

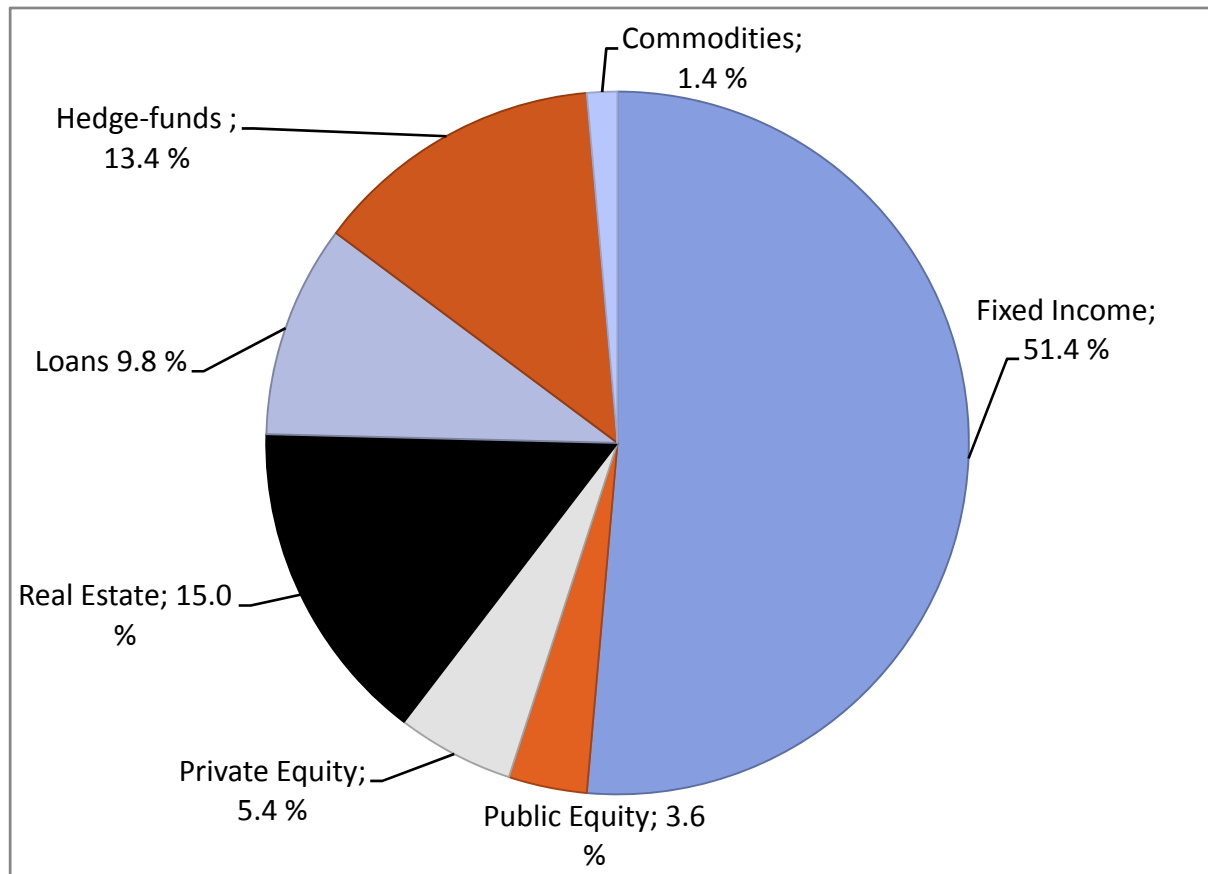
Financial crisis: CIO's perspective

4.6.2009

Risto Murto, Varma

VARMA
ELÄKKEIDEN TURVAAJA

Varma Mutual Pension Insurance Company, at 31.12.2008



Assets 25 bn euros.

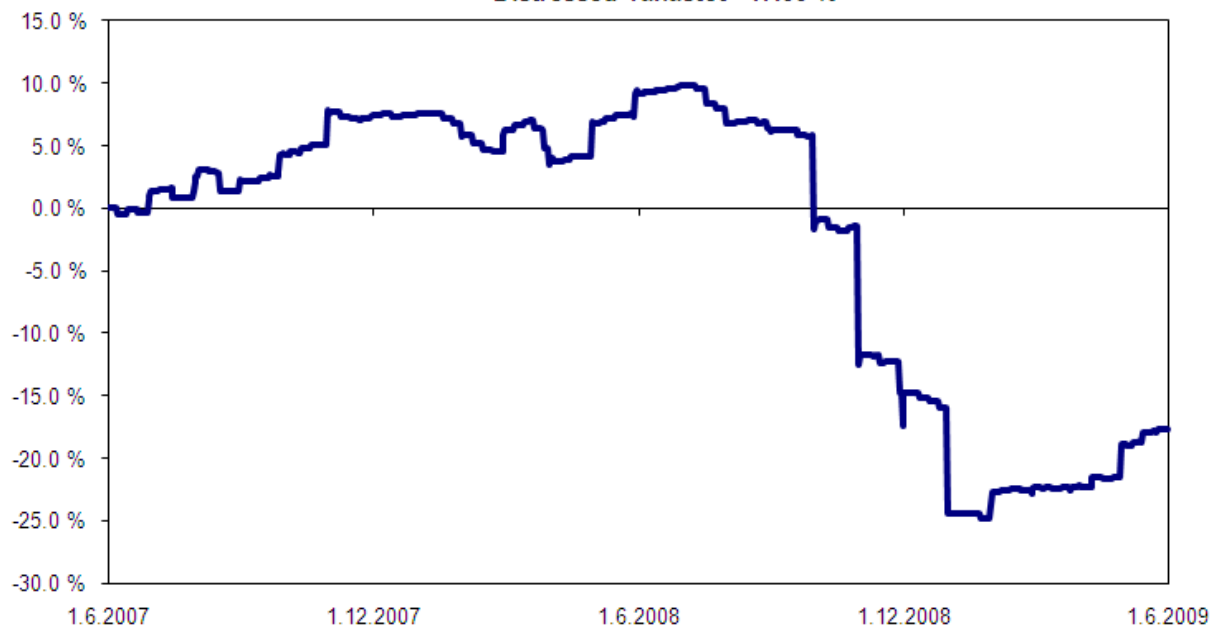
Insurance industry's hedge fund investments' subprime risks minor at the end of August 2007

Source: VVV

HEDGE FUNDS		TEL companies	Company and industry-wide TEL pension funds	Life insurance companies	Non-life insurance companies	Public sector pension institutions	Total
Total investments in hedge funds, EUR 1,000	31 Dec. 2006	3,139,256	265,004	1,270,192	131,470	372,961	5,178,885
	30 June 2007	5,437,784	421,725	1,403,406	229,583	460,989	7,953,490
	31 Aug. 2007	5,759,413	460,163	1,362,638	216,886	443,484	8,242,587
Subprime exposure in hedge funds, EUR 1,000	31 Dec. 2006	(257,647)	484	3,142	1,000	0	(253,020)
	30 June 2007	(385,458)	377	4,167	1,009	0	(379,904)
	31 Aug. 2007	(265,857)	(352)	7,052	1,000	3,080	(255,076)
Return of hedge funds 31 Dec. 2006–30 June 2007	Approx.	8.2 %	4.7 %	5.9 %	5.9 %	7.4 %	7.4 %
Return of hedge funds 30 June–31 August 2007	Approx.	0.2 %	(1.6 %)	(1.4 %)	(2.7 %)	(2.8 %)	(0.4 %)

Finnish pension funds had short exposure on subprime at 2007

Return of Distress-funds in Varma 1.6.2007 – 1.6.2009.



Investing in loans or credit - investor's point of view

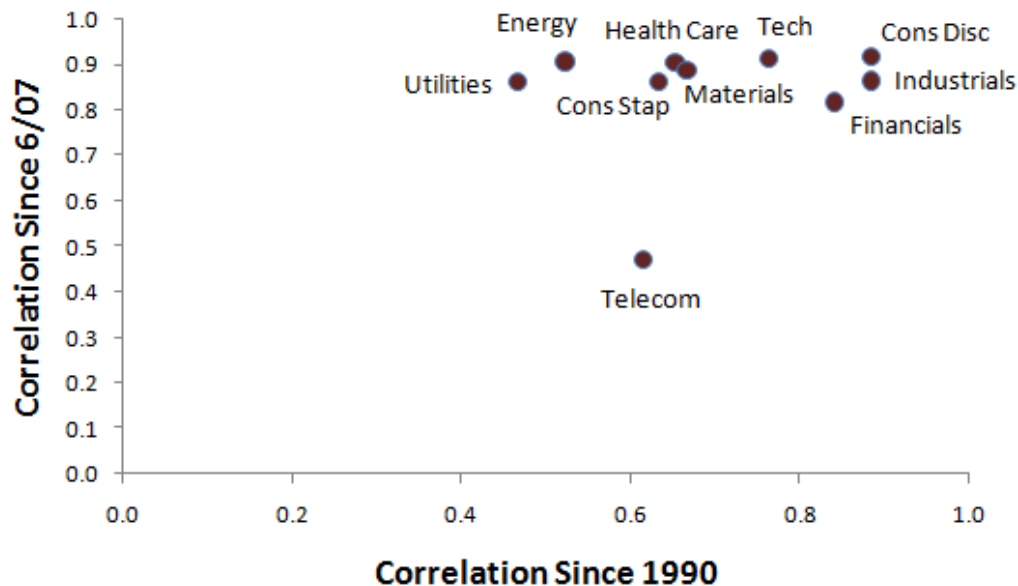
	DIRECT LOANS	CORPORATE BONDS	FUNDS (hedge/distress)	BANK SHARES
Transparency	Excellent	Good	Good	Very poor
Valuation	Non-market	Market	Market	Non-market
Regulation	Yes	Some	No	Yes
Role of Rating	No Role	Some Role	No Role	No Role
Leverage	No	No	Yes/No	Yes
Hedging	Difficult	With basis risk	With basis risk	Difficult

Lessons from Autumn 2008

- It's all about tail risks
 - Importance of stress tests
 - Lehman II ?
- Correlation has non-linear dynamics
- Liquidity is valuable
- Institutions can fail
 - Not only credit rating agencies
- Legal structures matter – especially in valuation

Unstable Correlation and Risk Management

Sector Correlation with the S&P 500*



*Correlations are based on the weekly % change over the time period mentioned

How to capture nonlinear dynamics, unstable correlations, liquidity risks and structural changes in your risk management?

At the moment we emphasize stress testing. The worst scenario is REALLY bad.

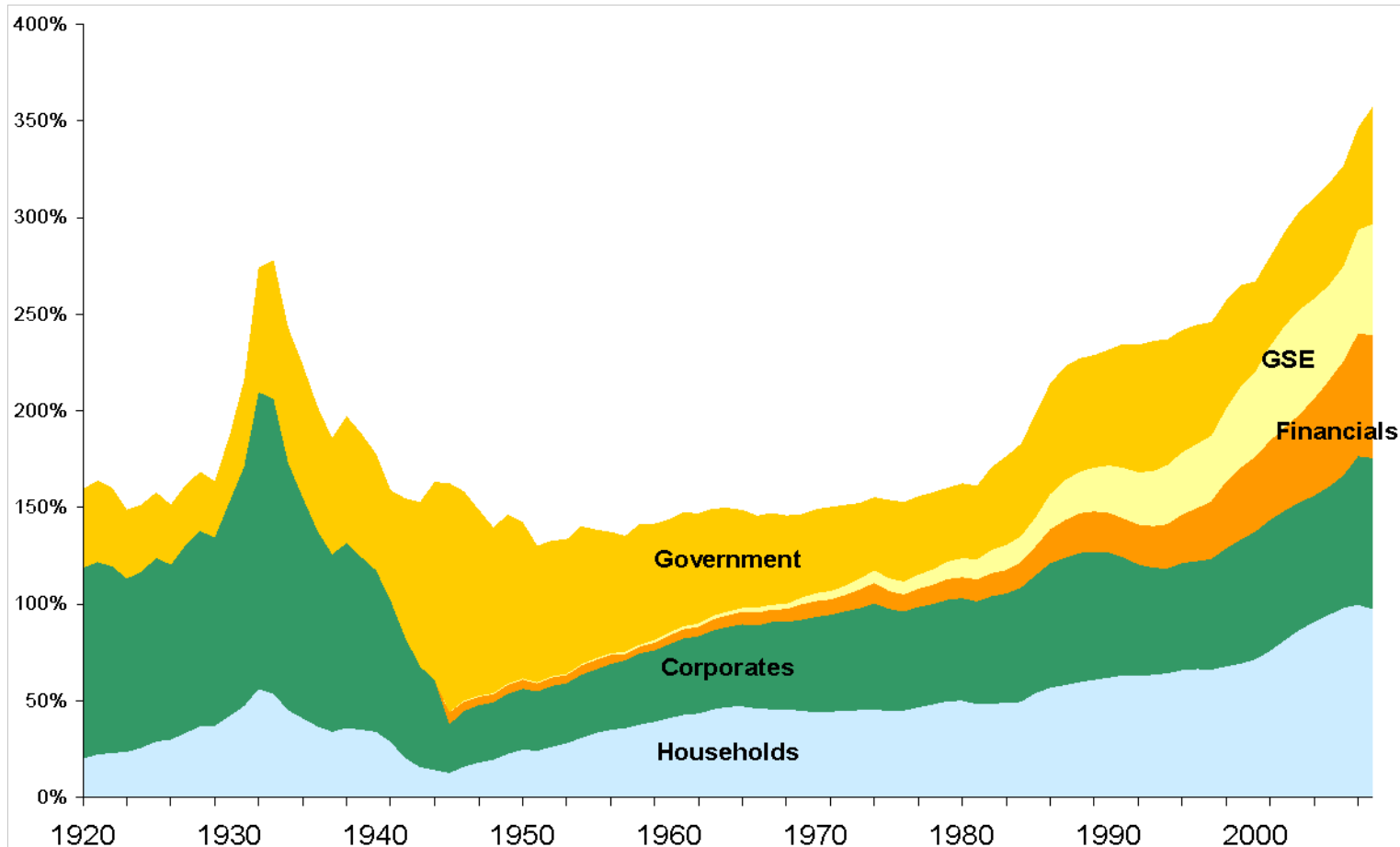
Great reservations on risk measures based on time-series analysis.

Future

- Cyclical vs. structural factors
- Cyclical factors
 - At least second derivate changing
 - Probability of "Lehman II – scenario" seems to decreasing
- Structural factors still very demanding
 - Debt levels, Saving/investment, structure of financial intermediation

Debt in the long run

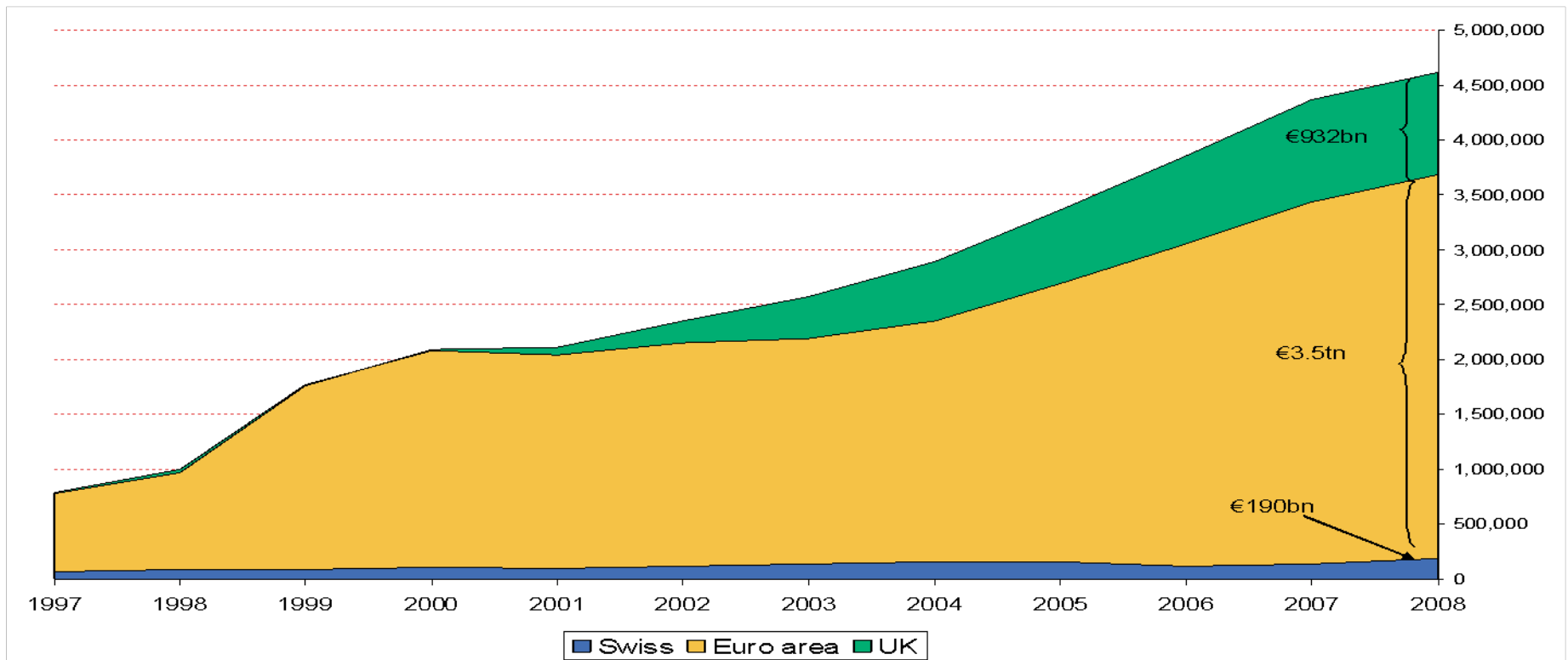
in relation to GDP



Source: Morgan Stanley

Wholesale funding gap

€4.6trn wholesale funding gap in EU15+CH+UK with €2.6trn excess loan formation since 2000



Source: Morgan Stanley