The RMI Corporate Vulnerability Index and the Corporate Credit Outlook

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Advancing Risk Management for Singapore and Beyond

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Credit ratings as a "public good"

RMI Non-Profit Credit Research Initiative

(announced in July 2009)

- RMI builds and maintains the rating research and production infrastructure – (1) a comprehensive data base of over 60,000 listed firms globally (including delisted ones); (2) an advanced IT system and a team of implementation staff.
- Researchers from around the world are invited to take part in the rating model development. Being not-for-profit, researchers will be able to keep their IP.

Credit ratings as a "public good" (continued)

- Researchers will share the common research infrastructure, but compete to get their models adopted for the RMI ratings. RMI will run parallel implementations for different rating models under consideration to choose the next RMI model.
- The RMI rating model will remain current, evolutionary and organic, responding to continual suggestions and/or challenges. In short, it functions in a selective "Wikipedia" fashion.

Credit ratings as a "public good" (continued)

- The RMI corporate default prediction system was first released in July 2010 with a coverage of 12 Asian economies with over 17,000 listed firms.
- Daily updated default probabilities ranging from one month to five years ahead are provided. The current coverage includes over 60,000 firms (close to 40,000 active) in 106 economies around the world. (http://rmicri.org)
- The current model is based on Duan, Sun and Wang's (2012, *J of Econometrics*) forward intensity model.

CVI – the concept

- In July 2012, RMI launched a set of indices to produce bottom-up measures of credit risk in economies, regions and portfolios of special interest – the Corporate Vulnerability Index (CVI).
- The CVI is meant to reflect a new dimension of risk that has not been previously captured in other indices.
- The indices are constructed using RMI's Probability of Default (PD) of individual firms. PDs are for the one-year horizon and stated in basis points.

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The CVI Construction

- Three distinctive types of CVI are available:

1) Value-weighted CVI (CVI_{vw}) – RMI PDs are aggregated with each firm weighted by its market-capitalization.

2) Equally-weighted CVI (CVI_{ew}) – PDs are aggregated with each firm equally weighted.

3) Tail CVI (CVI_{tail}) – In taking the 5th percentile of the highest PD, the most vulnerable firms in a group are measured.

The CVI Construction (continued)

- The current CVI groups include:

1) North America – Canada (CAN), United States (USA)
2) Europe – Eurozone (EMU), France (FRA), Germany (DEU), United Kingdom (GBR)
3) Asia – China (CHN), Japan (JPN), Singapore (SGP)
4) Portfolios of special interest – S&P 500 (SPP)

The CVI Construction (continued)

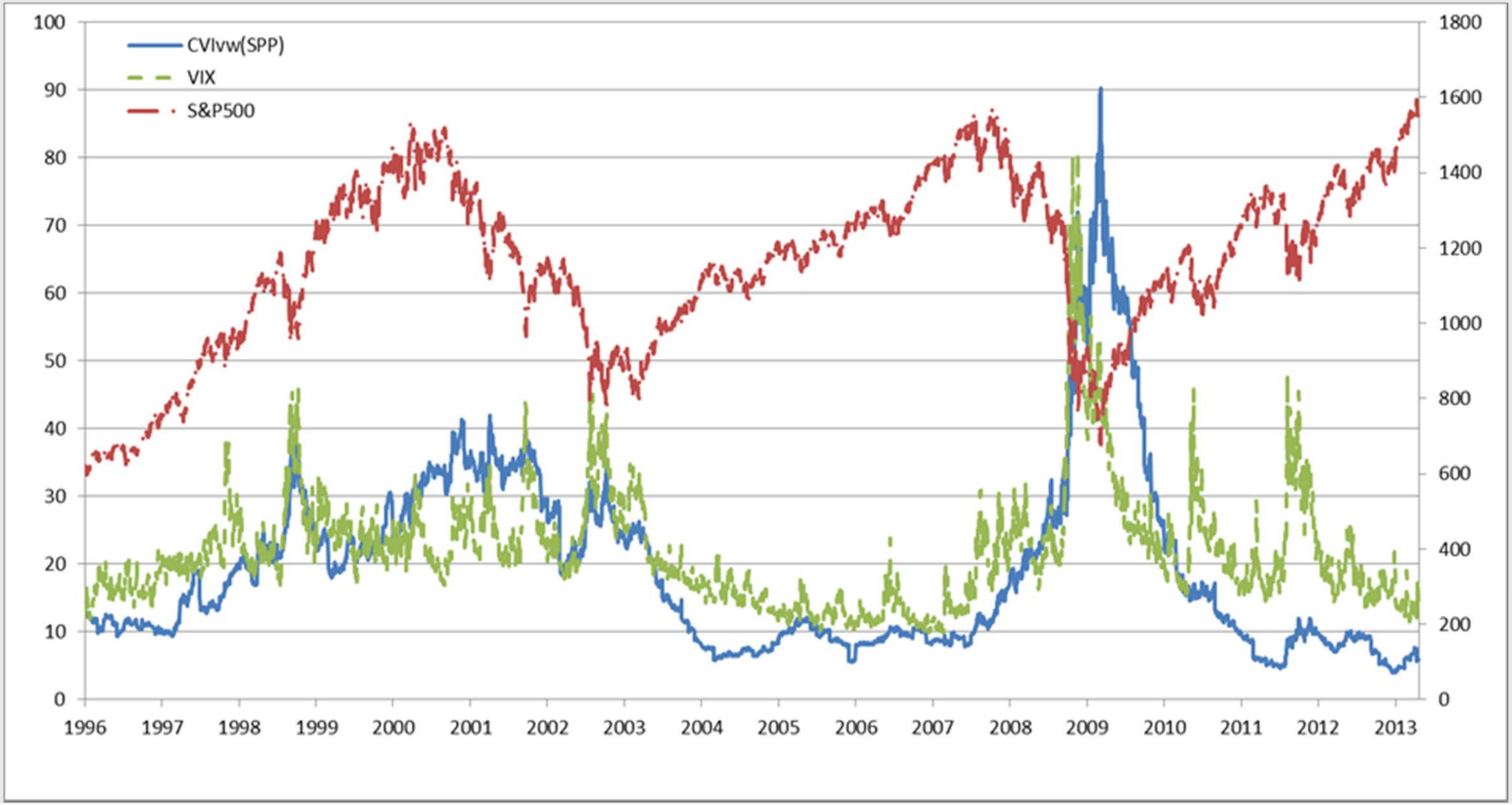
- The official start date for the CVIs is the first trading day of July 2012.
- RMI constructs CVIs based on the firm’s country of domicile; for example the Chinese company Baidu is listed in the US.
- For CVI (SPP), we follow the S&P500 index weighting which are free-float market-capitalization weights. In other cases, the market capitalizations reported in Bloomberg are used.

The CVI Construction (continued)

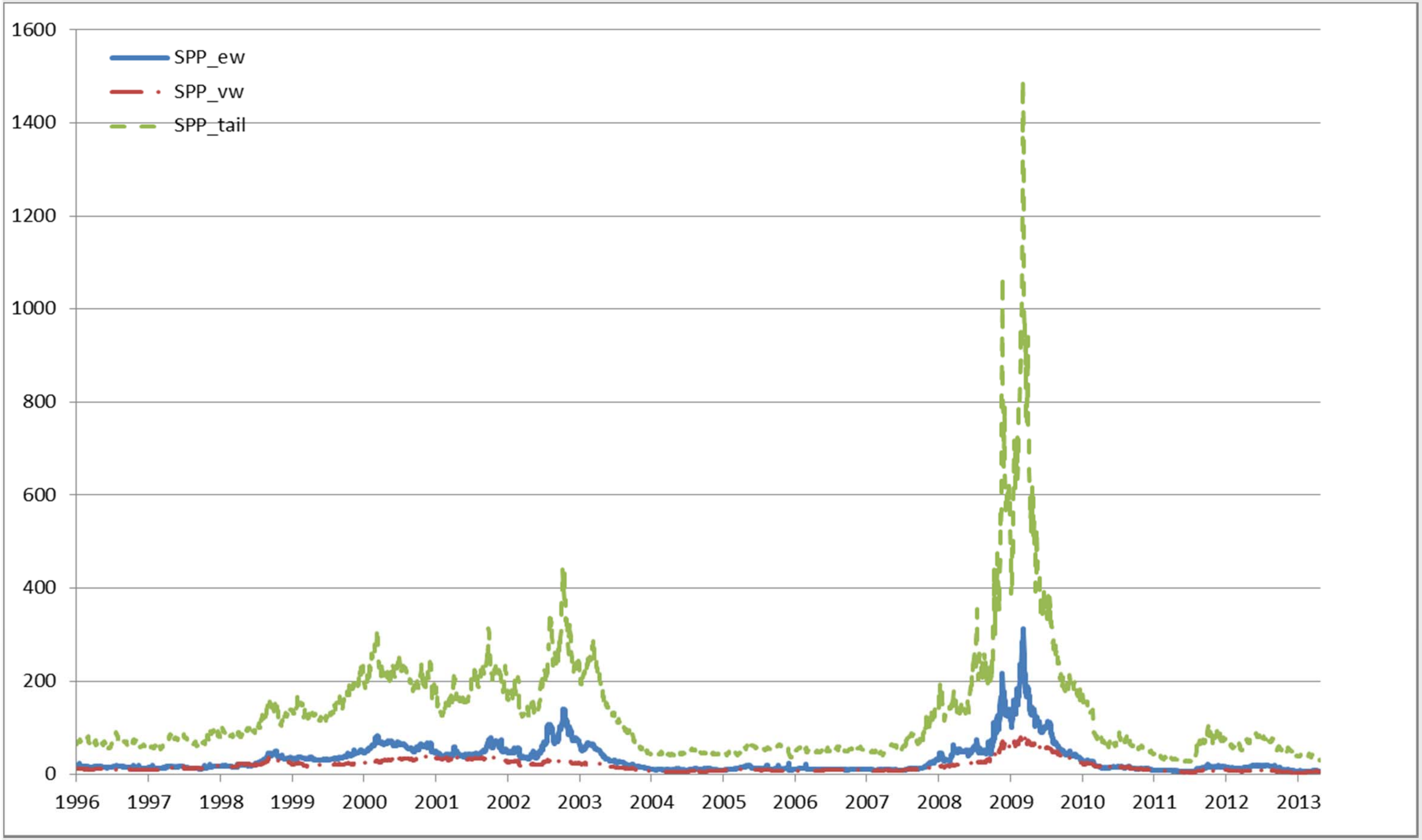
- The CVIs are updated daily and released by 5pm Singapore Standard Time (UTC+8) for the previous trading day. This is to allow the Chinese CVI calculation after the US close for companies like Baidu.
- Historical series back to 1996 (Eurozone to 1999) are provided for comparison purposes. The historical series are daily for all series.

The S&P500 index family

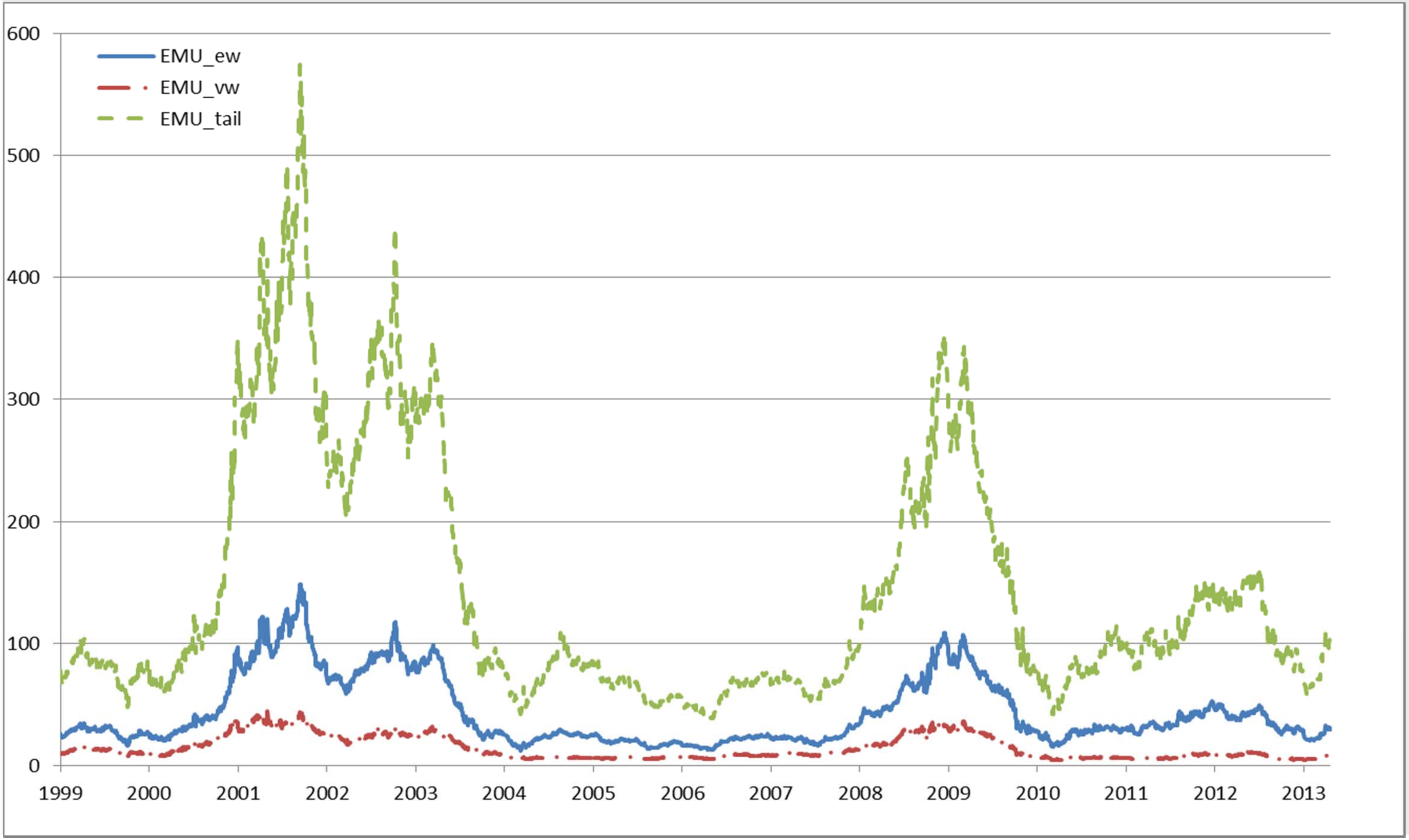
Volatile market does NOT mean higher credit risks.



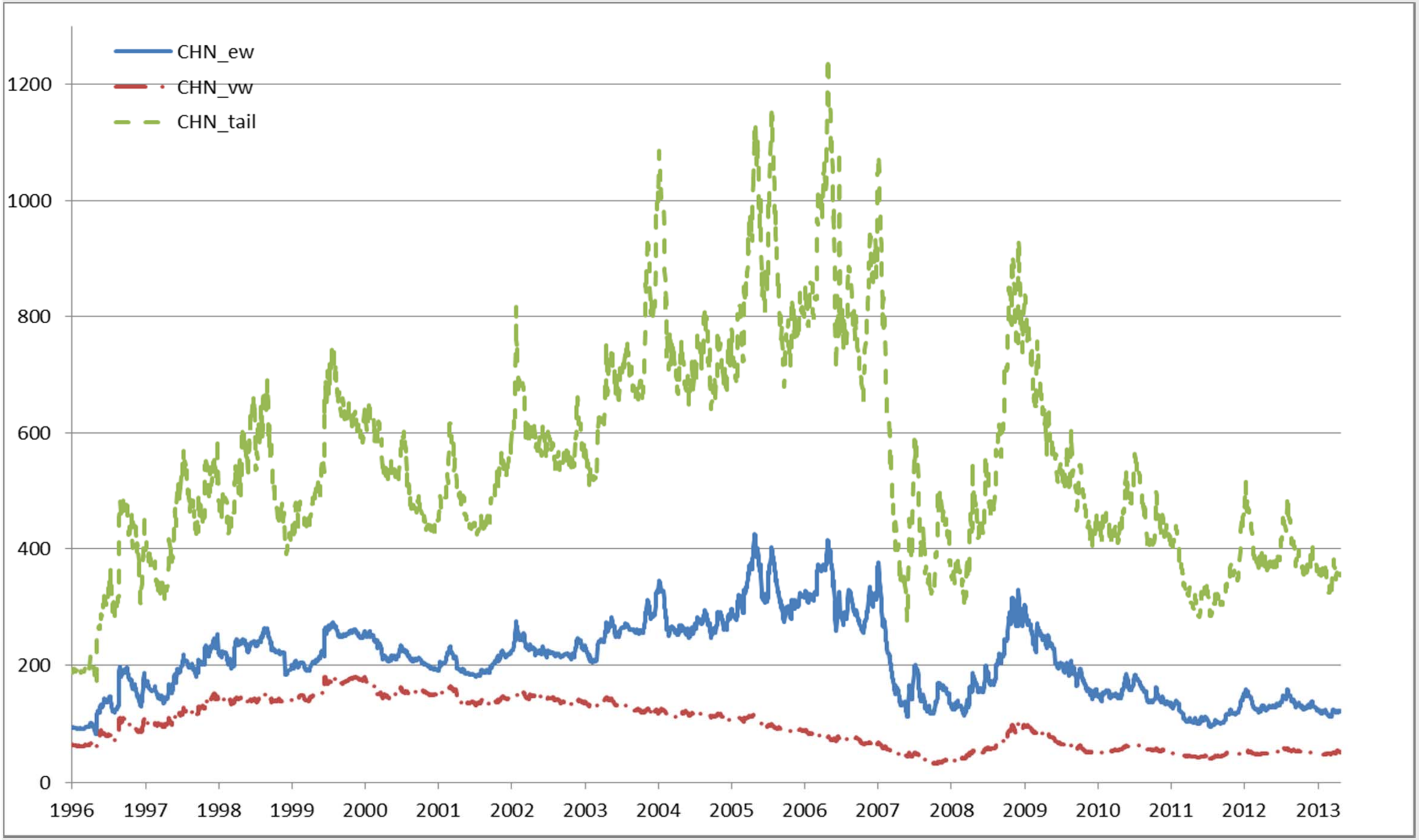
The S&P500 CVIs



The eurozone CVIs



China CVIs


CHN_ew
CHN_vw
CHN_tail
1200
1000
800
600
400
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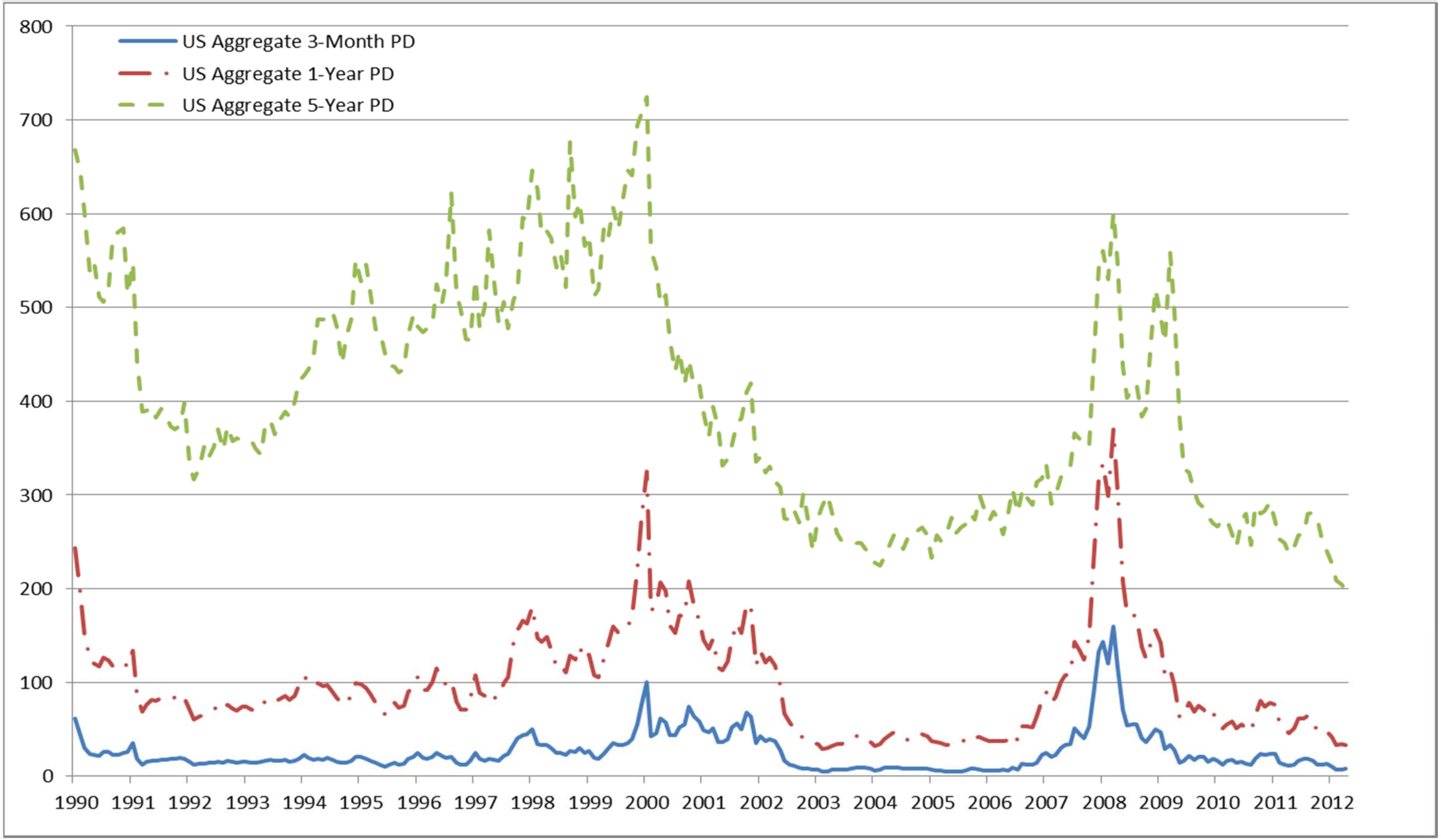
The US aggregate PDs of 3 horizons



European aggregate PDs of 3 horizons