The Impact of Loadshedding on SWIX sectors using DCC-GARCH models

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Abstract

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1. Introduction

Data

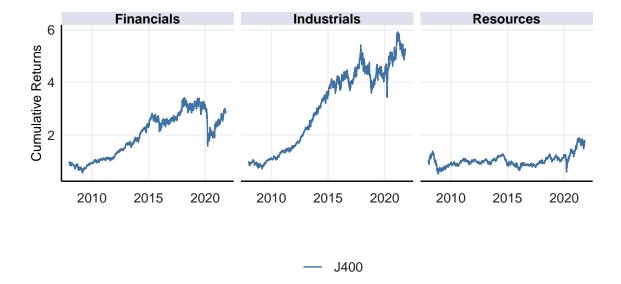


Figure 1.1: Cumulative Returns per Sector for ALSI and SWIX

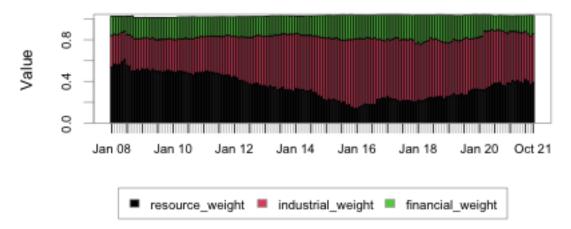


Figure 1.2: ALSI Weight Contribution

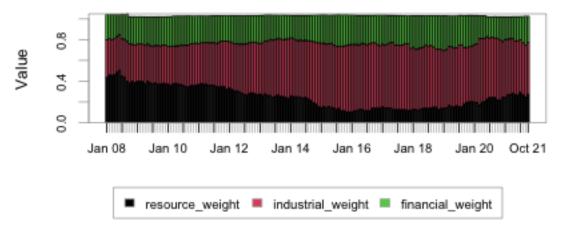


Figure 1.3: SWIX Weight Contribution

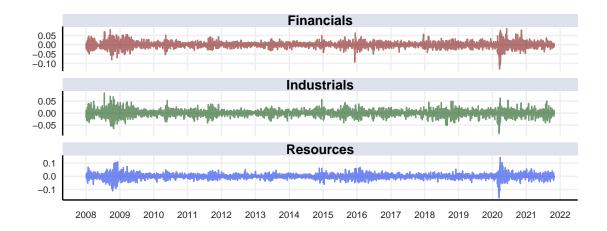


Figure 1.4: Log Returns per Sector for the SWIX

2. DCC GARCH Model Fit

2.1. Estimate Std. Error t value Pr(> |t|)

[Resources].omega 0.00000~0.00001~0.304~0.761

[Resources].alpha1 0.005 0.033 0.147 0.883

[Resources].beta1 0.947 0.050 18.750 0

[Industrials].omega 0.00000 0.00000 1.755 0.079

[Industrials].alpha1 0.017 0.009 1.822 0.068

[Industrials].beta1 0.907 0.017 54.781 0

[Financials].omega 0.00000 0.00000 0.966 0.334

[Financials].alpha1 0.032 0.022 1.492 0.136

[Financials].beta1 0.907 0.033 27.601 0

[Joint]dcca1 0.039 0.005 7.807 0

 $[Joint] dccb1 \ 0.949 \ 0.008 \ 123.286 \ 0$

3. Loadshedding DCC GARCH Model Fit

3.1. Estimate Std. Error t value Pr(> |t|)

[Resources].omega 0.00004 0.00003 1.399 0.162

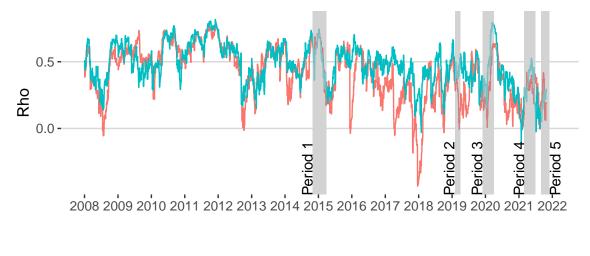
[Resources].alpha1 0.00000 0.101 0.00000 1.000 [Resources].beta1 0.791 0.161 4.907 0.00000 [Industrials].omega 0.00001 0.00000 24.162 0 [Industrials].alpha1 0.00000 0.028 0.00000 1.000 [Industrials].beta1 0.825 0.023 35.958 0 [Financials].omega 0.00003 0.00001 3.121 0.002 [Financials].alpha1 0.018 0.058 0.306 0.760 [Financials].beta1 0.672 0.071 9.408 0 [Joint]dcca1 0.050 0.015 3.414 0.001 [Joint]dccb1 0.895 0.032 27.579 0

4. No Loadshedding DCC GARCH Model Fit

4.1. Estimate Std. Error t value Pr(> |t|)

[Resources].omega 0.00000 0.00000 0.437 0.662 [Resources].alpha1 0.026 0.021 1.256 0.209 [Resources].beta1 0.934 0.035 26.758 0 [Industrials].omega 0.00000 0.00001 0.365 0.715 [Industrials].alpha1 0.023 0.036 0.641 0.521 [Industrials].beta1 0.912 0.074 12.253 0 [Financials].omega 0.00000 0.00001 0.369 0.712 [Financials].alpha1 0.039 0.051 0.771 0.441 [Financials].beta1 0.908 0.075 12.101 0 [Joint]dcca1 0.036 0.005 6.747 0 [Joint]dccb1 0.954 0.008 120.623 0

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Pairs — Resources_Financials — Resources_Industrials

Figure 4.1: Dynamic Conditional Correlations: Resources

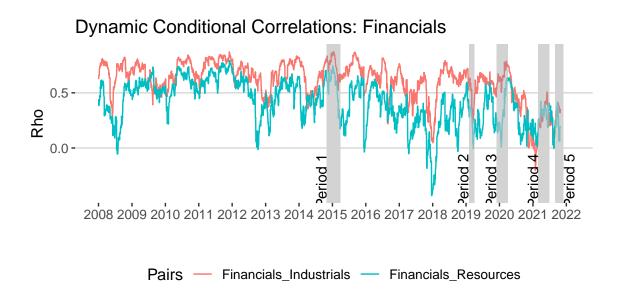


Figure 4.2: Dynamic Conditional Correlations: Financials

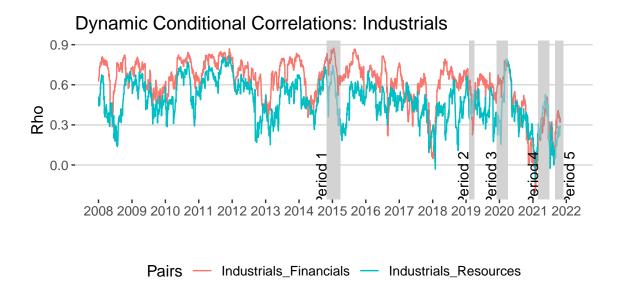


Figure 4.3: Dynamic Conditional Correlations: Industrials

- 5. Methodology
- 6. Results
- 7. Conclusion

References

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Appendix

 $Appendix\ A$

Some appendix information here

 $Appendix\ B$