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

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Abstract

Abstract

1. Introduction

Data

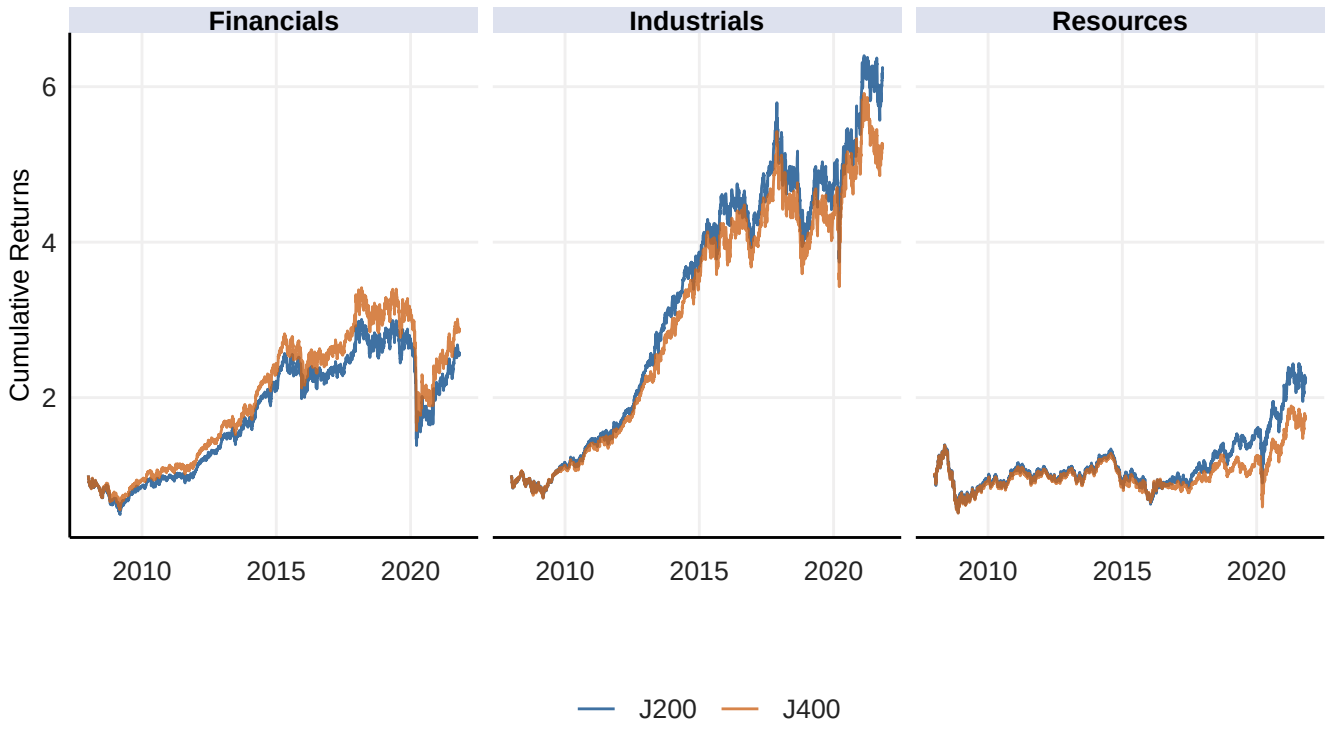

Figure 1.1: Cumulative Returns per Sector for ALSI and SWIX

Email address: 20850980@sun.ac.za (Sven Wellmann)

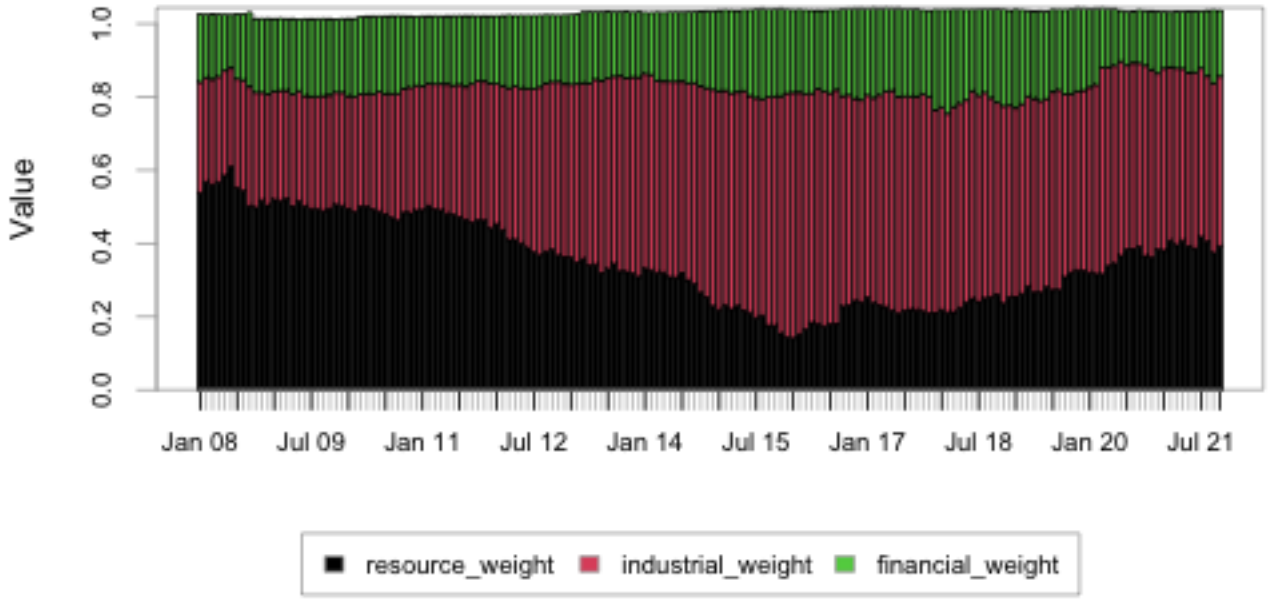

Figure 1.2: ALSI Weight Contribution

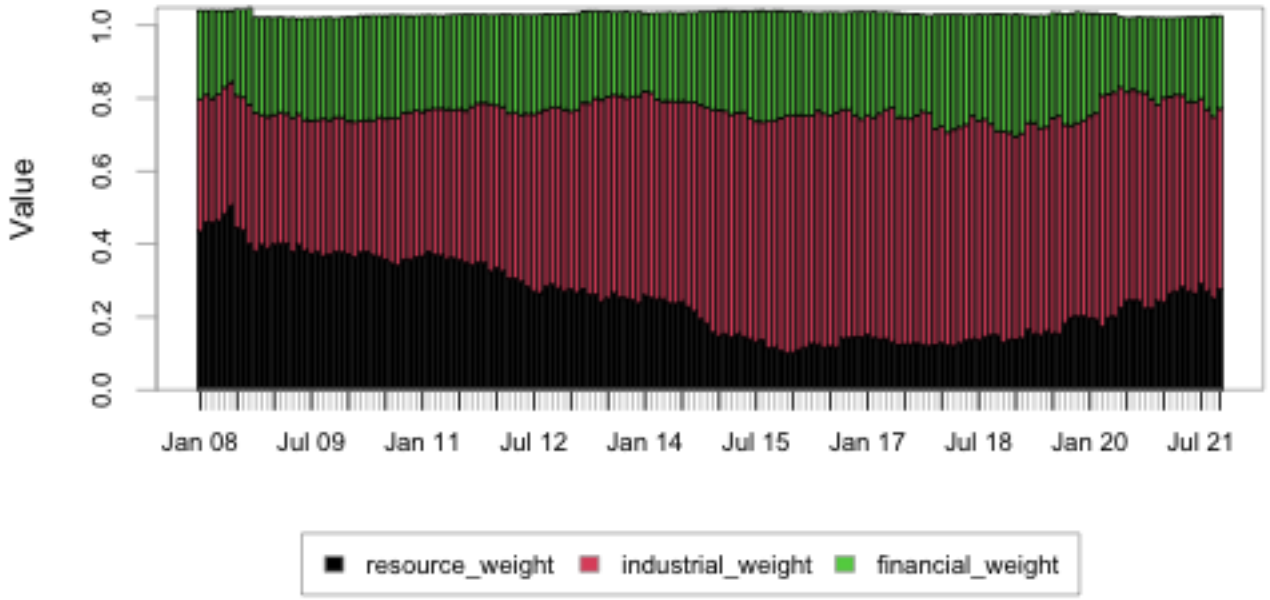

Figure 1.3: SWIX Weight Contribution

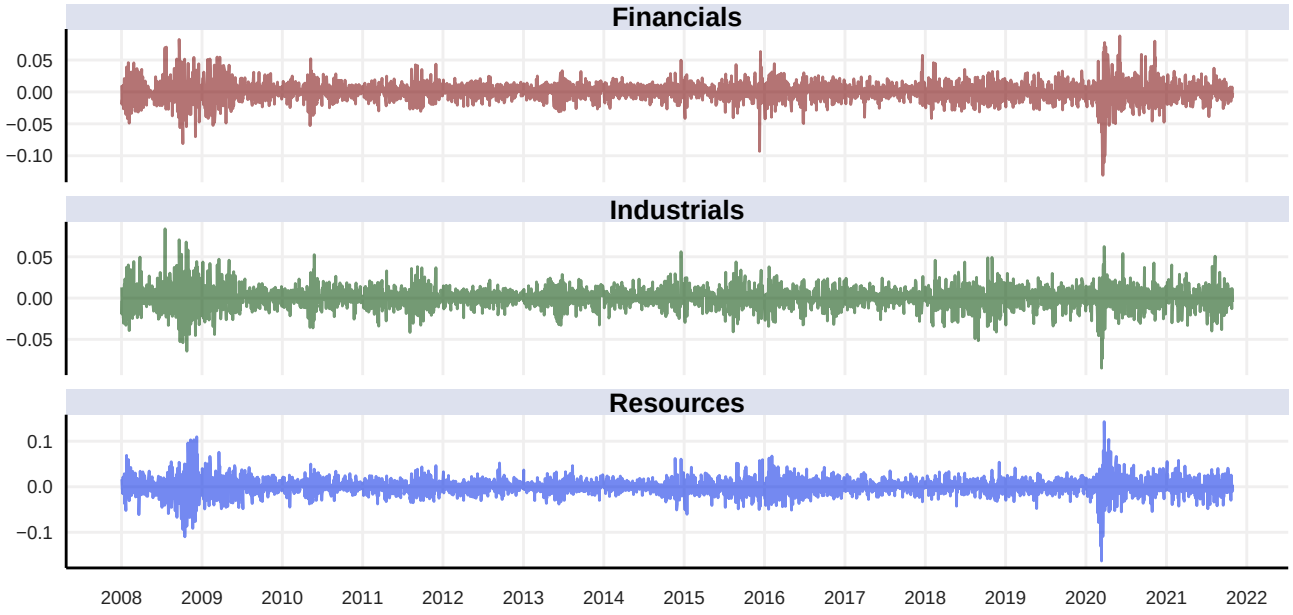

Figure 1.4: Log Returns per Sector for the SWIX

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 18.749 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 54.780 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 7.806 0
[Joint]dccb1 0.949 0.008 123.261 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 27.577 0

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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 0.008 120.629 0

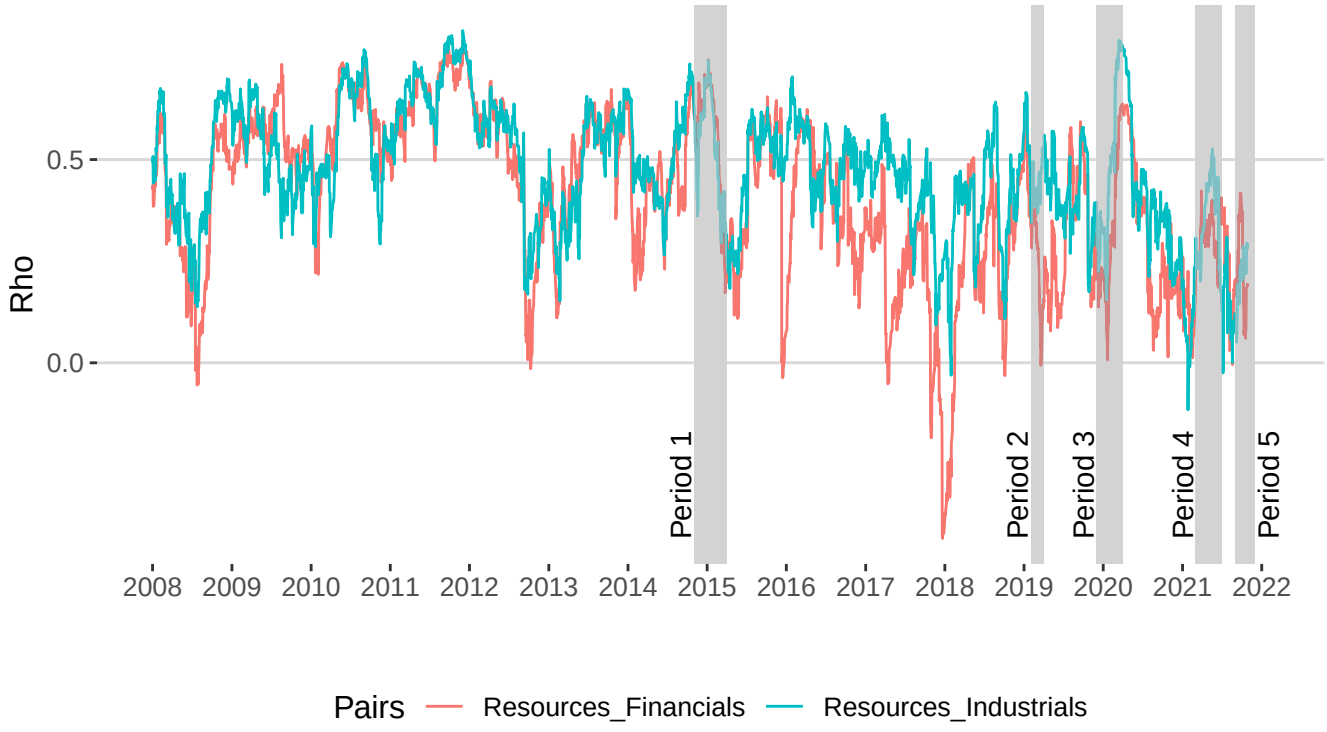

Figure 4.1: Dynamic Conditional Correlations: Resources

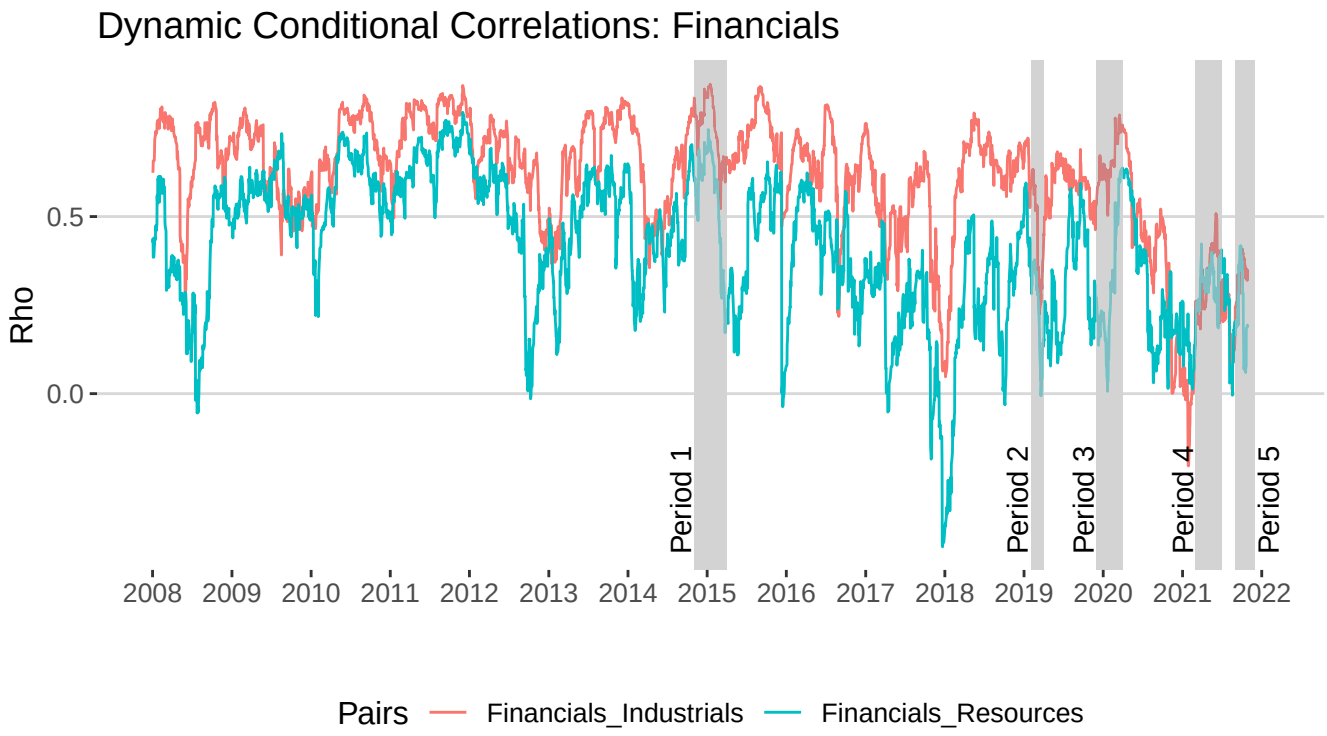

Figure 4.2: Dynamic Conditional Correlations: Financials

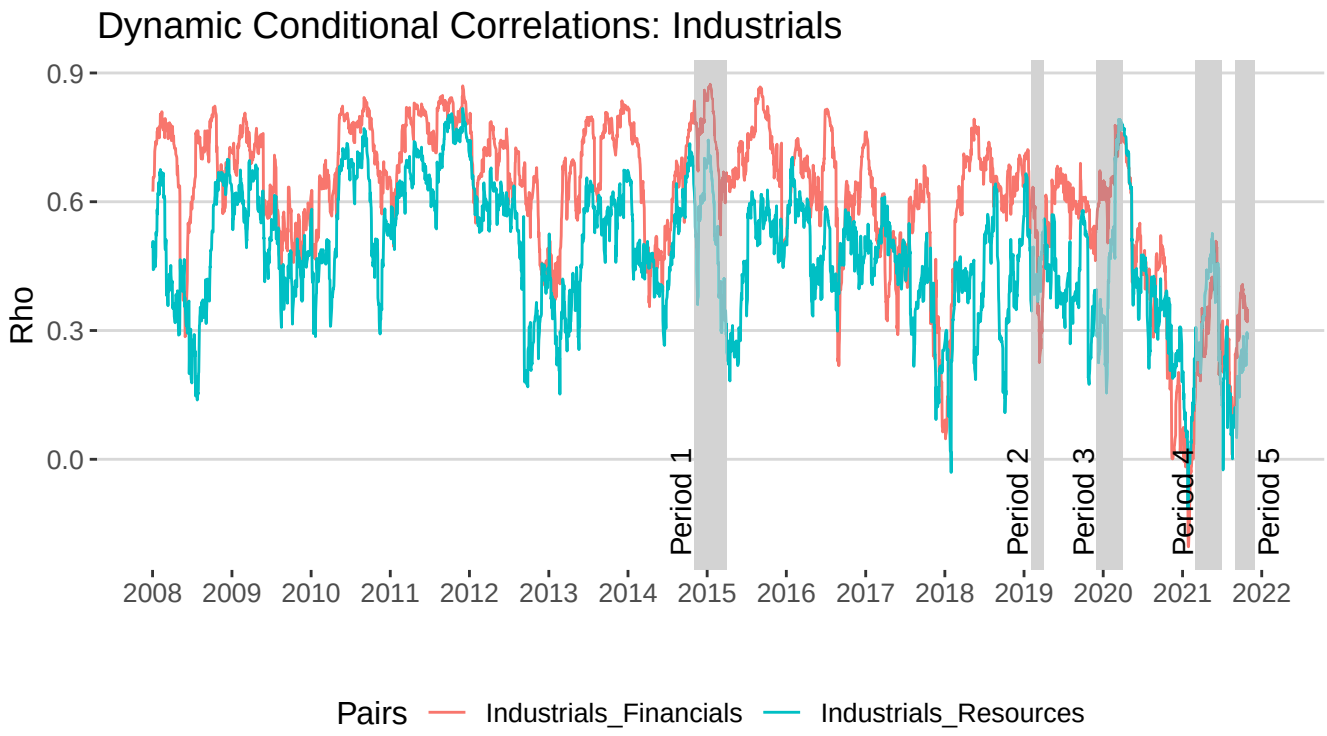

Figure 4.3: Dynamic Conditional Correlations: Industrials

5. Methodology

6. Results

7. Conclusion

References

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Appendix

Appendix A

Some appendix information here

Appendix B