

Market Functioning Issues

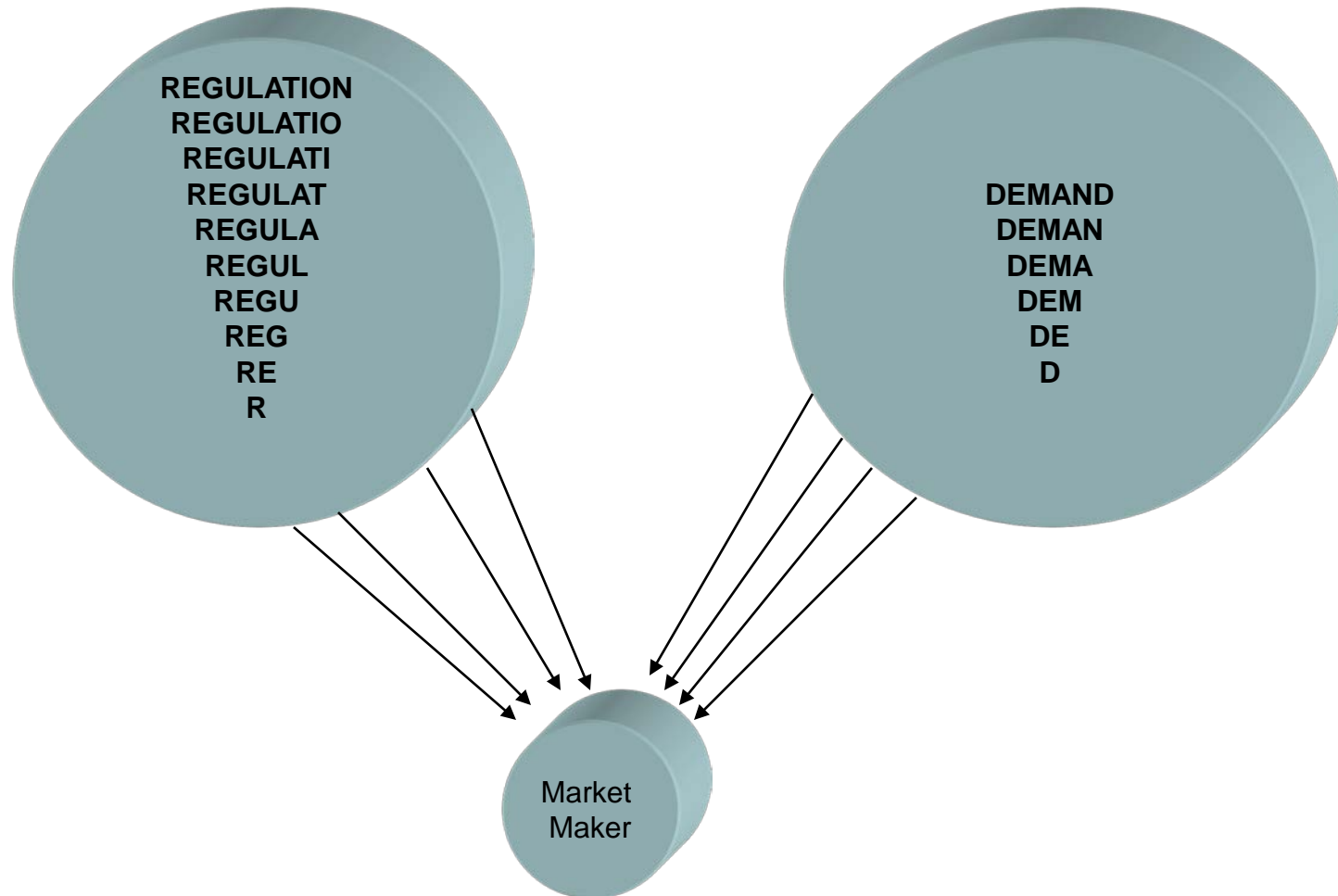
Andreas Gruber
Glenn Hadden
Karl-Heinz Riehm

Allianz
Morgan Stanley
UniCredit

Frankfurt am Main, 22 January 2013

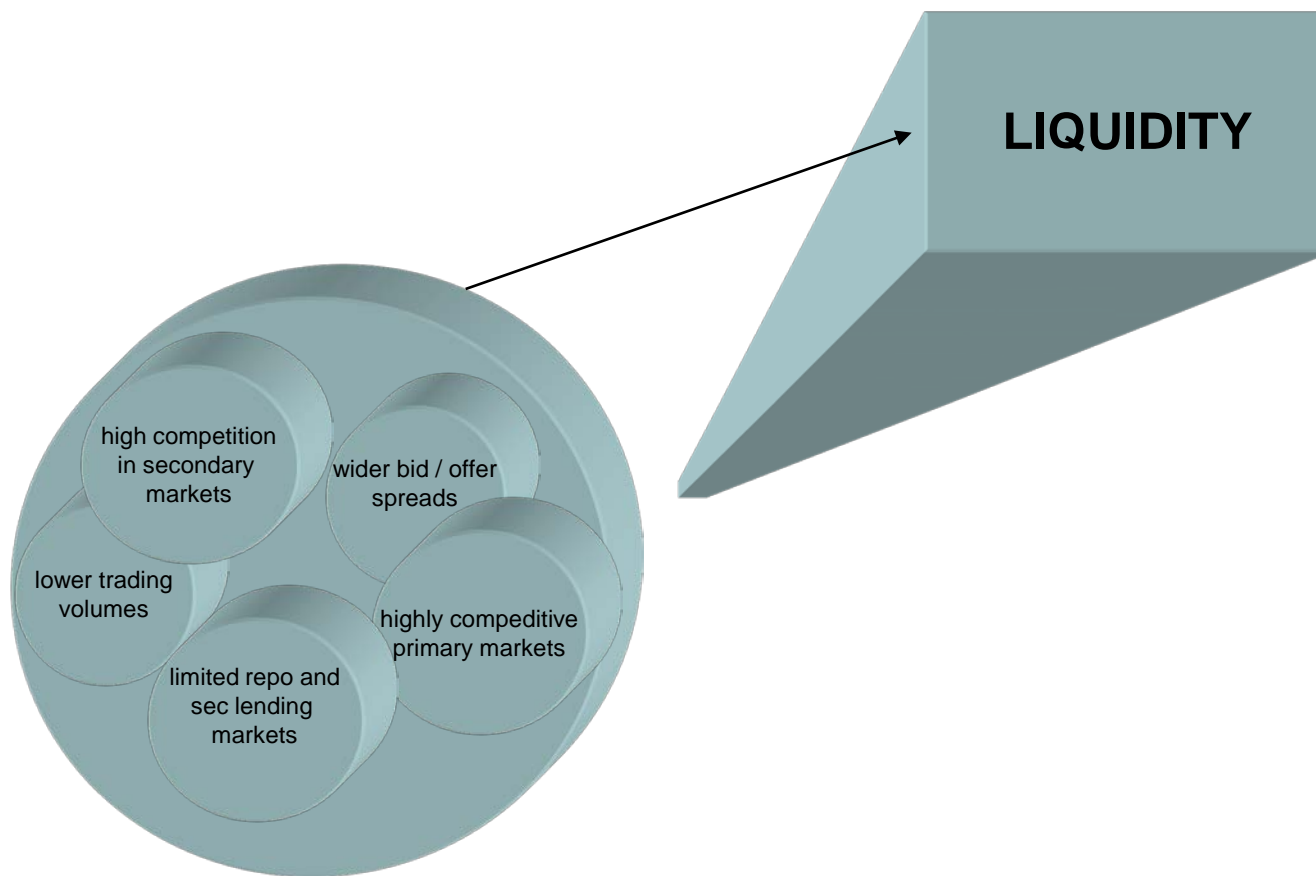
Bond Market Contact Group

OFFSETTING FORCES



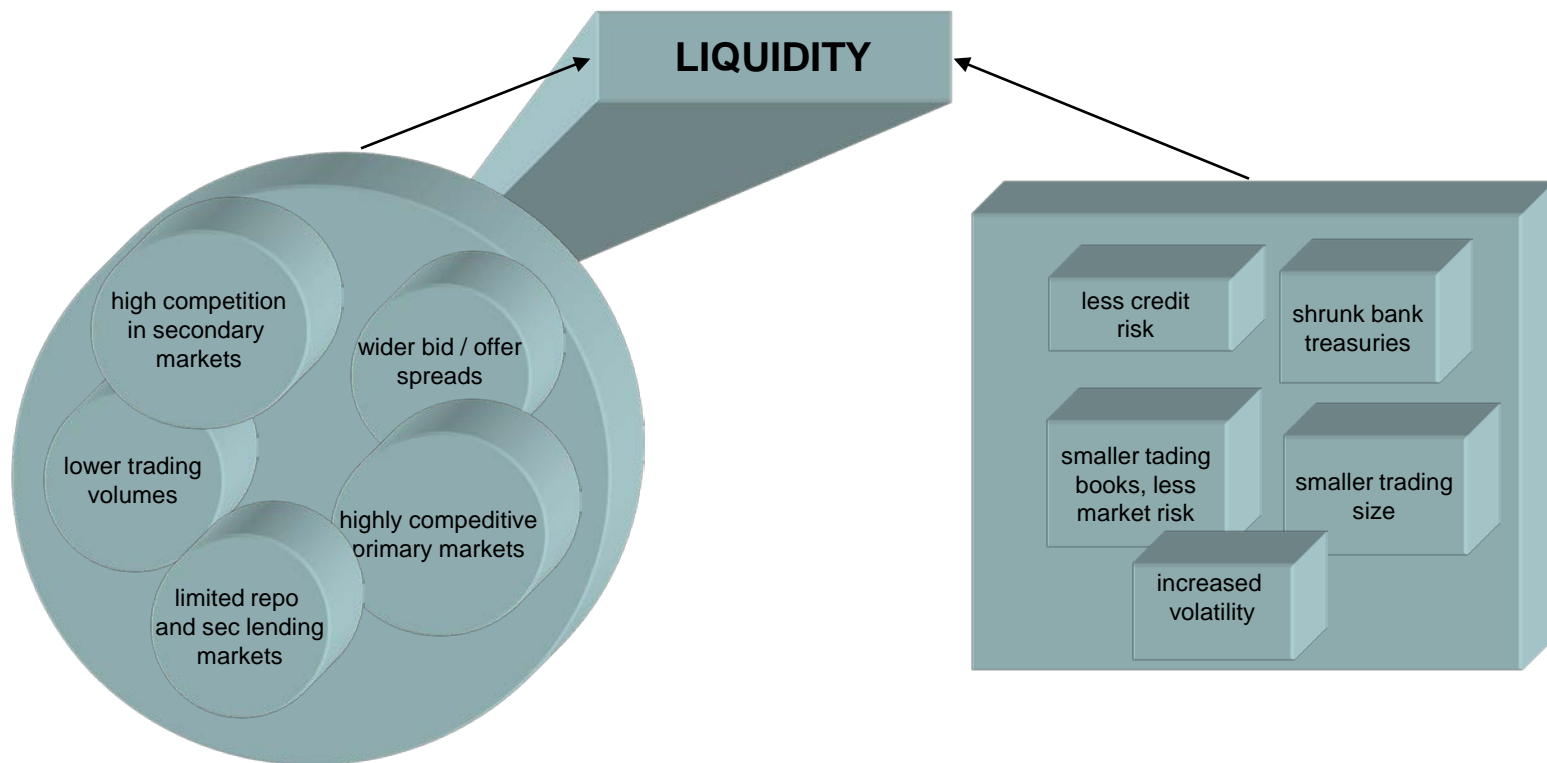
WHAT ABOUT LIQUIDITY ?

Decreased B2B markets



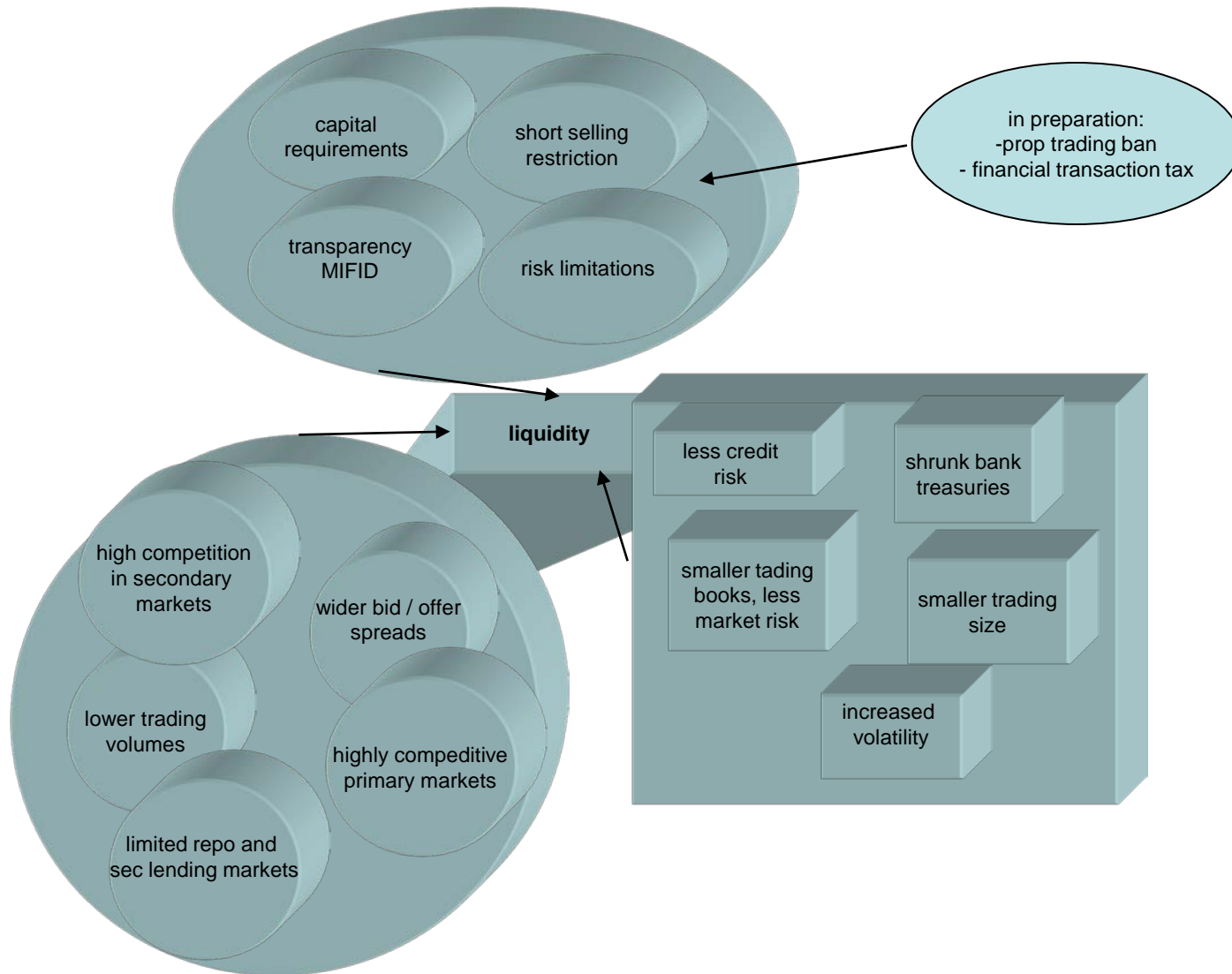
WHAT ABOUT LIQUIDITY ?

Crisis-induced factors



WHAT ABOUT LIQUIDITY ?

Regulatory factors



RISK



Volatility

Is Bond Market Liquidity “Back to Normal“ ?

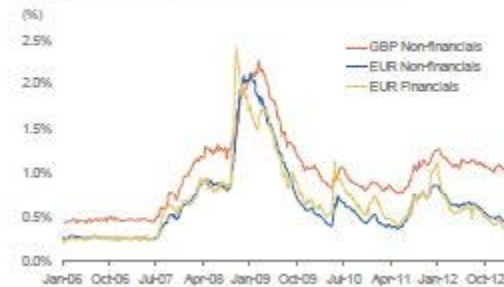
- Trading volume in all German government paper has indeed recovered from its 2009 trough, but has not reached the levels of the years before the crisis yet
- Corporate credit markets show an impressive recovery from 2009 levels. However, IG b/o levels are still significantly above pre-crisis levels. Note that dealer participation is in decline in line with decreasing balance sheet capacity

Sekundärmarktvolumina Bundeswertpapiere												
	Gesamt (Mrd. €)						Monatsdurchschnitt (Mrd. €)					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Handelsvolumen	6.028	5679	4609	5961	6418	6818	502	473	392	496	534	568
Nettovolumen	157	247	223	118	93	140	13,08	20,58	18,6	9,8	7,7	11,6

Source: Bundesfinanzagentur. Note: Figures based on surveys among primary dealers on a) total traded volumes and b) net positions (w/o primary issue volumes).

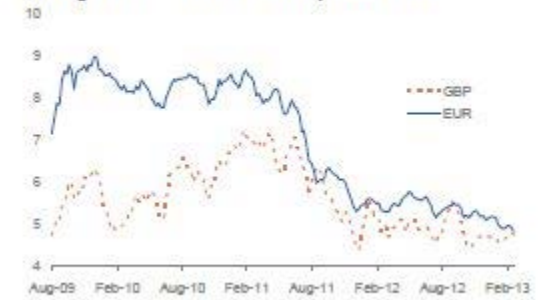
Credit Market Liquidity

European Bid/Offer as % of Bond Price



Source: Markit IBOXX, Morgan Stanley Research

Average Dealer Quotes Per Corporate Bond



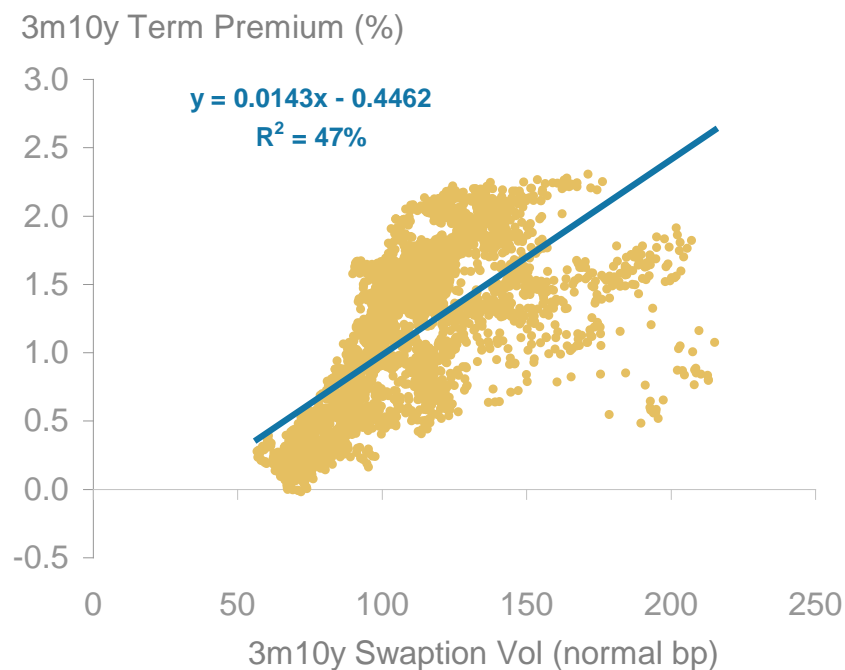
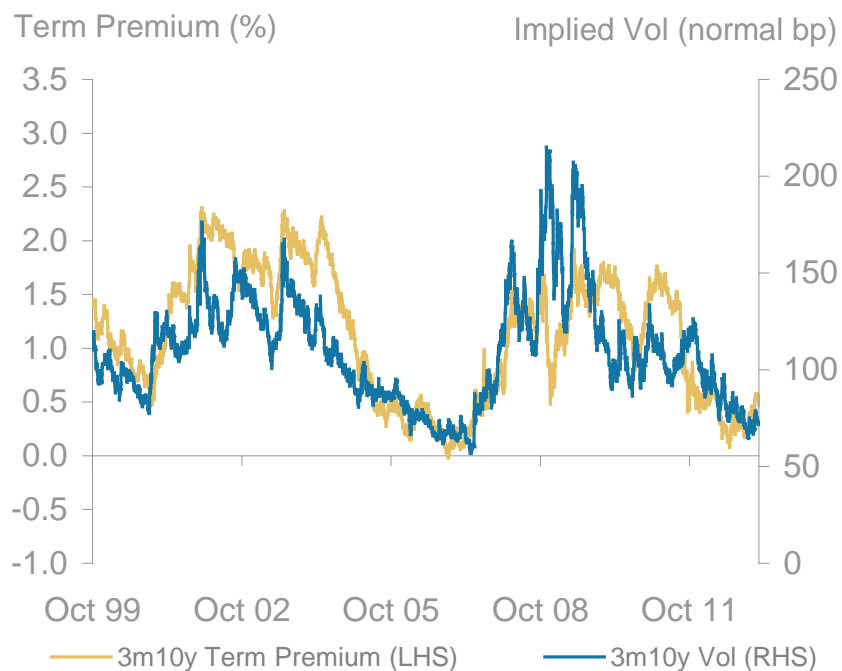
Source: Markit IBOXX, Morgan Stanley Research

Significant recovery but pre-crisis situation not yet restored

Volatility and Term Premium are Historically Well Correlated

Term premiums, unlike outright rate levels, are well correlated with volatility both pre- and post-crisis. An increase in term premium would likely coincide with increased volatility.

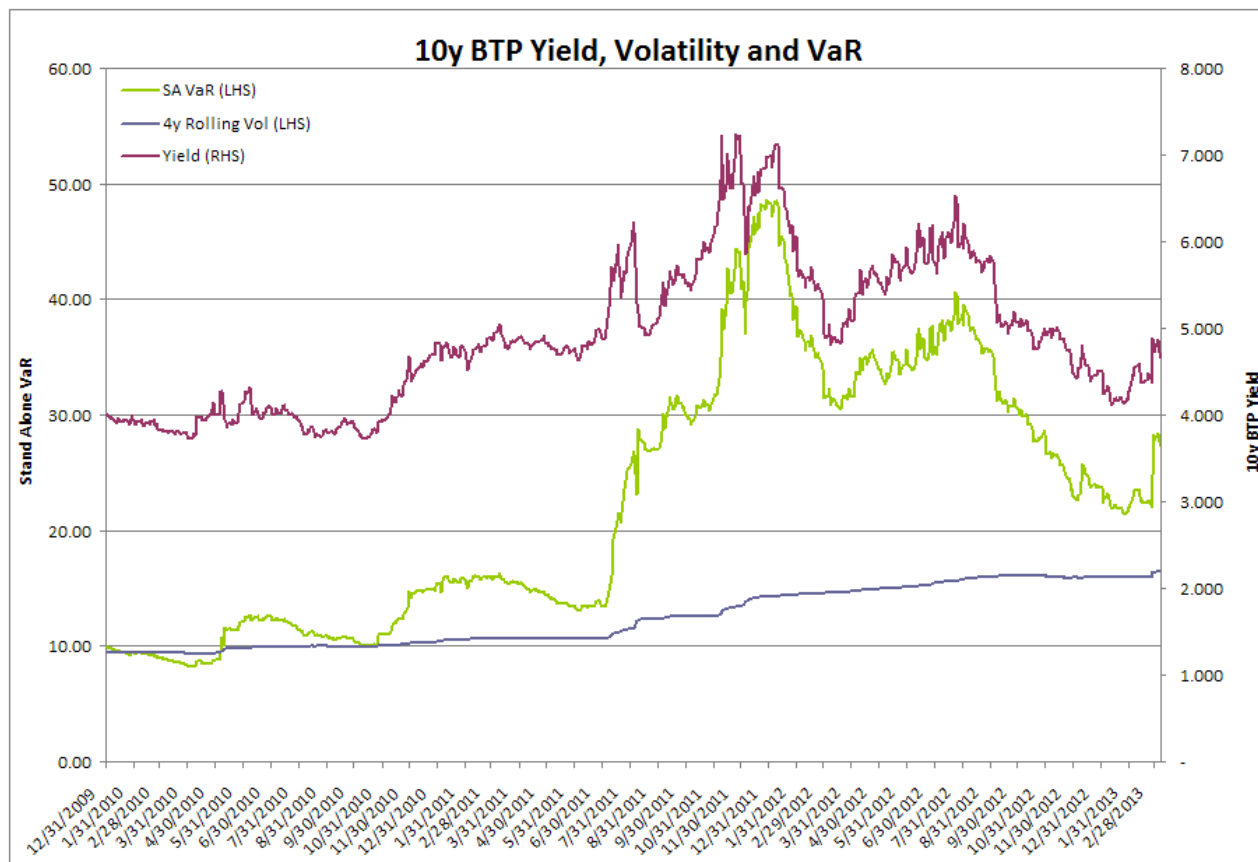
3m10y Swaption Vol vs. 3m10y Term Premiums



Data from October 1999 to February 2013
Source: Morgan Stanley Research

Illustration of Δ 's in VOL Impacting Risk Management

- As yields become more volatile, portfolio risks (VAR) become larger for a given size of position.
- As system-wide capacity is risk/VAR constrained, higher vol implies diminished ability to own BTP's.
- Creates pro cyclical forced liquidation.



*Assuming 1mm/bp long position in BTP 10yr