator – the Annualized Median Returns of Pension Universe (DEXIA)

Annualized Median Investment Performance from 2000 to 2010 for 'All Pension Plans'											
(data from Canadian Institute of Actuaries Report, March 2010)											
Year Ending Dec 31	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years	Eight Years	Nine Years	Ten Years	Eleven Years
2010	10.4%	13.3%	2.6%	2.3%	4.2%	5.4%	6.1%	7.0%	5.7%	5.2%	5.6%
2009	16.2%	-1.1%	-0.3%	2.7%	4.5%	5.4%	6.5%	5.2%	4.6%	5.1%	
2008	-15.9%	-7.6%	-1.4%	1.7%	3.4%	5.0%	3.7%	3.3%	4.0%		
2007	1.5%	6.8%	8.4%	8.8%	9.8%	7.3%	6.4%	6.8%			
2006	12.3%	12.0%	11.4%	11.9%	8.6%	7.2%	7.6%				
2005	11.8%	10.9%	11.8%	7.6%	6.2%	6.8%					
2004	10.1%	11.8%	6.3%	4.8%	5.8%						
2003	13.5%	4.4%	3.1%	4.8%							
2002	-3.9%	-1.7%	2.0%								
2001	0.6%	5.1%									
2000	9.8%										

Comparator – the Annualized Returns of 50% TSX + 50% Bond Index

Annualized Returns for a 50% Bond + 50% Equity Index Benchmark from 2000 to 2010													
Year Ending Dec 31	TSX	All Bond	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years	Eight Years	Nine Years	Ten Years	Eleven Years
2010	17.6%	6.7%	12.2%	16.1%	5.4%	5.7%	6.7%	8.1%	8.5%	9.5%	8.1%	7.1%	7.2%
2009	35.1%	5.4%	20.3%	2.1%	3.6%	5.4%	7.3%	7.9%	9.1%	7.6%	6.5%	6.7%	
2008	-33.0%	6.4%	-13.3%	-3.8%	0.8%	4.3%	5.5%	7.3%	6.0%	4.9%	5.3%		
2007	9.8%	3.7%	6.7%	8.7%	10.9%	10.8%	12.0%	9.6%	7.8%	7.9%			
2006	17.3%	4.1%	10.7%	13.0%	12.2%	13.3%	10.1%	8.0%	8.1%				
2005	24.1%	6.5%	15.3%	13.0%	14.2%	10.0%	7.4%	7.6%					
2004	14.5%	7.1%	10.8%	13.7%	8.3%	5.5%	6.2%						
2003	26.7%	6.7%	16.7%	7.0%	3.8%	5.1%							
2002	-12.4%	8.7%	-1.9%	-2.1%	1.4%								
2001	-12.6%	8.1%	-2.3%	3.1%									
2000	7.4%	10.2%	8.8%										

Annualized UofT Pension Plan Returns

- for fifteen **pre-UTAM** years

(note the use of the academic year, not calendar year)

Annualized UofT Pension Plan Investment Performance in the pre-UTAM Years															
Year Ending Jun 31	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years	Eight Years	Nine Years	Ten Years	Eleven Years	Twelve Years	Thirteen Years	Fourteen Years	Fifteen Years
1999	2.0%	8.1%	12.3%	12.4%	12.7%	11.1%	11.5%	11.5%	11.1%	10.2%	10.4%	9.5%	9.8%	10.7%	11.7%
1998	14.6%	17.9%	16.1%	15.6%	13.1%	13.2%	12.9%	12.3%	11.1%	11.3%	10.2%	10.5%	11.4%	12.4%	
1997	21.3%	16.9%	15.9%	12.7%	12.9%	12.6%	12.0%	10.7%	10.9%	9.8%	10.1%	11.1%	12.2%		
1996	12.6%	13.3%	9.9%	10.9%	11.0%	10.5%	9.2%	9.7%	8.6%	9.0%	10.2%	11.5%			
1995	14.0%	8.6%	10.4%	10.6%	10.1%	8.7%	9.3%	8.1%	8.7%	10.0%	11.4%				
1994	3.5%	8.6%	9.5%	9.2%	7.7%	8.5%	7.3%	8.0%	9.5%	11.2%					
1993	14.0%	12.6%	11.1%	8.7%	9.5%	7.9%	8.7%	10.3%	12.1%						
1992	11.2%	9.7%	7.0%	8.4%	6.8%	7.8%	9.8%	11.8%							
1991	8.2%	5.0%	7.5%	5.7%	7.1%	9.6%	11.9%								
1990	1.9%	7.2%	4.9%	6.9%	9.9%	12.5%									
1989	12.8%	6.4%	8.6%	11.9%	14.8%										
1988	0.3%	6.6%	11.7%	15.3%											
1987	13.2%	17.8%	20.8%												
1986	22.6%	24.8%													
1985	27.0%														

Comparator – Annualized Median Returns of Pension Universe (DEXIA) – pre-UTAM years

Annualized Median Investment Performance from 1985 to 1999 for the DEXIA All Pension Universe (pre-UTAM Years)															
Year Ending Dec 31	One Year	Two Years	Three Years	Four Years	Five Years	Six Years	Seven Years	Eight Years	Nine Years	Ten Years	Eleven Years	Twelve Years	Thirteen Years	Fourteen Years	Fifteen Years
1999	11.4%	9.7%	11.4%	13.2%	14.0%	11.4%	12.8%	11.9%	12.5%	11.1%	11.5%	11.4%	10.8%	11.0%	11.8%
1998	8.0%	11.4%	13.8%	14.7%	11.4%	13.0%	12.0%	12.7%	11.1%	11.5%	11.5%	10.8%	11.0%	11.8%	
1997	14.9%	16.8%	17.0%	12.3%	14.1%	12.7%	13.3%	11.5%	11.9%	11.8%	11.0%	11.2%	12.1%		
1996	18.8%	18.1%	11.5%	13.9%	12.2%	13.1%	11.0%	11.6%	11.5%	10.7%	10.9%	11.9%			
1995	17.4%	8.0%	12.3%	10.6%	12.0%	9.7%	10.6%	10.6%	9.8%	10.2%	11.3%				
1994	-0.7%	9.8%	8.5%	10.6%	8.3%	9.5%	9.6%	8.9%	9.4%	10.7%					
1993	21.4%	13.4%	14.7%	10.6%	11.7%	11.5%	10.3%	10.7%	12.1%						
1992	5.9%	11.5%	7.2%	9.3%	9.6%	8.6%	9.3%	11.0%							
1991	17.4%	7.9%	10.5%	10.5%	9.1%	9.8%	11.7%								
1990	-0.8%	7.2%	8.3%	7.2%	8.4%	10.8%									
1989	15.9%	13.2%	10.0%	10.8%	13.3%										
1988	10.5%	7.1%	9.2%	12.6%											
1987	3.8%	8.5%	13.3%												
1986	13.4%	18.4%													
1985	23.6%														