Search for bubble behavior in Credit Default Swaps, German Bond Futures and Spread Sovereign Funds Didier Sornette and Ryan Woodard ETH Zürich

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Our analysis has been performed on data kindly provided by Amjed Younis of Fortis on 19 February 2009. It consists of 3 data sets: credit default swaps (CDS) (iTraxx Main 5 yr, iTraxx CrossOver 5 yr, CDX IG 5 yr, CDX Hy 5 yr); German bond futures prices (2 yr Schatz, 5 yr Bobl, 10 yr Bund); and spread evolution of several key euro zone sovereigns (spreads versus swaps, interpolated for a constant 10-year maturity using benchmark bonds). The date range of the data is between 4 January 2006 and 18 February 2009.

Our log-periodic power law (LPPL) analysis shows that credit default swaps appear bubbly, with a projected crash window of March-May, depending on the index used (Figures 1 and 2). German bond futures (not shown) and European sovereign spreads (Figure 3) do not appear bubbly.

The meaning of vertical lines and shaded boxes in the plots that follow are described in Table 1.

Left dark vertical line	first date in data set
Right dark vertical line	maximum value of observations
Left light grey box/line	range of last dates used from data set
Right grey box/line	80-20 quantile of predicted crash times

Table 1: Description of vertical lines and shaded boxes in figures.





Figure 1: LPPL fits for iTraxx Main 5 yr.



Figure 2: LPPL fits for CDX IG 5 yr.



Figure 3: Time series of European sovereign spreads.