Discussion on "*Systemic Risk: What Defaults Are Telling Us*" by Kay Giesecke and Baeho Kim

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Main ideas of the paper

- *Systemic risk calculated based on credit data*
- Two-step approaches: economy-wide & system-wide considerations
- The intensity of the point process

$$\lambda_t^* = \text{baseline hazard} + \text{spillover effect}$$

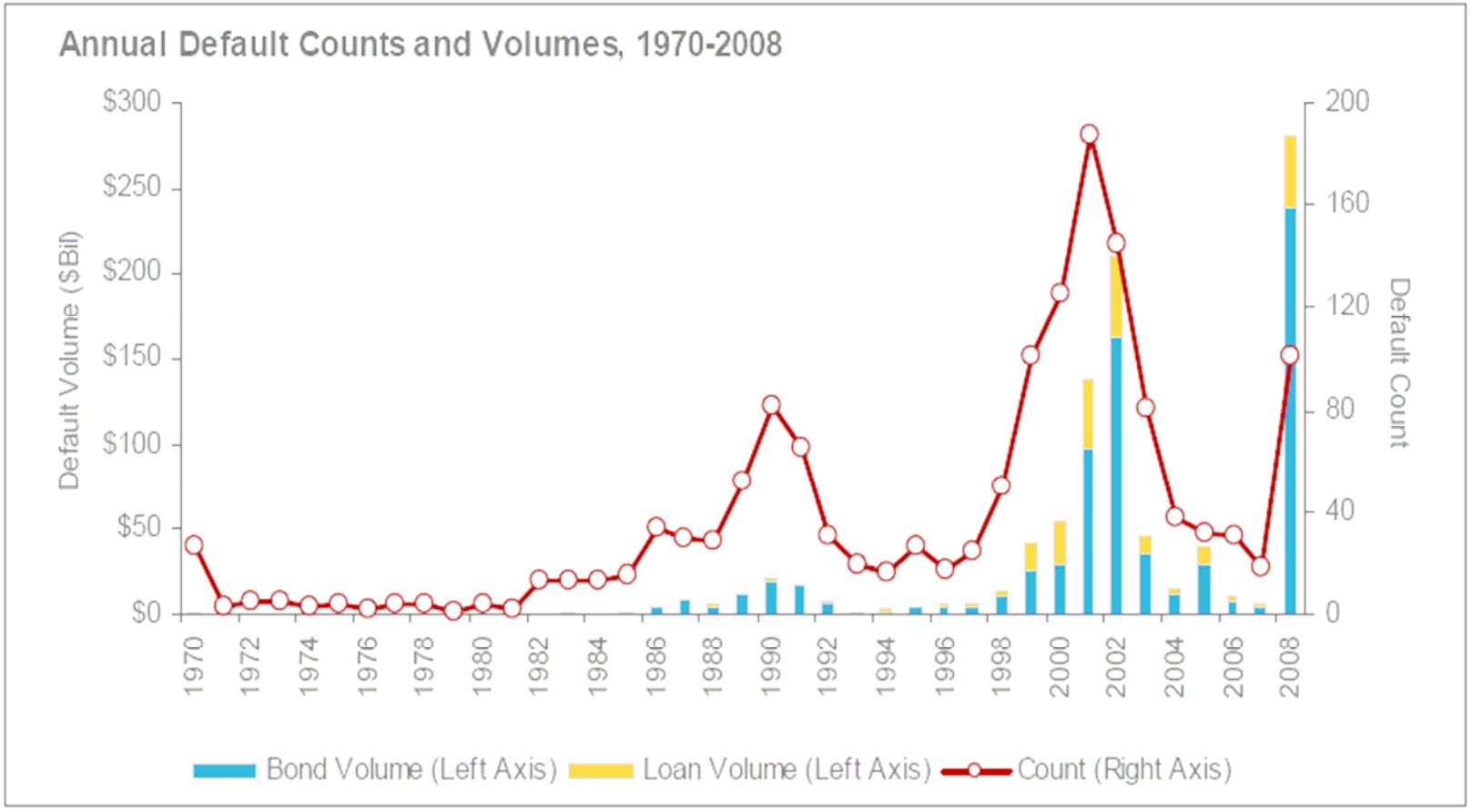
- Novel use of the default volume as a proxy of the defaulter's firm size in estimating λ_t^*

Discussion 1 (time-lag effect)

- The paper uses the VaR of the default rate $D_t(T)$ to quantify systemic risk.

- Can $D_t(T)$ help generate warning signals of the systemic risk?

Default Counts and Volumes



Source: Moody's global credit policy

Discussion 1 (time-lag effect)

- The paper uses the VaR of the default rate $D_t(T)$ to quantify the systemic risk.

- Can $D_t(T)$ help generate warning signals of the systemic risk?

- Prior default volume is low

  $\Rightarrow \lambda_t^*$ is small in 2008

Discussion 2 (use of DV)

- The default volume (DV) may reflect the impact of the defaults on financial markets.
- Can we use the distribution of the DV to quantify systemic risk?
- If so, it seems that the time series structure of the DV can be helpful.

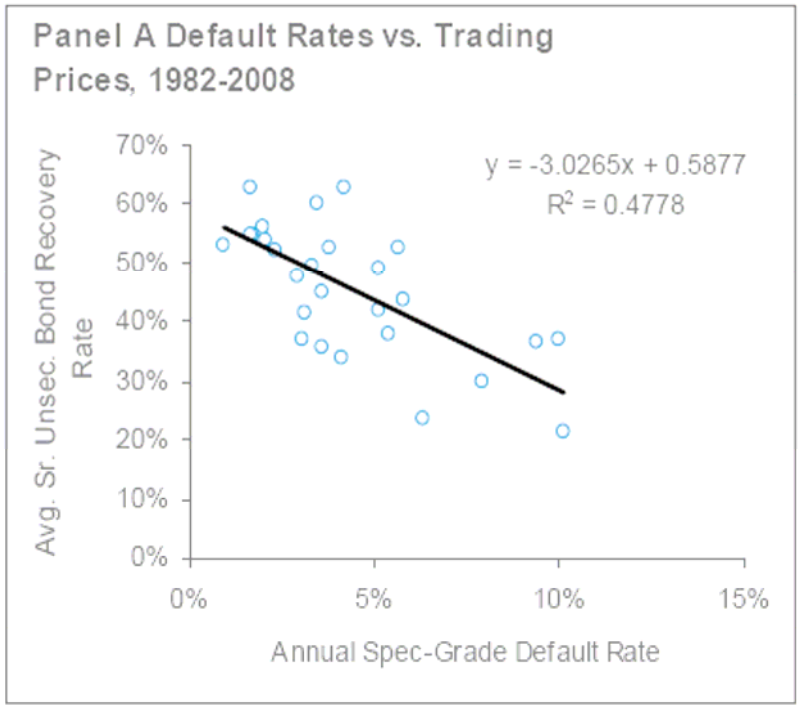
Discussion 3 (other credit variables)

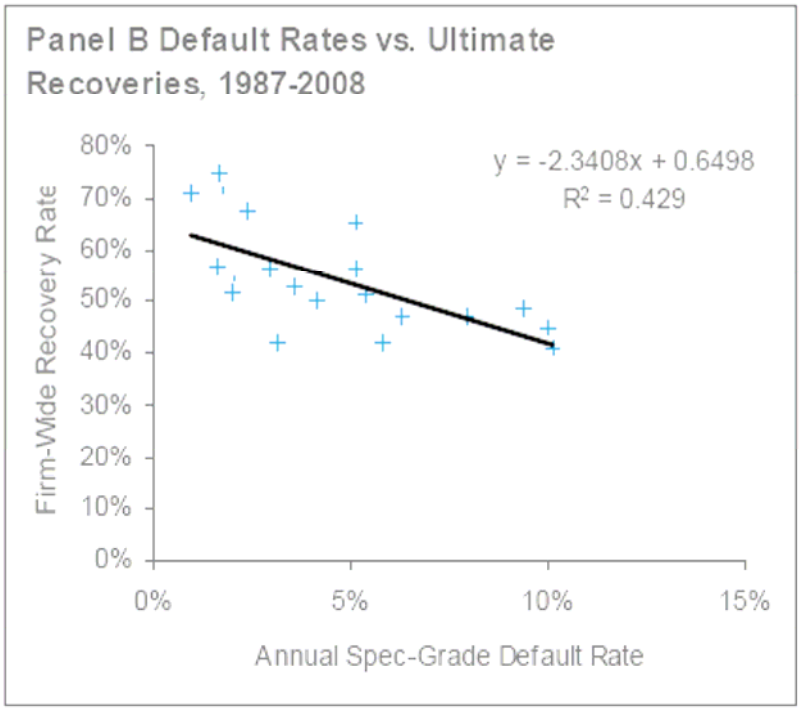
- Would credit information other than the default incidence be relevant?
- Recovery rates
- Upgrade-to-downgrade ratios

Default & Recovery Rates

The higher the DR, the lower is the recovery.

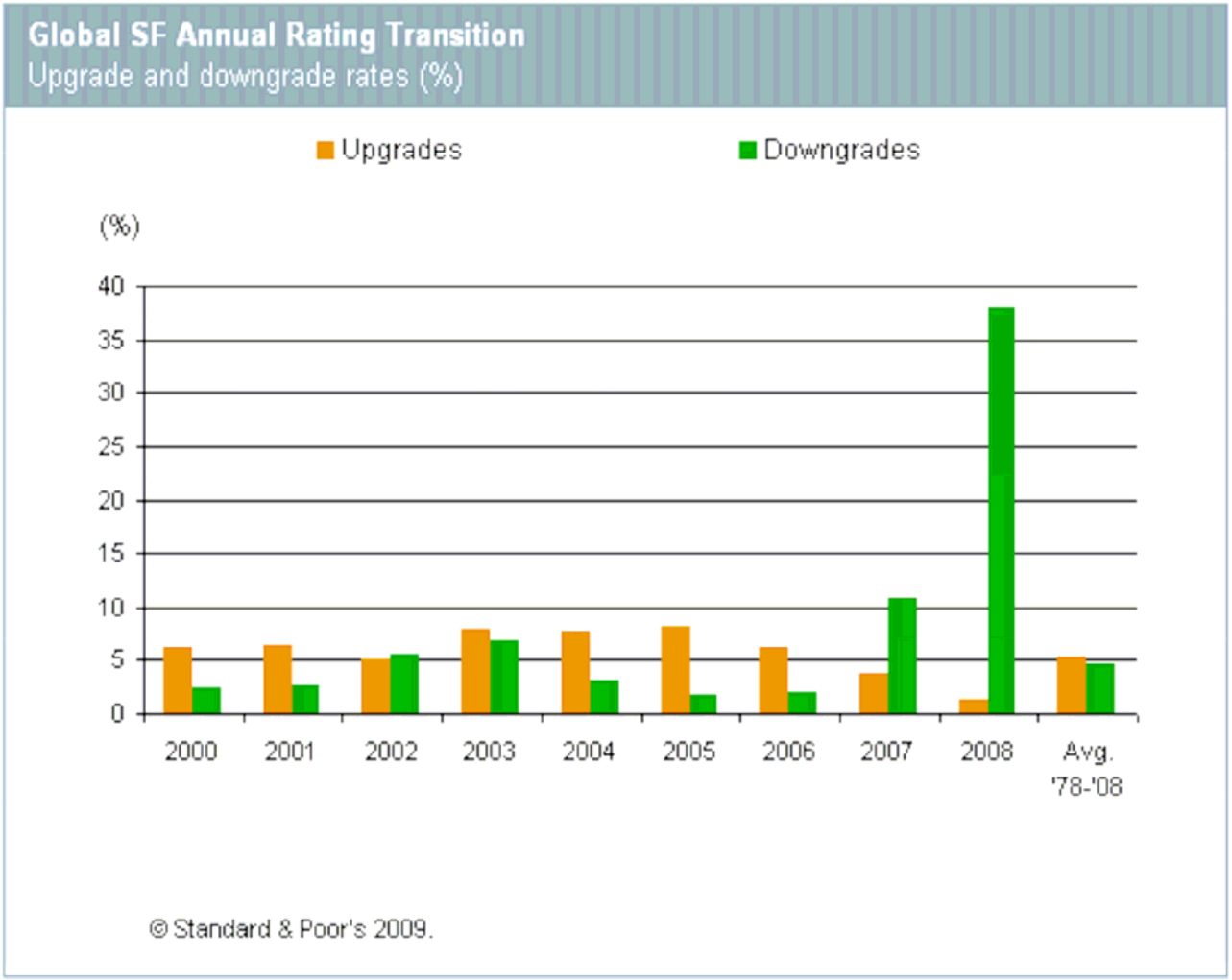
Correlation between Default and Recovery Rates





Source: Moody's global credit policy

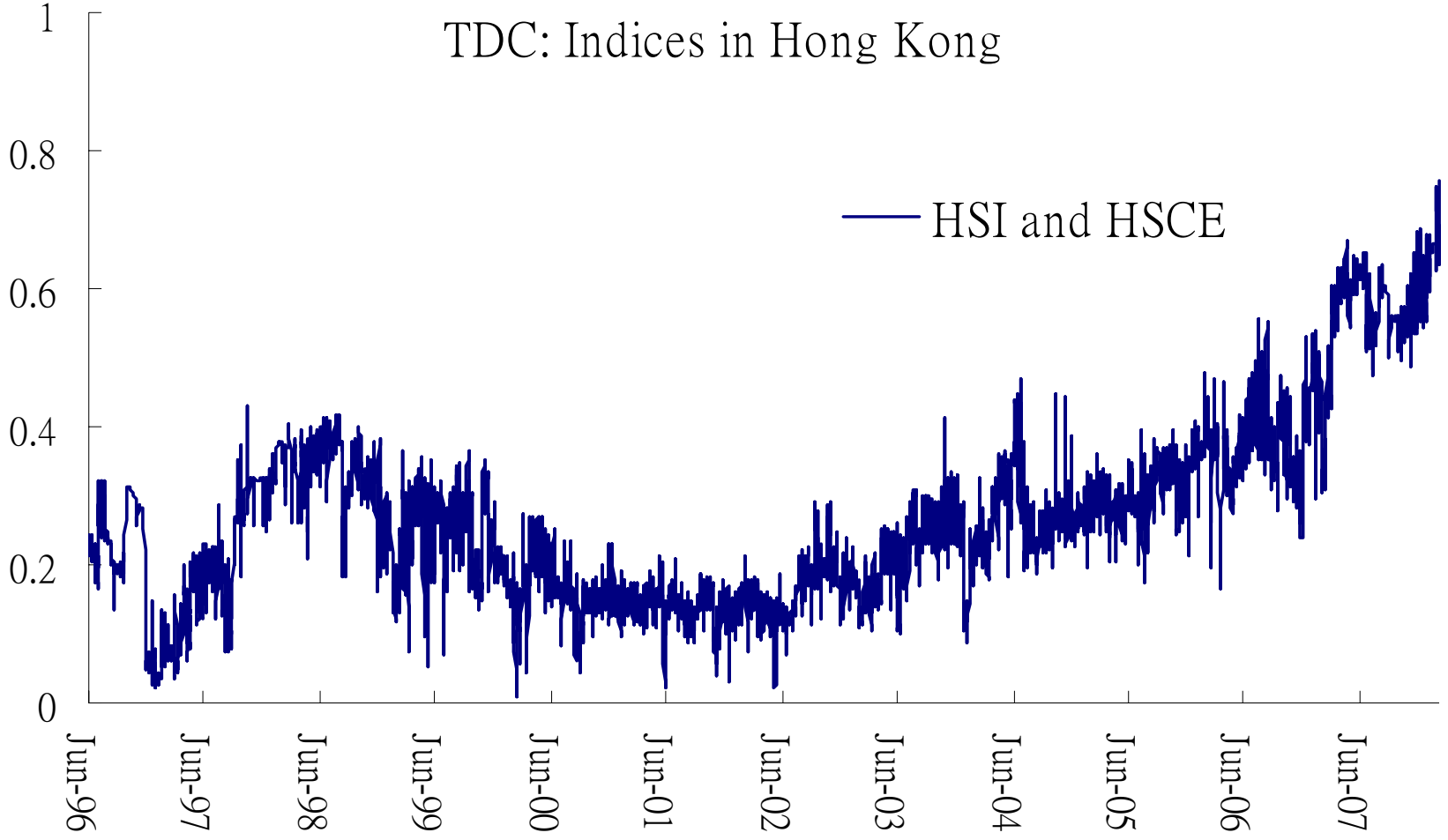
Upgrade-to-downgrade ratios



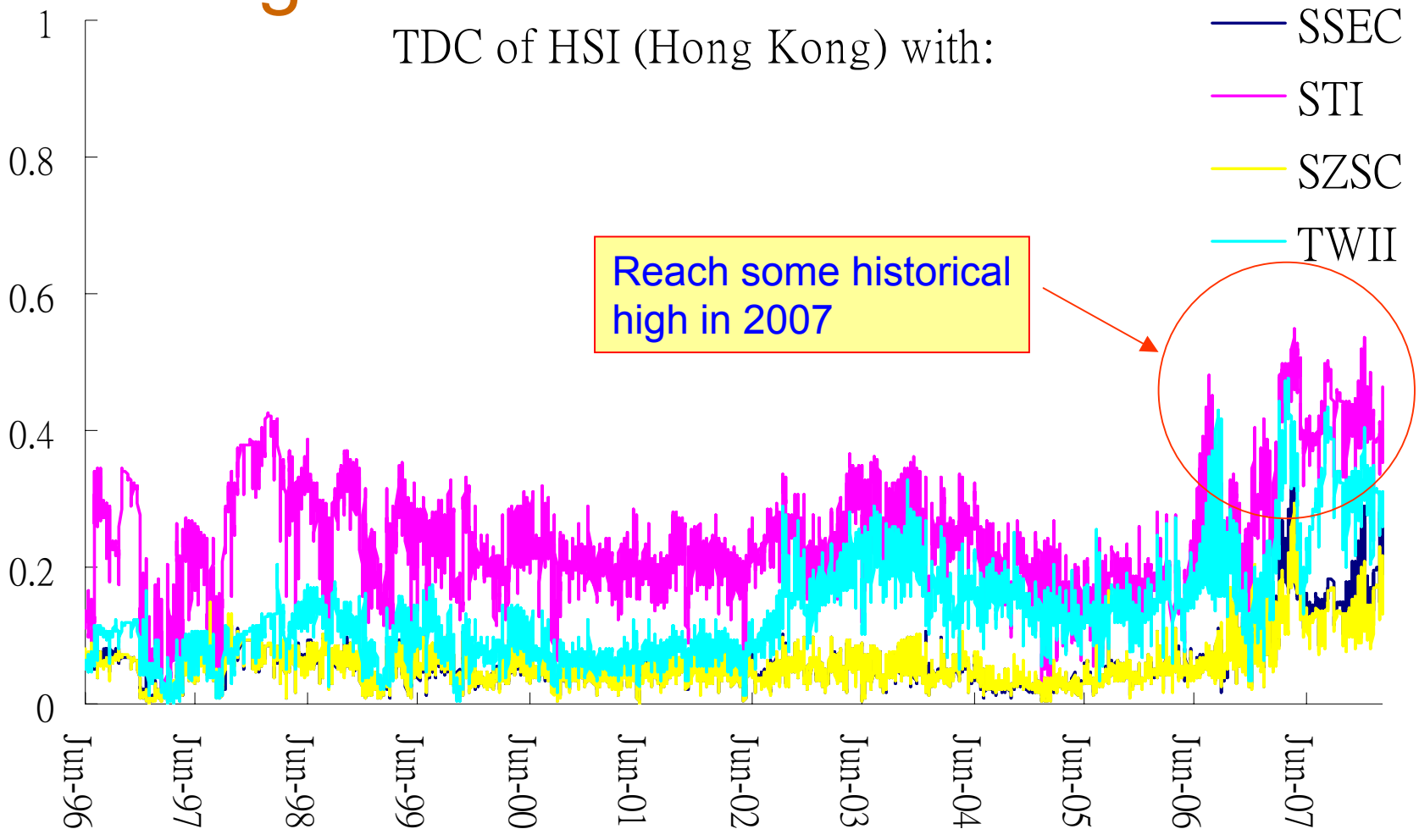
Discussion 4 (other directions)

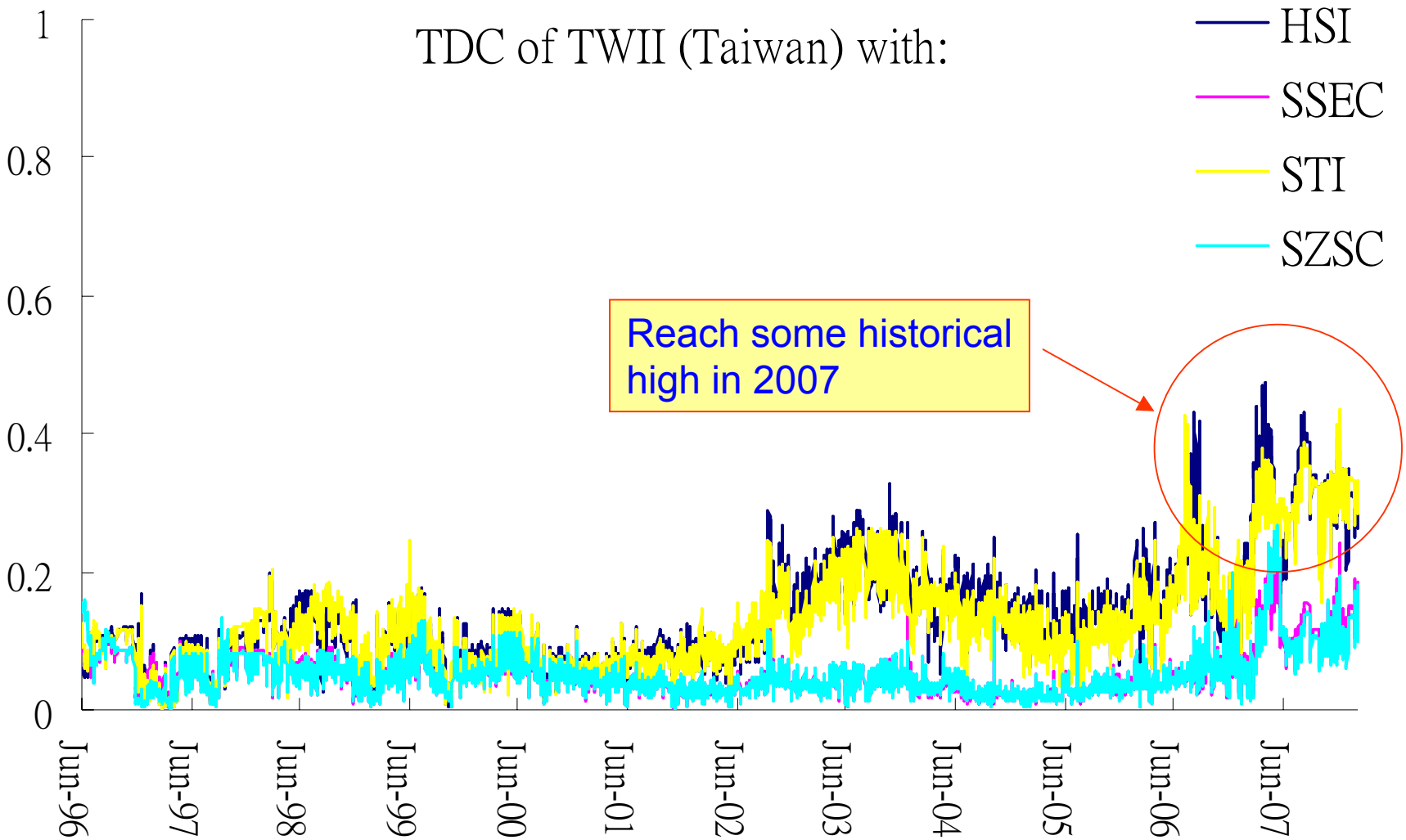
- What if the crisis is not originated from the credit incidence?
- What can we tell from the market data?
- Is there any warning signal in 2007?

Tail Dependence Coefficient (extreme co-movement)



Results (Chinese and Asian markets) – cross region




TDC of TWII (Taiwan) with:
HSI
SSEC
STI
SZSC
Reach some historical high in 2007
1
0.8
0.6
0.4
0.2
0
Jun-96
Jun-97
Jun-98
Jun-99
Jun-00
Jun-01
Jun-02
Jun-03
Jun-04
Jun-05
Jun-06
Jun-07

Future Research:
Combining Credit and Market Variables To Measure Systemic Risk

Thank you!