Solvabilté II : Calibration des chocs de capital de solvabilité requis avec expected shortfall.

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Projet annuel basé sur l'article "Solvency II solvency capital requirement for life insurance companies based on expected shortfall" de Tim J. Boonen publié en Octobre 2017.

INTRODUCTION

Academic workflow, certainly in political science, is at a crossroads. The *American Journal of Political Science* (*AJPS*) announced a (my words) "show your work" initiative in which authors who are tentatively accepted for publication at the journal must hand over the raw code and data that produced the results shown in the manuscript. The editorial team at *AJPS* then reproduces the code from the manuscript. Pending successful replication, the manuscript moves toward publication. The *AJPS* might be at the fore of this movement, and it could be the most aggressive among political science journals, but other journals in our field have signed the joint Data Access & Research Transparency (DART) initiative. This, at a bare minimum, requires uploading code from quantitatively-oriented published articles to in-house directories hosted by the journal or to services like Dataverse.
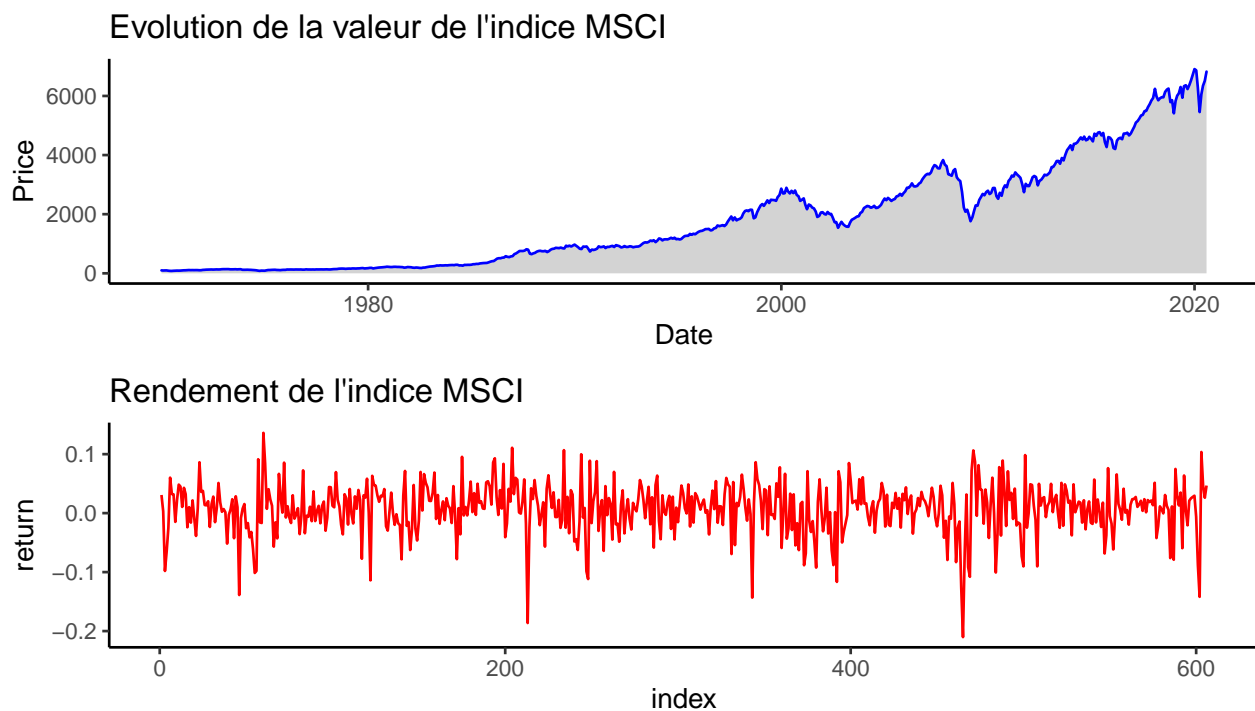
1. SOLVABILITE 2

2. MODELE DE L'ARTICLE : ESPECTED SHORTFALL POUR LA CALIBRATION DES CHOCS DE CALCUL DU SCR (CSR)

DESCRIPTION

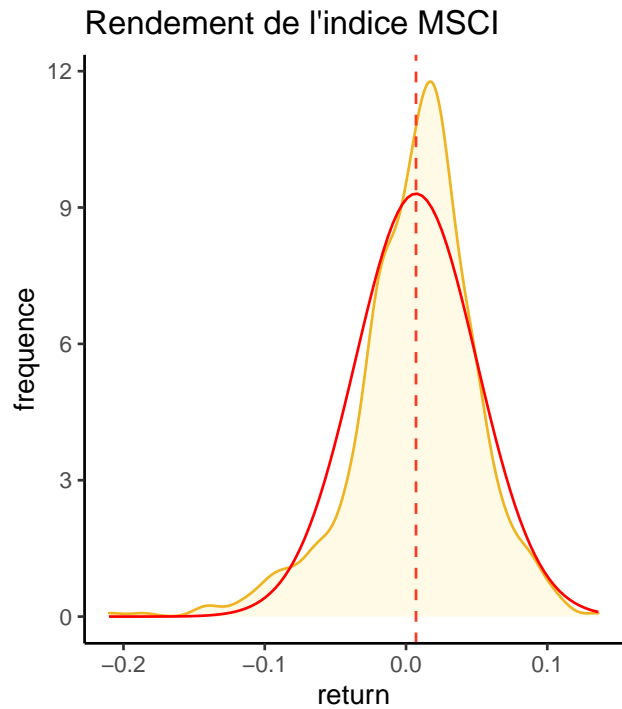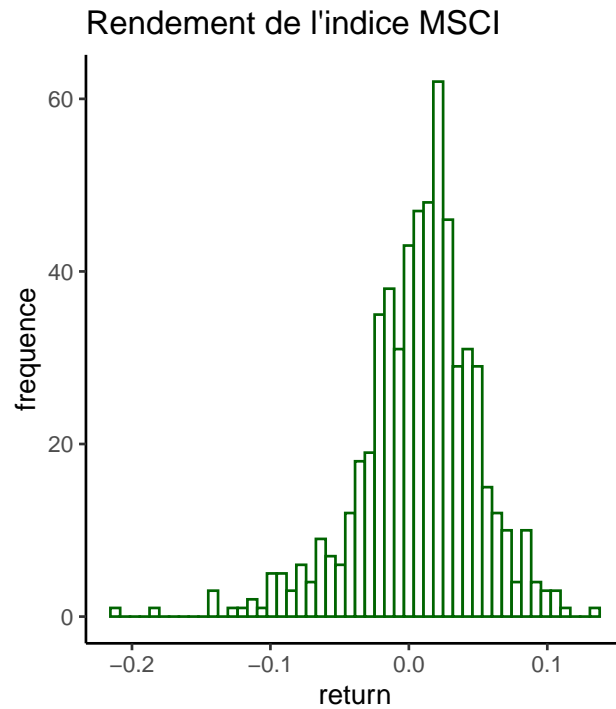## MODELE DE CALIBRATION DES CHOCS DE CAPITAL DE SOLVABILITE REQUIS

CALIBRATION DU CHOC SUR LES ACTIONS

Calibration du choc scr sur les actions

Evolution de la valeur de l'indice MSCI

Rendement de l'indice MSCI

Distribution des rendements

Rendement de l'indice MSCI

Rendement de l'indice MSCI

Value at risque historique sur les données de rendements annualisées

```
##       0%    0.05%     0.5%       1%     2.5%      50%    97.5%      99%    99.5%   99.95%
## -0.2102  -0.2102  -0.1420  -0.1166  -0.0924   0.0114   0.0862   0.0984   0.1063   0.1361
##     100%
##   0.1361
```

Value at risque d'une loi normale théorique

```
## [1]     -Inf  -0.1340  -0.1034  -0.0927  -0.0770   0.0071   0.0911   0.1068   0.1175
## [10]  0.1481      Inf
```

```
## [1] -0.18
```

CALIBRATION DU CHOC SUR LES TAUX

CALIBRATION DU CHOC SUR LA LONGEVITE

3. THEORIE DES VALEURS EXTREMES POUR LA CALIBRATION DES CHOCS

CONCLUSION

REFERENCES

ANNEXES avec codes, figures en plus etc.).

packages R

articles