

Distance as a signal

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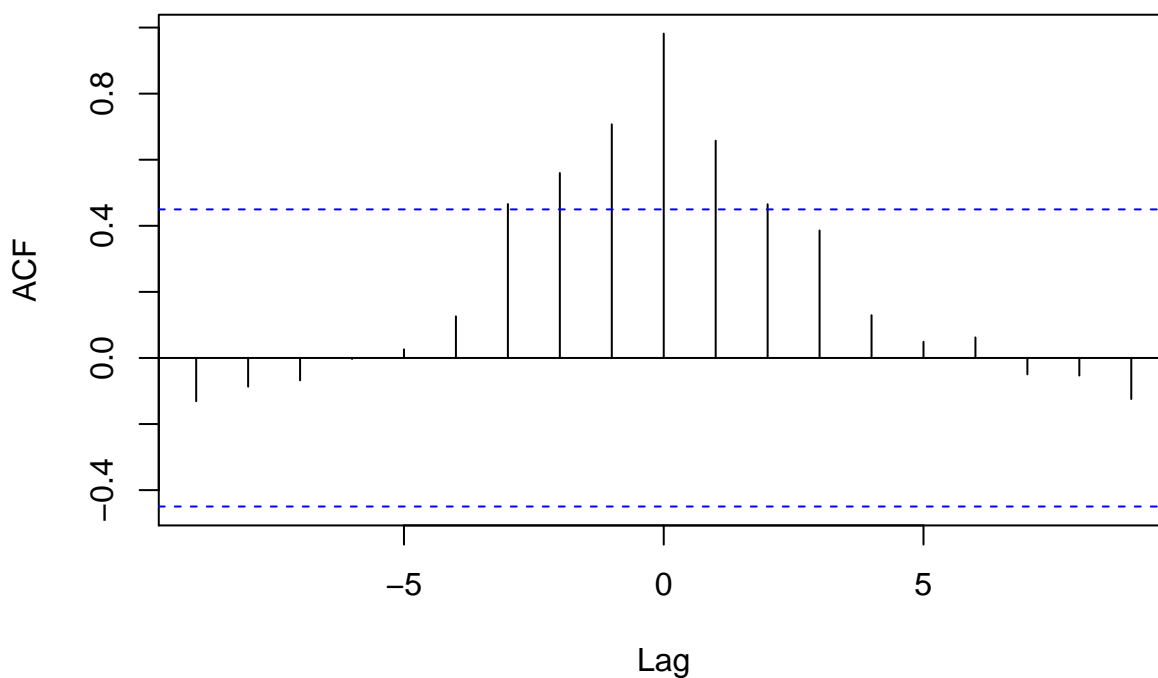
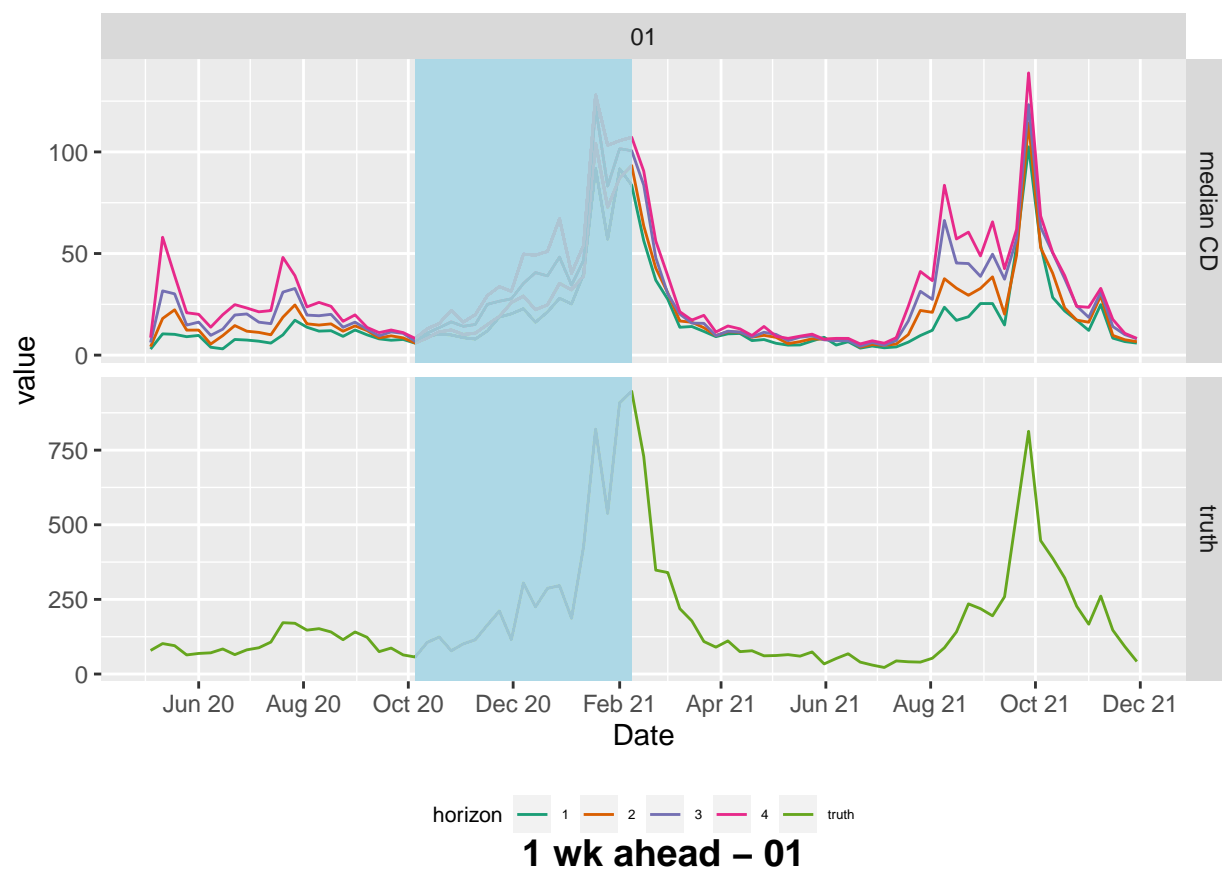
Cross-correlations

Forecast inclusion criteria

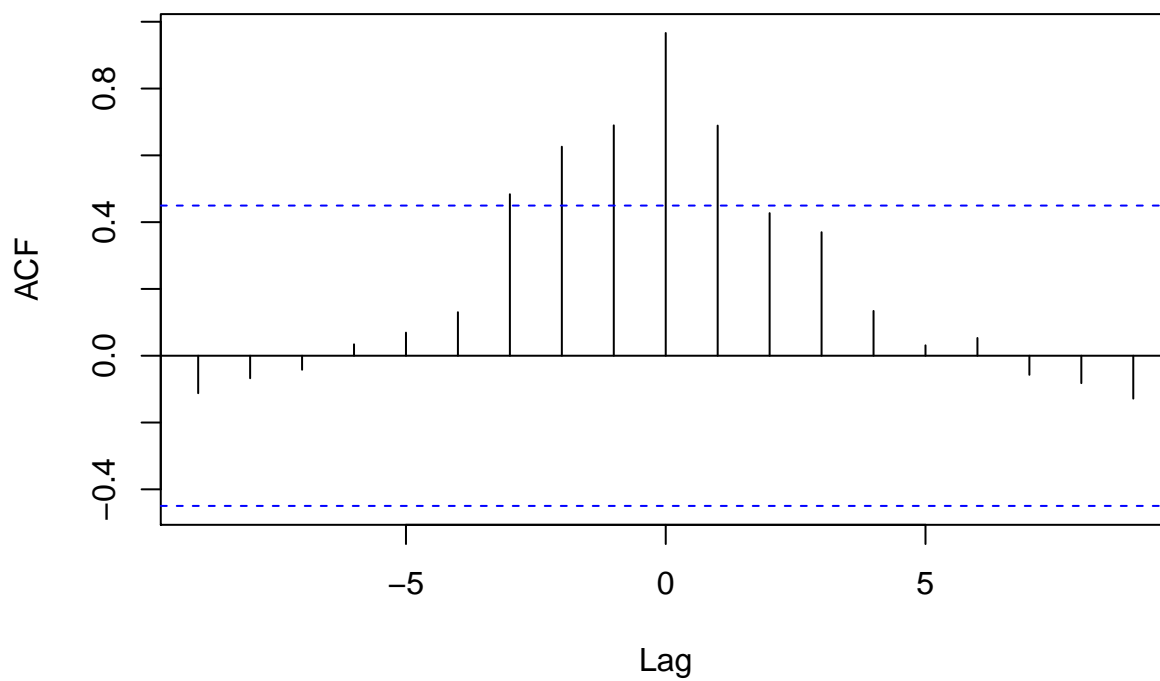
- Targets: 1-4 wk ahead inc death
- Target End Dates: Jan-Dec 2021 with all 4 horizons.
- Model: all models submitted on a particular date
- Probability levels: All
- Locations: 28 locations that had a “wave” (large or small) in 2021 - except US. Locations that are excluded had either no distinct peak in 2021 or severe data irregularity.

Using raw values means the sign (which should be positive) is not as important as the lag.

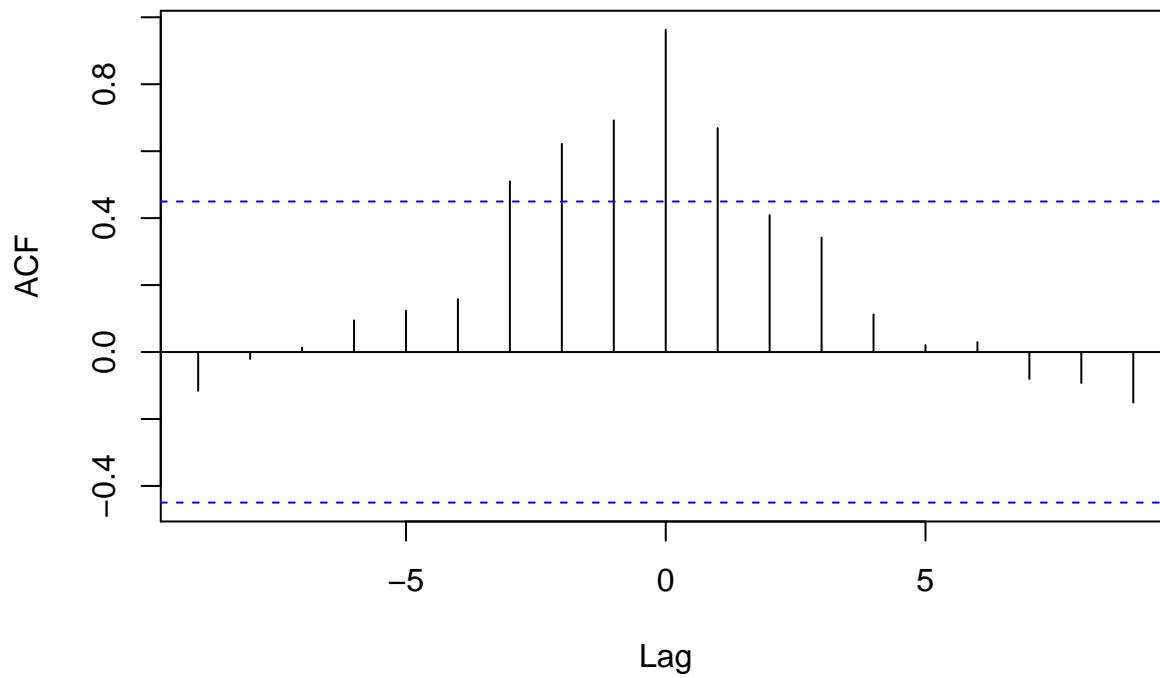
Plots of inc deaths, median CDs, smoothed inc deaths, smoothed median CDs, and CCF - date 1



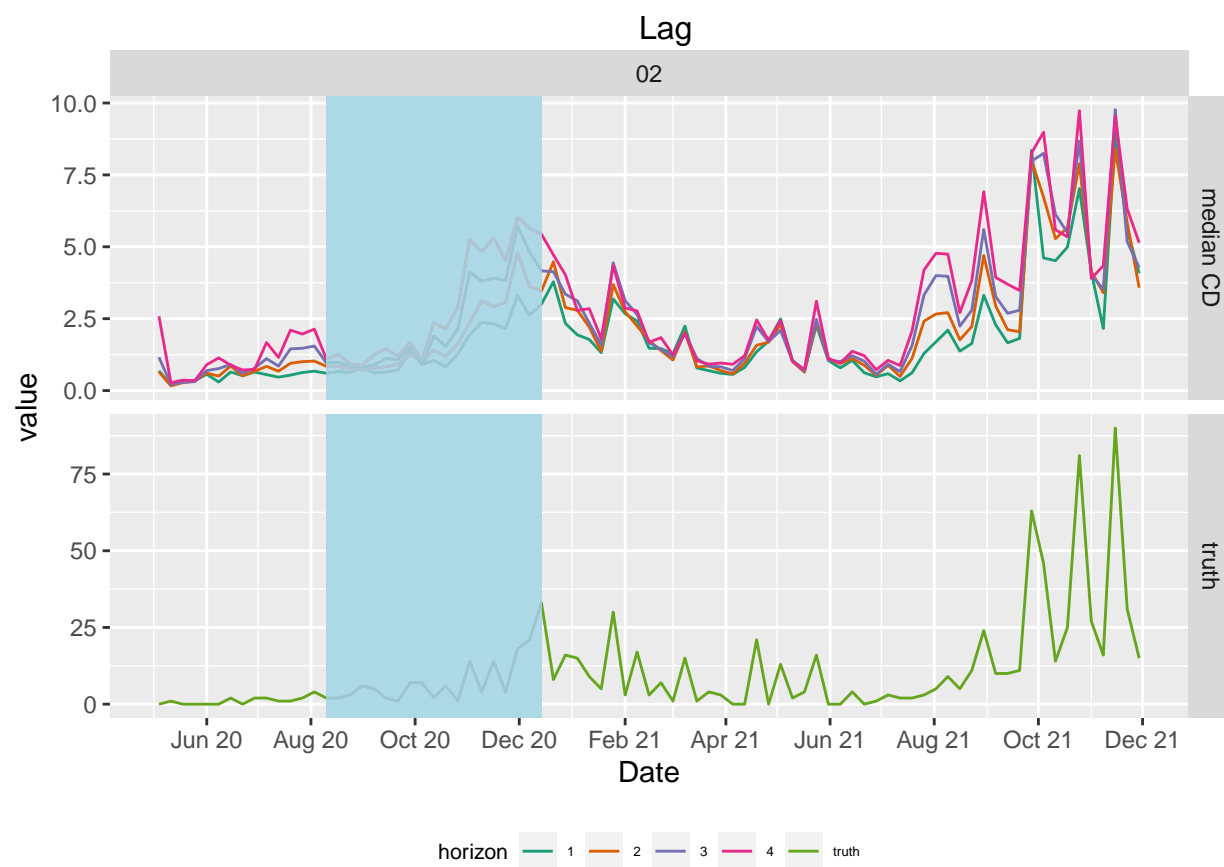
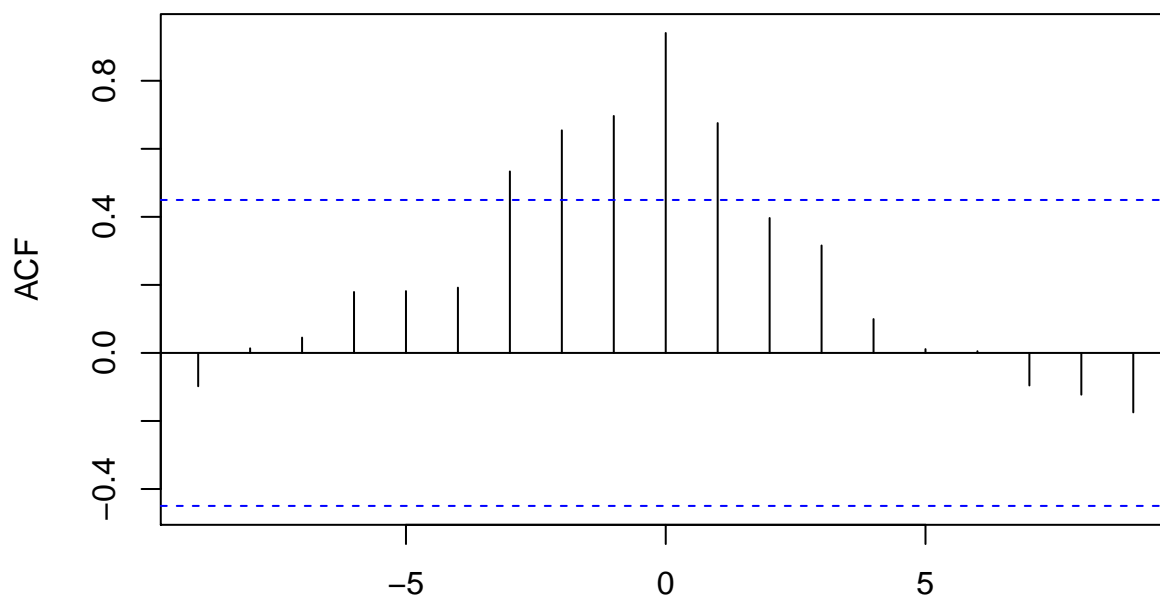
2 wk ahead – 01



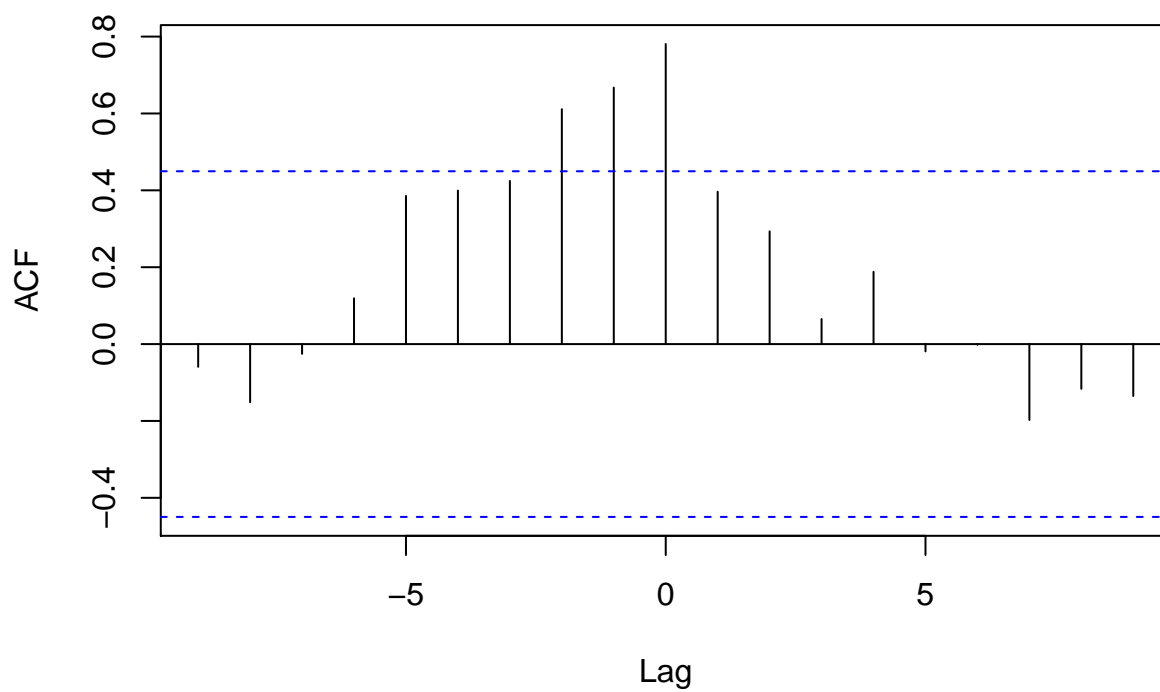
3 wk ahead – 01



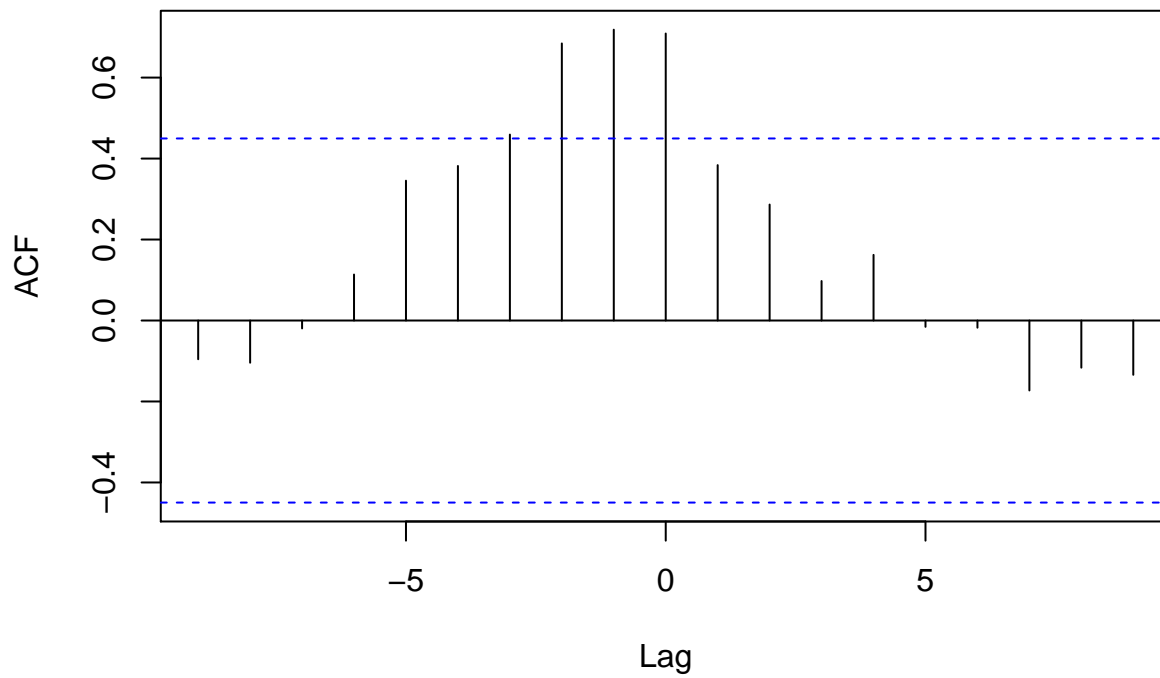
4 wk ahead – 01



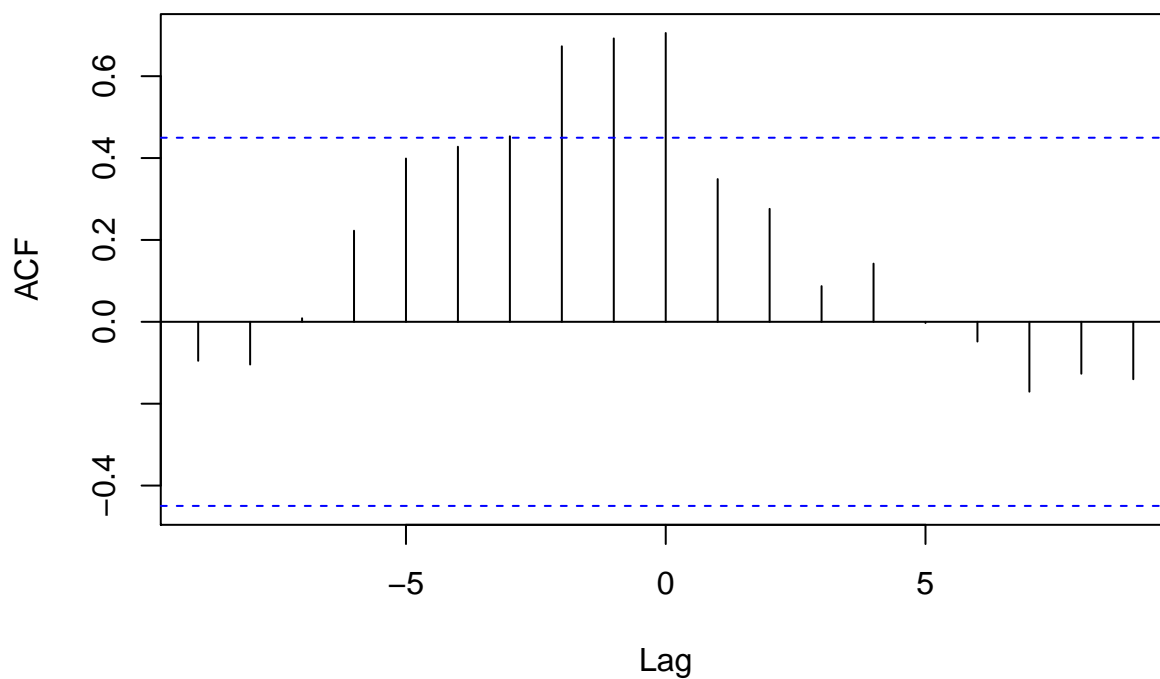
1 wk ahead – 02



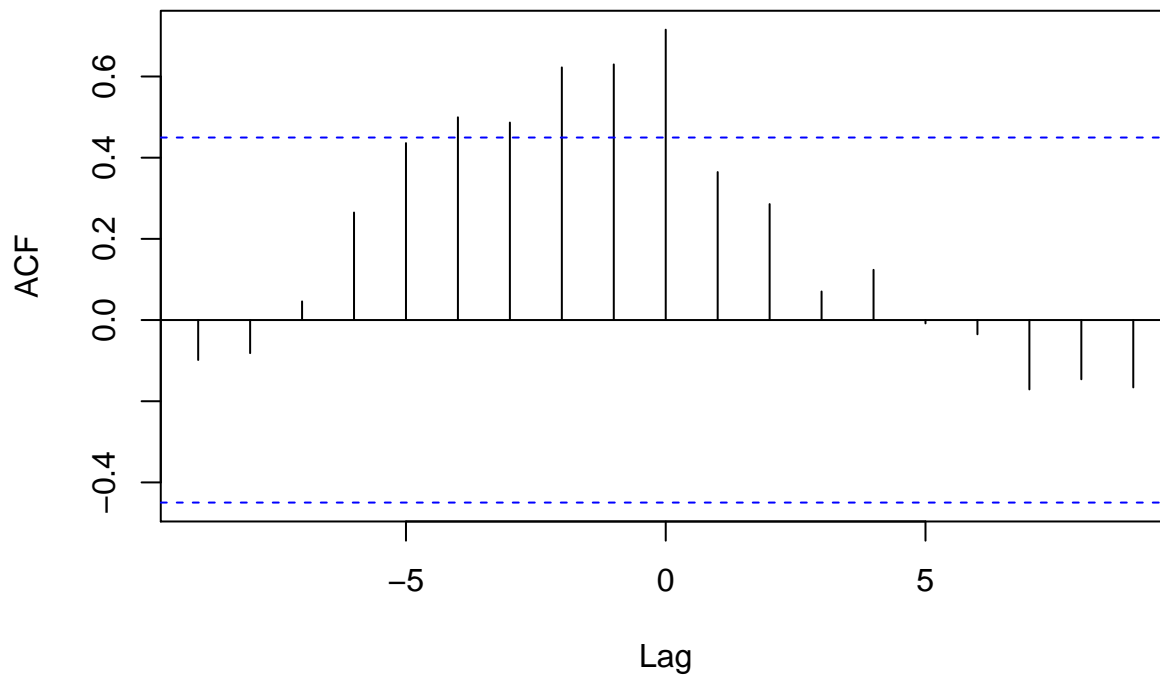
2 wk ahead – 02

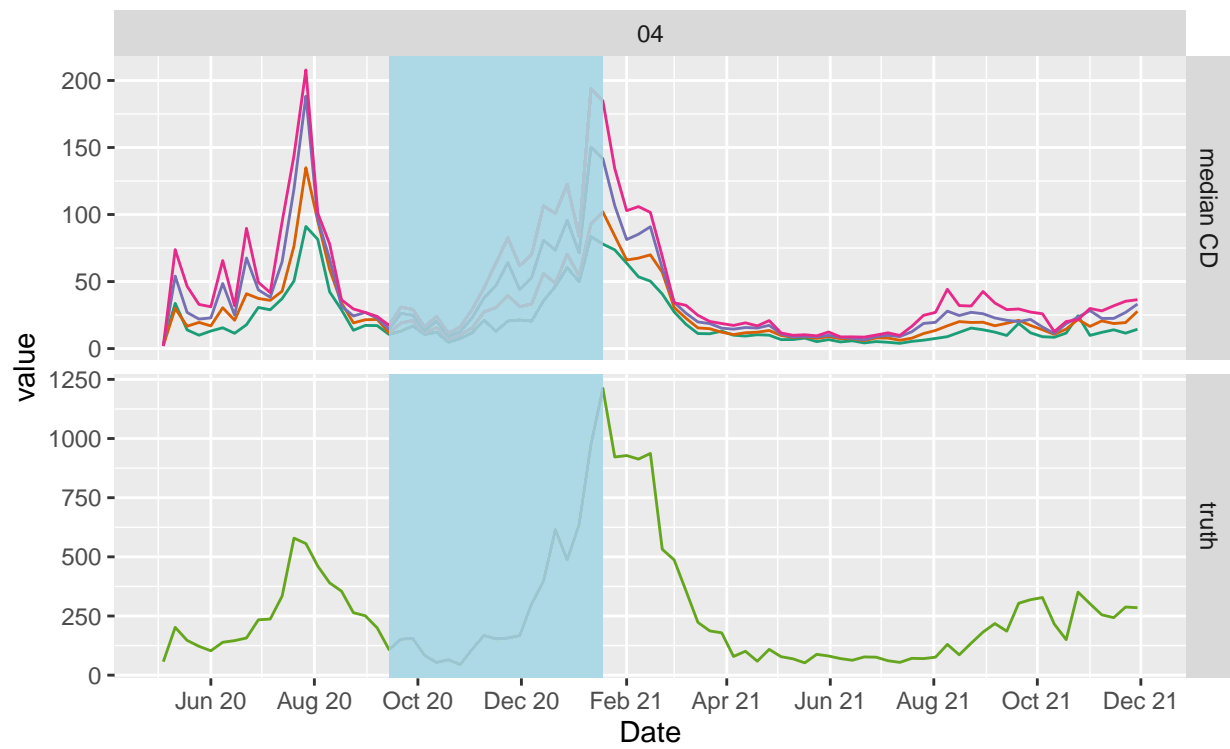


3 wk ahead – 02

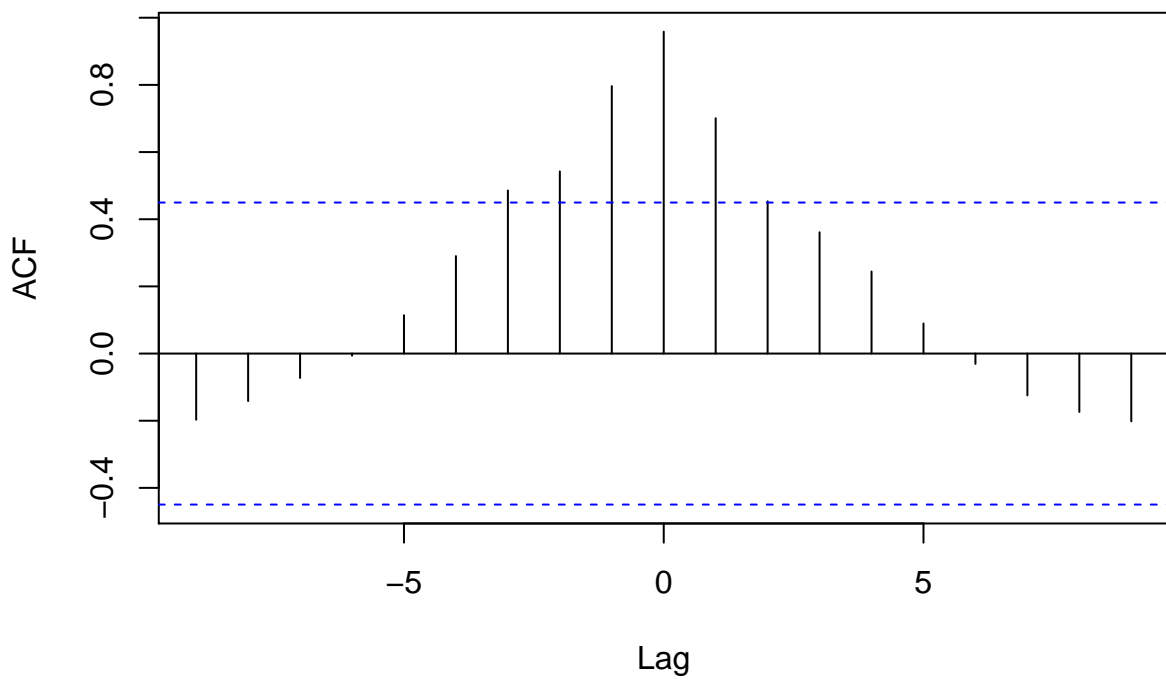


4 wk ahead – 02

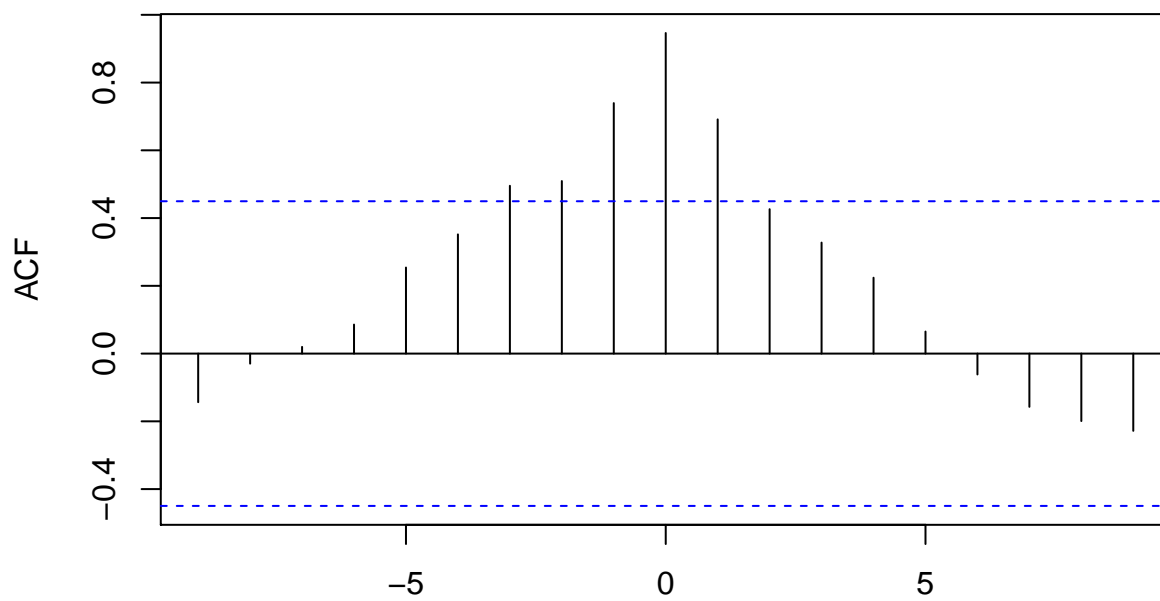




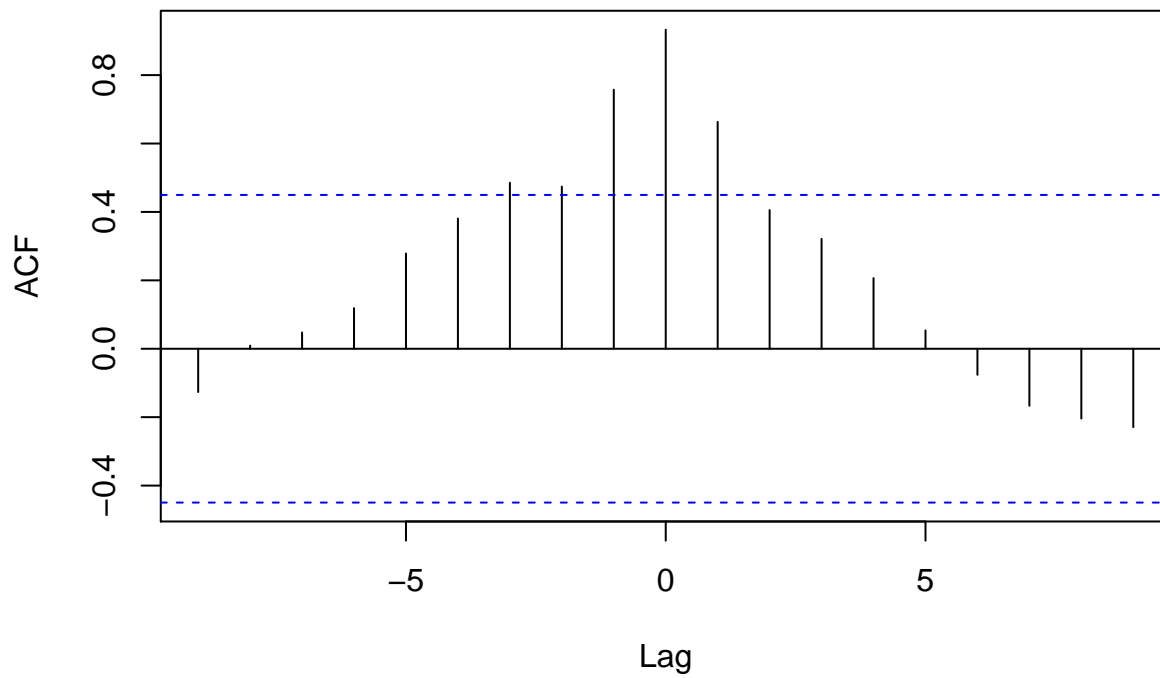
1 wk ahead – 04



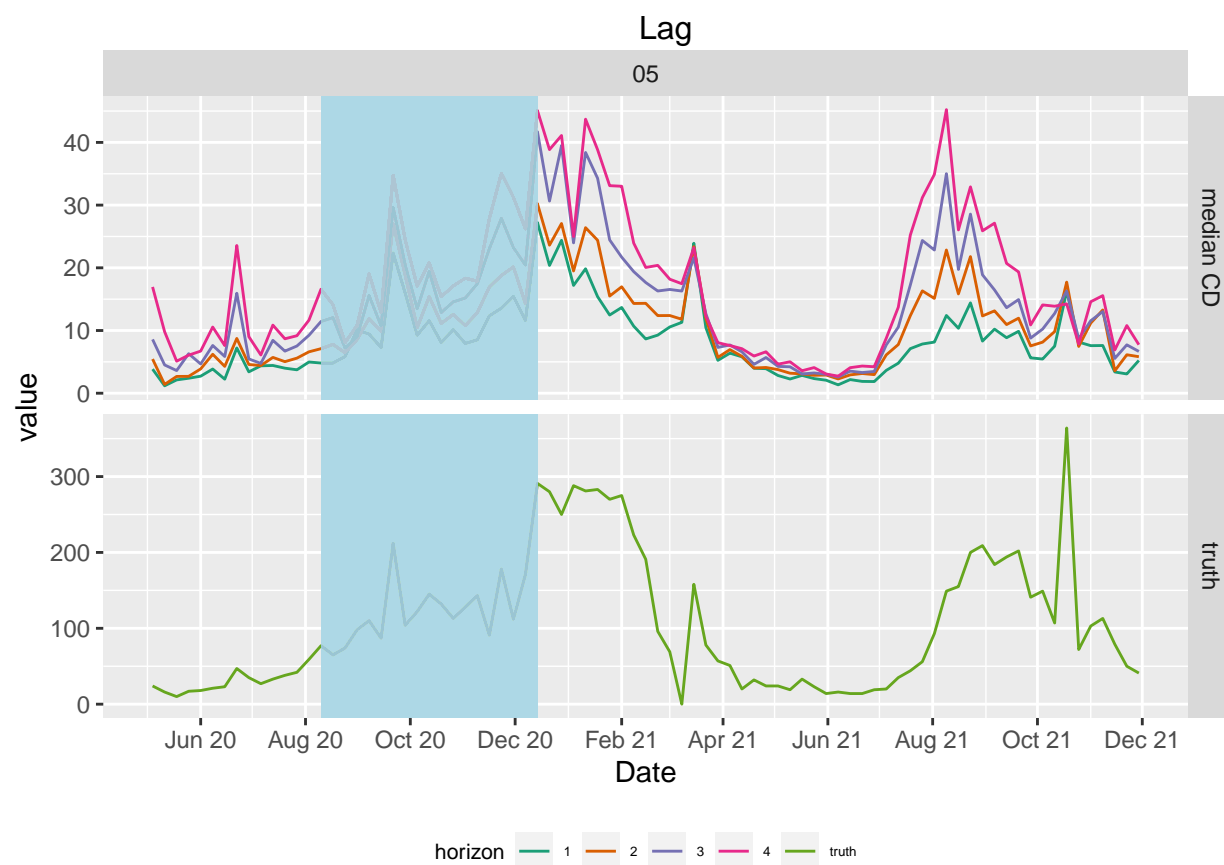
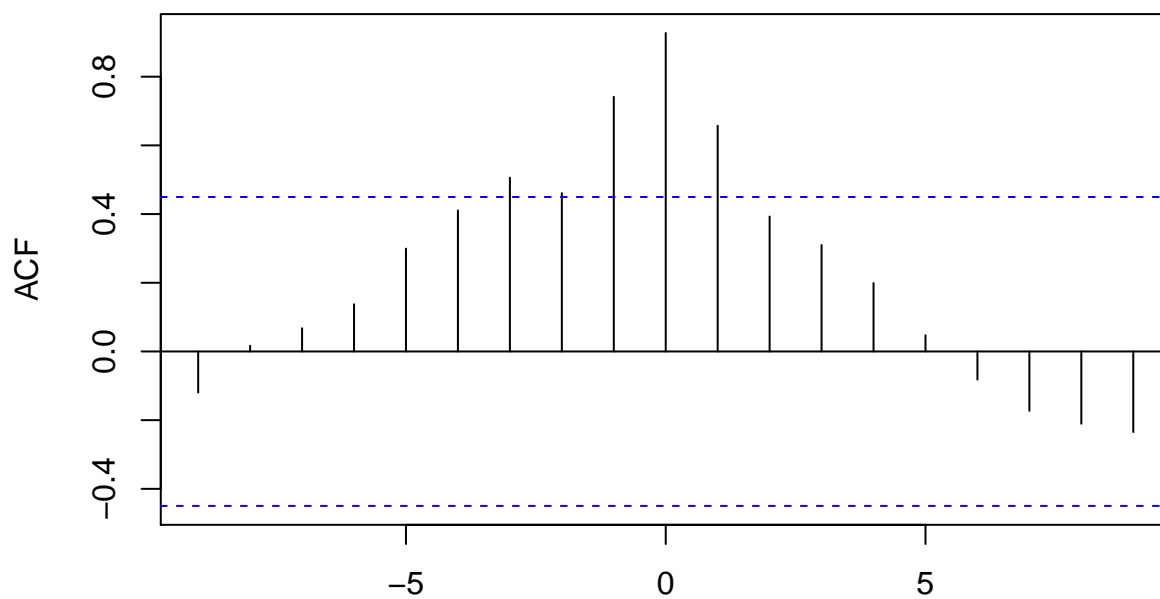
2 wk ahead – 04



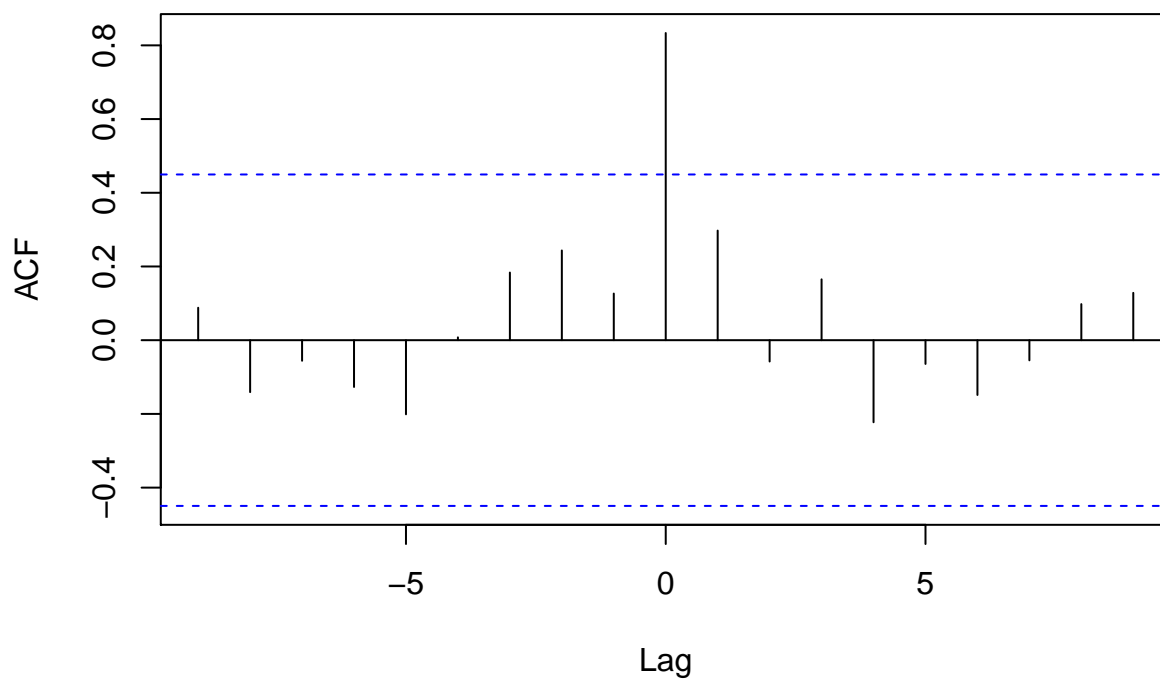
3 wk ahead – 04



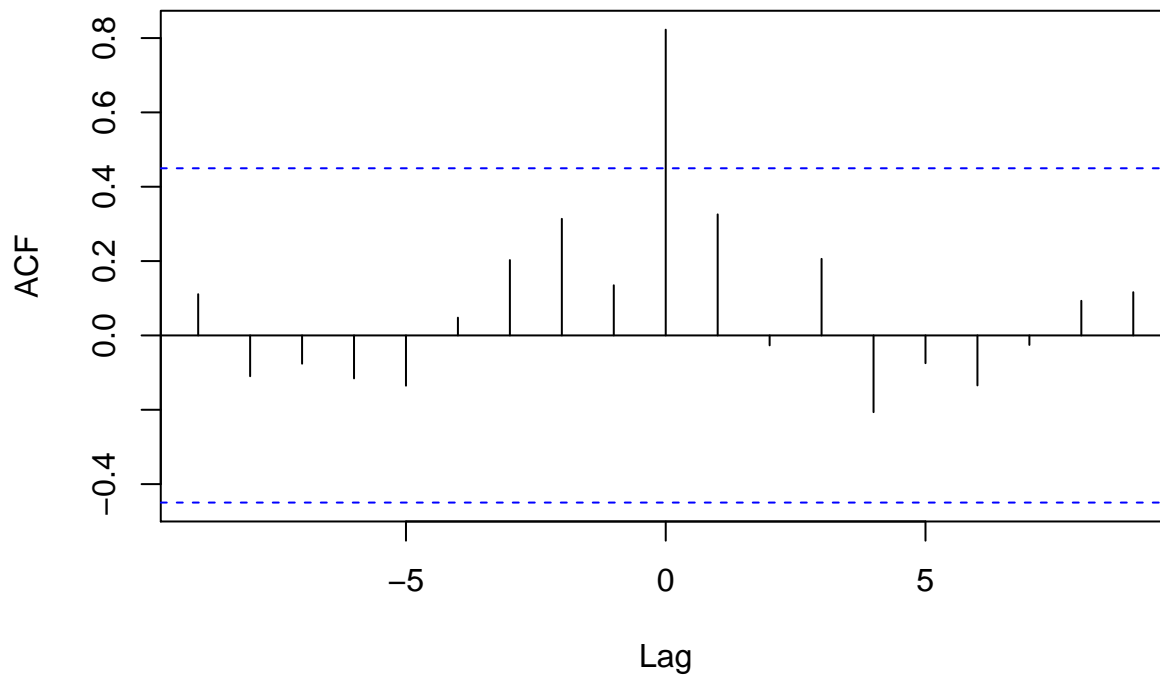
4 wk ahead – 04



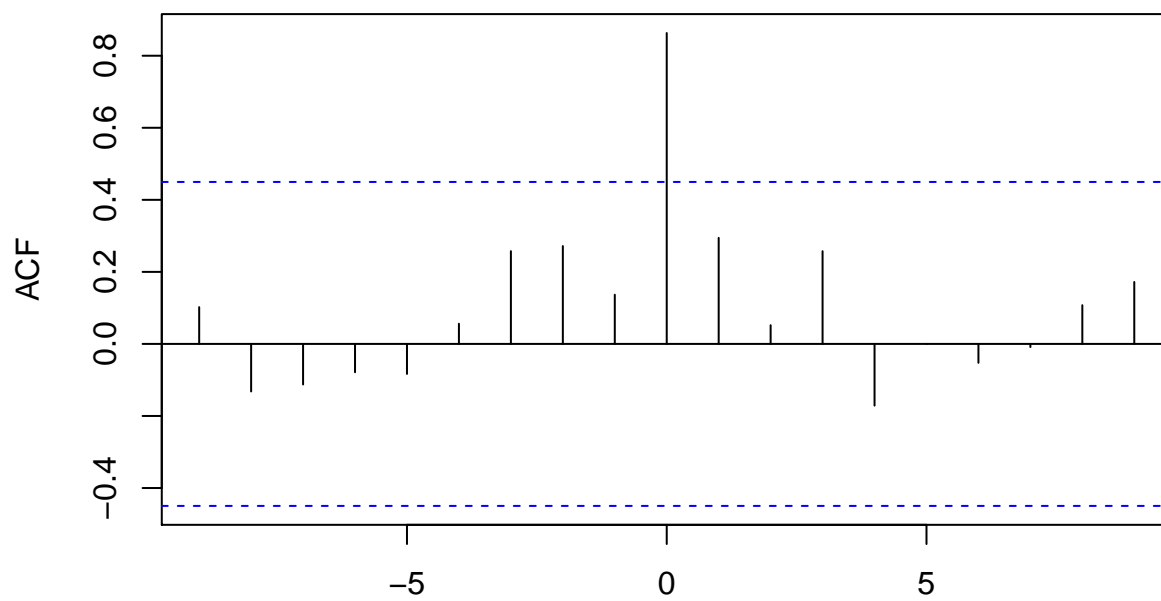
1 wk ahead – 05



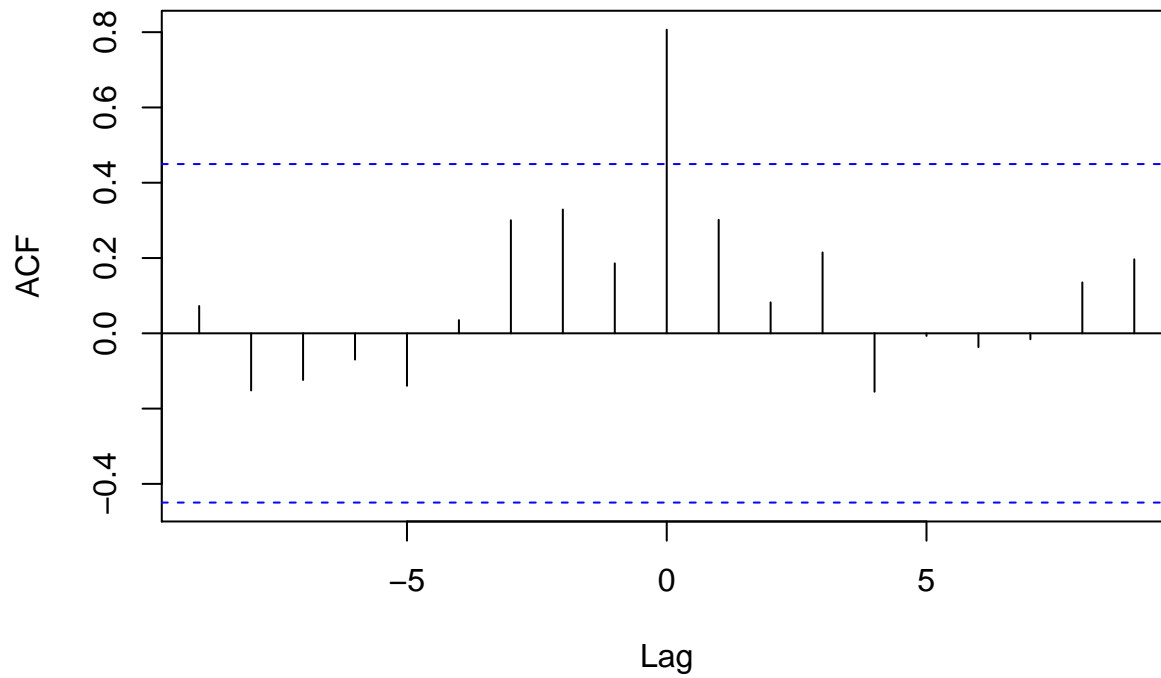
2 wk ahead – 05

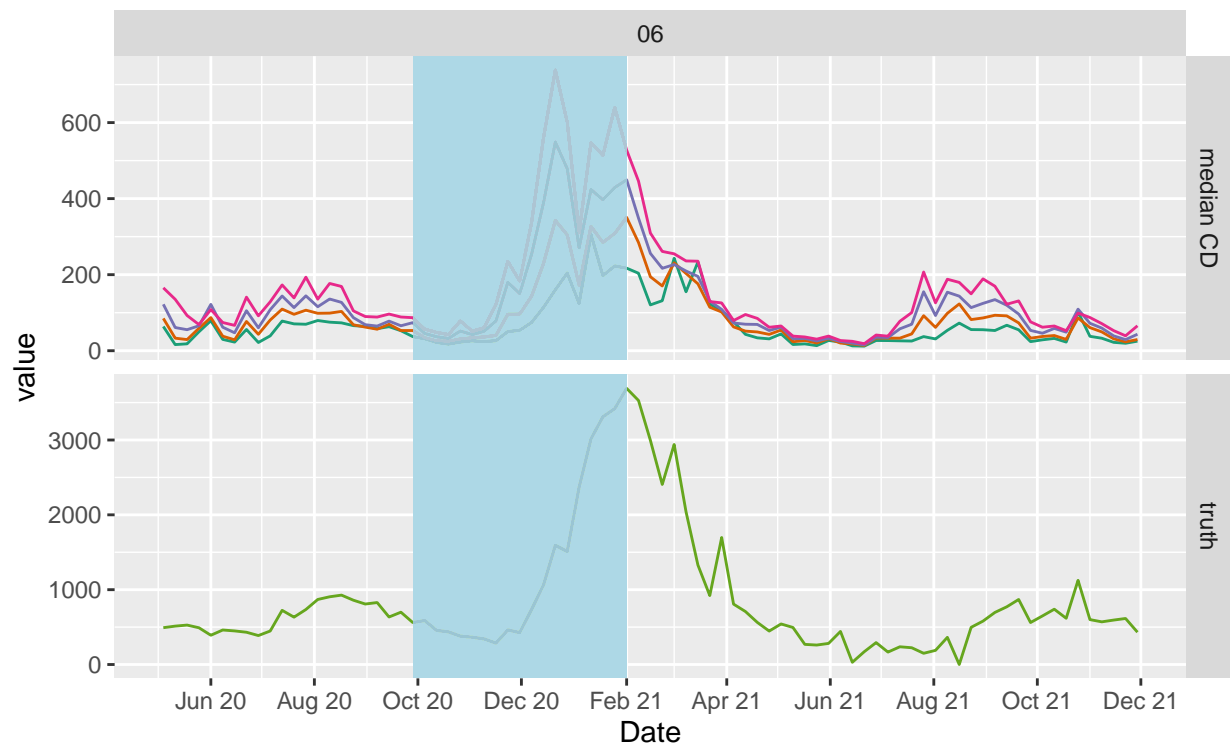


3 wk ahead – 05



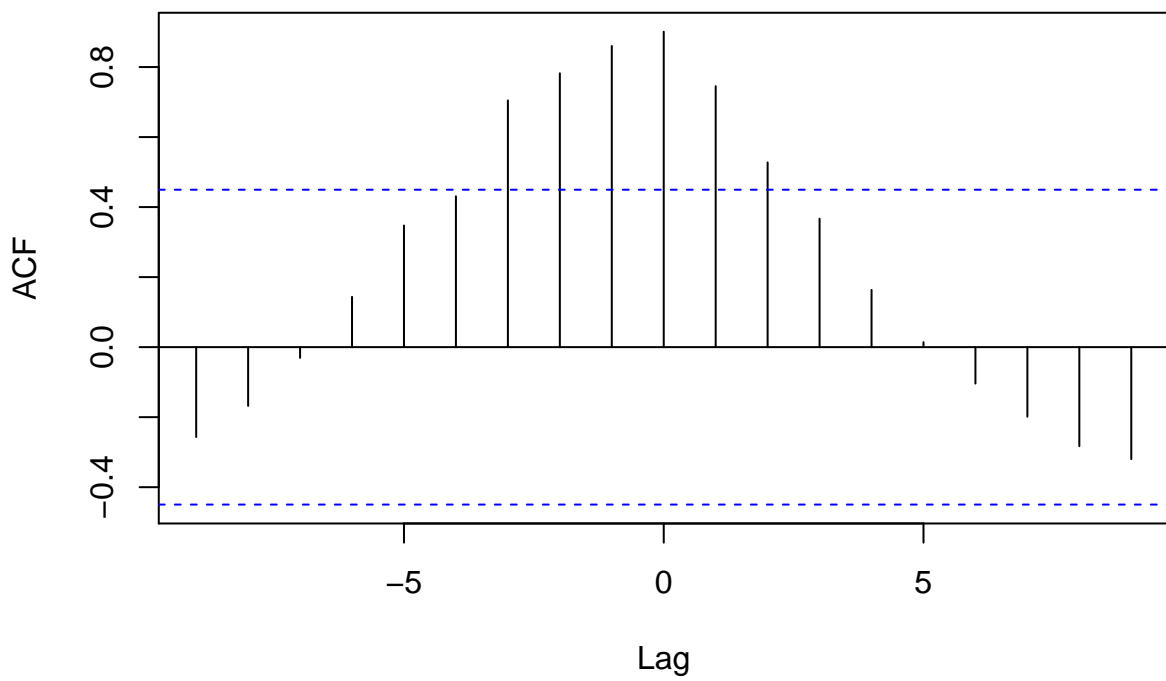
4 wk ahead – 05



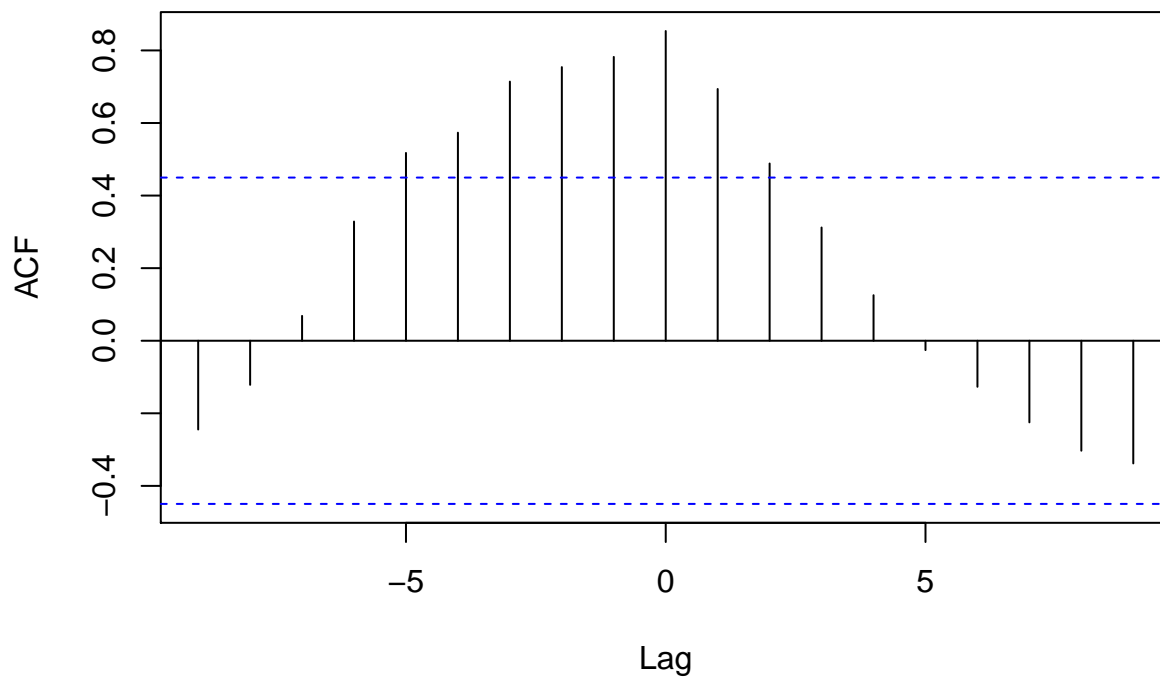


horizon 1 2 3 4 truth

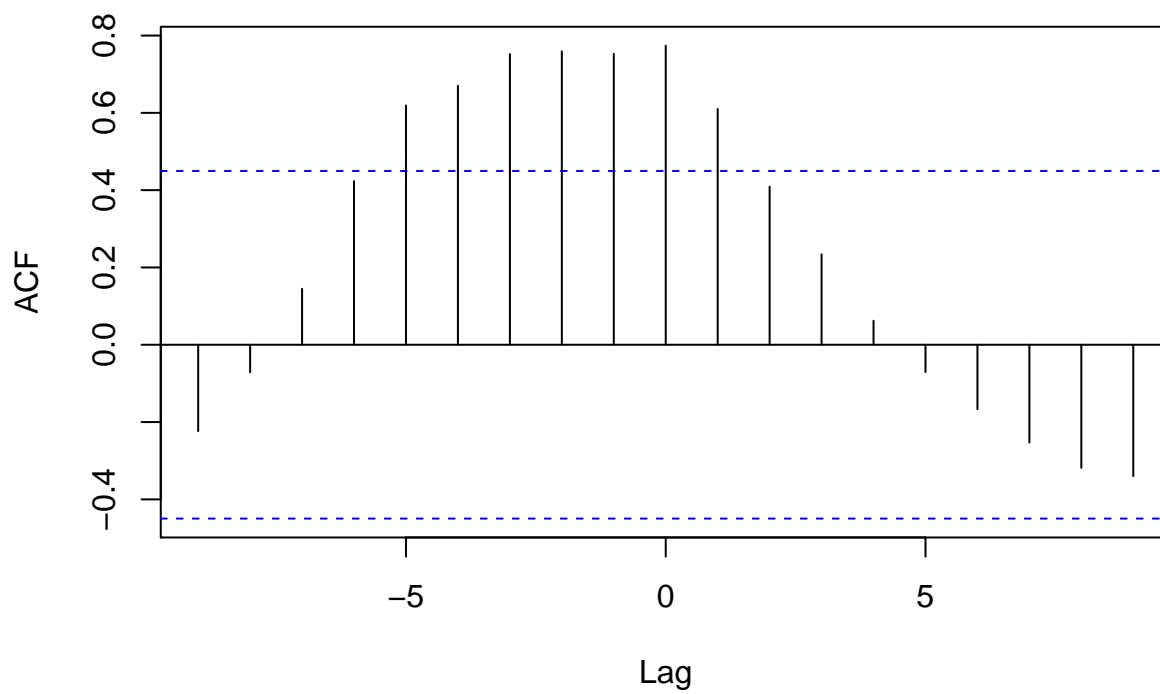
1 wk ahead – 06



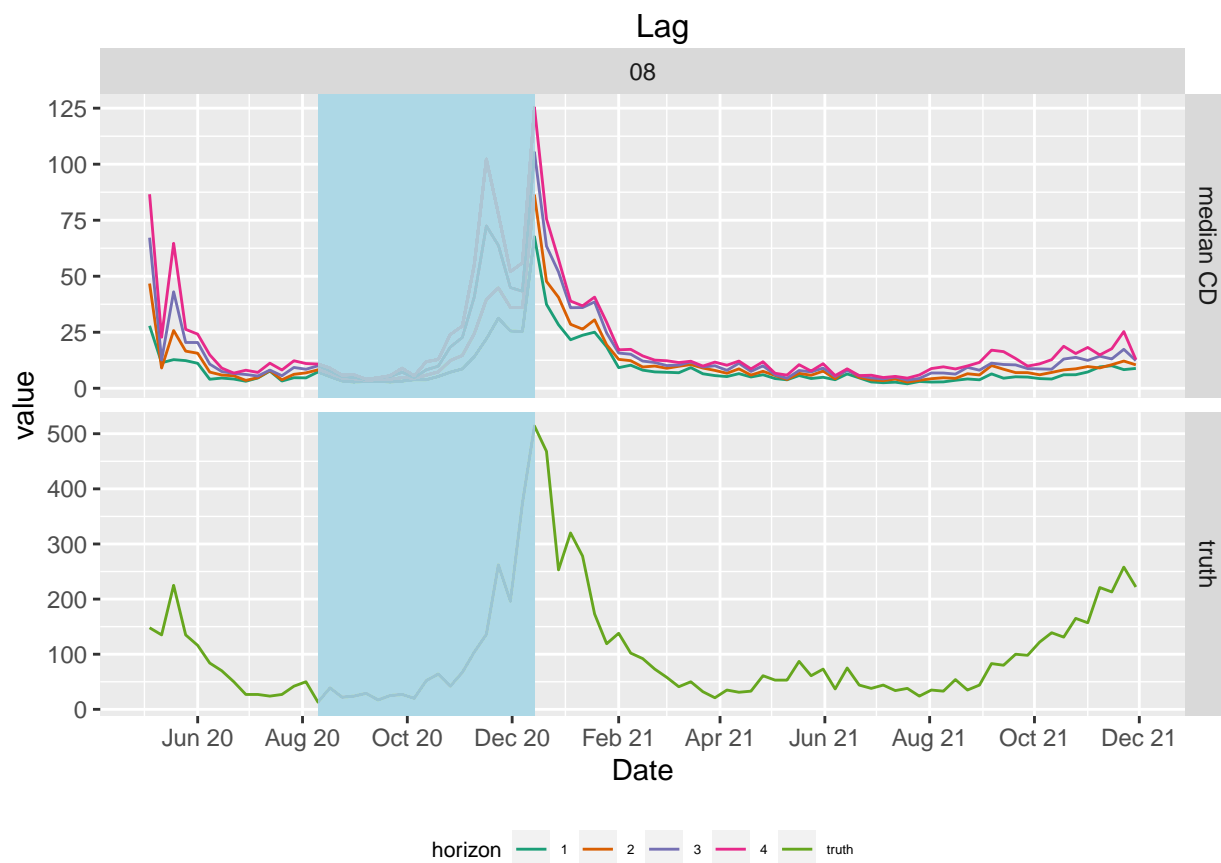
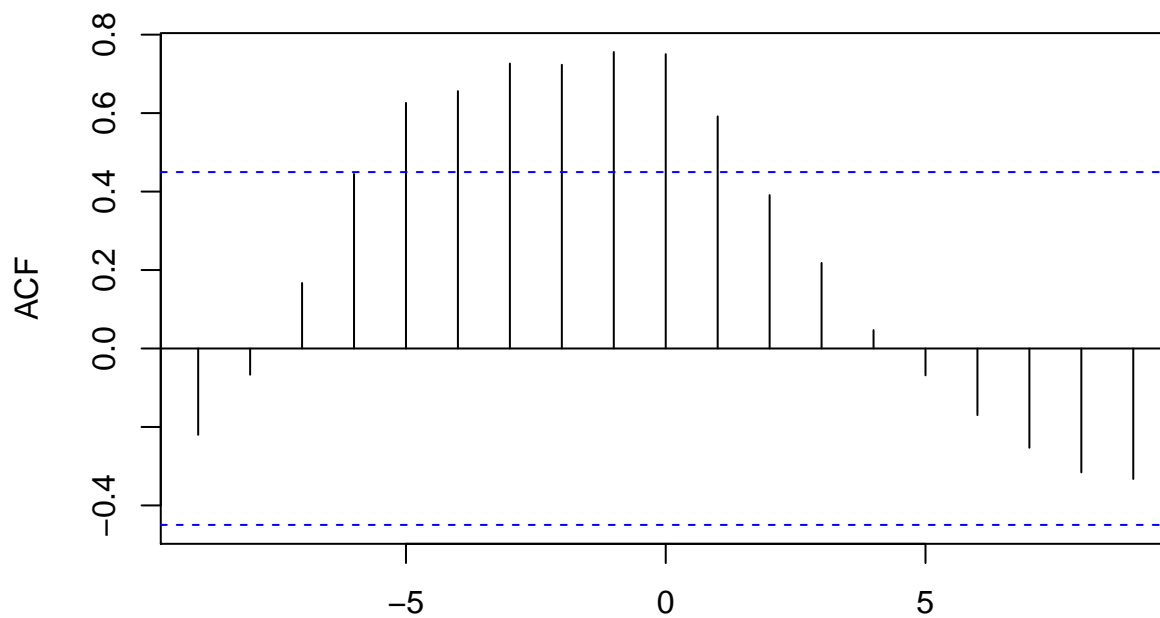
2 wk ahead – 06



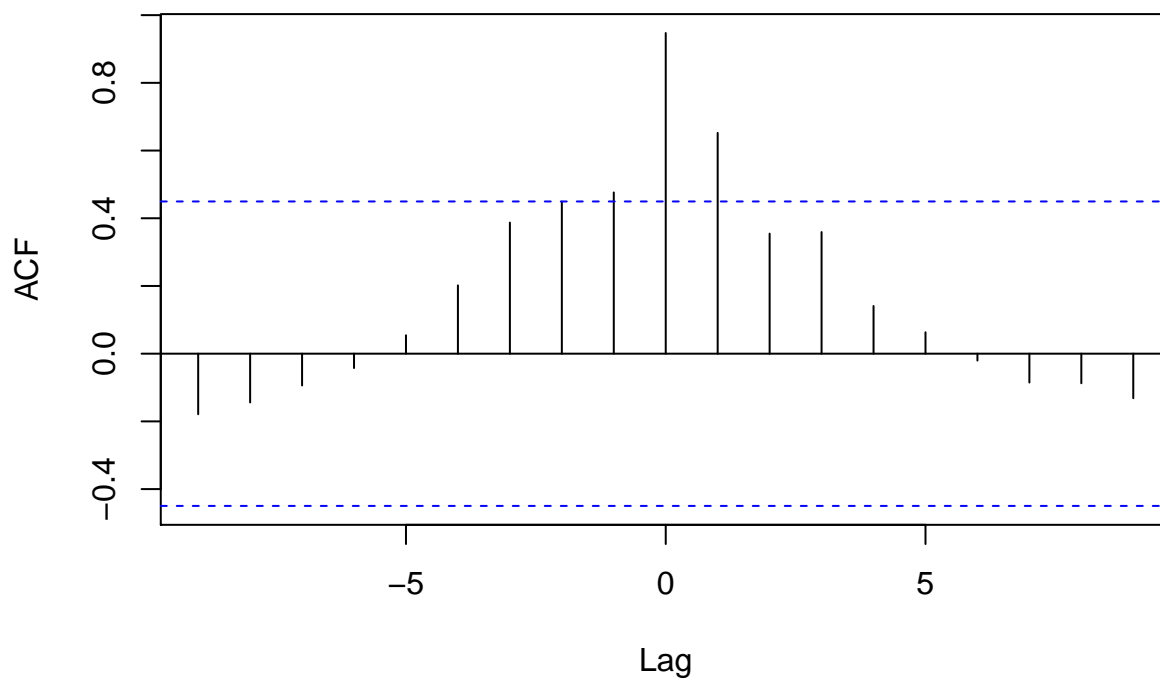
3 wk ahead – 06



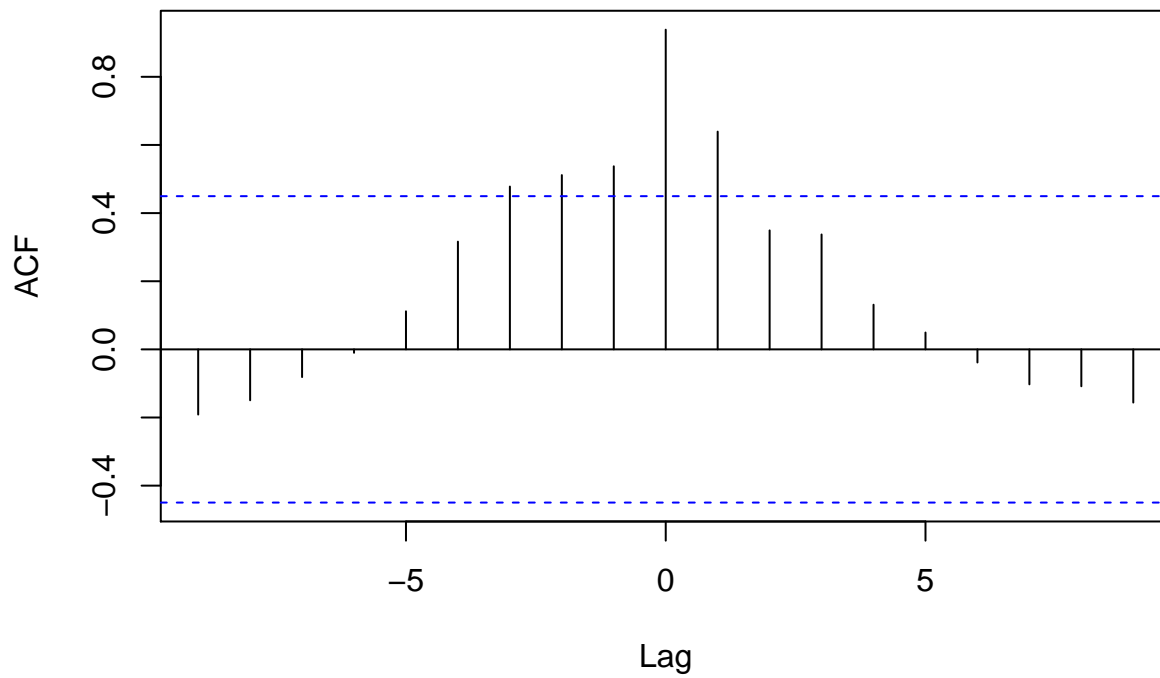
4 wk ahead – 06



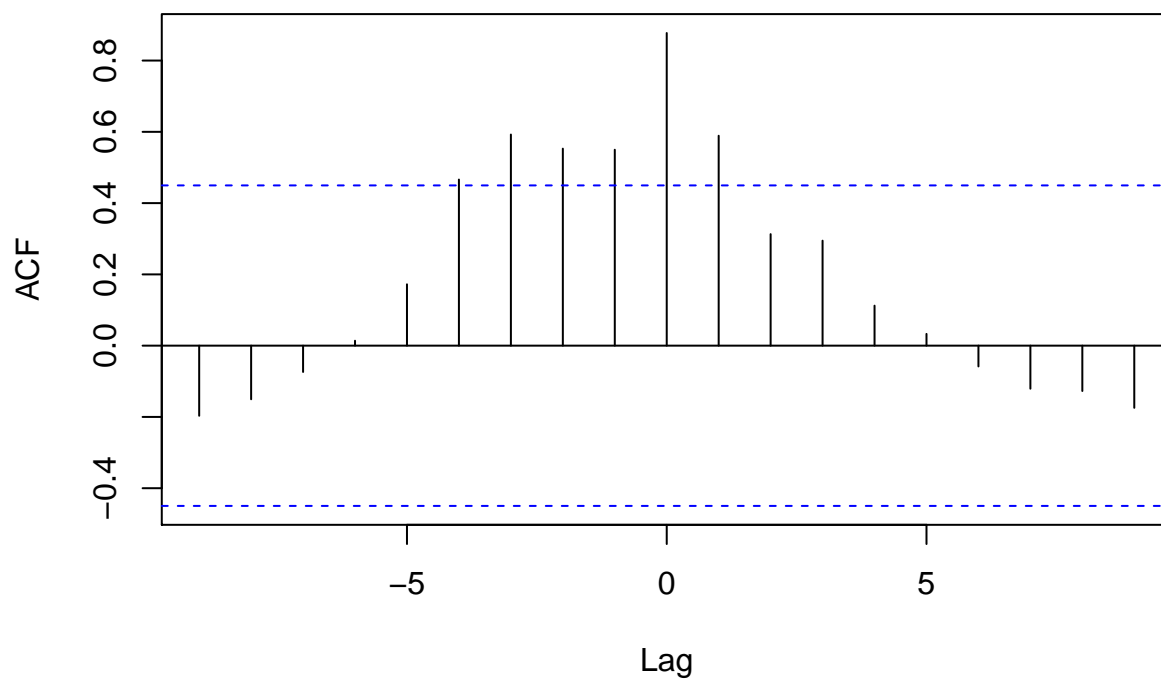
1 wk ahead – 08



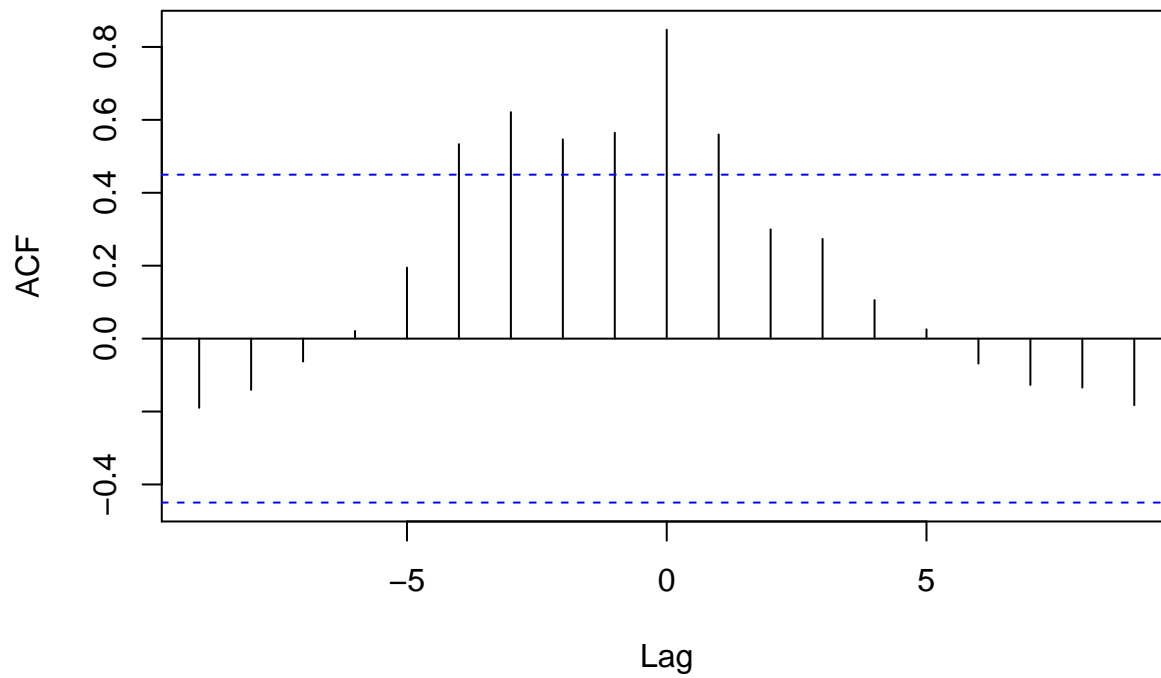
2 wk ahead – 08

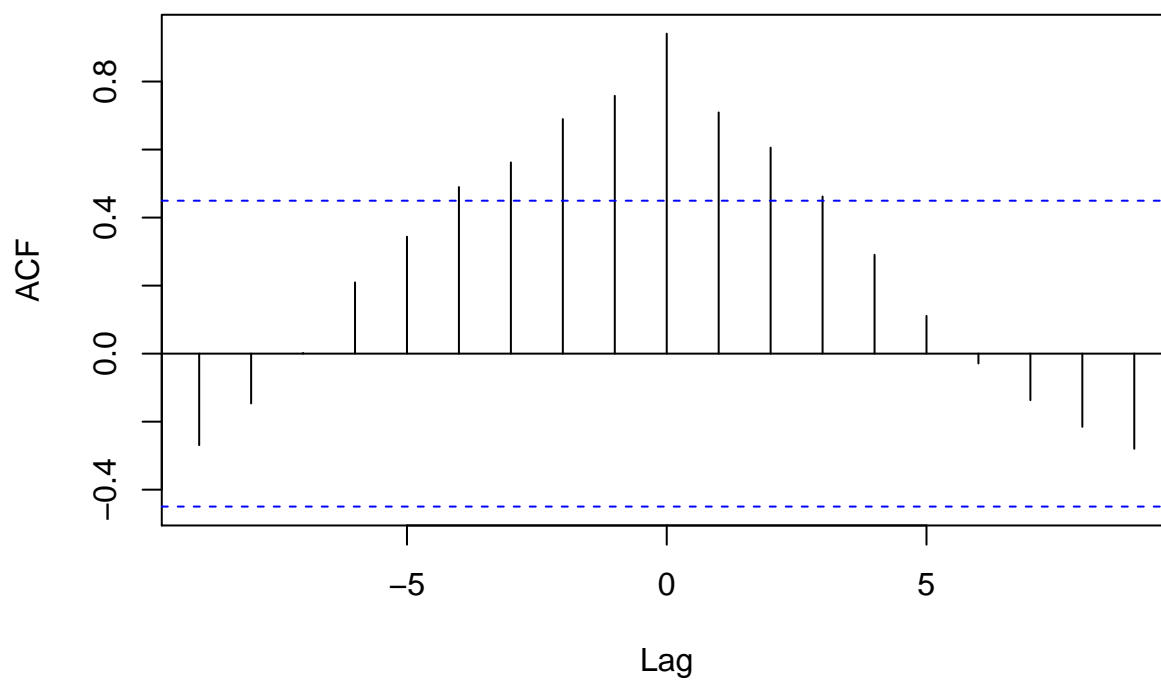
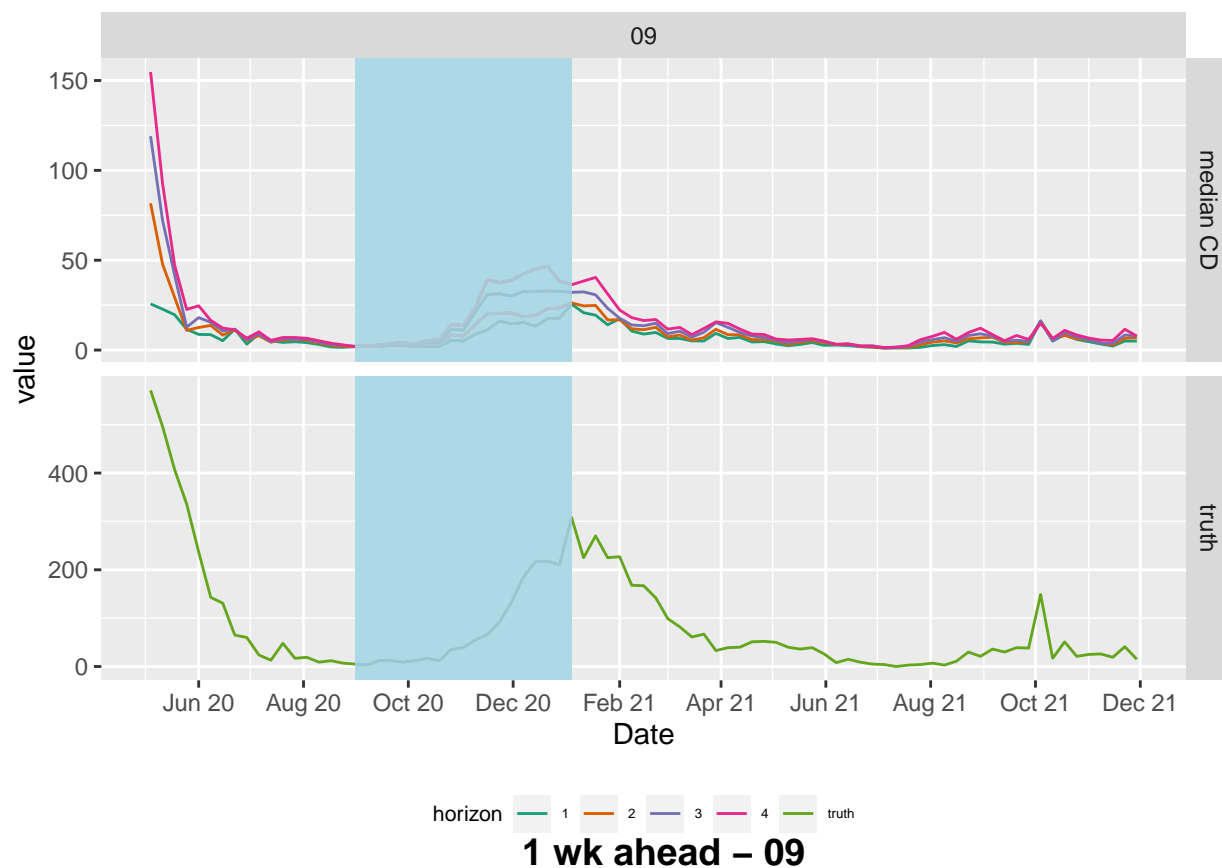


3 wk ahead – 08

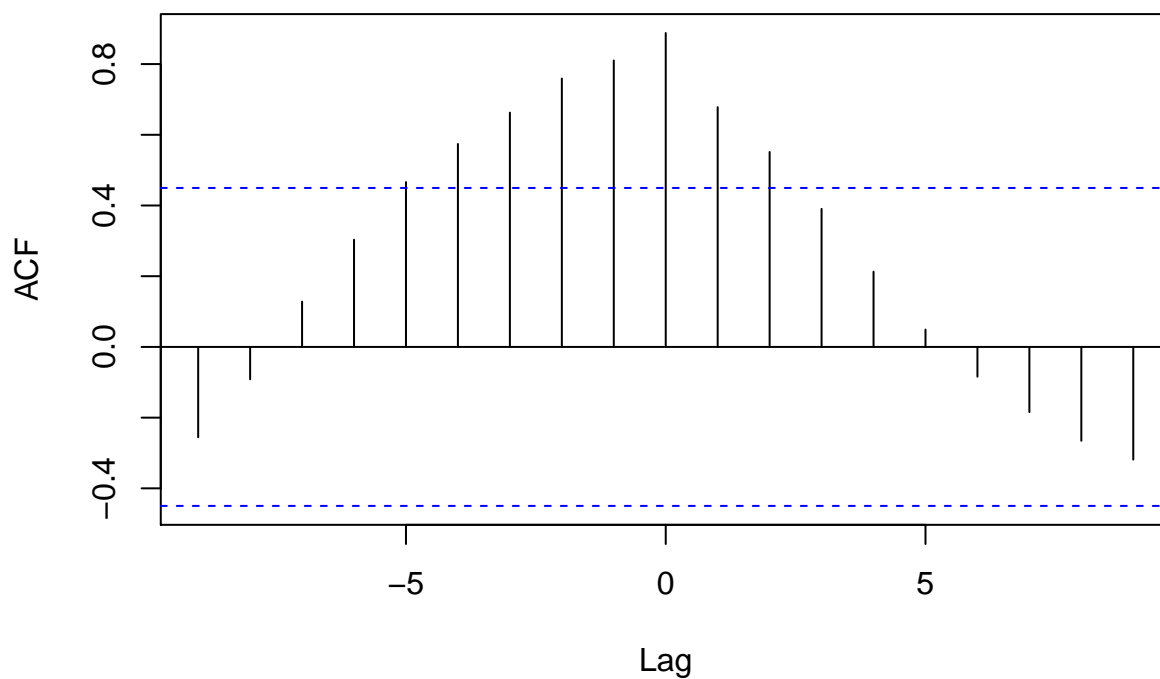


4 wk ahead – 08

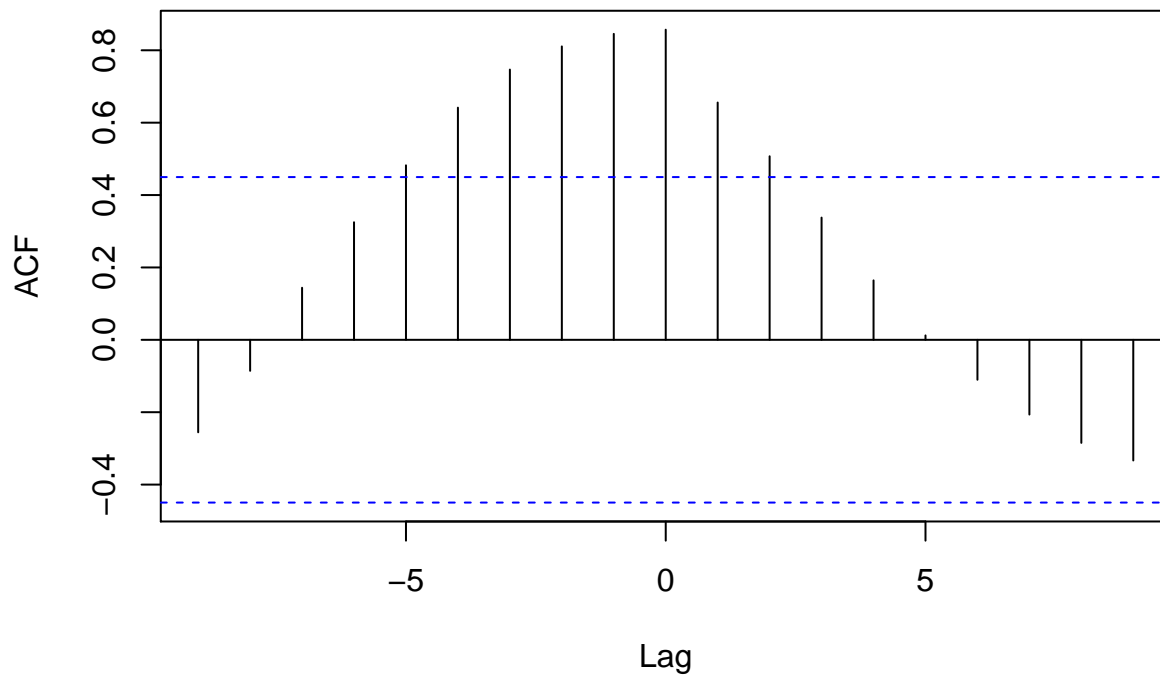




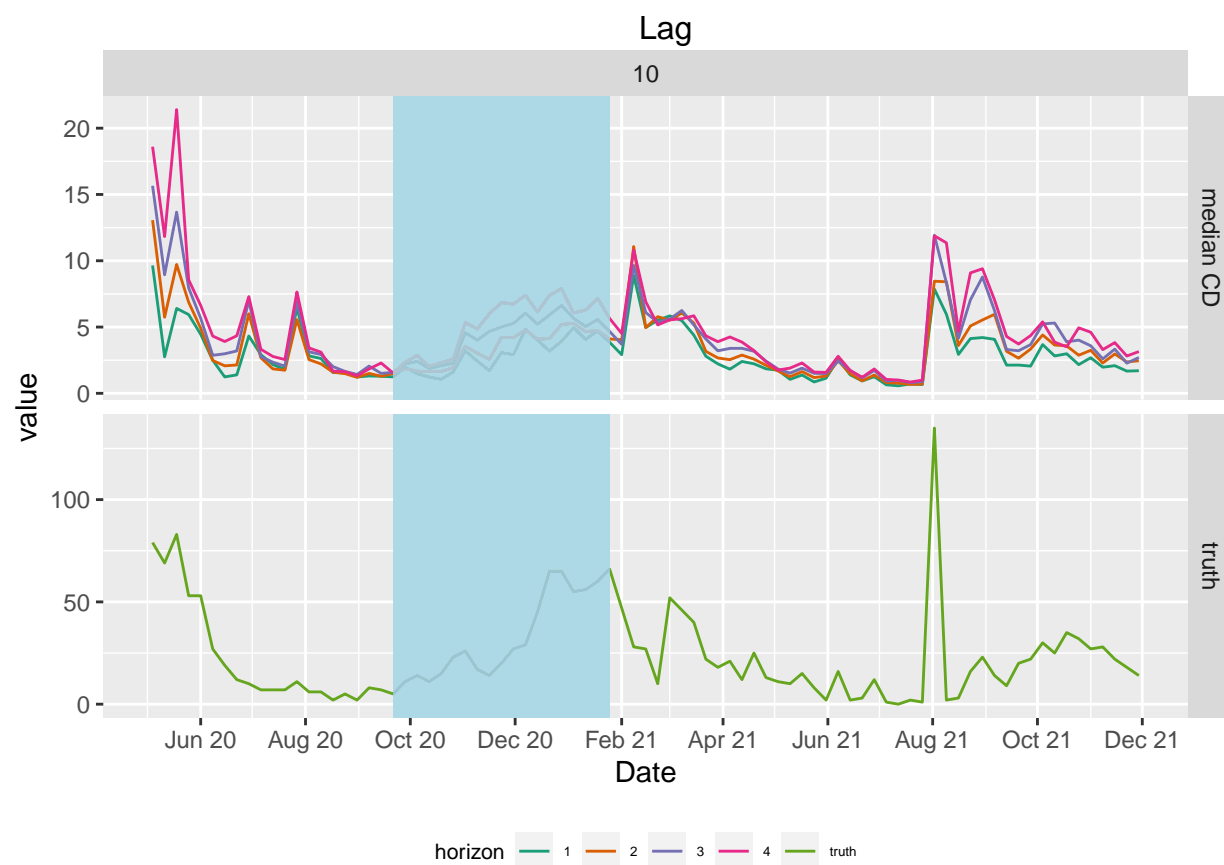
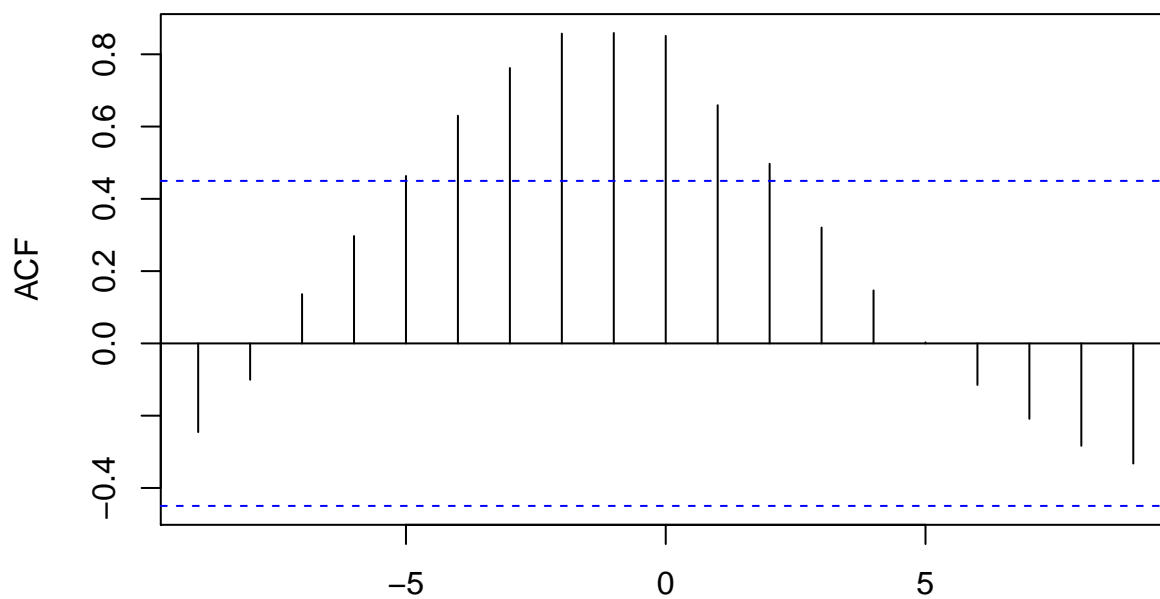
2 wk ahead – 09



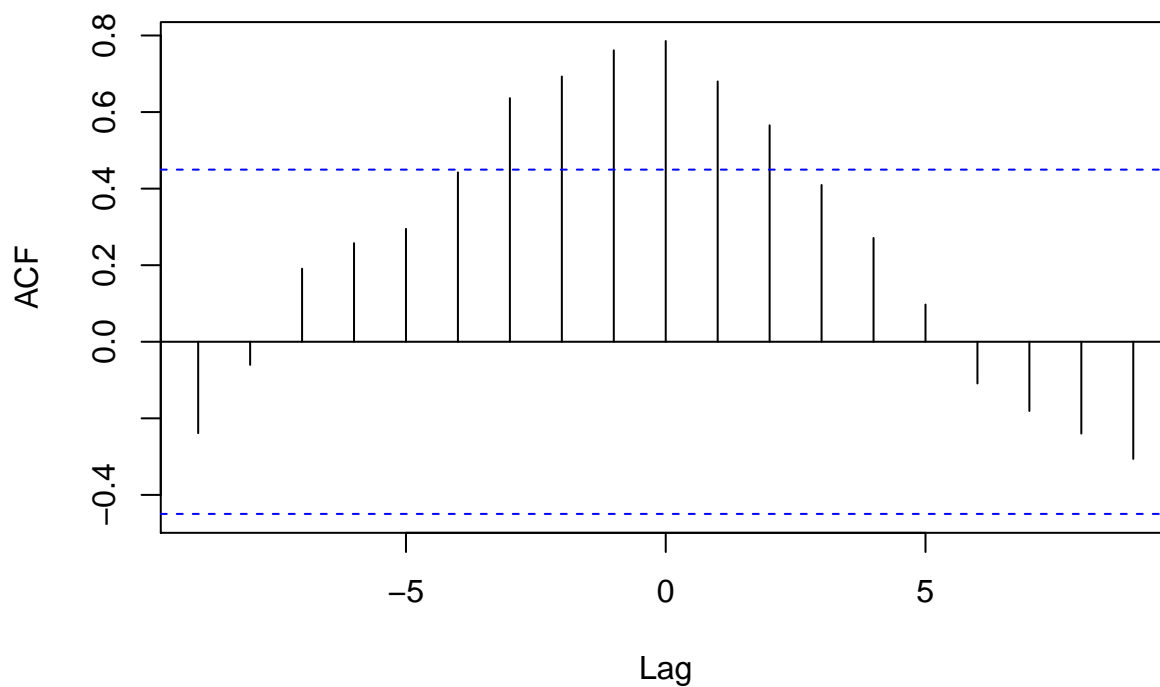
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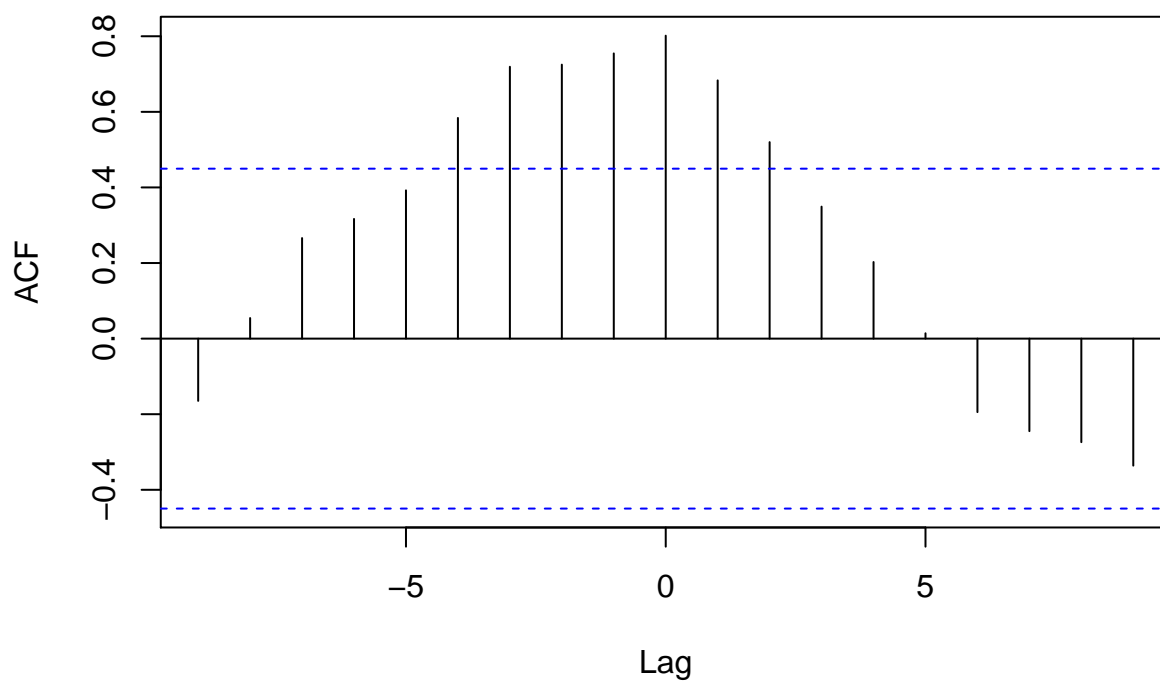
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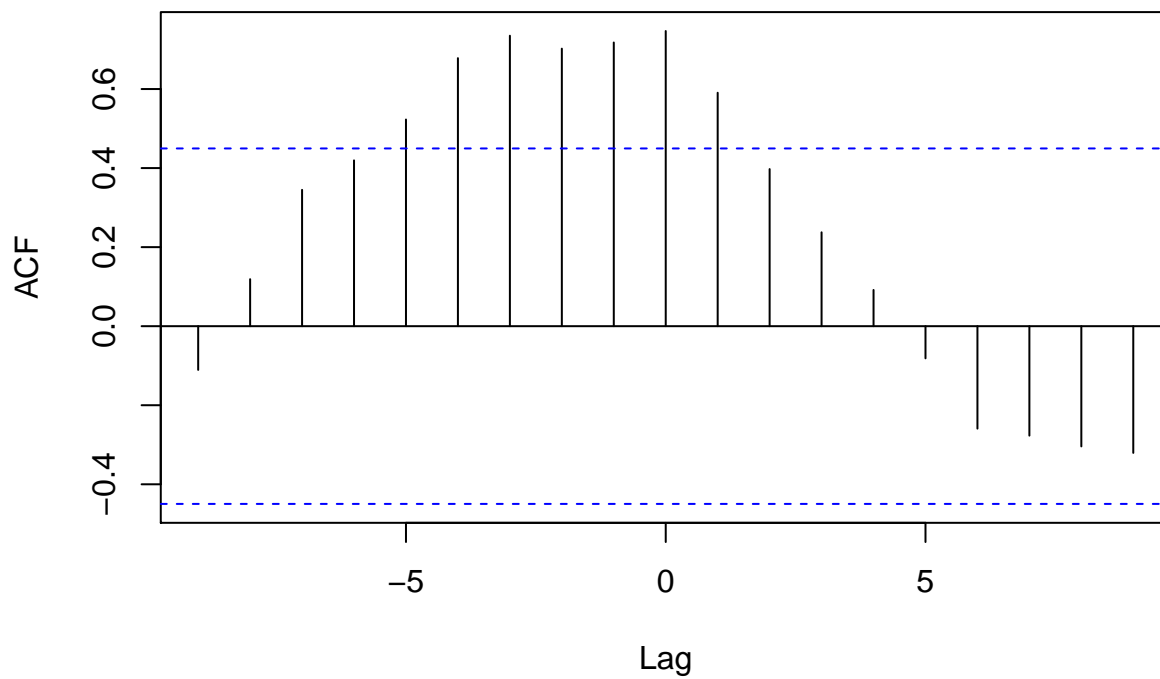
1 wk ahead – 10



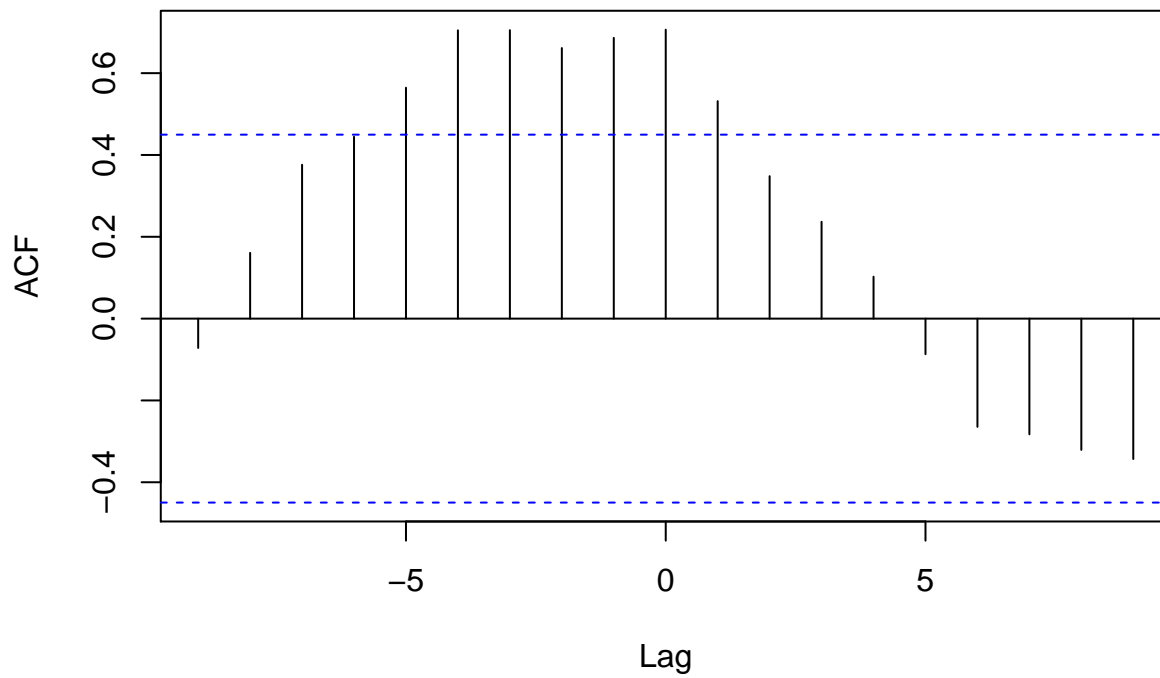
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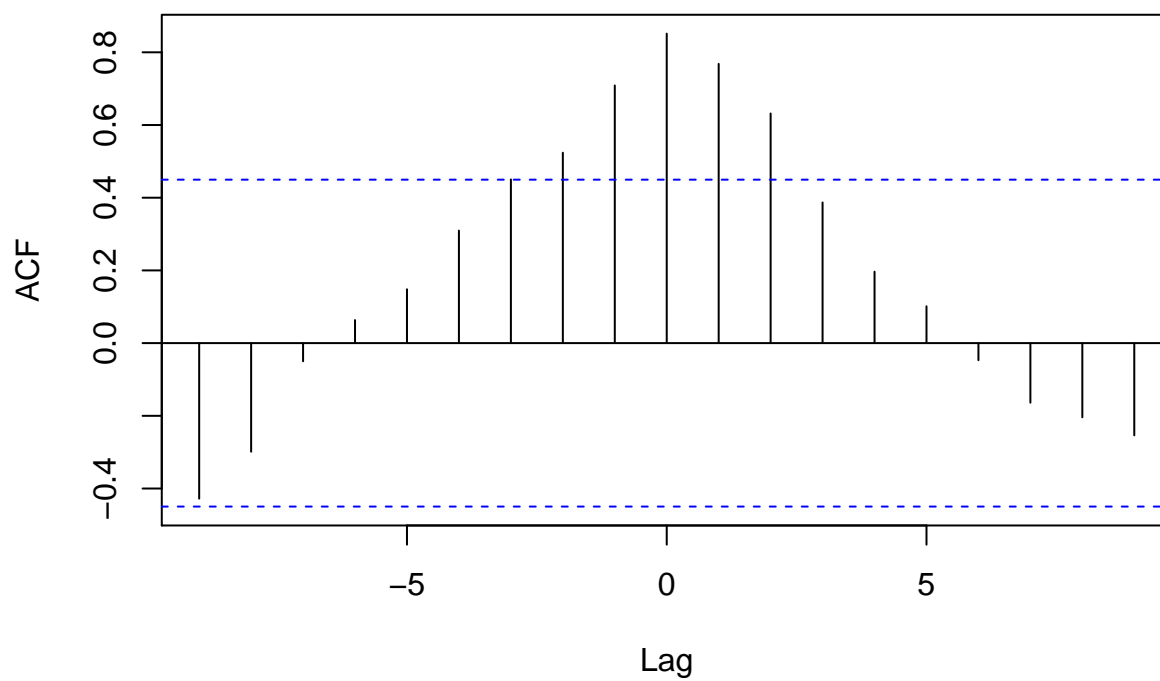
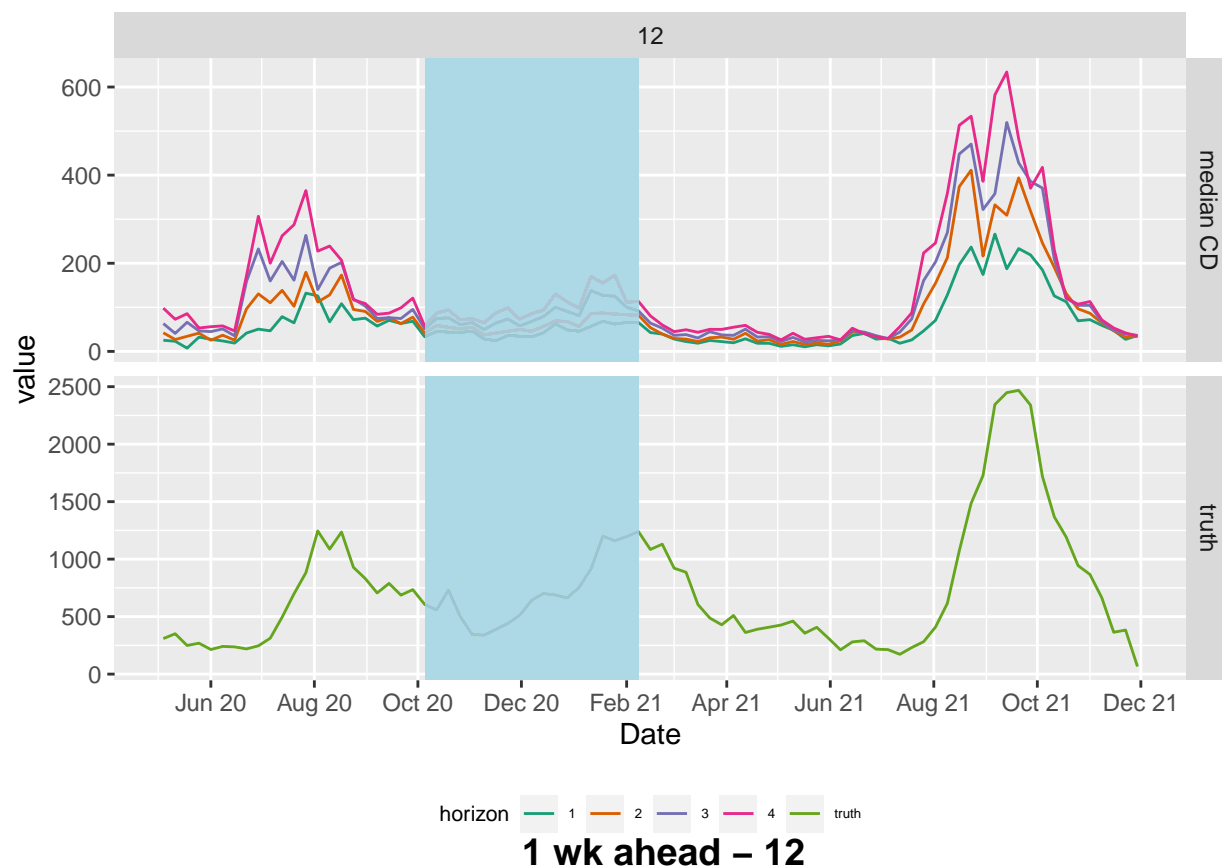


3 wk ahead – 10

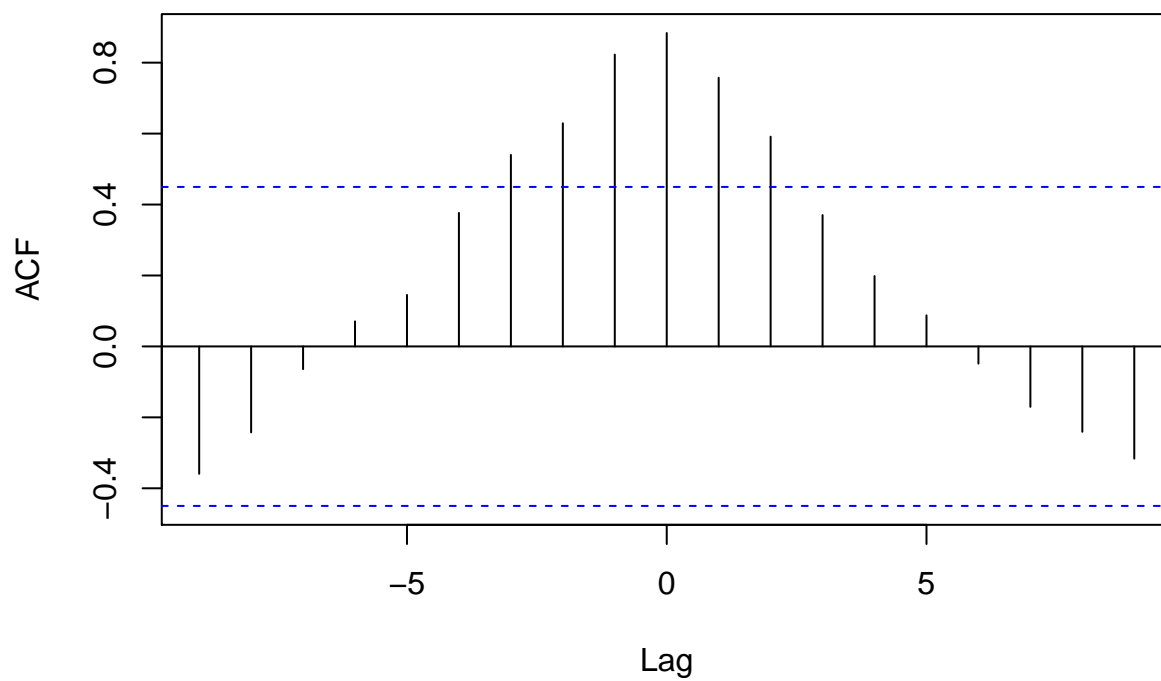


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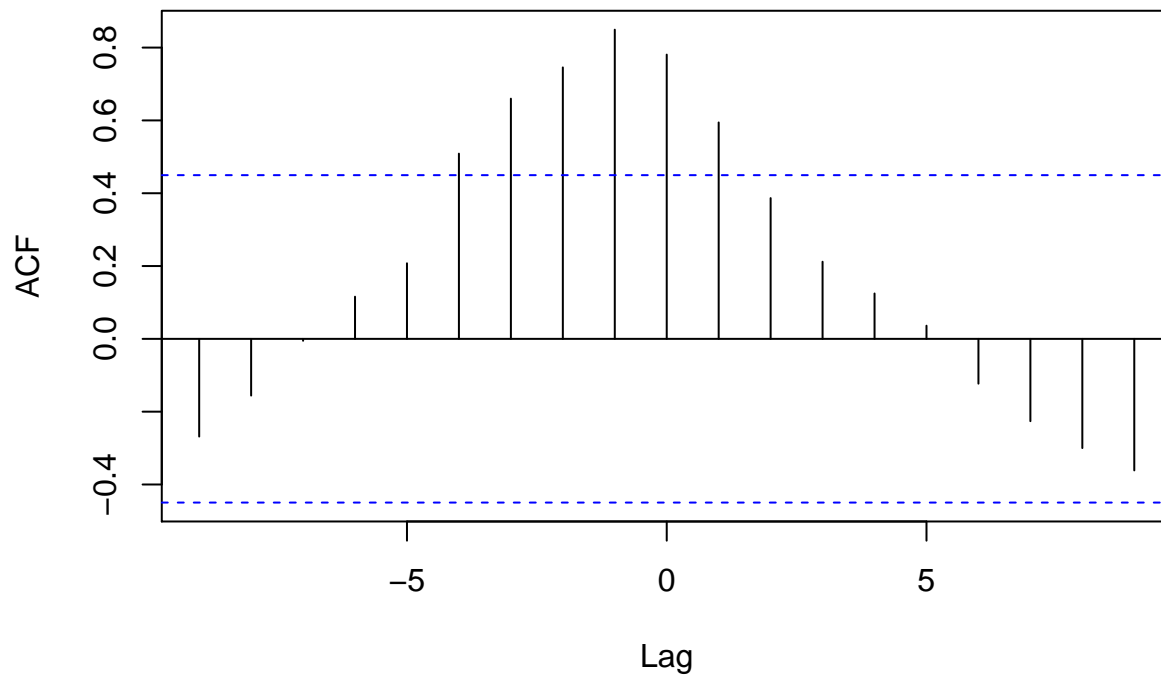




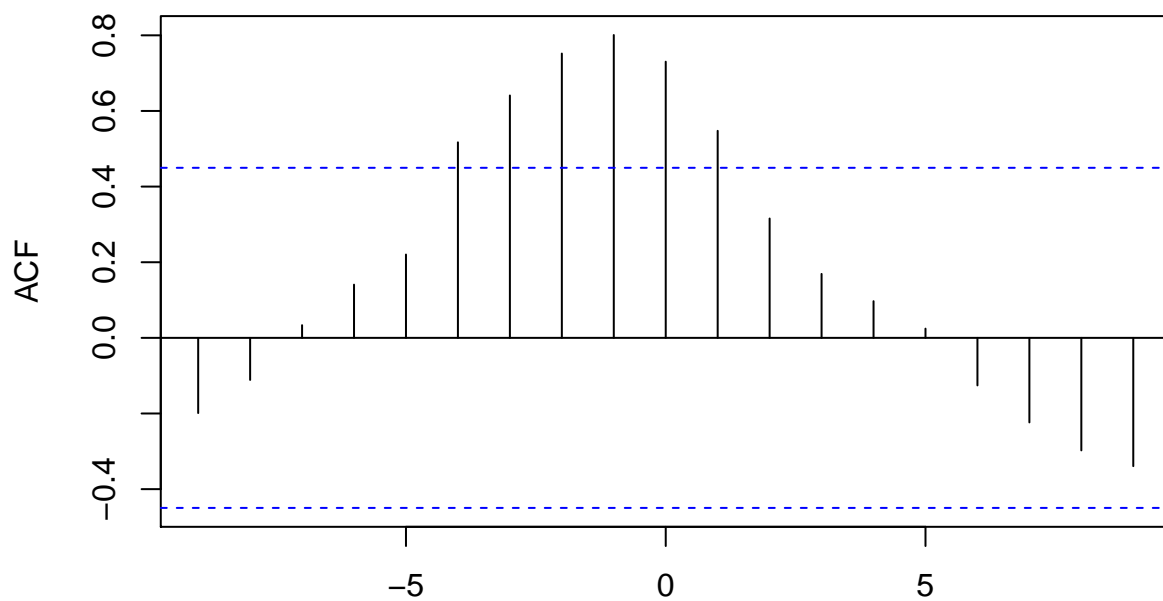
2 wk ahead – 12



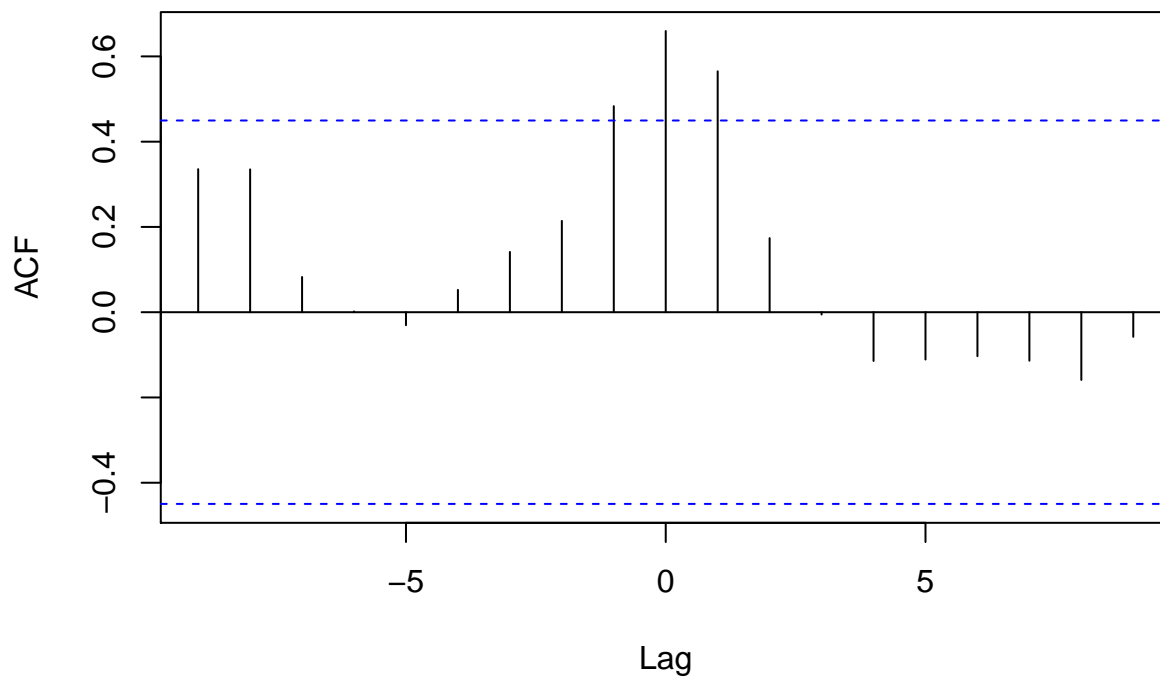
3 wk ahead – 12



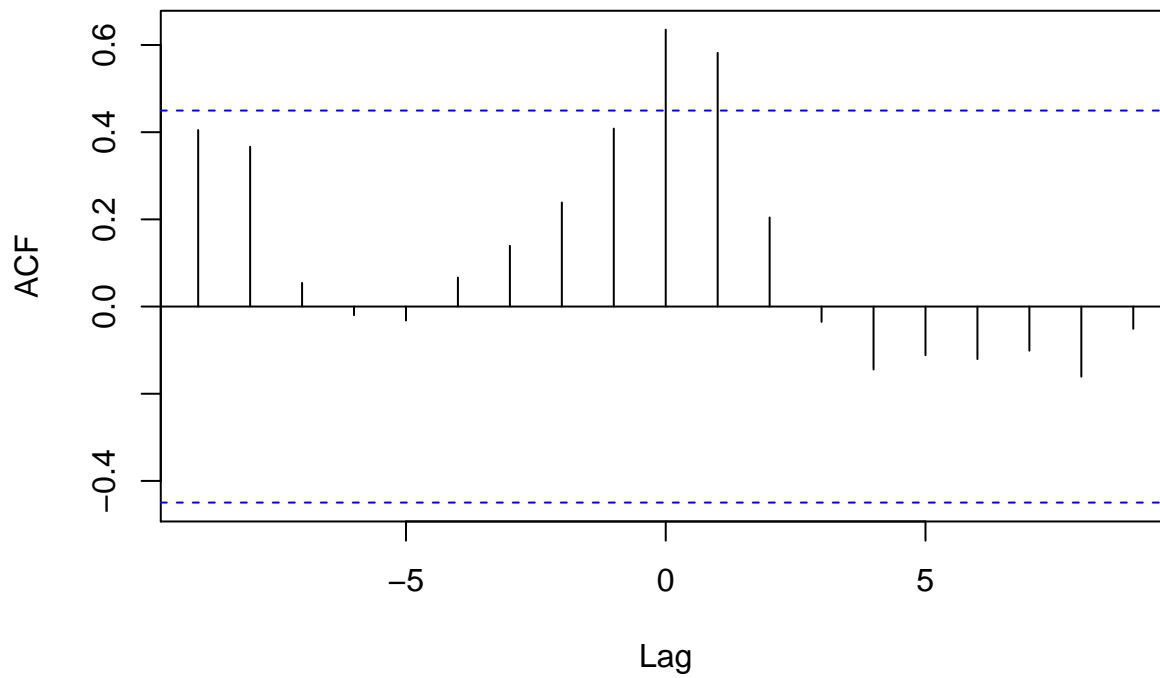
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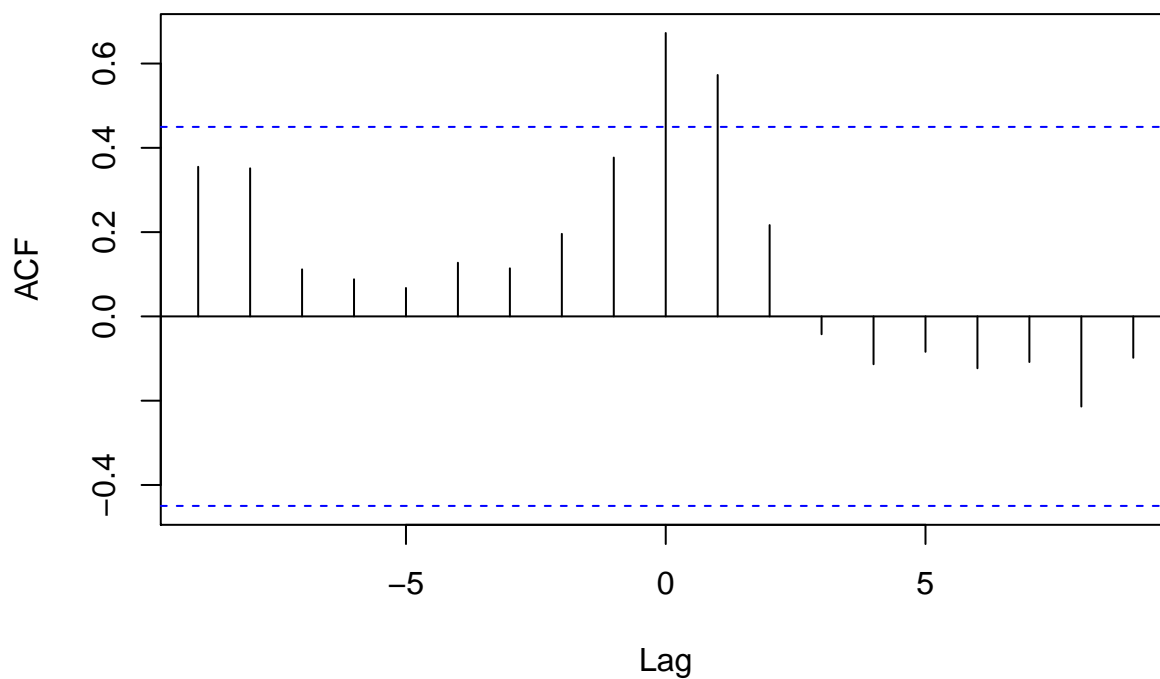
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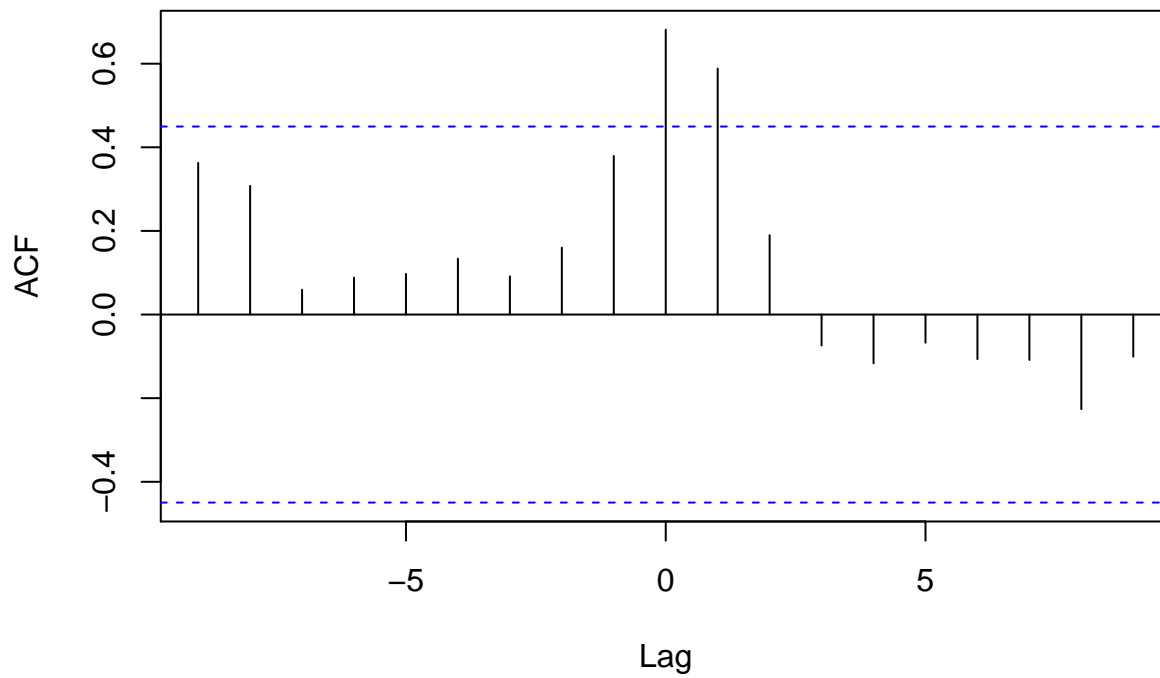
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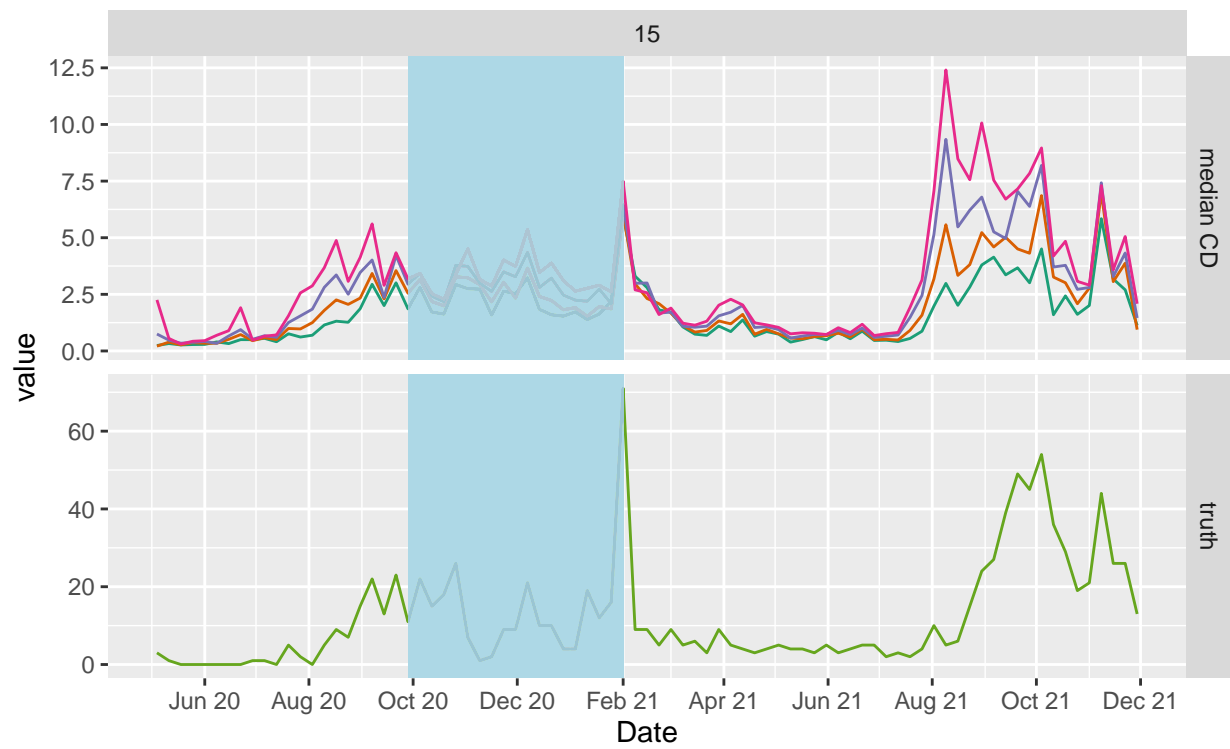


3 wk ahead – 13

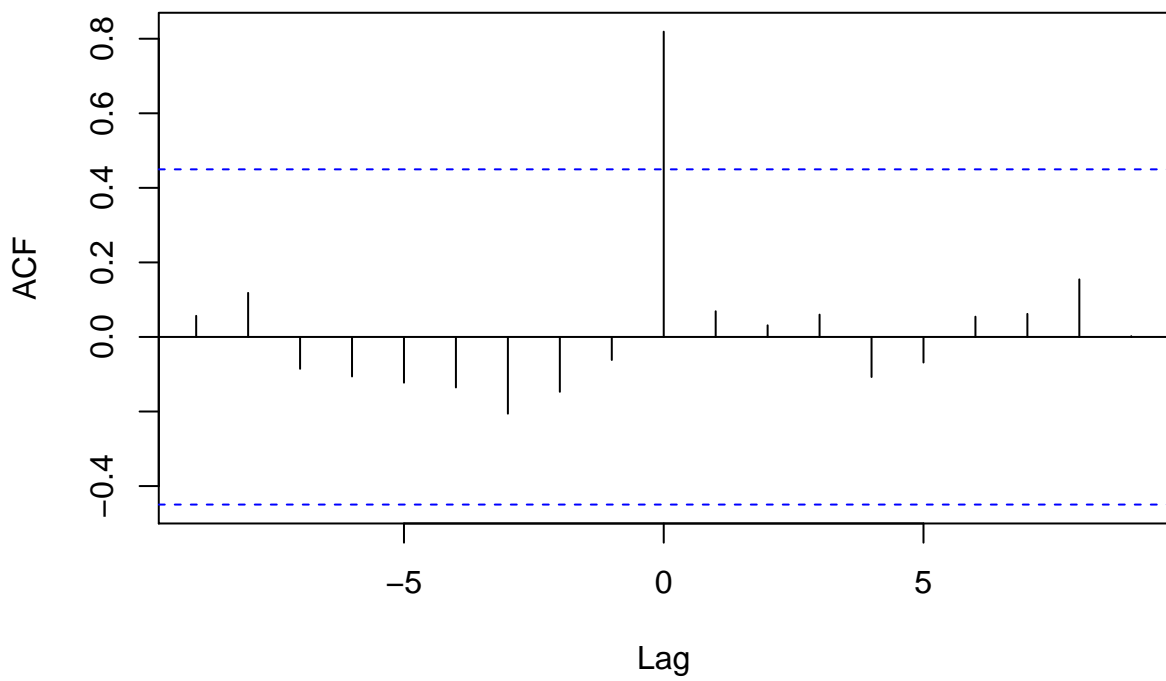


4 wk ahead – 13

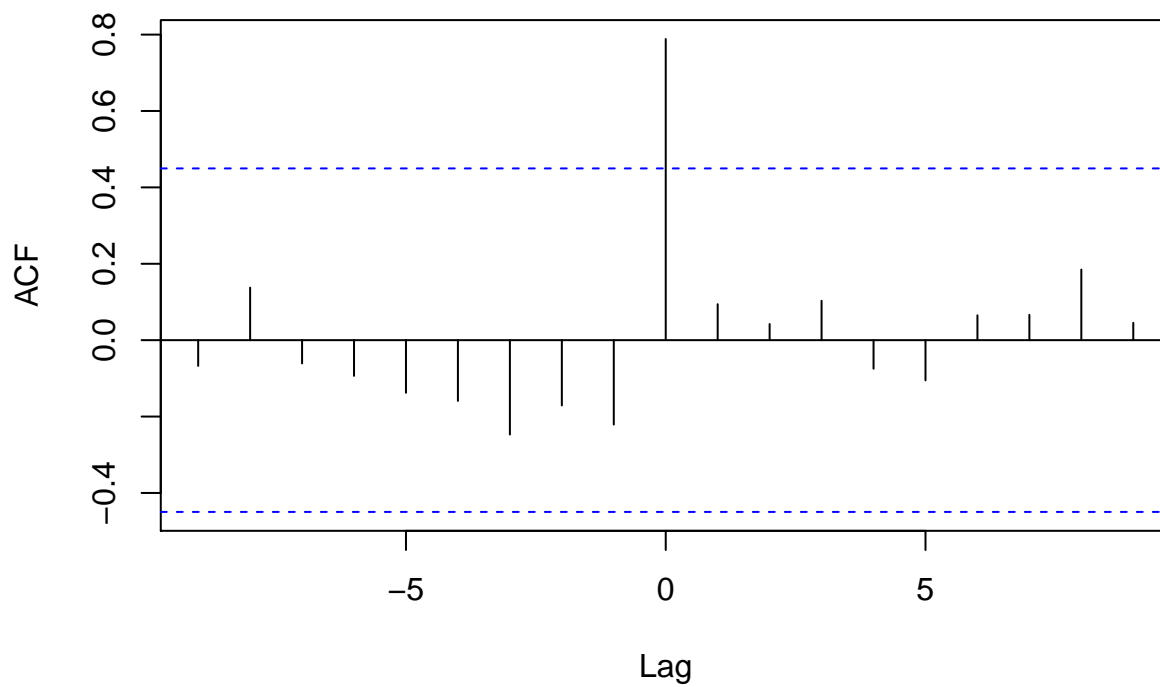




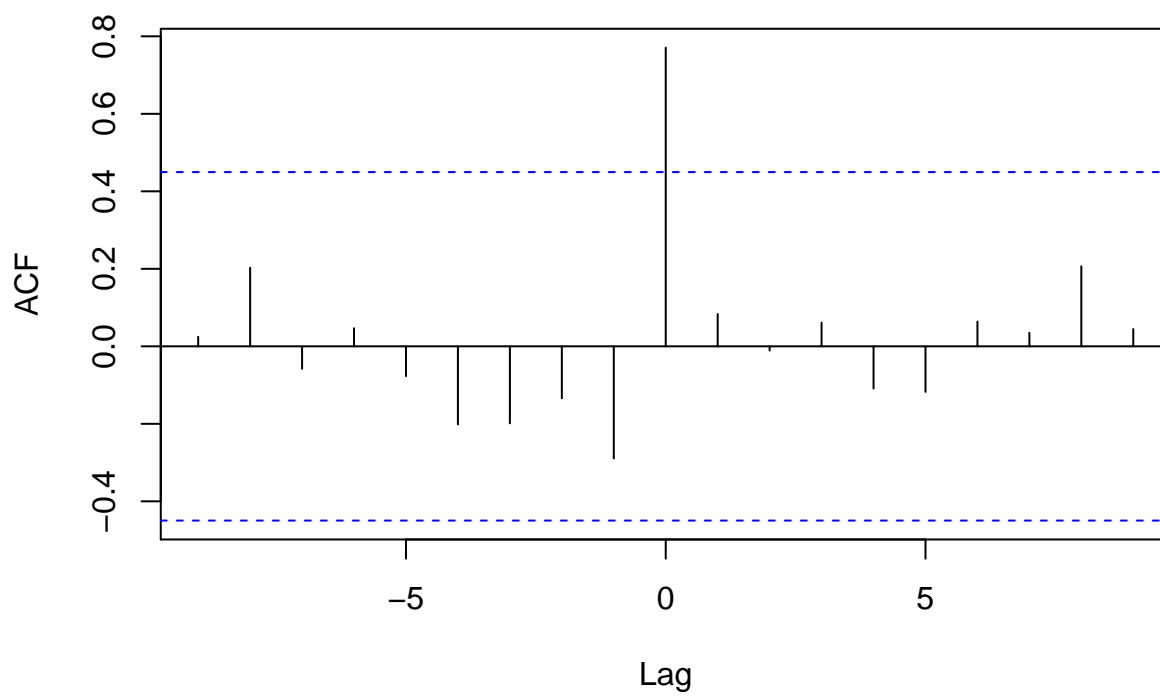
1 wk ahead – 15



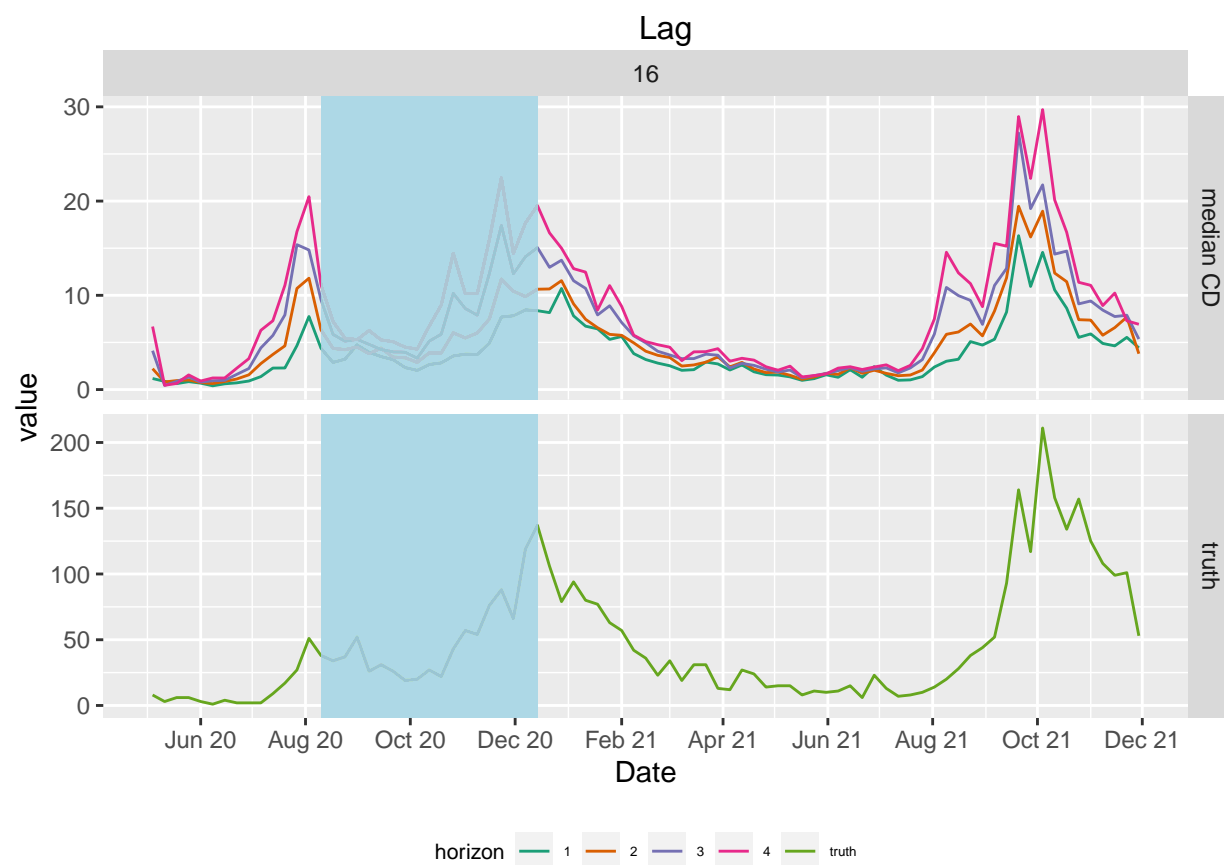
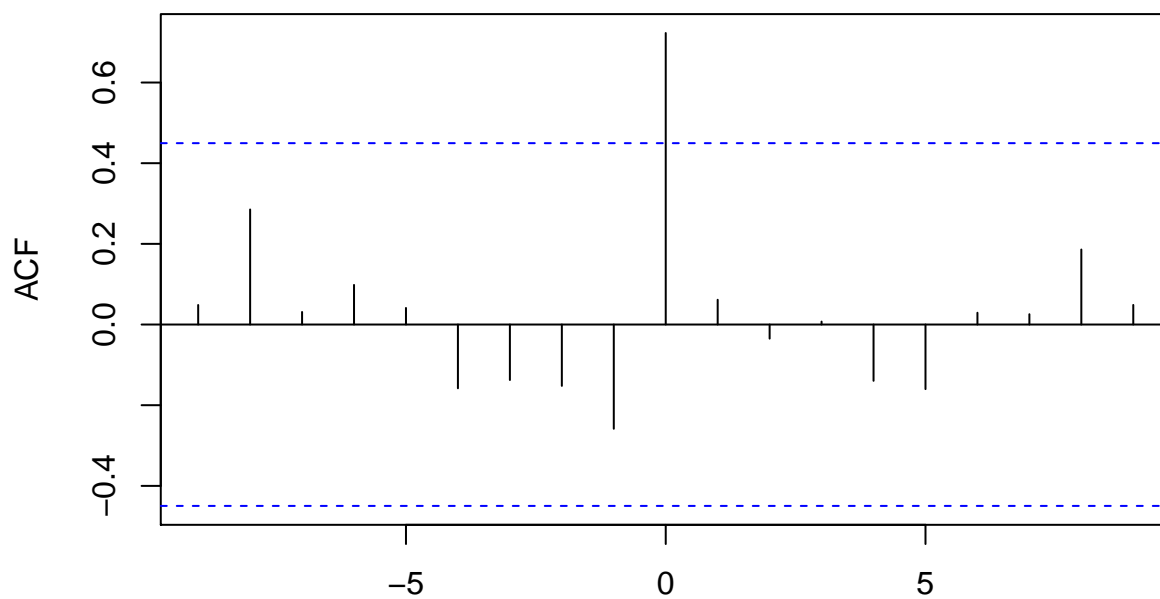
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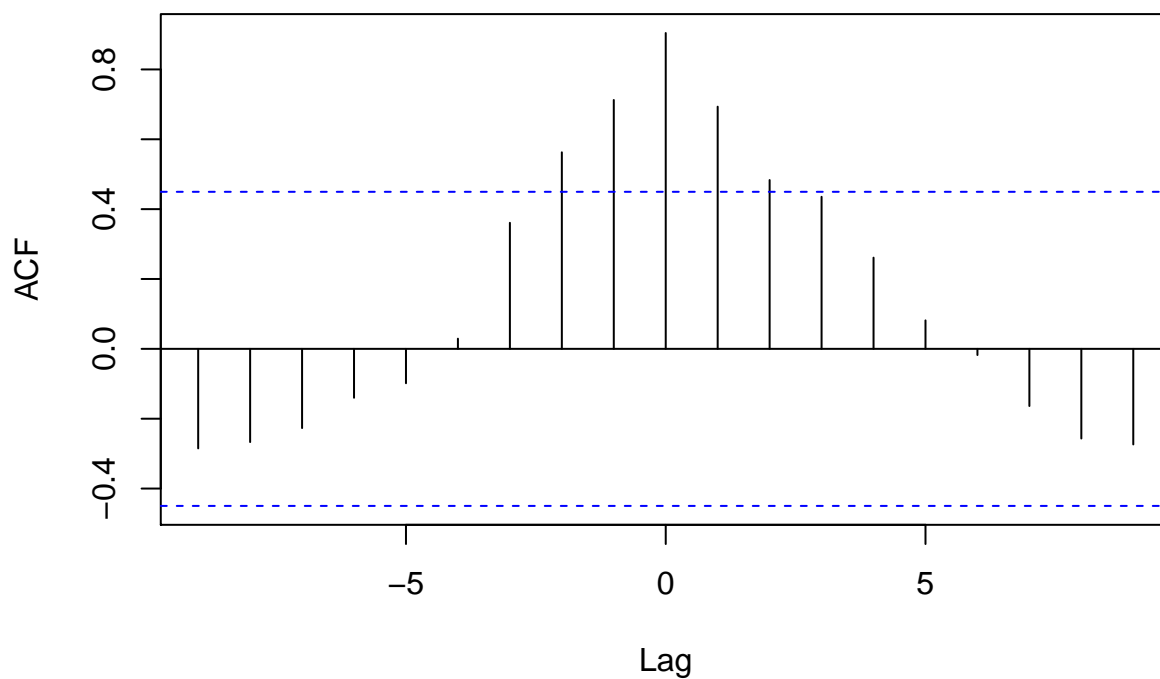
3 wk ahead – 15



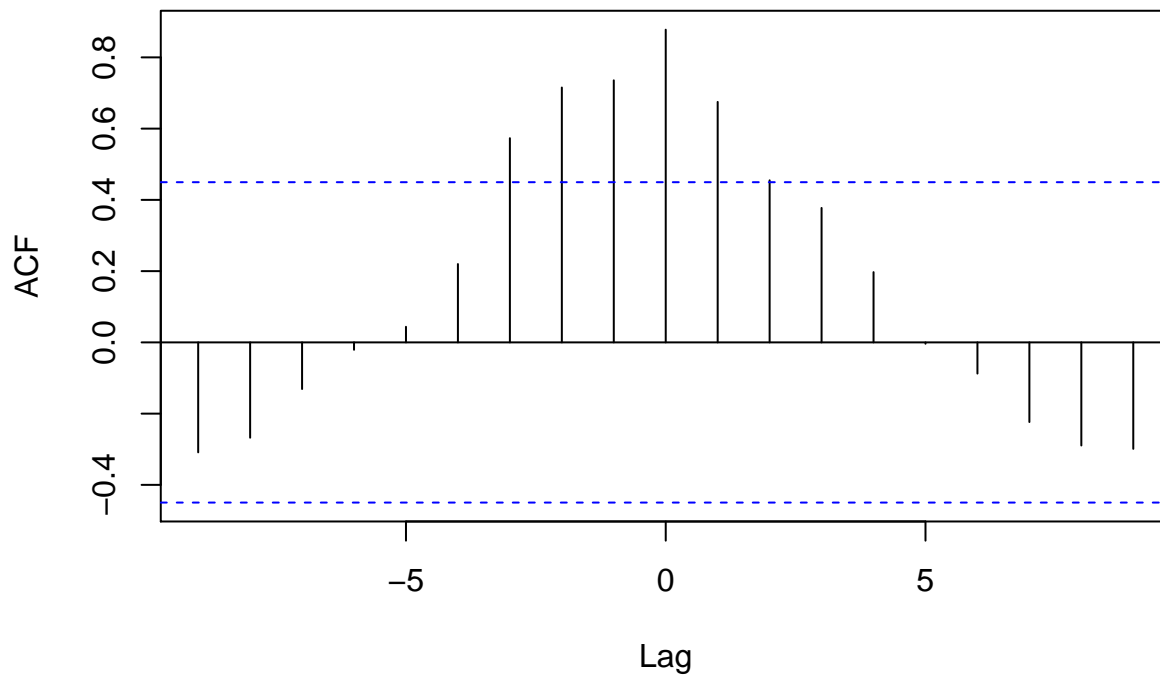
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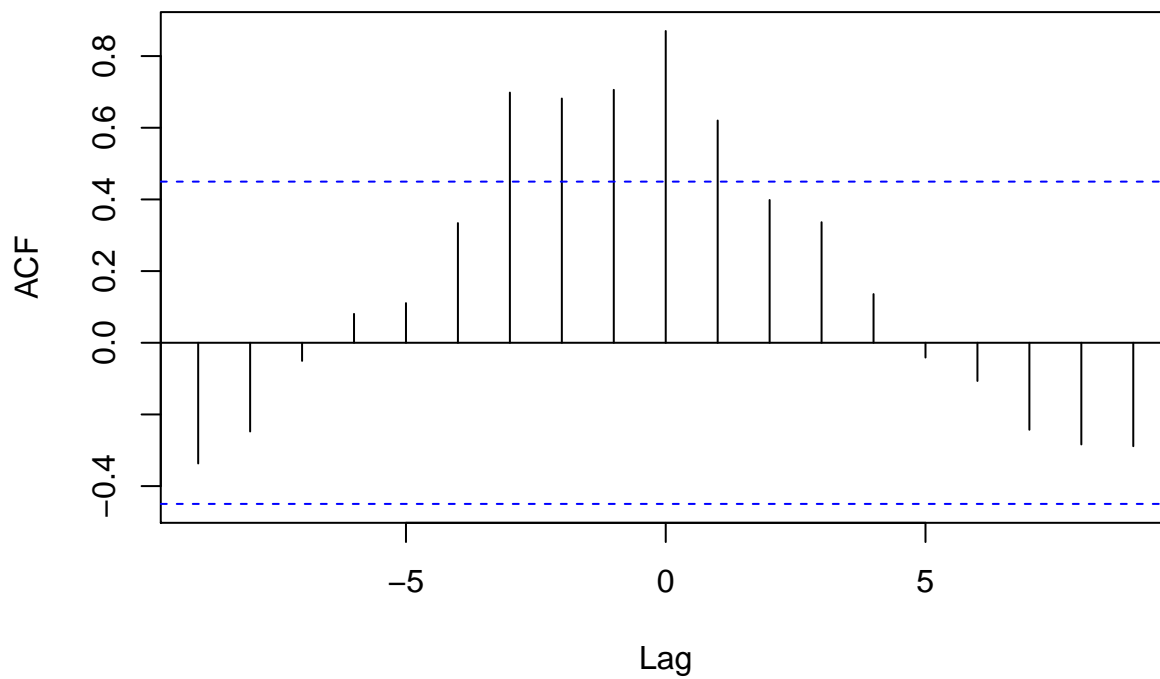
1 wk ahead – 16



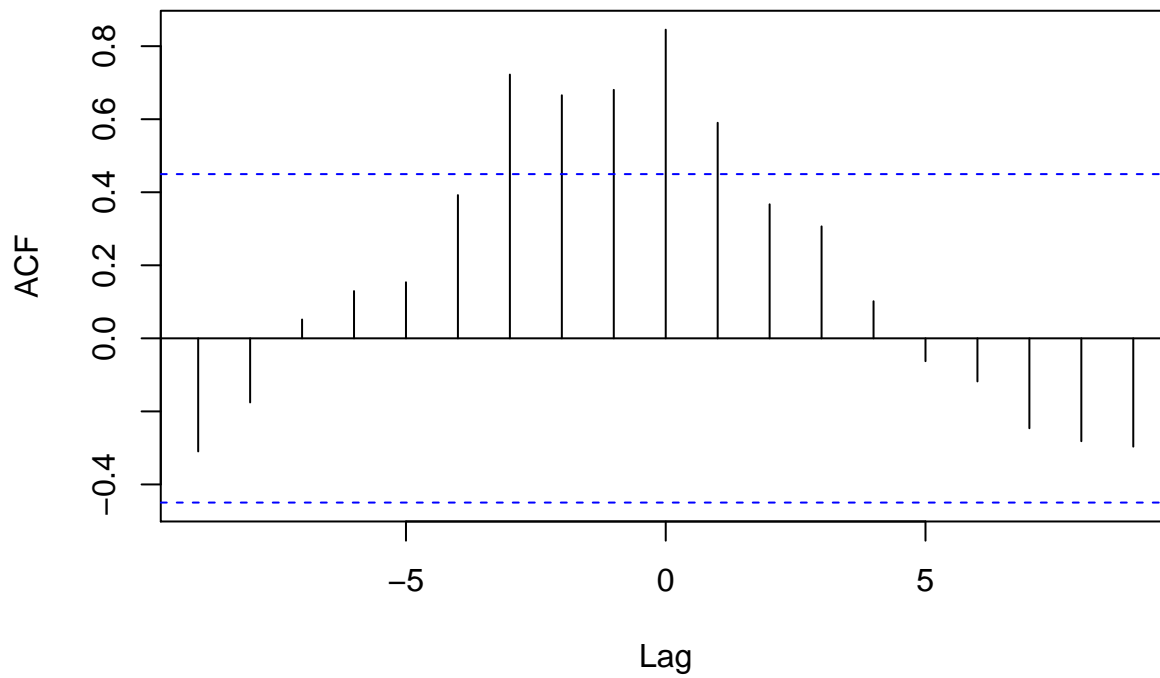
2 wk ahead – 16

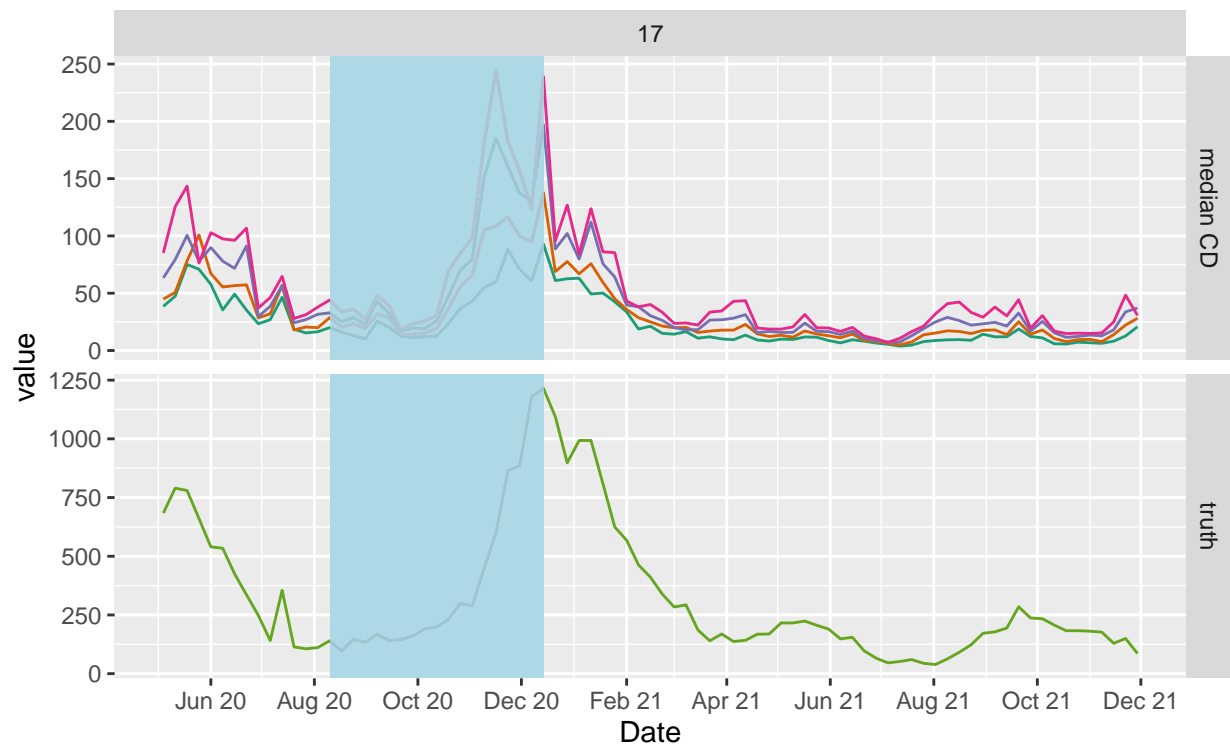


3 wk ahead – 16



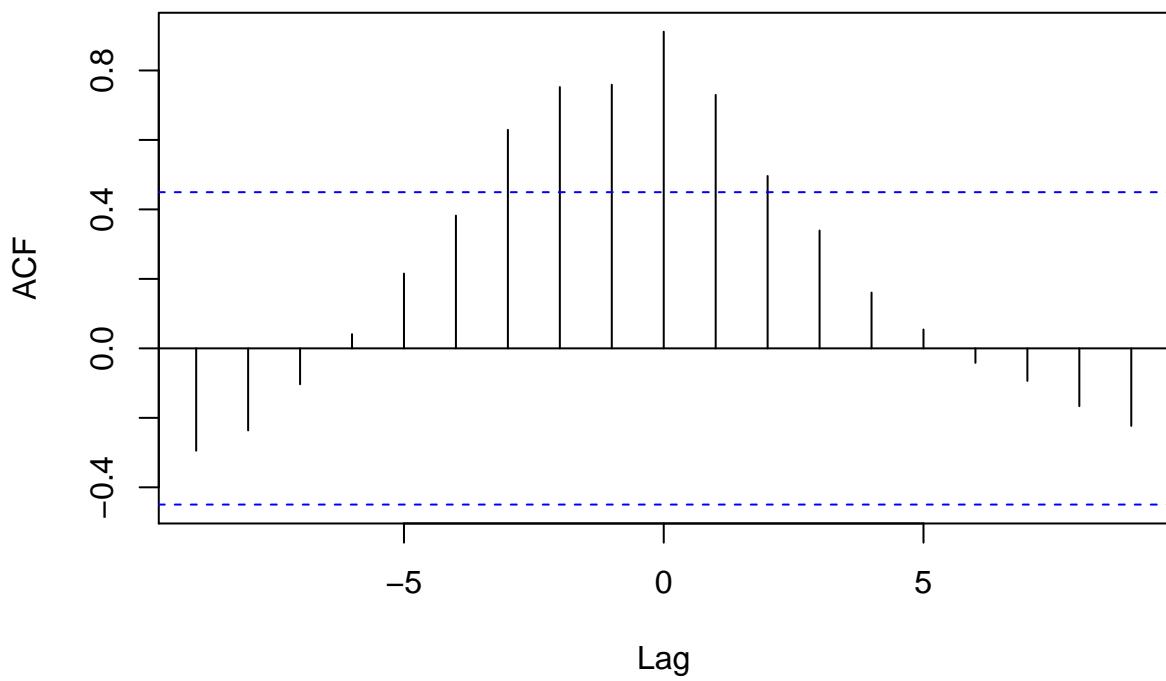
4 wk ahead – 16



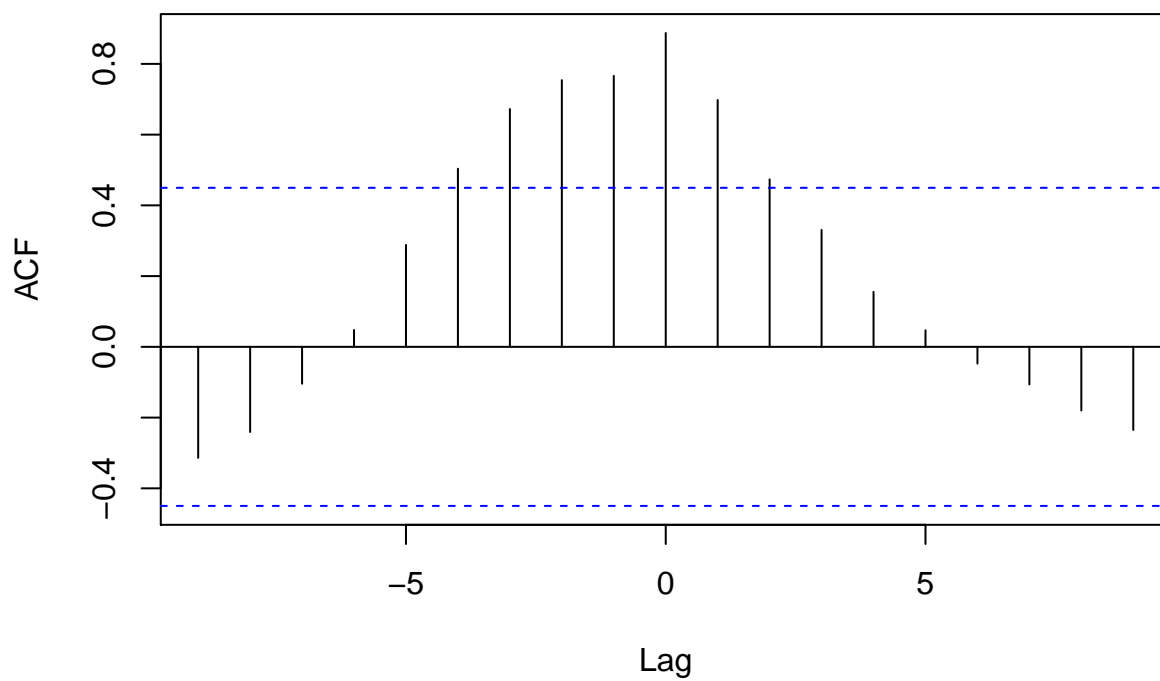


horizon 1 2 3 4 truth

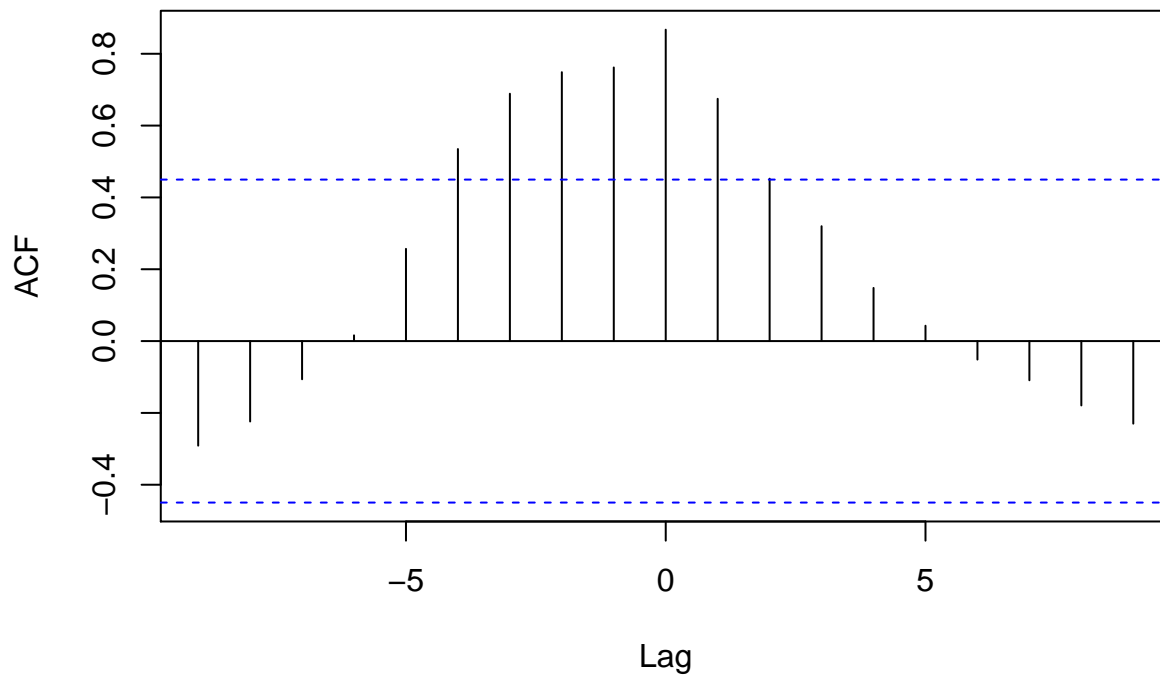
1 wk ahead – 17



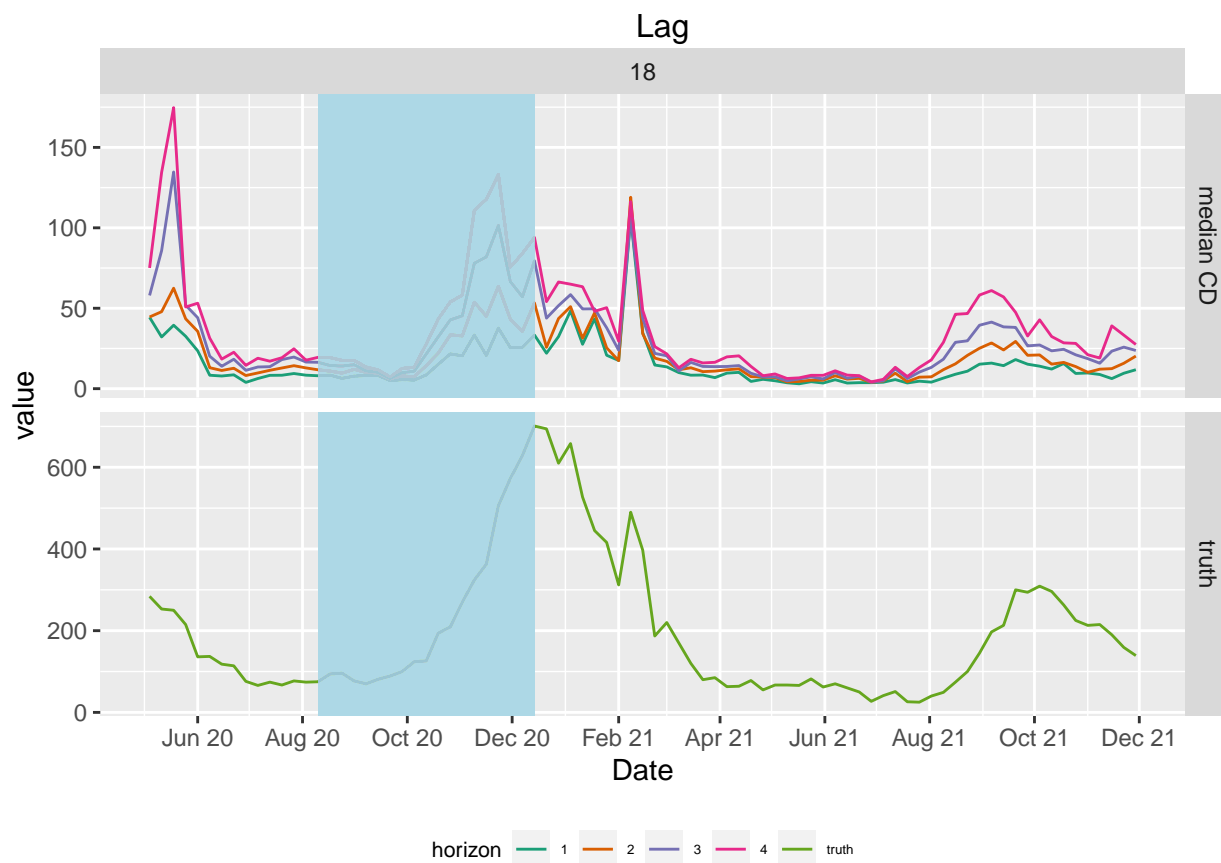
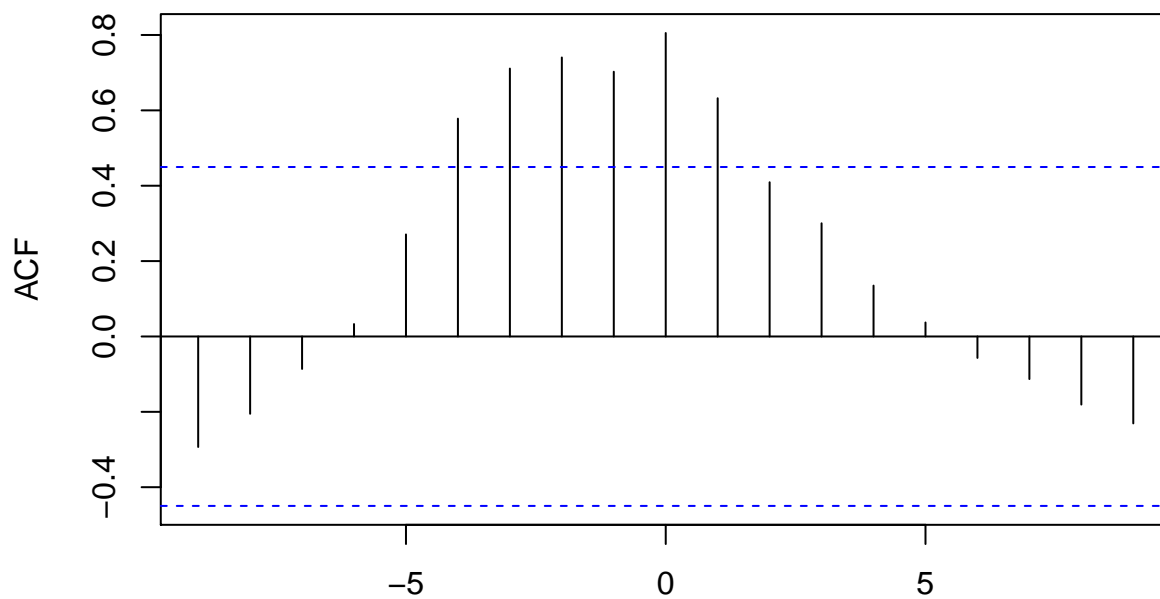
2 wk ahead – 17



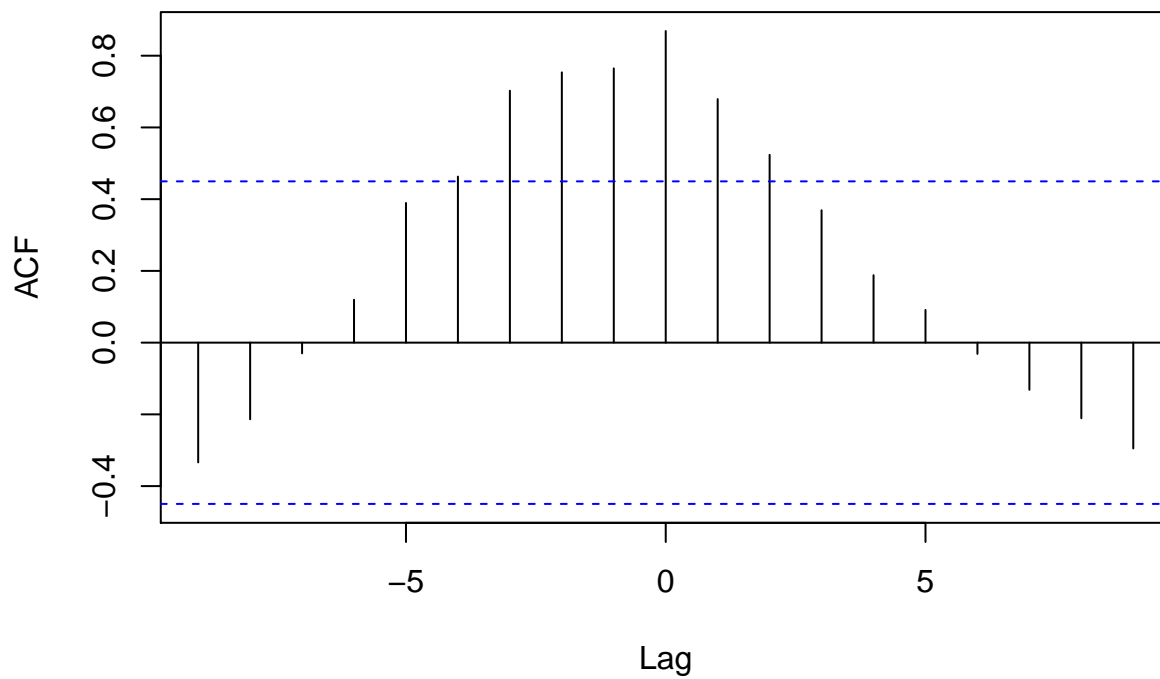
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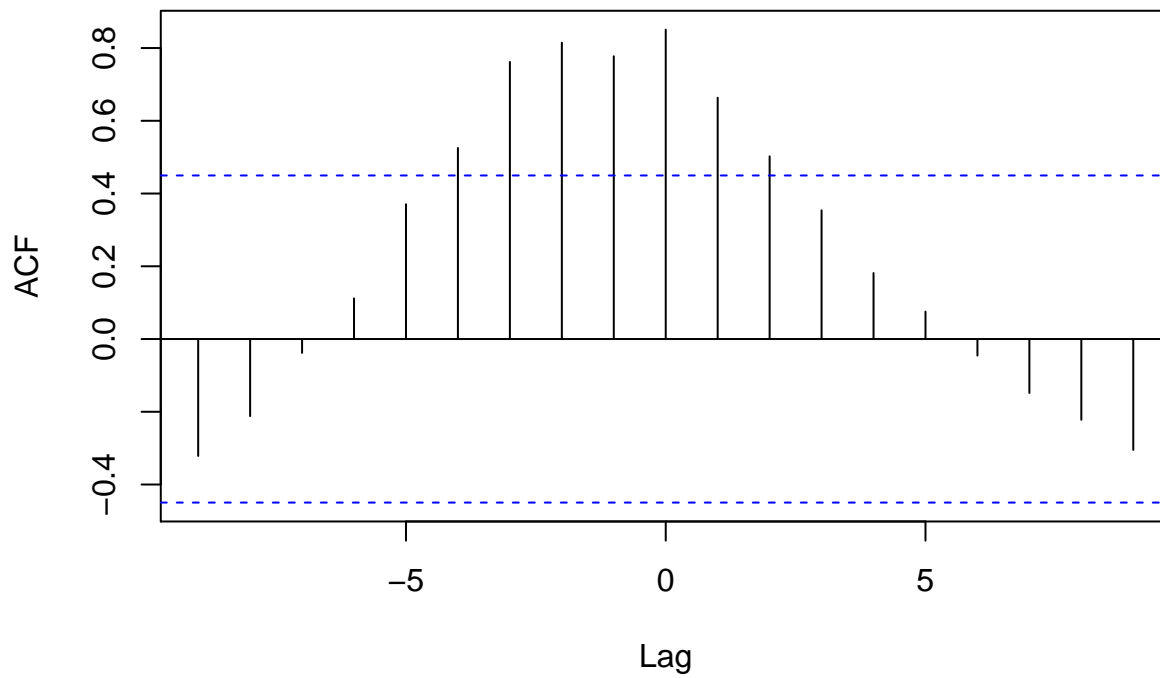
4 wk ahead – 17



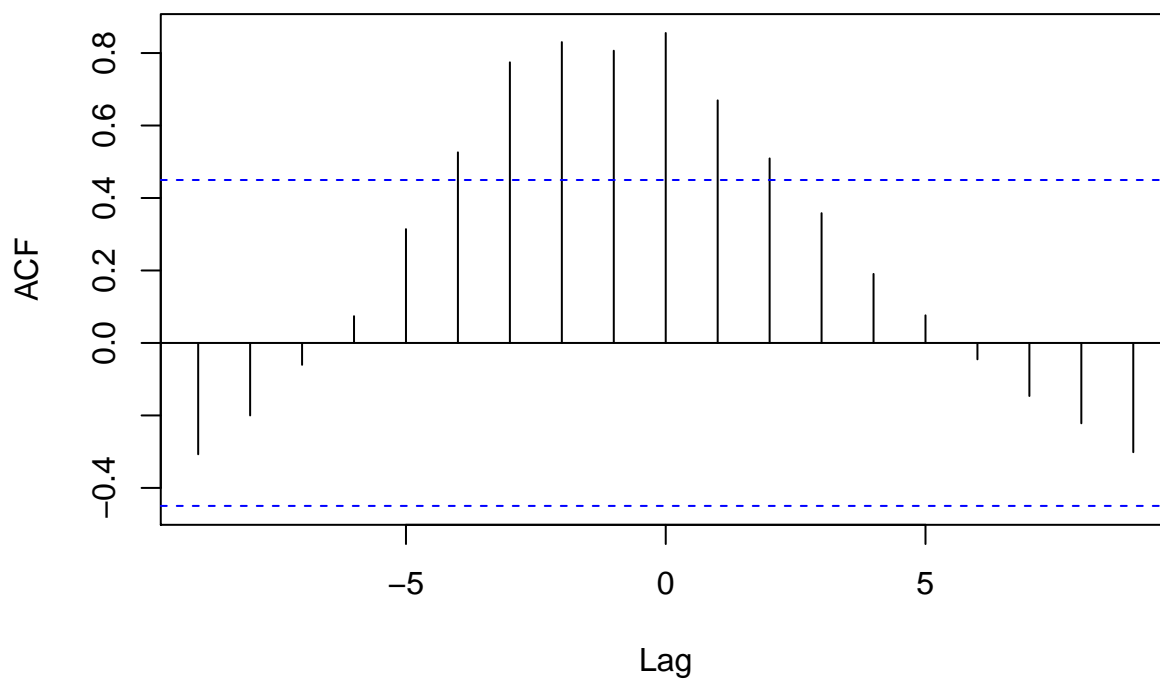
1 wk ahead – 18



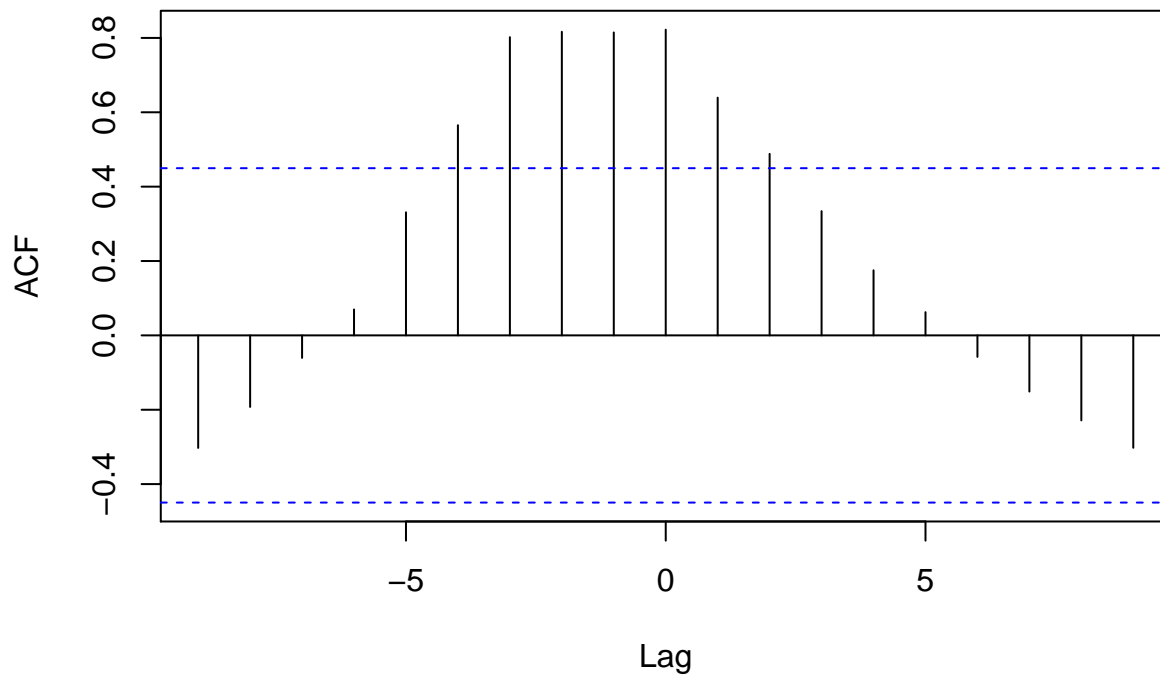
2 wk ahead – 18

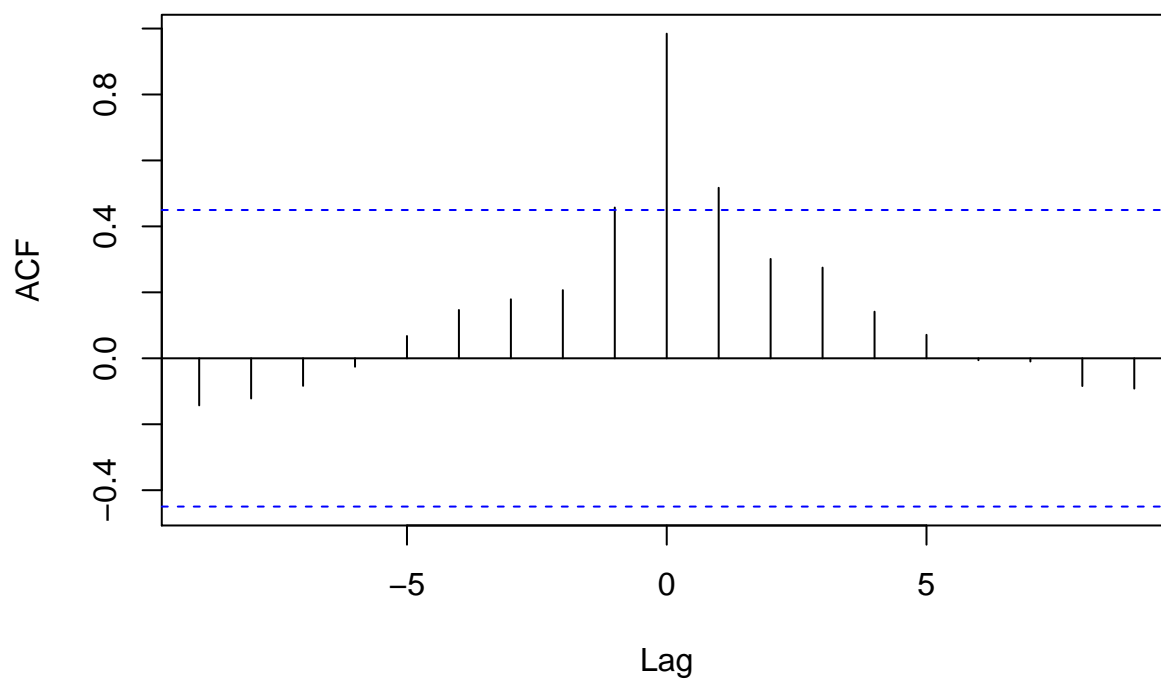
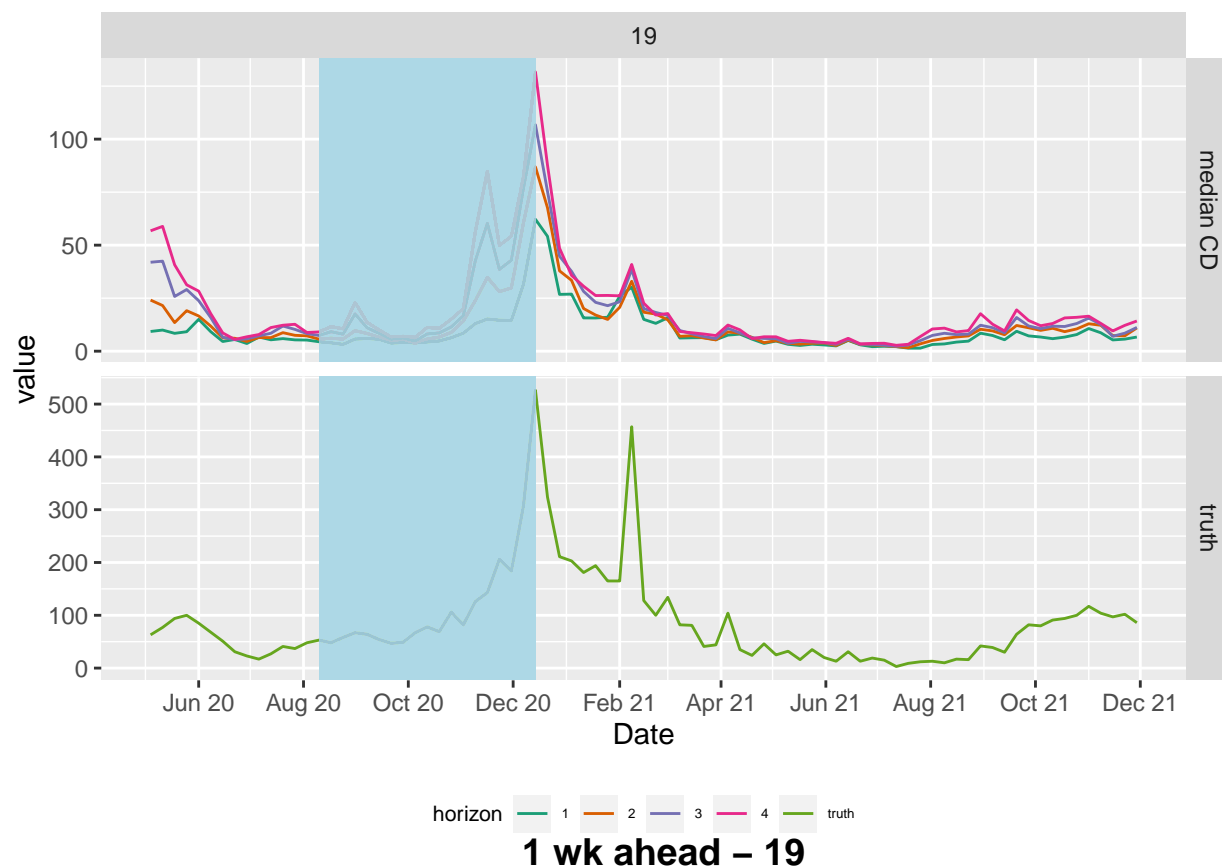


3 wk ahead – 18

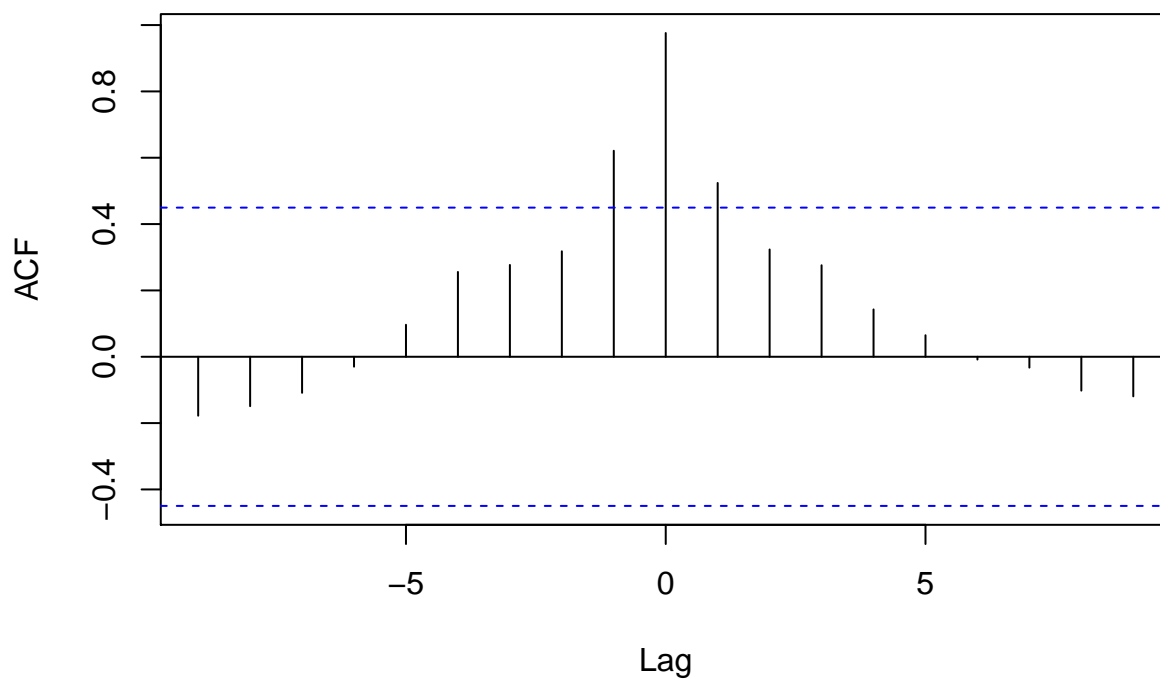


4 wk ahead – 18

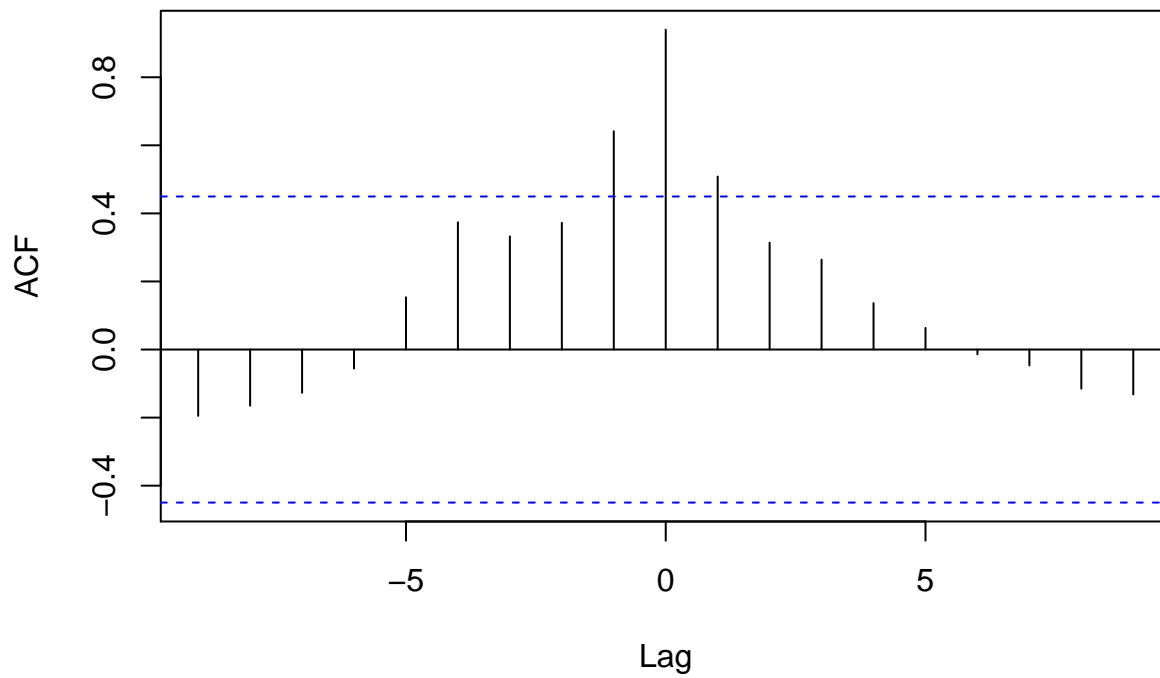




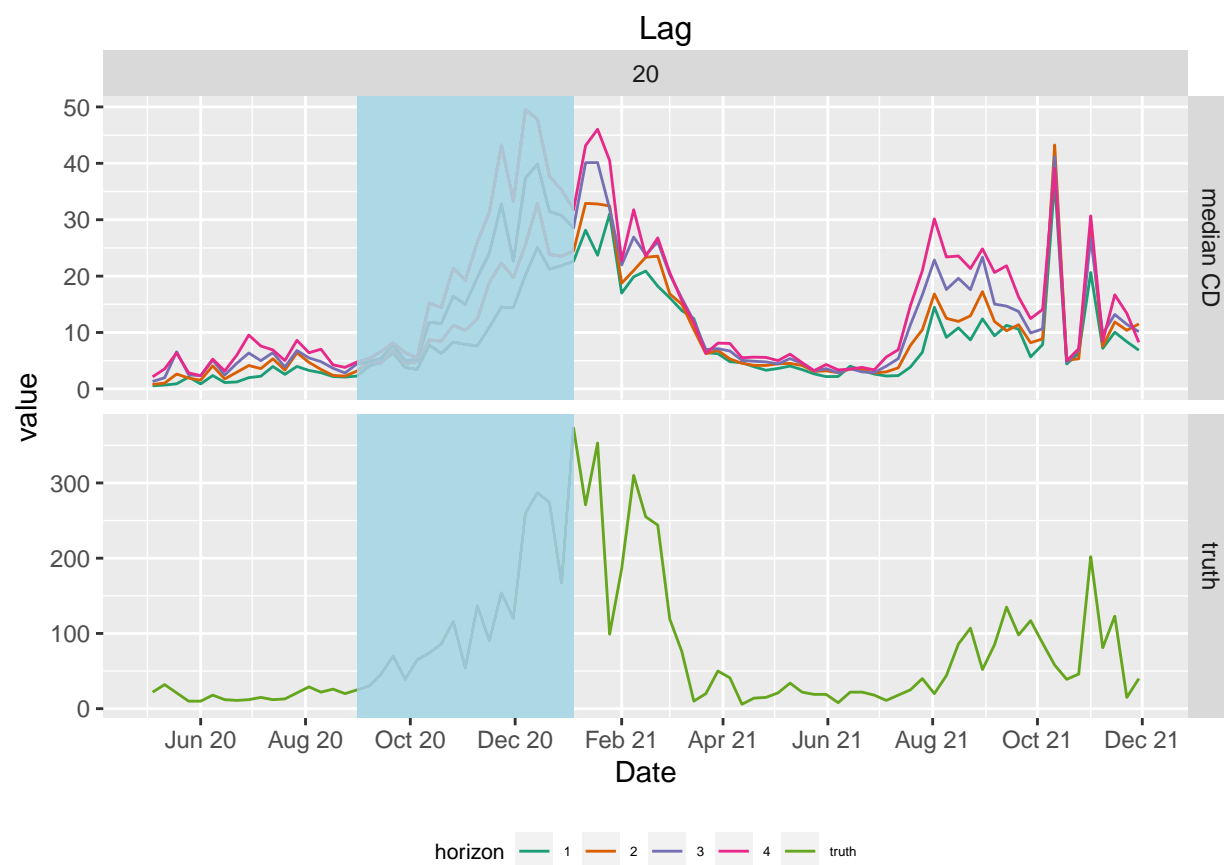
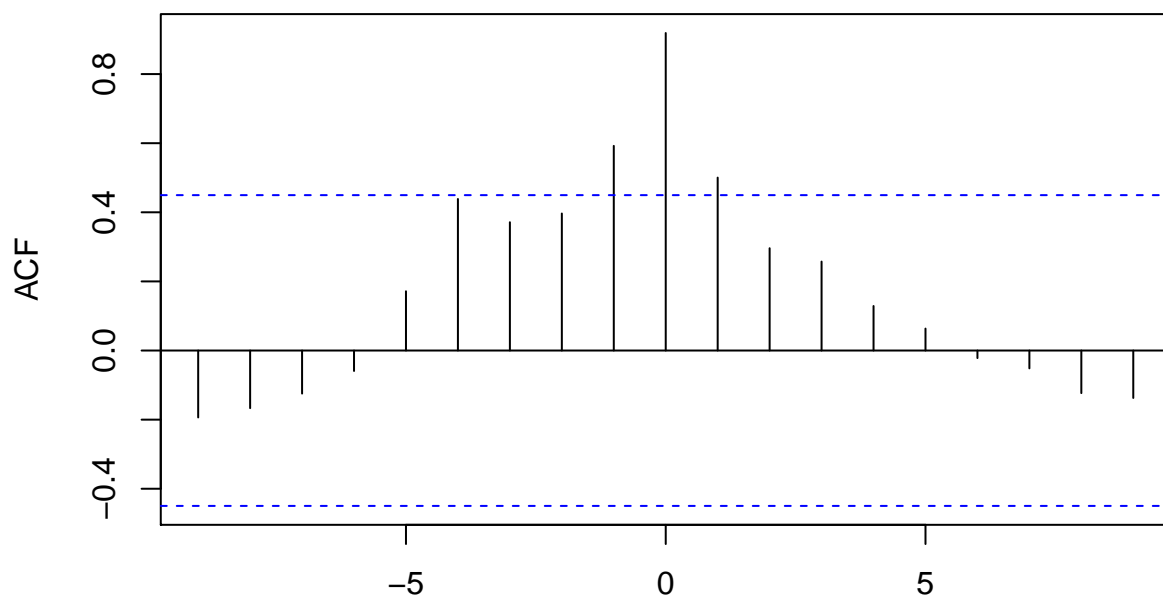
2 wk ahead – 19



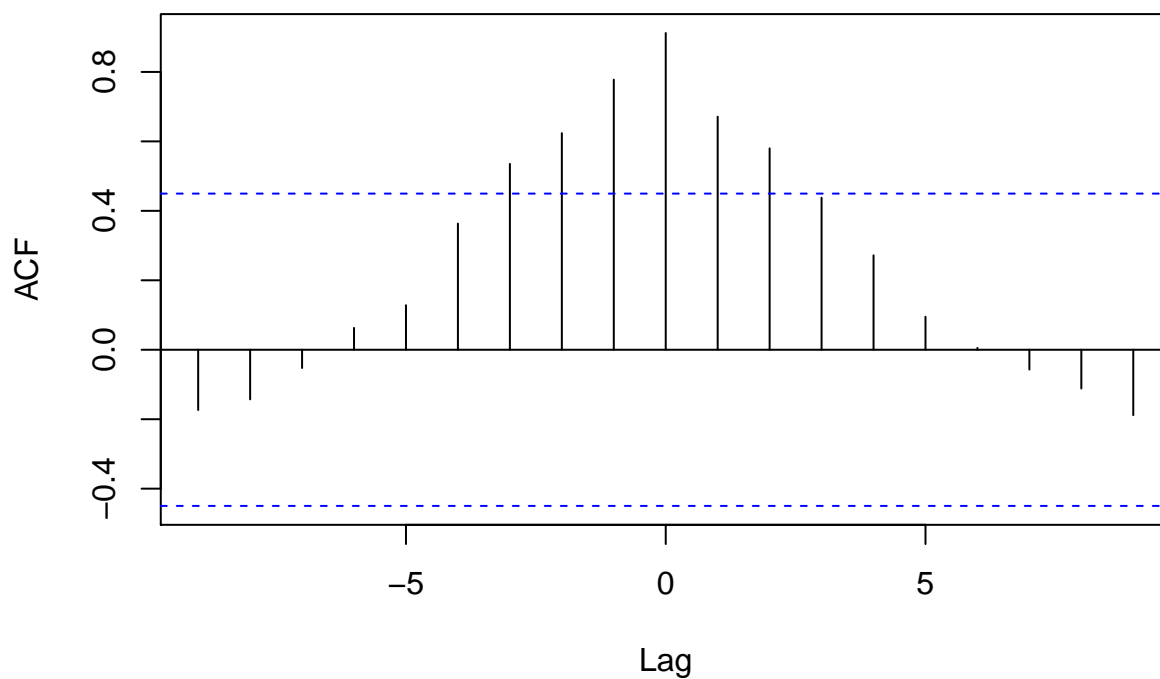
3 wk ahead – 19



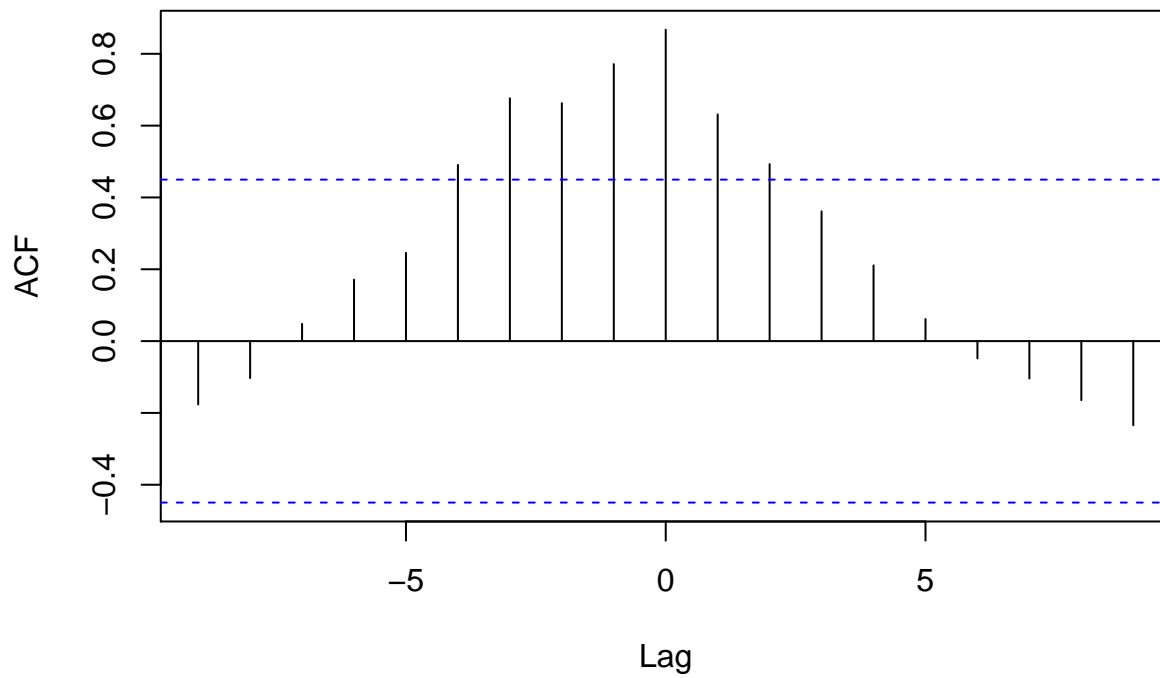
4 wk ahead – 19



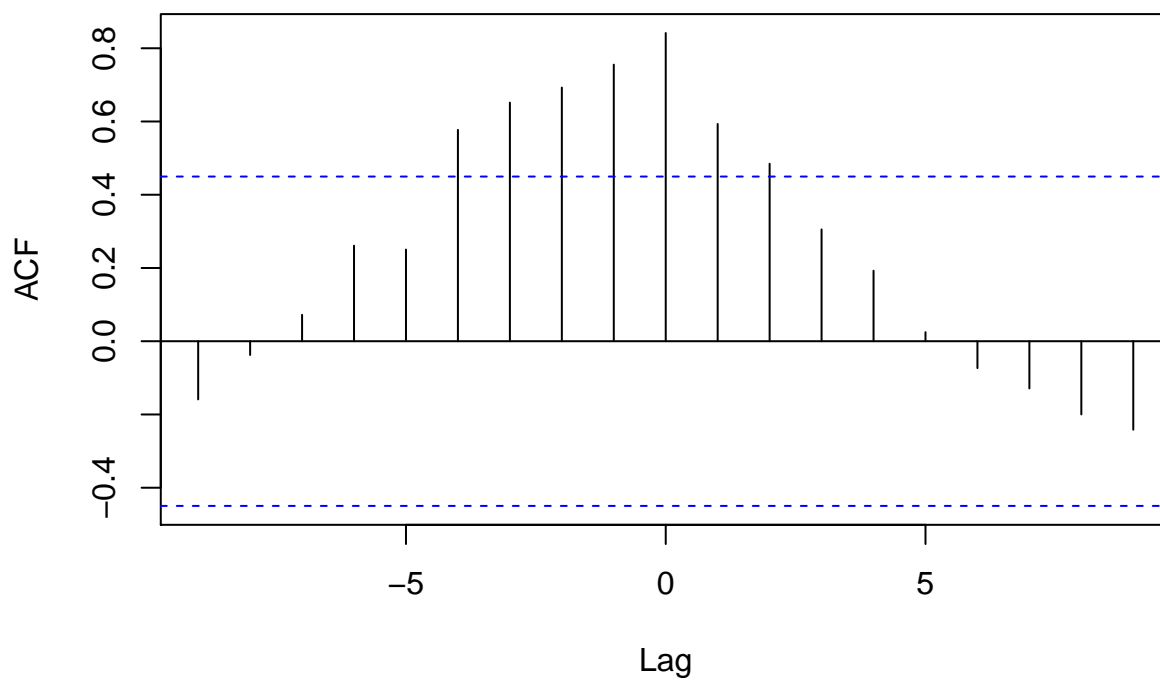
1 wk ahead – 20



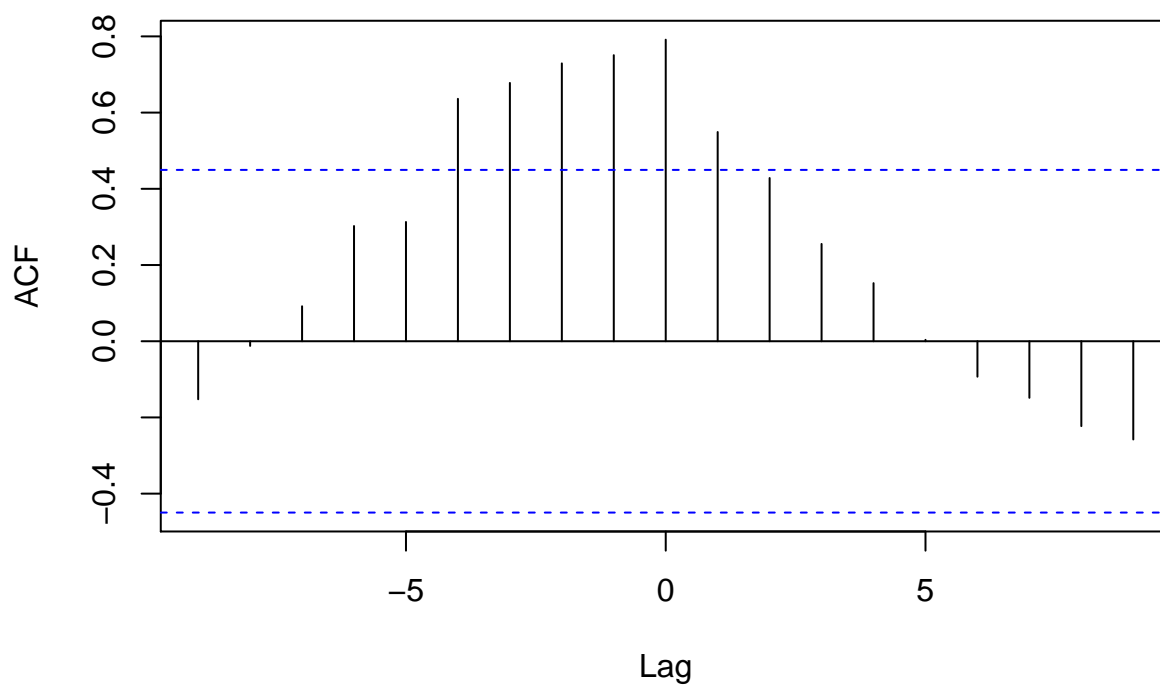
2 wk ahead – 20

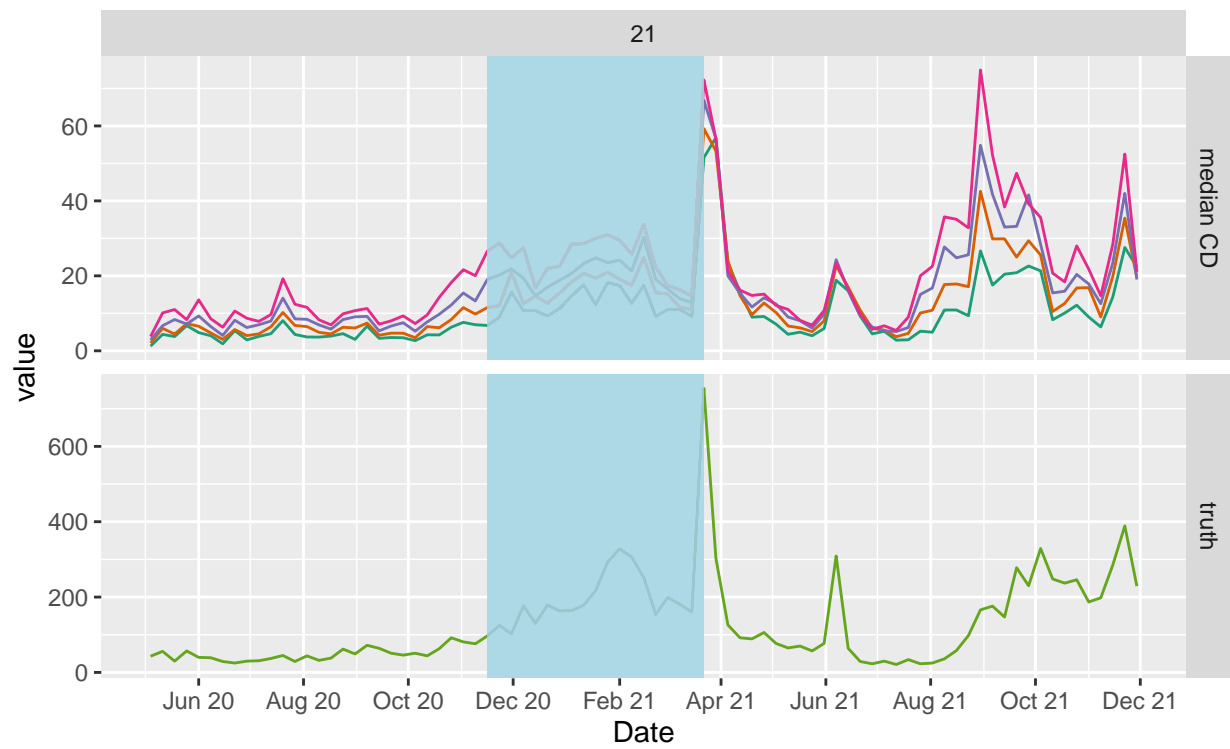


3 wk ahead – 20



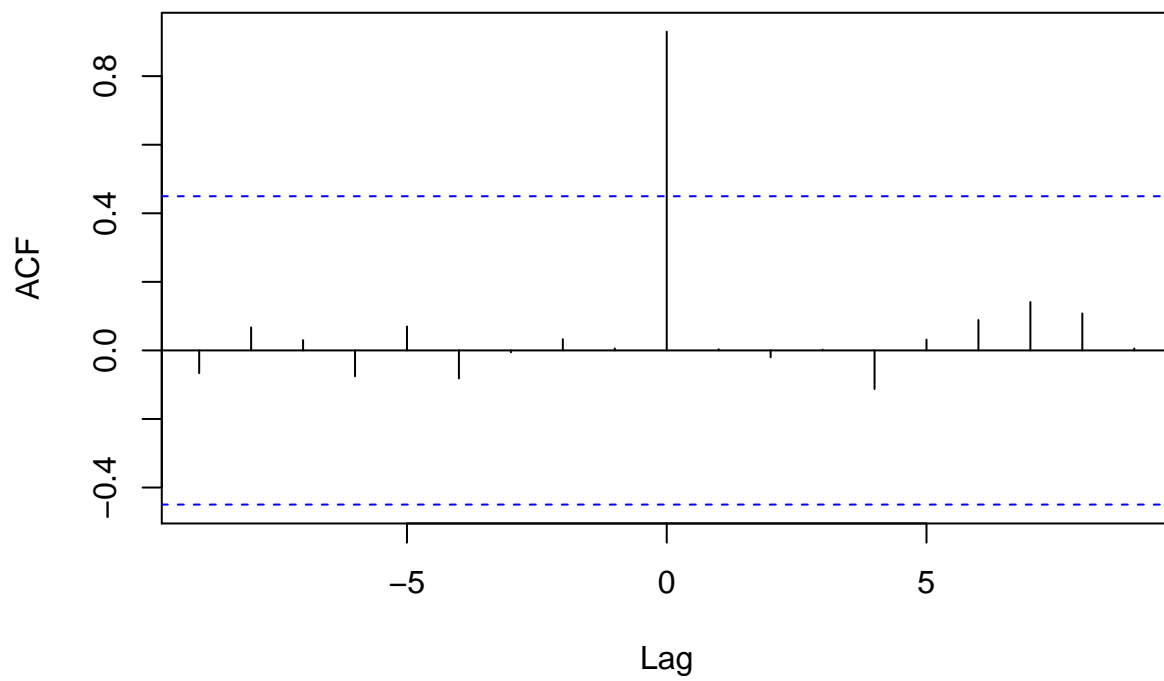
4 wk ahead – 20



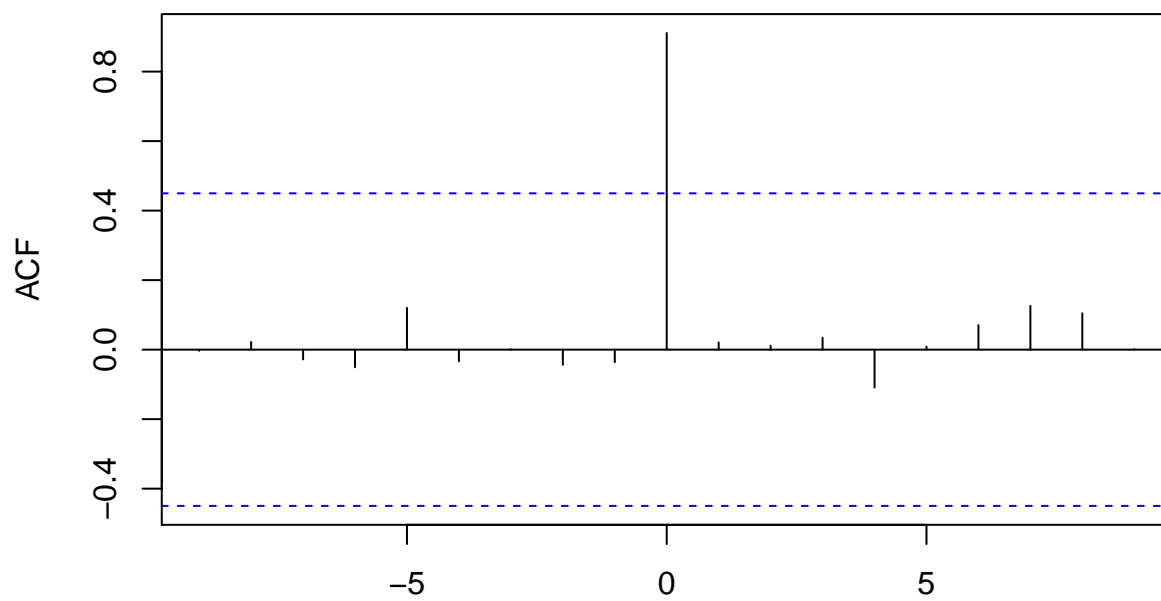


horizon 1 2 3 4 truth

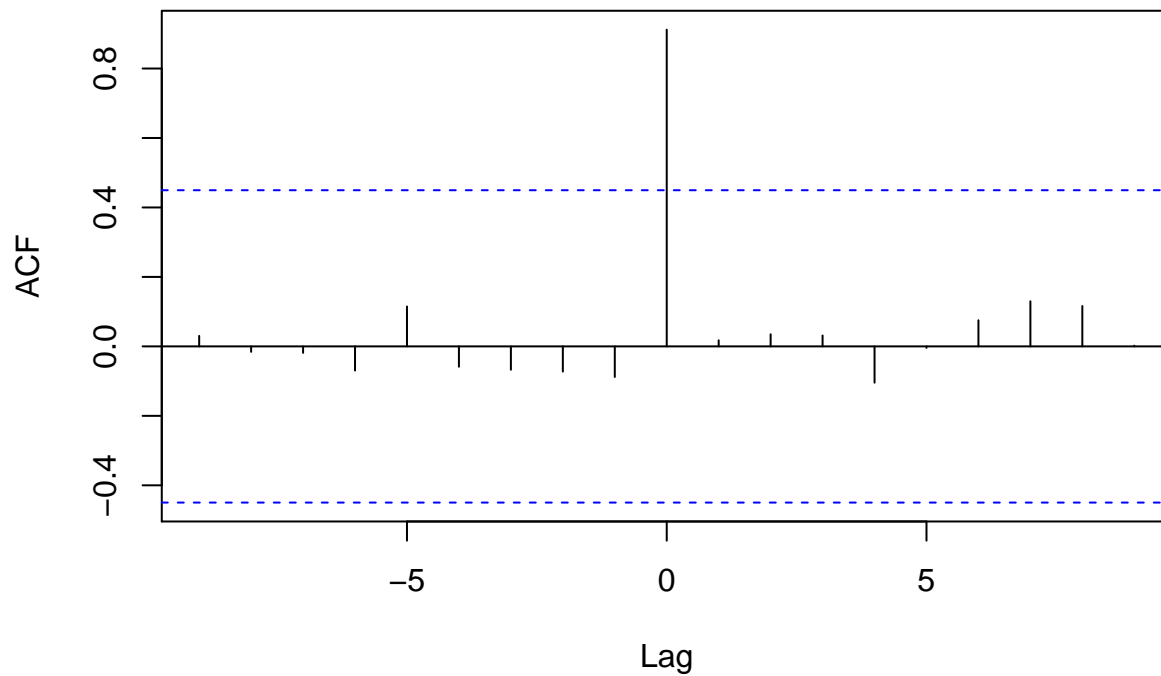
1 wk ahead – 21



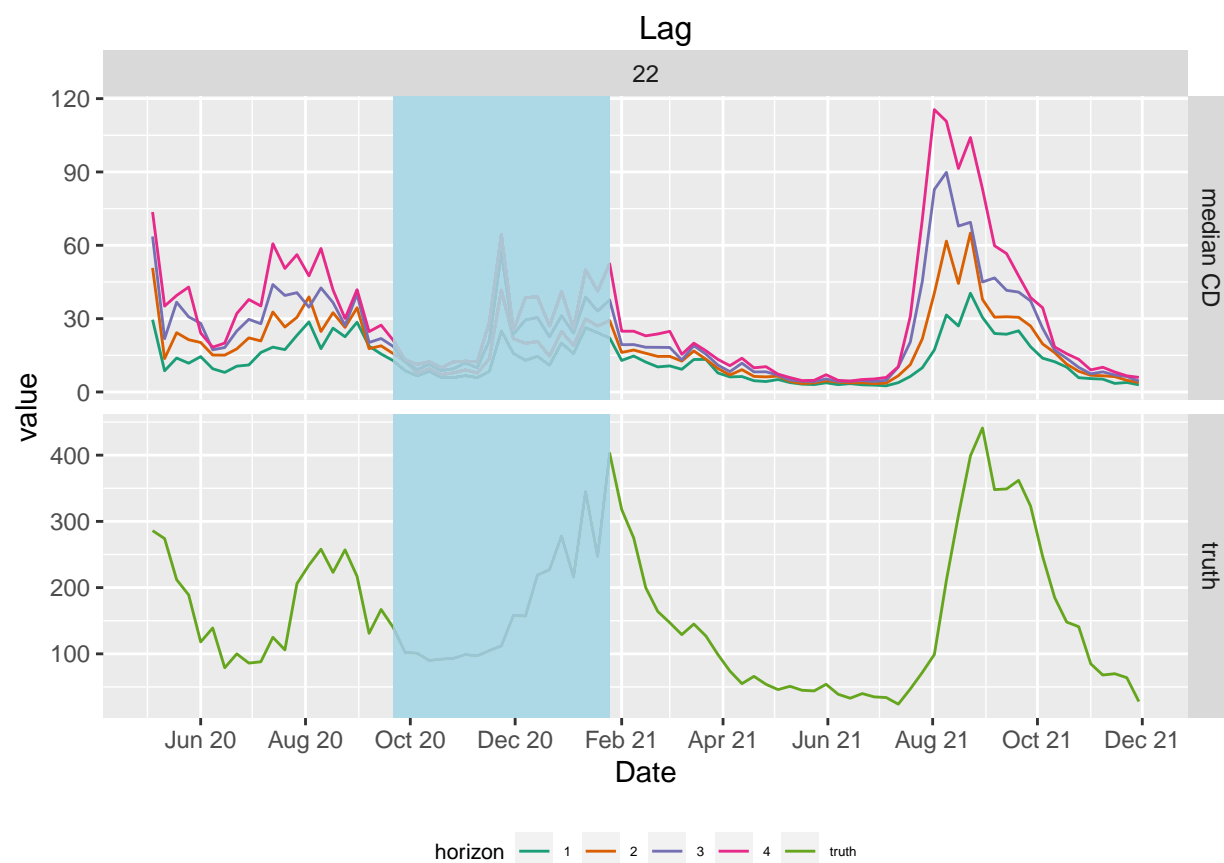
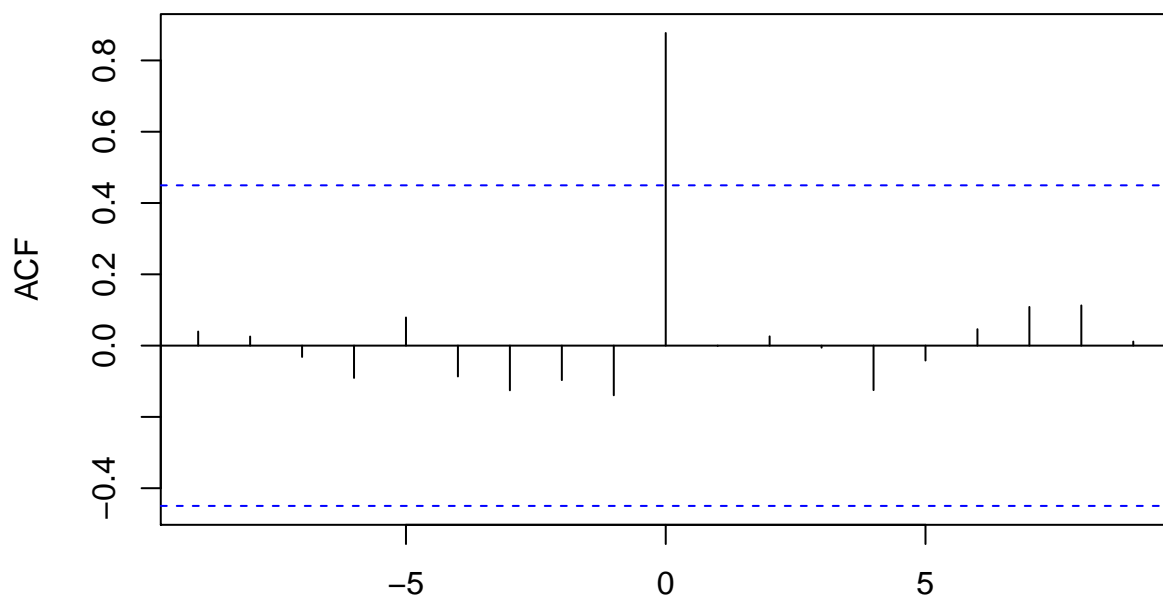
2 wk ahead – 21



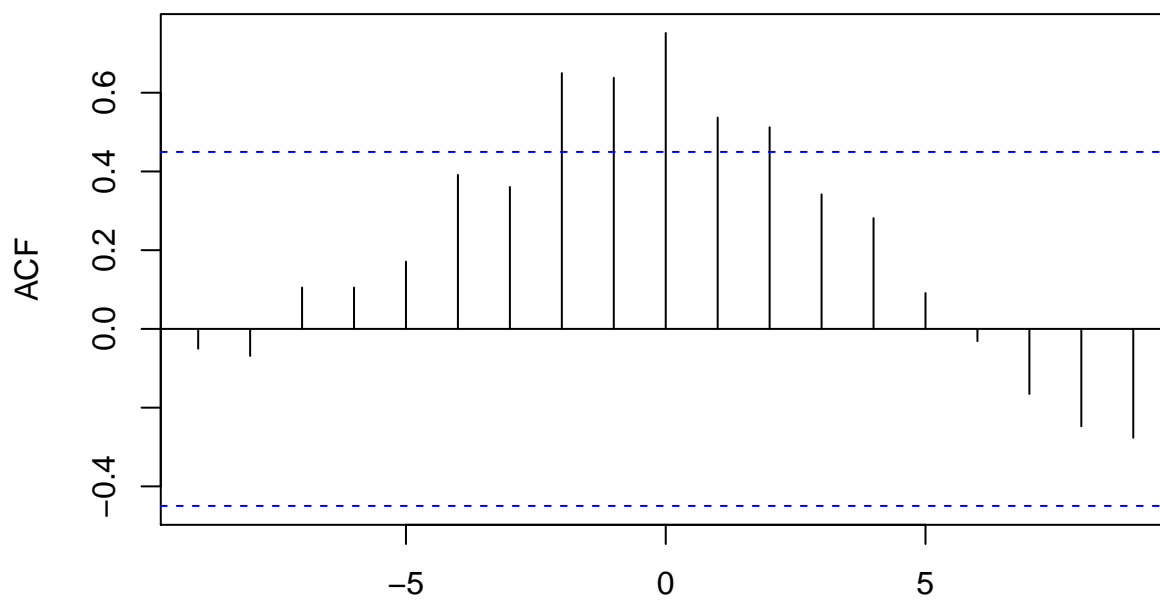
3 wk ahead – 21



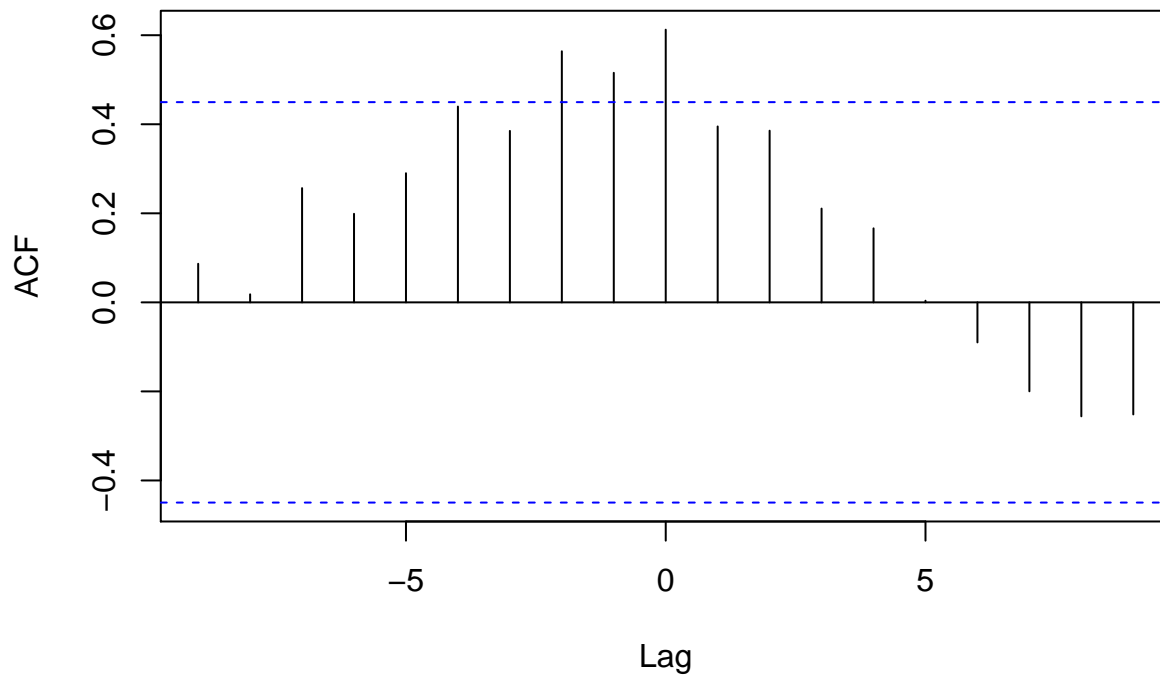
4 wk ahead – 21



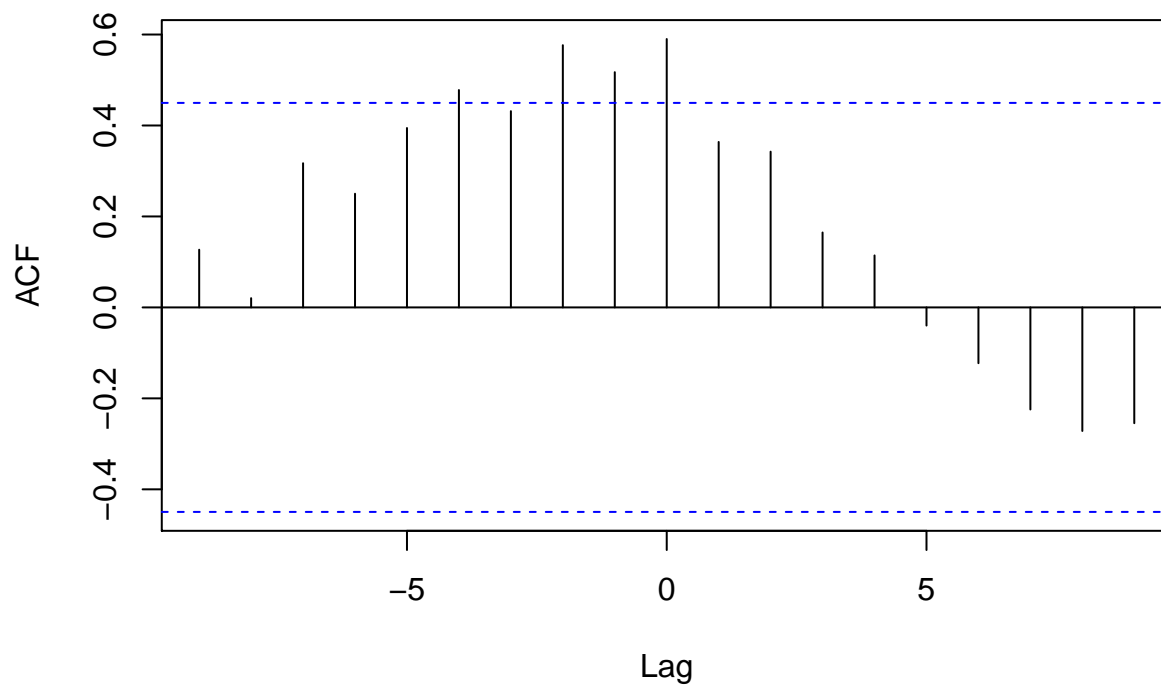
1 wk ahead – 22



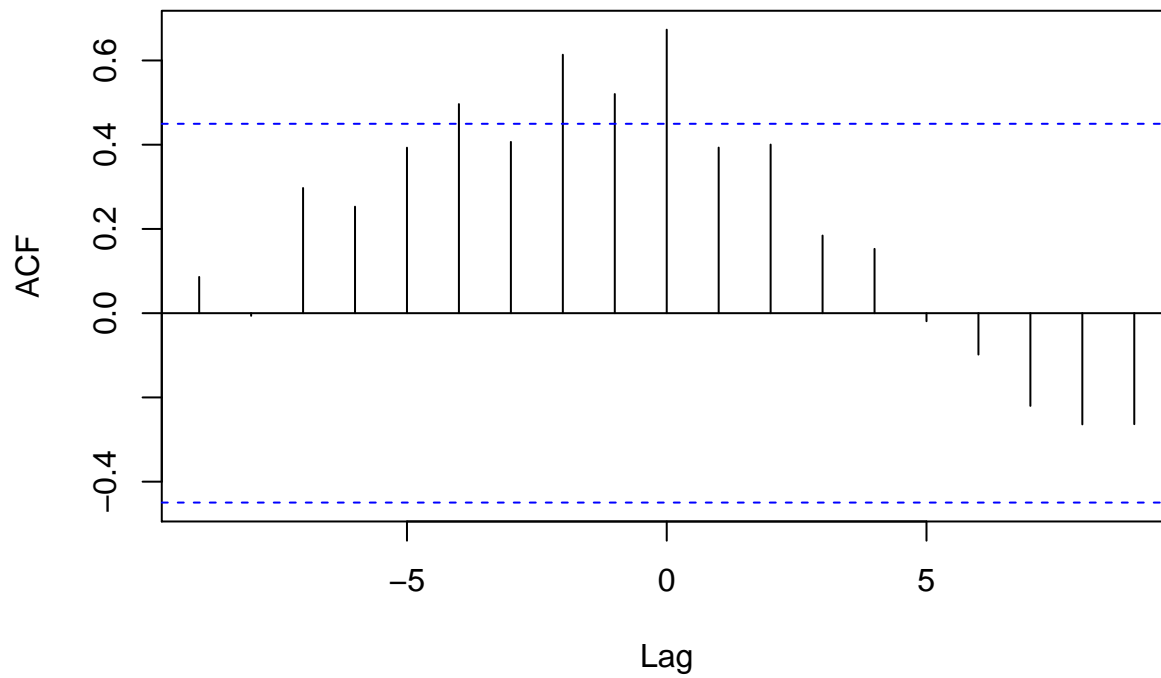
2 wk ahead – 22

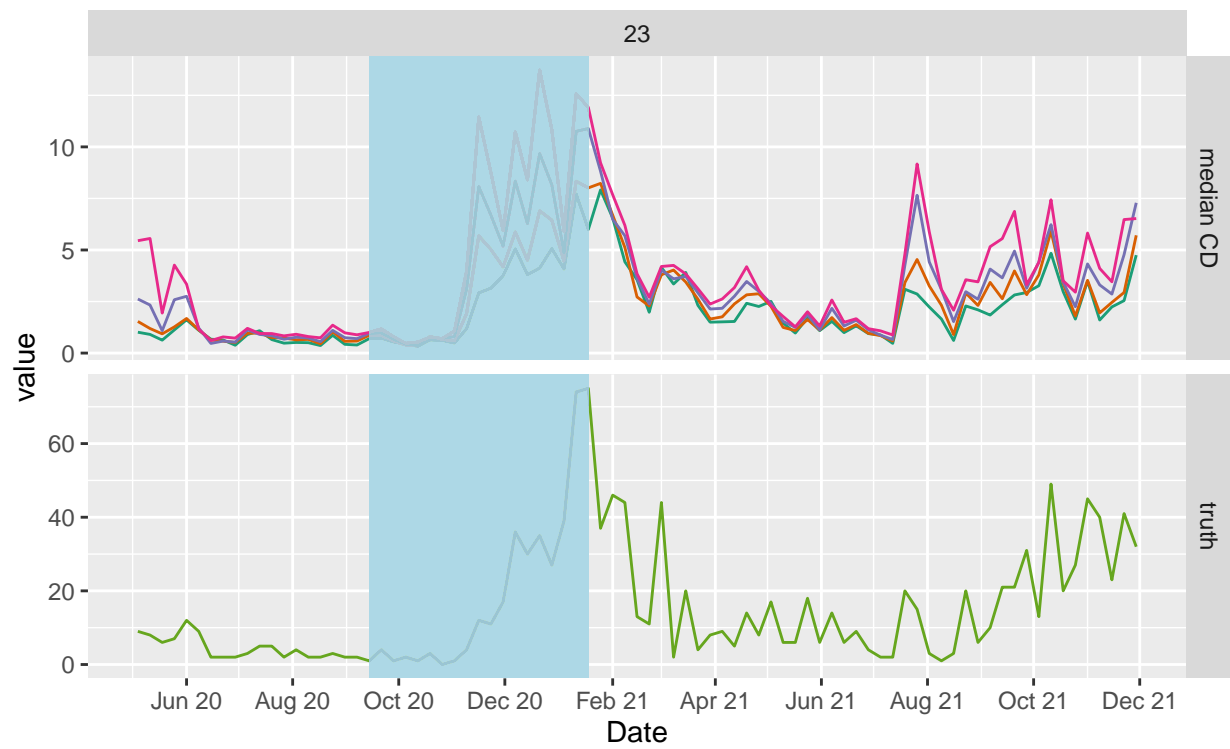


3 wk ahead – 22



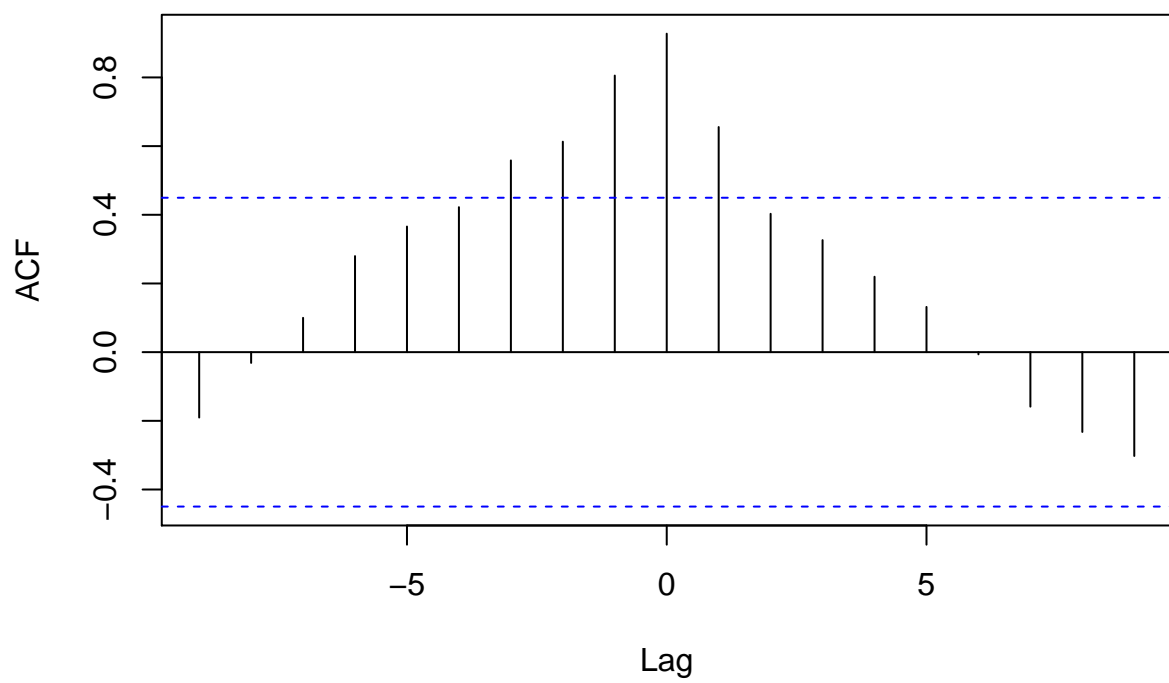
4 wk ahead – 22



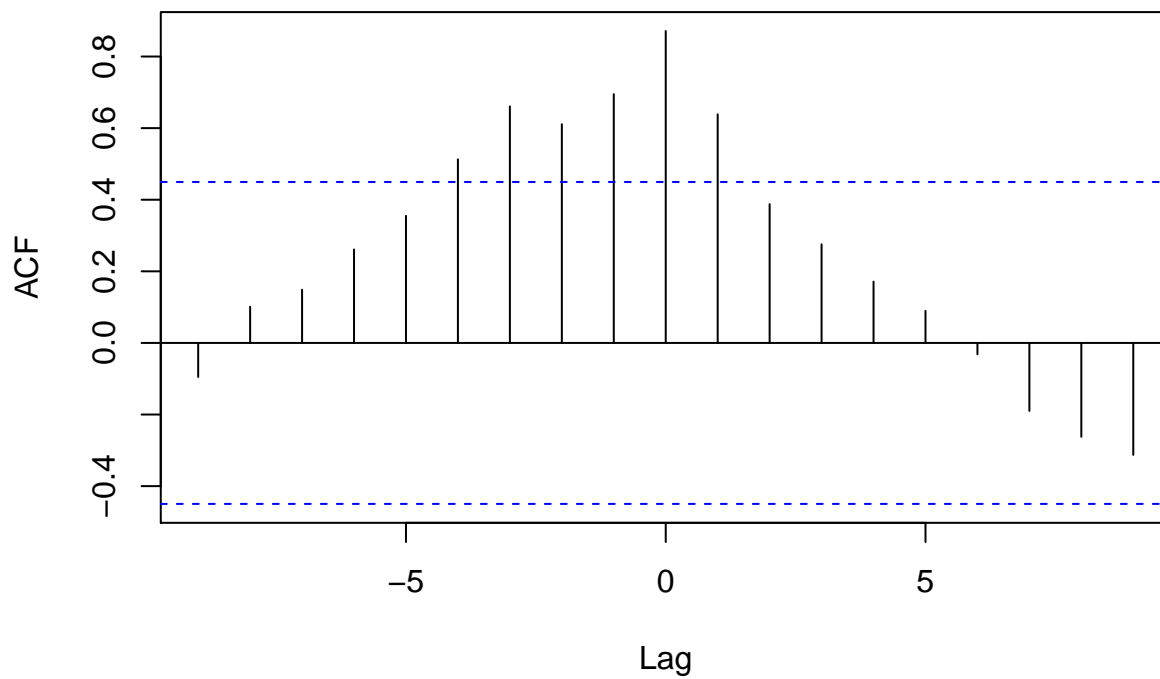


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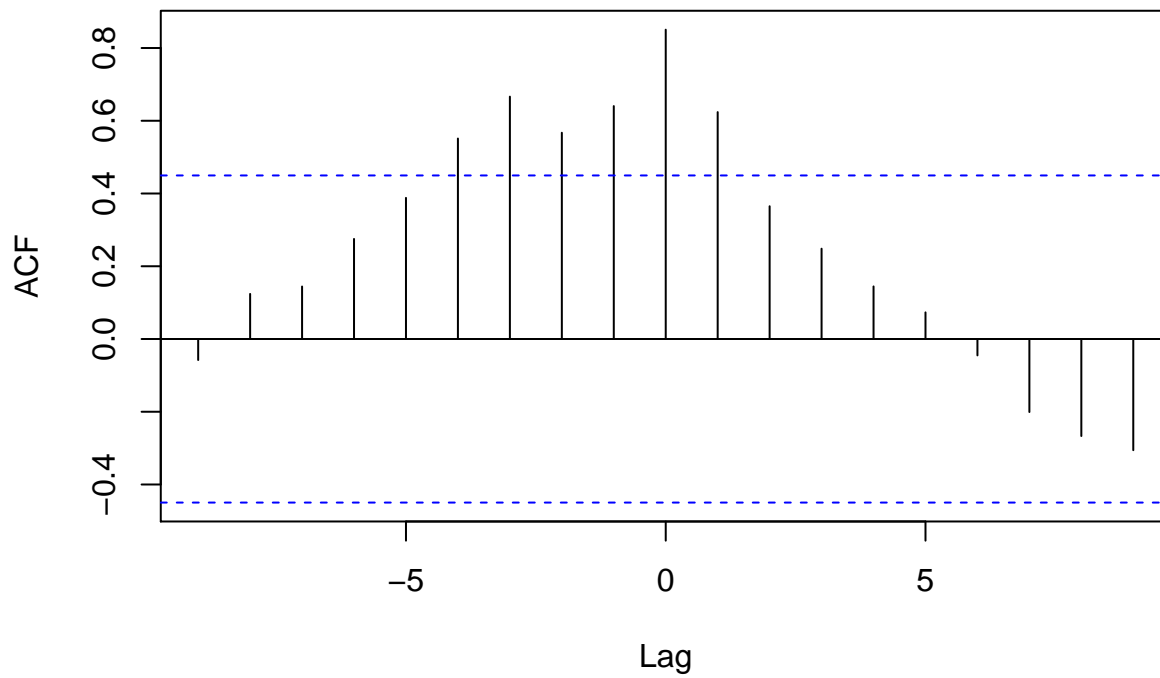
1 wk ahead – 23



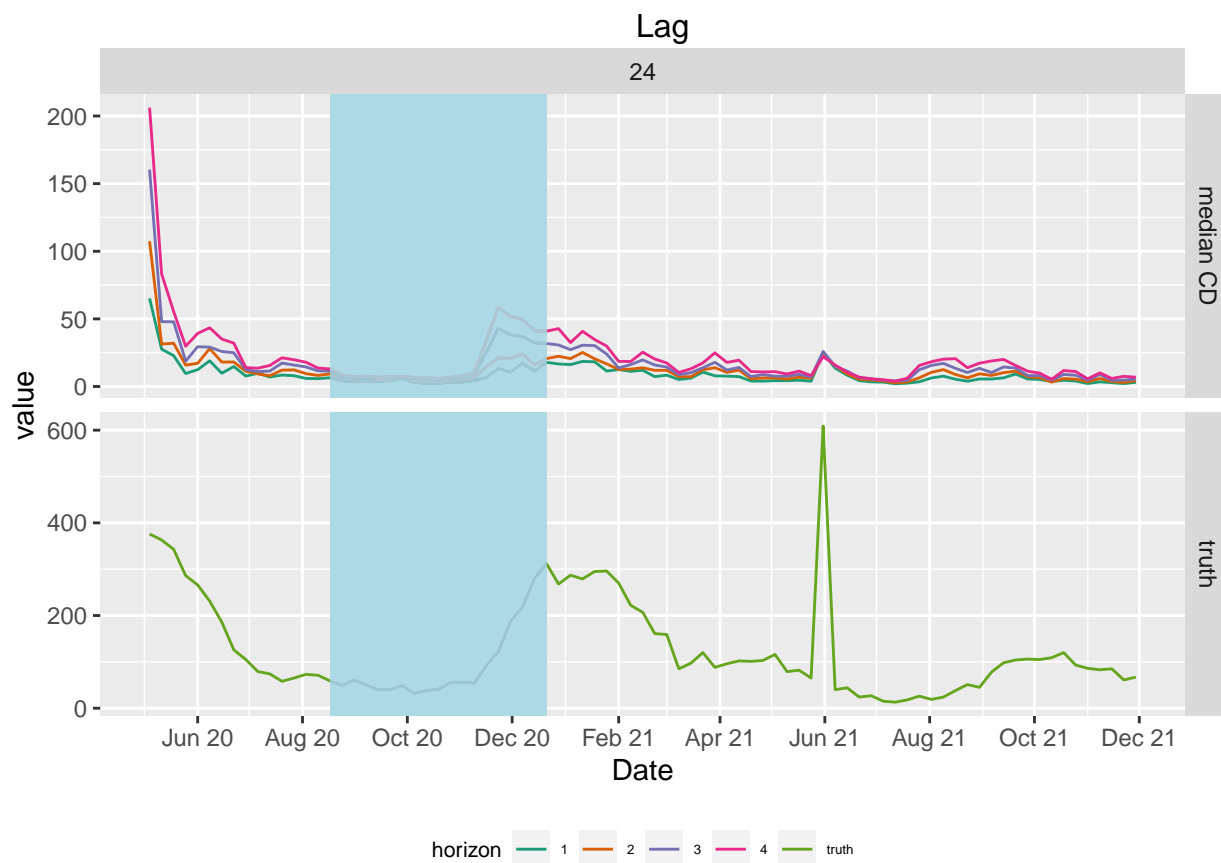
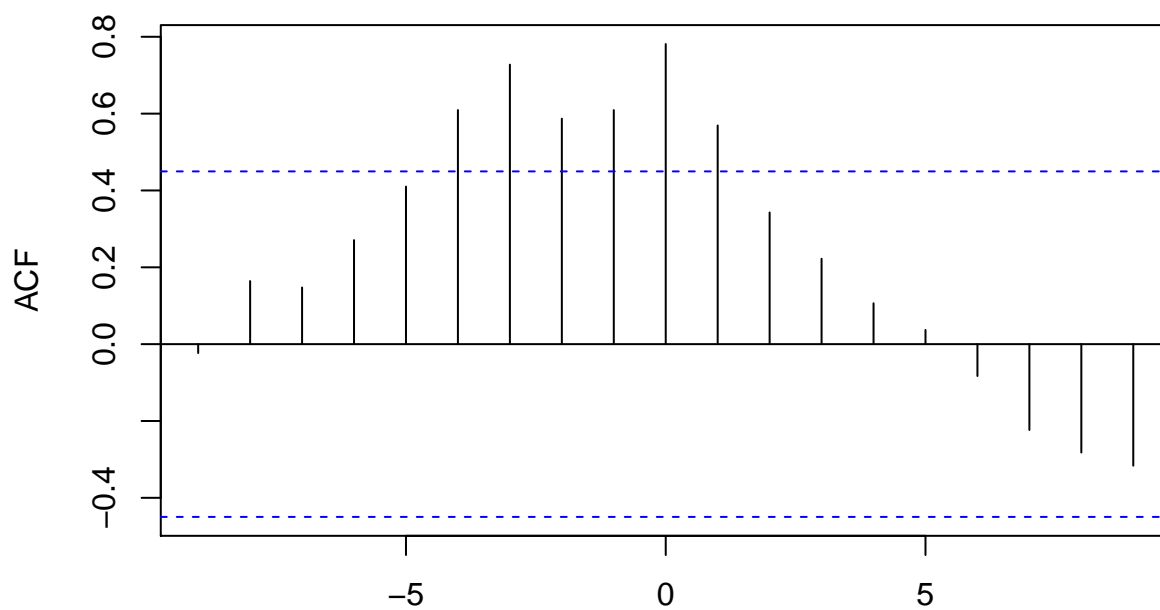
2 wk ahead – 23



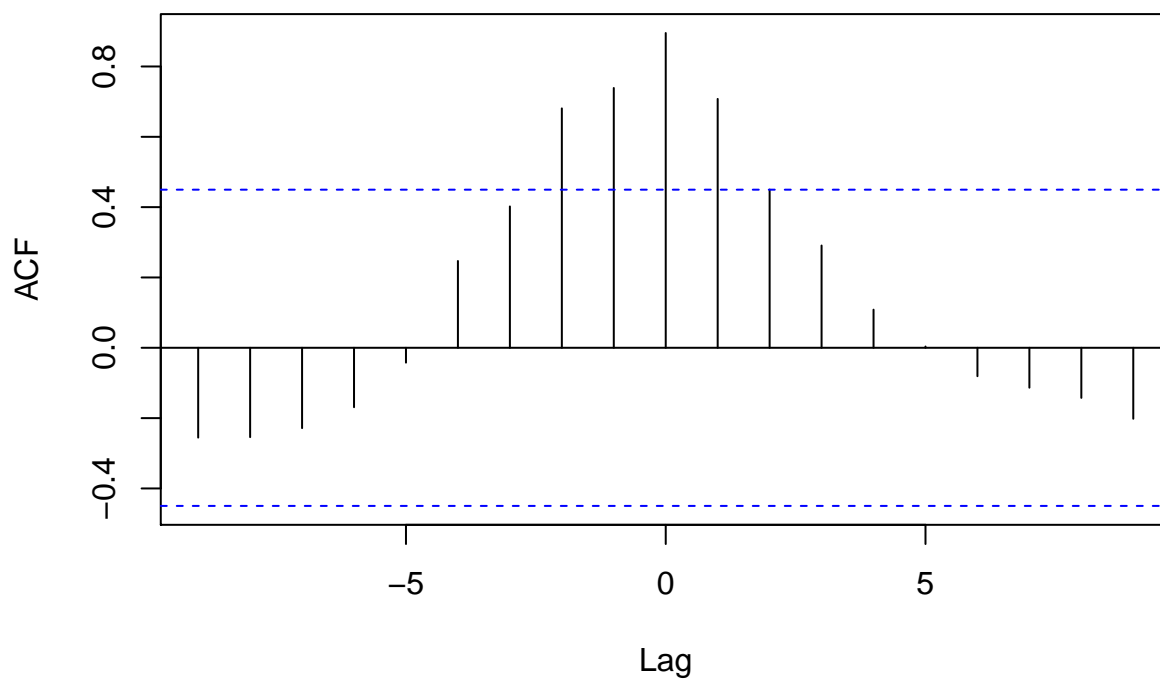
3 wk ahead – 23



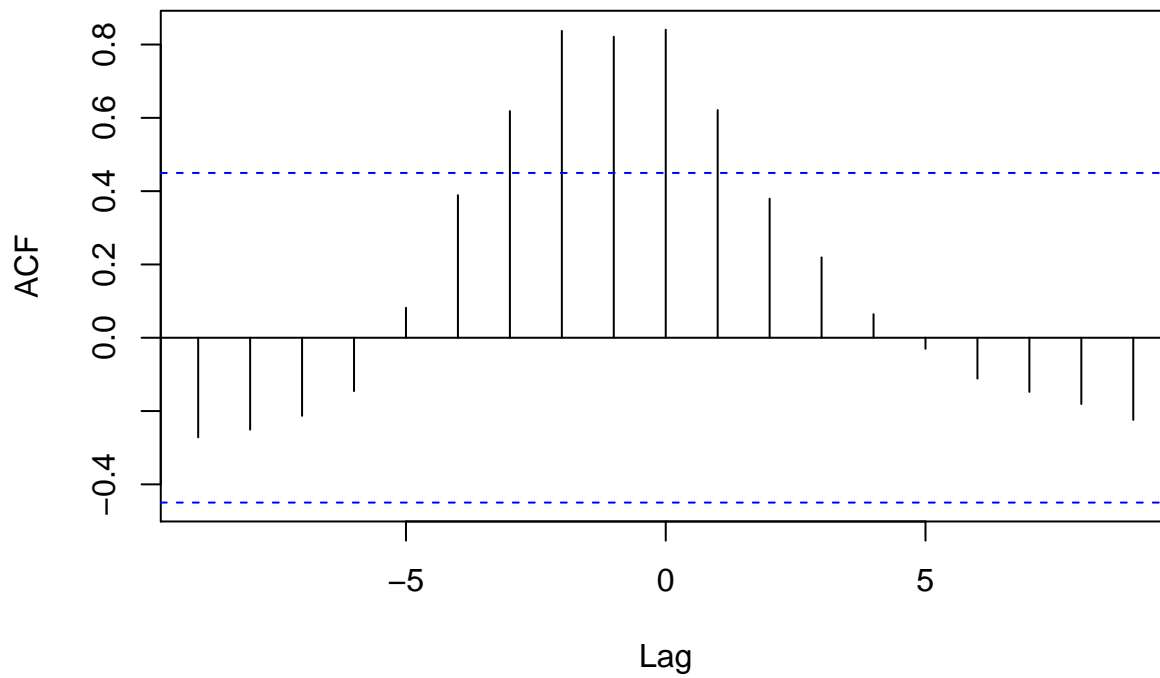
4 wk ahead – 23



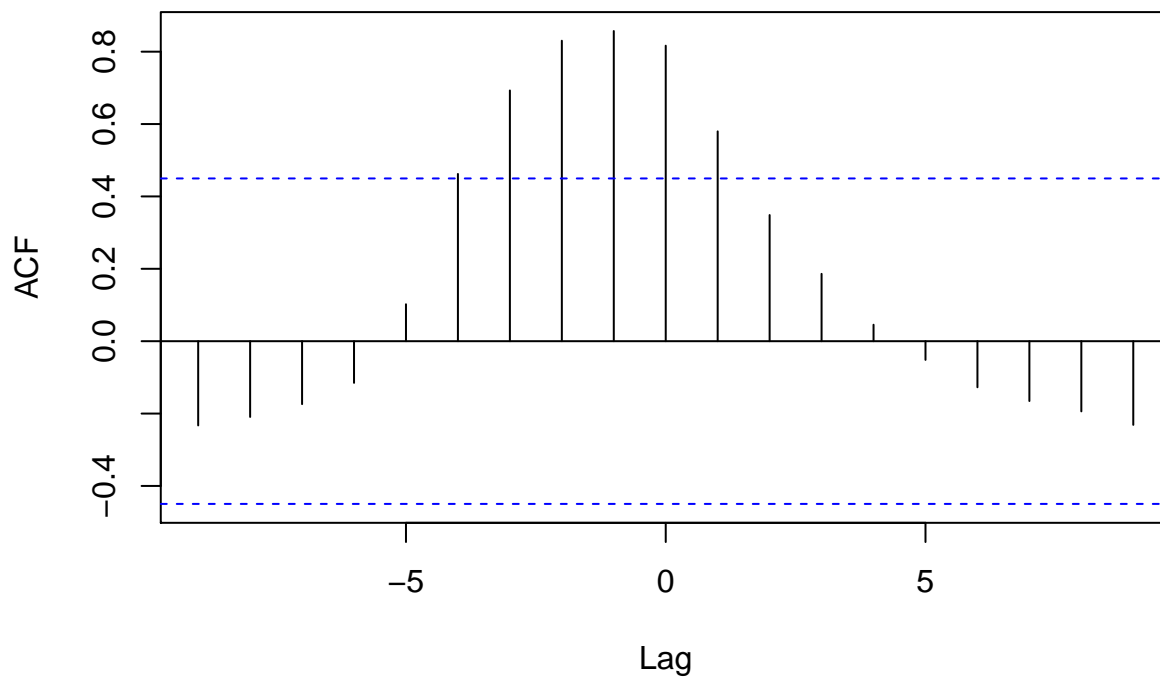
1 wk ahead – 24



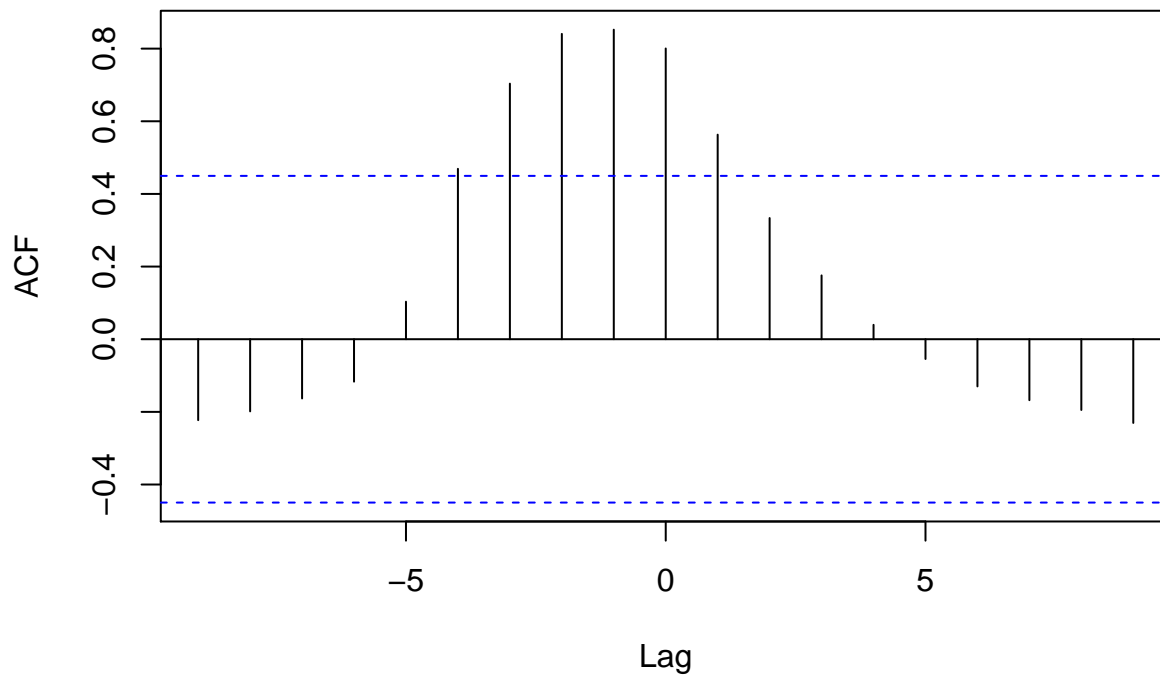
2 wk ahead – 24

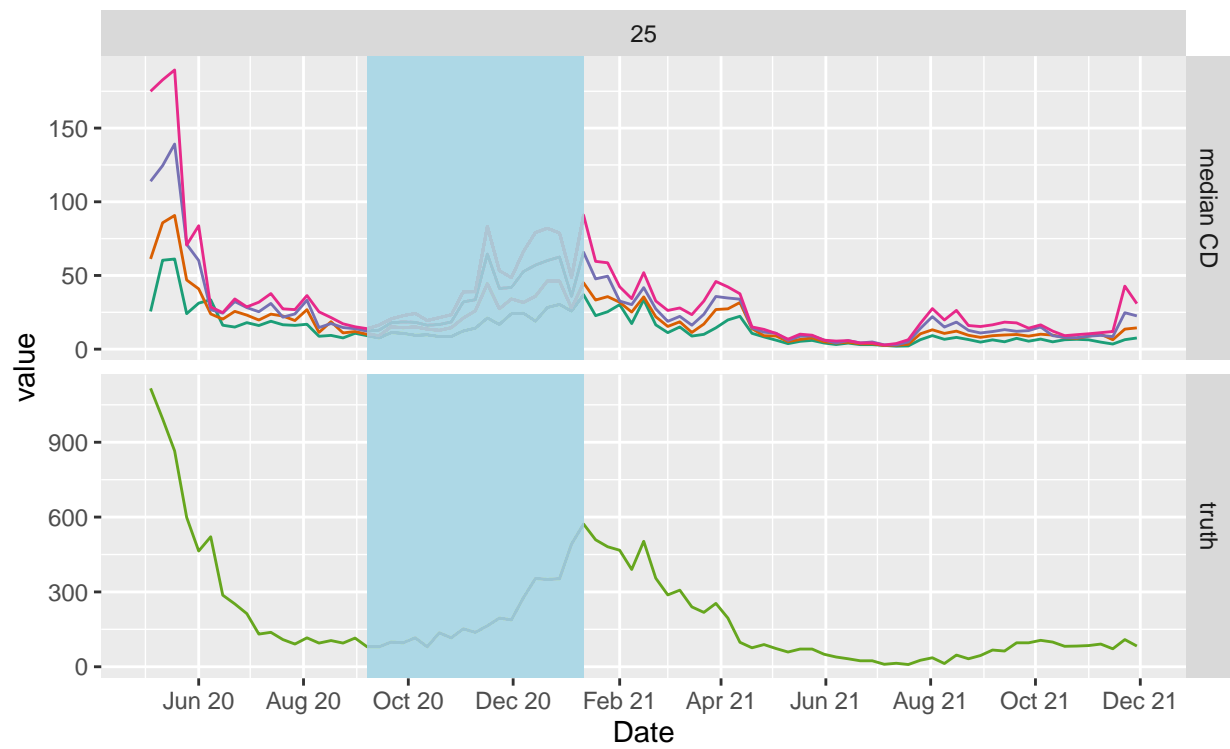


3 wk ahead – 24



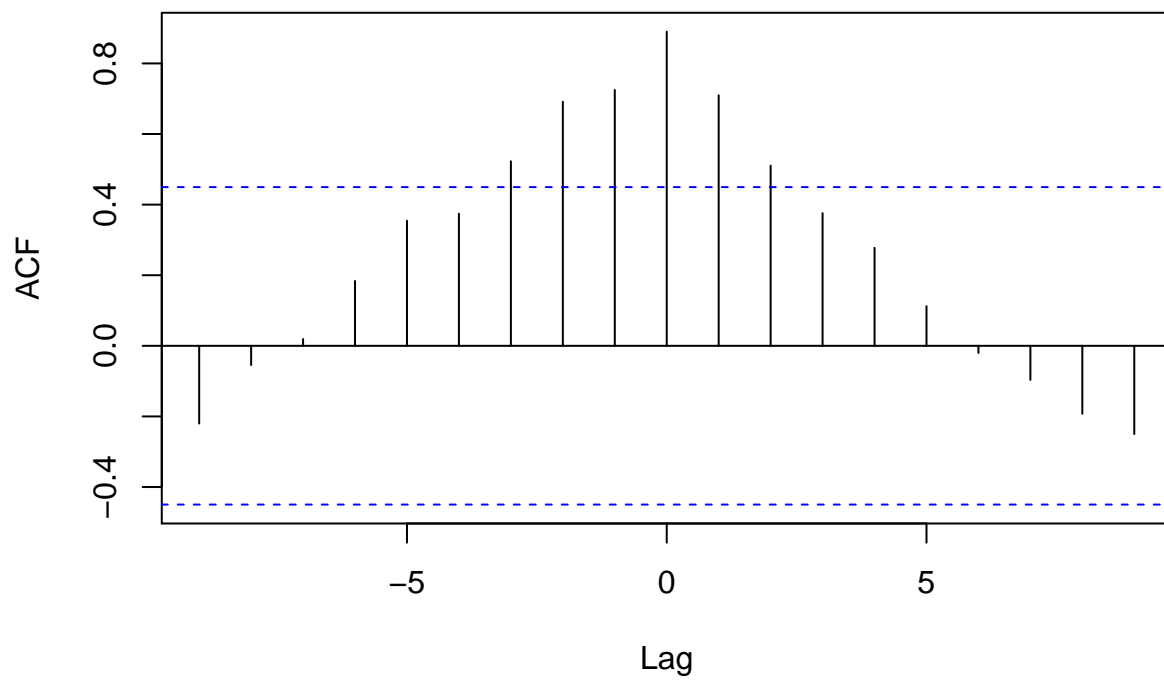
4 wk ahead – 24



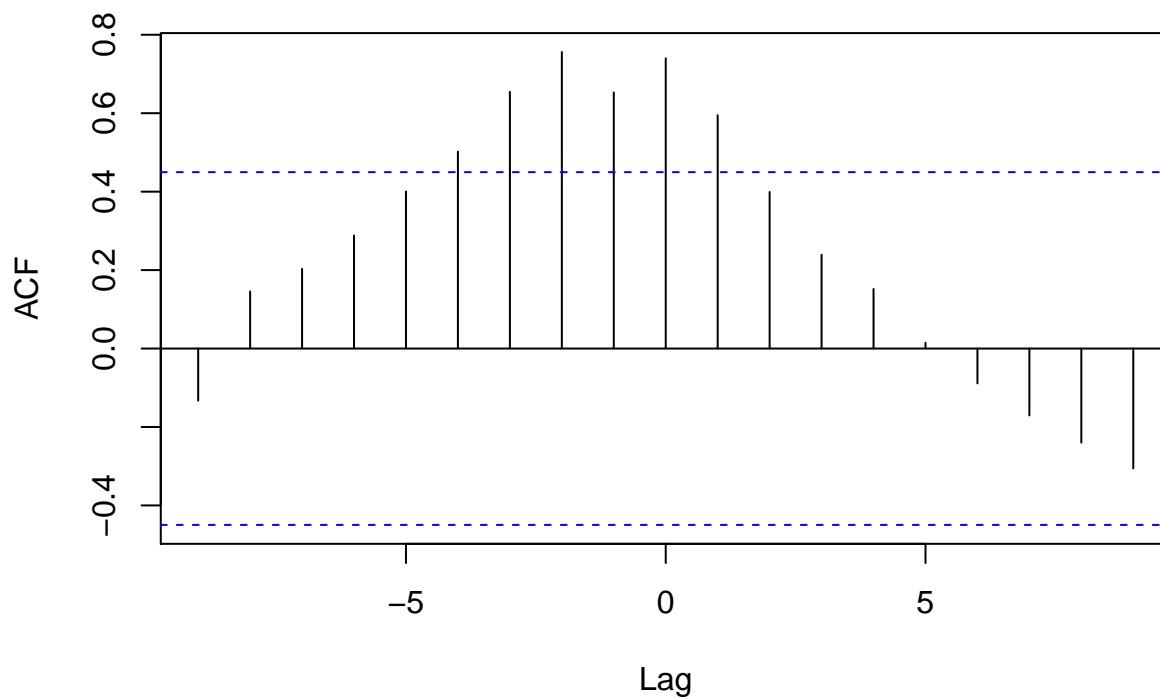


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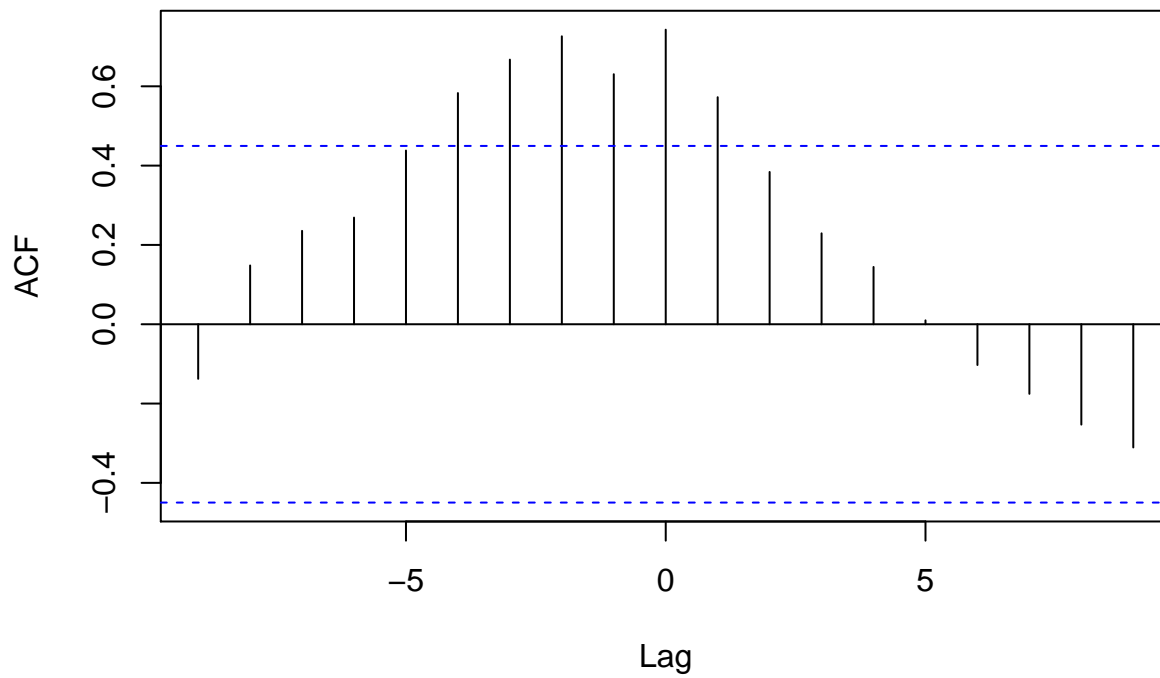
1 wk ahead – 25



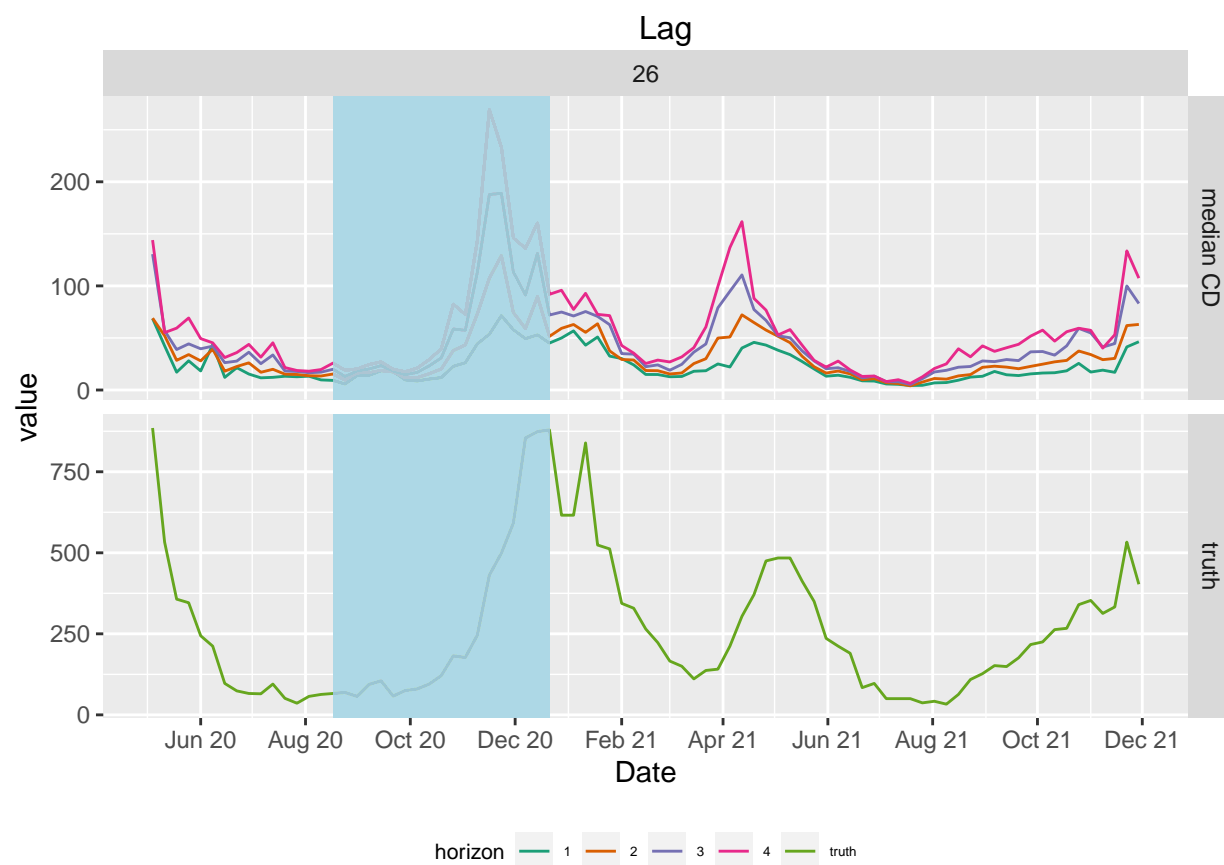
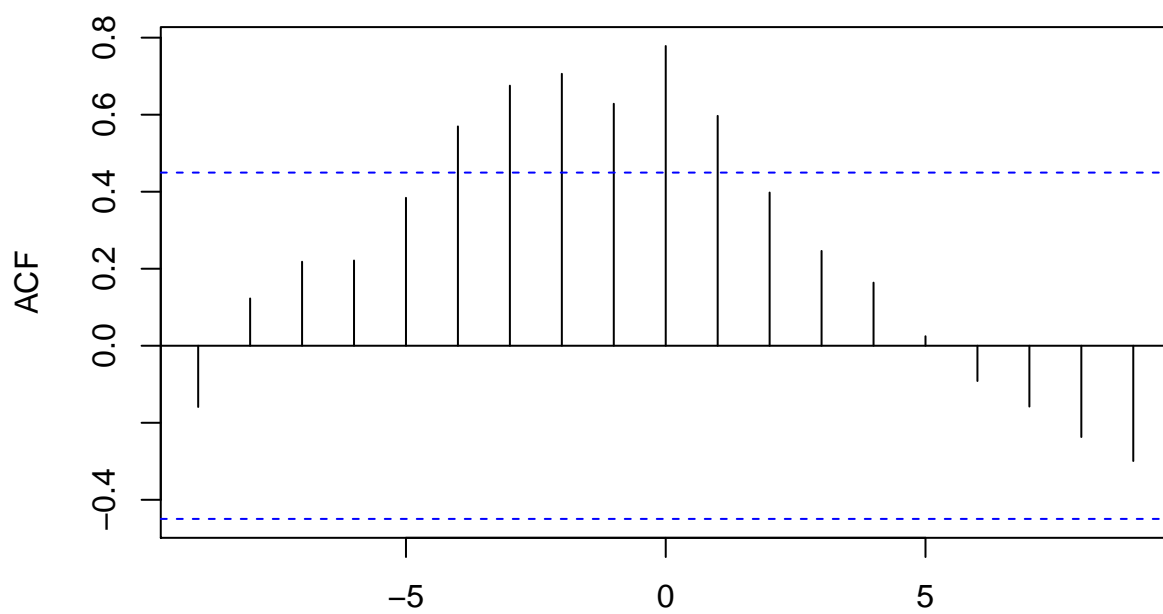
2 wk ahead – 25



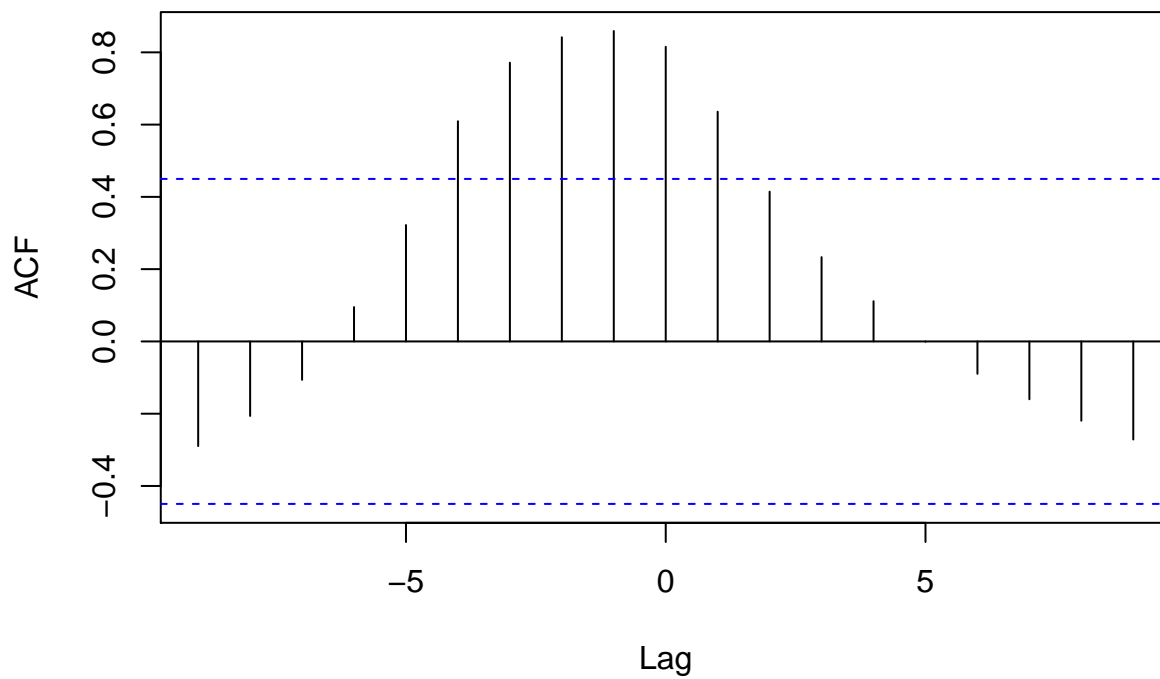
3 wk ahead – 25



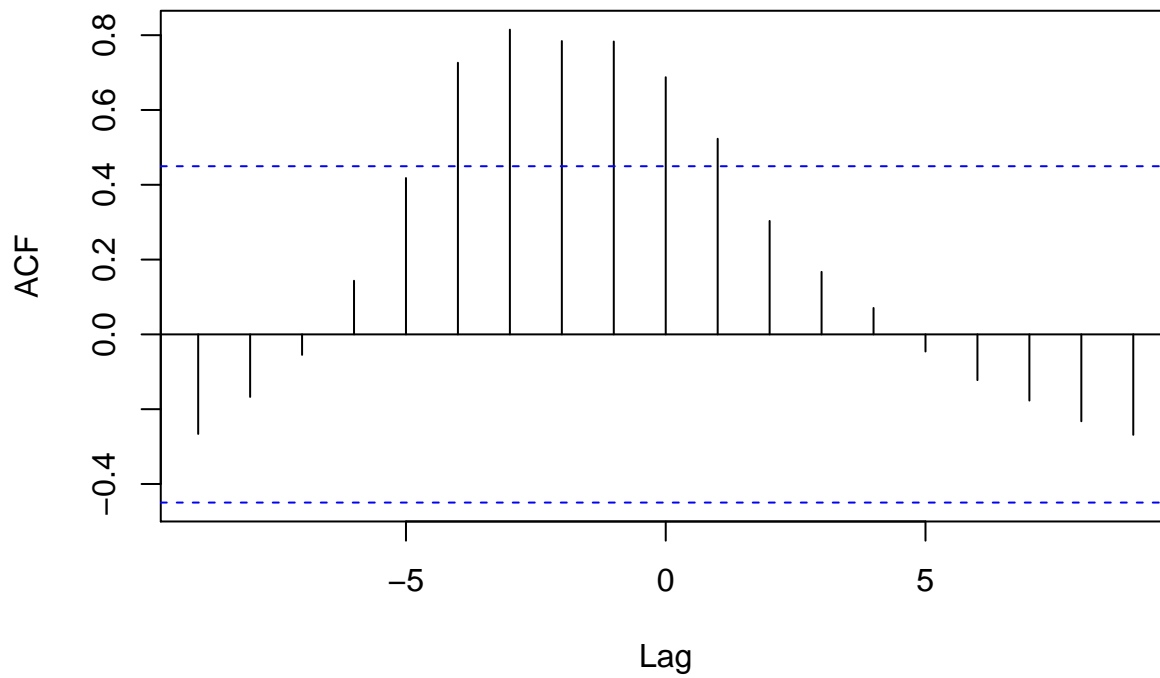
4 wk ahead – 25



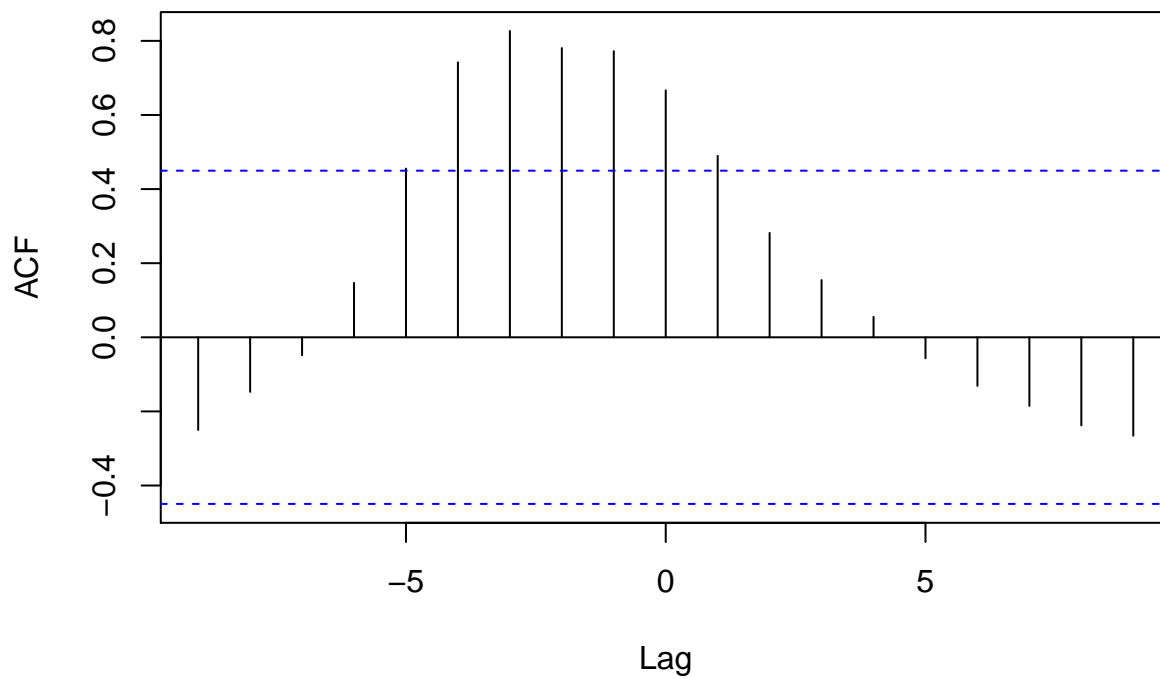
1 wk ahead – 26



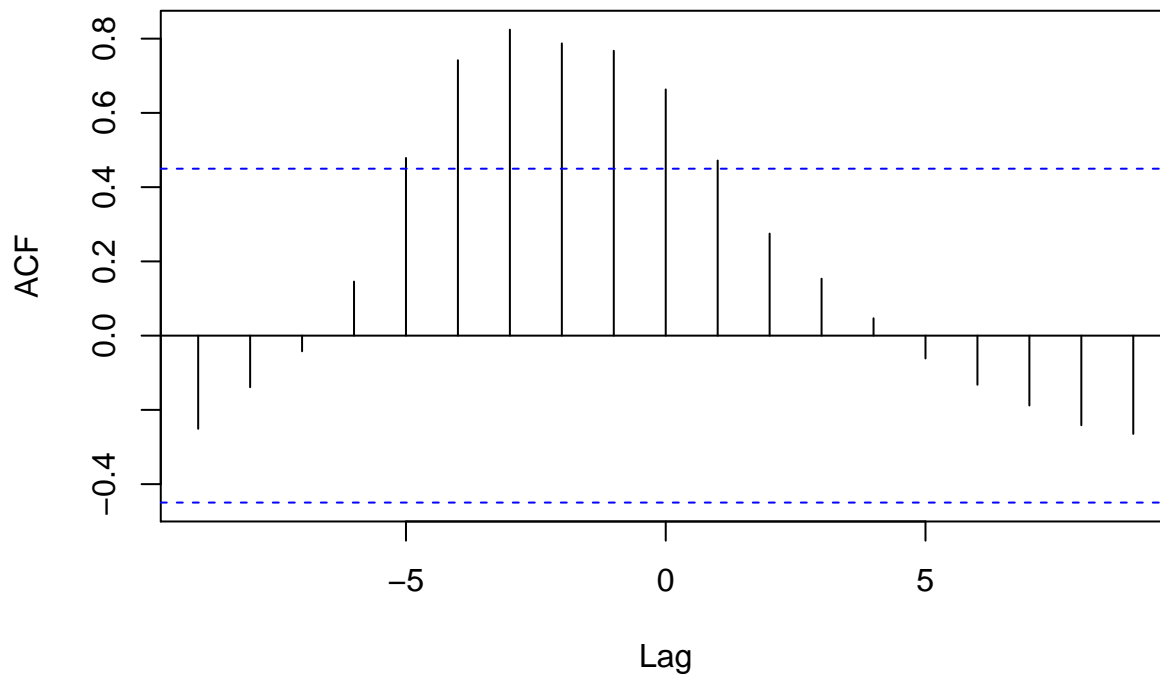
2 wk ahead – 26

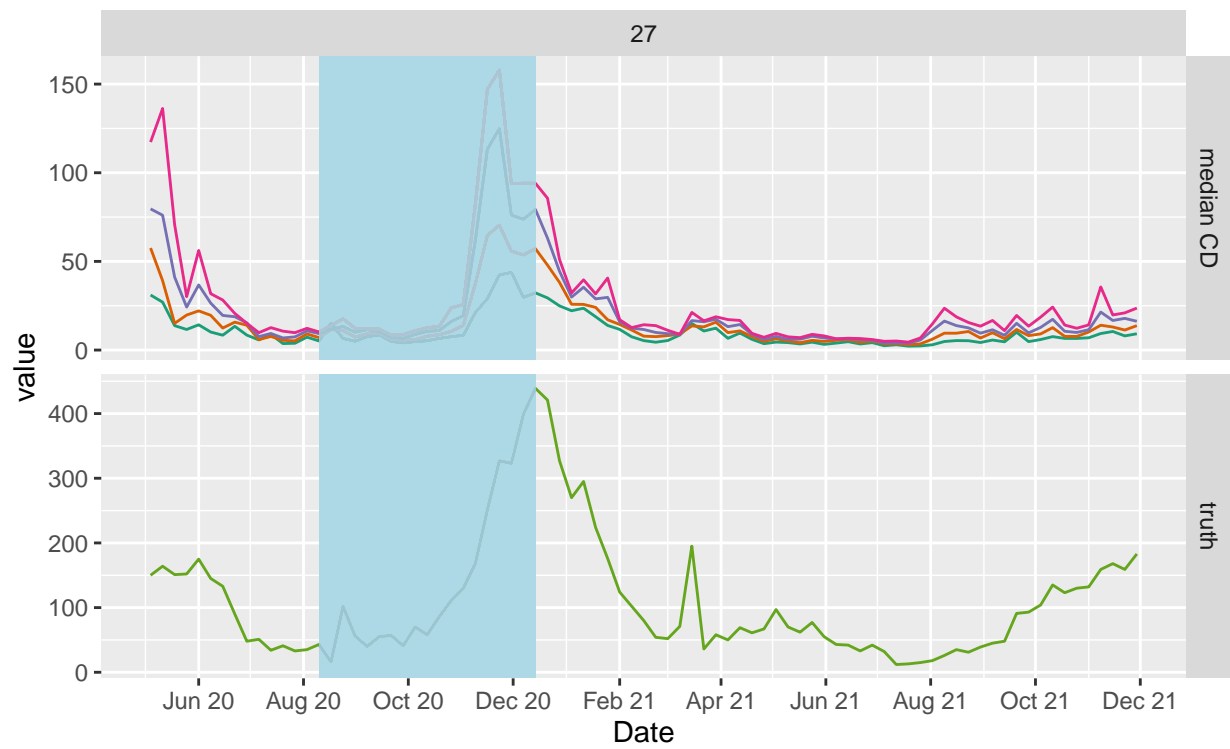


3 wk ahead – 26



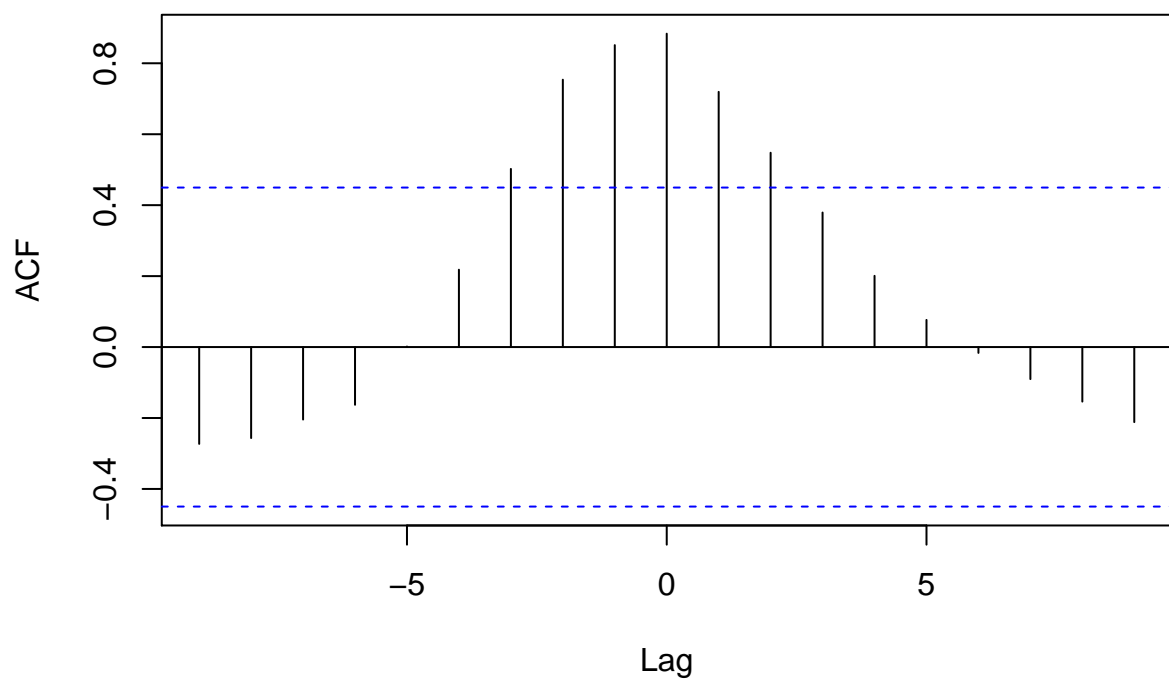
4 wk ahead – 26



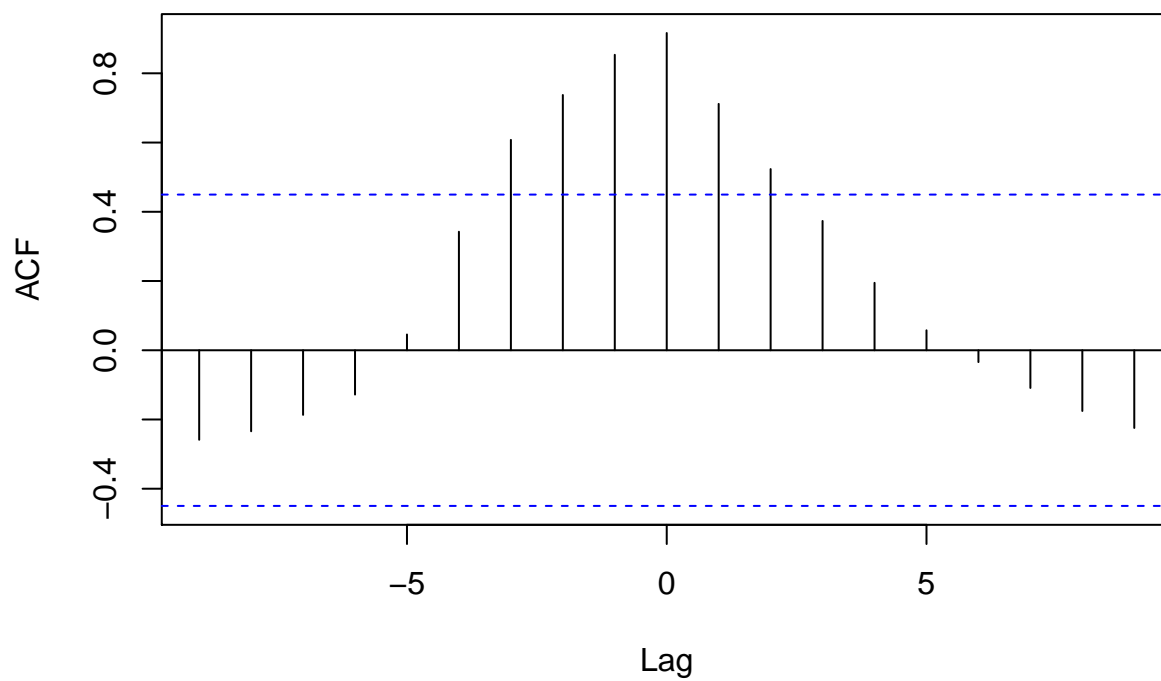


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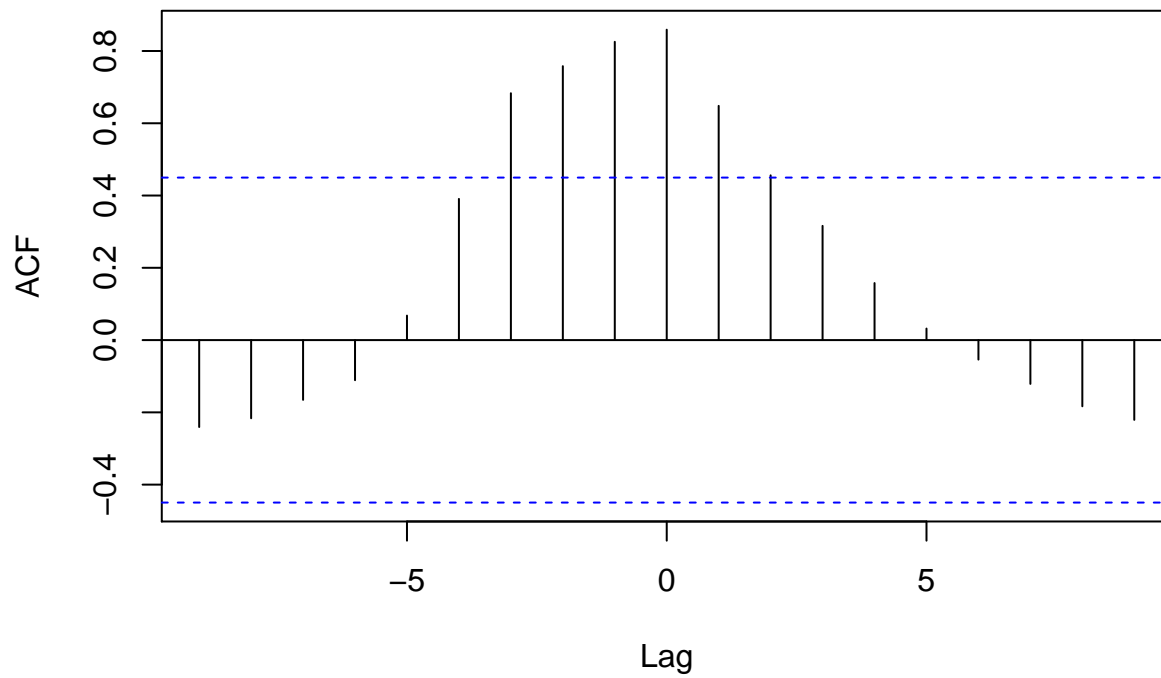
1 wk ahead – 27



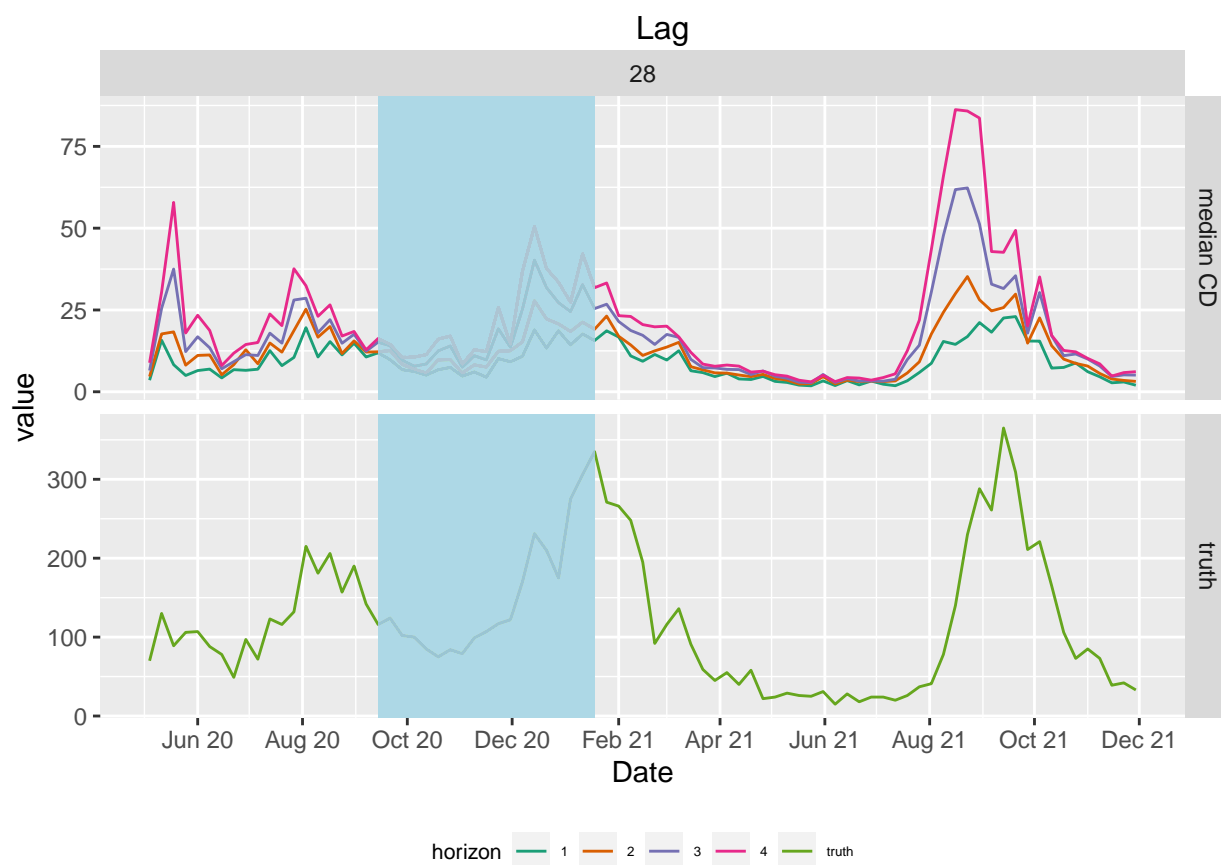
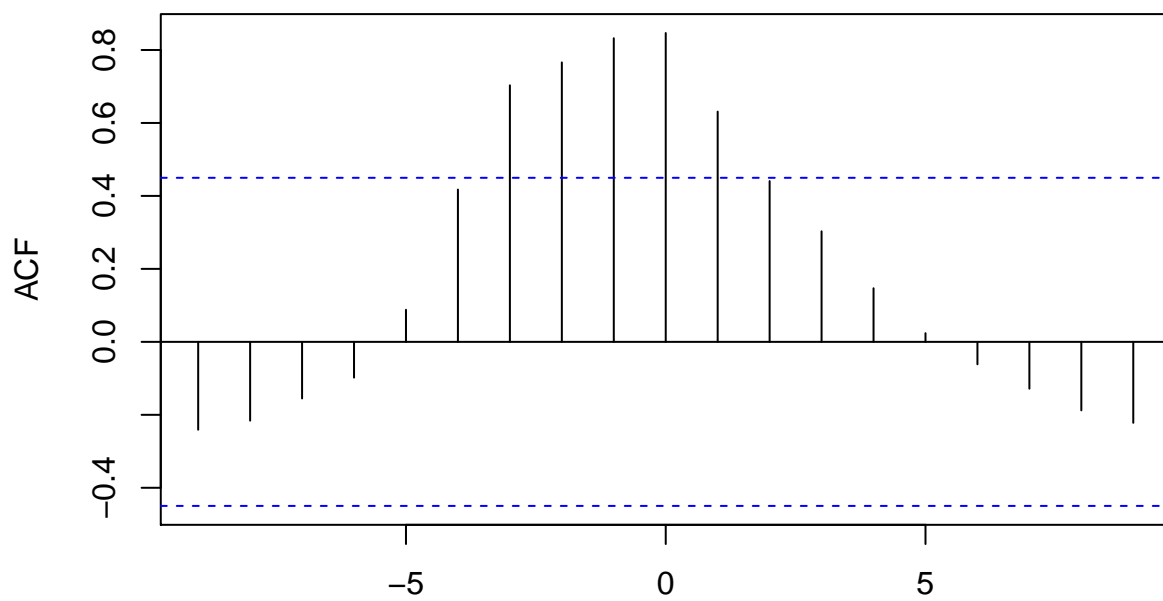
2 wk ahead – 27



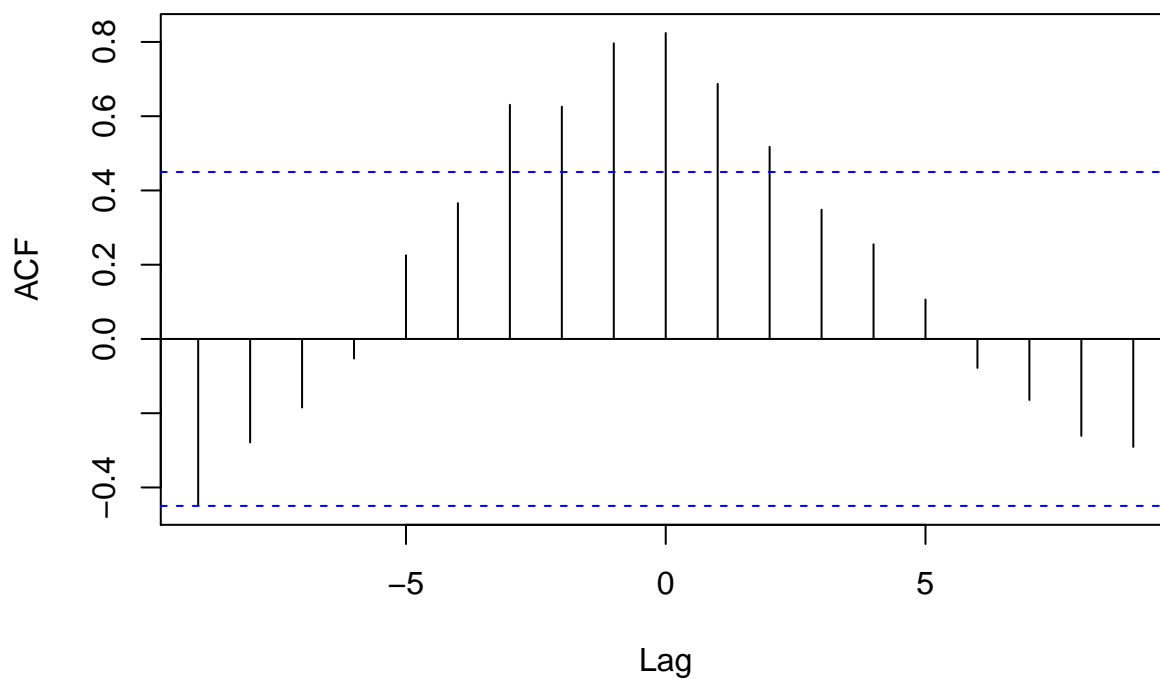
3 wk ahead – 27



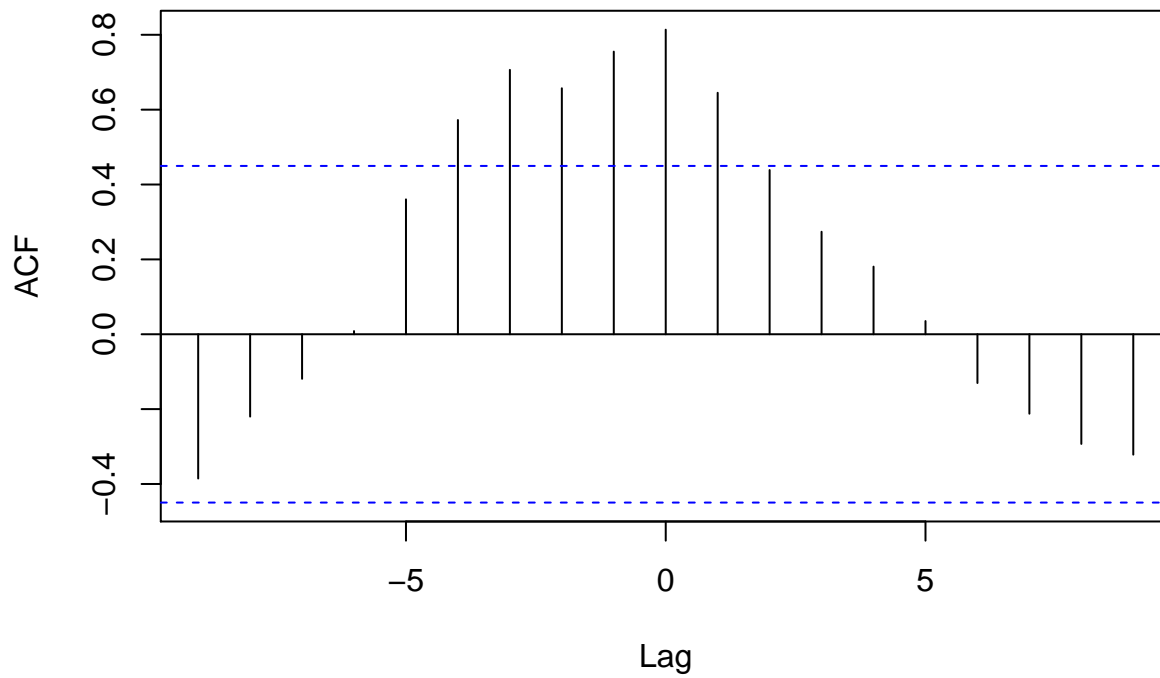
4 wk ahead – 27



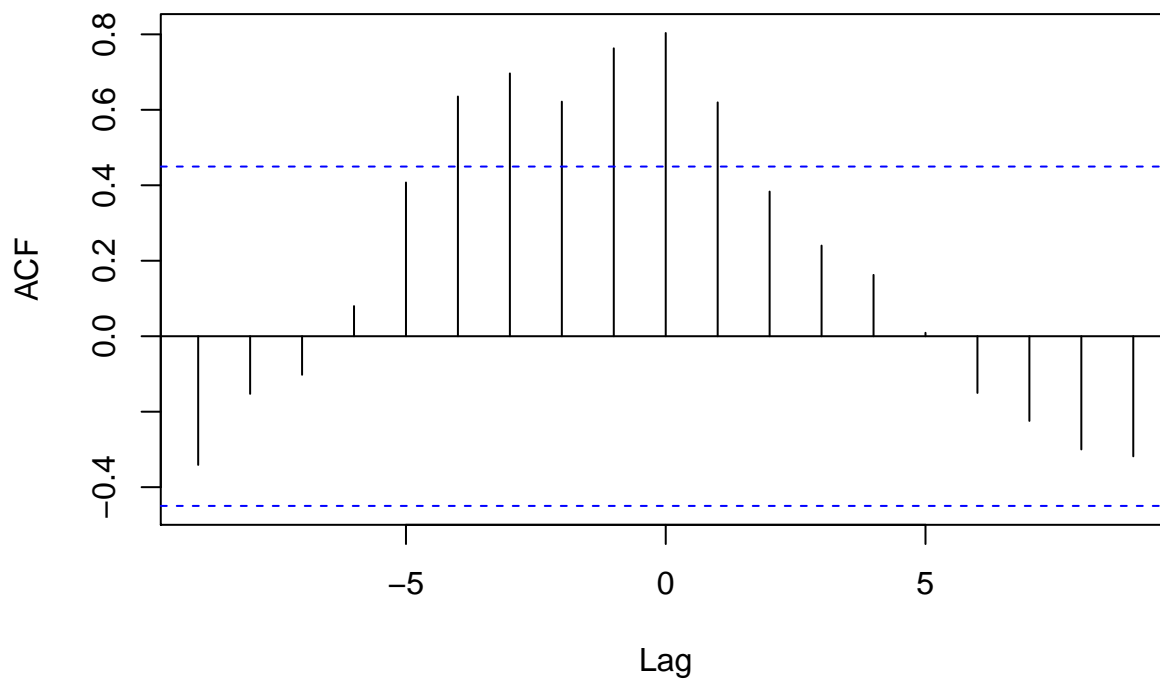
1 wk ahead – 28



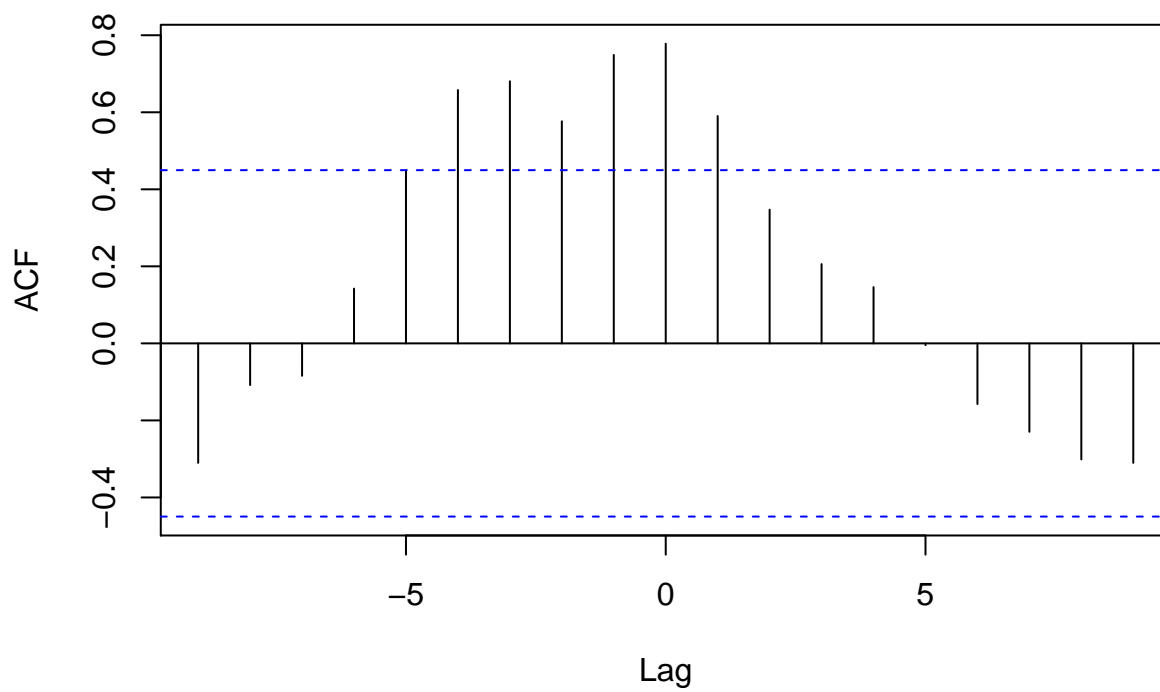
2 wk ahead – 28

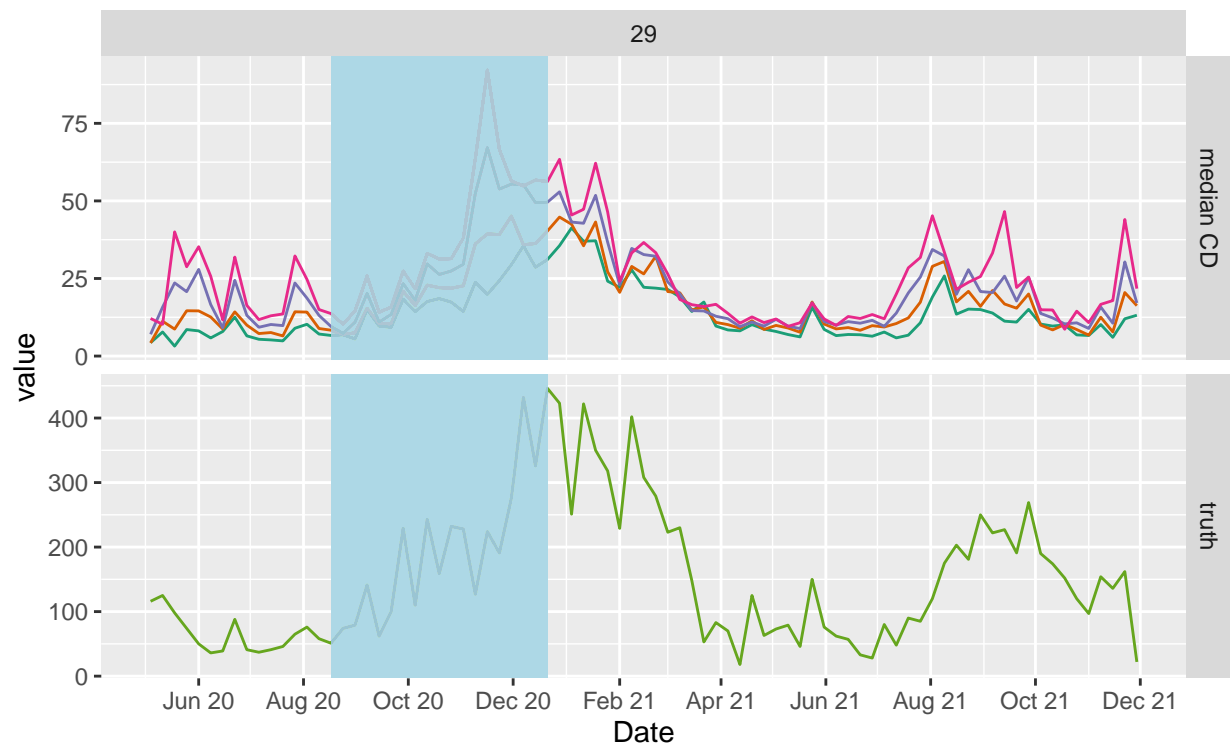


3 wk ahead – 28



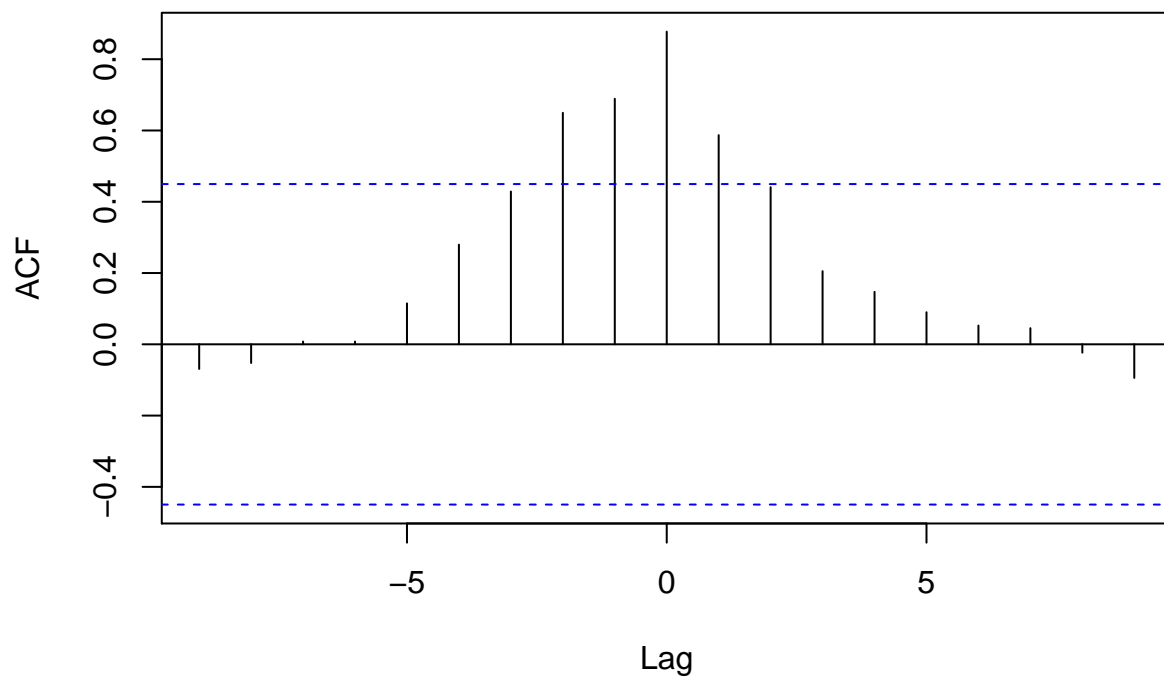
4 wk ahead – 28



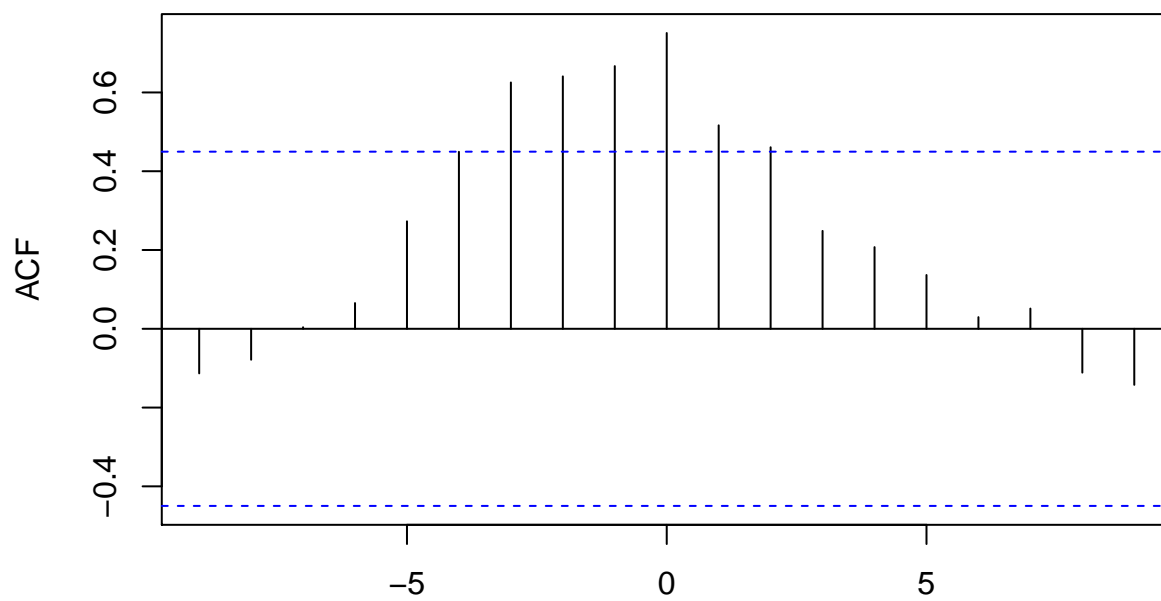


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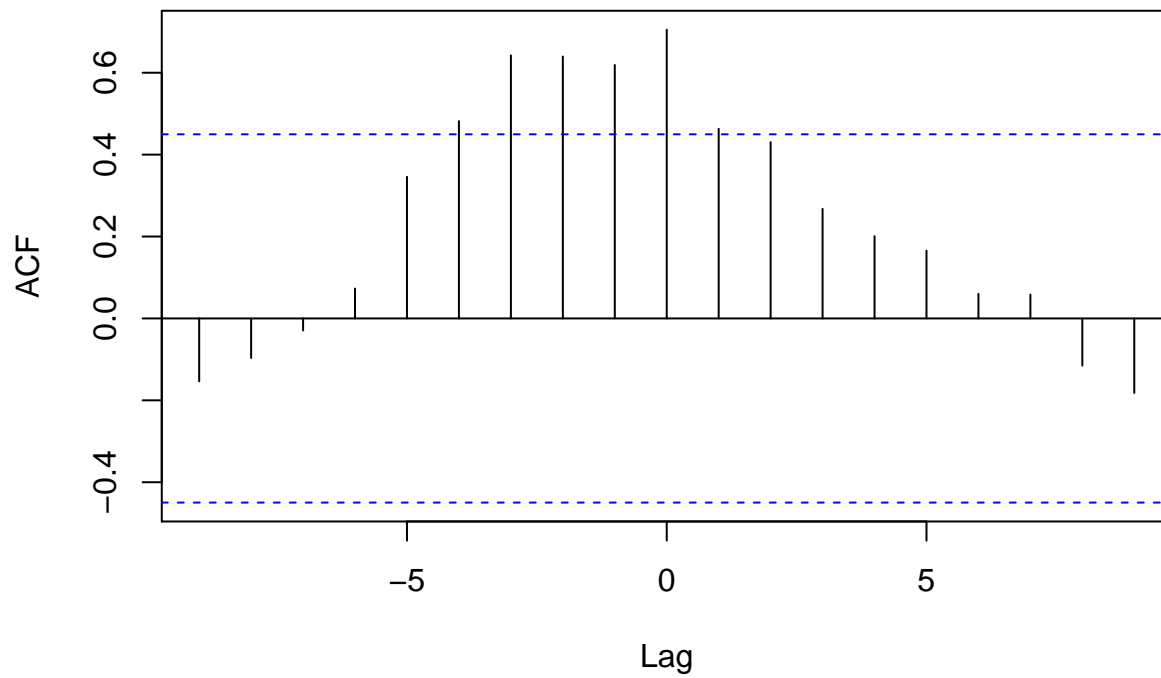
1 wk ahead – 29



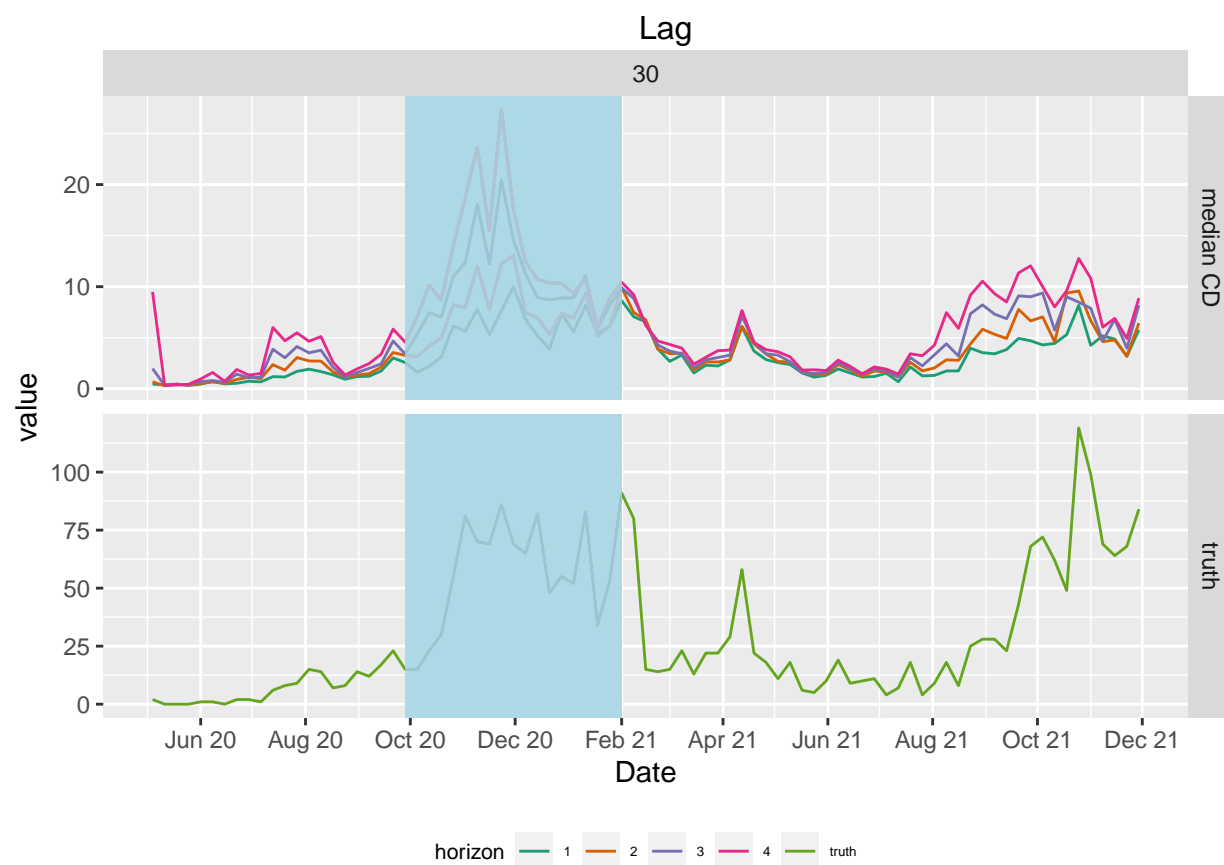
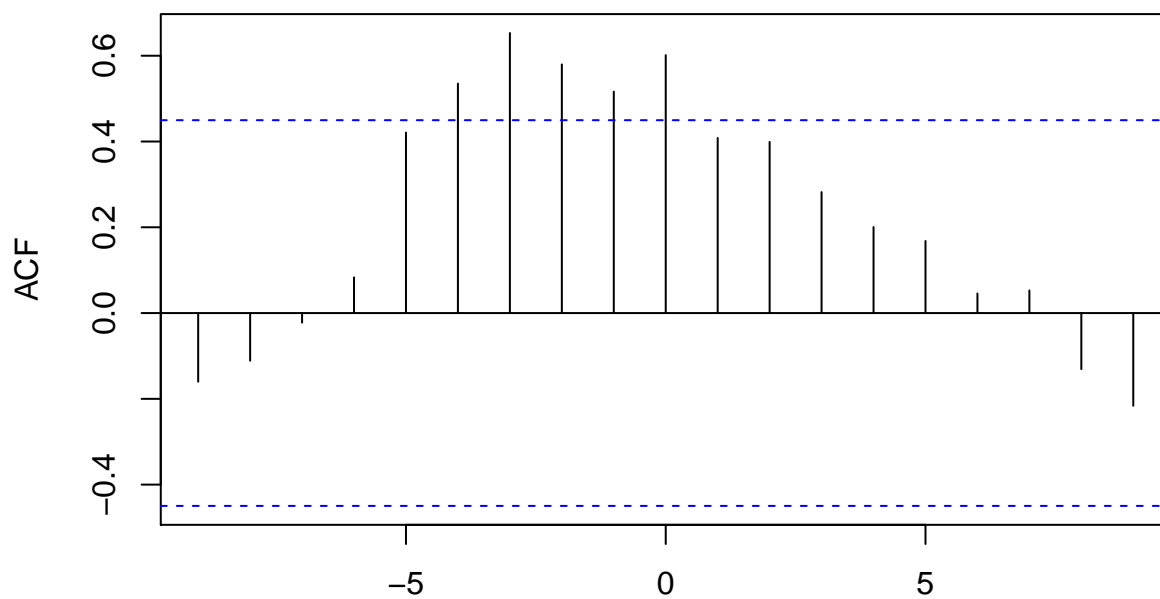
2 wk ahead – 29



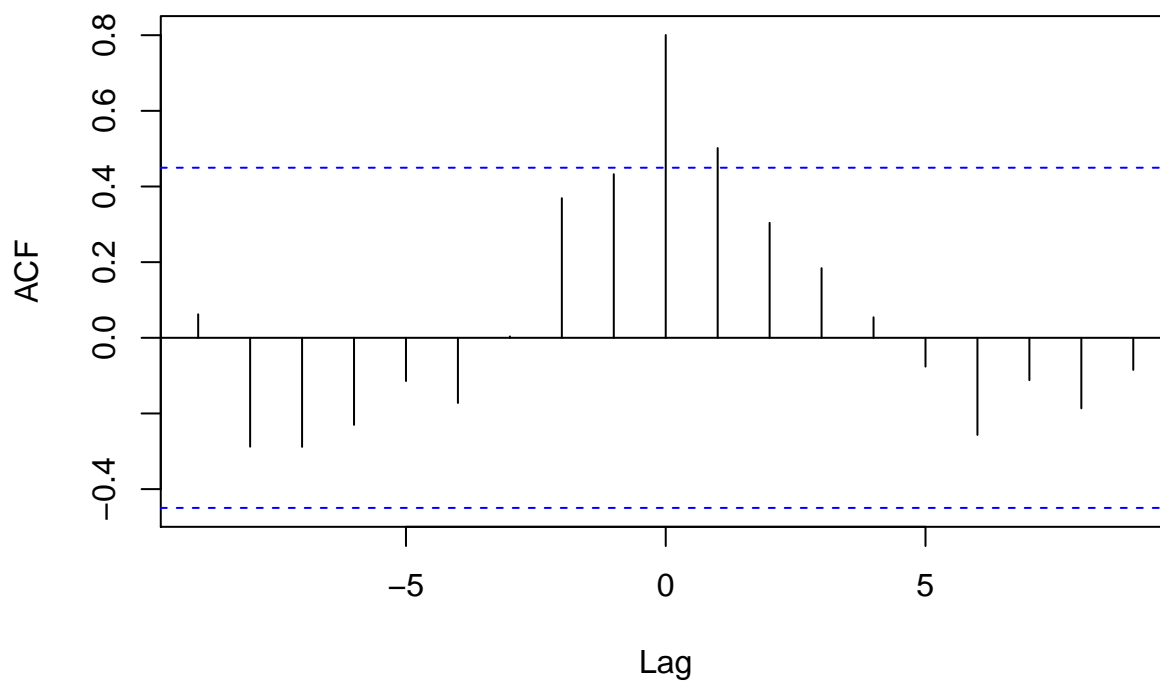
3 wk ahead – 29



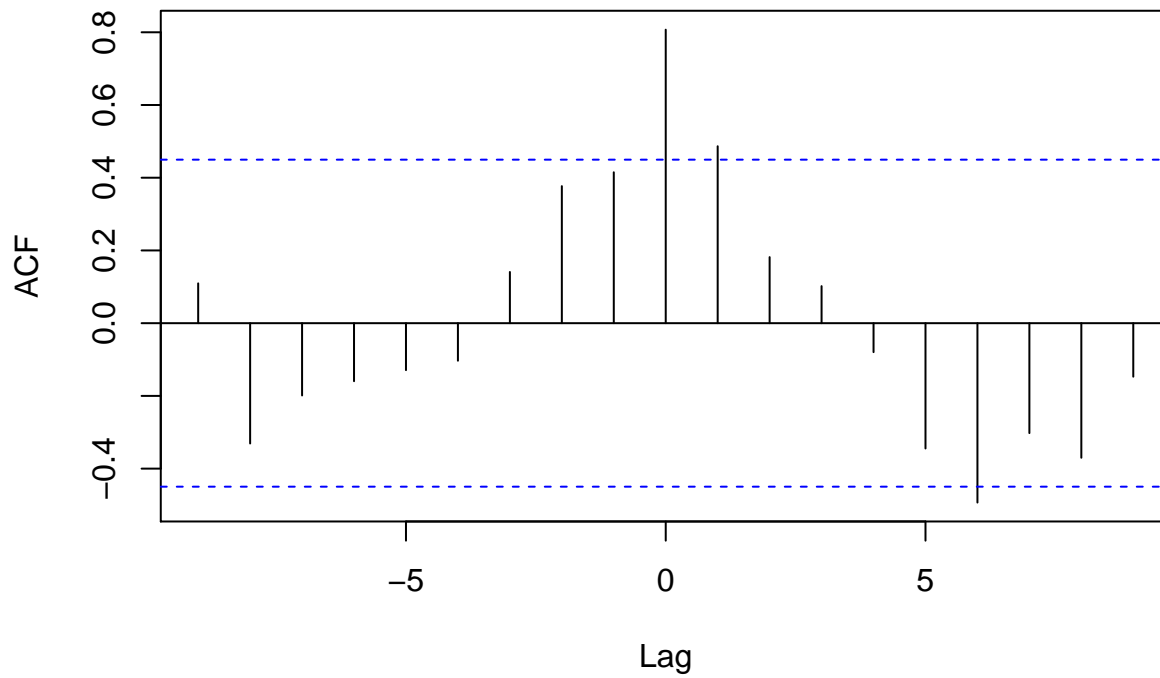
4 wk ahead – 29



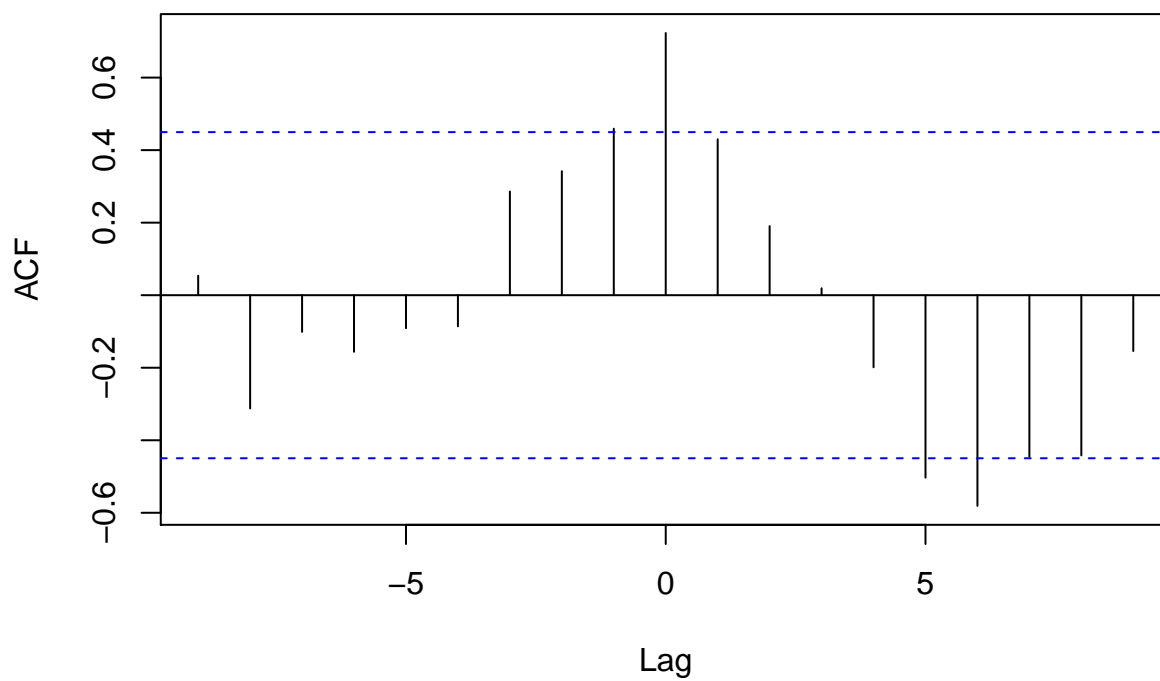
1 wk ahead – 30



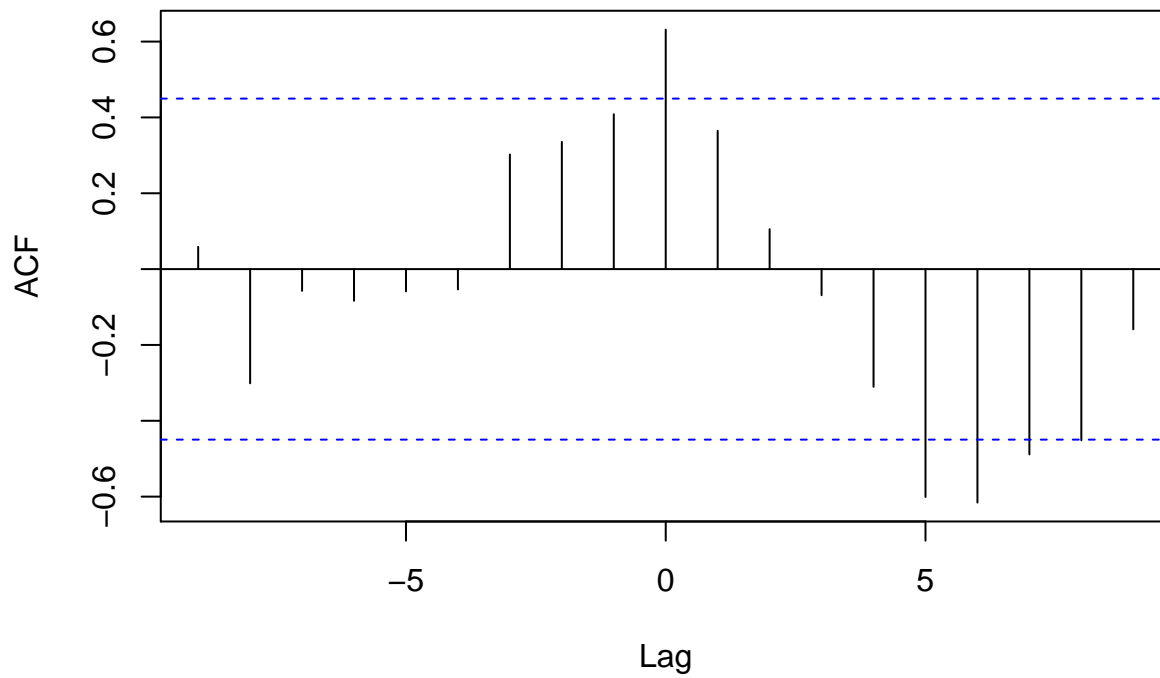
2 wk ahead – 30

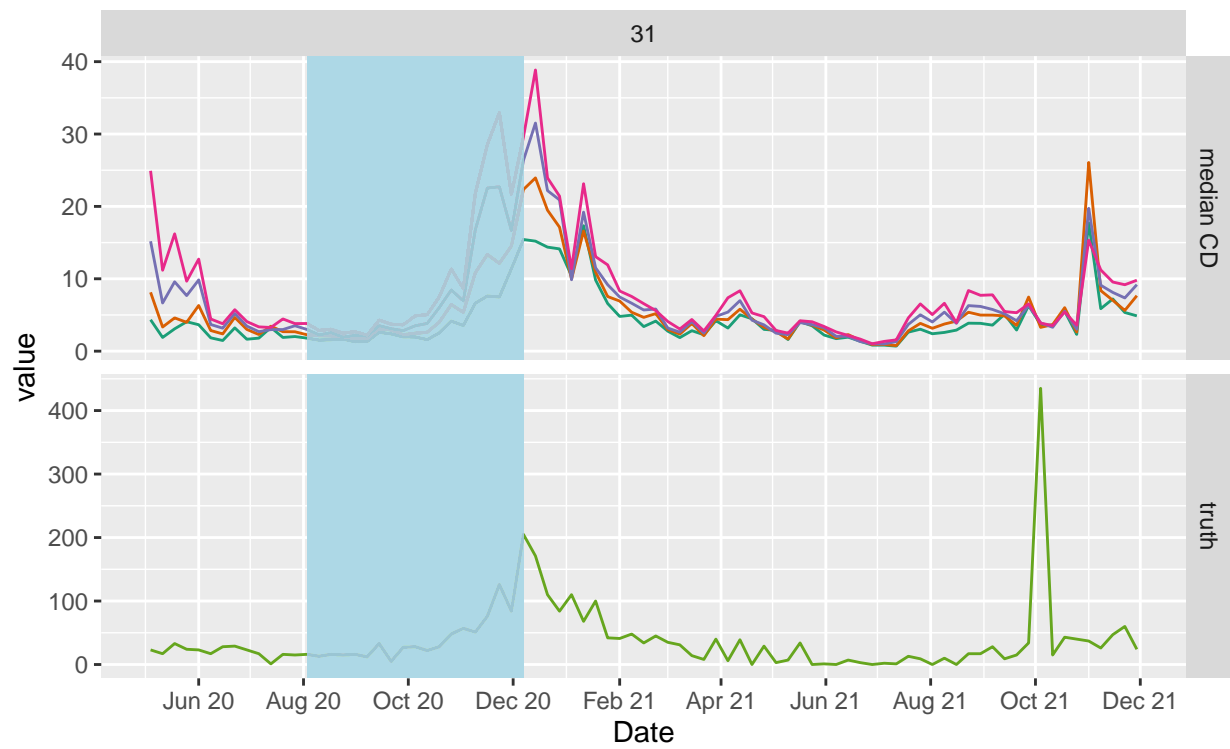


3 wk ahead – 30



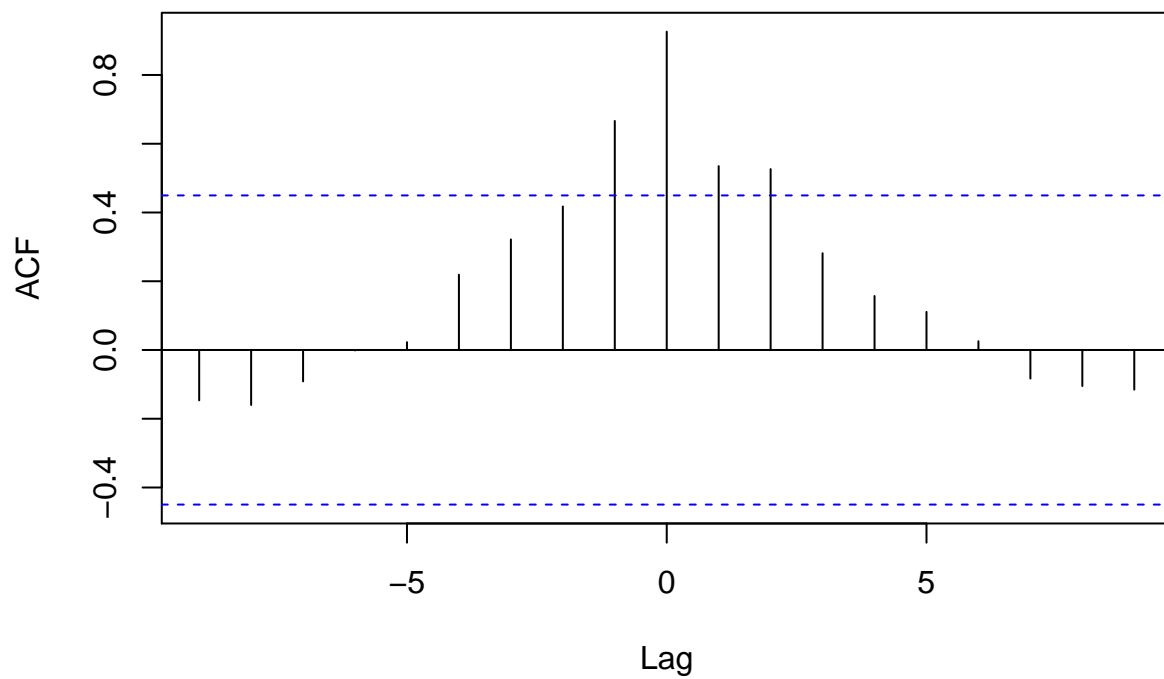
4 wk ahead – 30



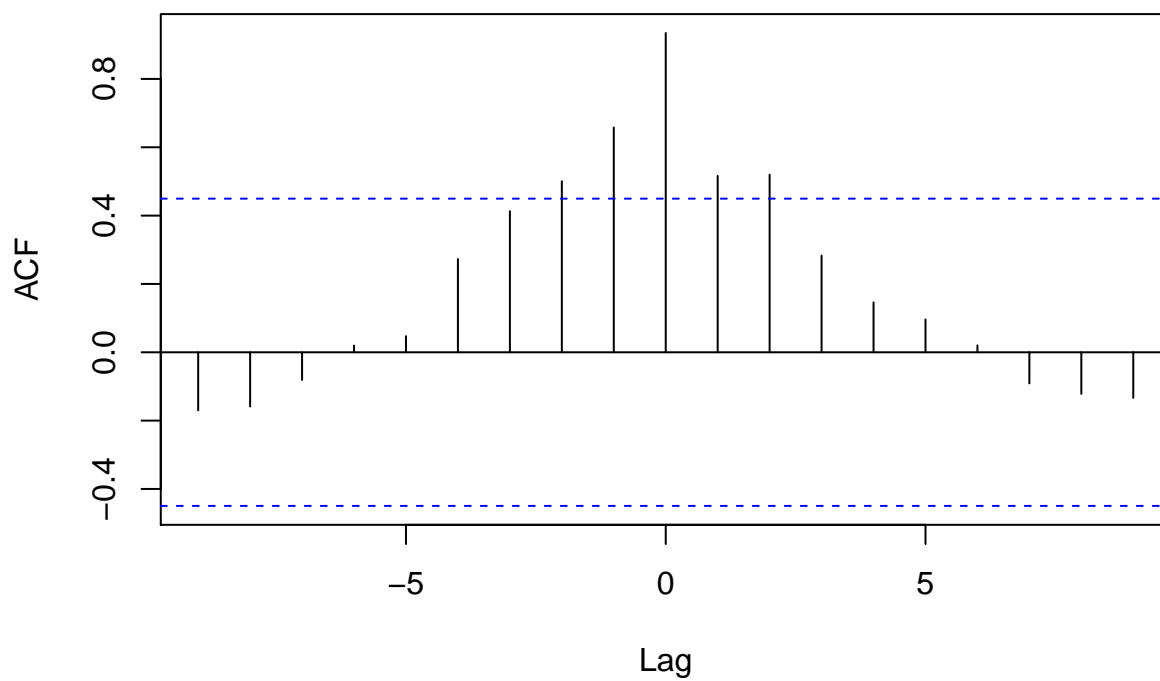


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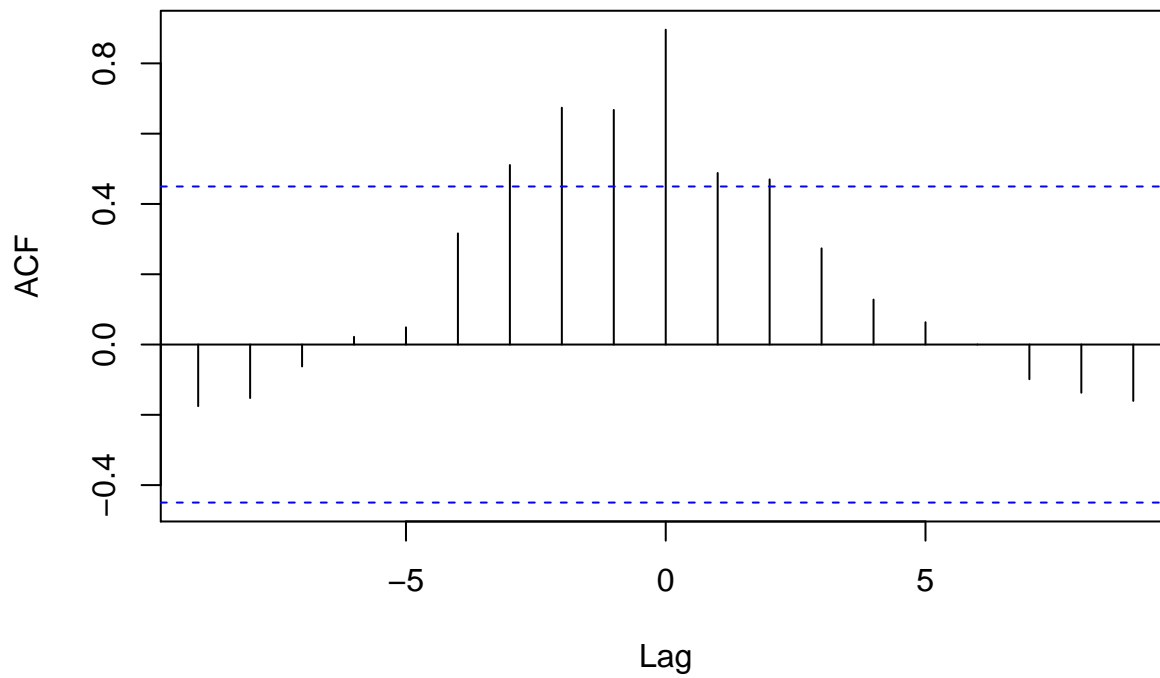
1 wk ahead – 31



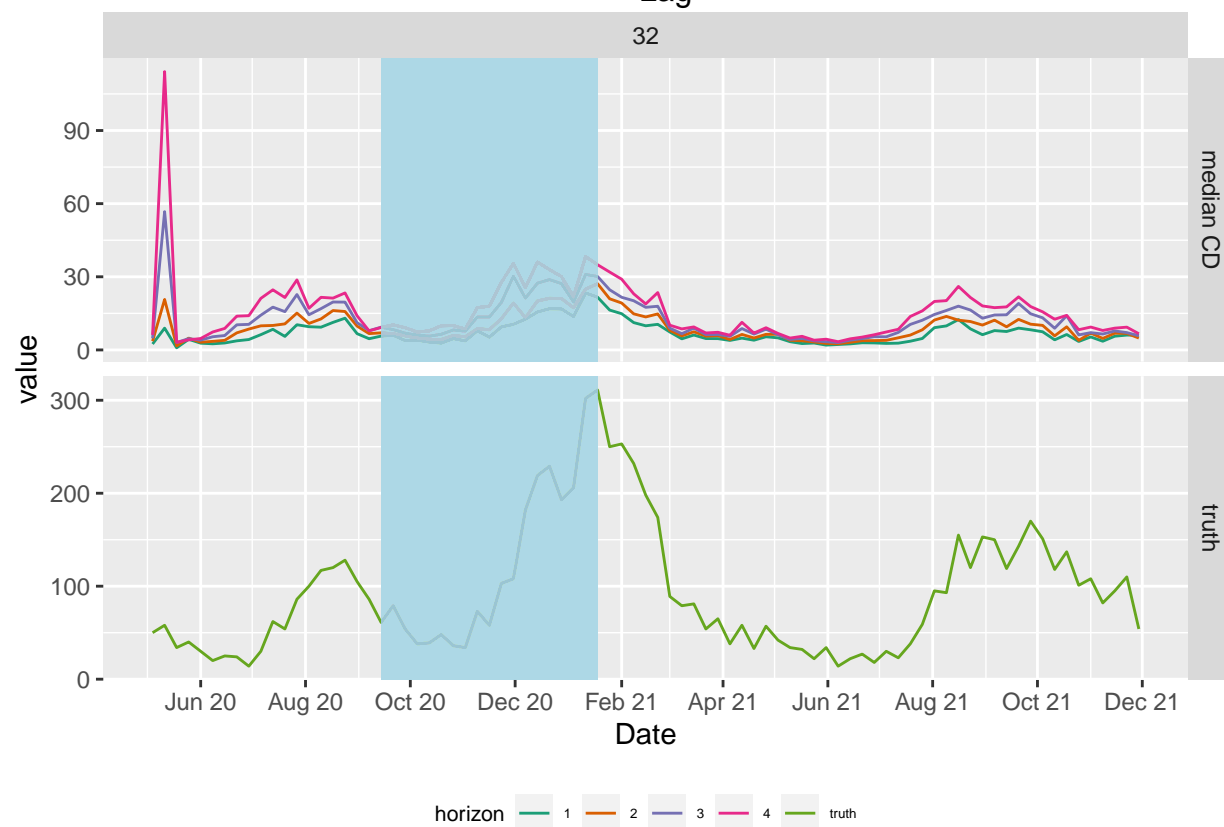
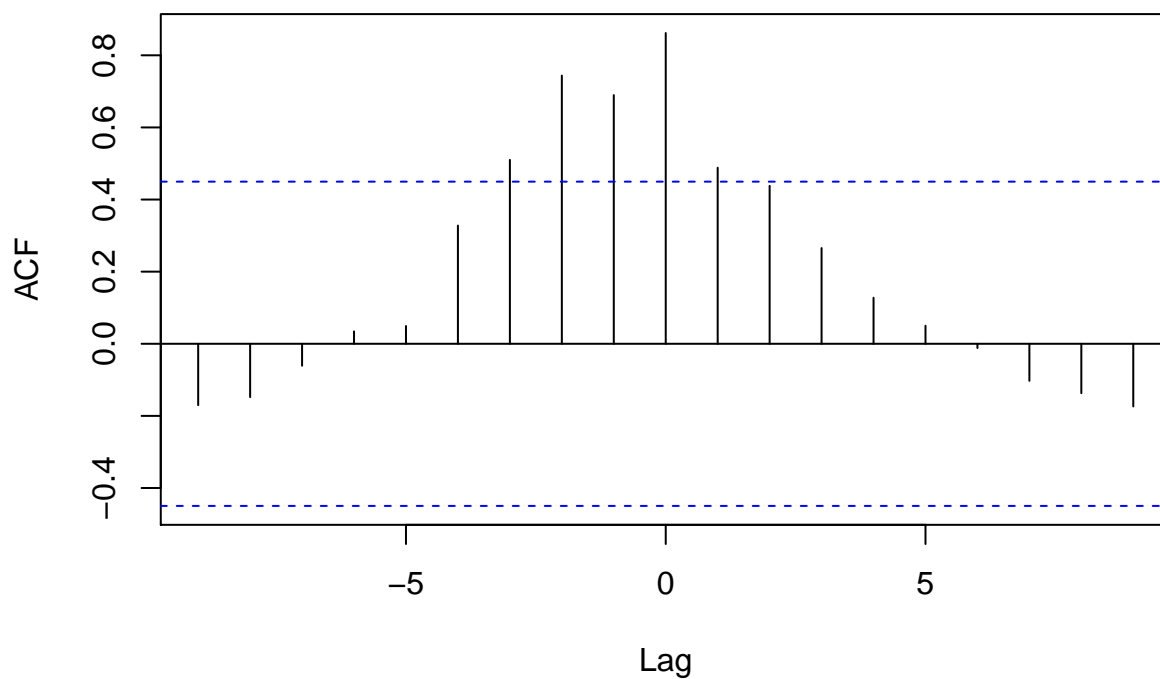
2 wk ahead – 31



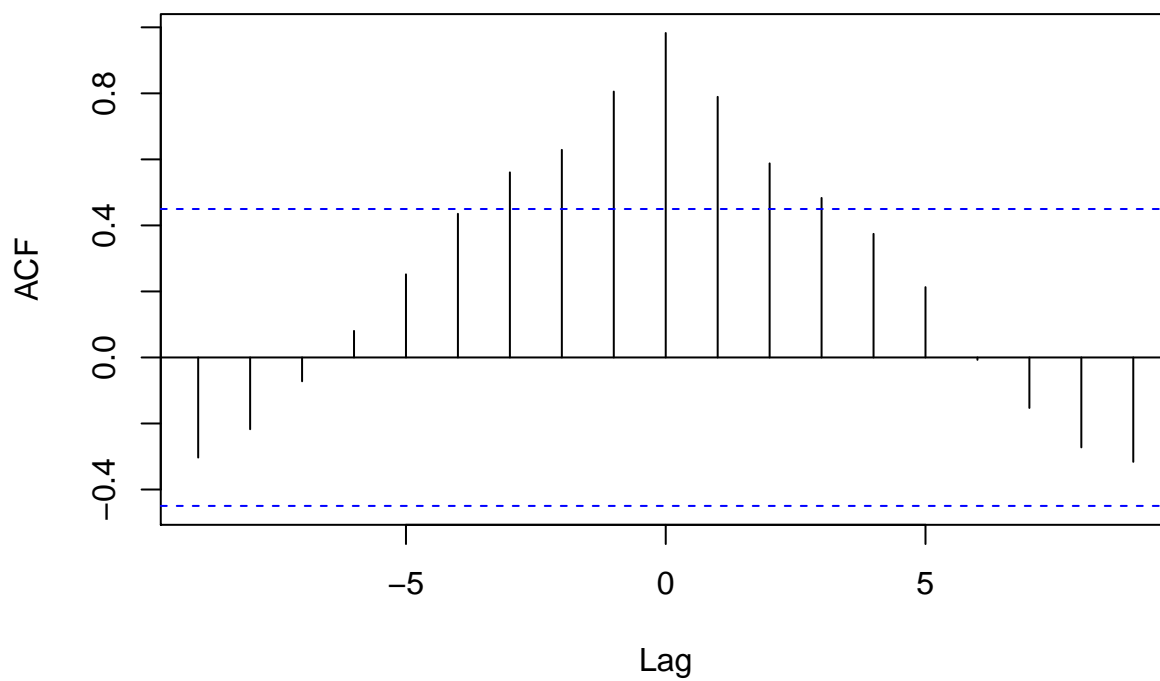
3 wk ahead – 31



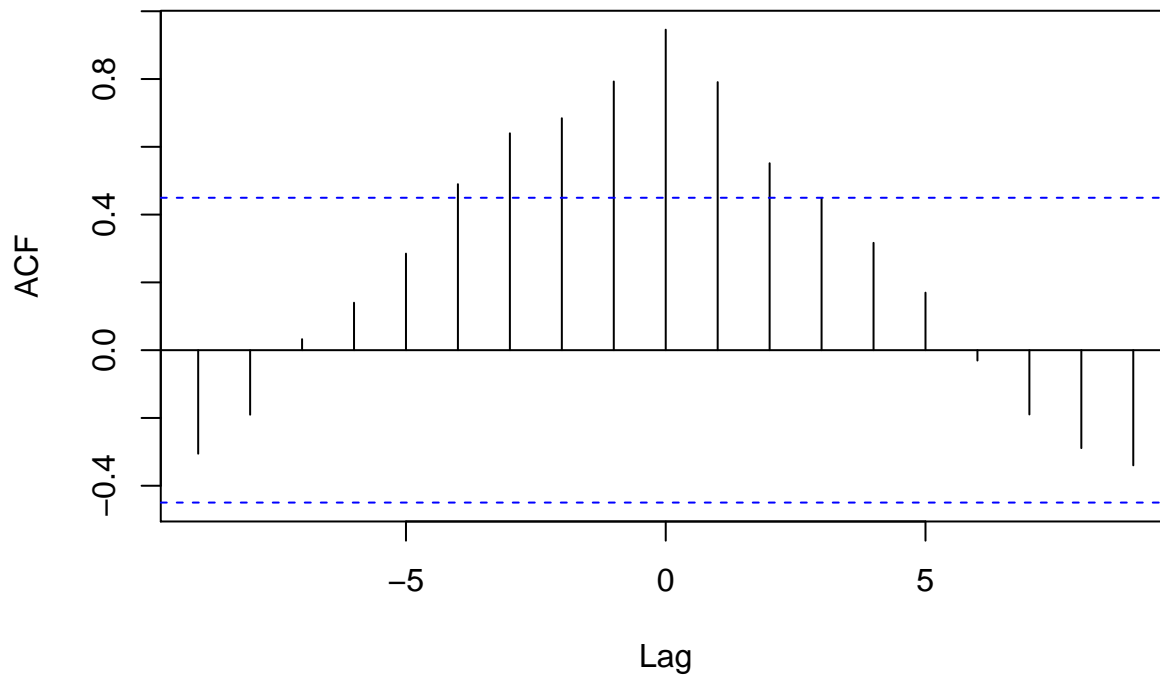
4 wk ahead – 31



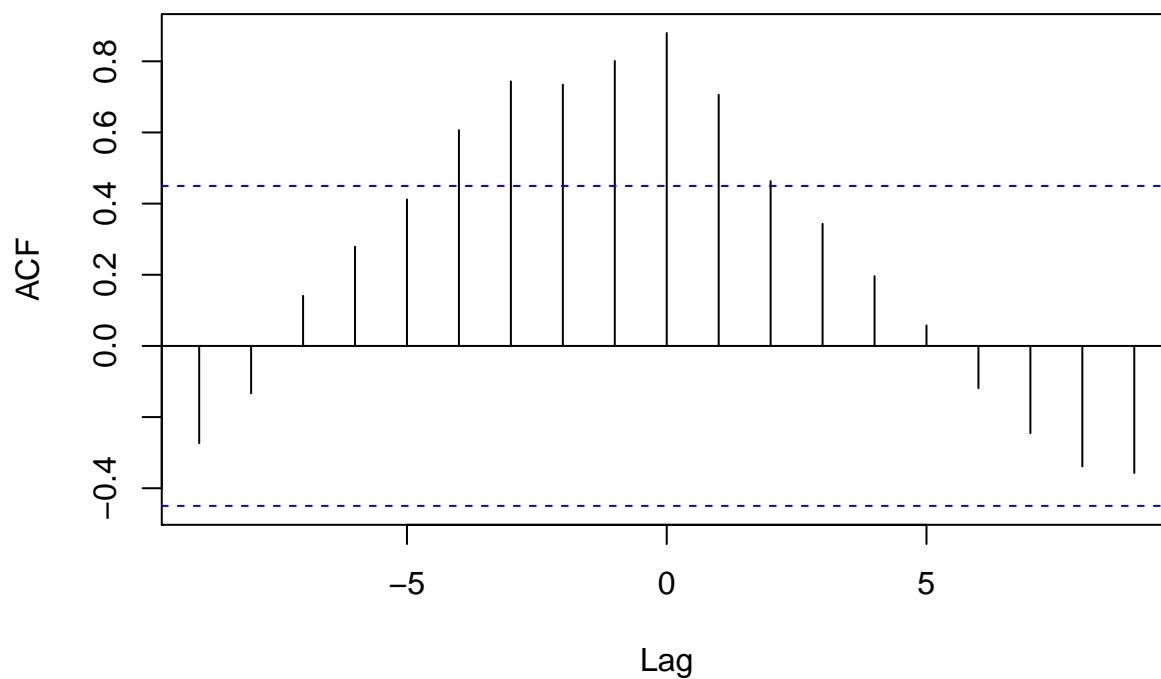
1 wk ahead – 32



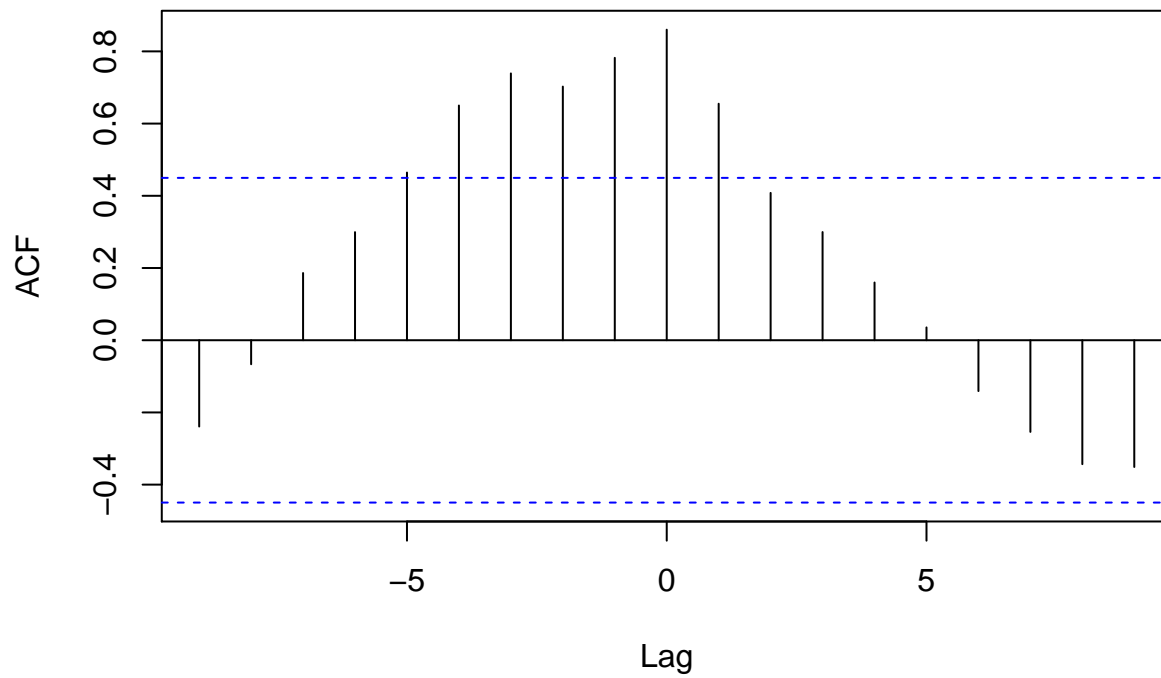
2 wk ahead – 32

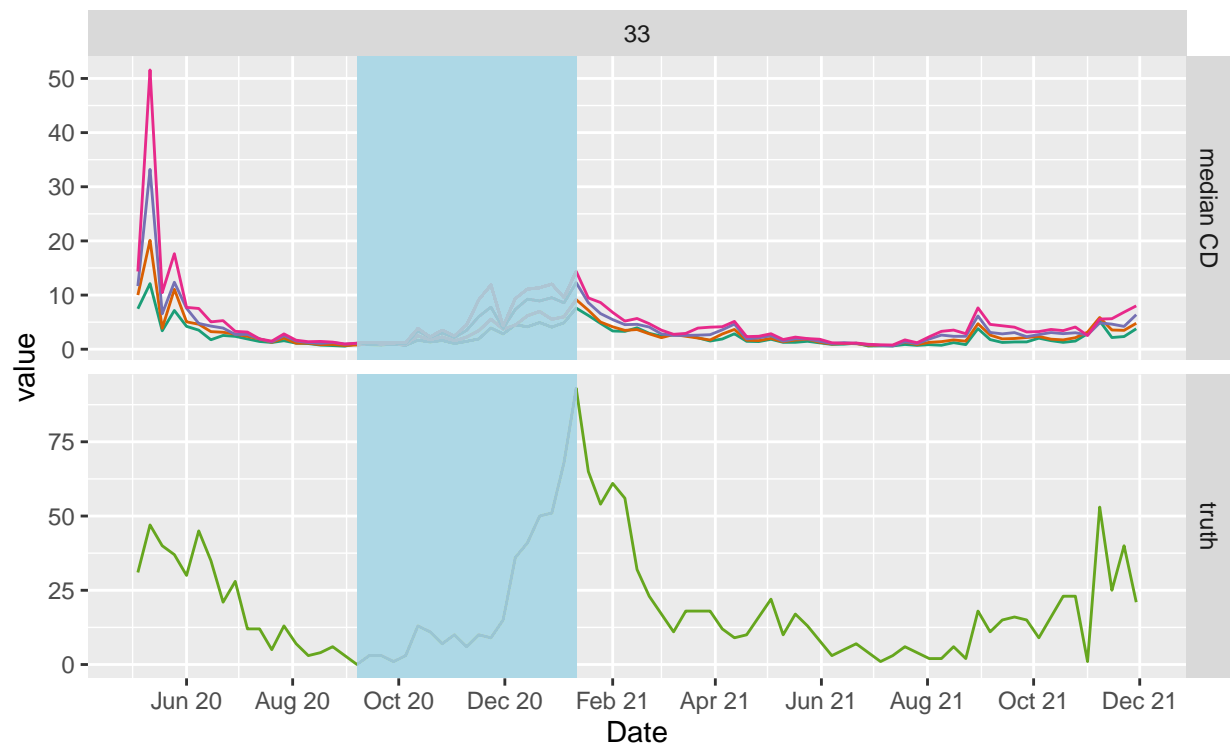


3 wk ahead – 32



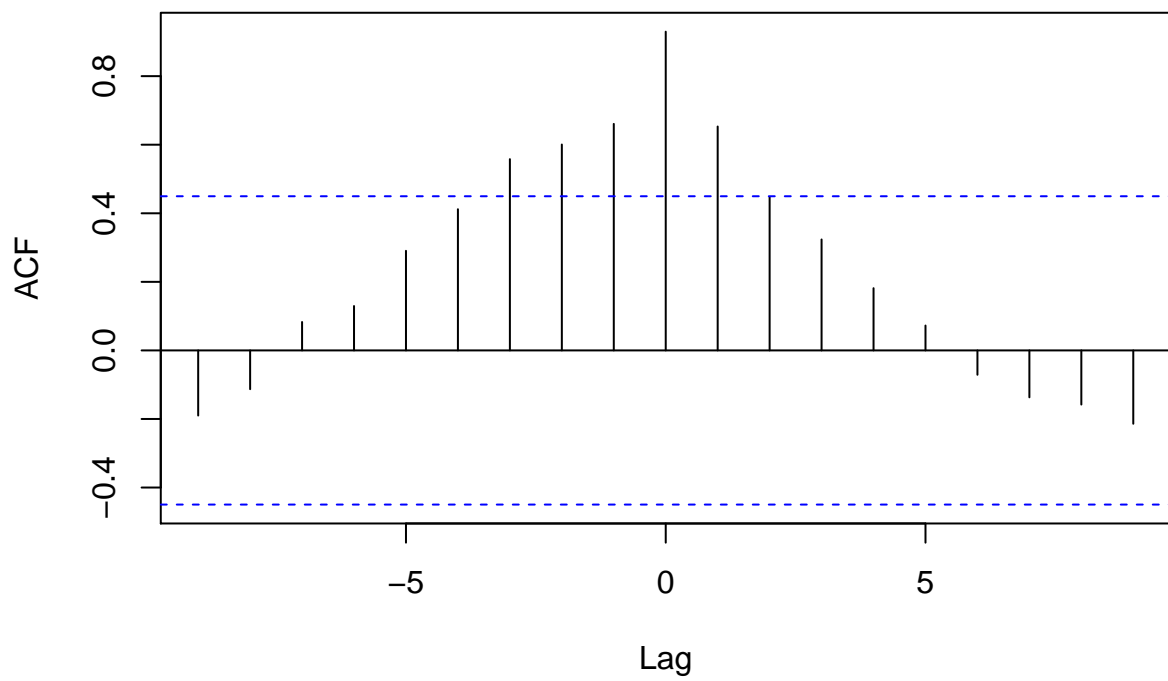
4 wk ahead – 32



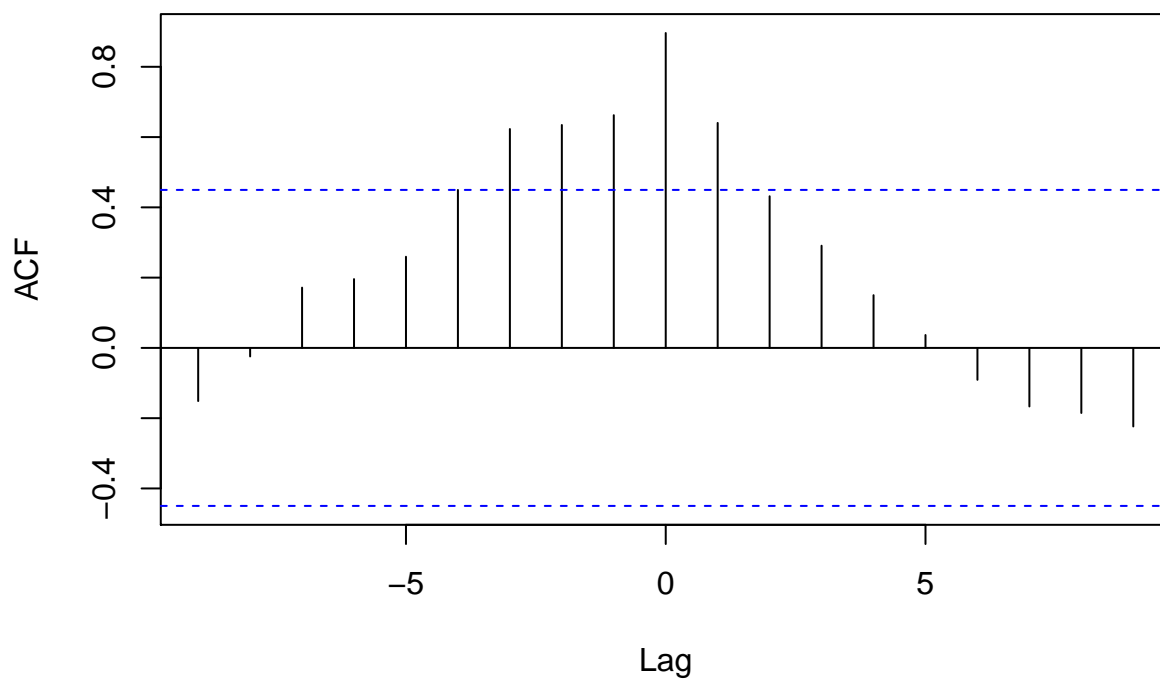


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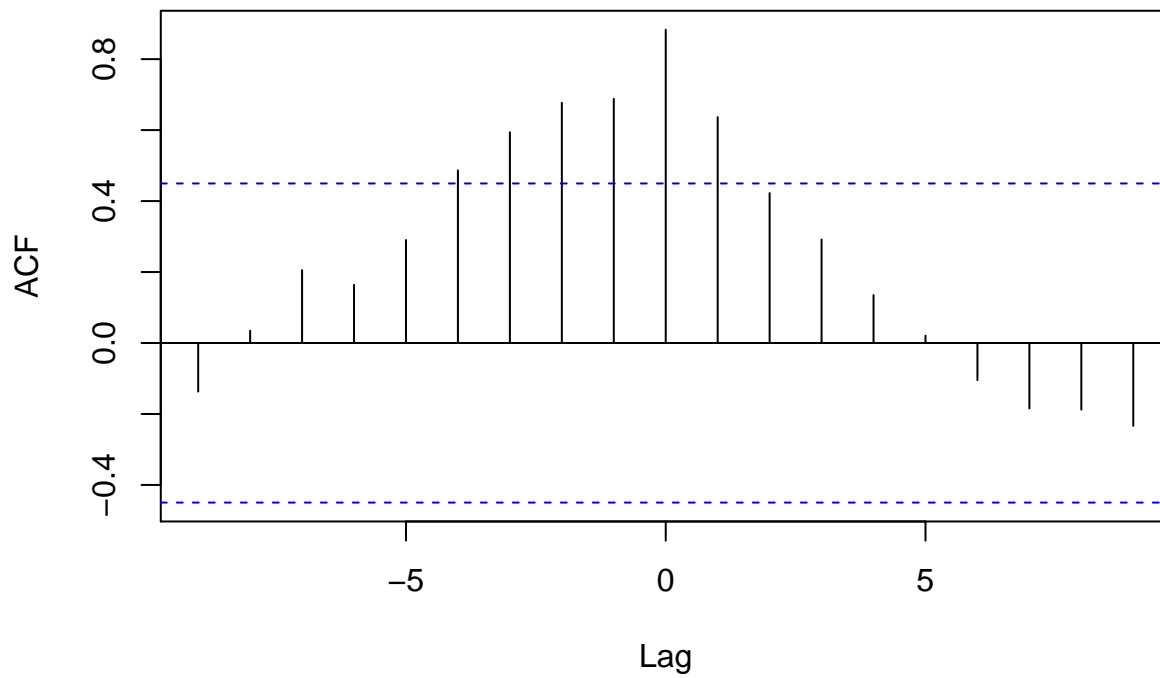
1 wk ahead – 33



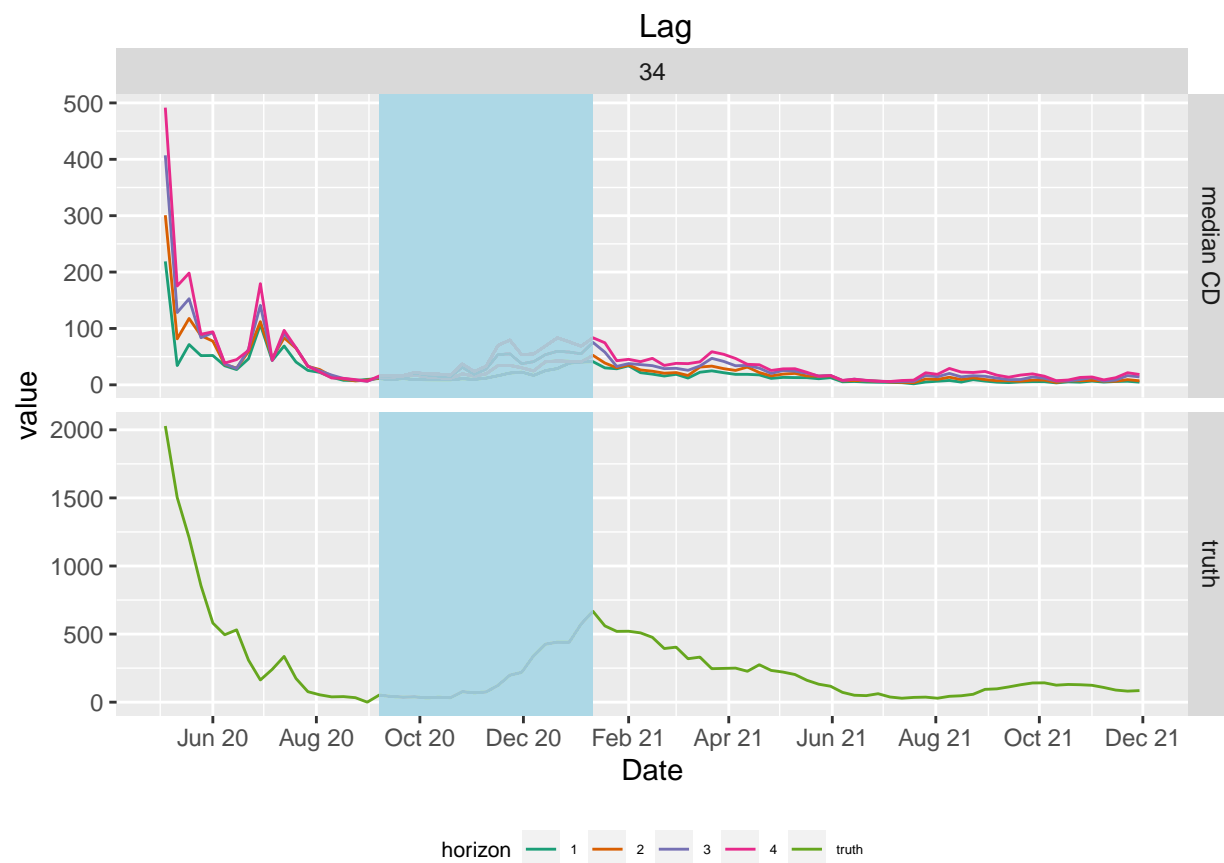
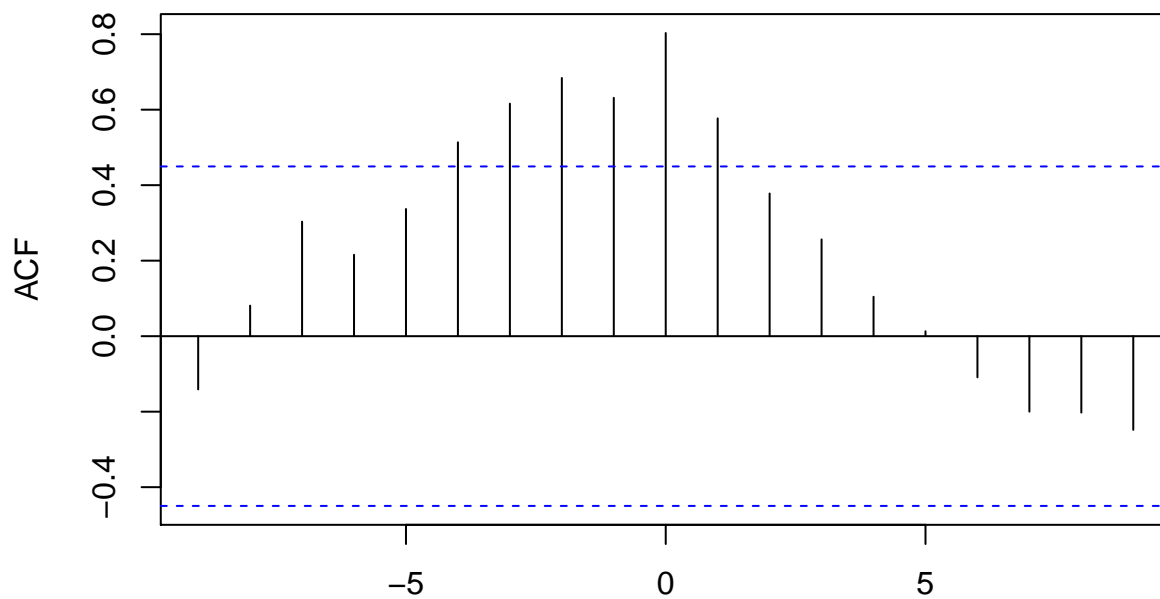
2 wk ahead – 33



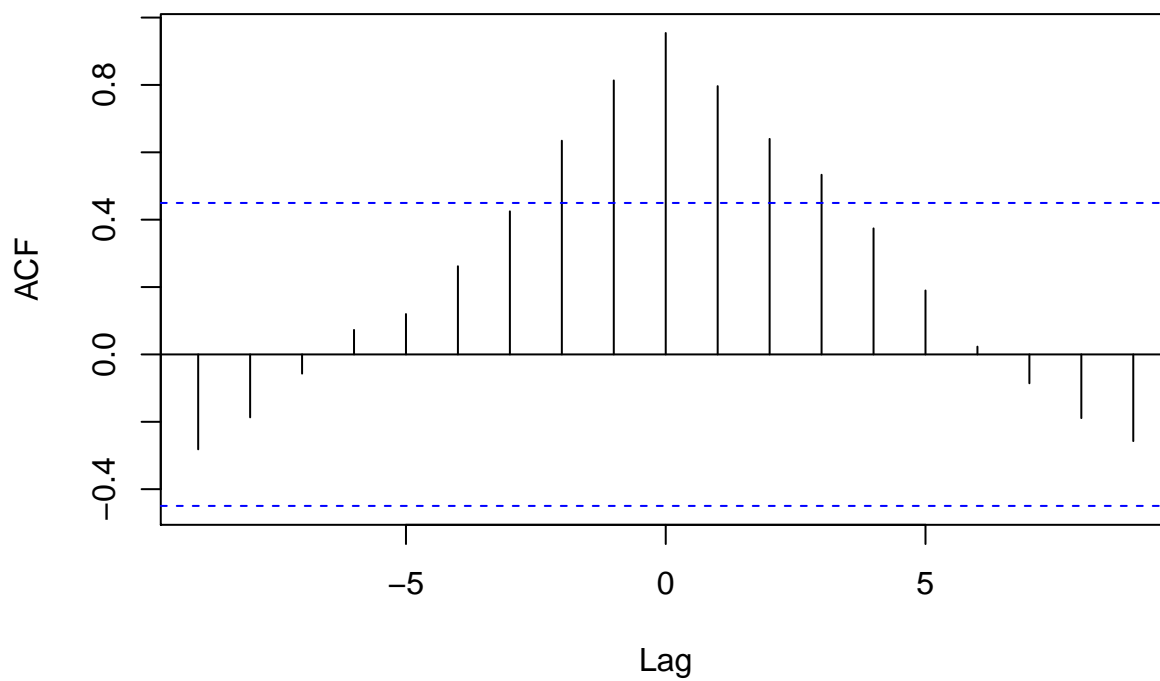
3 wk ahead – 33



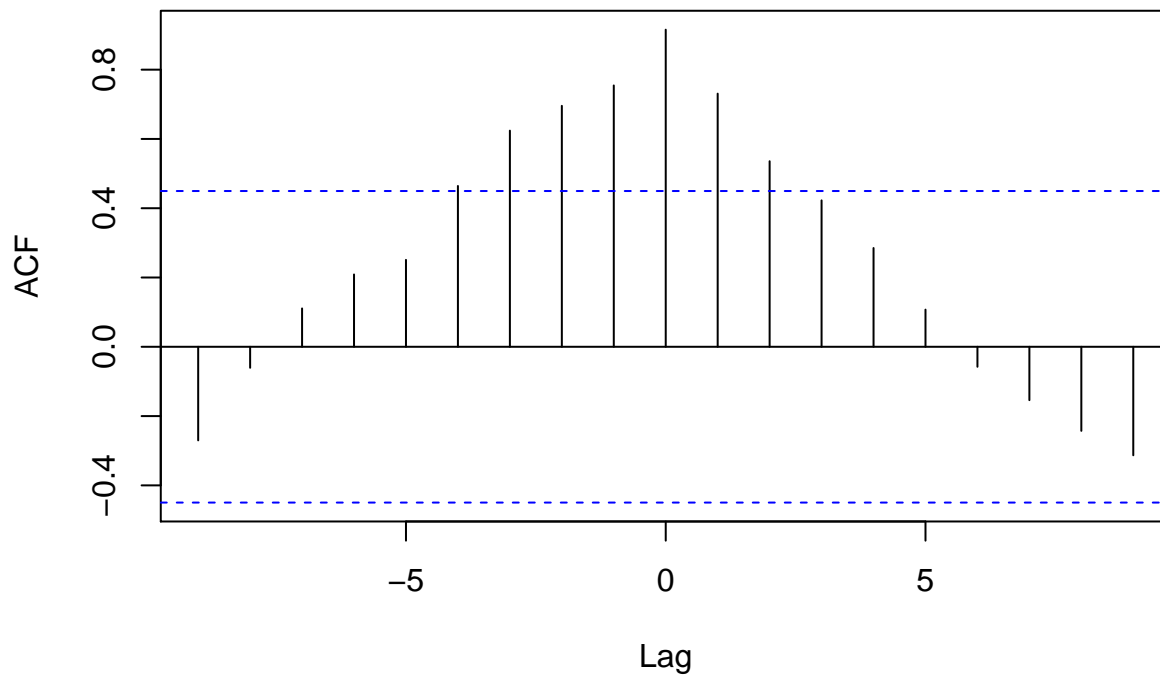
4 wk ahead – 33



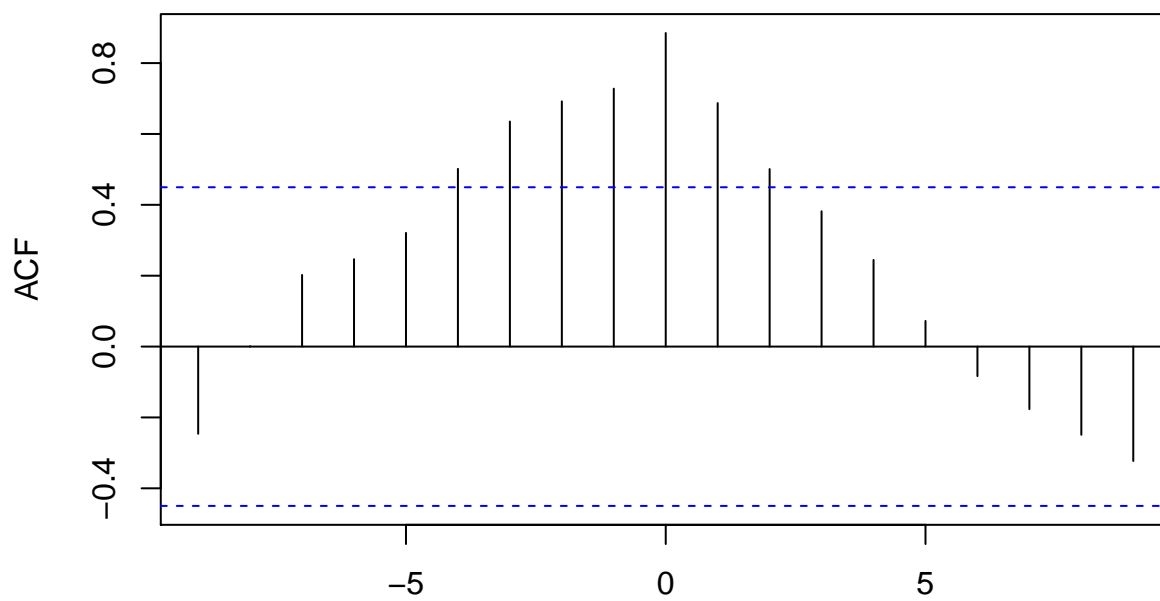
1 wk ahead – 34



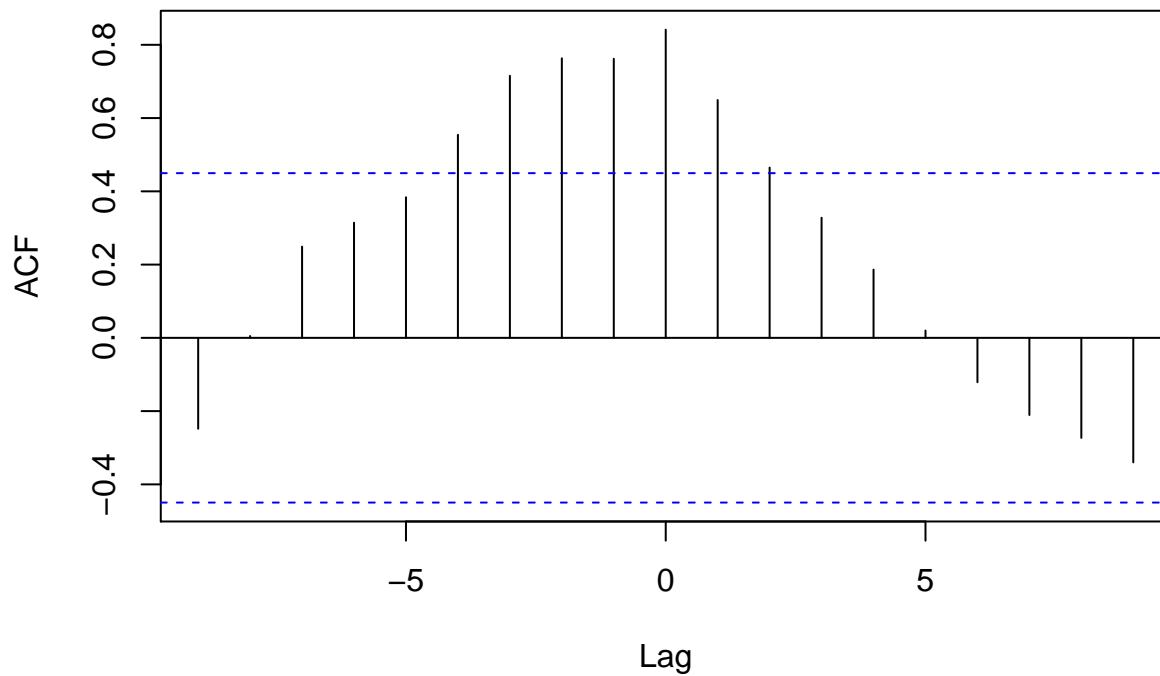
2 wk ahead – 34

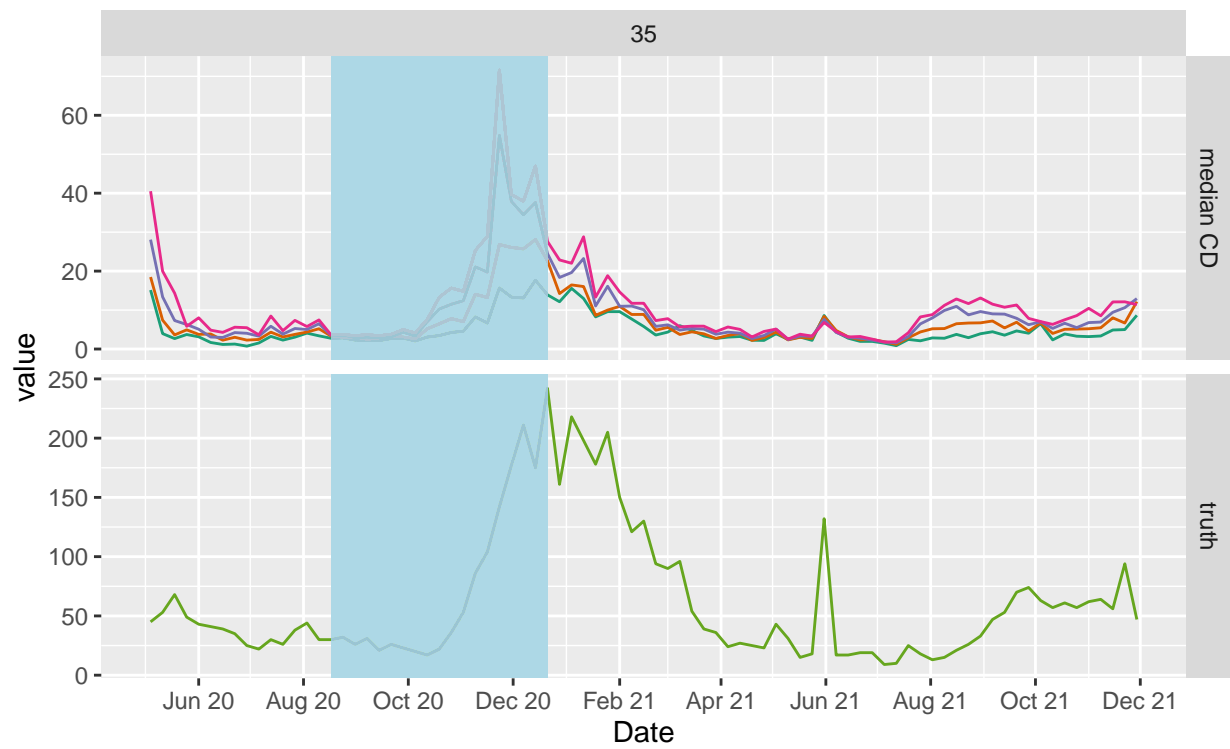


3 wk ahead – 34



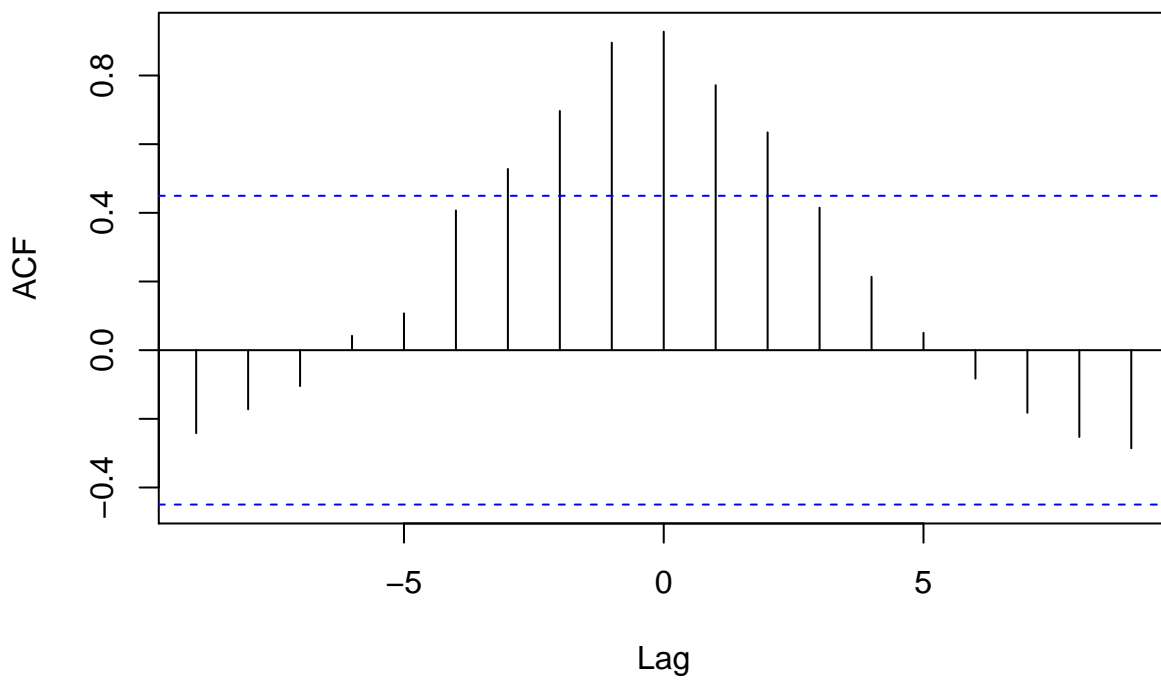
4 wk ahead – 34



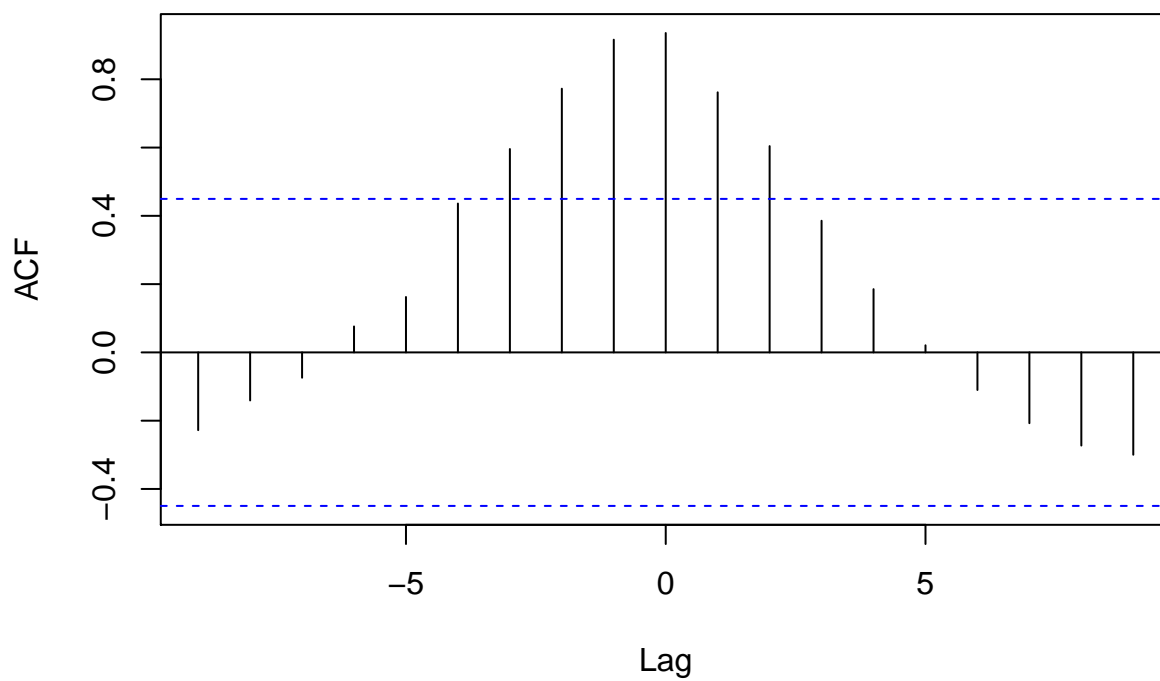


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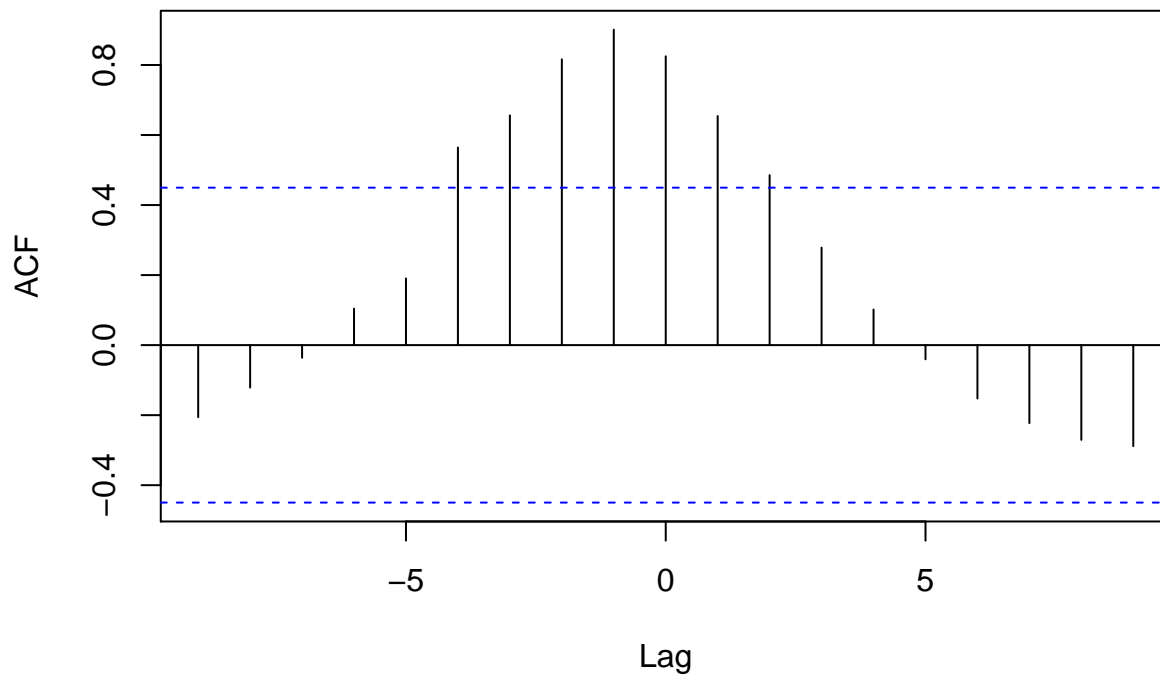
1 wk ahead – 35



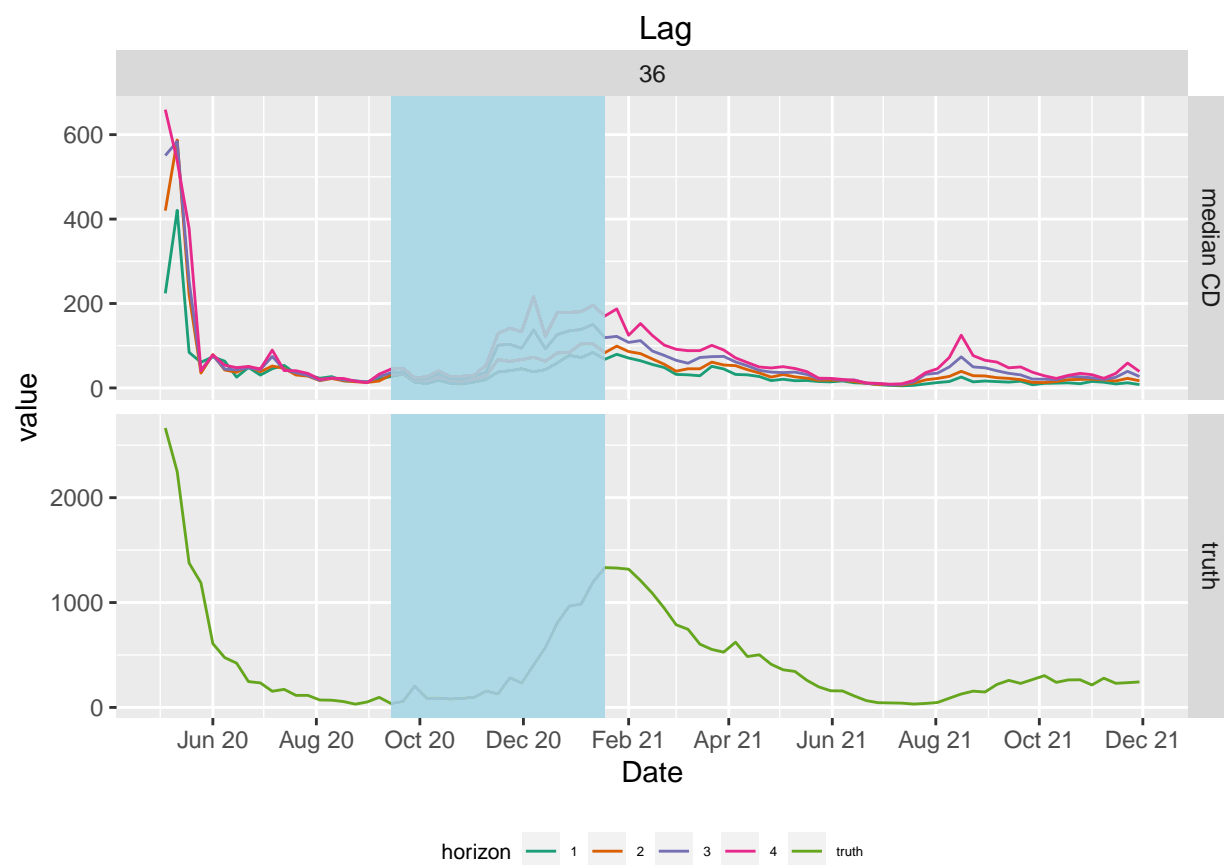
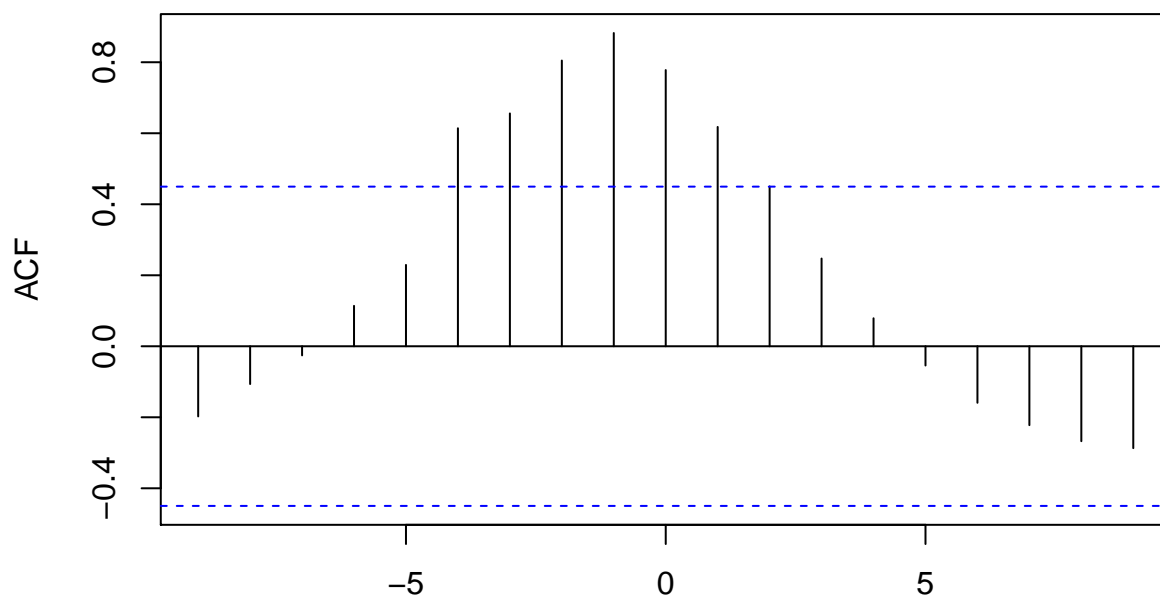
2 wk ahead – 35



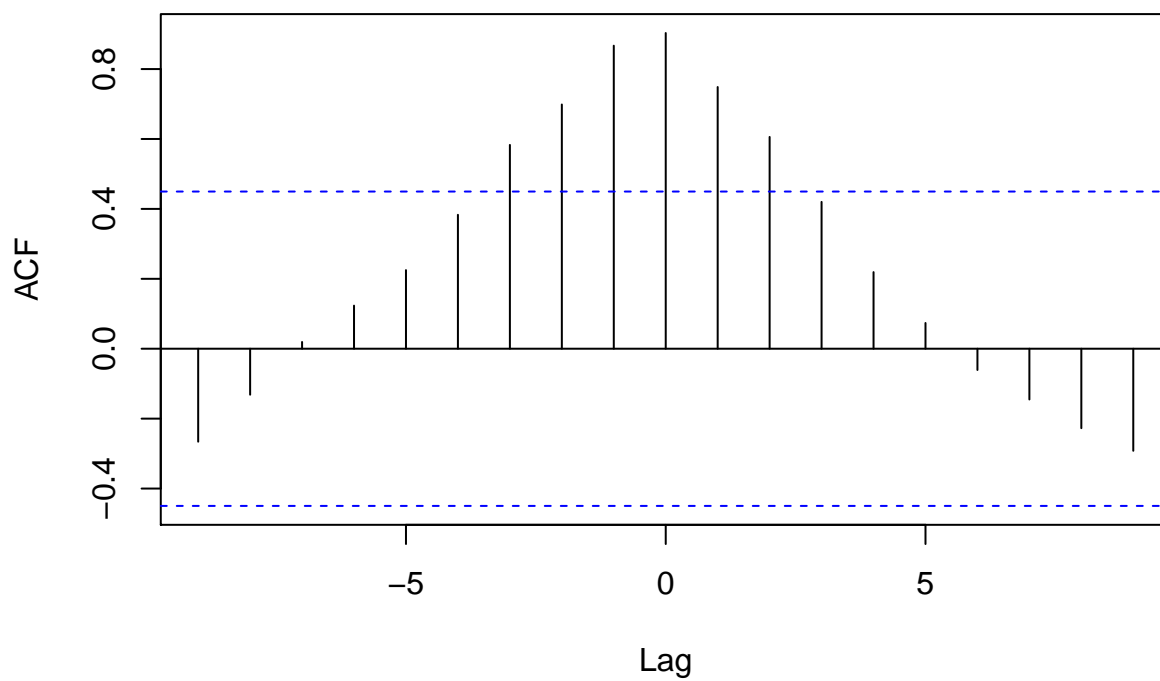
3 wk ahead – 35



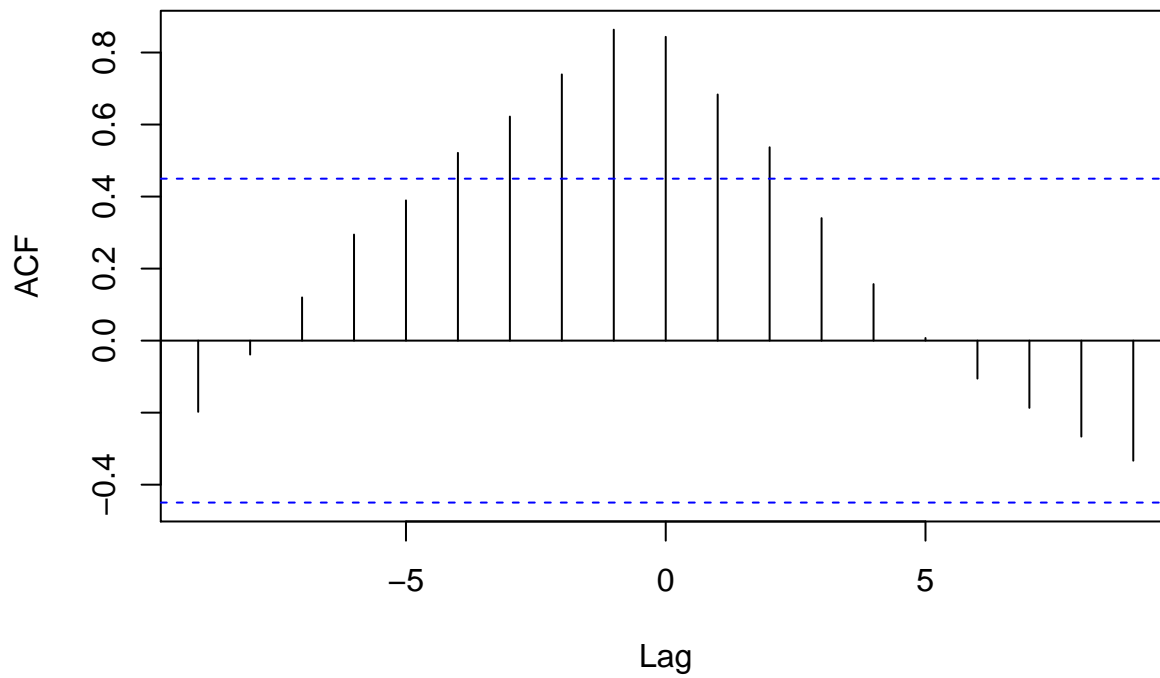
4 wk ahead – 35



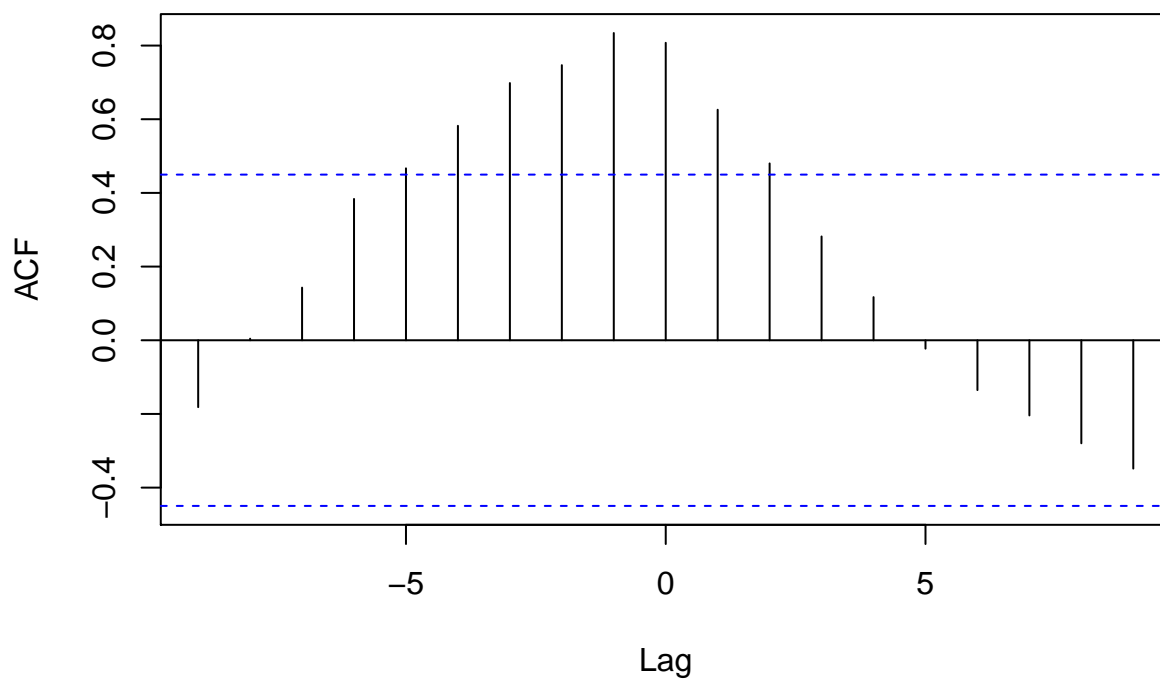
1 wk ahead – 36



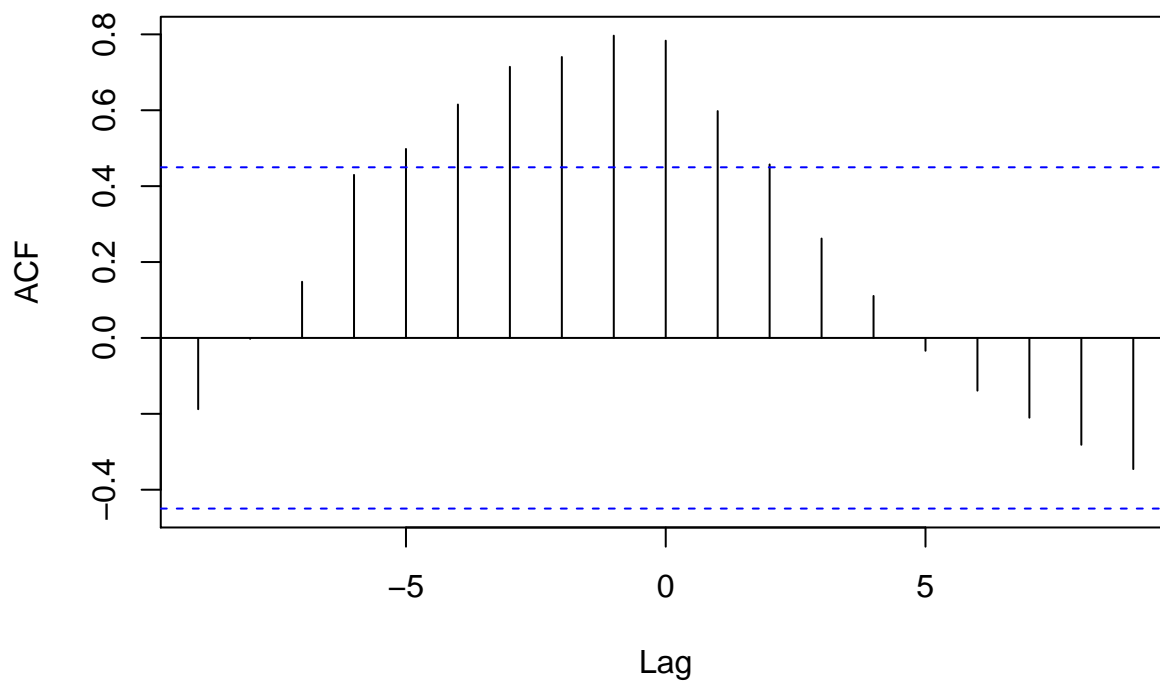
2 wk ahead – 36

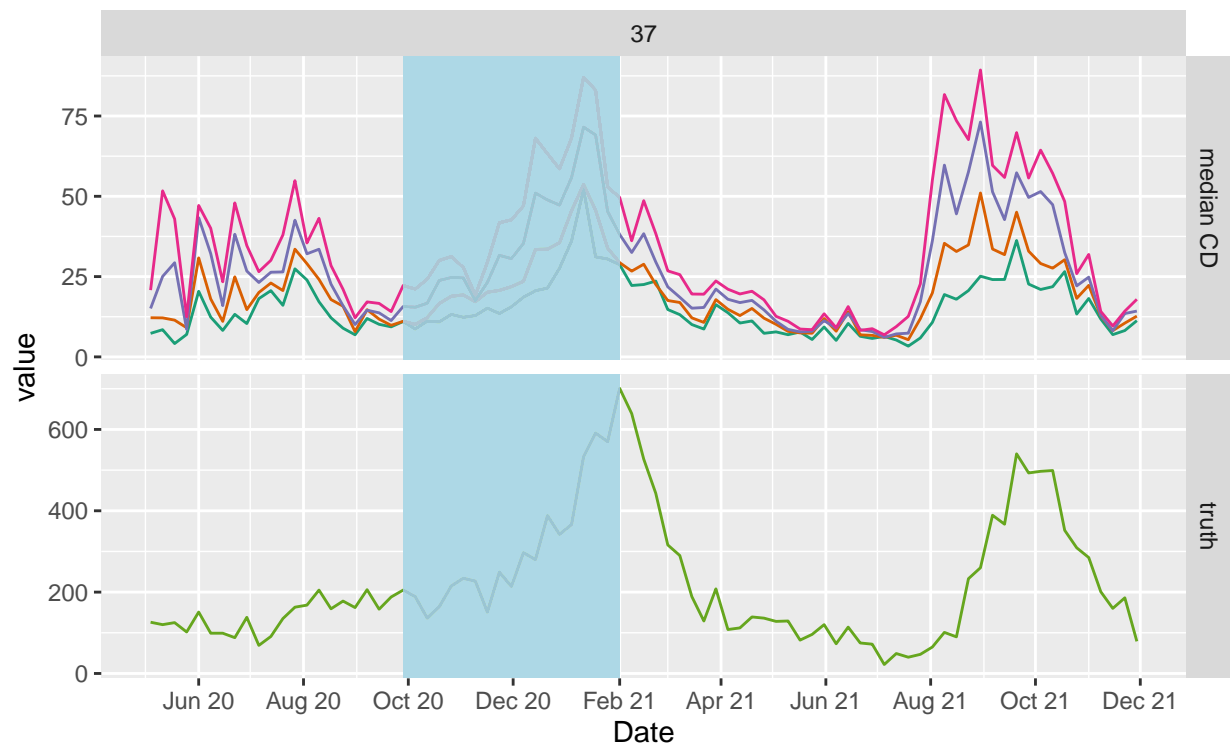


3 wk ahead – 36



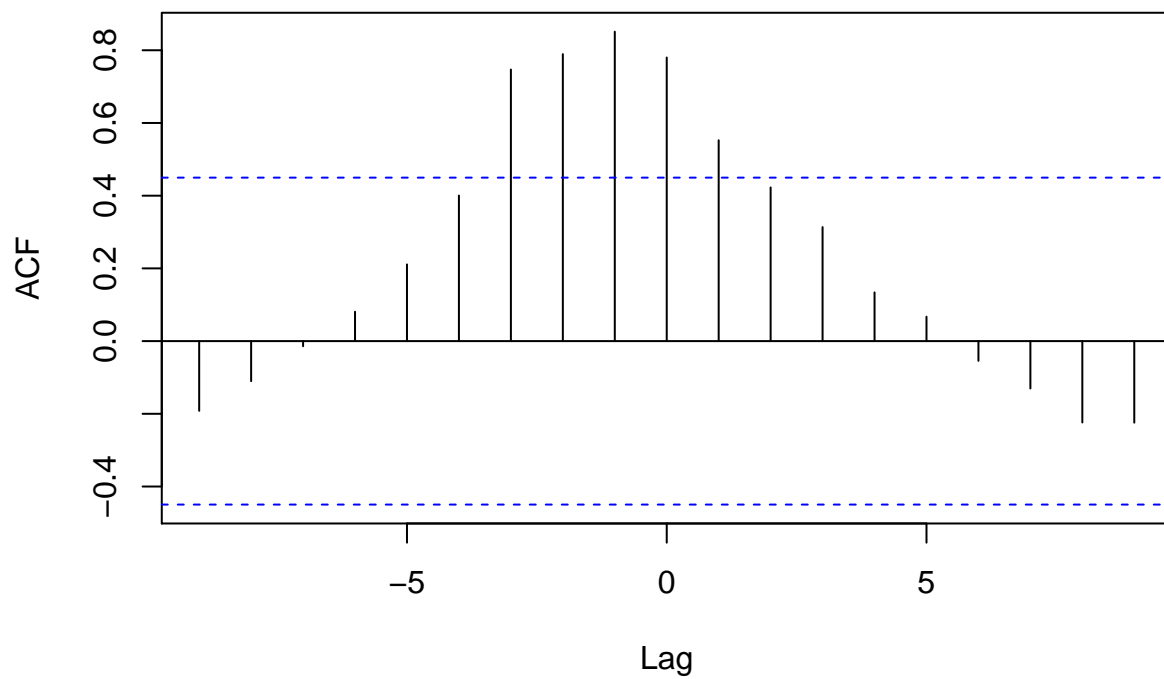
4 wk ahead – 36



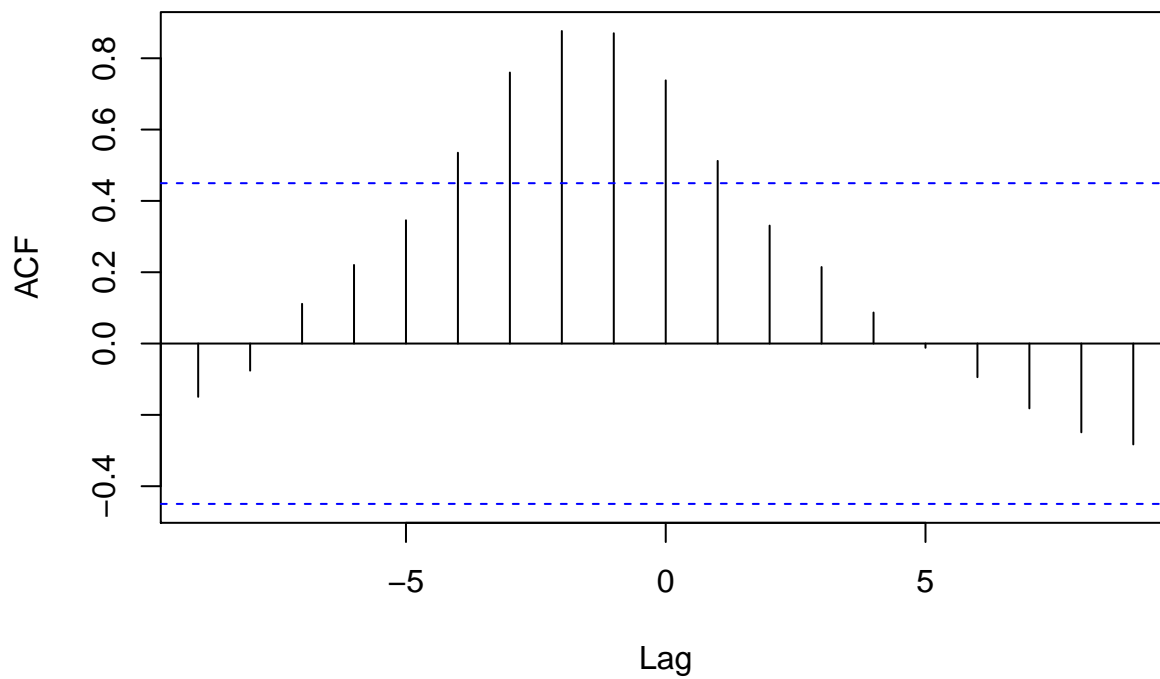


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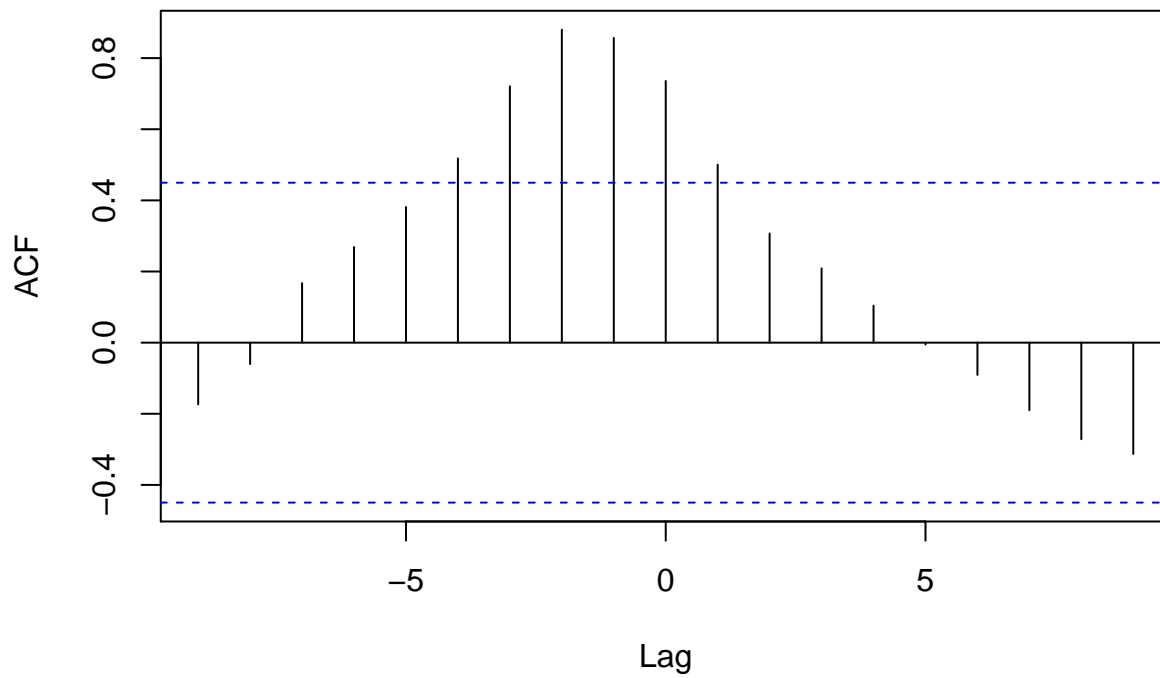
1 wk ahead – 37



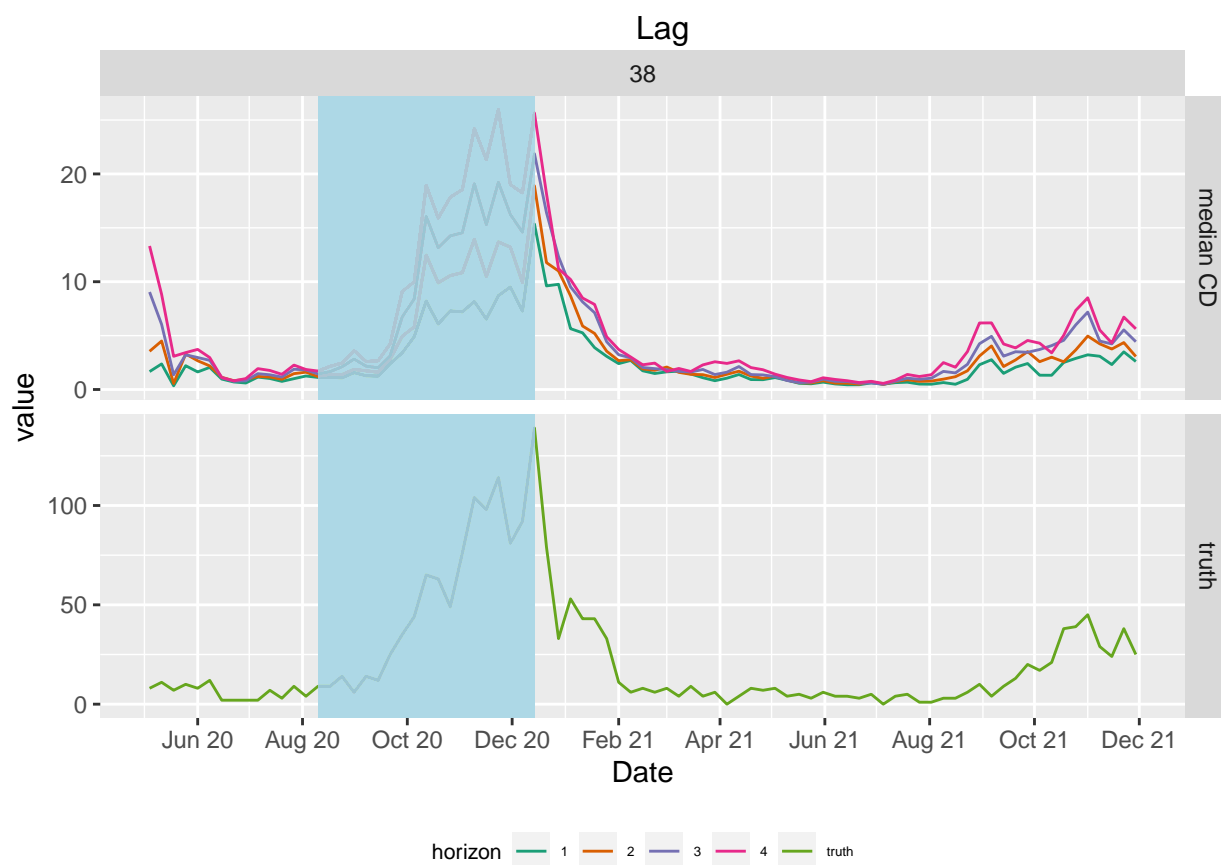
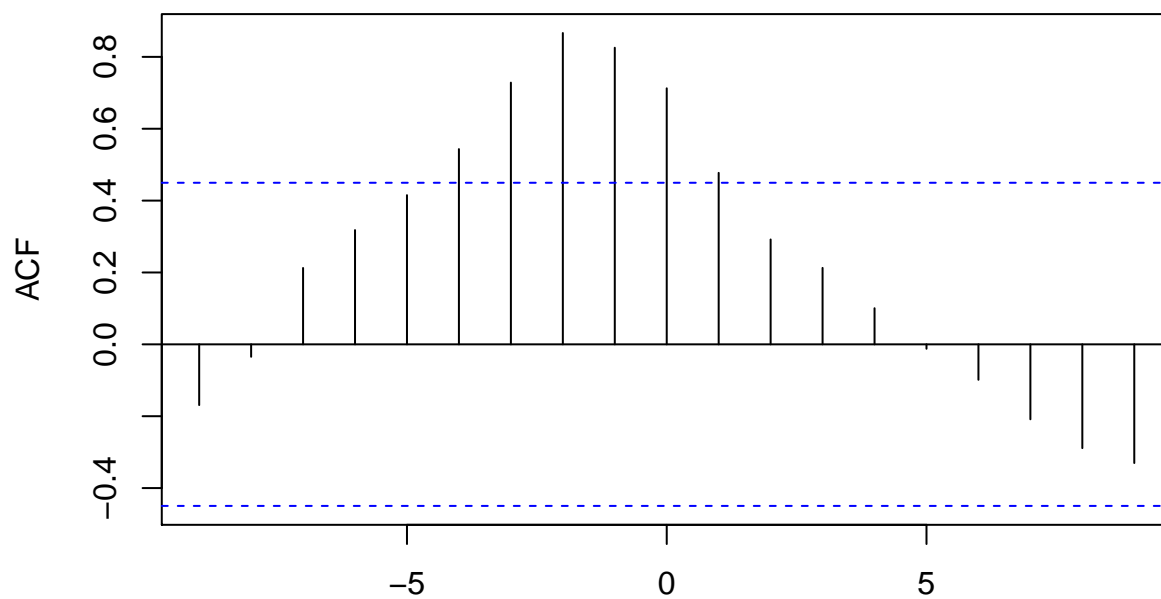
2 wk ahead – 37



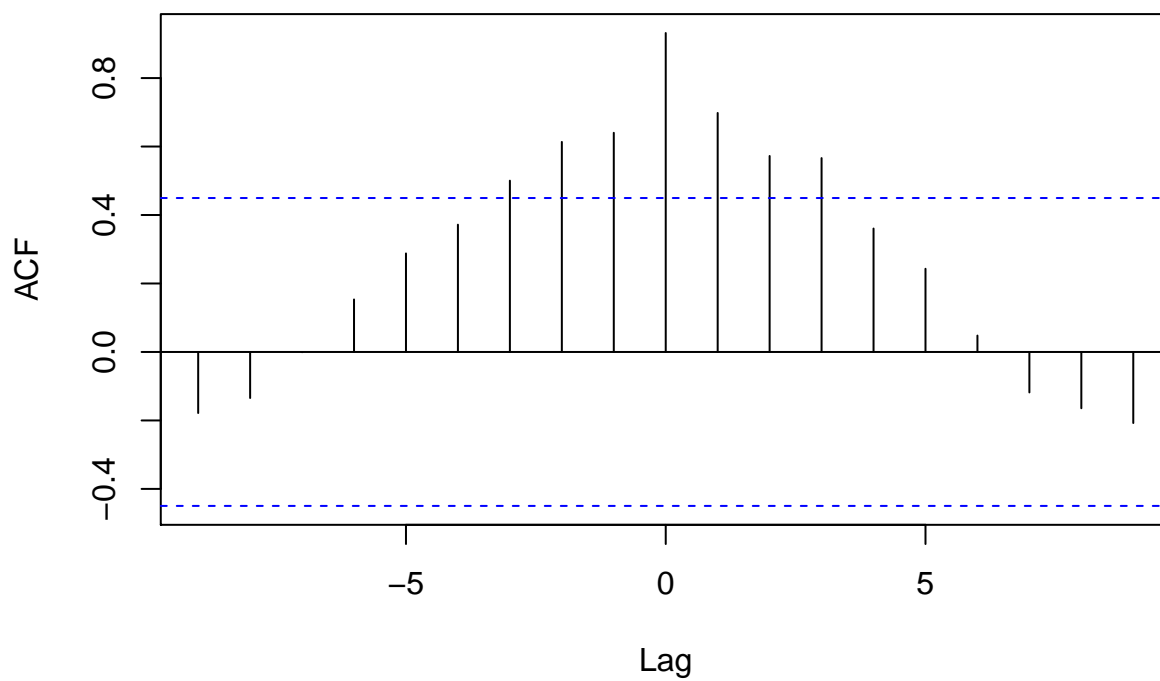
3 wk ahead – 37



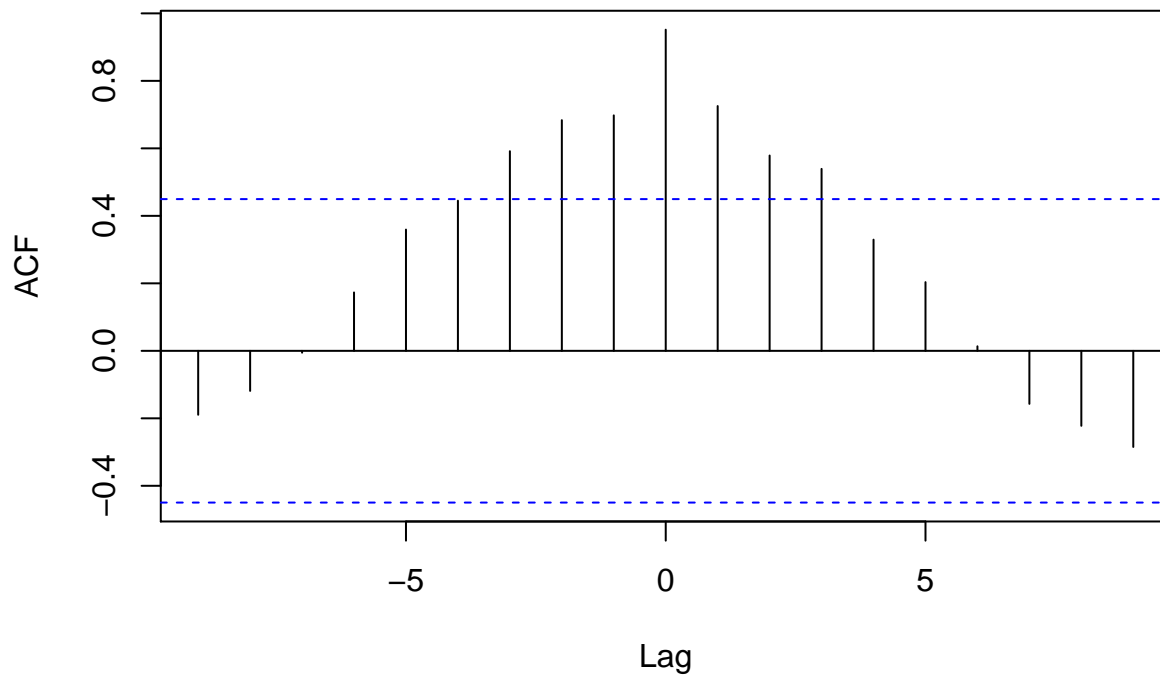
4 wk ahead – 37



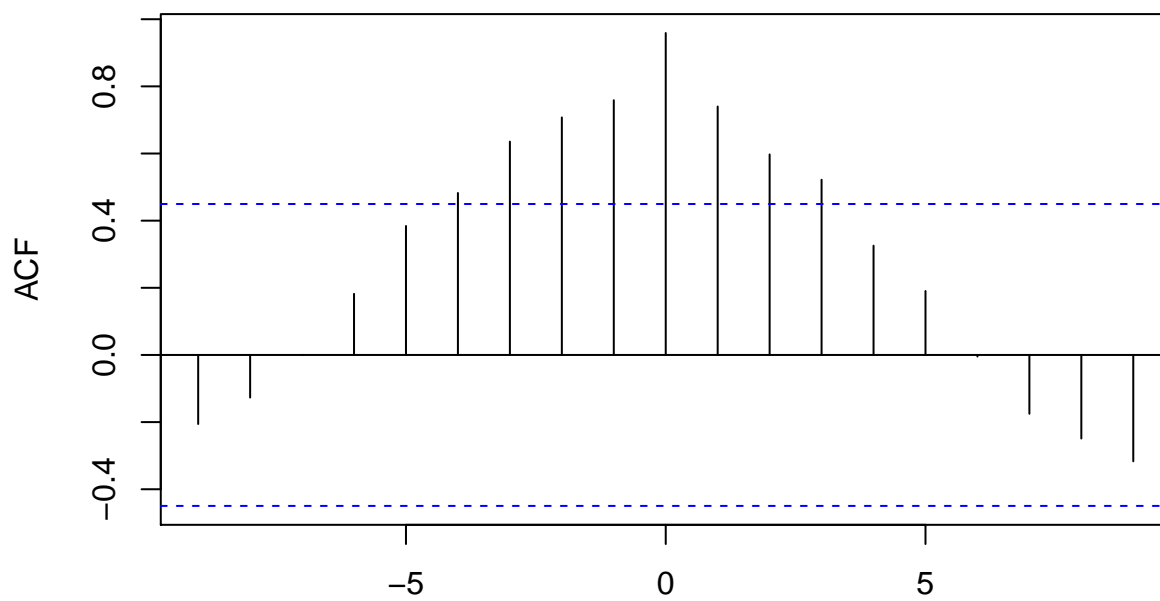
1 wk ahead – 38



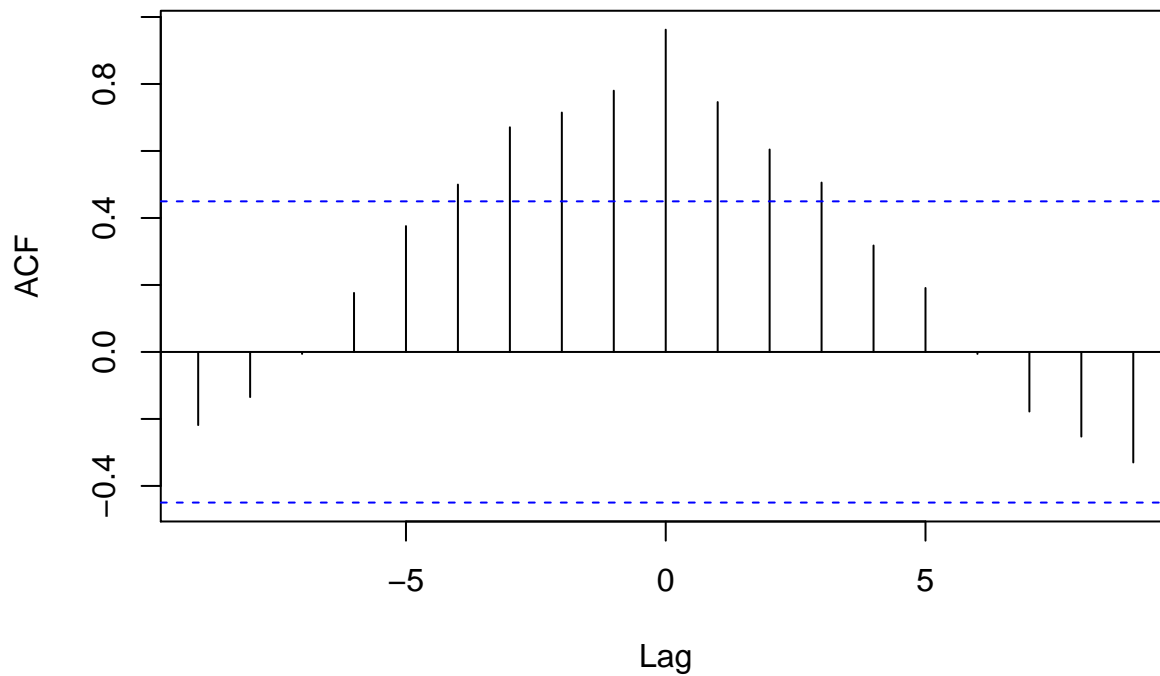
2 wk ahead – 38

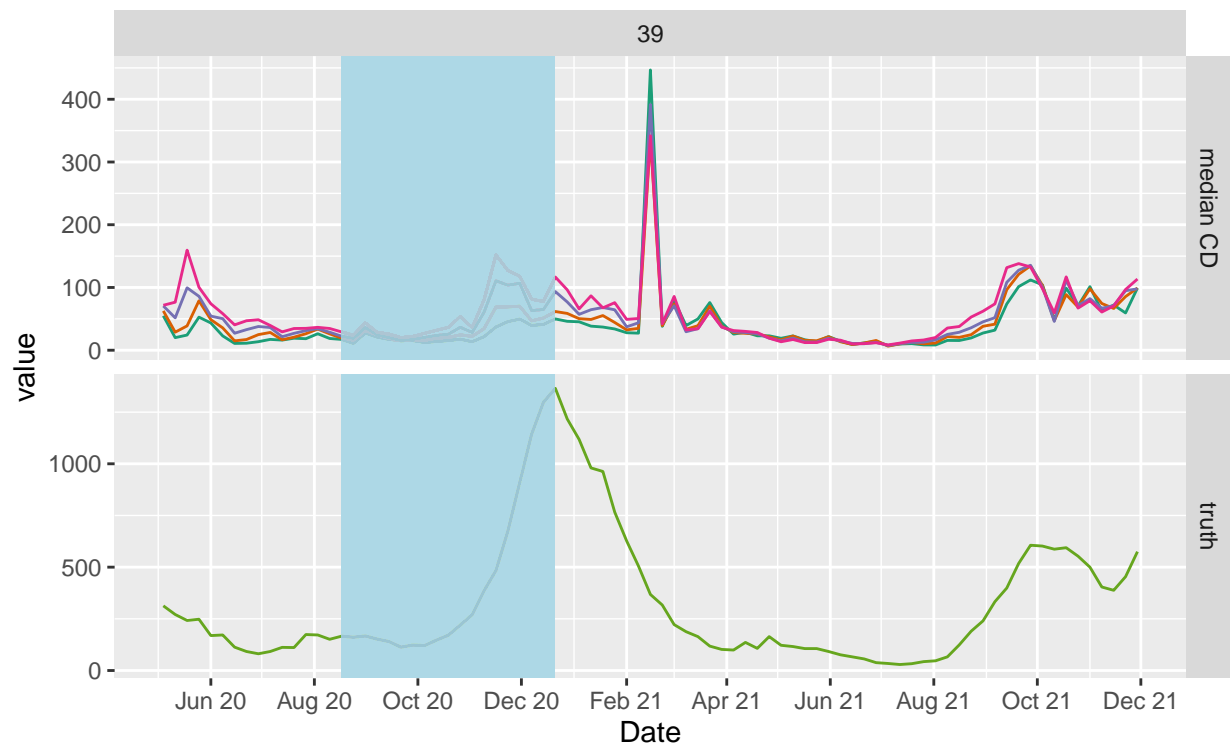


3 wk ahead – 38



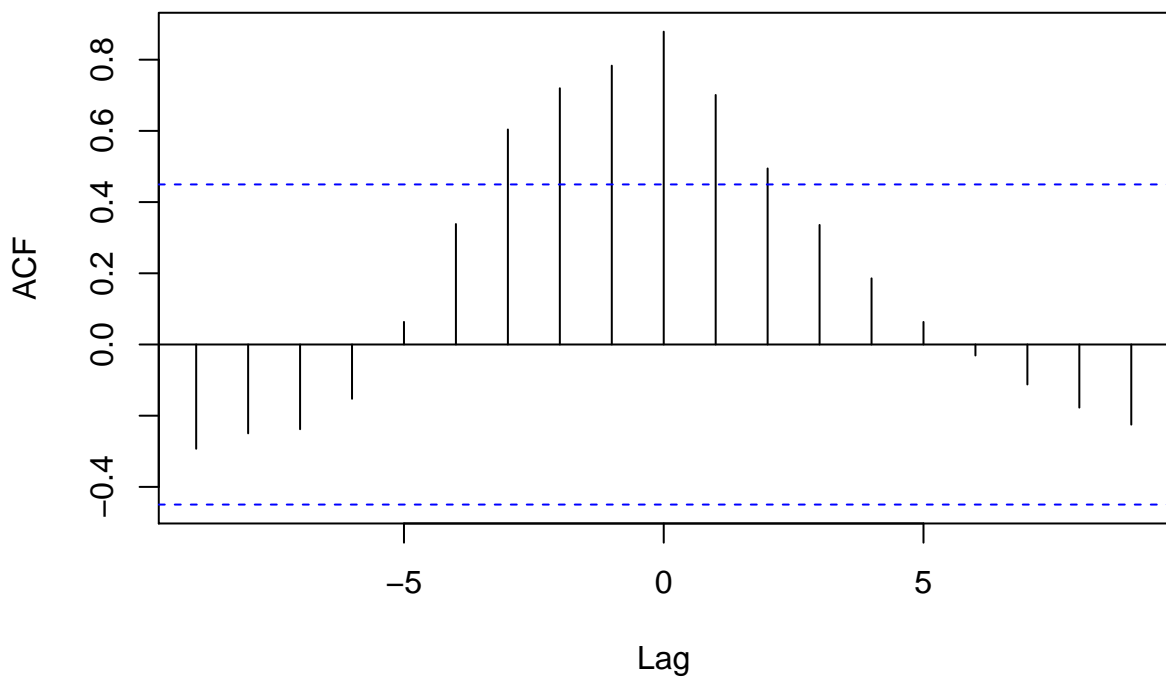
4 wk ahead – 38



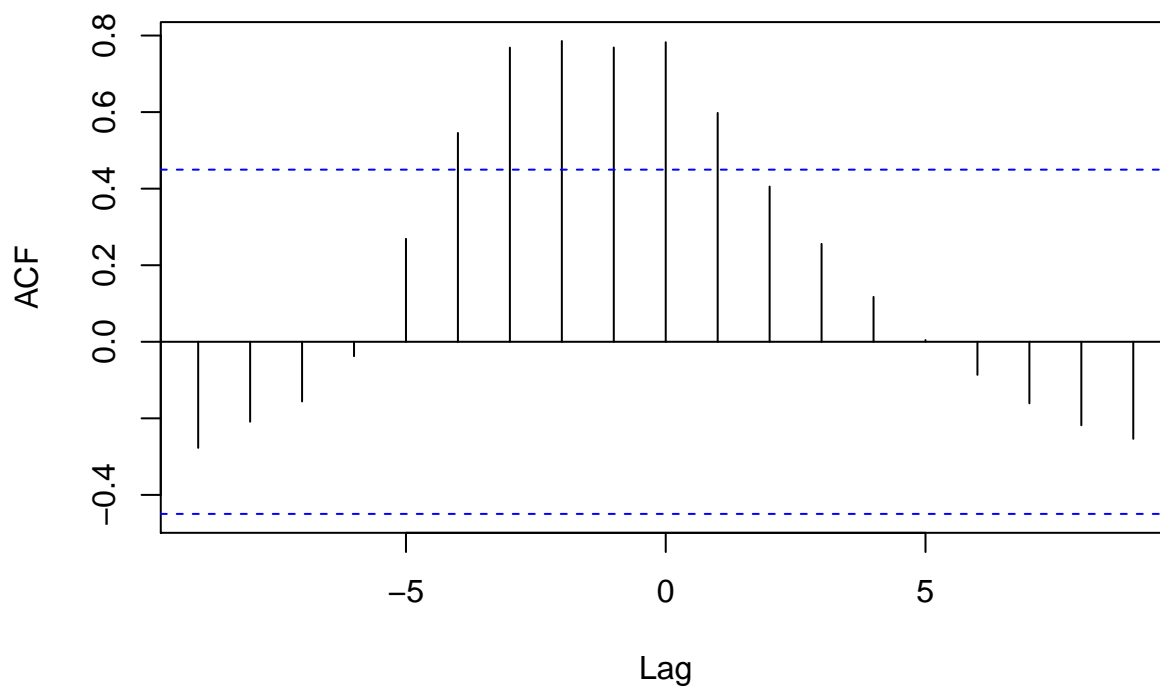


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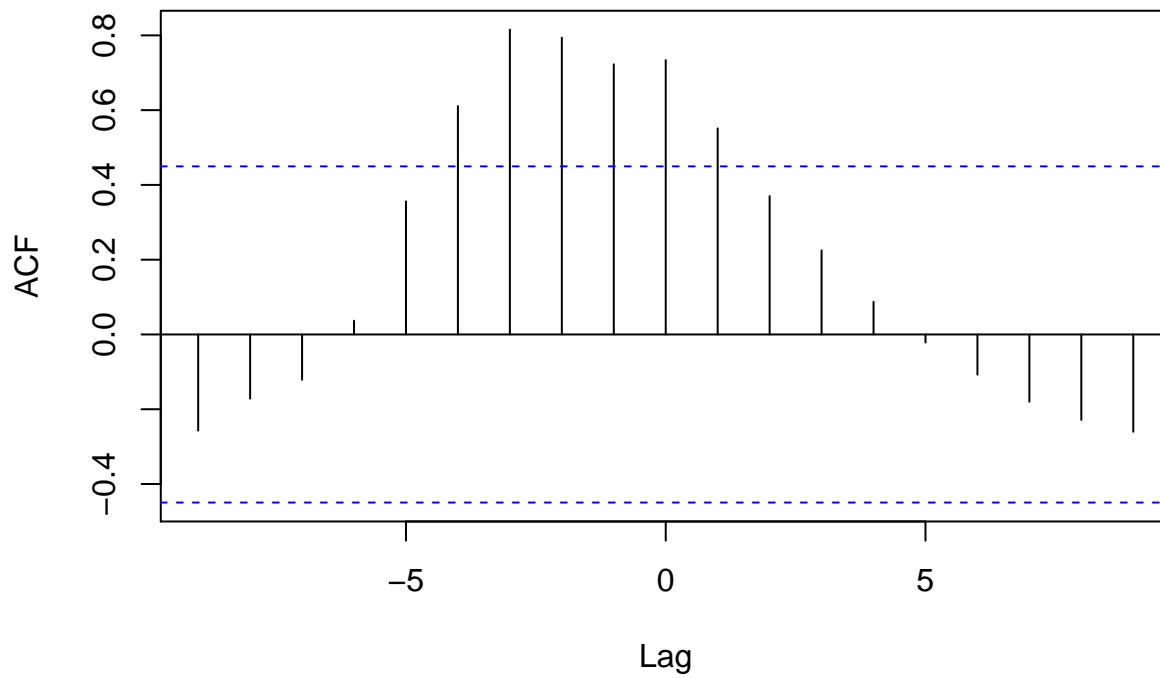
1 wk ahead – 39



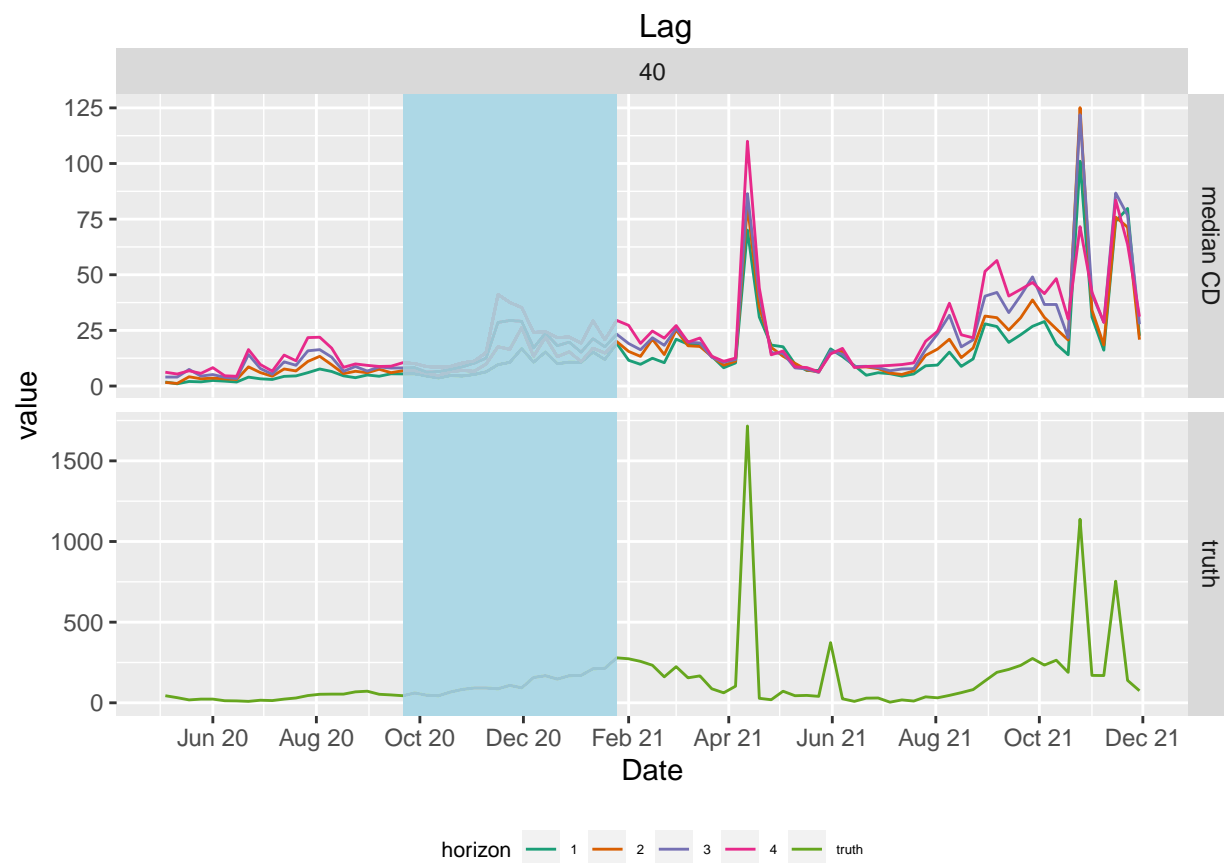
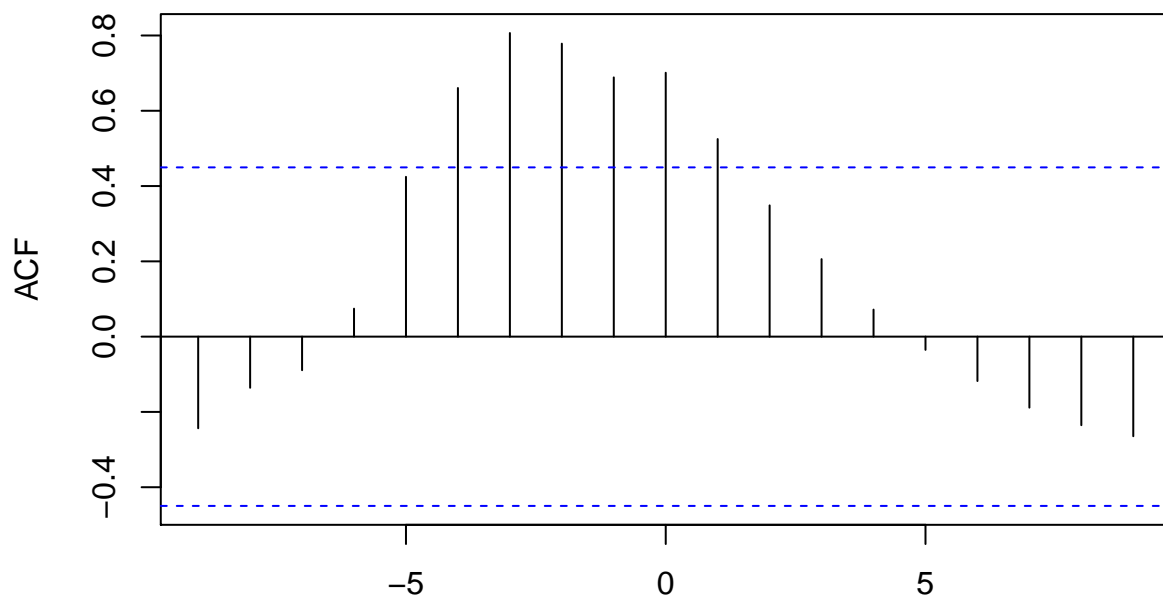
2 wk ahead – 39



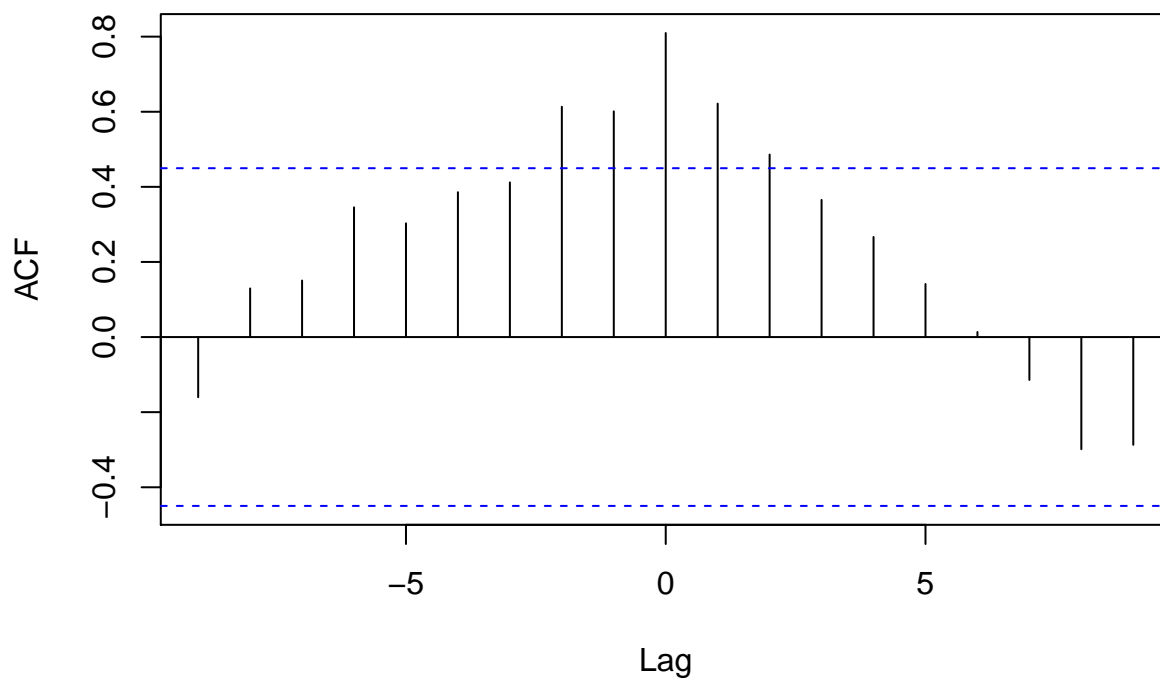
3 wk ahead – 39



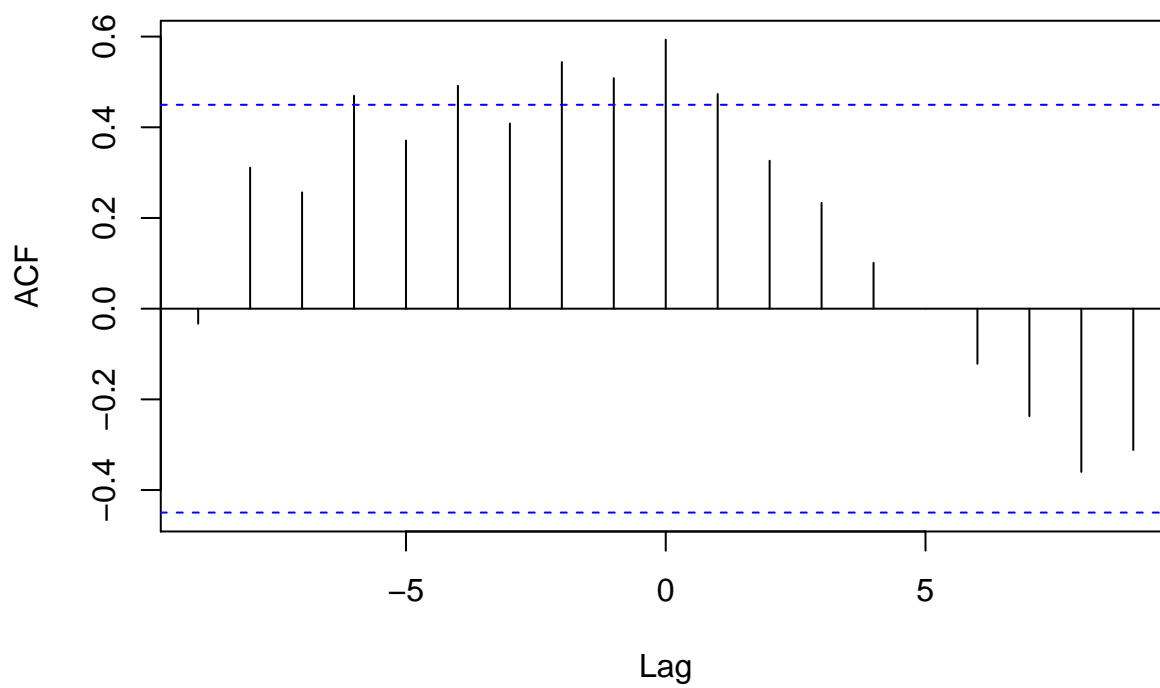
4 wk ahead – 39



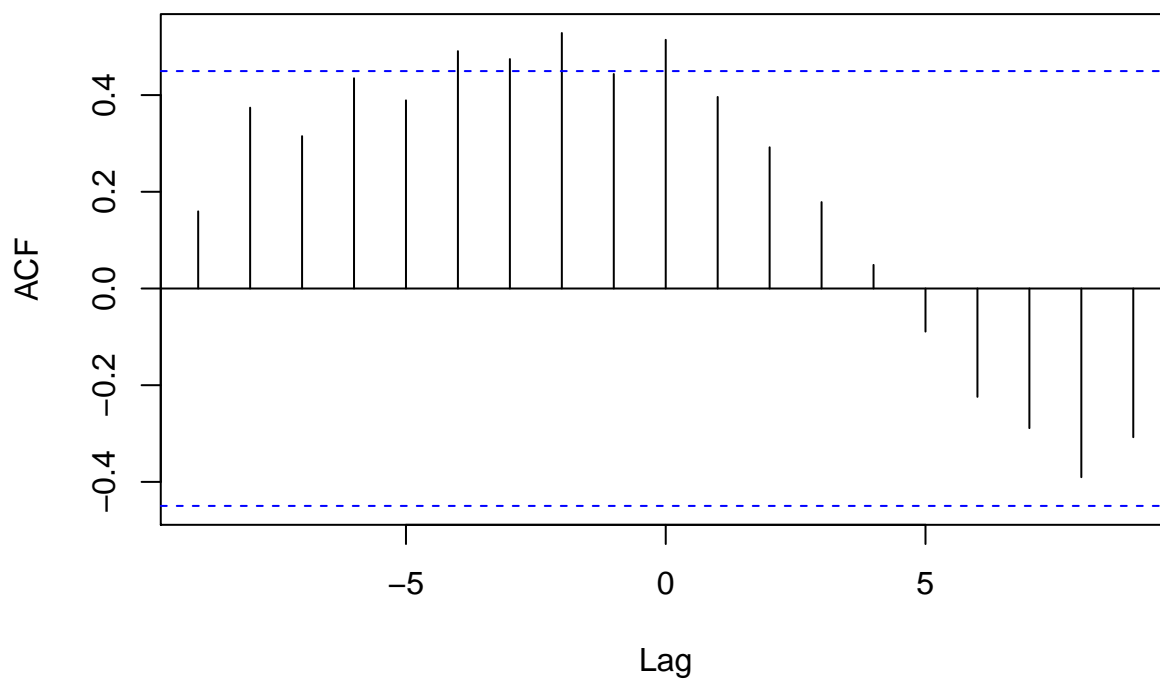
1 wk ahead – 40



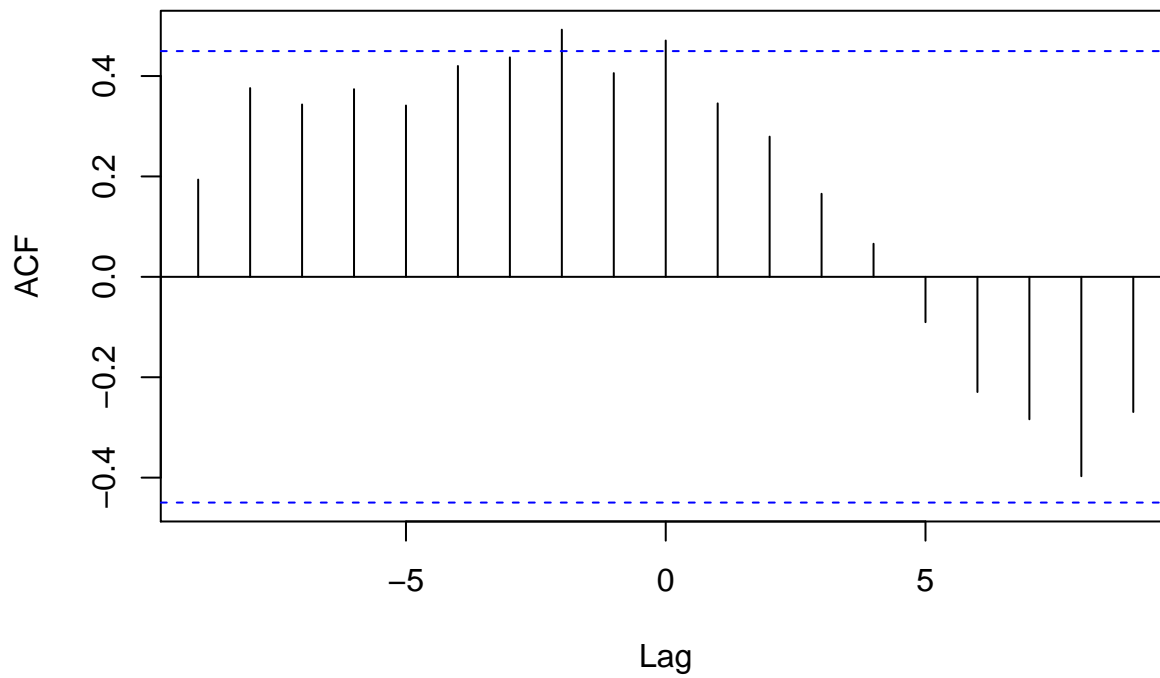
2 wk ahead – 40

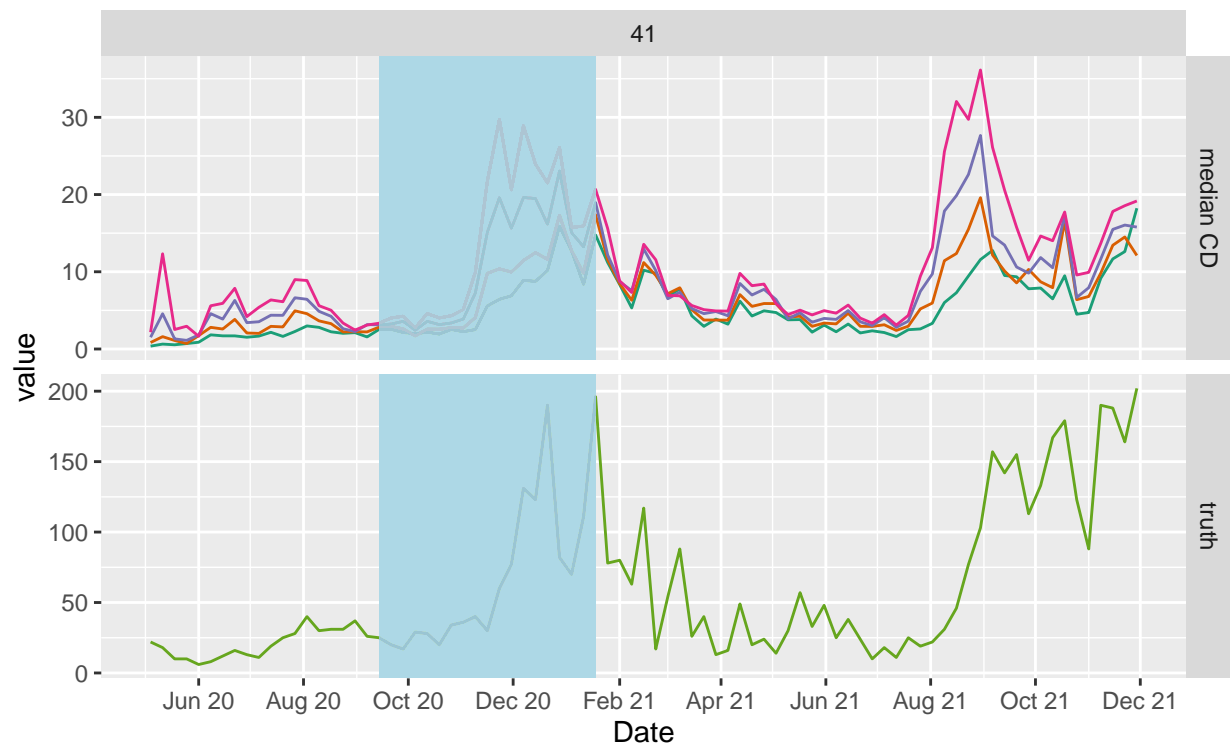


3 wk ahead – 40



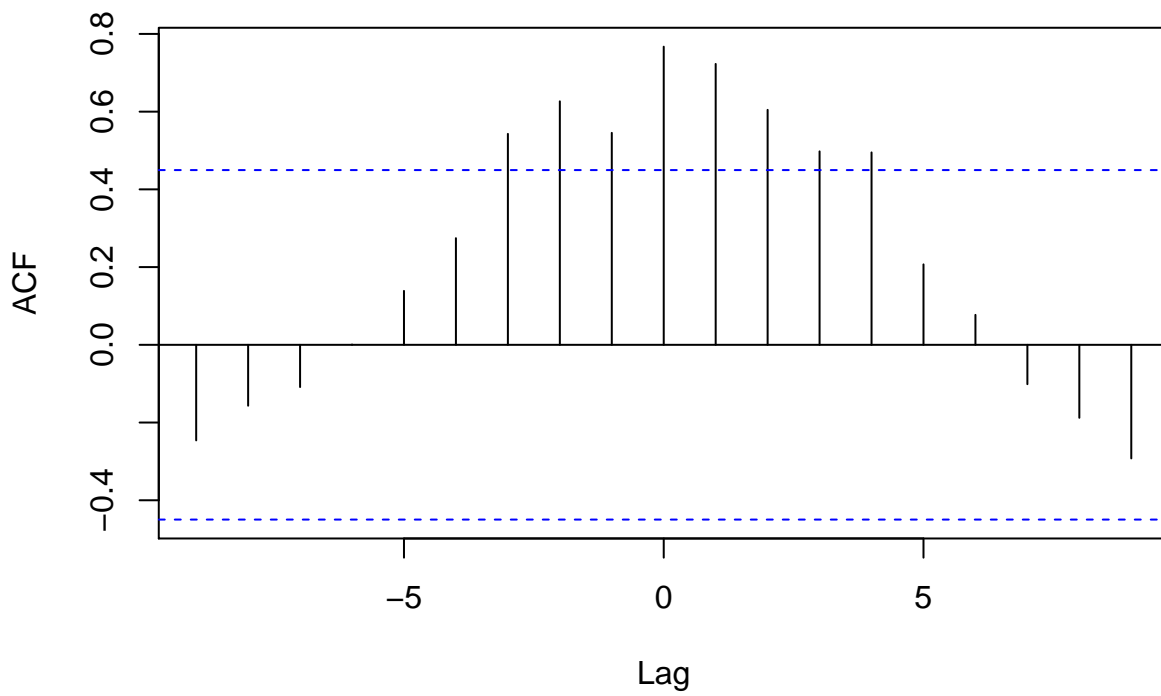
4 wk ahead – 40



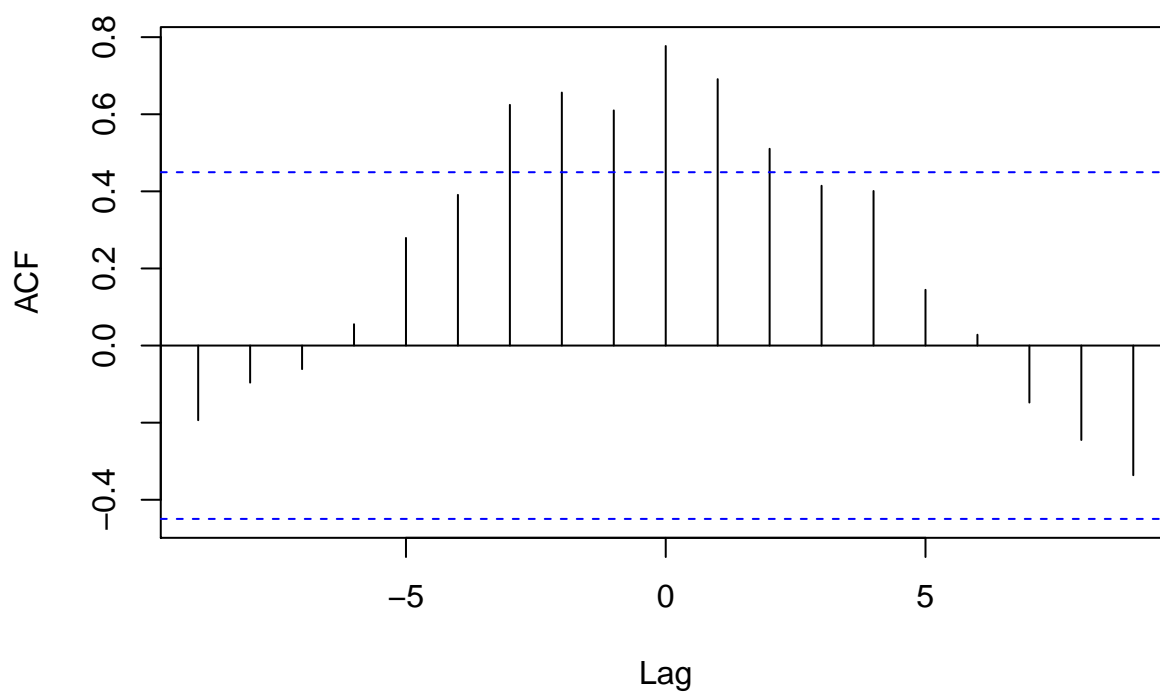


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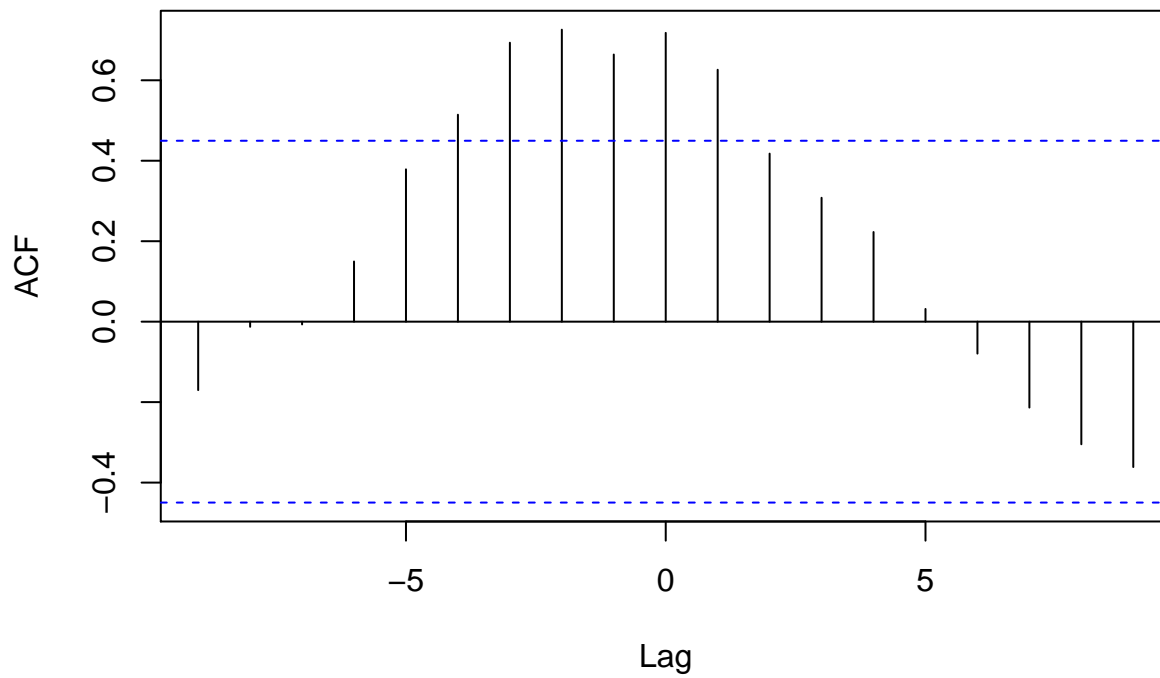
1 wk ahead – 41



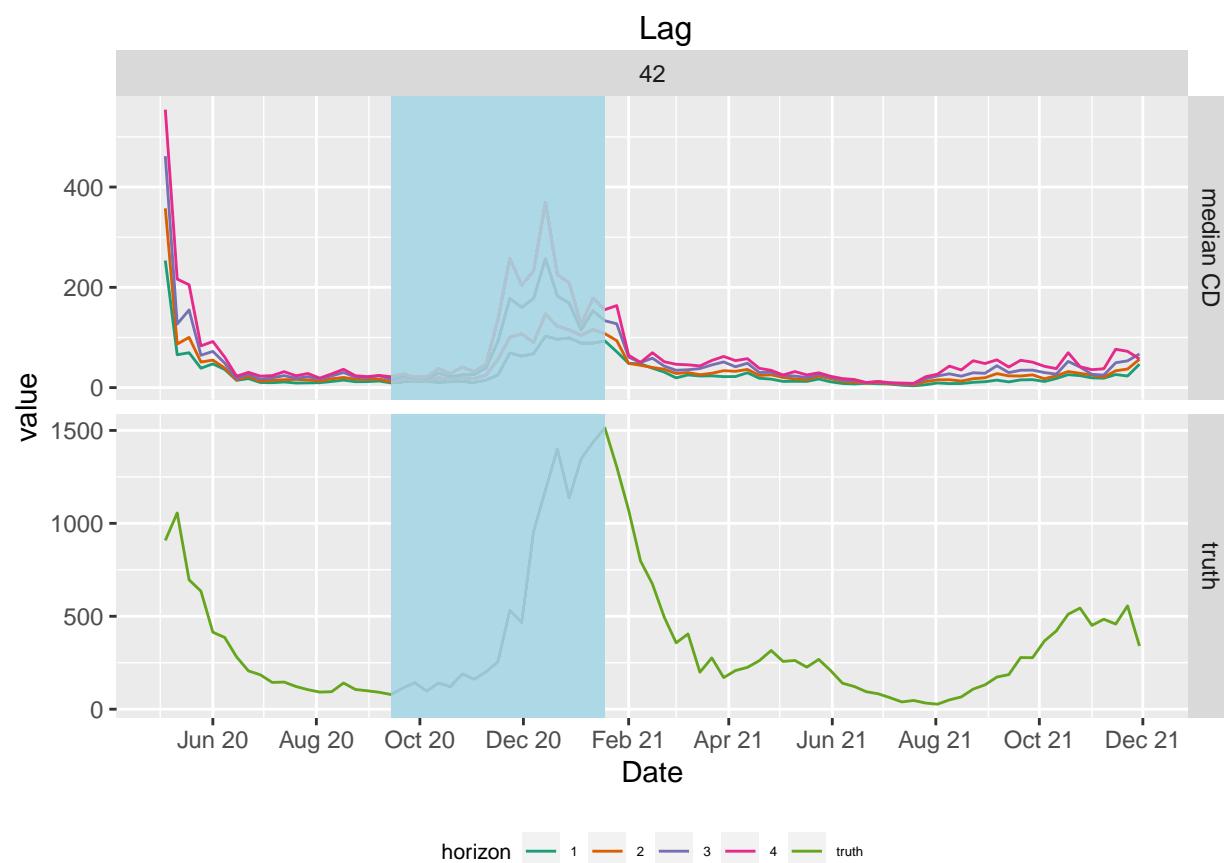
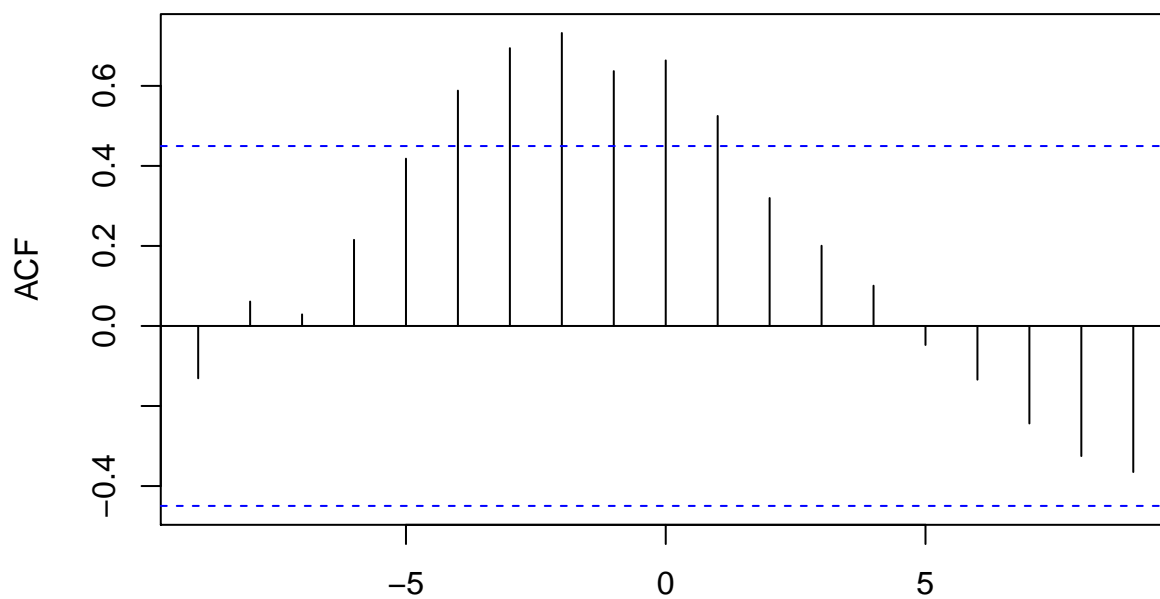
2 wk ahead – 41



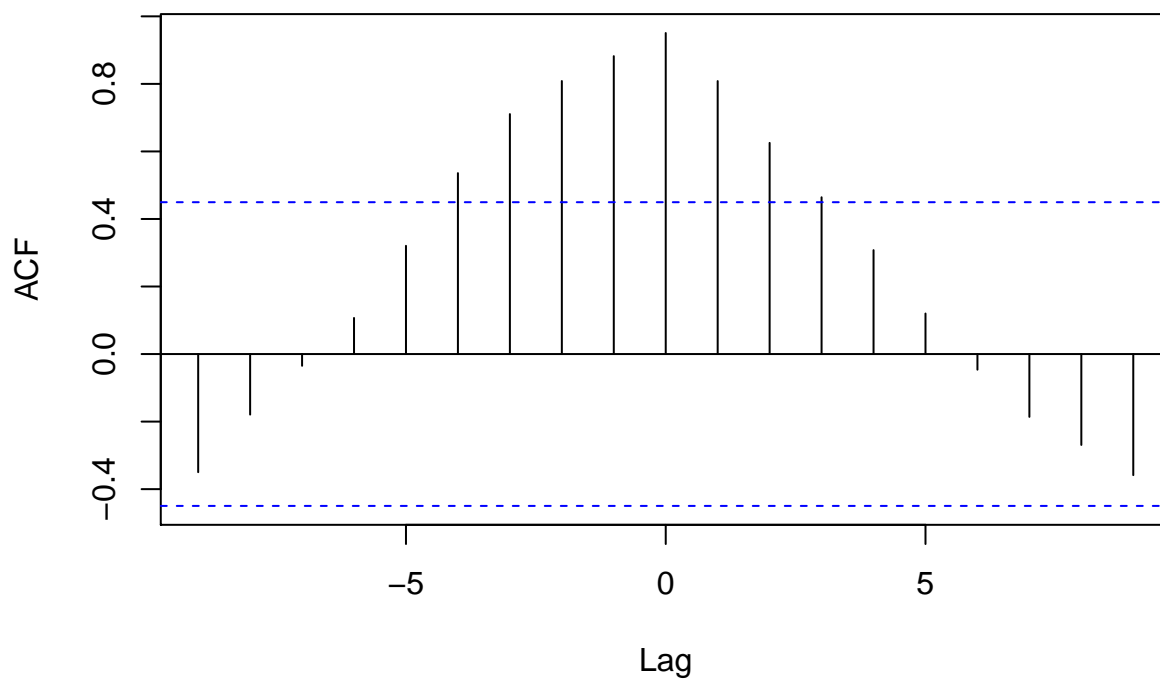
3 wk ahead – 41



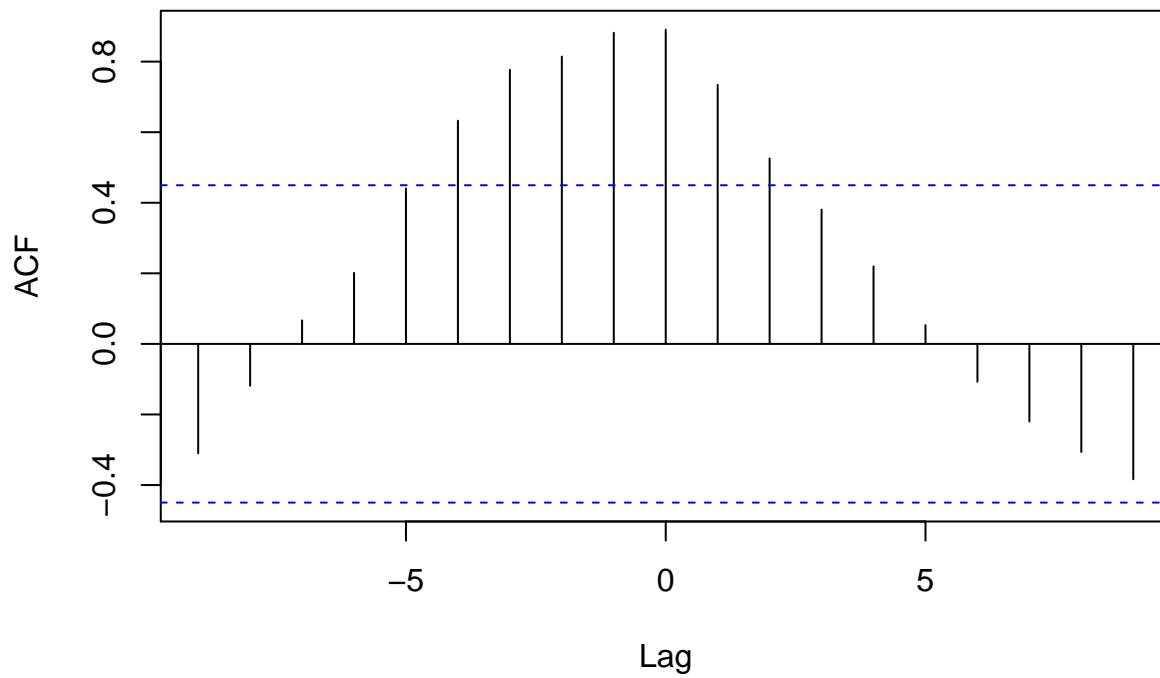
4 wk ahead – 41



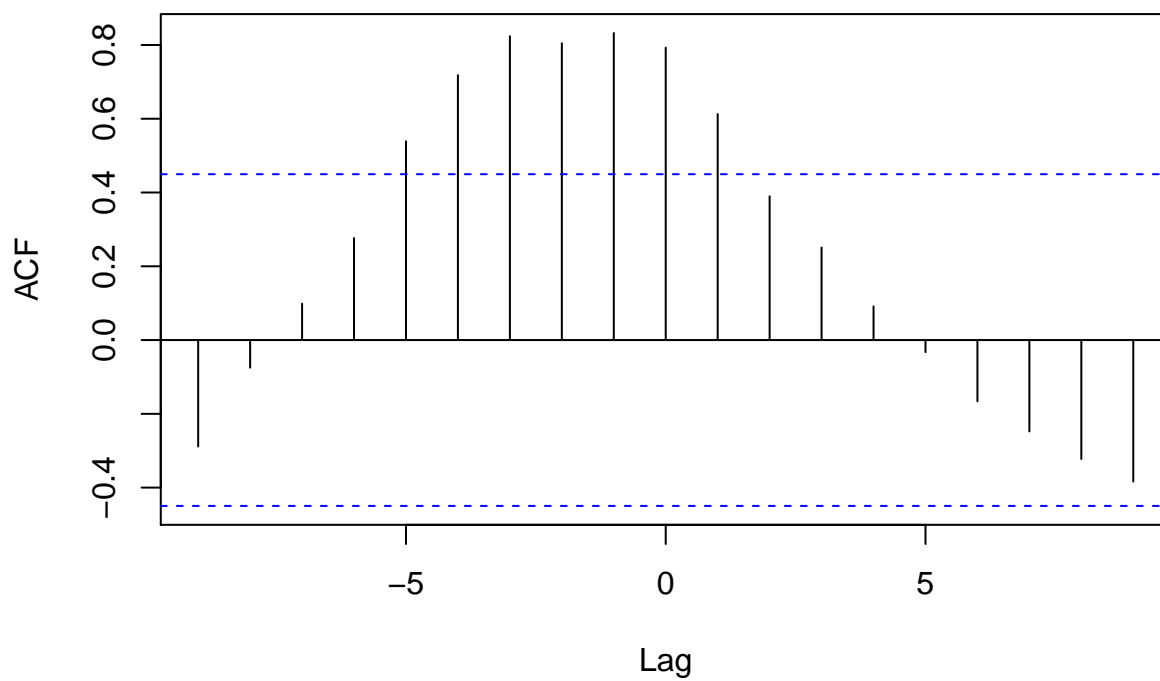
1 wk ahead – 42



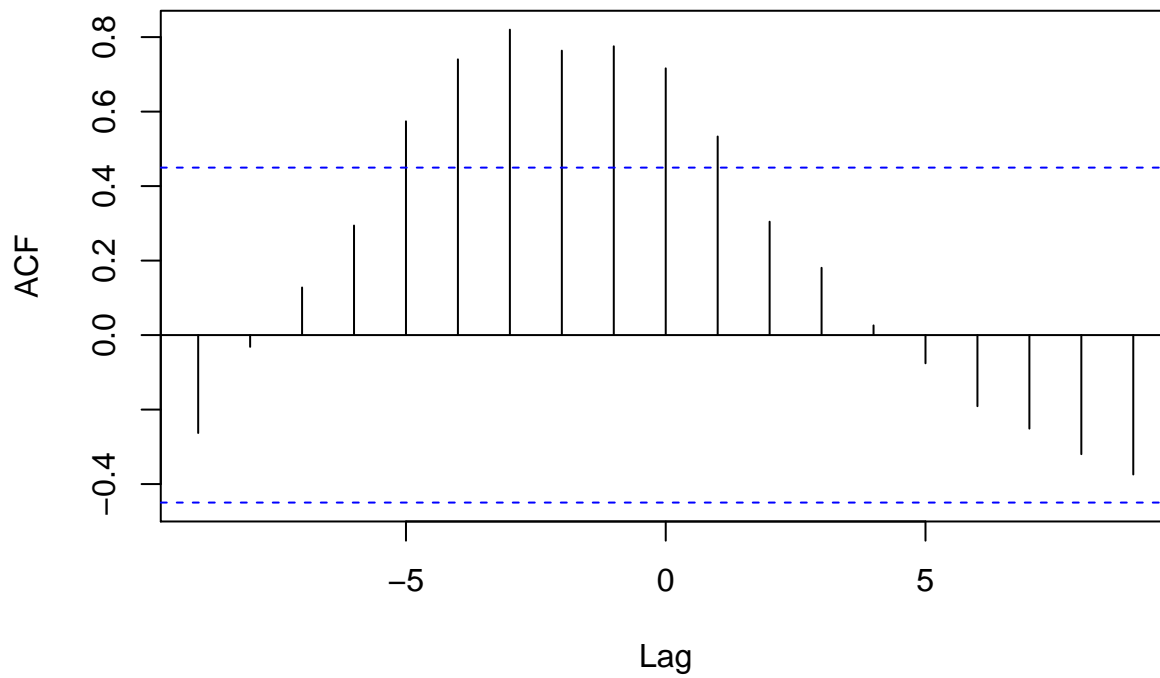
2 wk ahead – 42

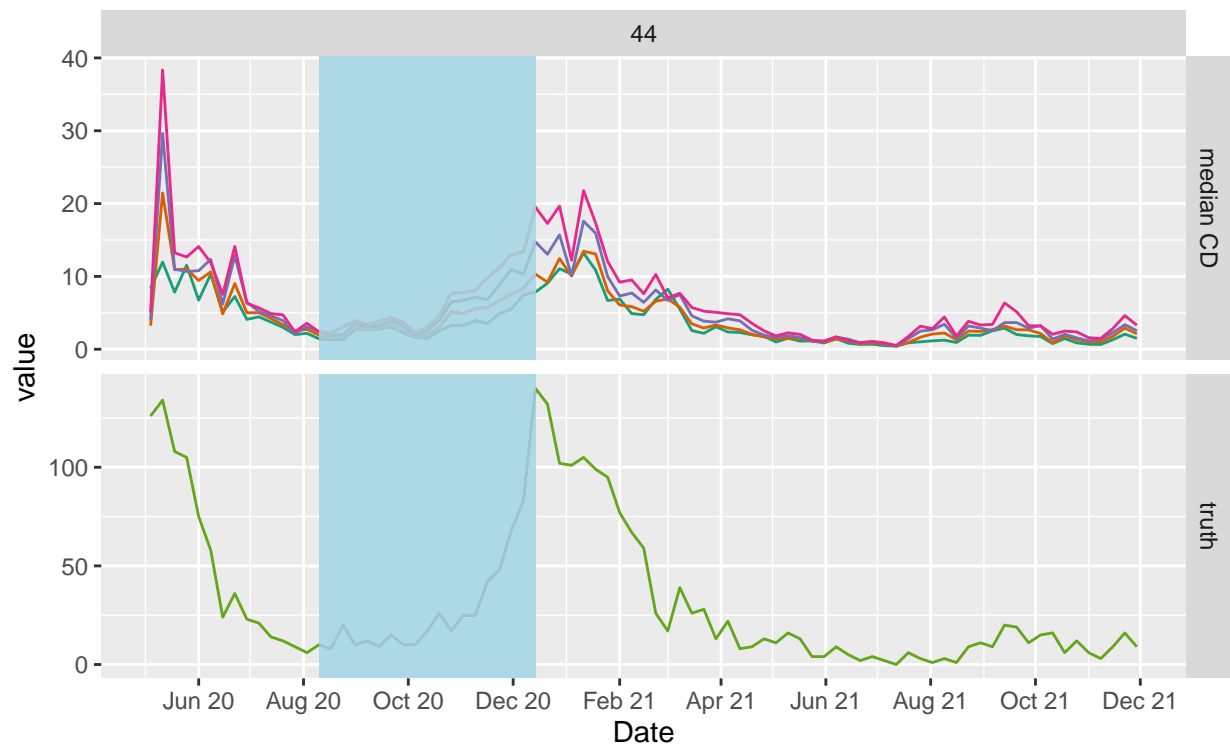


3 wk ahead – 42

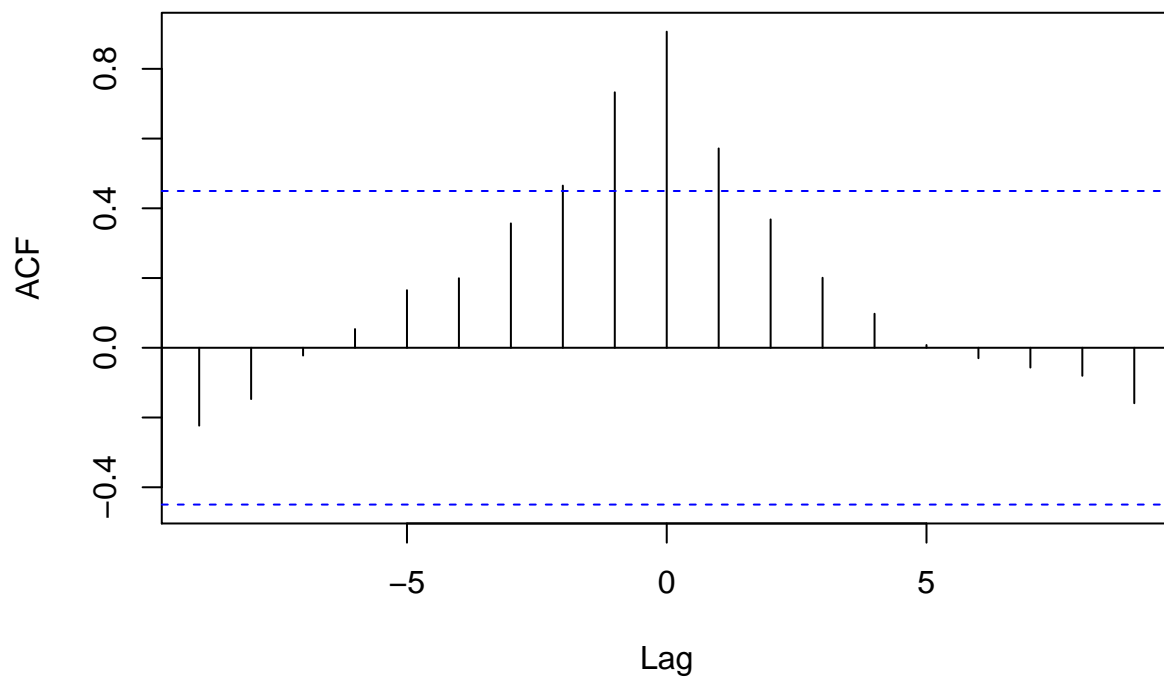


4 wk ahead – 42

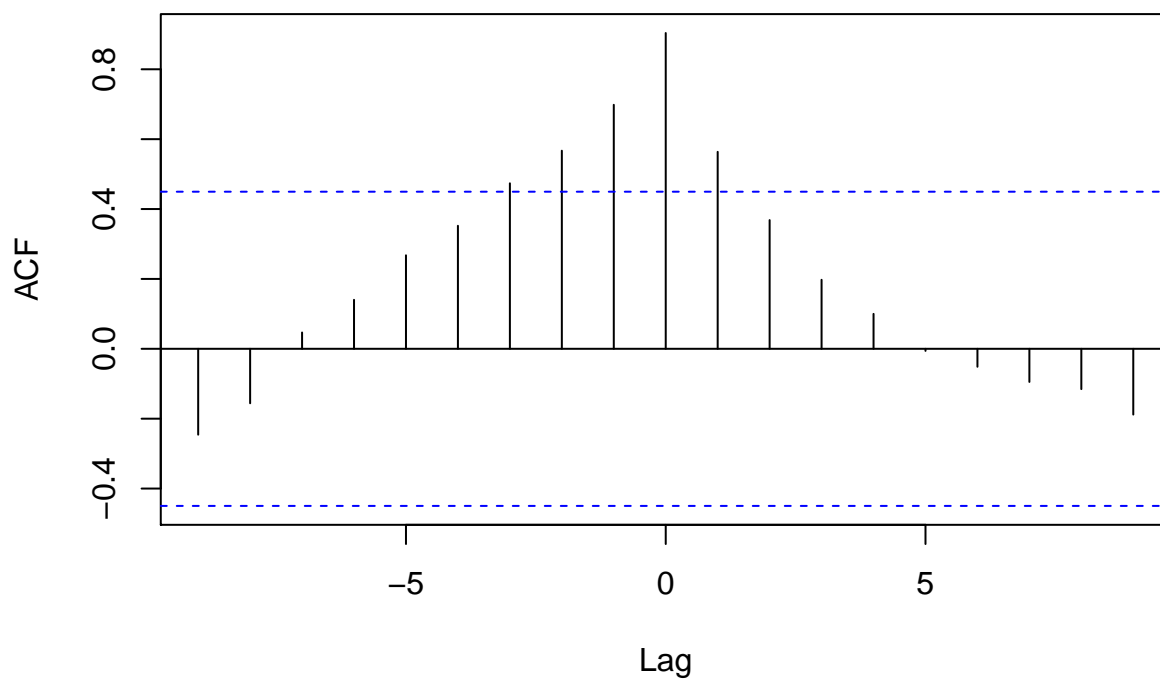




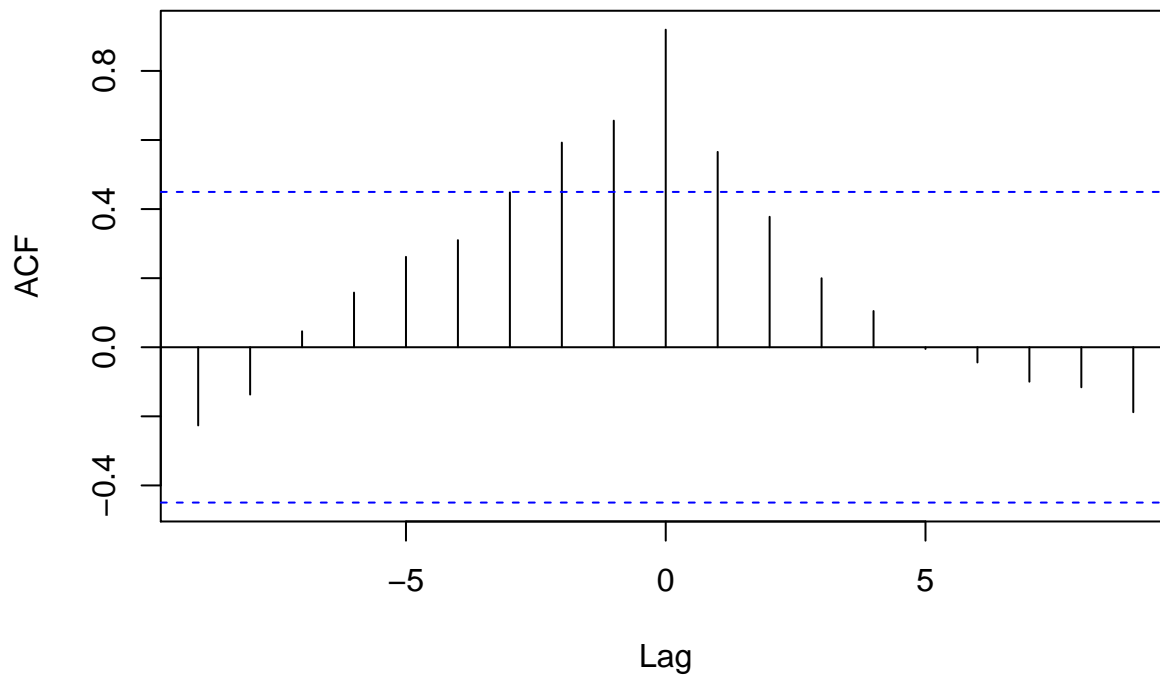
1 wk ahead – 44



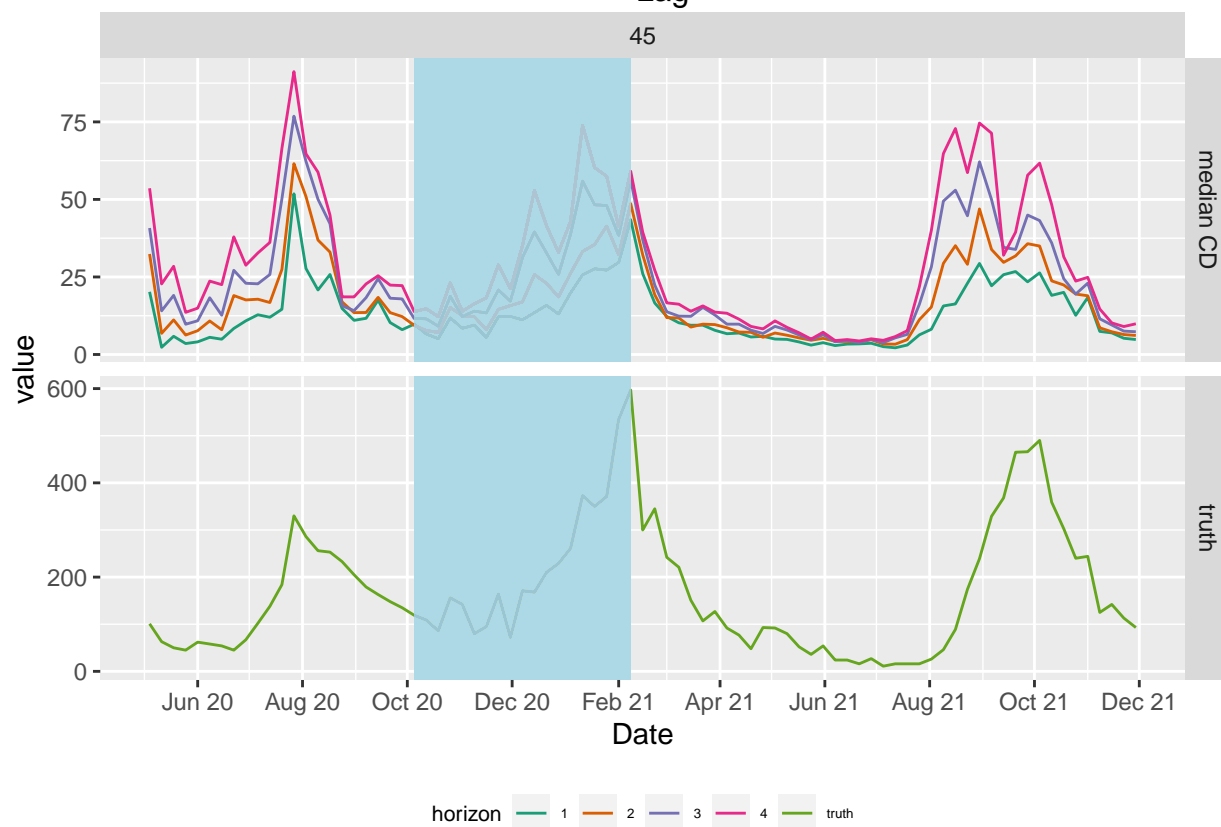
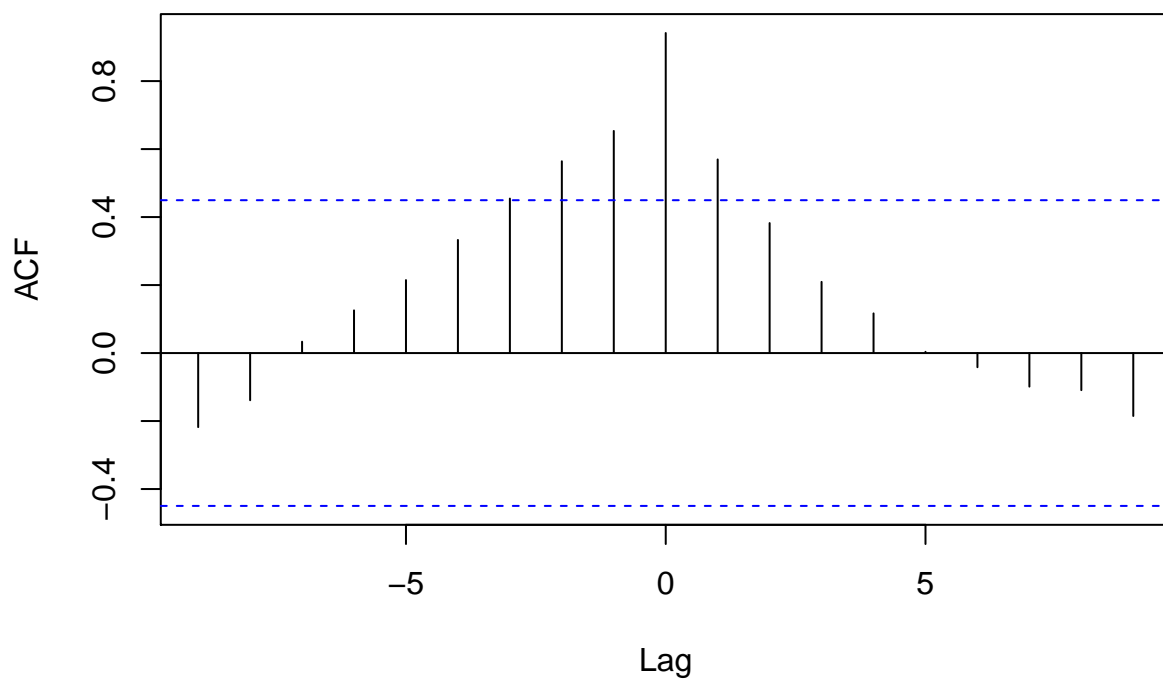
2 wk ahead – 44



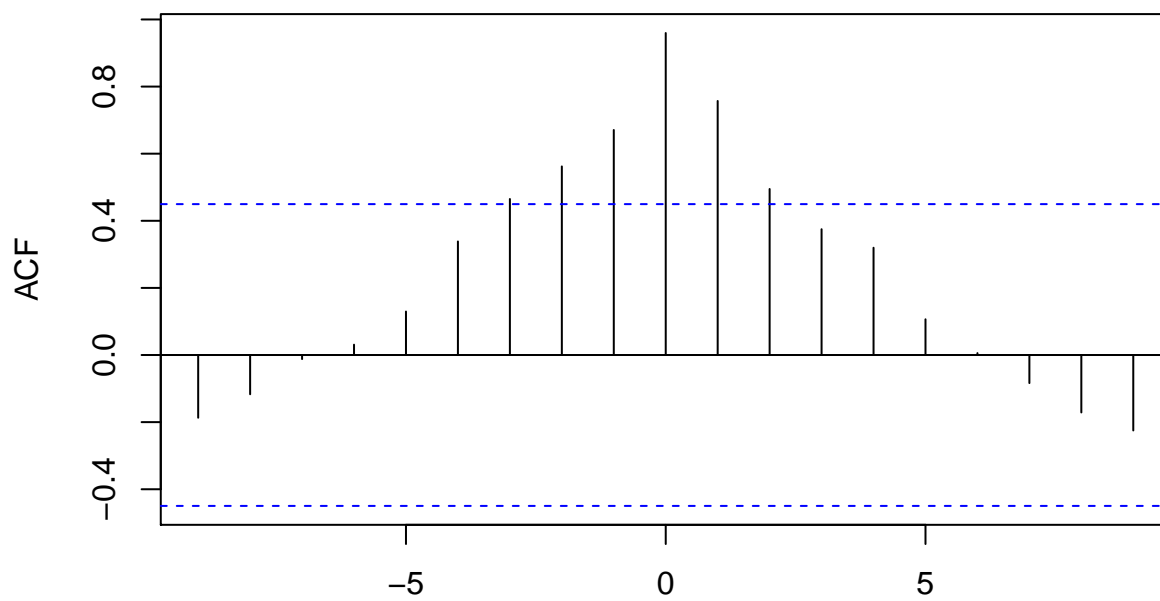
3 wk ahead – 44



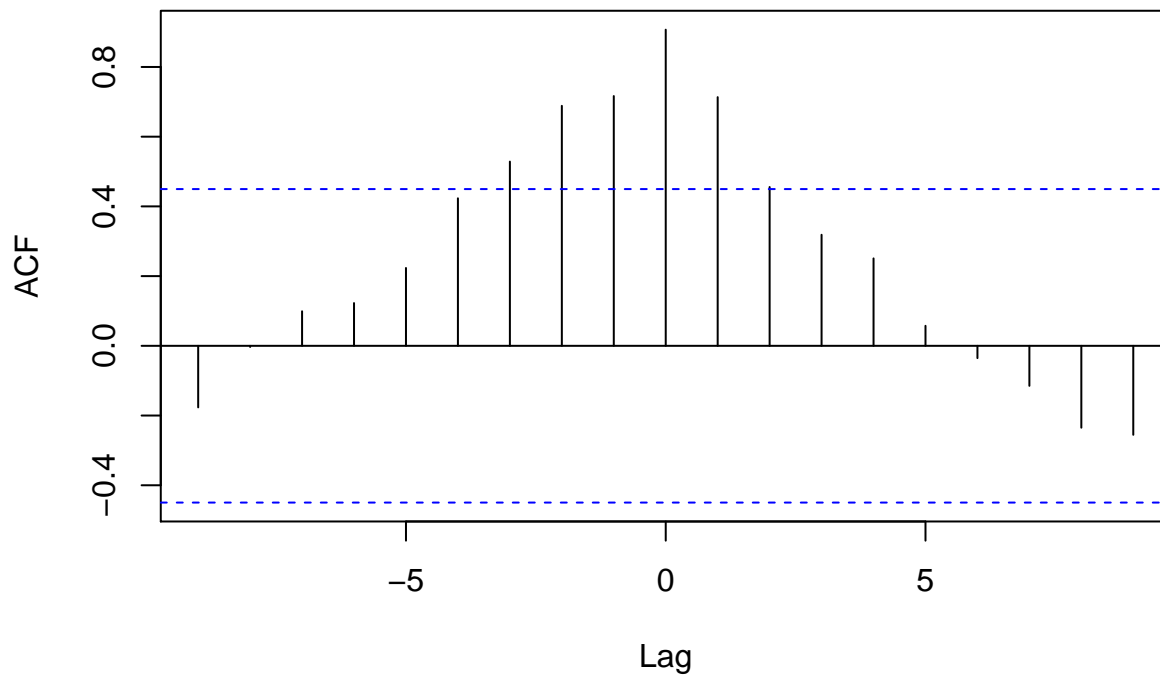
4 wk ahead – 44



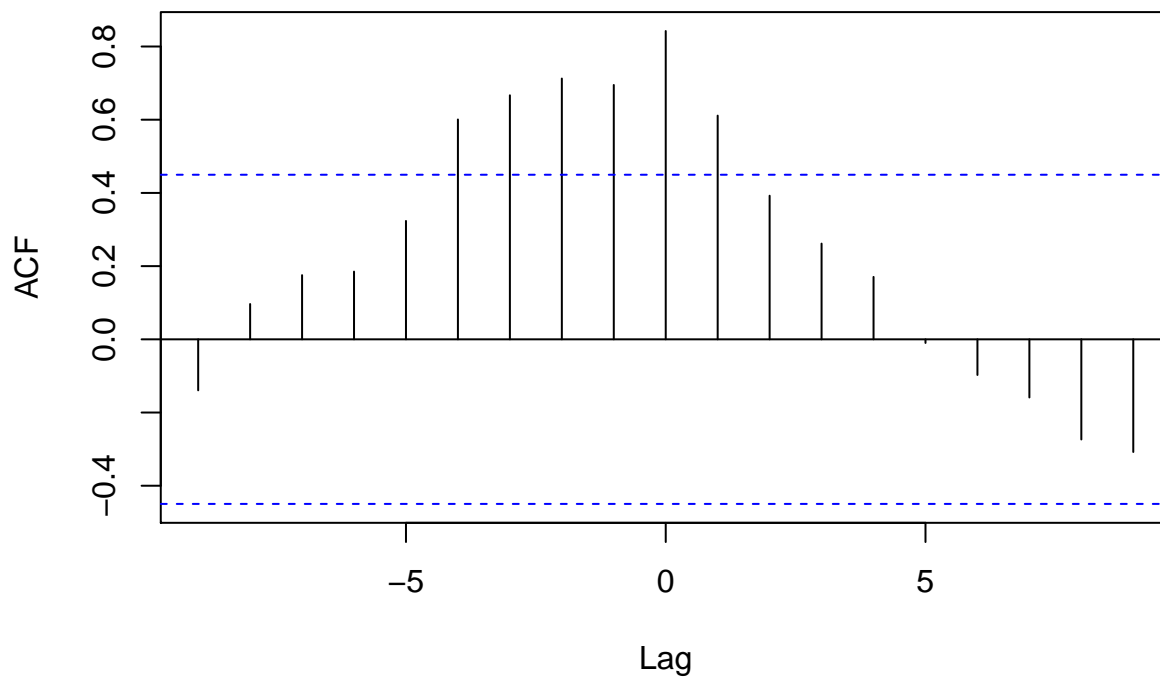
1 wk ahead – 45



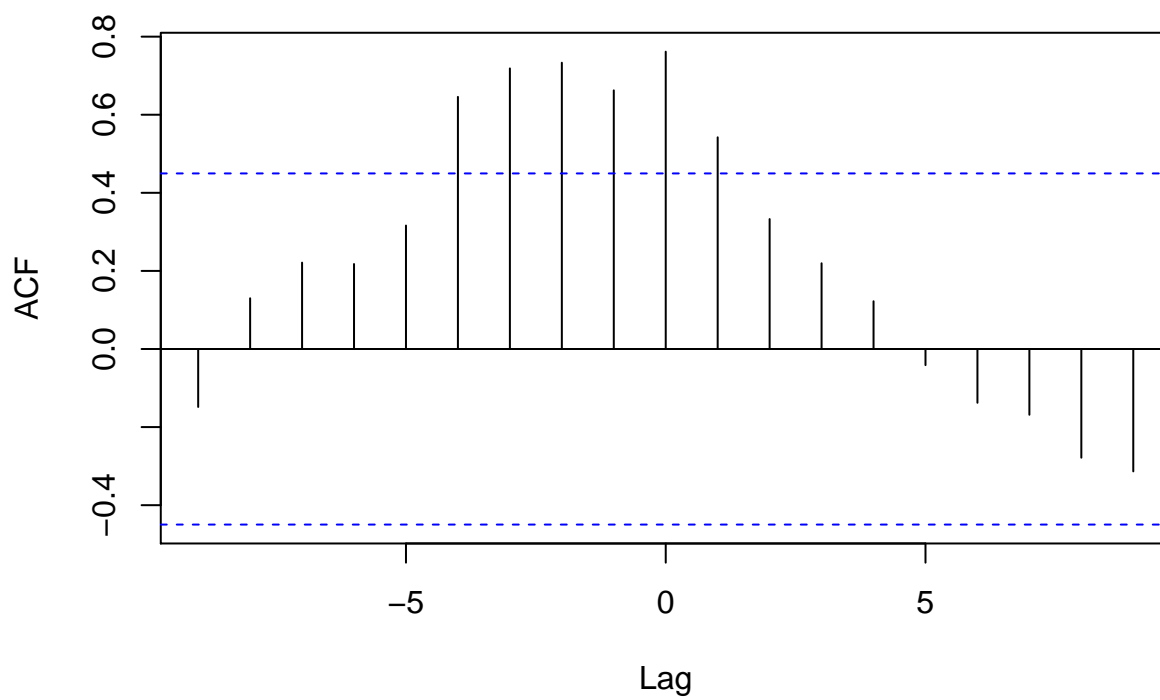
2 wk ahead – 45

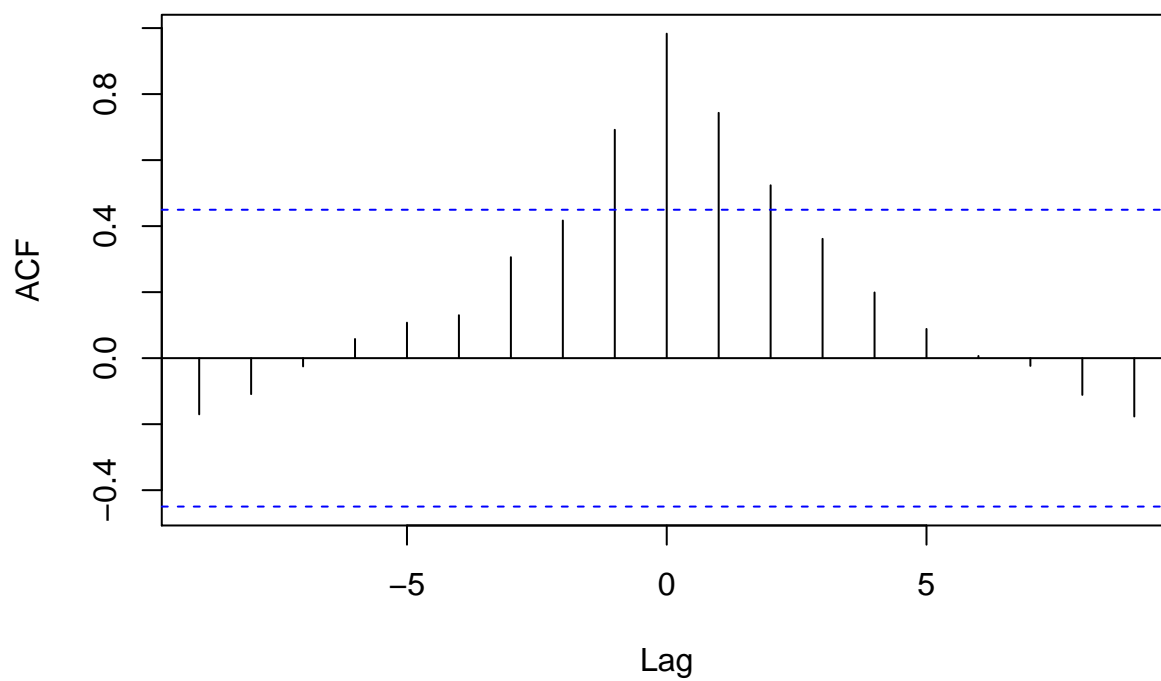
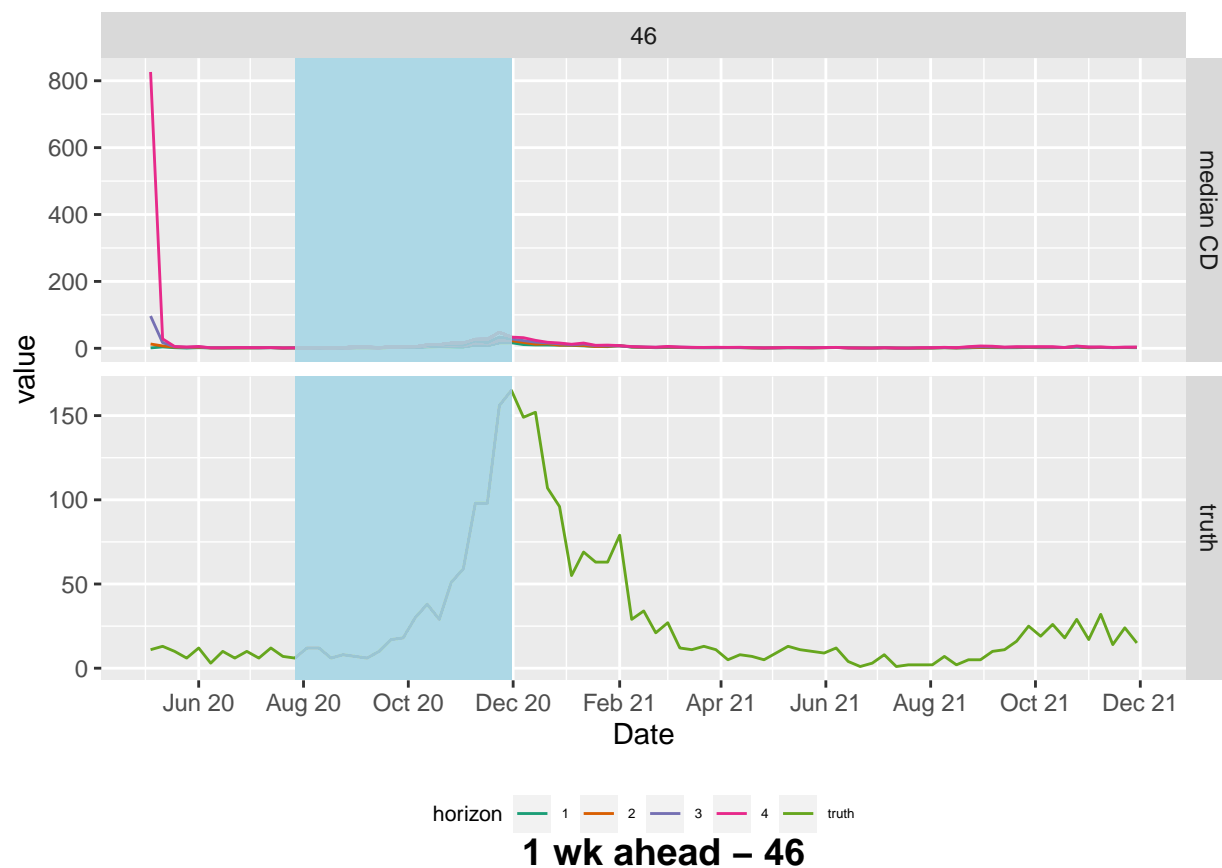


3 wk ahead – 45

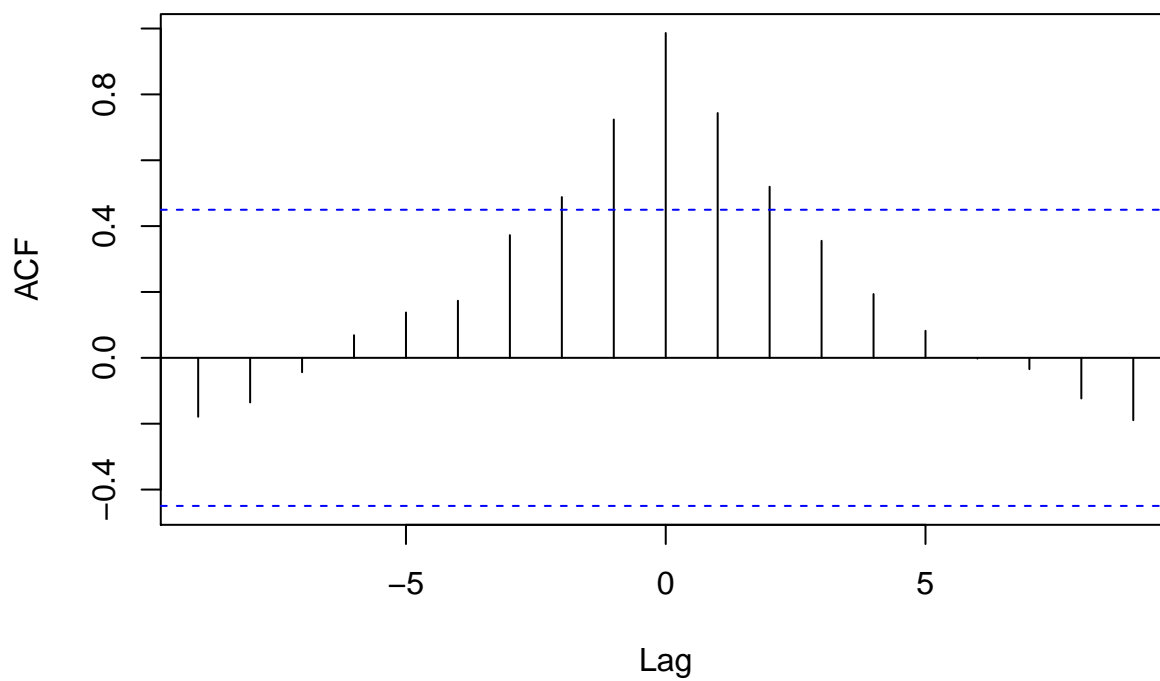


4 wk ahead – 45

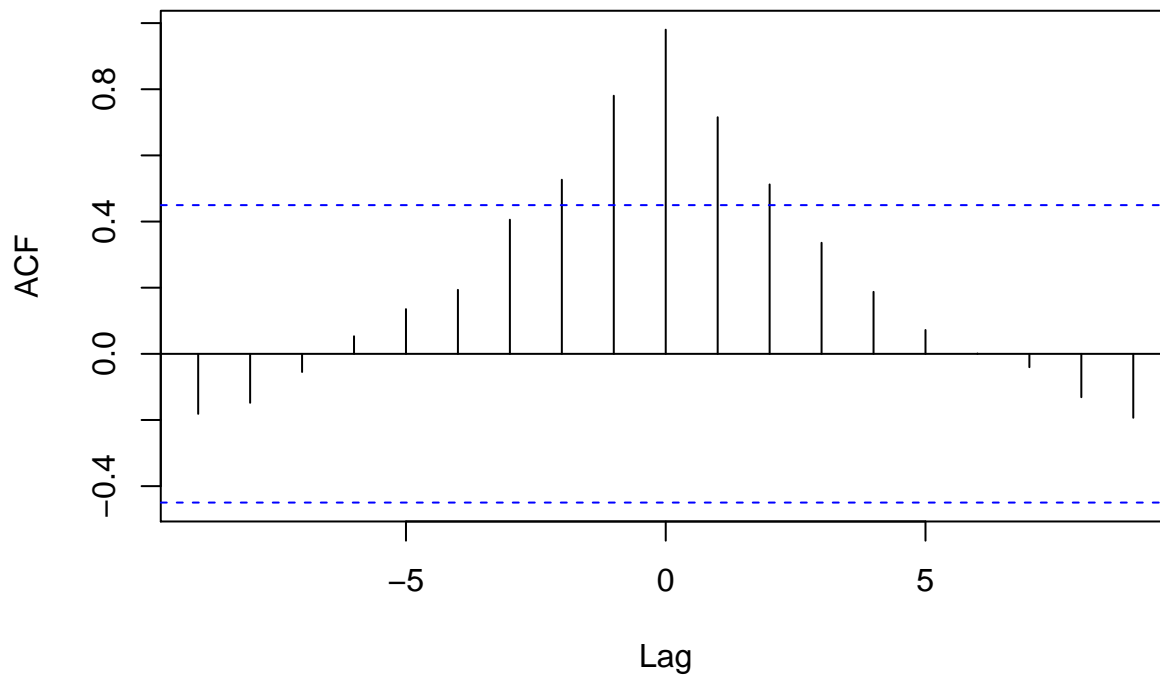




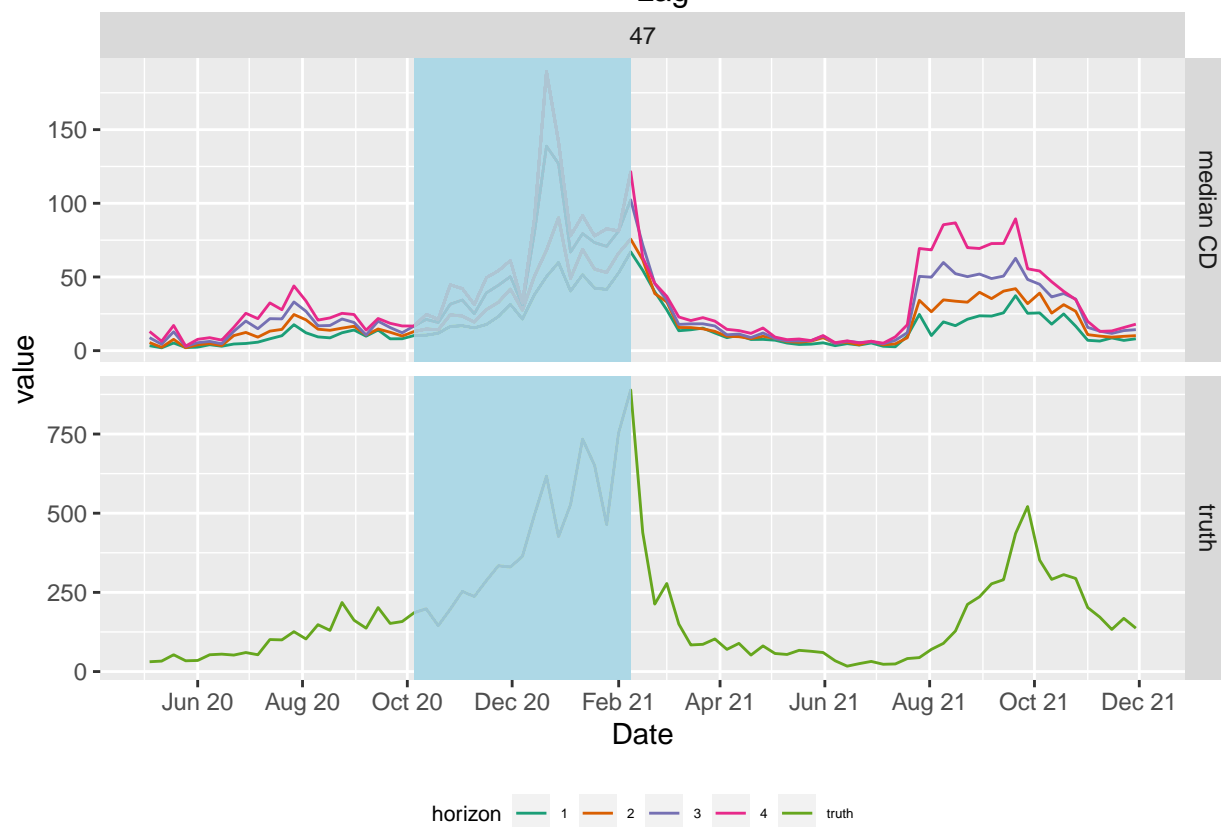
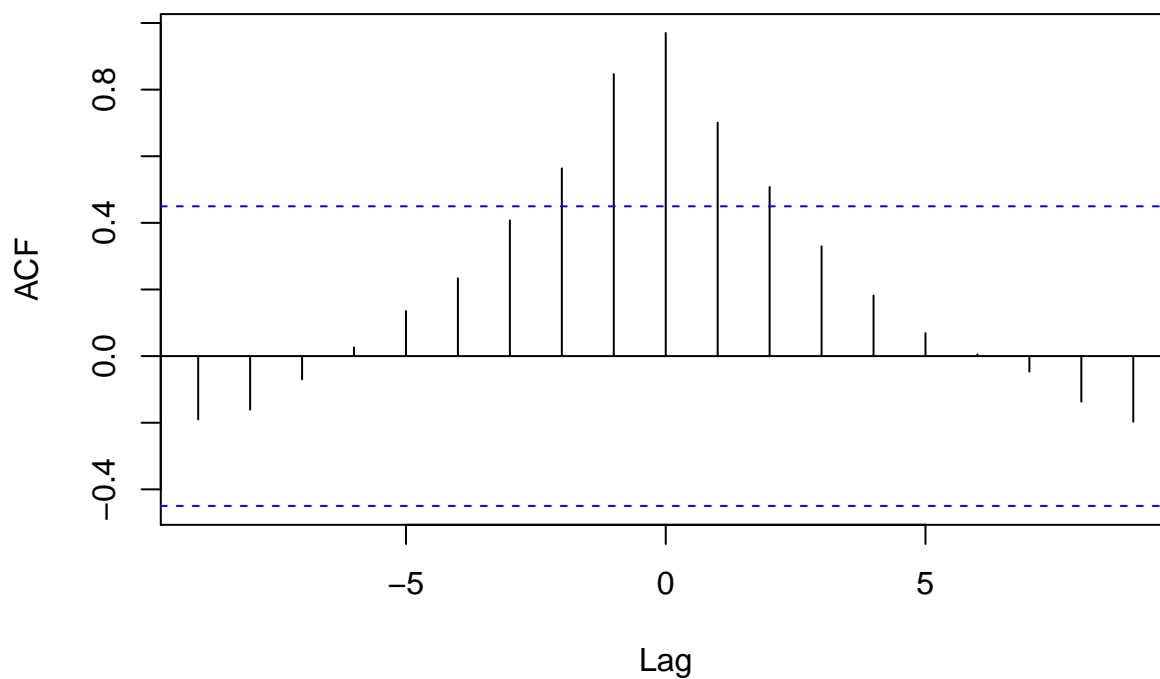
2 wk ahead – 46



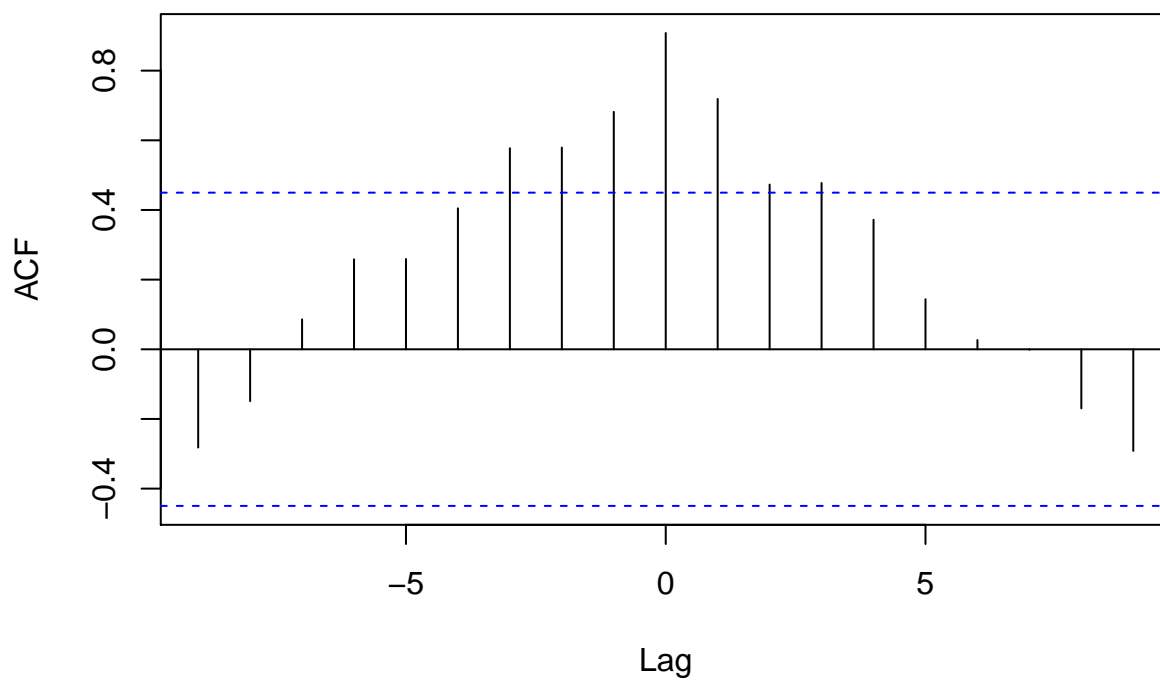
3 wk ahead – 46



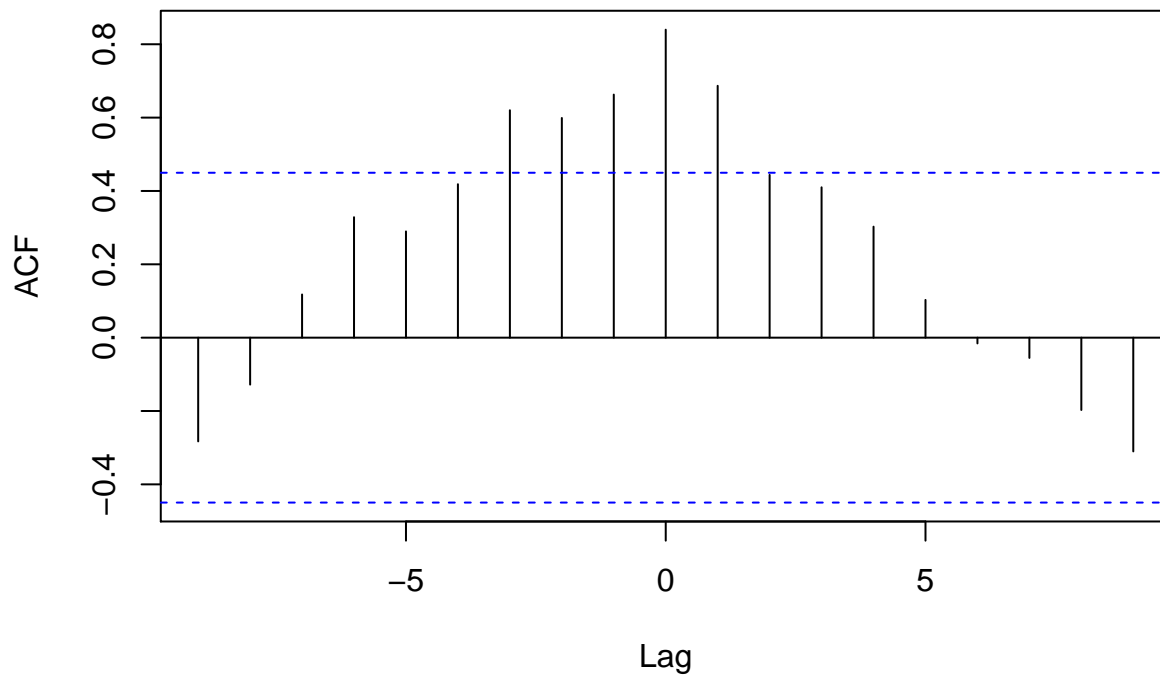
4 wk ahead – 46



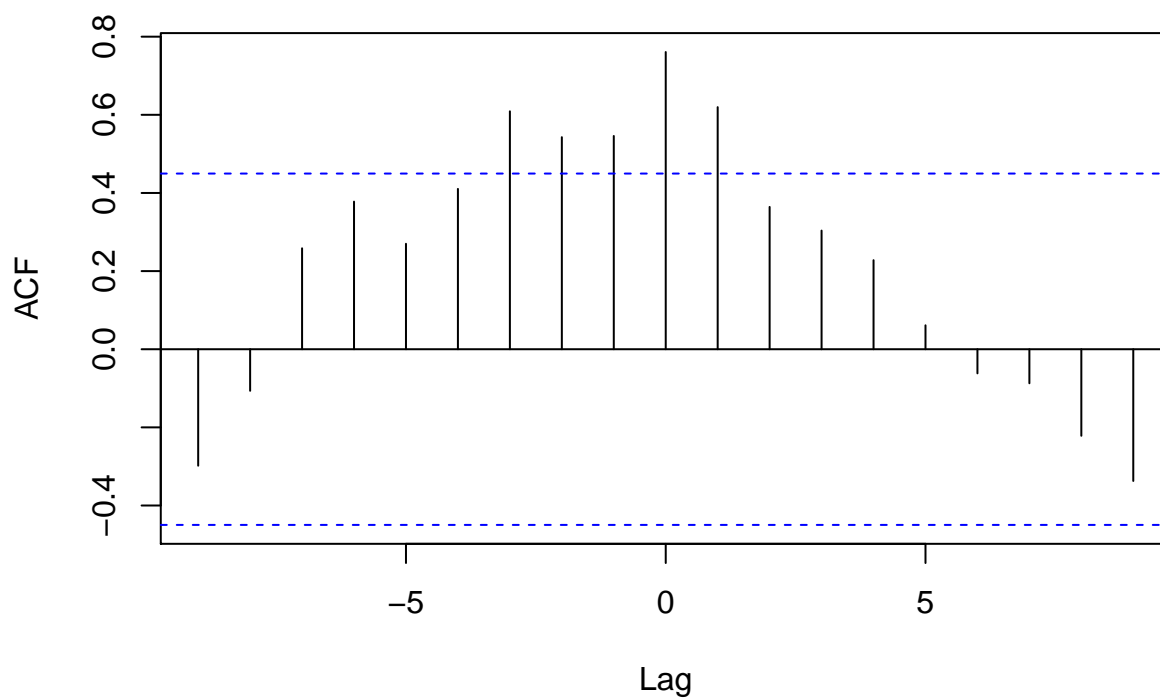
1 wk ahead – 47



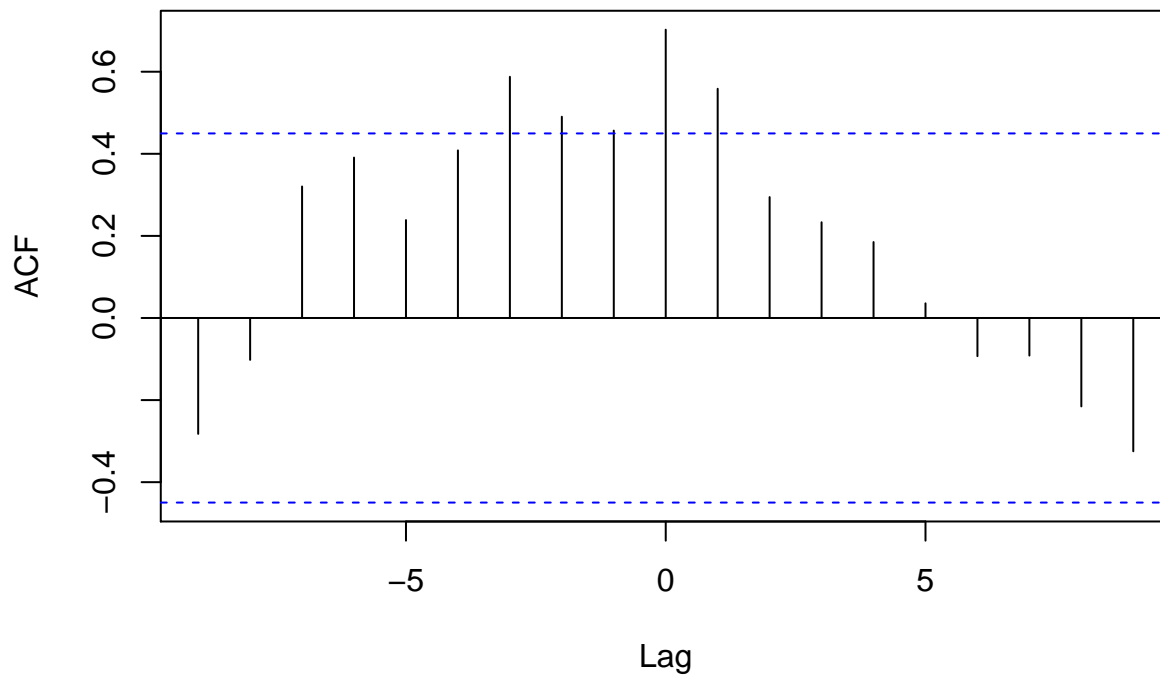
2 wk ahead – 47

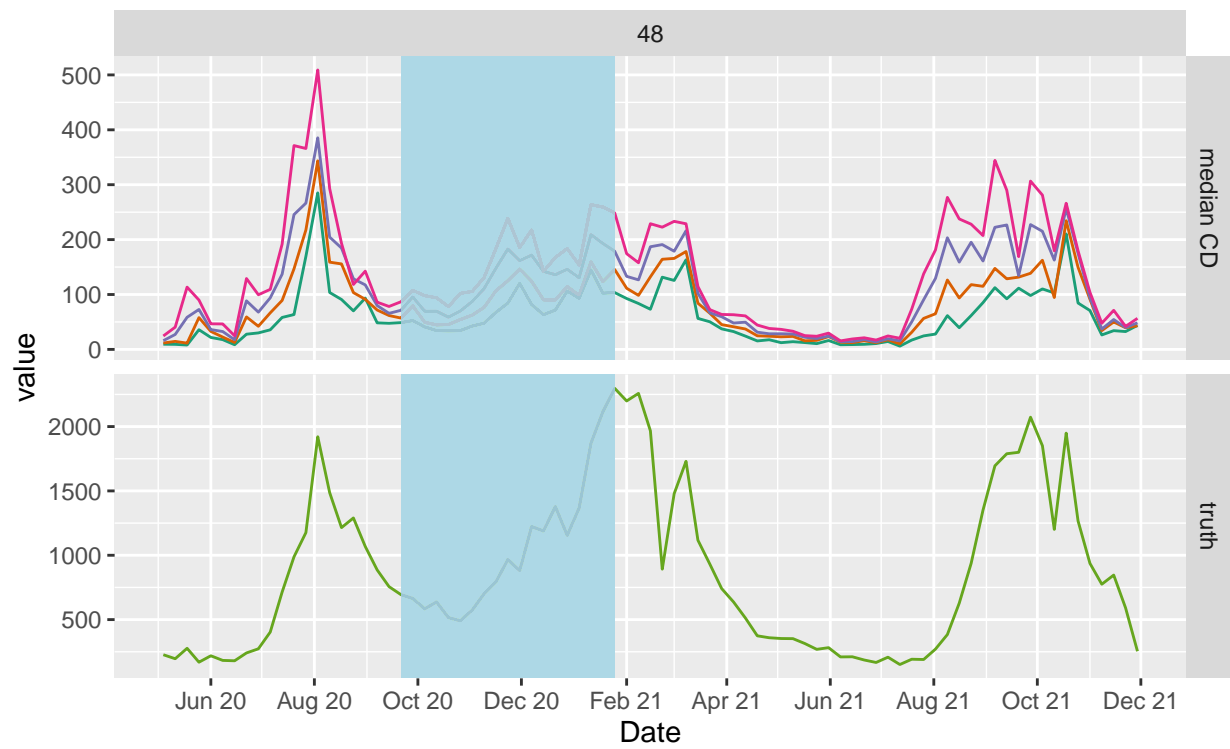


3 wk ahead – 47



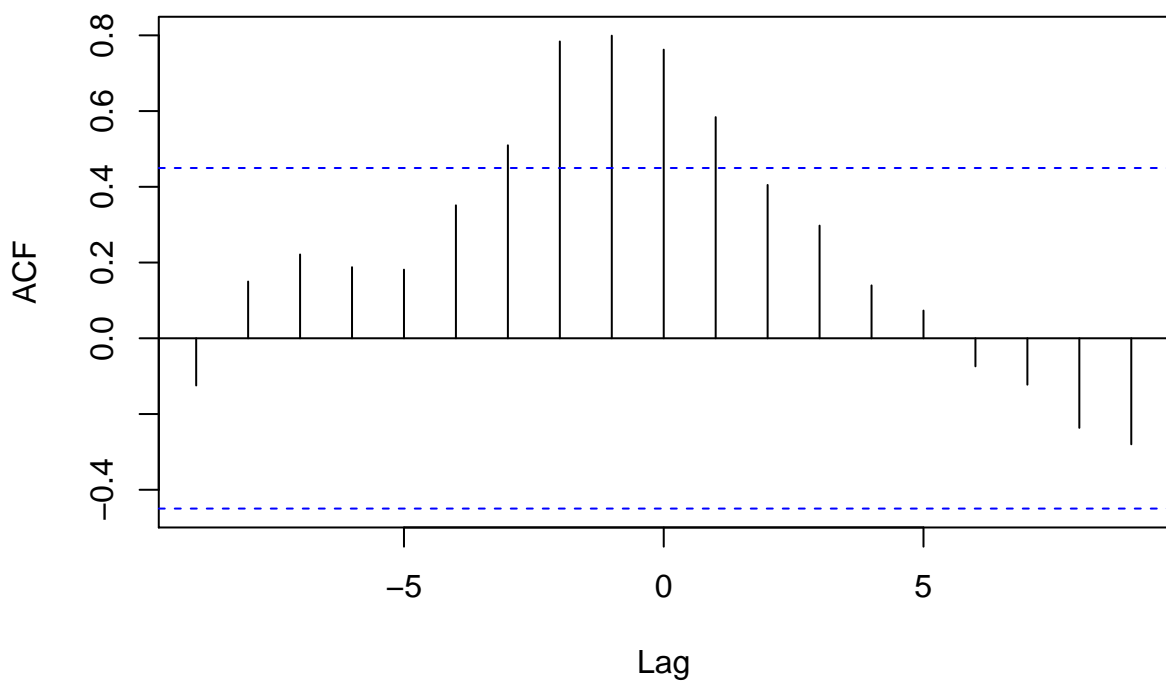
4 wk ahead – 47



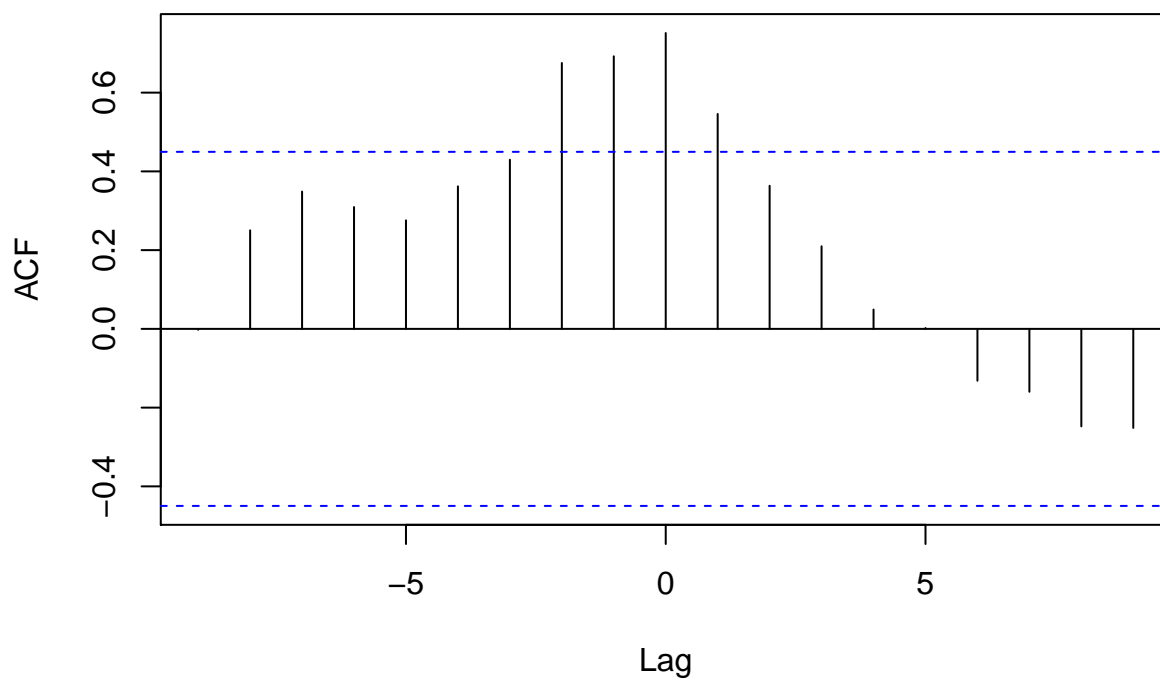


horizon 1 2 3 4 truth

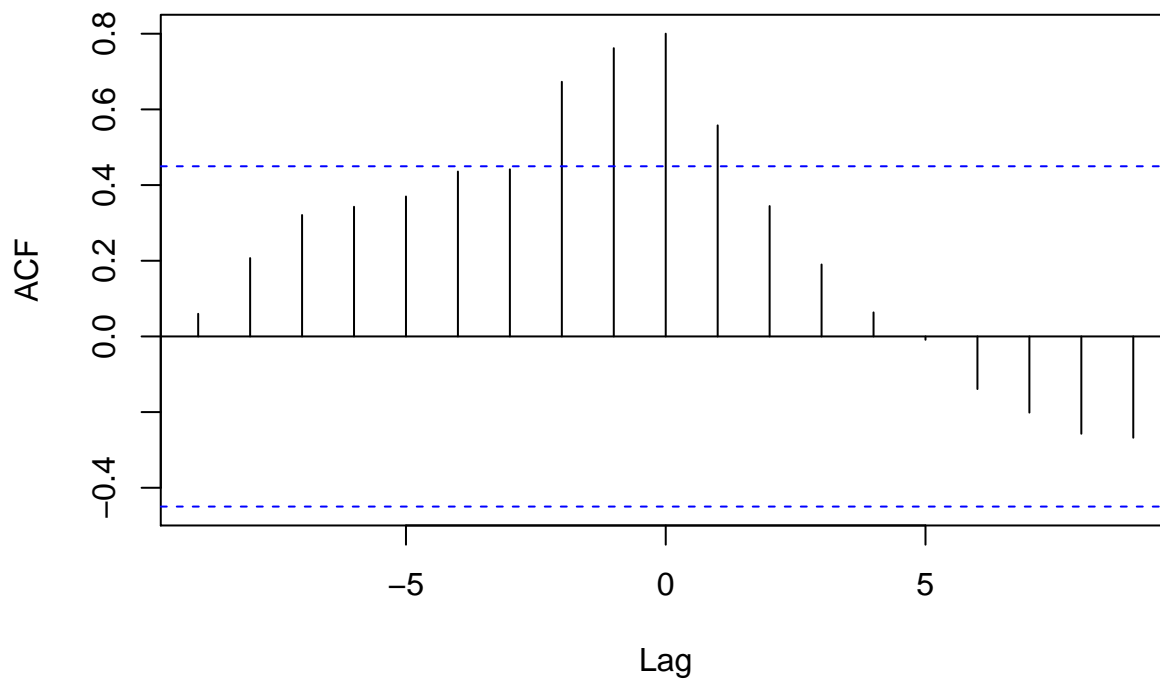
1 wk ahead – 48



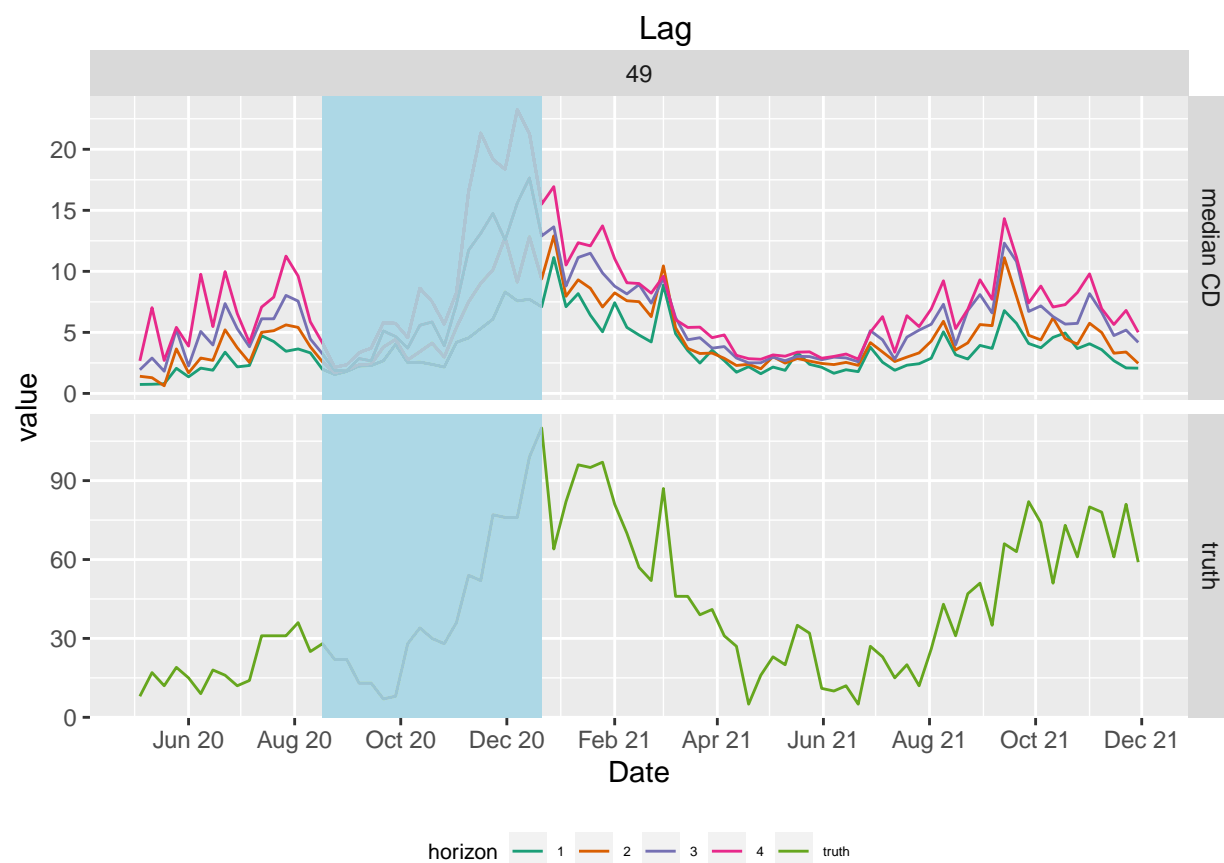
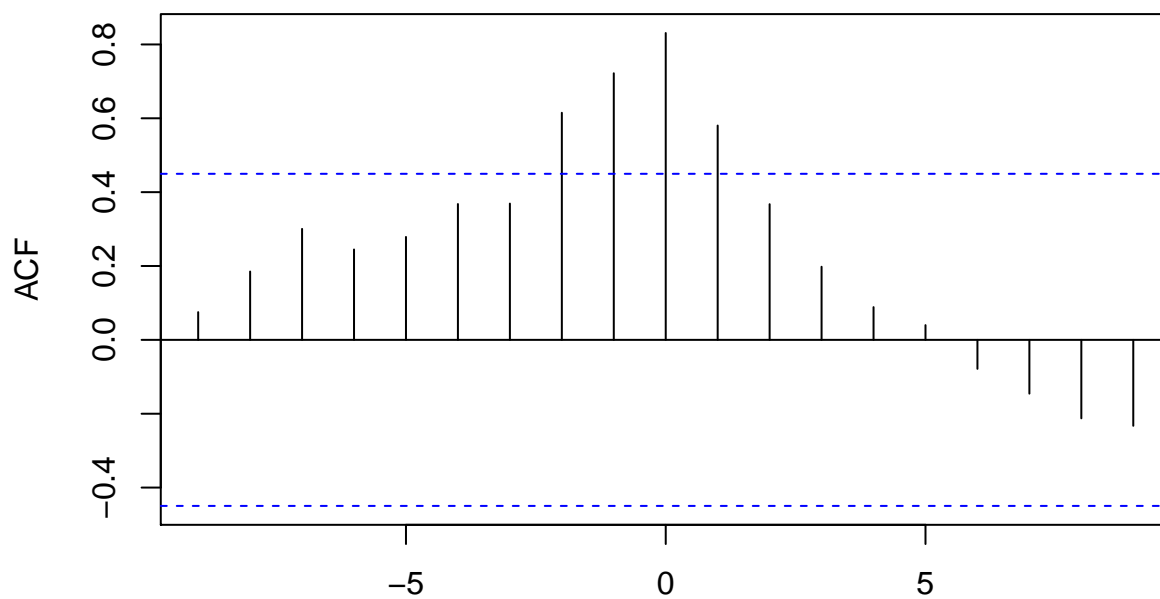
2 wk ahead – 48



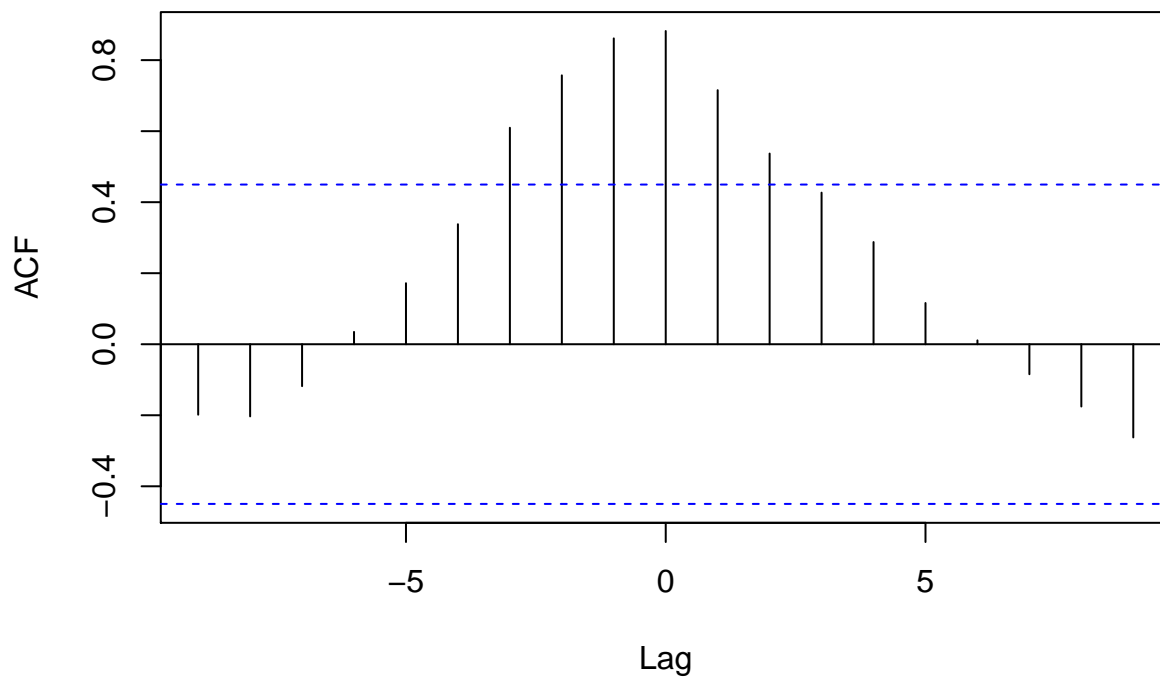
3 wk ahead – 48



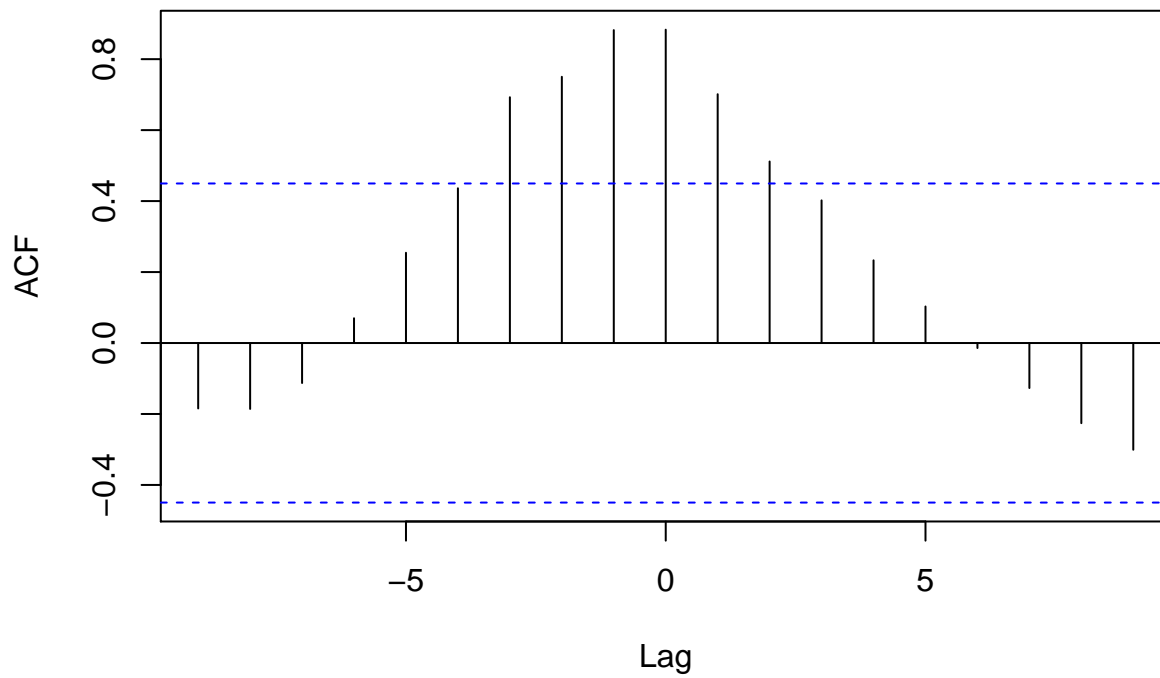
4 wk ahead – 48



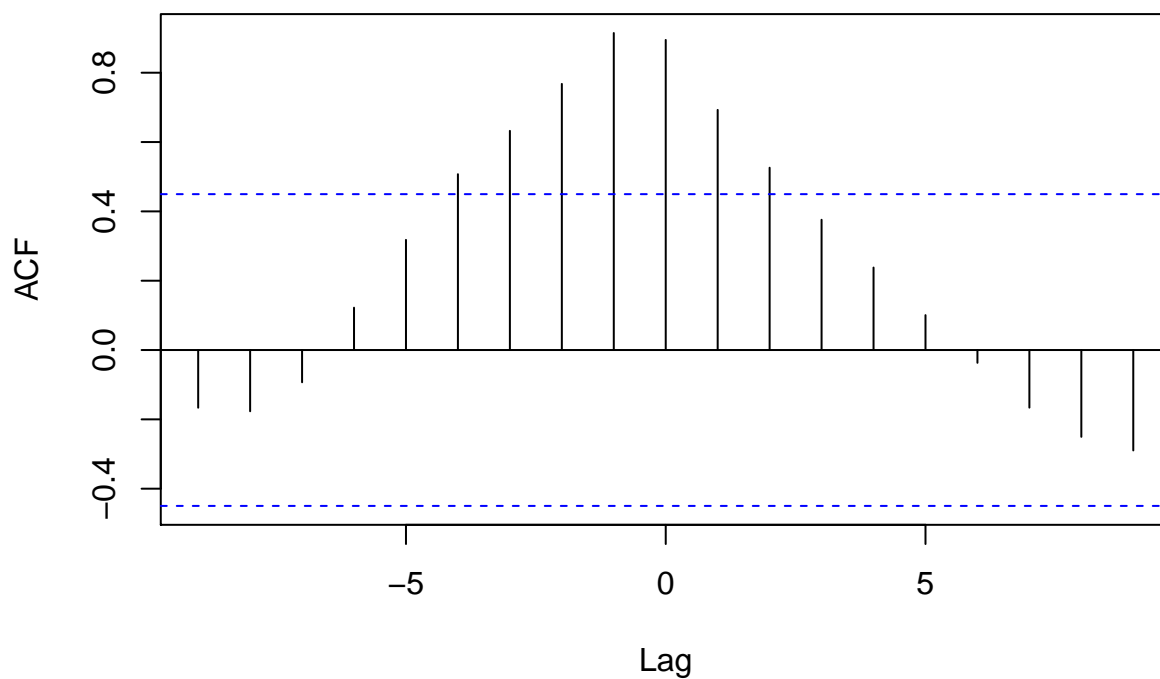
1 wk ahead – 49



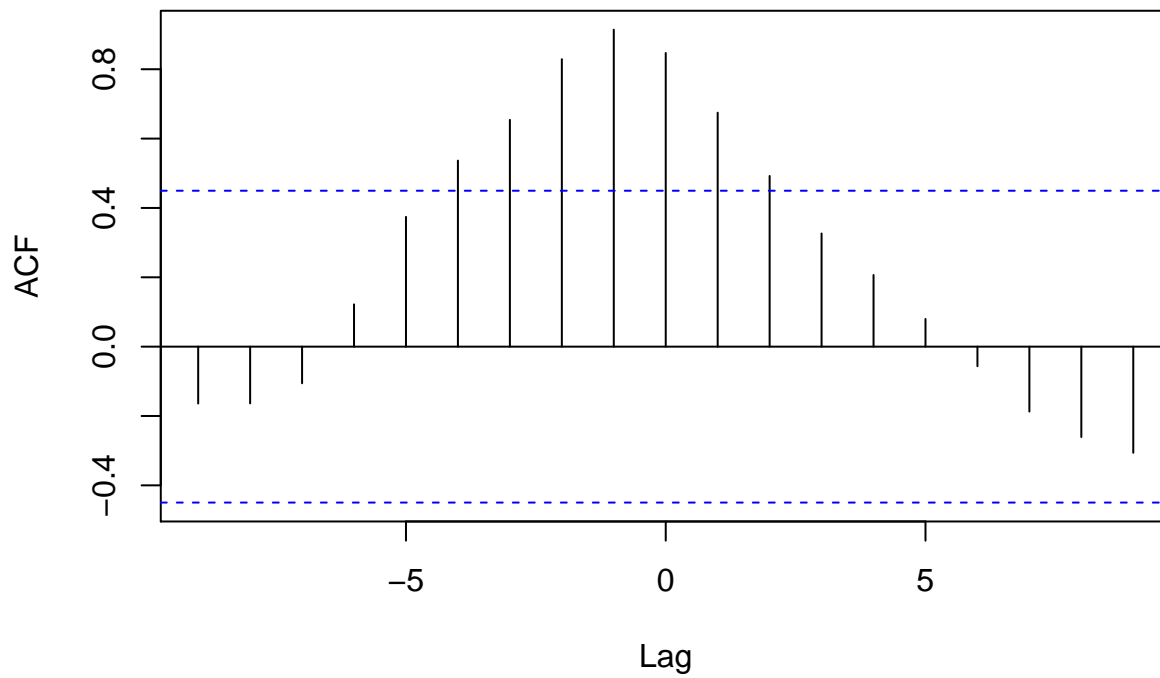
2 wk ahead – 49

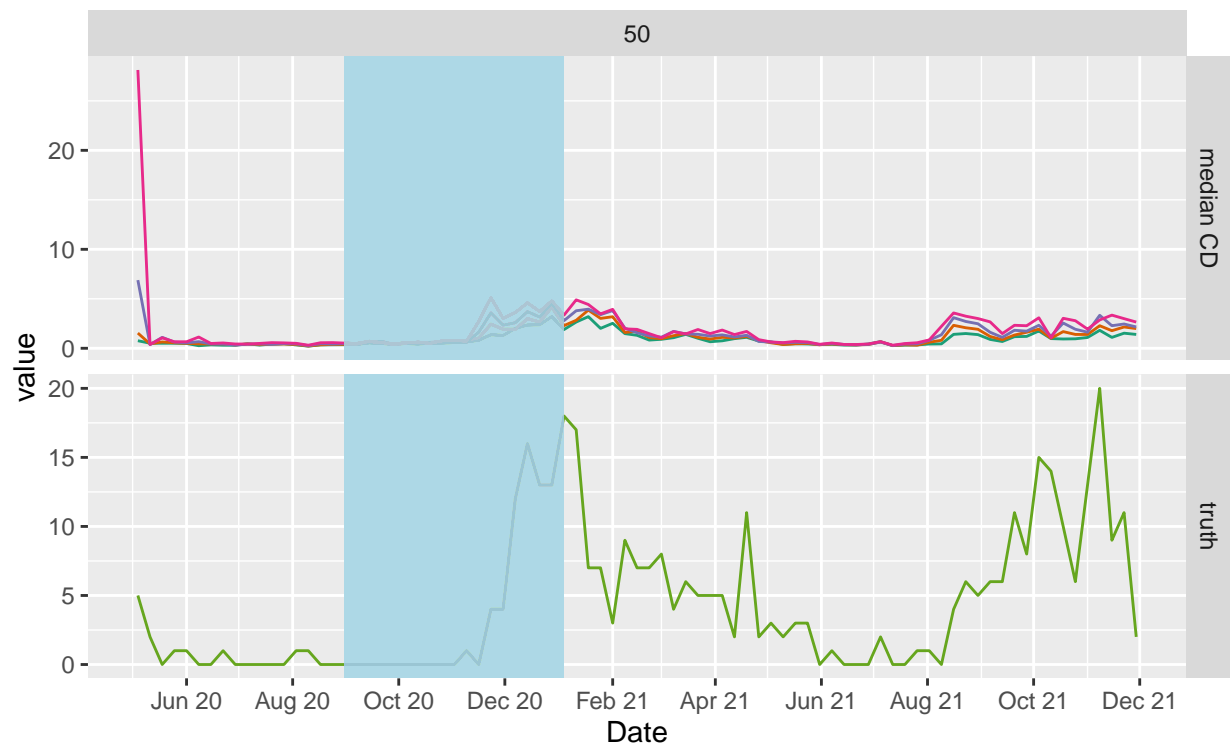


3 wk ahead – 49



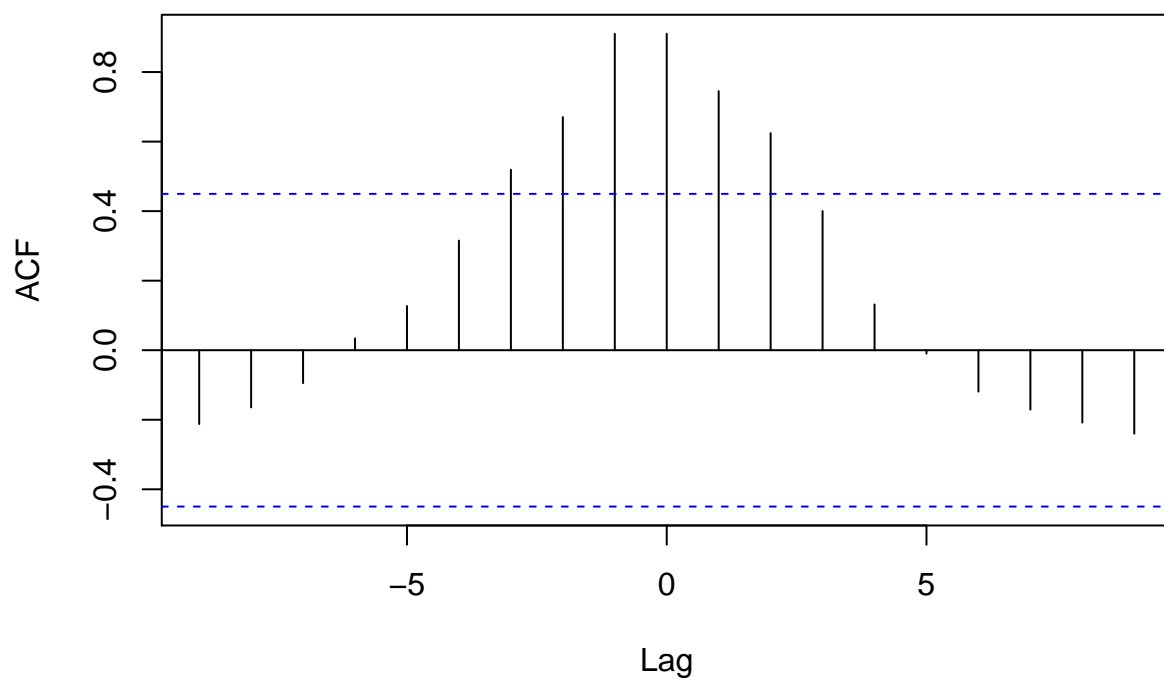
4 wk ahead – 49



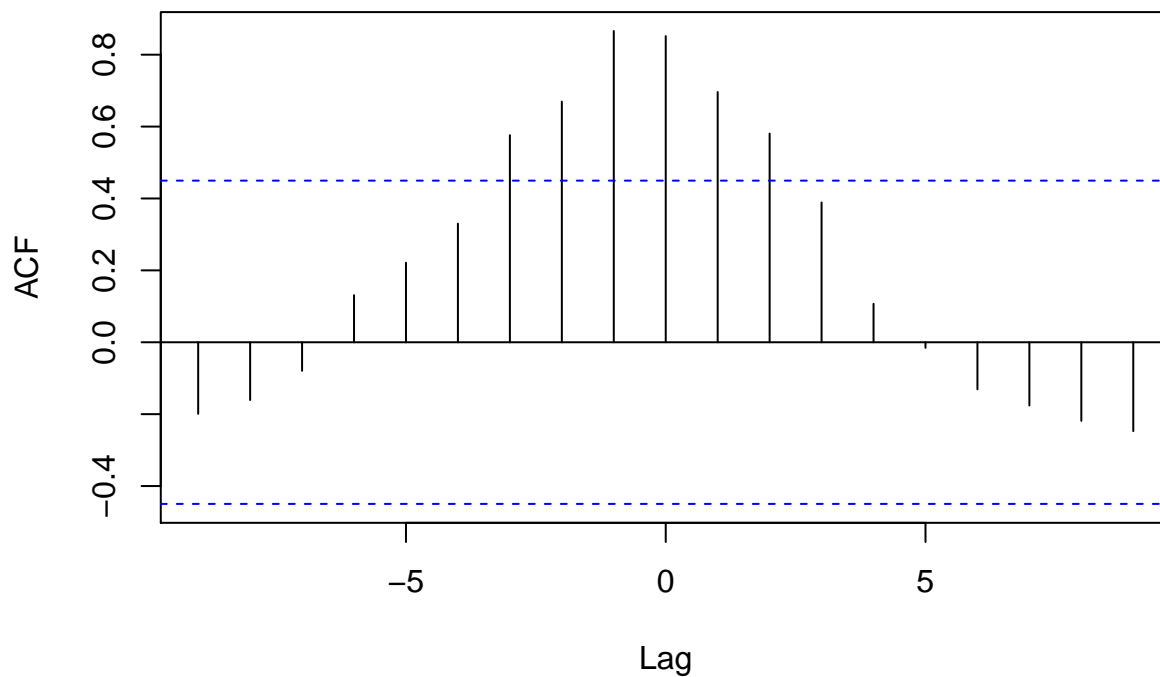


horizon 1 2 3 4 truth

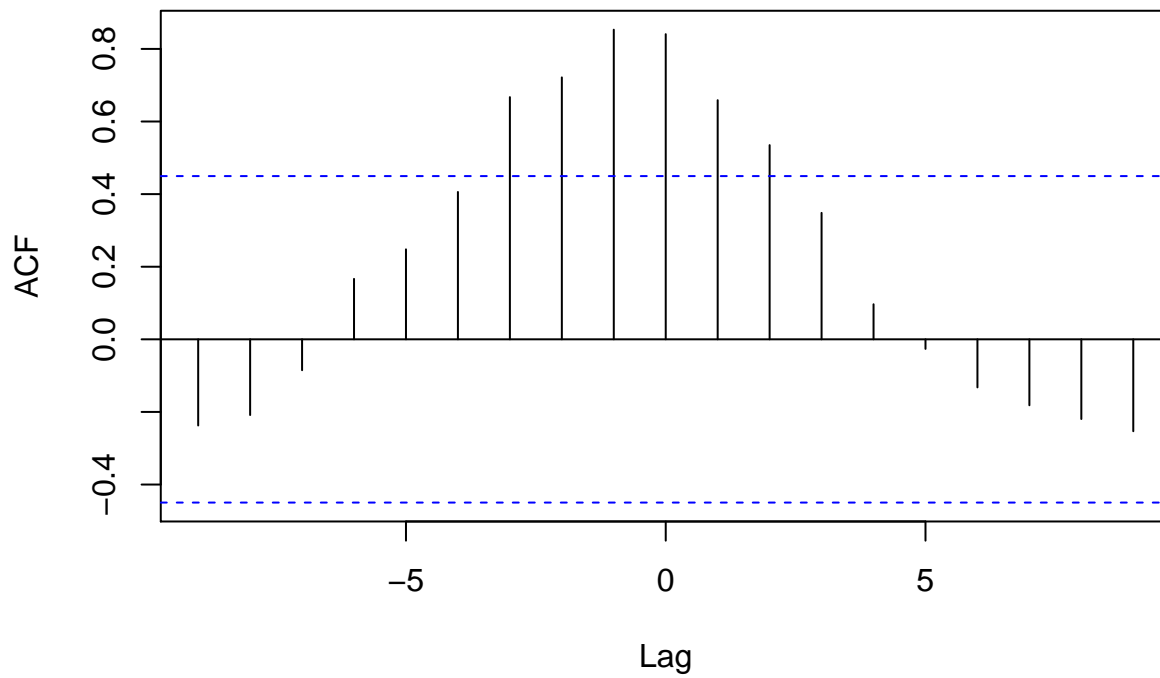
1 wk ahead – 50



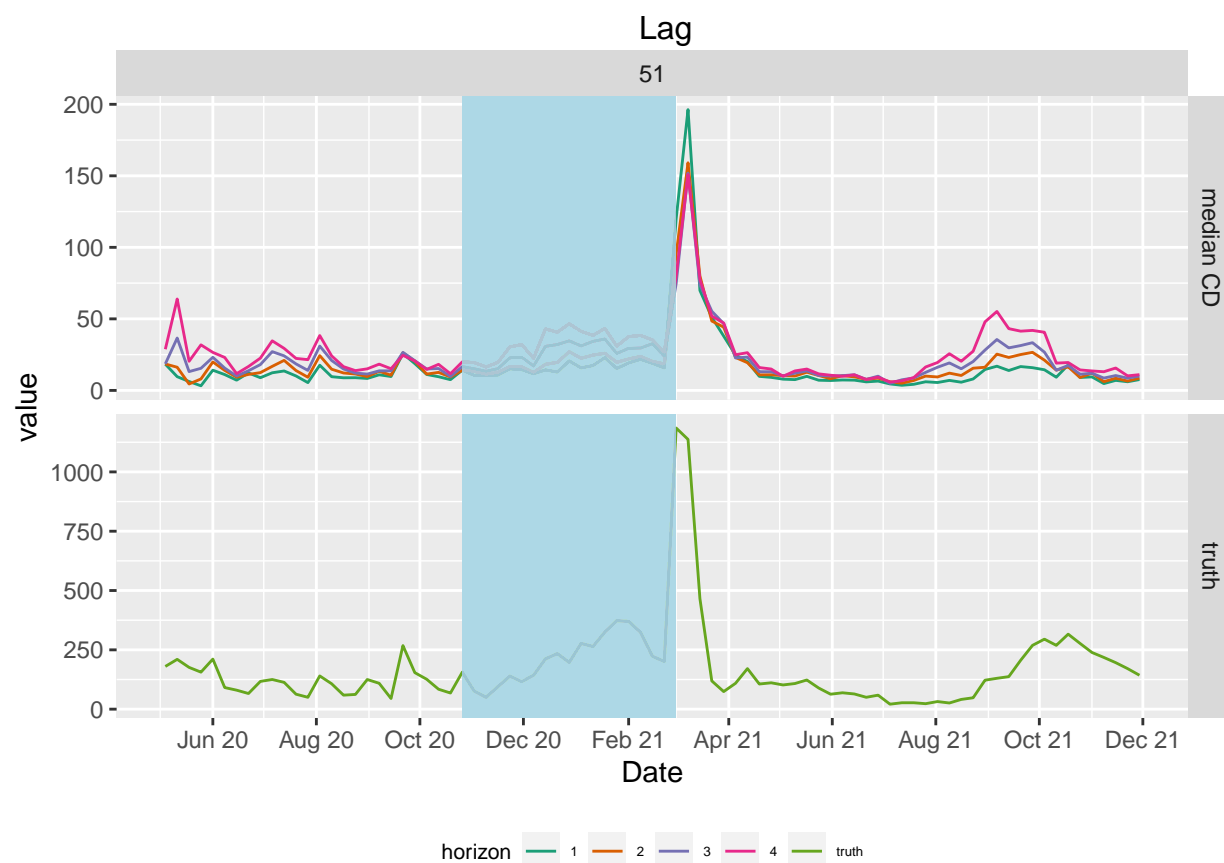
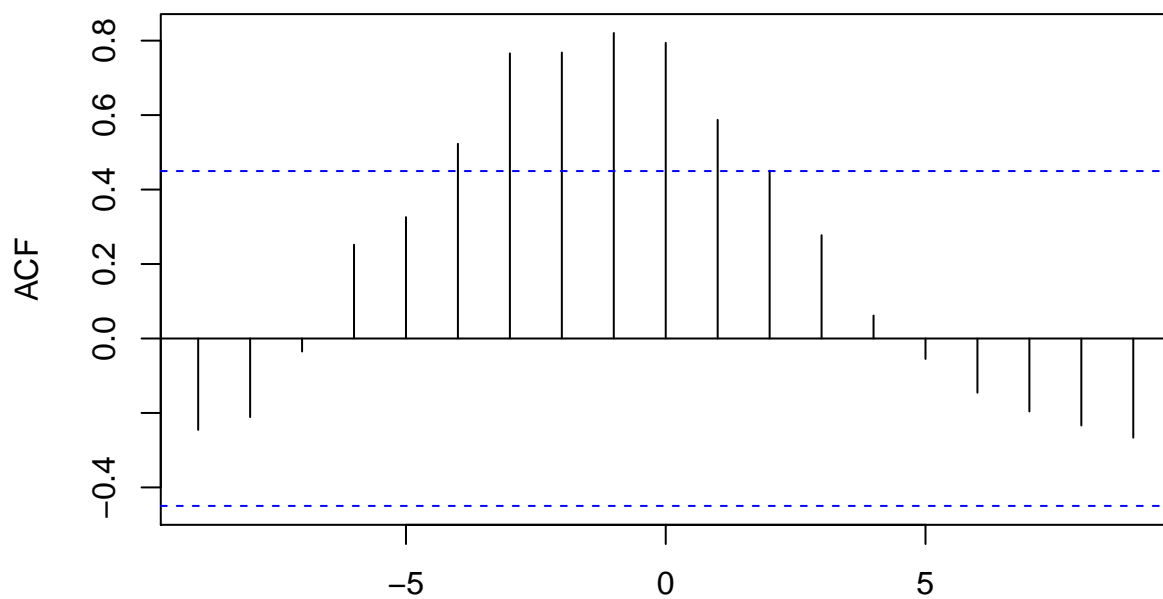
2 wk ahead – 50



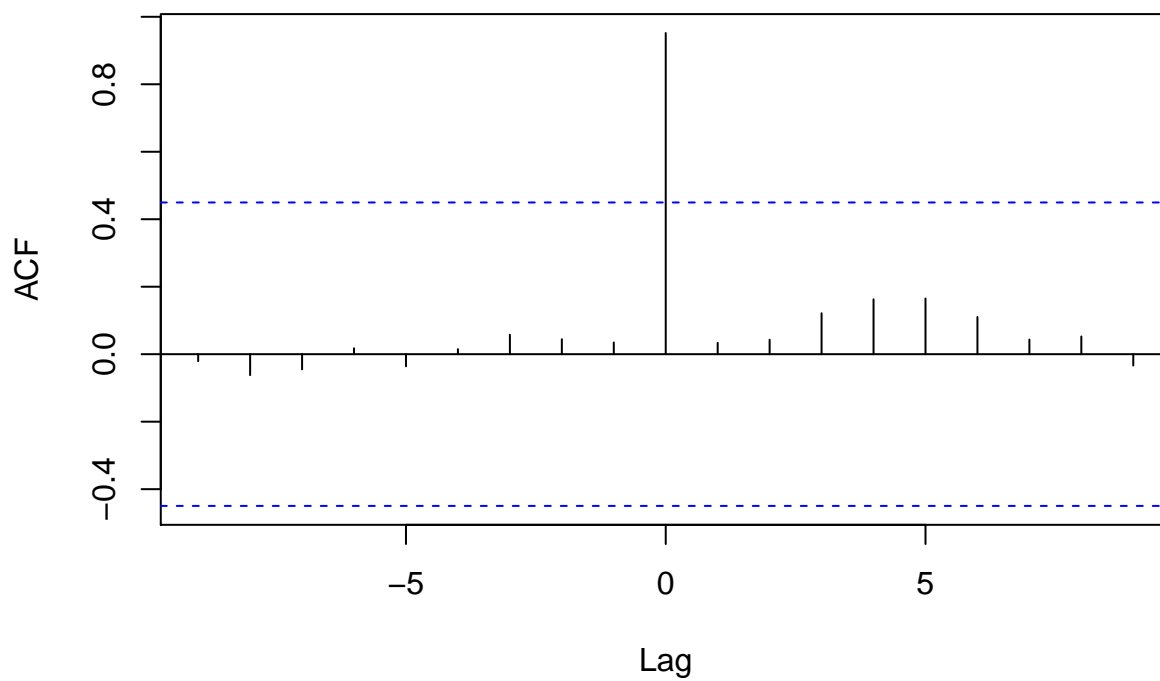
3 wk ahead – 50



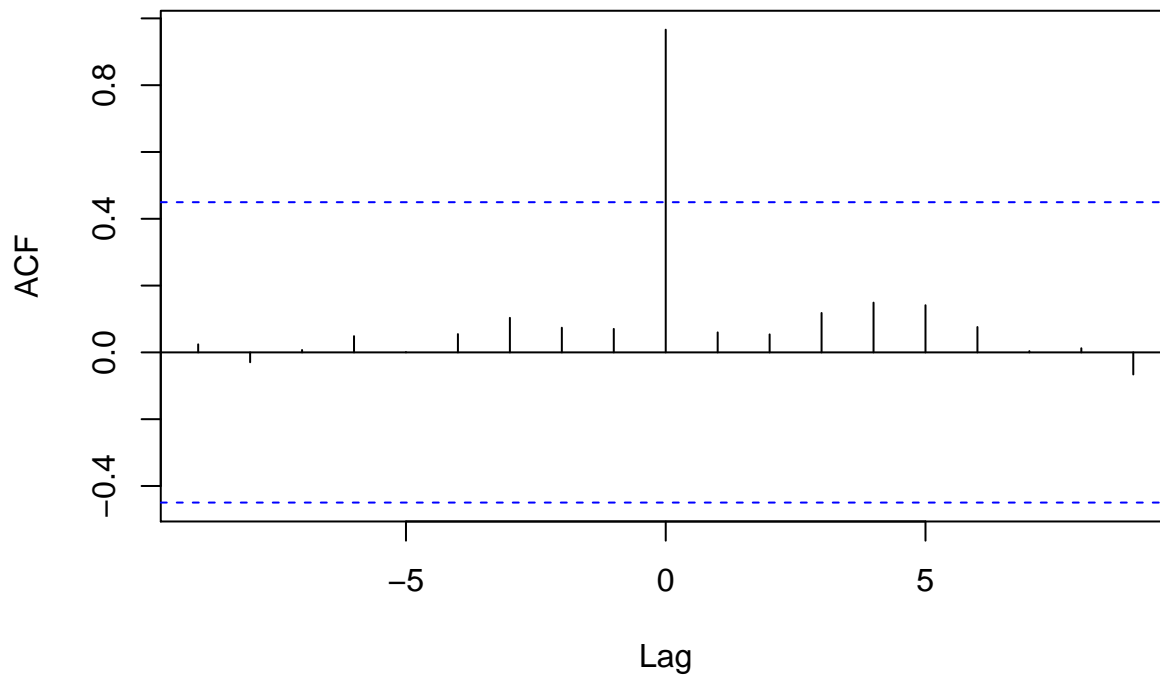
4 wk ahead – 50



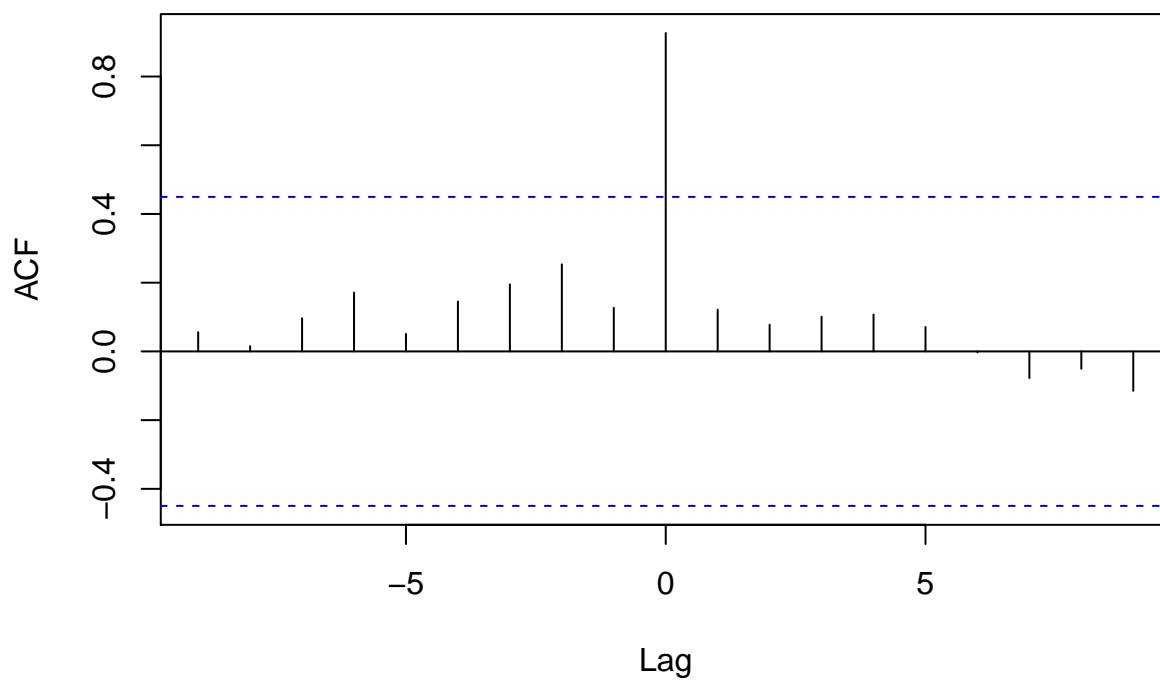
1 wk ahead – 51



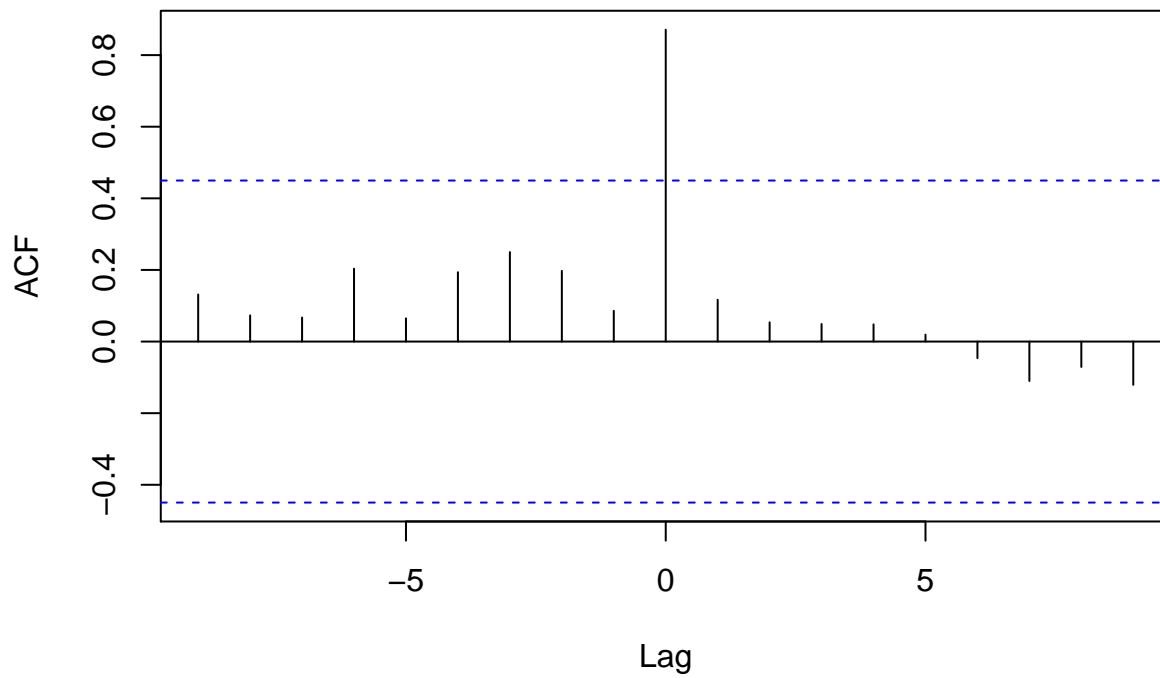
2 wk ahead – 51

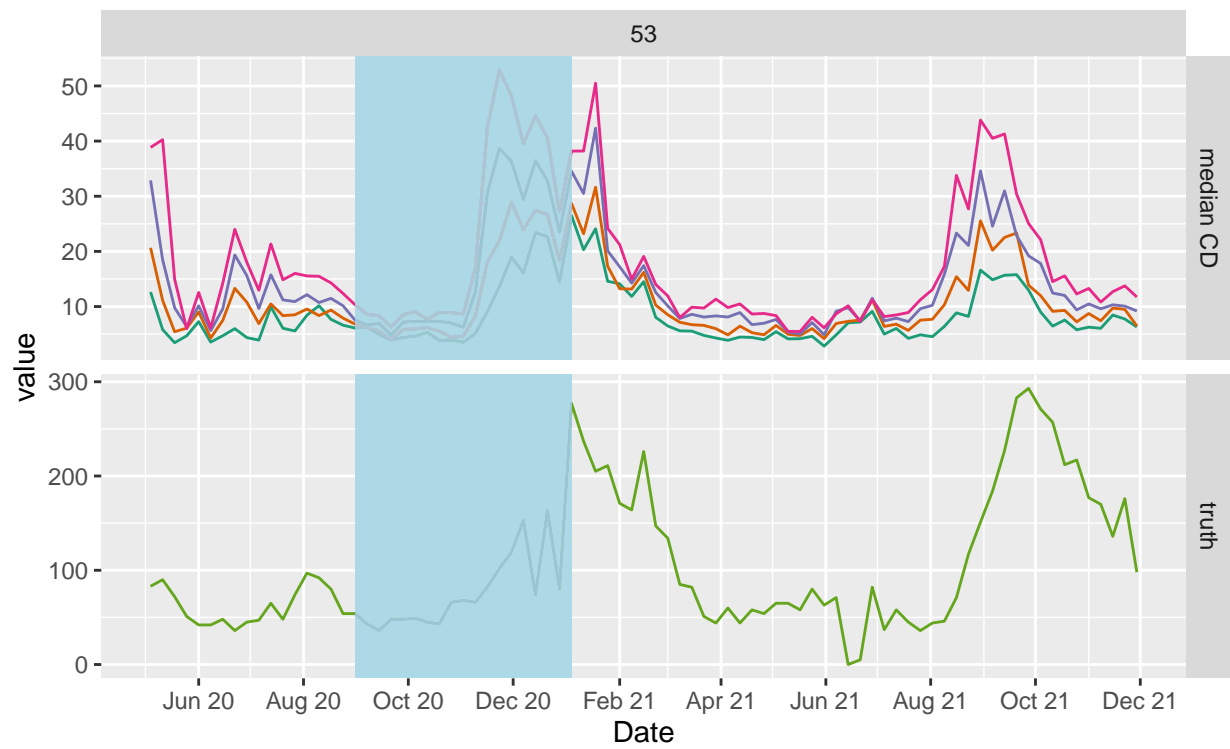


3 wk ahead – 51



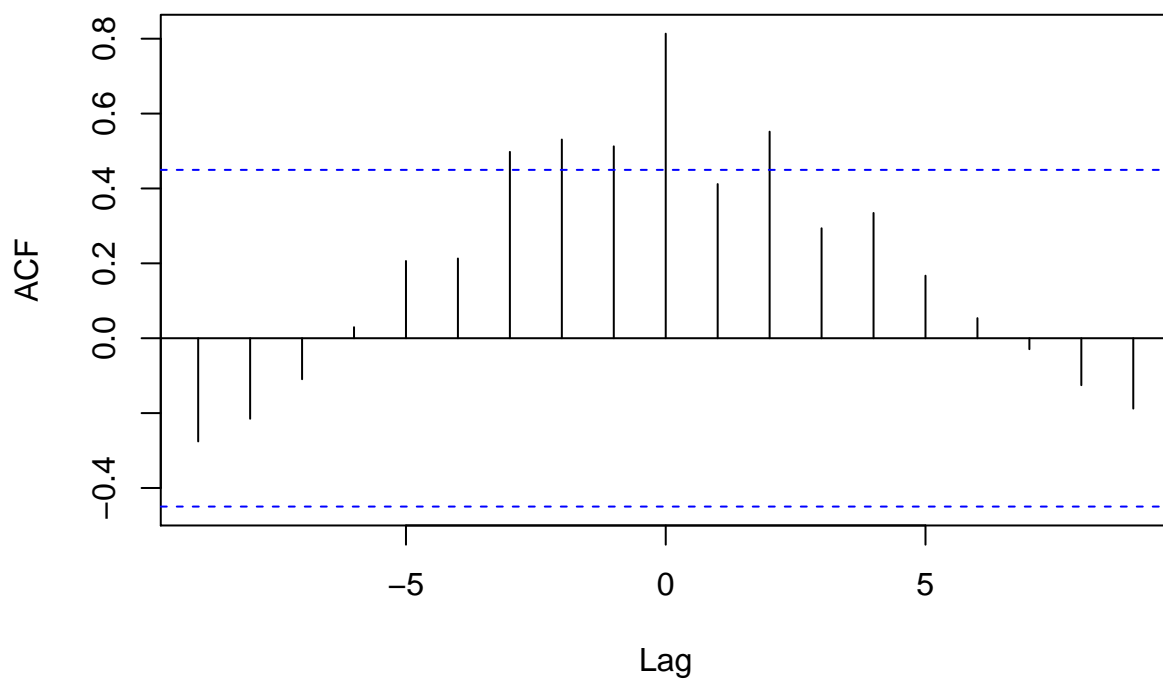
4 wk ahead – 51



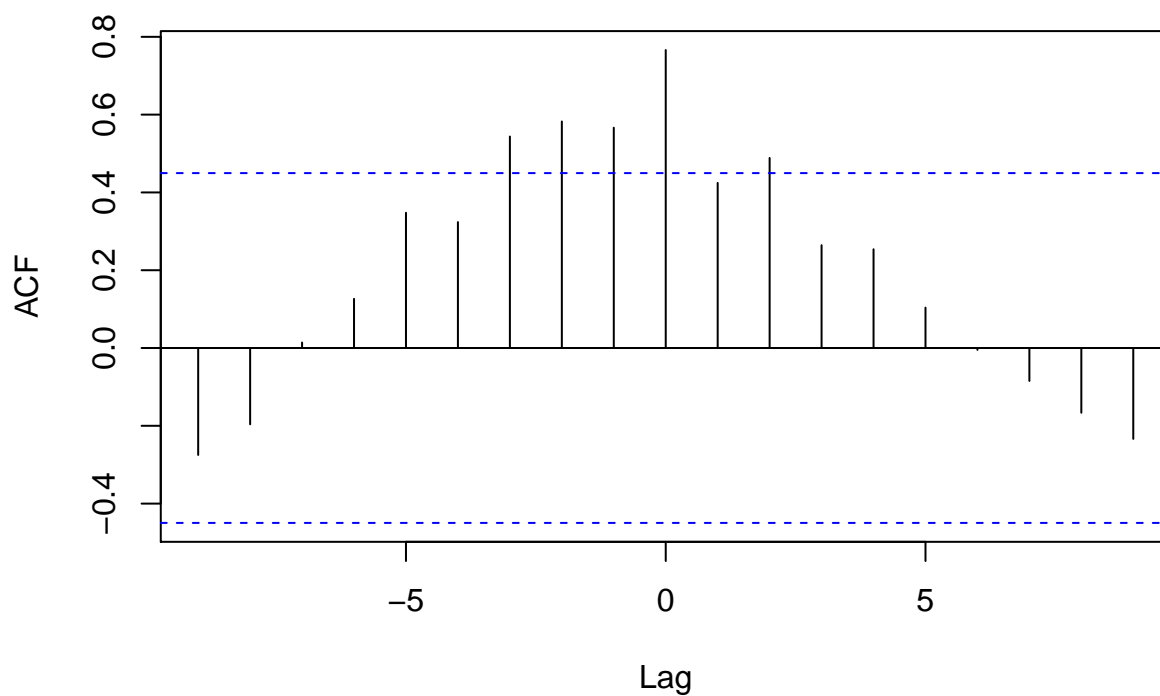


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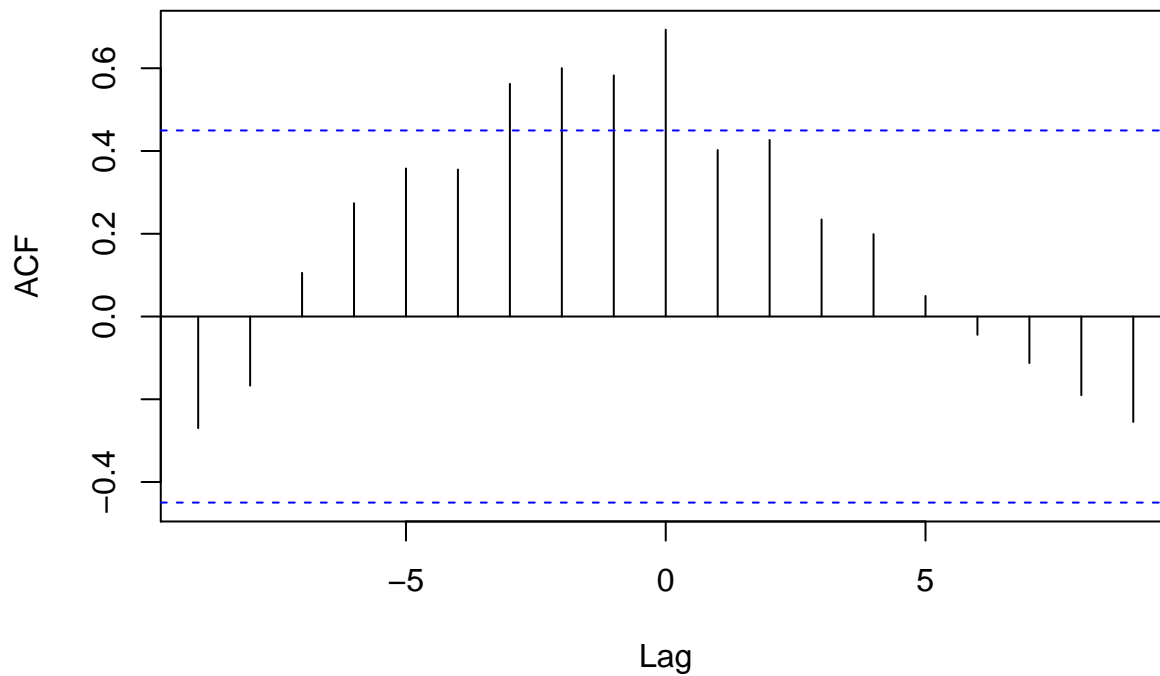
1 wk ahead – 53



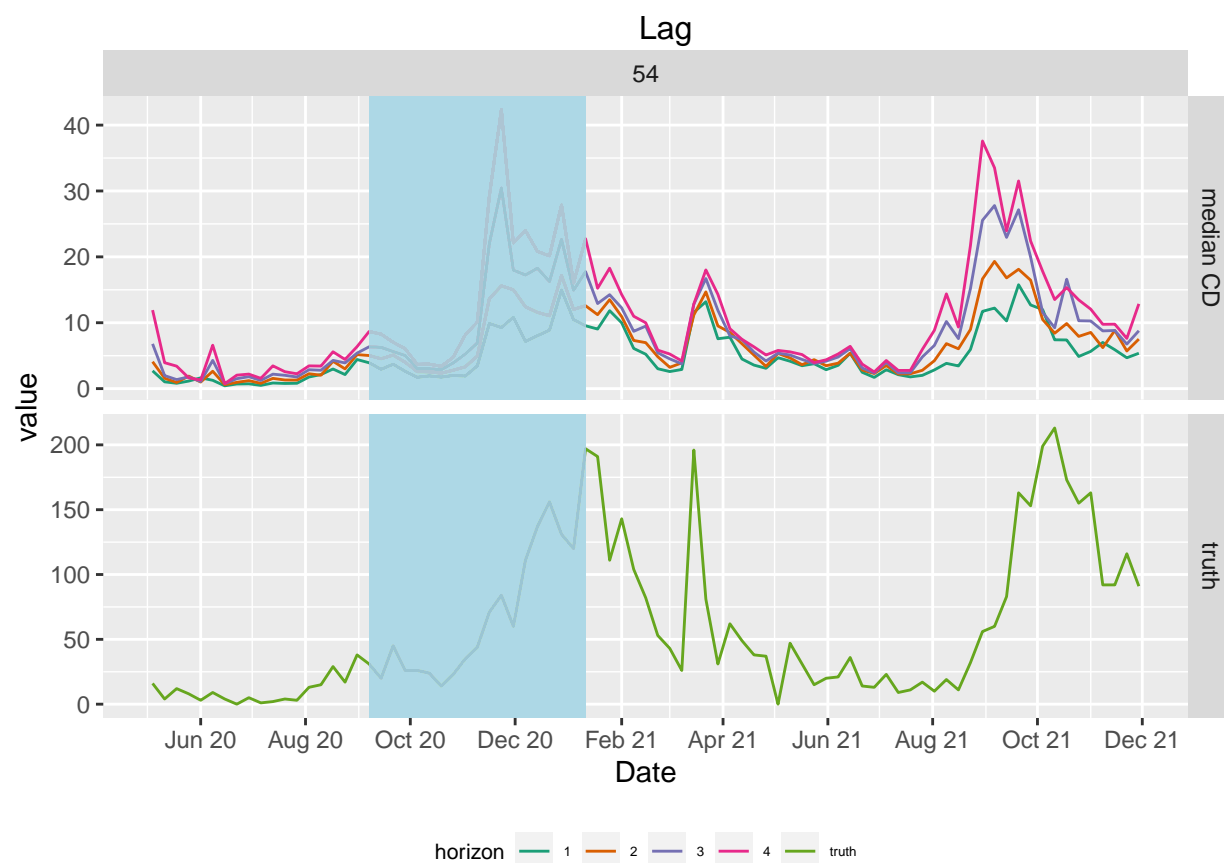
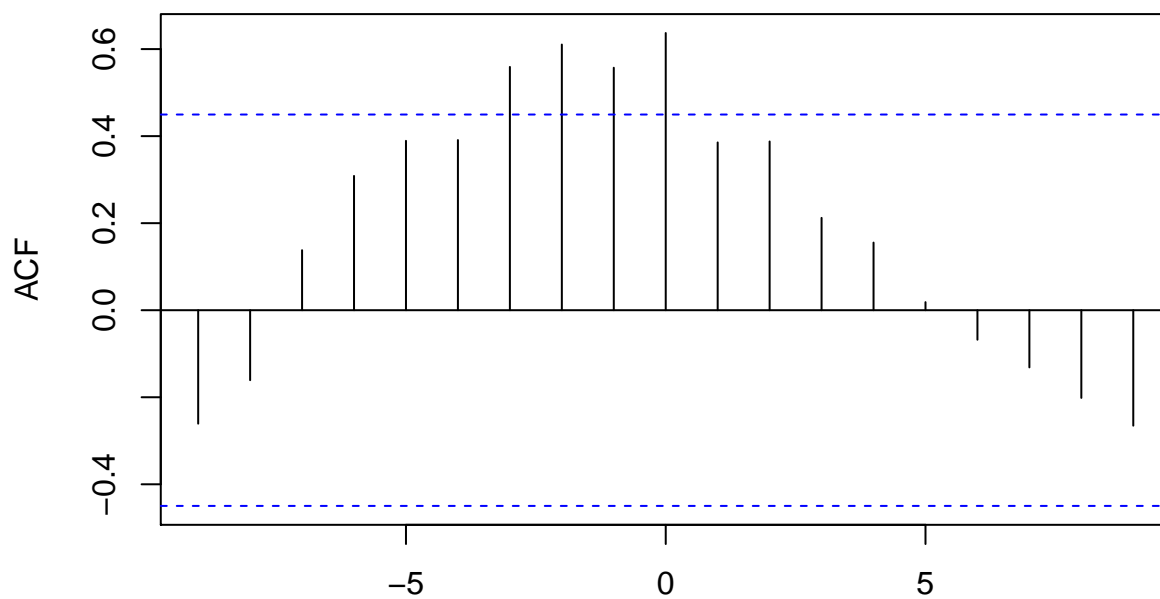
2 wk ahead – 53



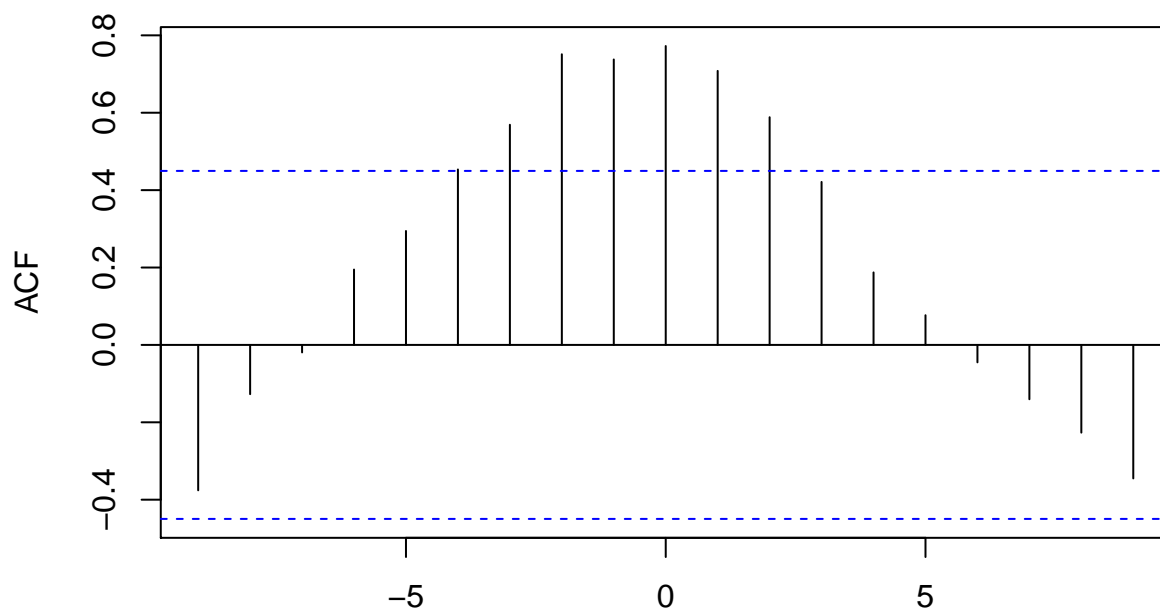
3 wk ahead – 53



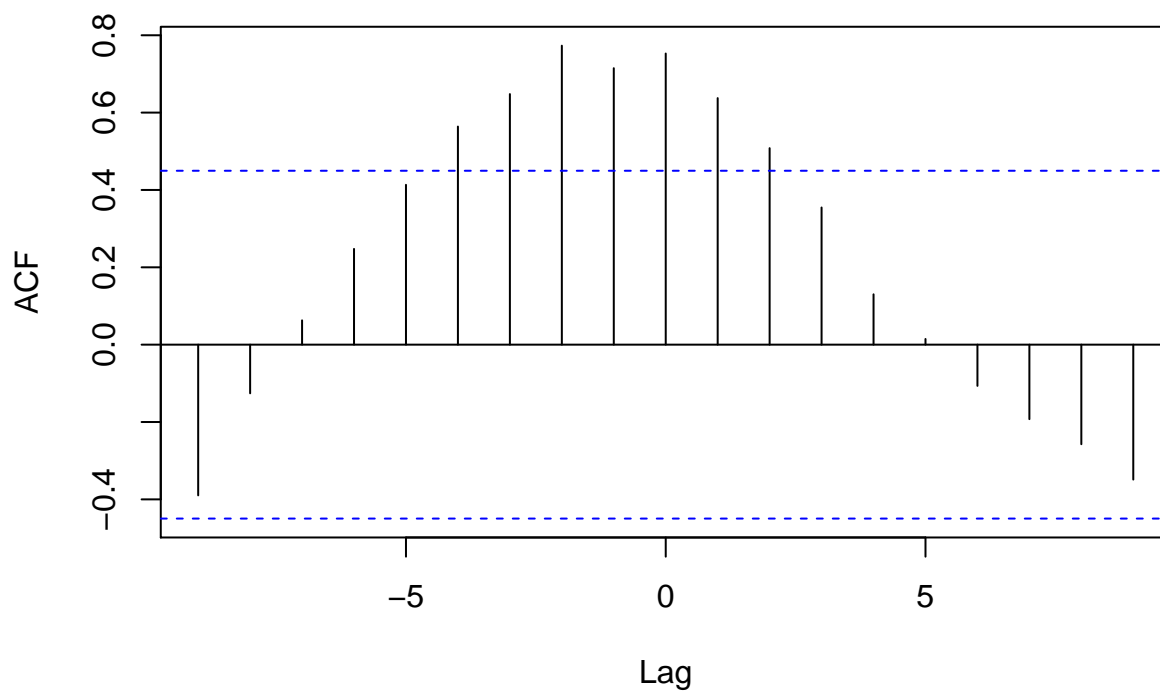
4 wk ahead – 53



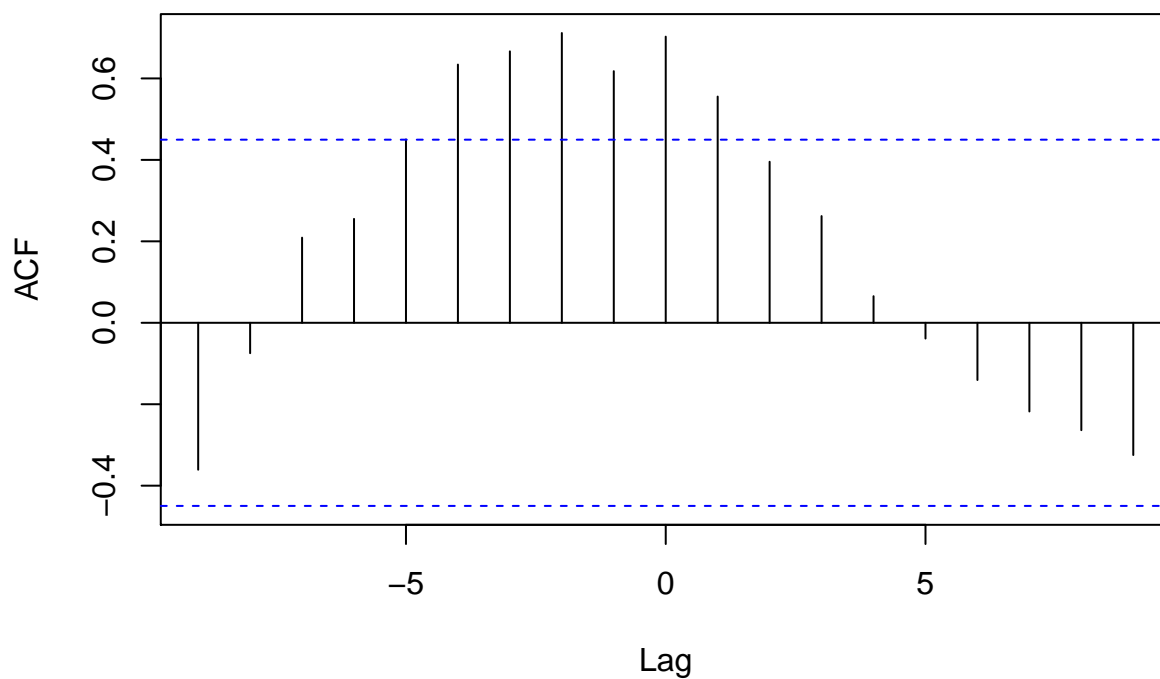
1 wk ahead – 54



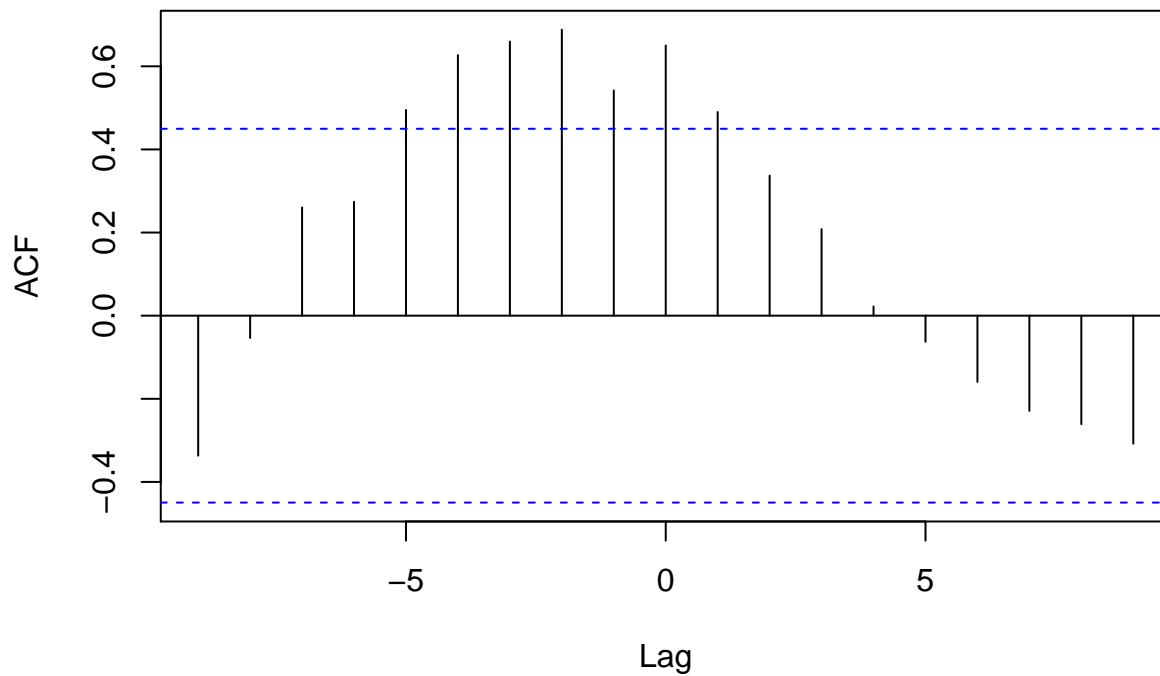
2 wk ahead – 54

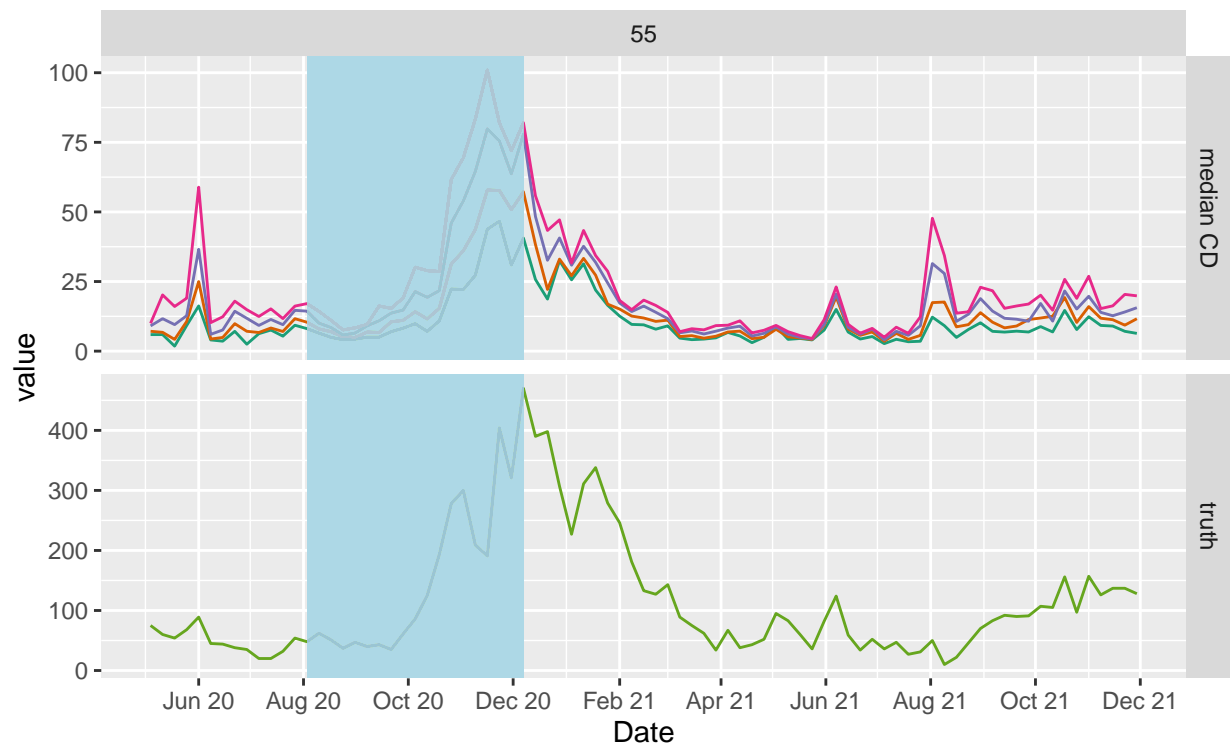


3 wk ahead – 54



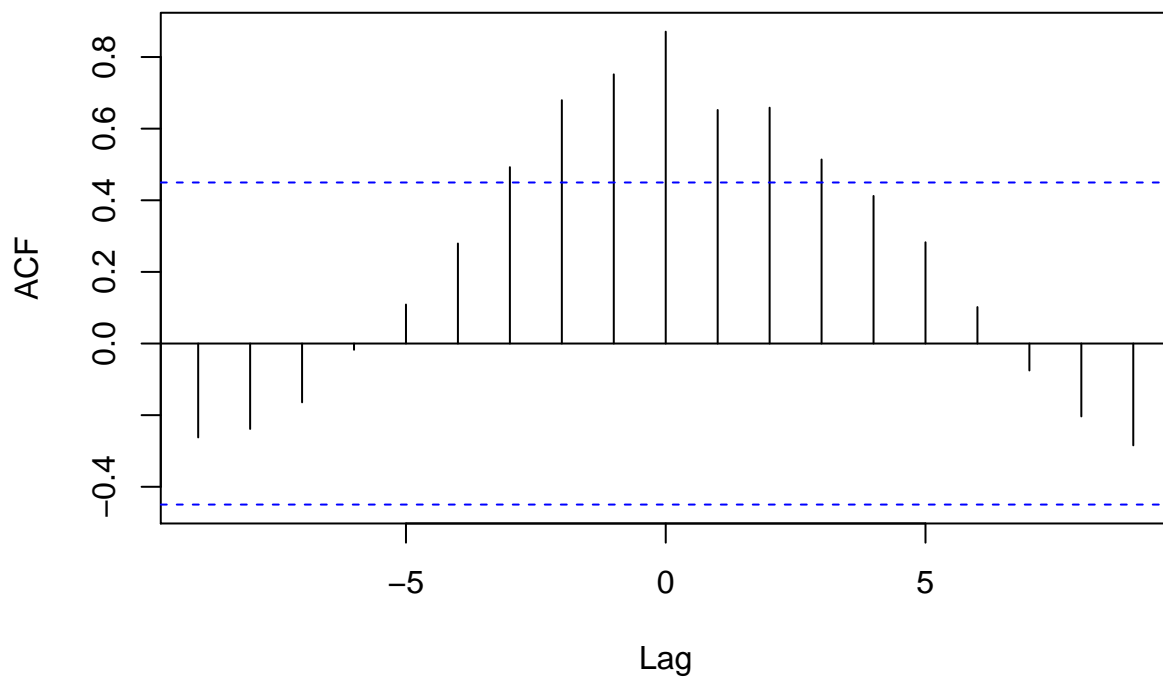
4 wk ahead – 54



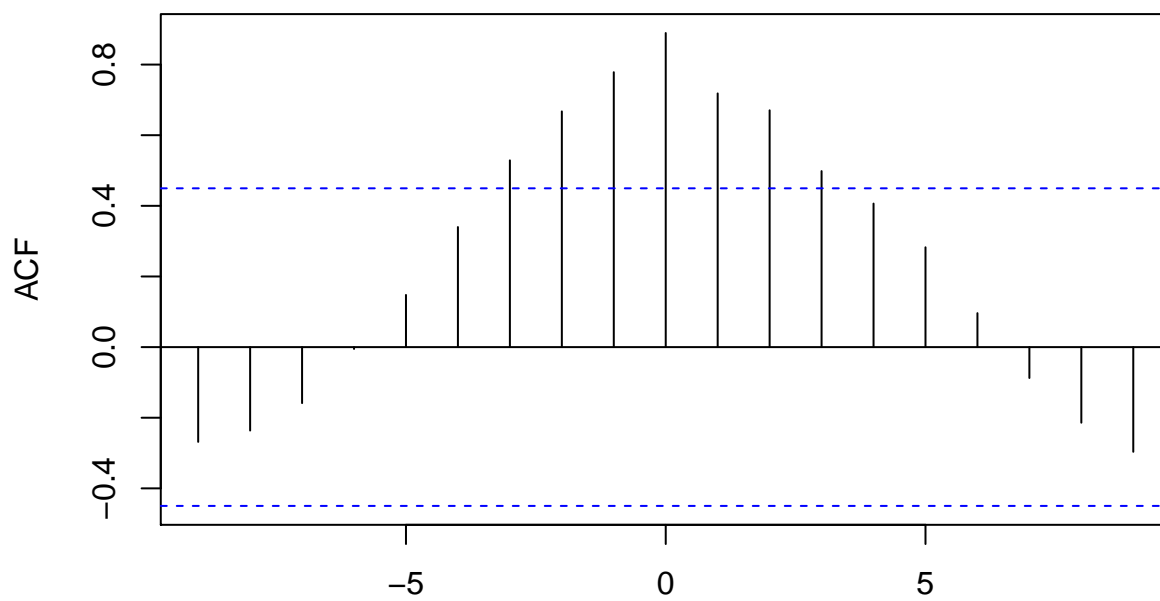


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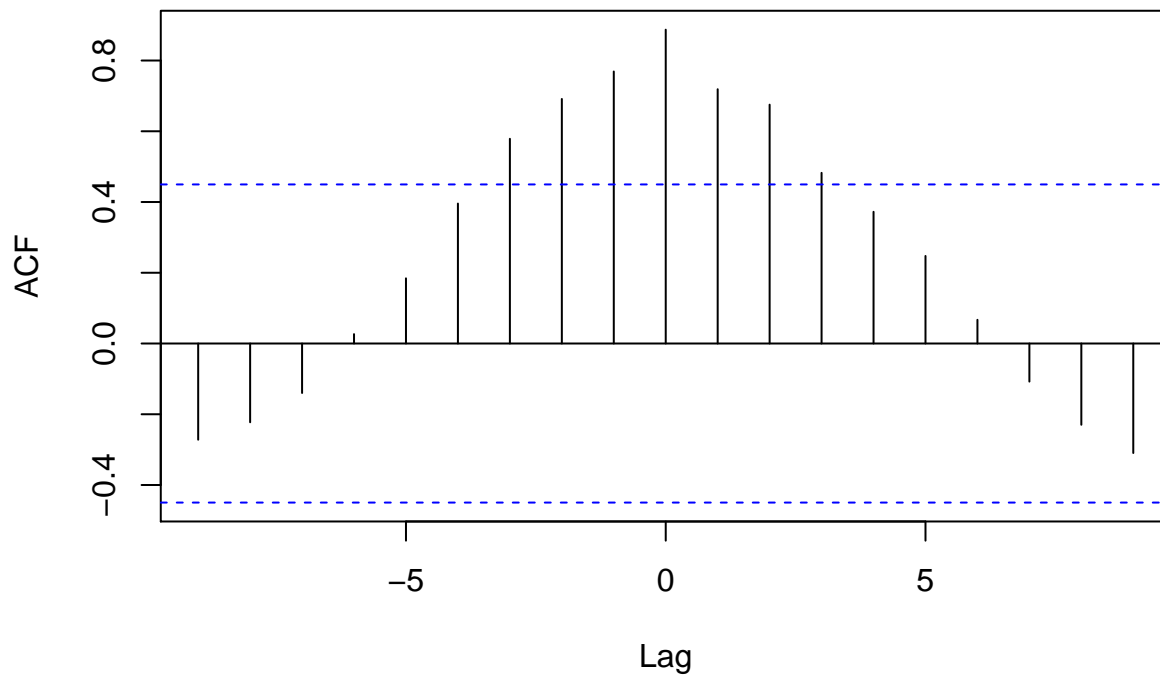
1 wk ahead – 55



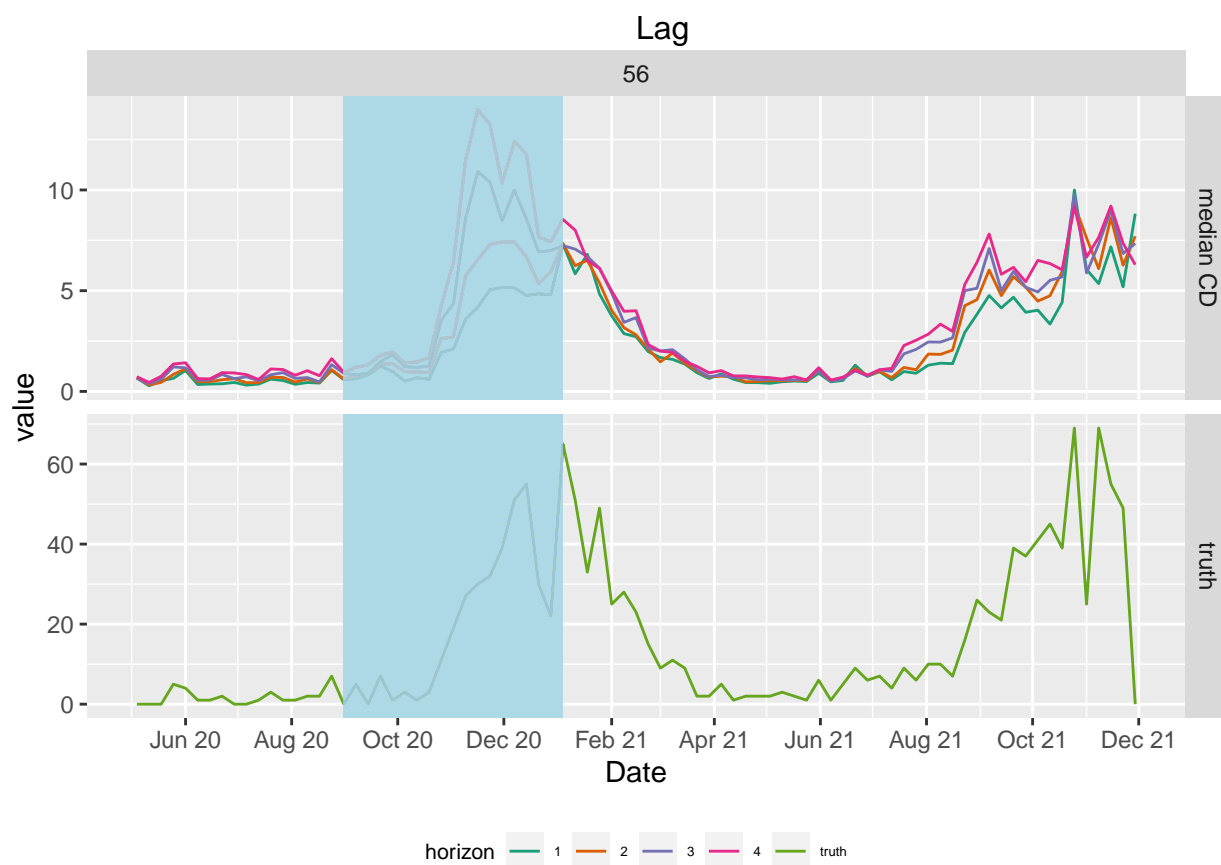
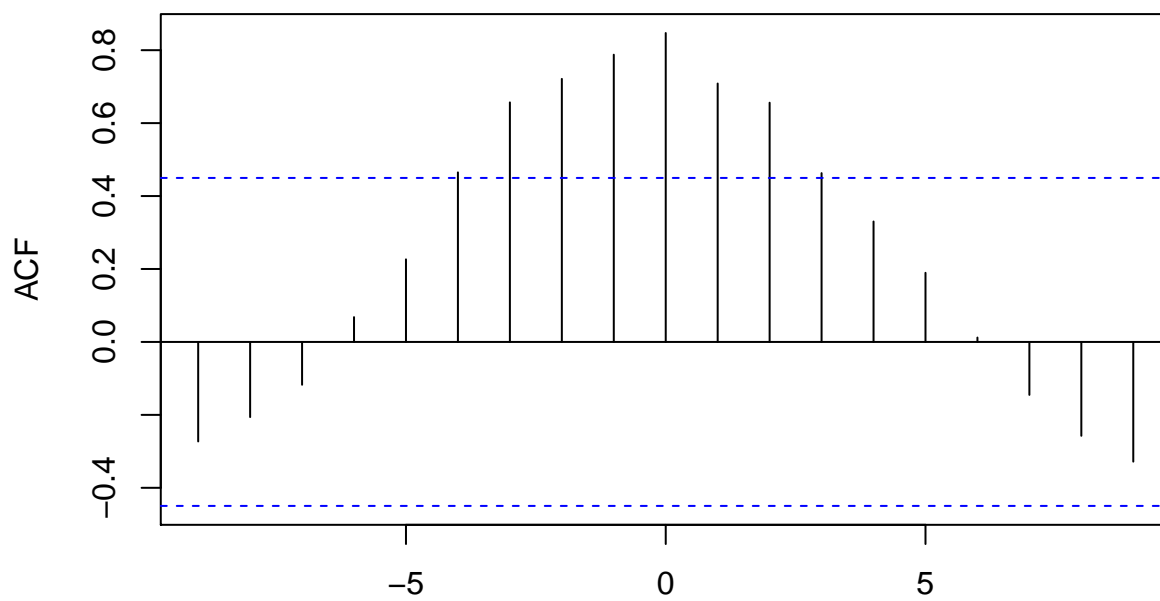
2 wk ahead – 55



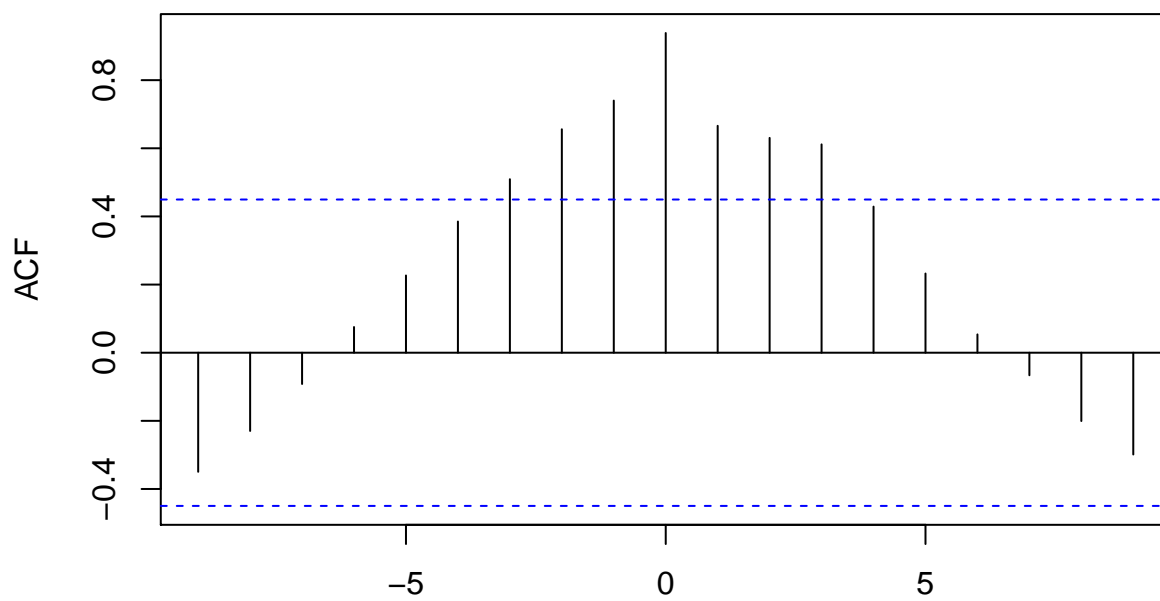
3 wk ahead – 55



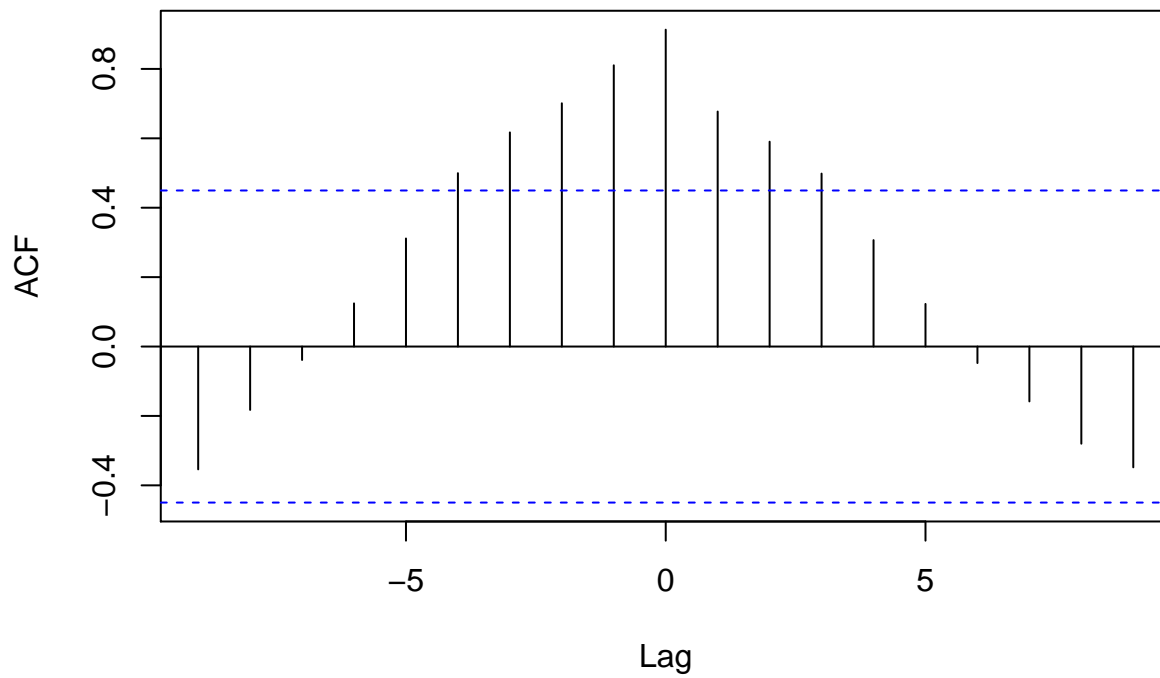
4 wk ahead – 55



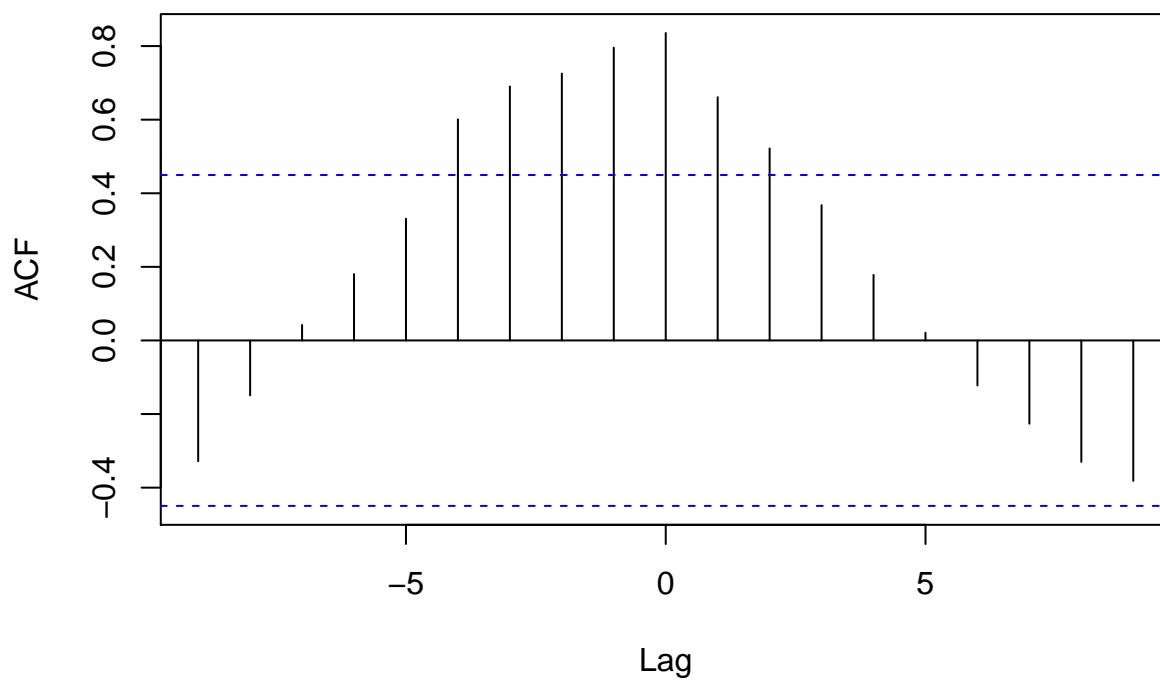
1 wk ahead – 56



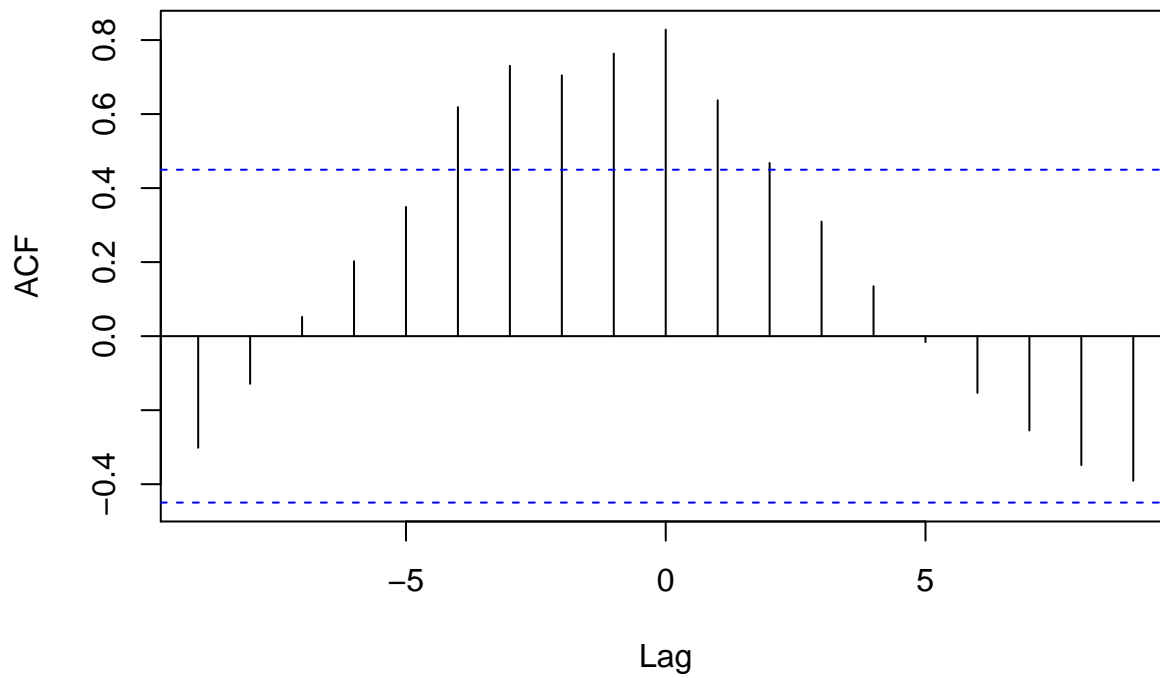
2 wk ahead – 56



3 wk ahead – 56

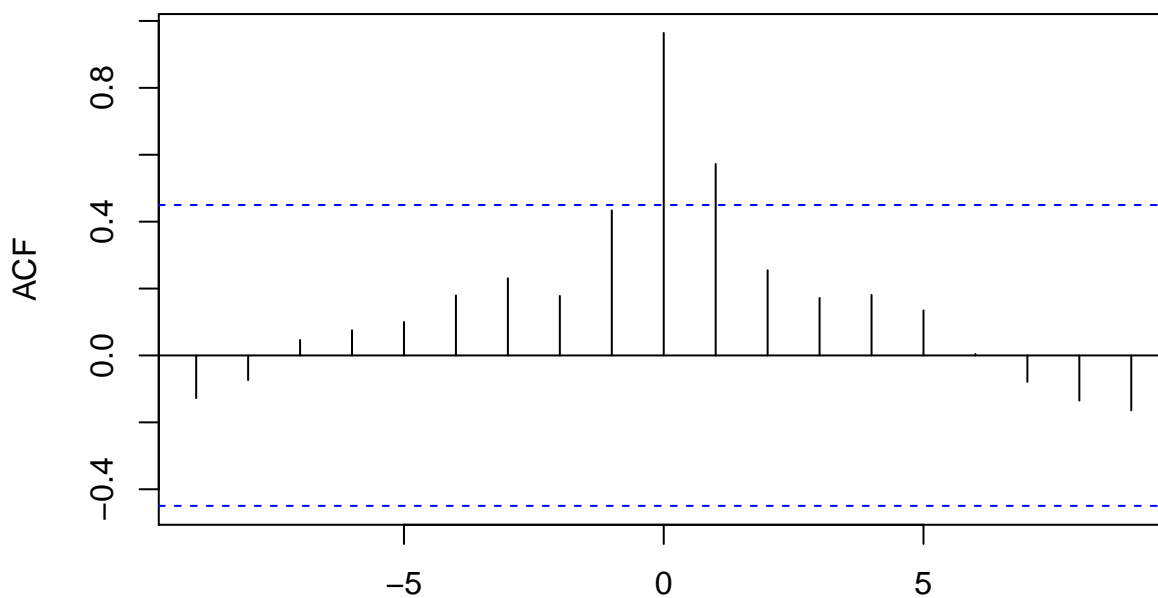


4 wk ahead – 56

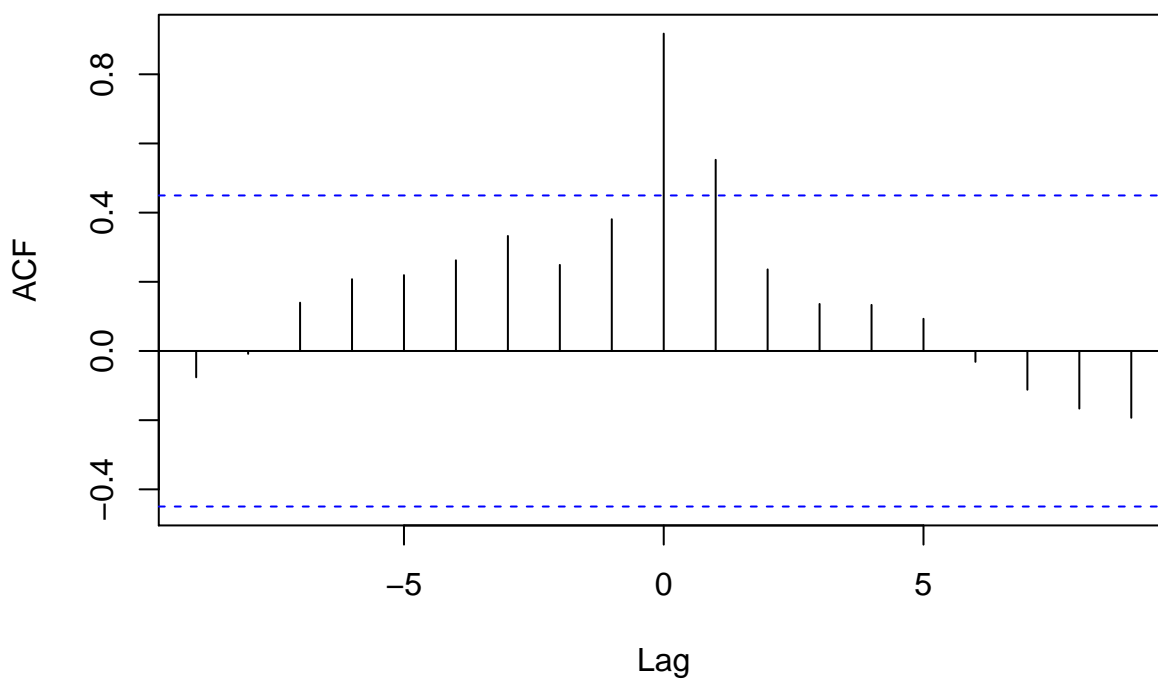


Plots of inc deaths, median CDs, smoothed inc deaths, smoothed median CDs, and CCF - date 2

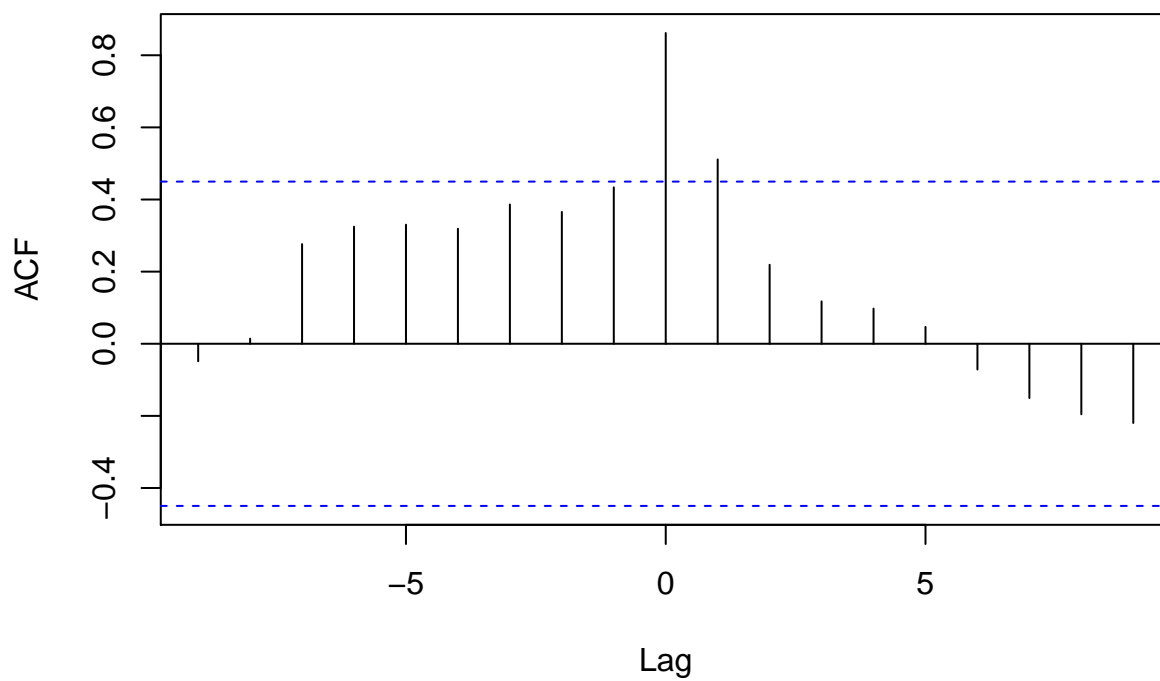
1 wk ahead - 01



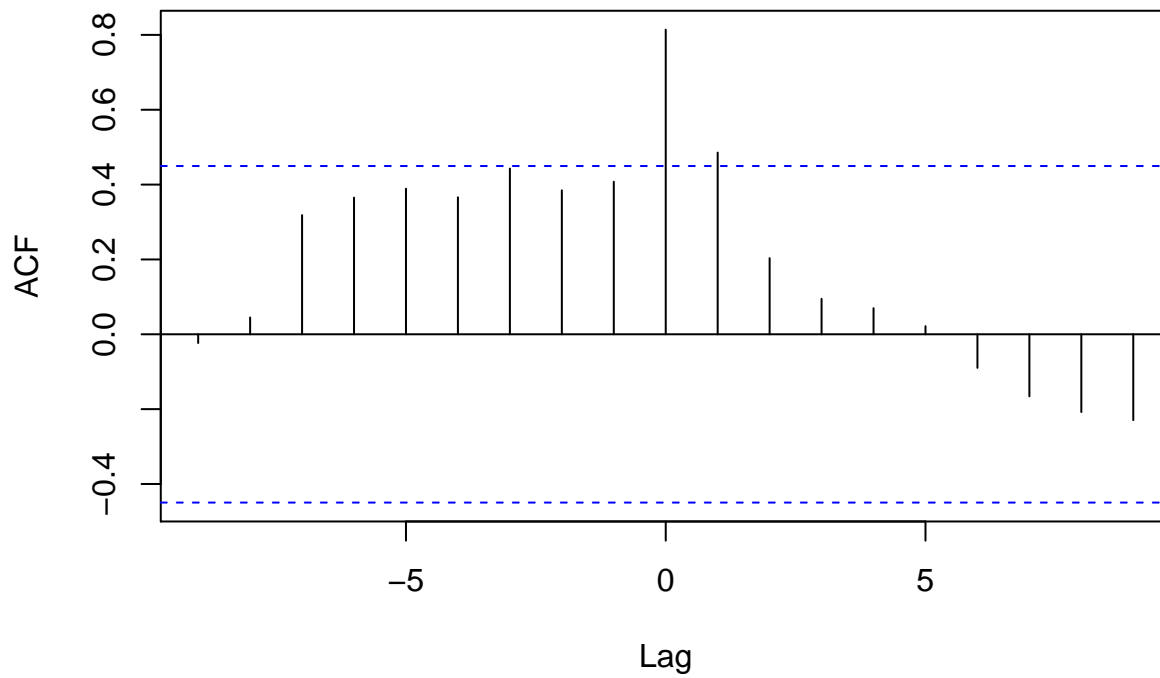
2 wk ahead - 01



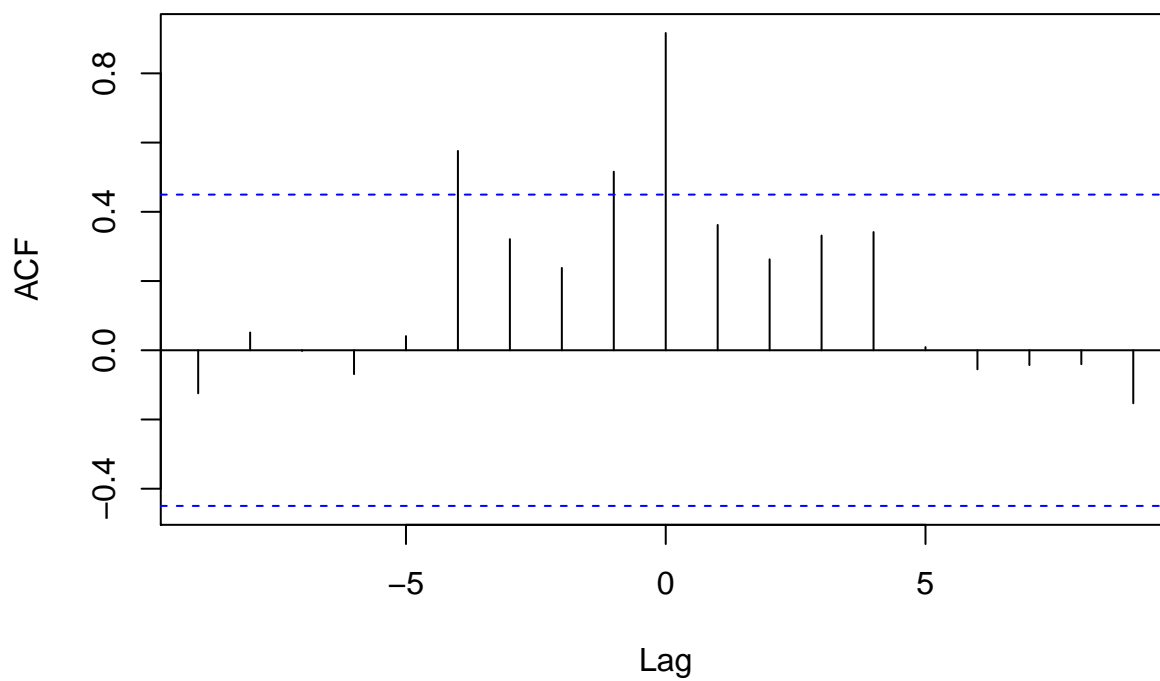
3 wk ahead – 01



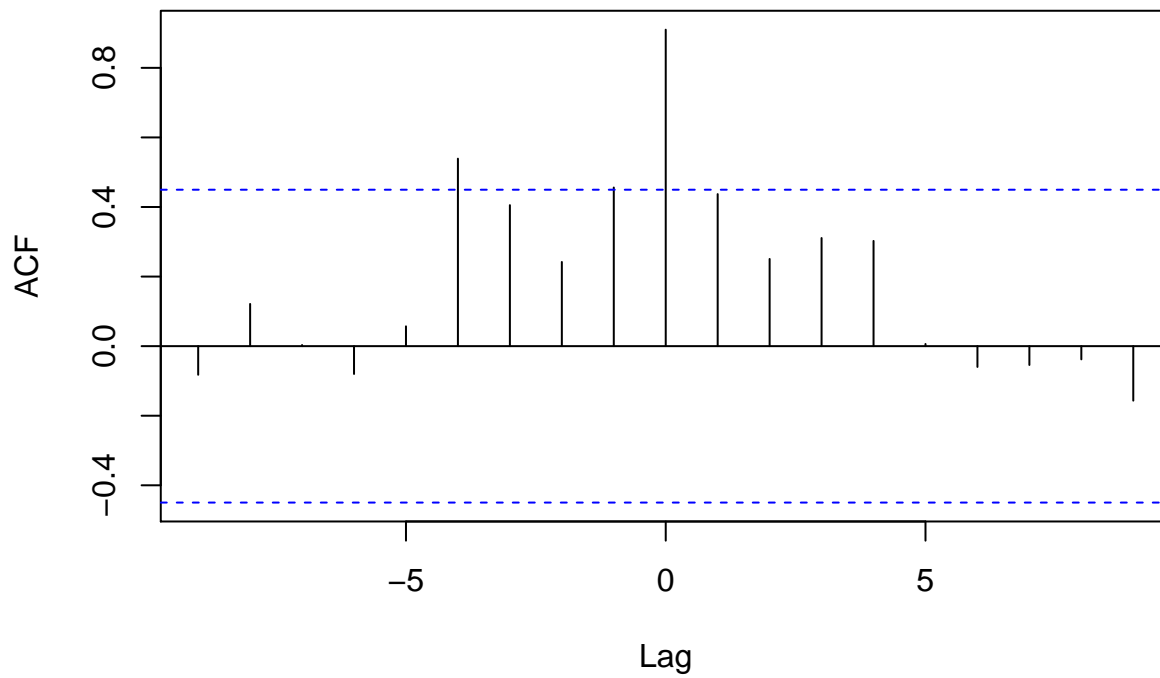
4 wk ahead – 01



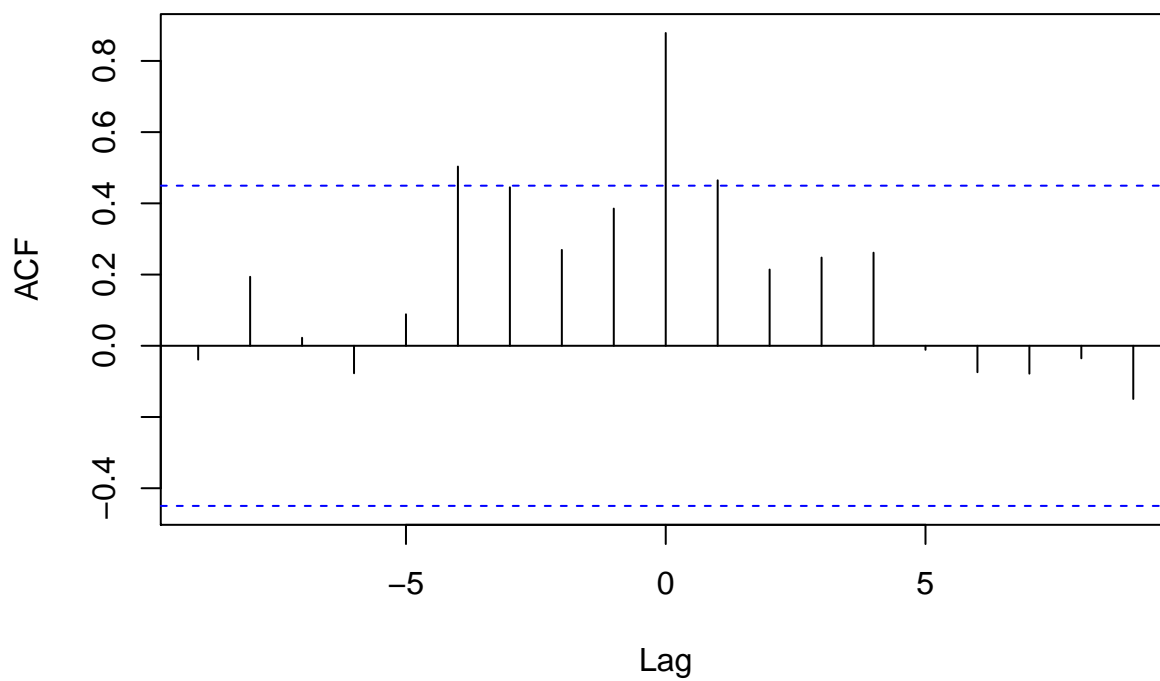
1 wk ahead – 02



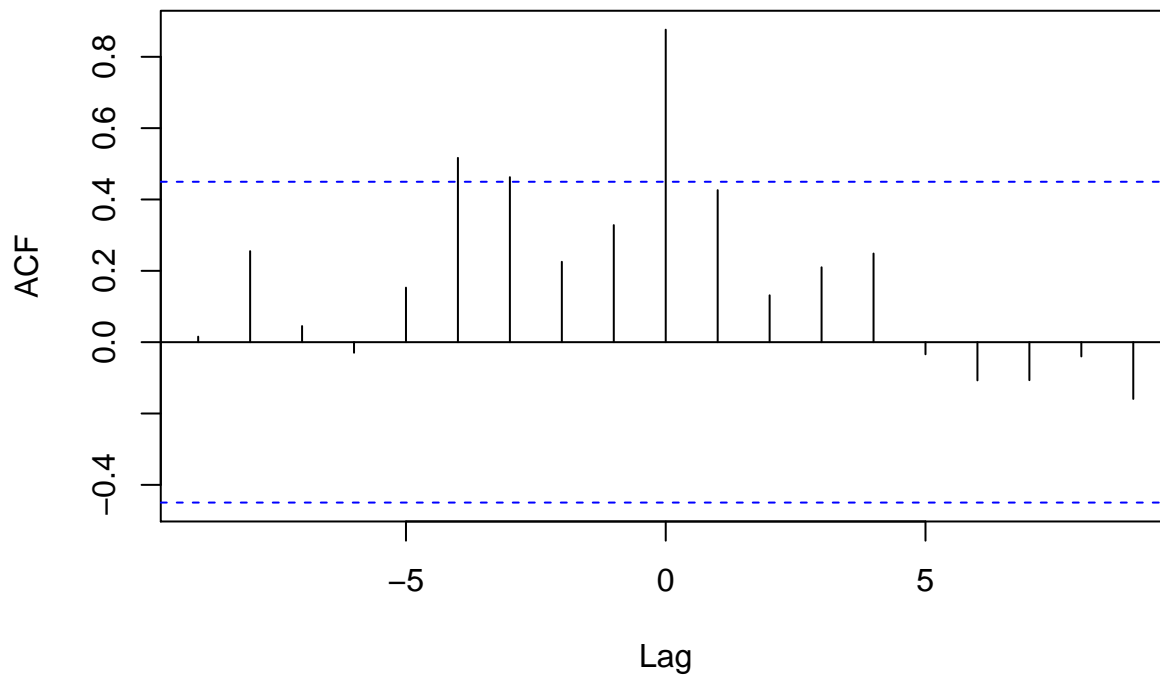
2 wk ahead – 02



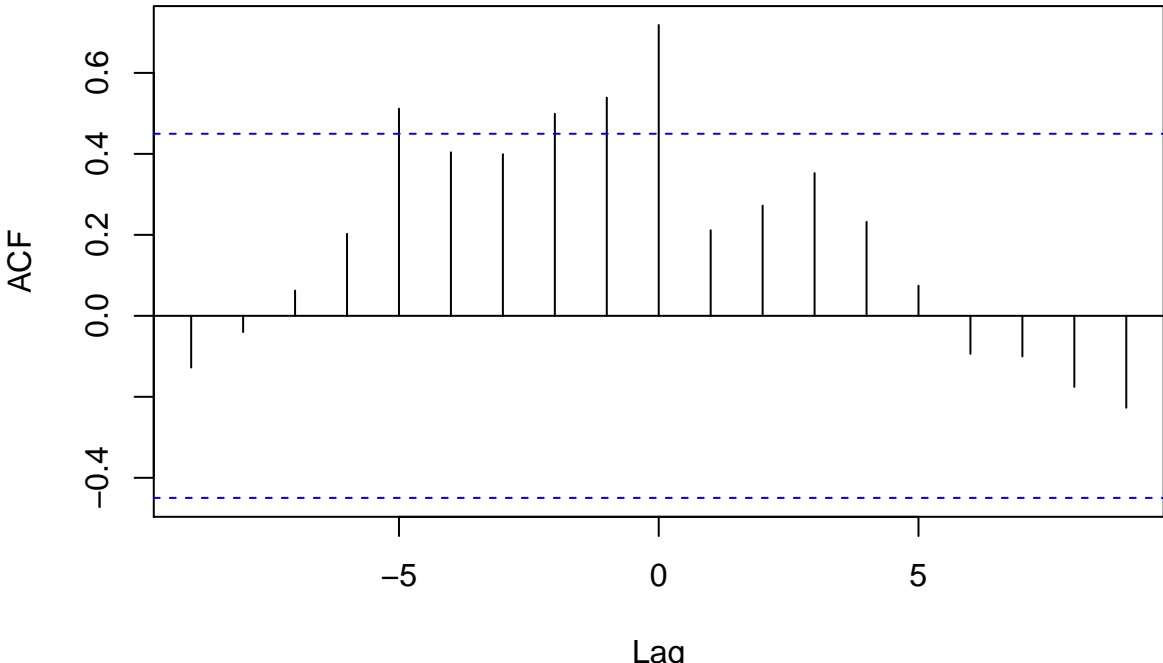
3 wk ahead – 02



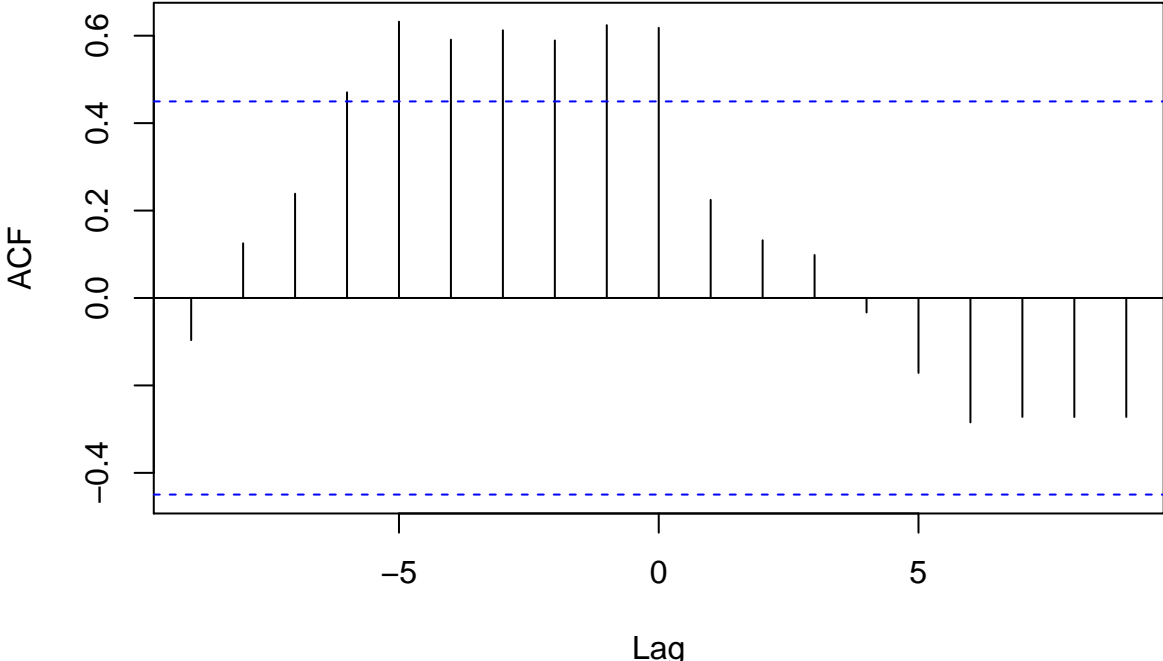
4 wk ahead – 02



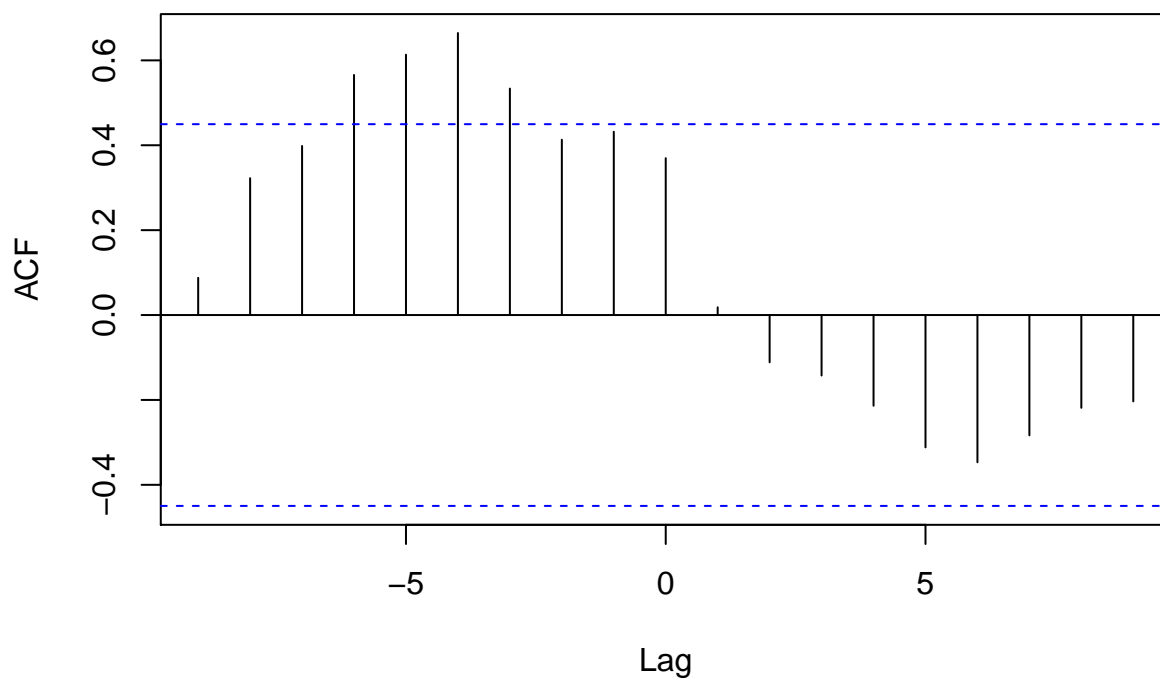
1 wk ahead – 04



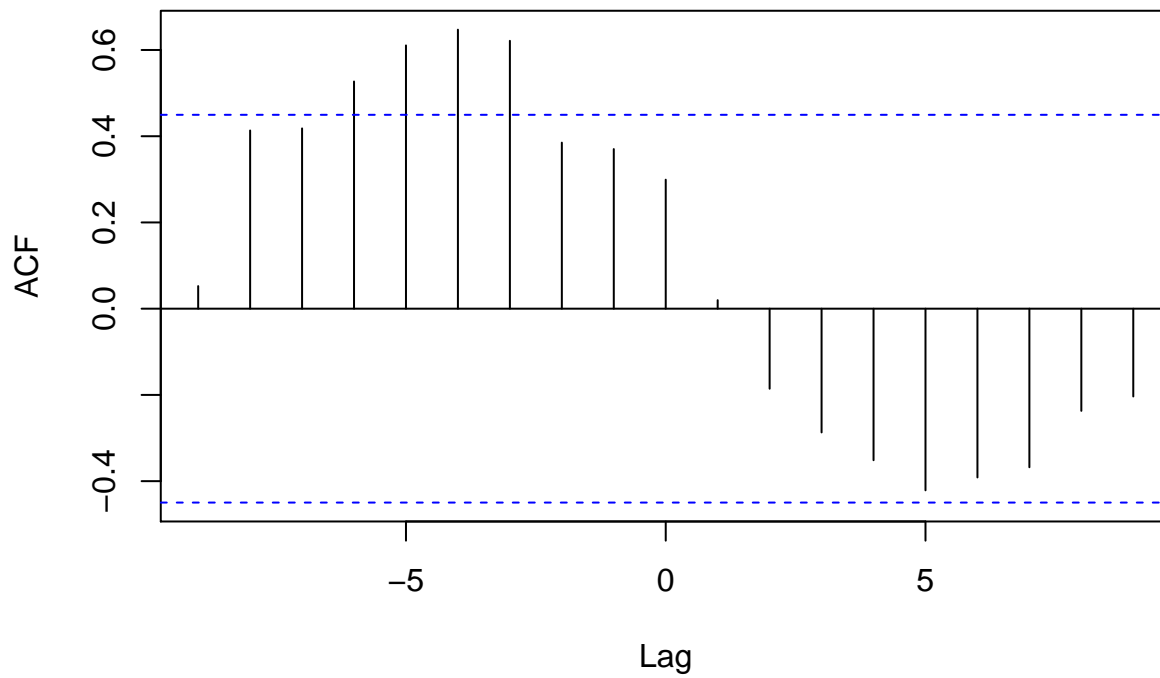
2 wk ahead – 04



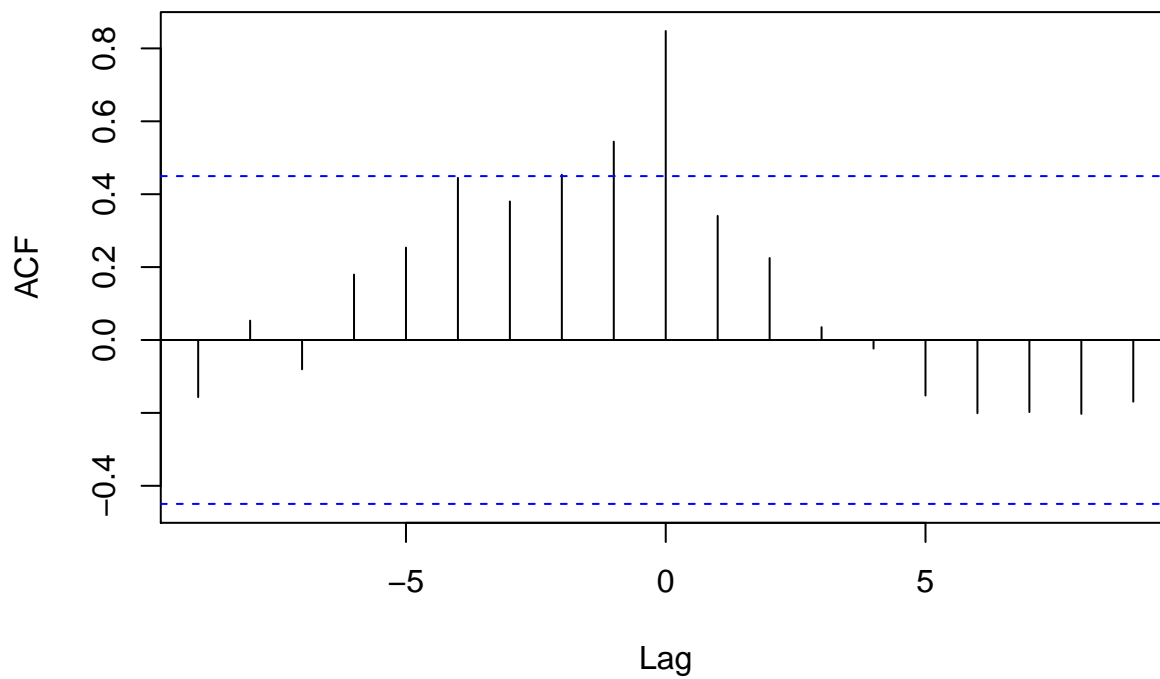
3 wk ahead – 04



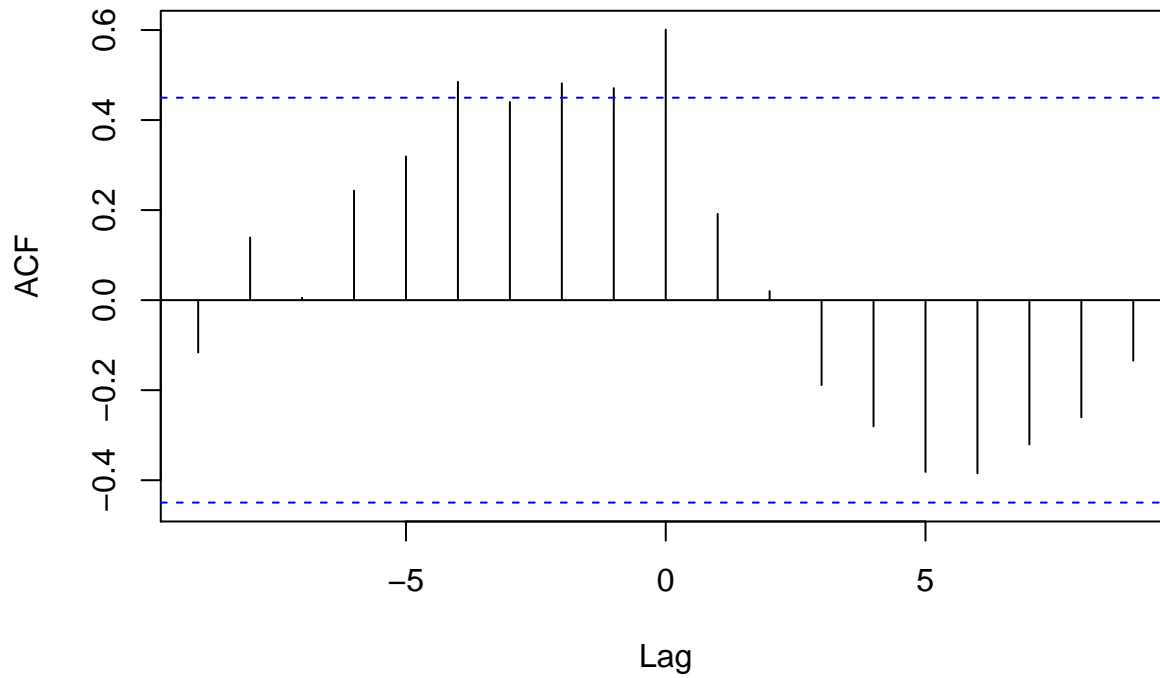
4 wk ahead – 04



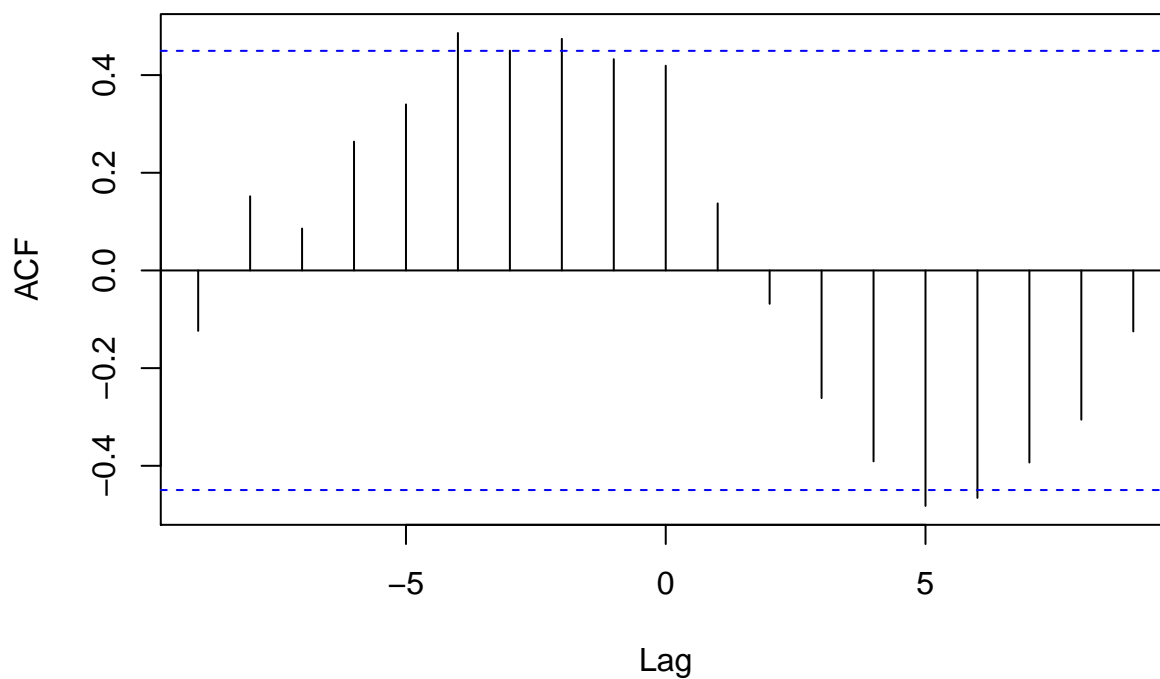
1 wk ahead – 05



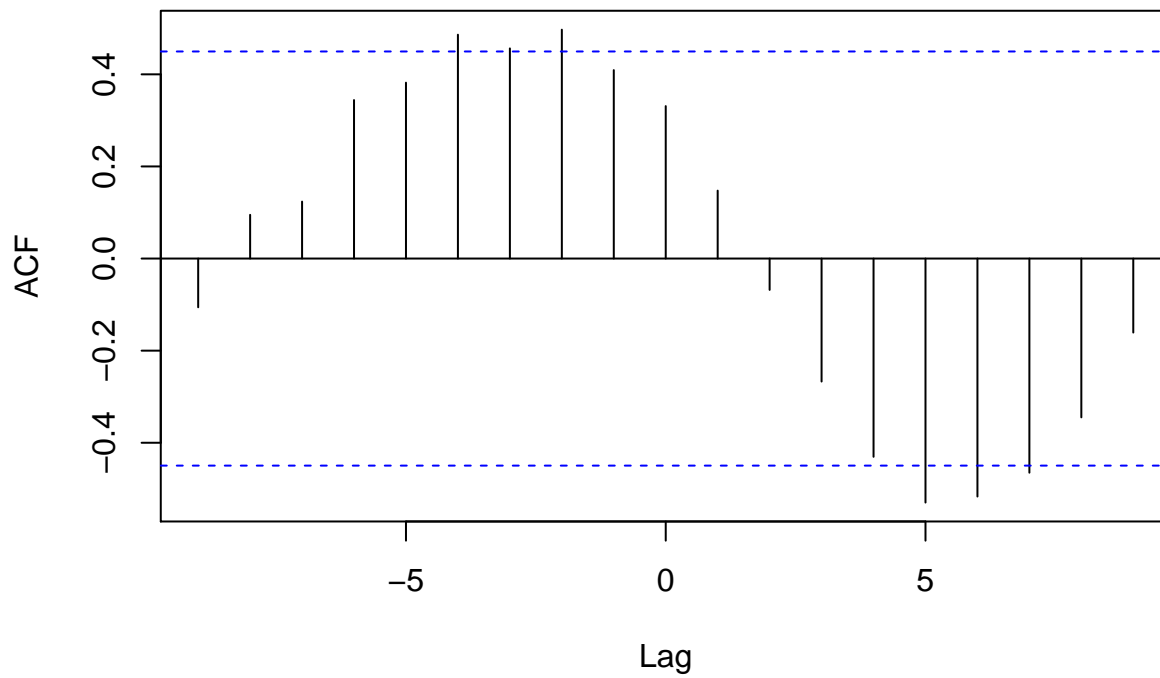
2 wk ahead – 05



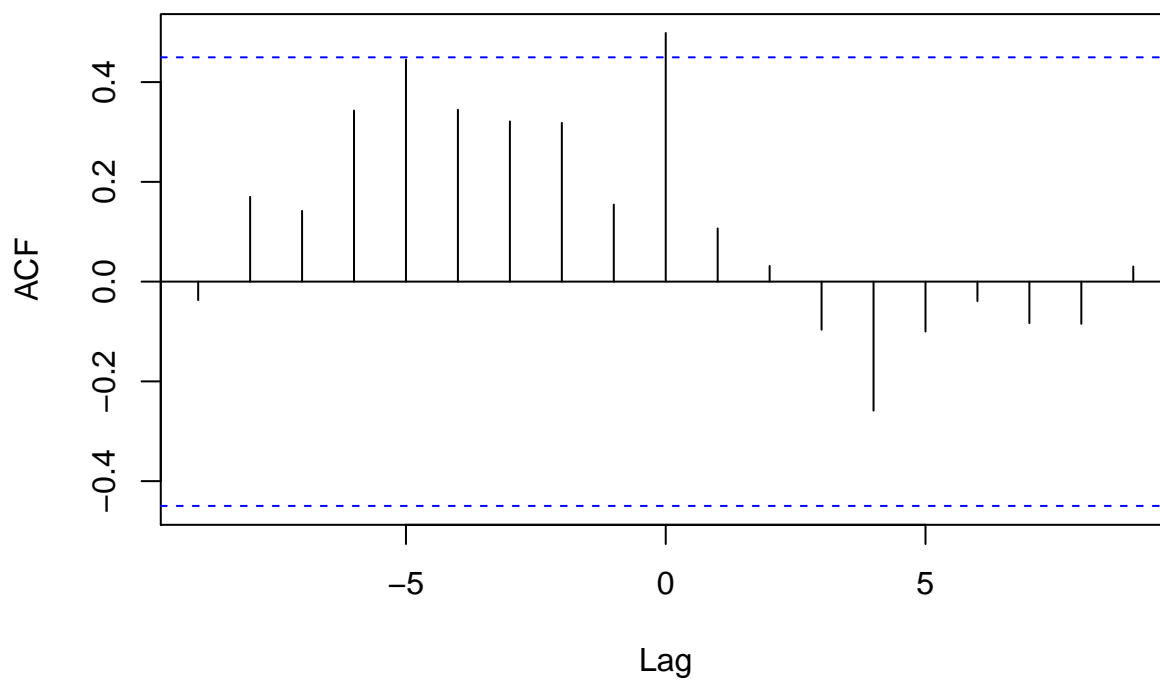
3 wk ahead – 05



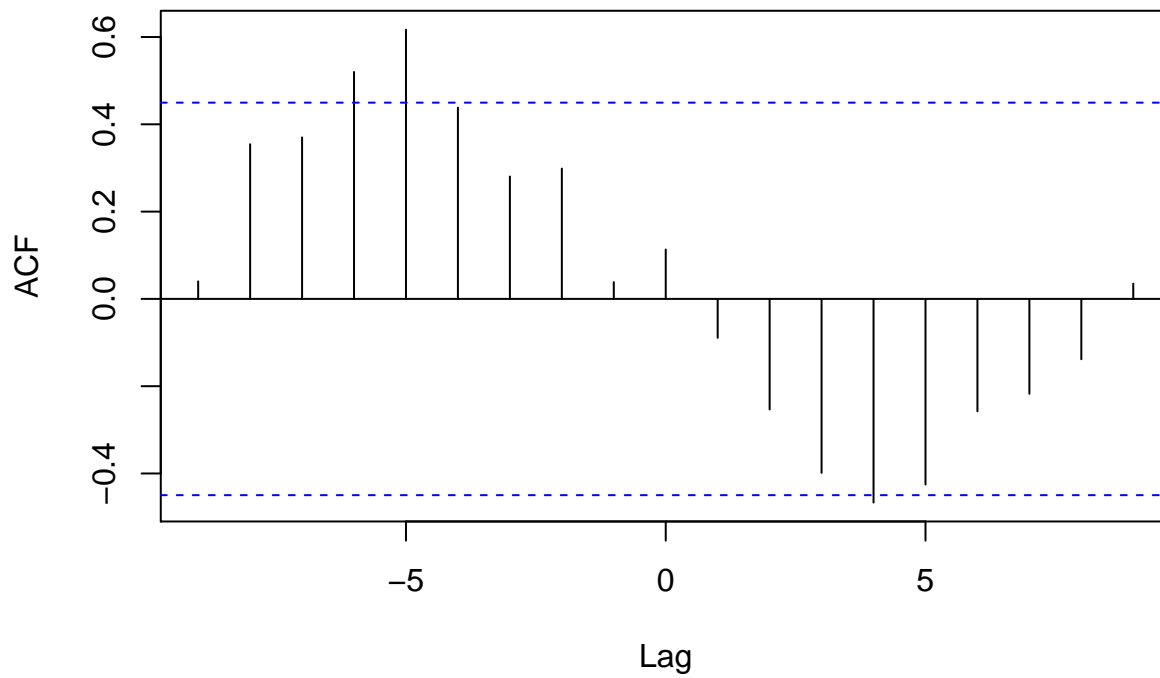
4 wk ahead – 05



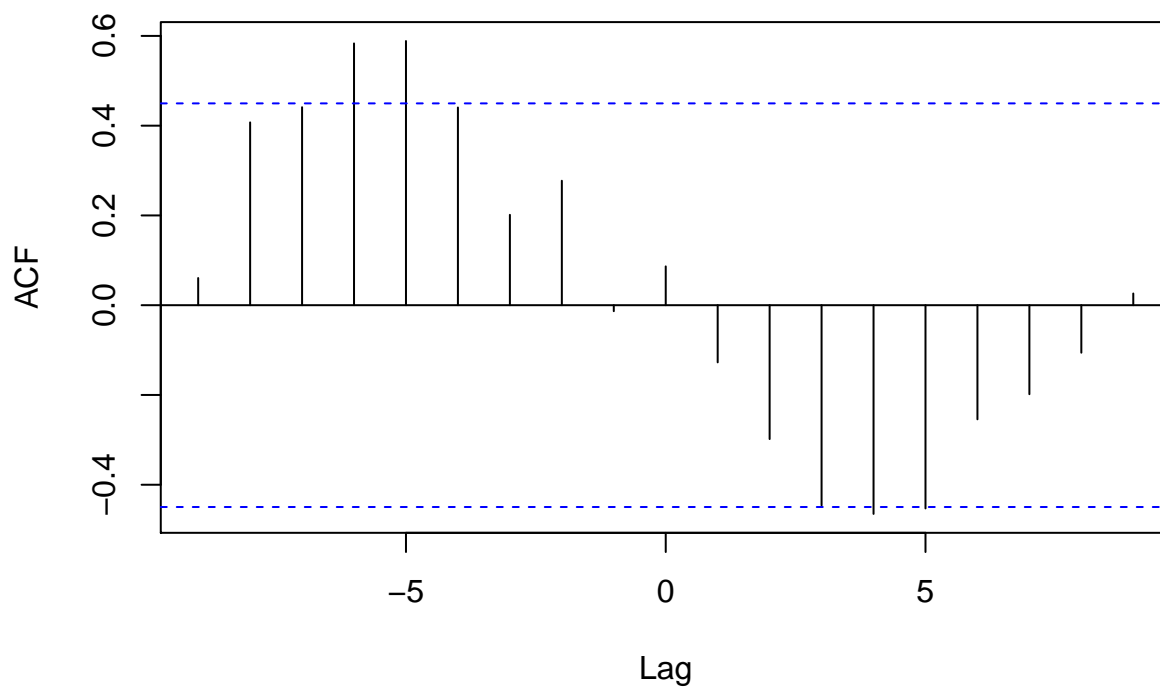
1 wk ahead – 06



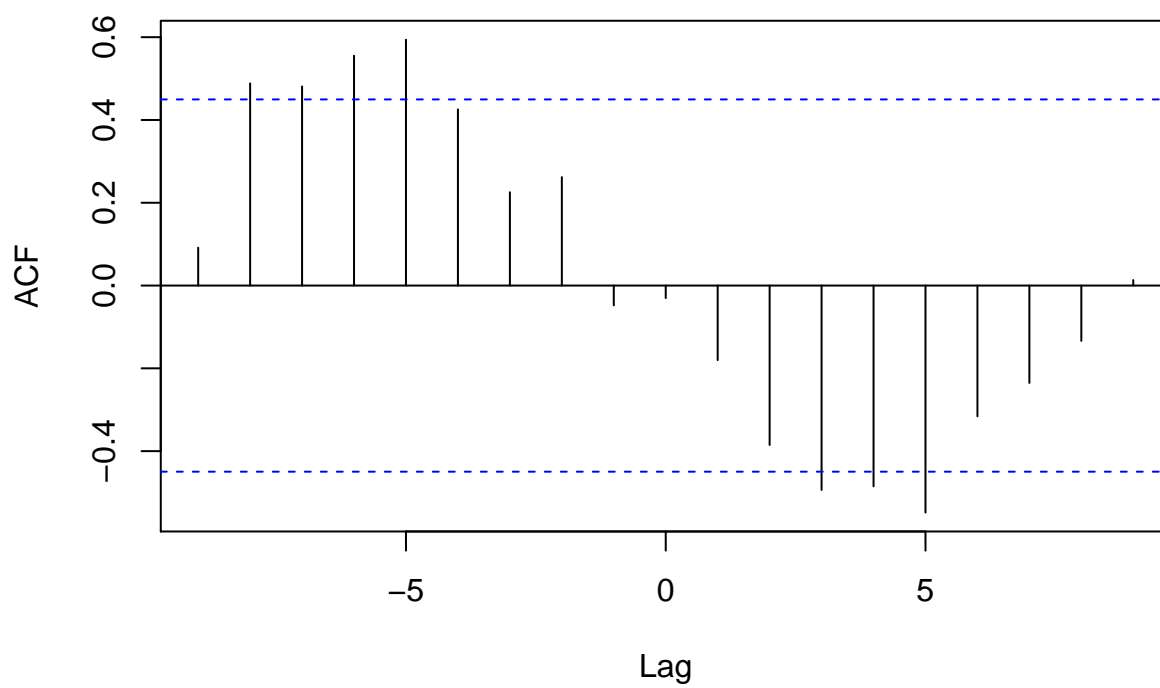
2 wk ahead – 06



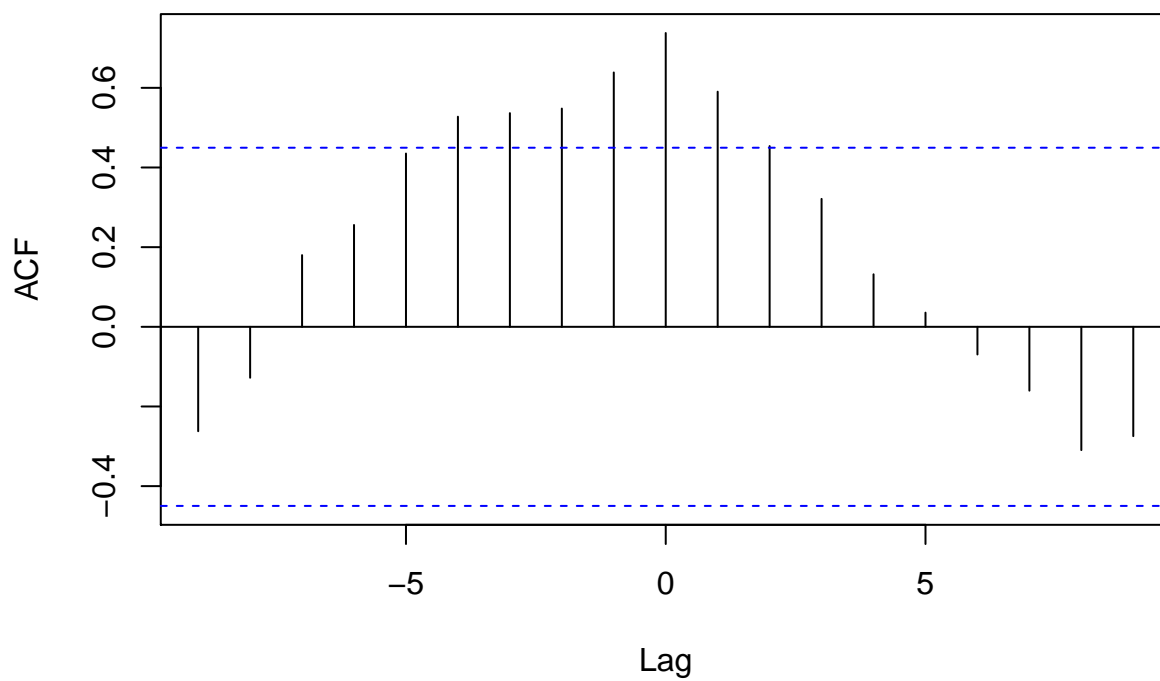
3 wk ahead – 06



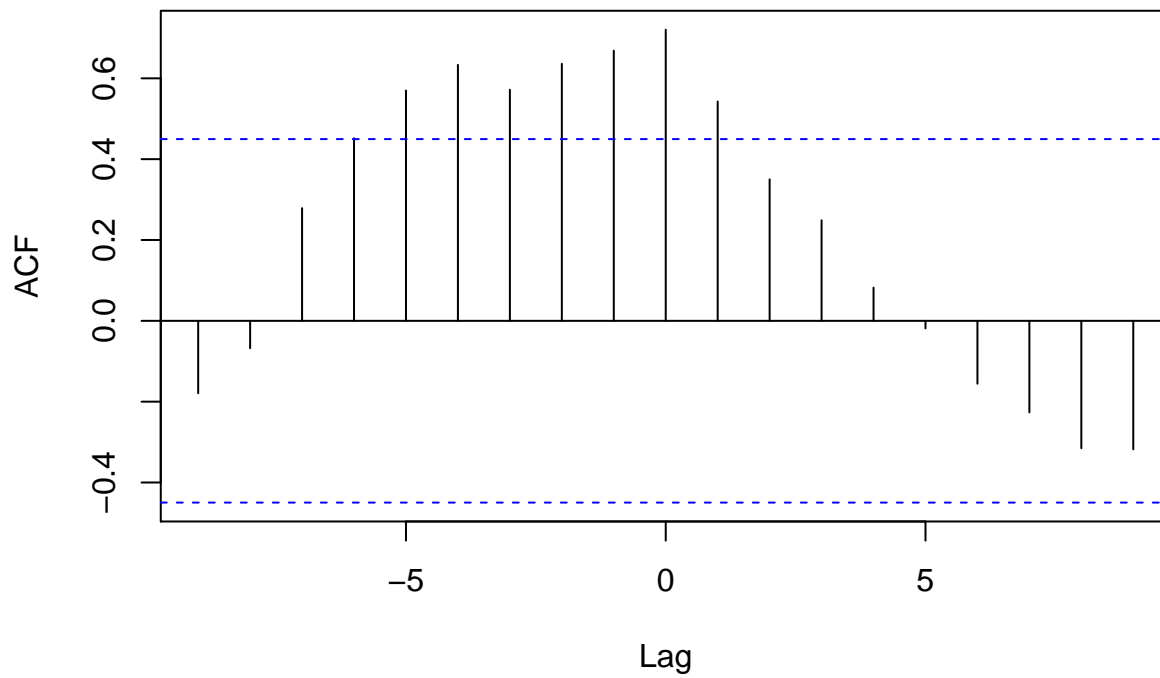
4 wk ahead – 06



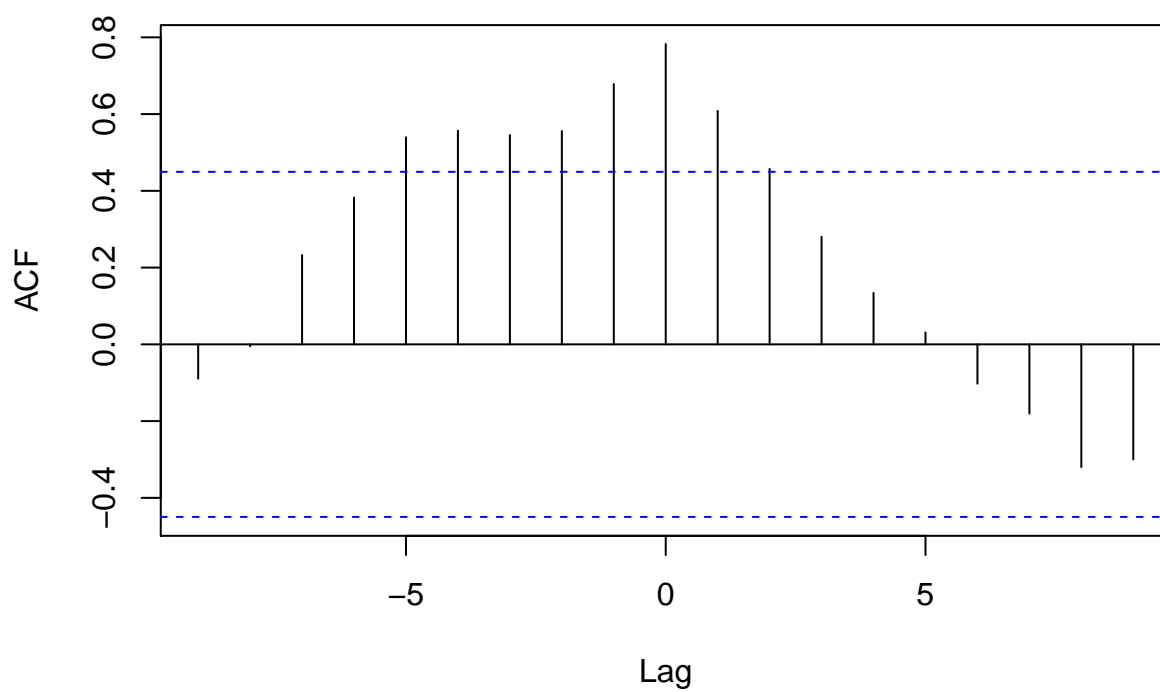
1 wk ahead – 08



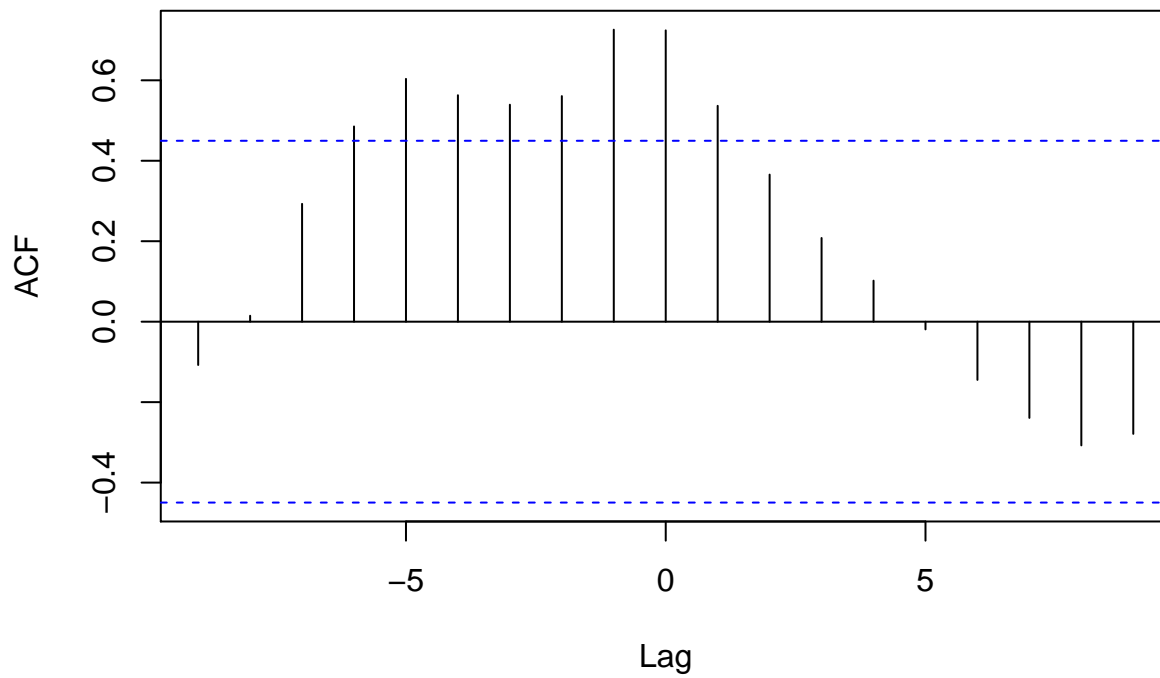
2 wk ahead – 08



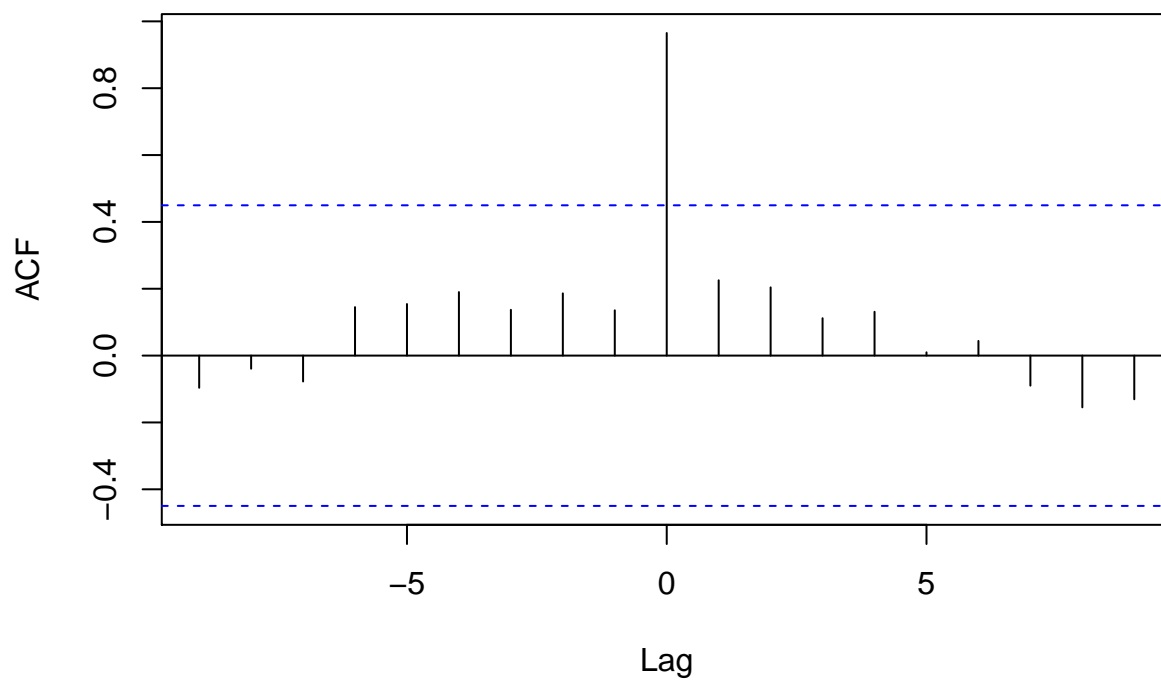
3 wk ahead – 08



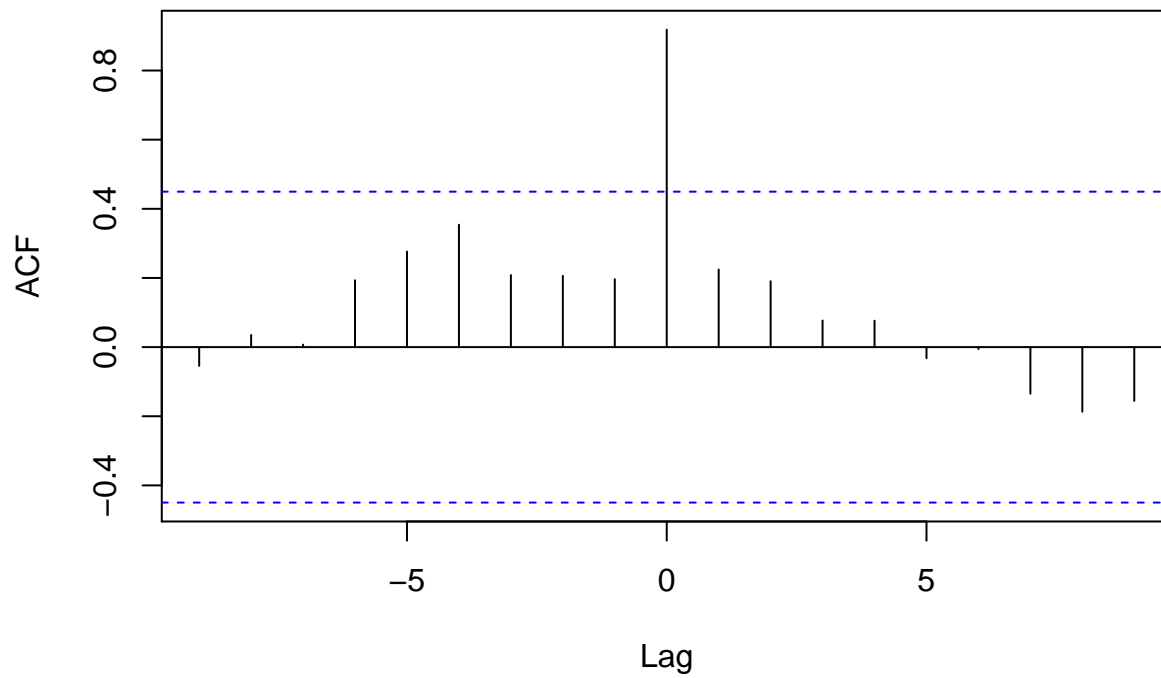
4 wk ahead – 08



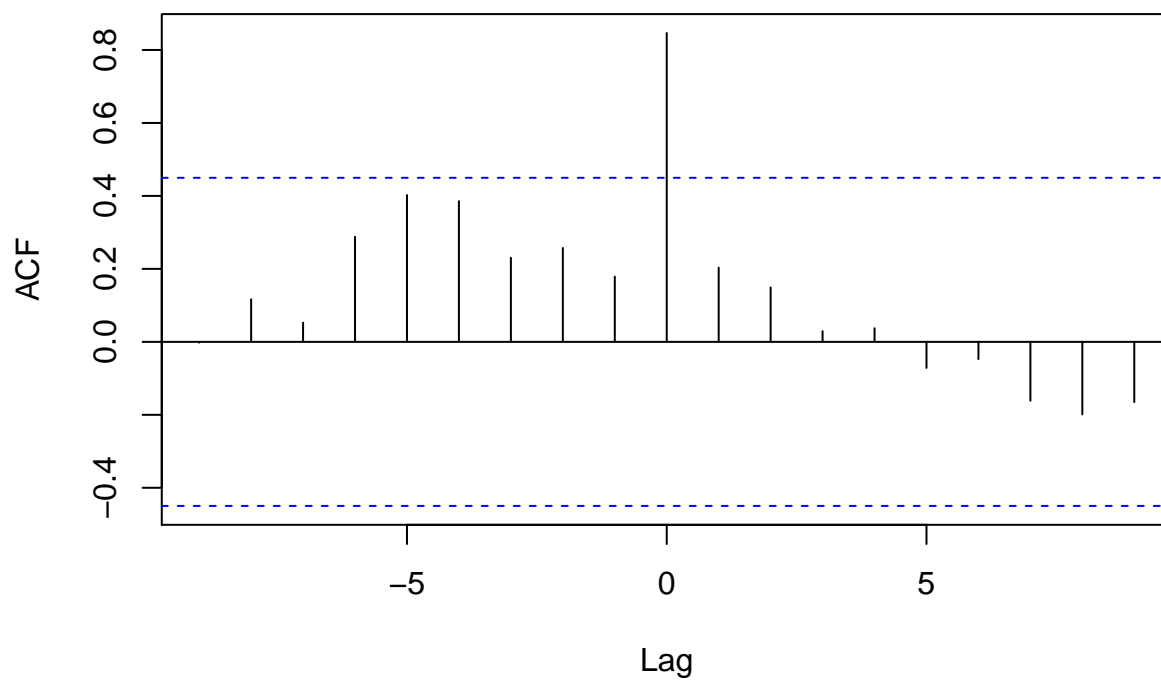
1 wk ahead – 09



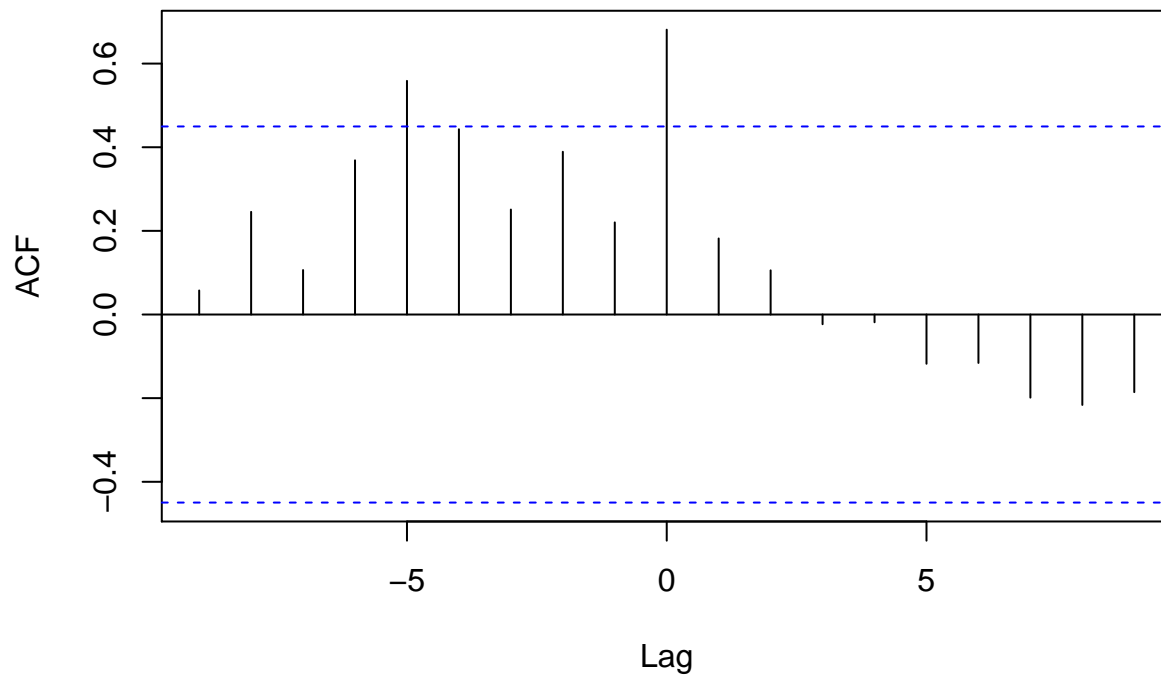
2 wk ahead – 09



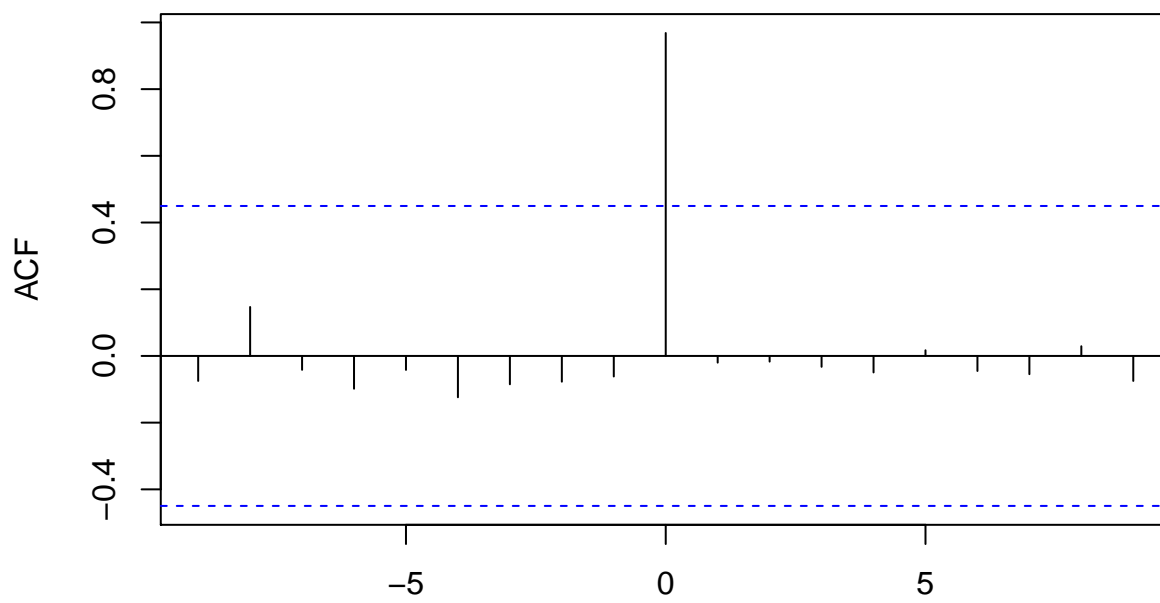
3 wk ahead – 09



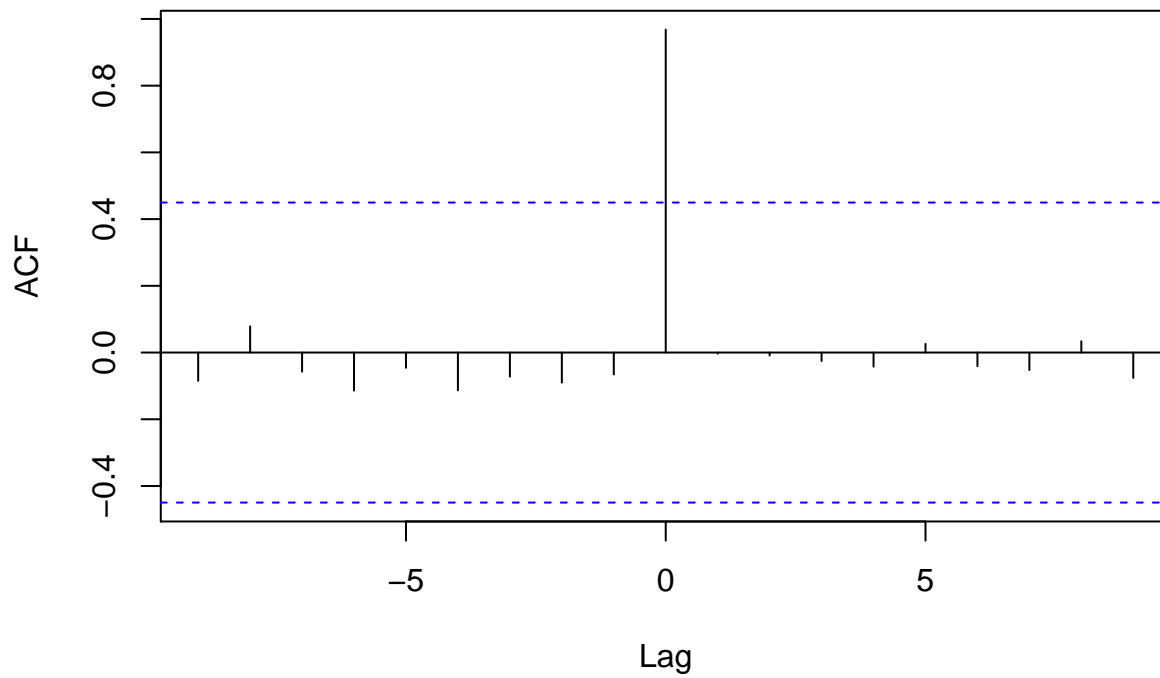
4 wk ahead – 09



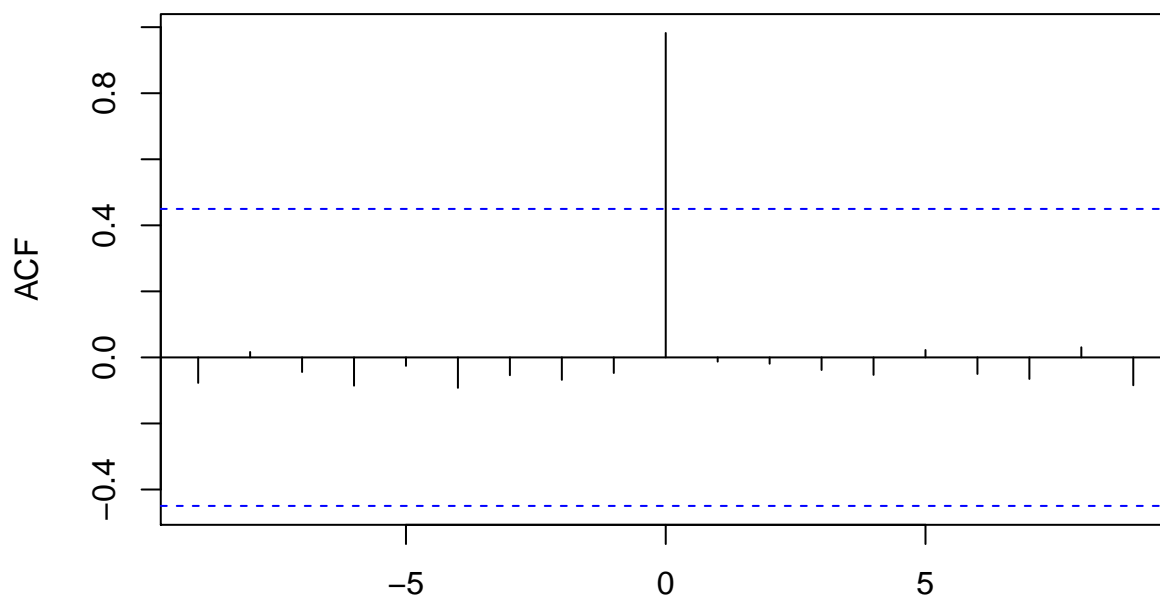
1 wk ahead – 10



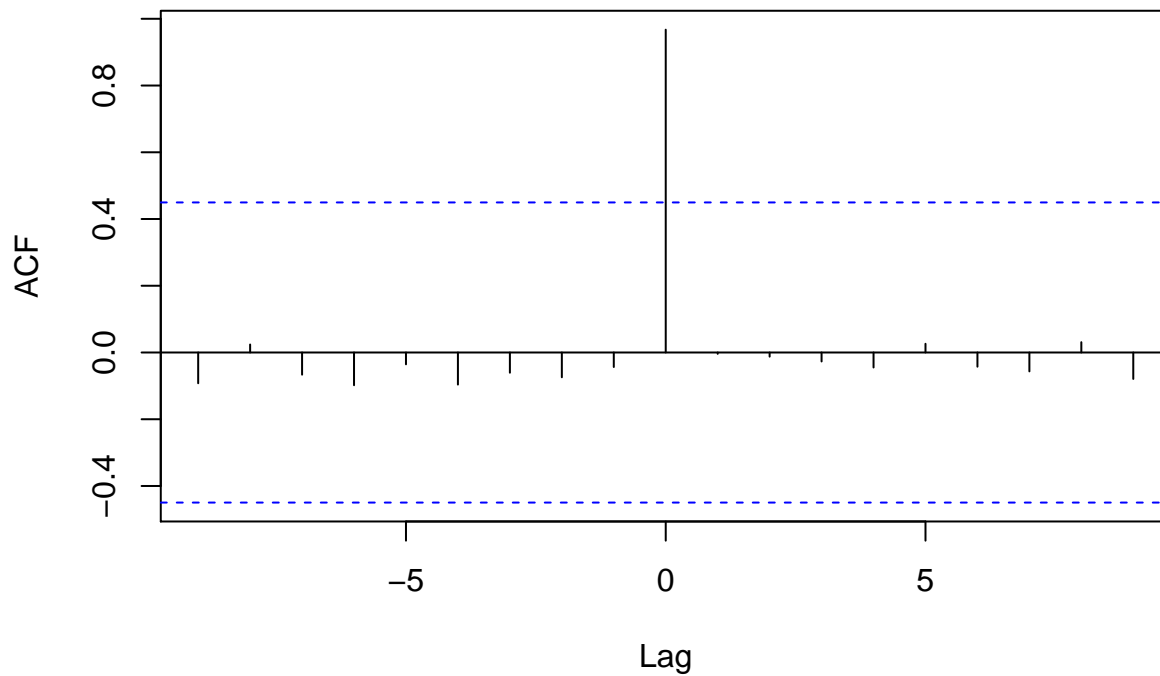
2 wk ahead – 10



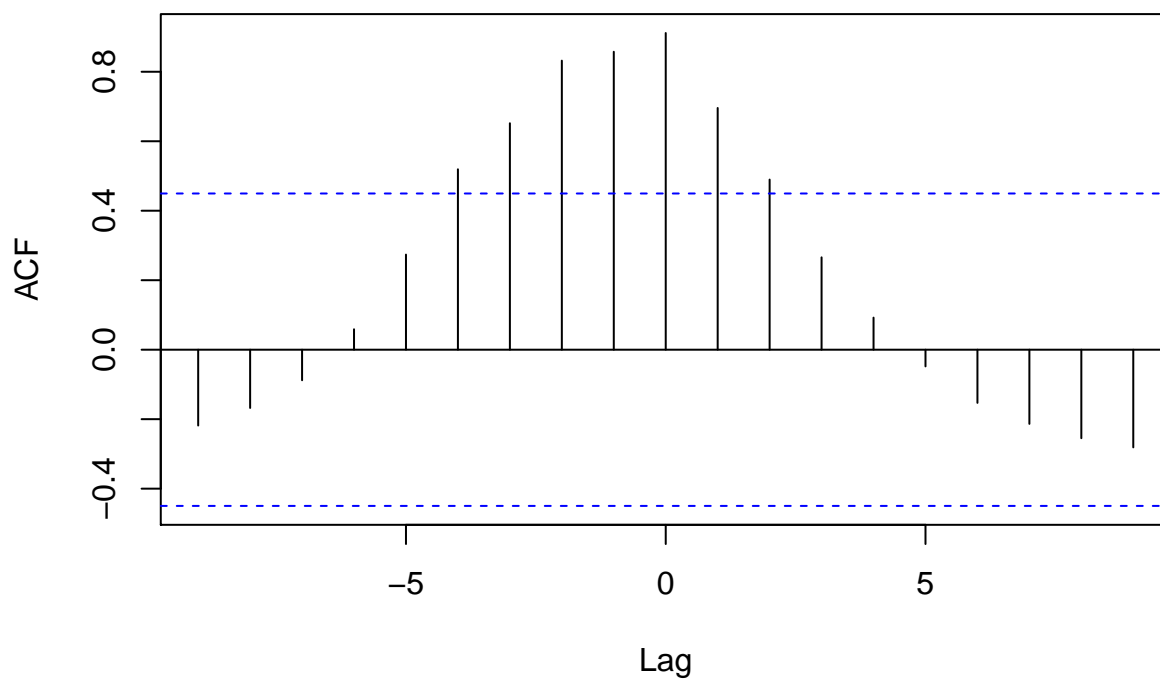
3 wk ahead – 10



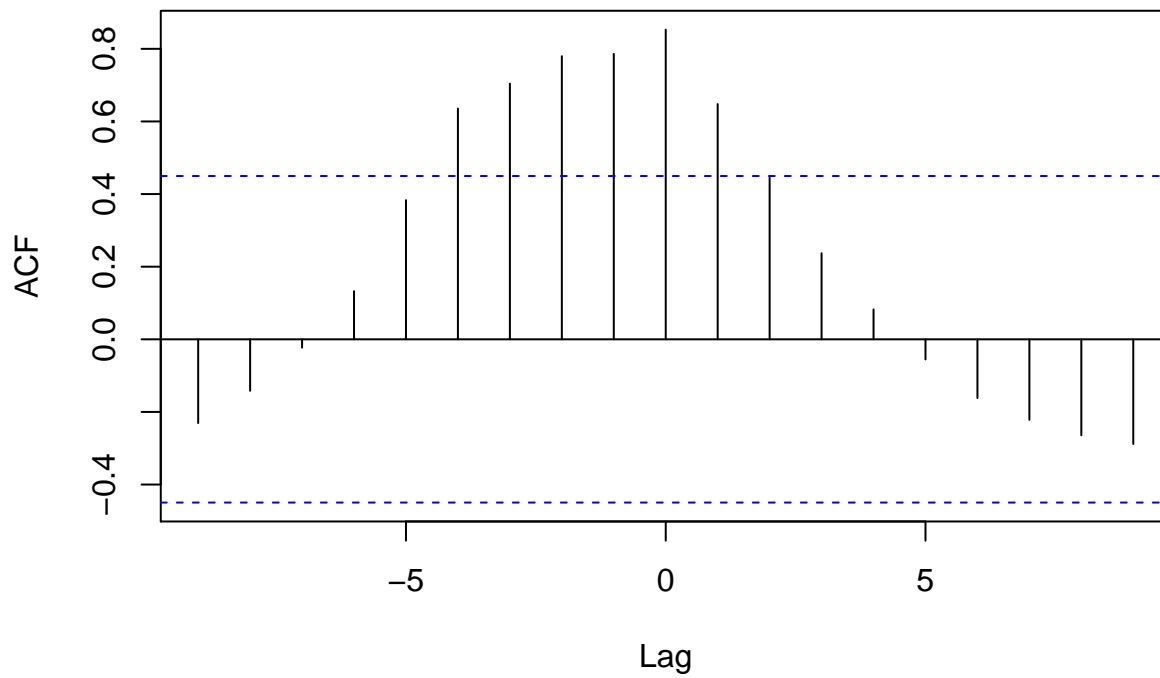
4 wk ahead – 10



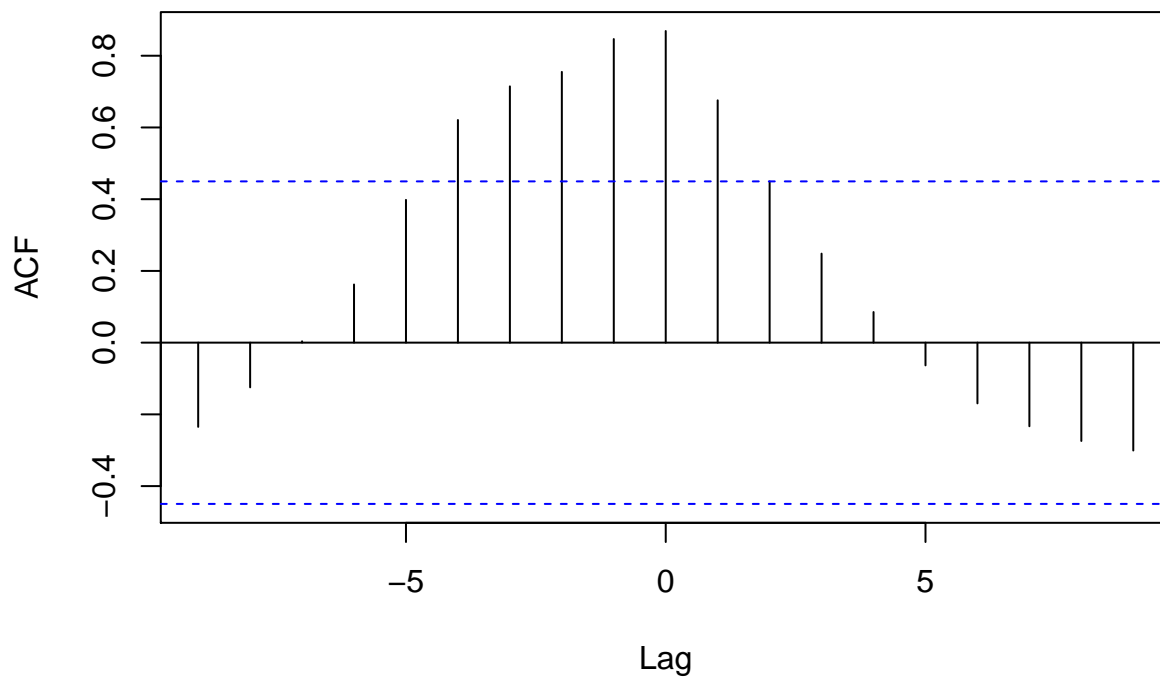
1 wk ahead – 12



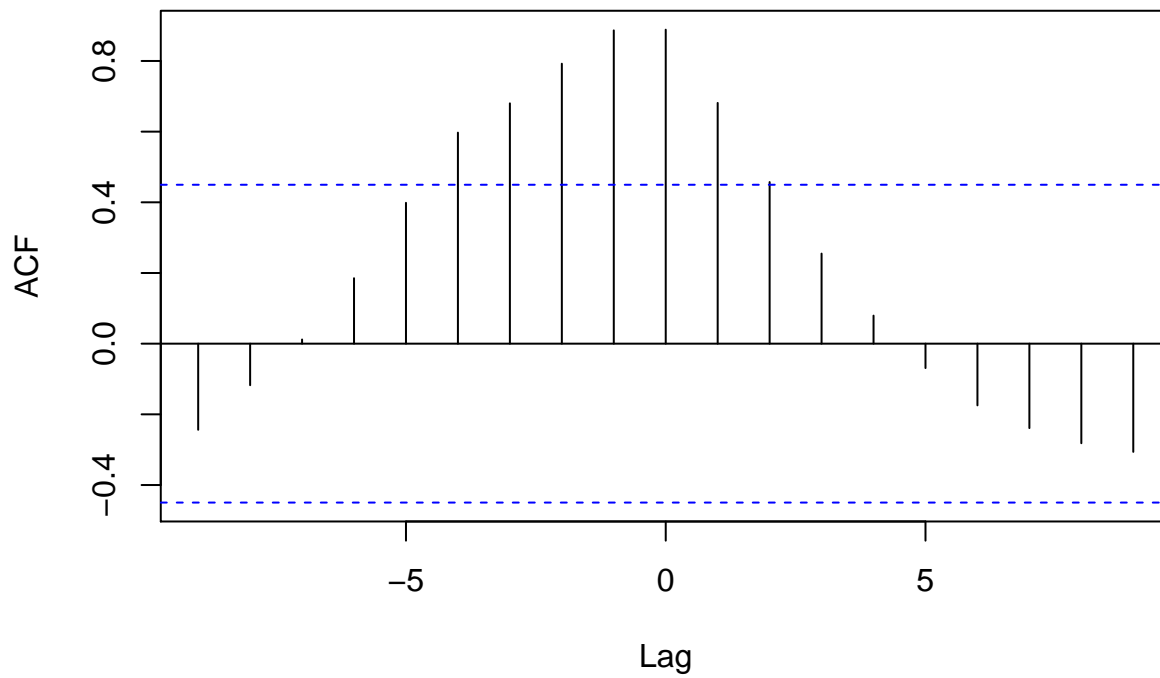
2 wk ahead – 12



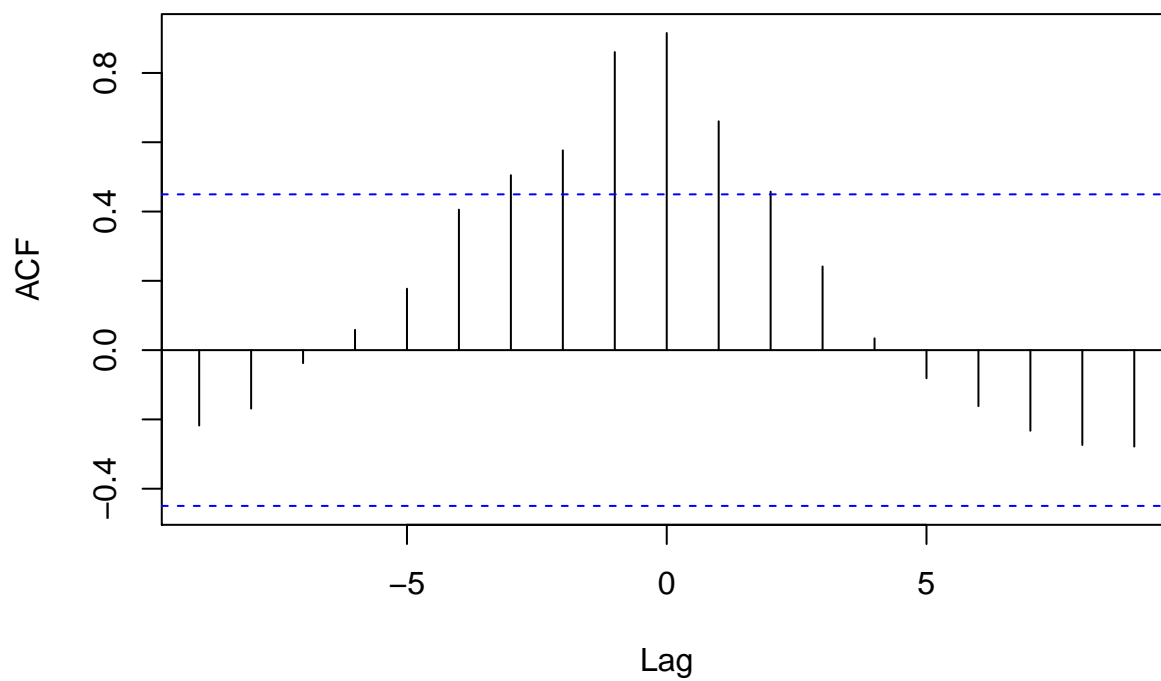
3 wk ahead – 12



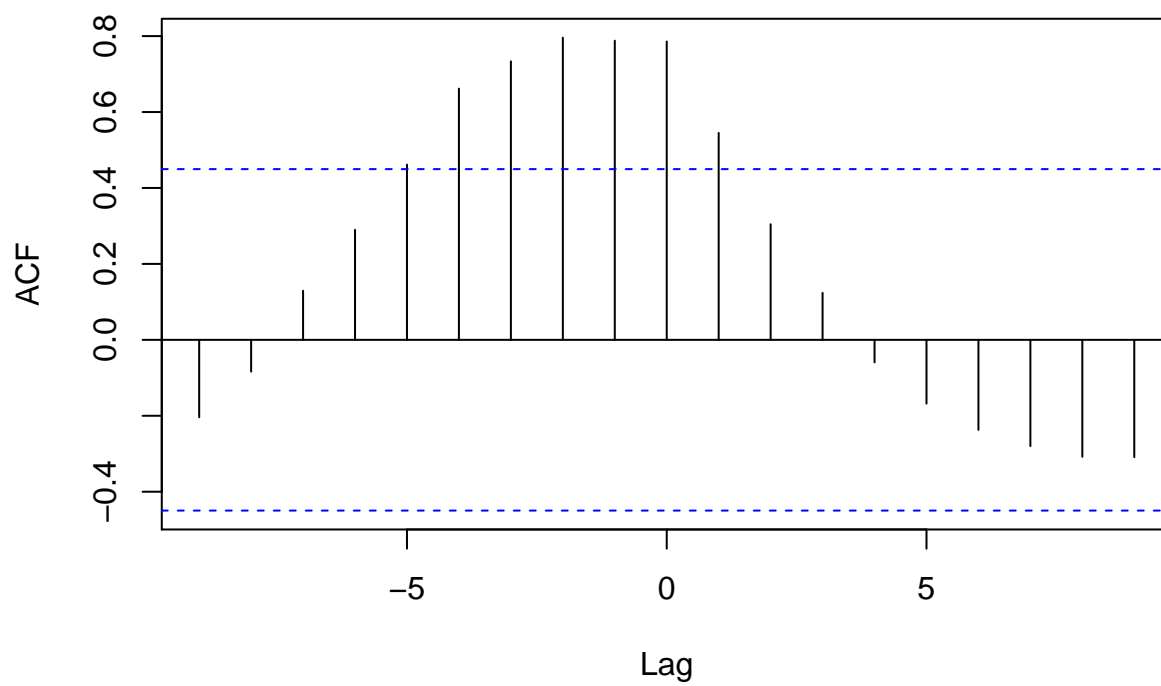
4 wk ahead – 12



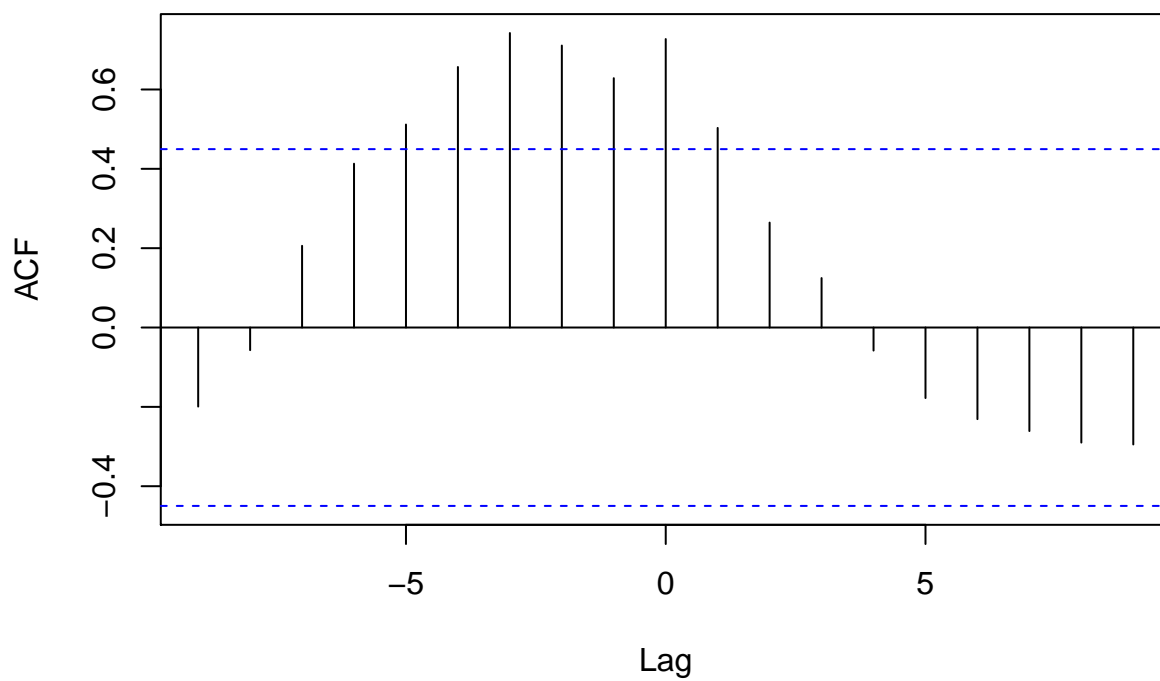
1 wk ahead – 13



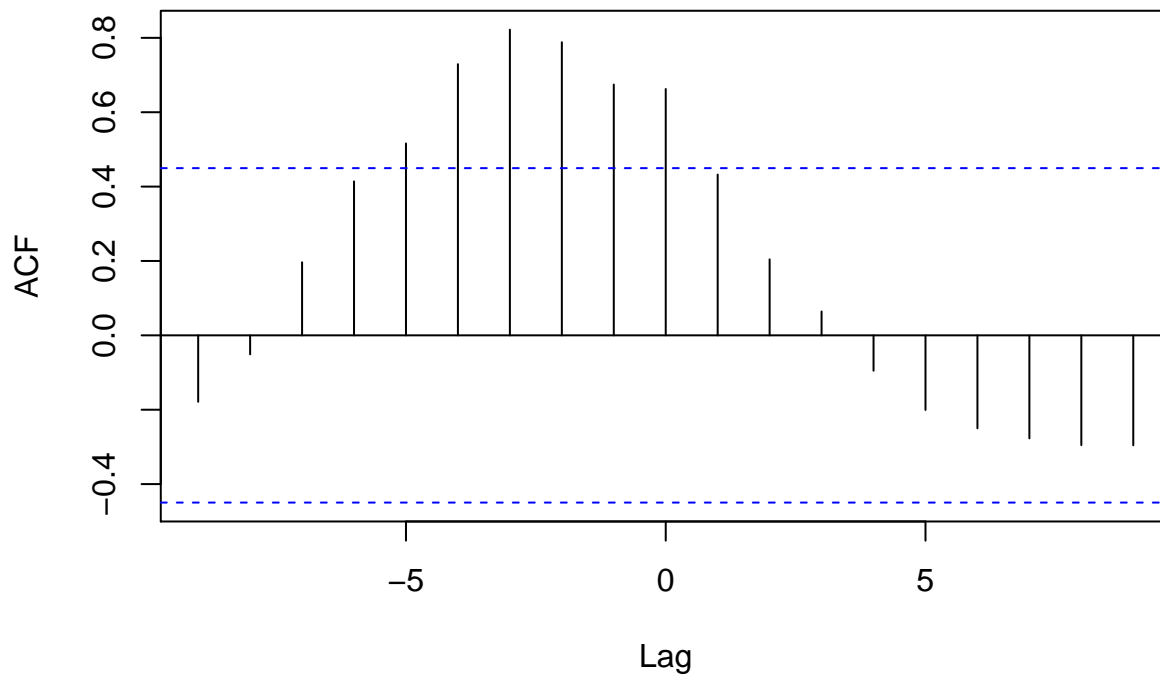
2 wk ahead – 13



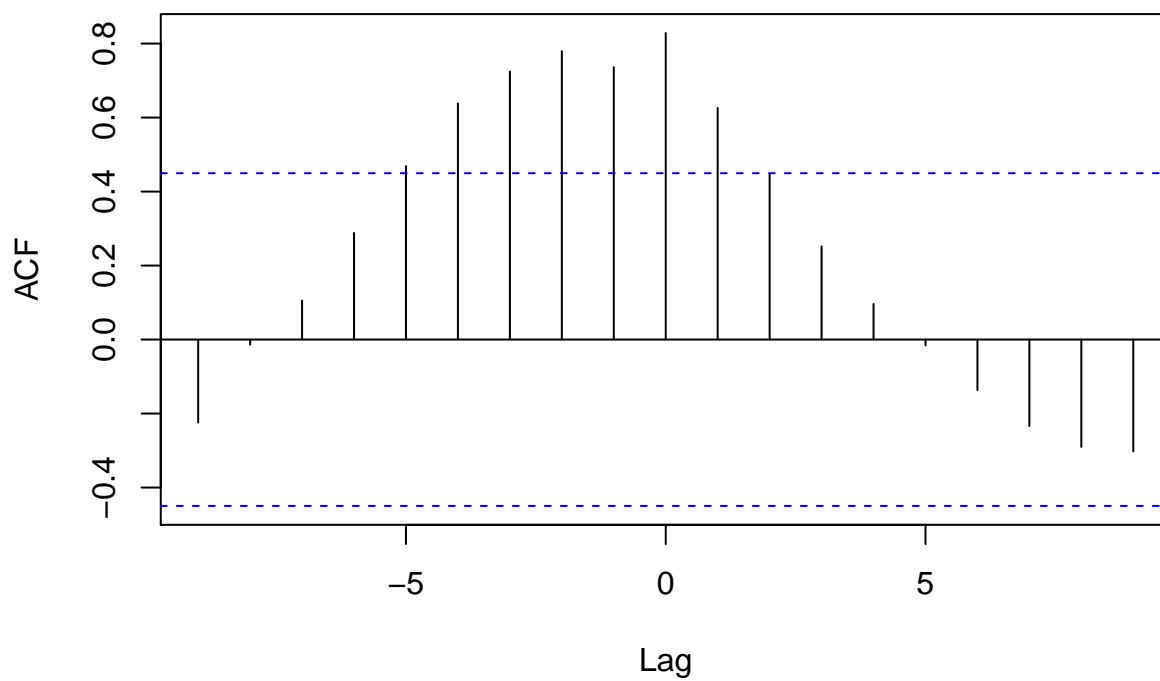
3 wk ahead – 13



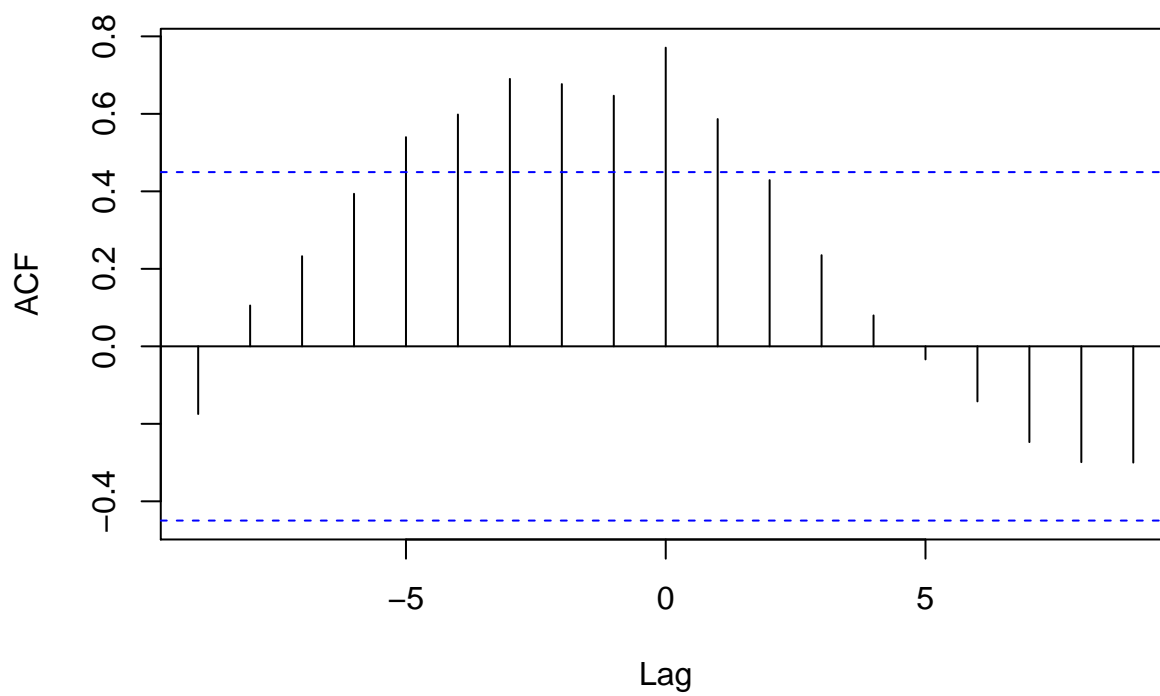
4 wk ahead – 13



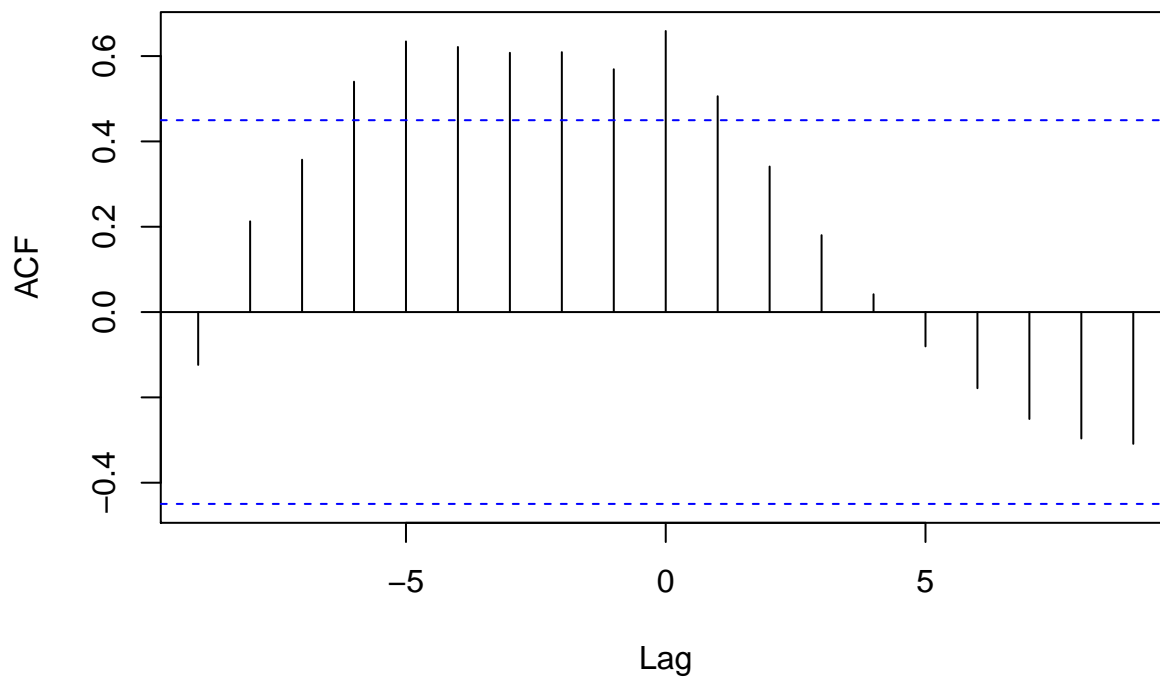
1 wk ahead – 15



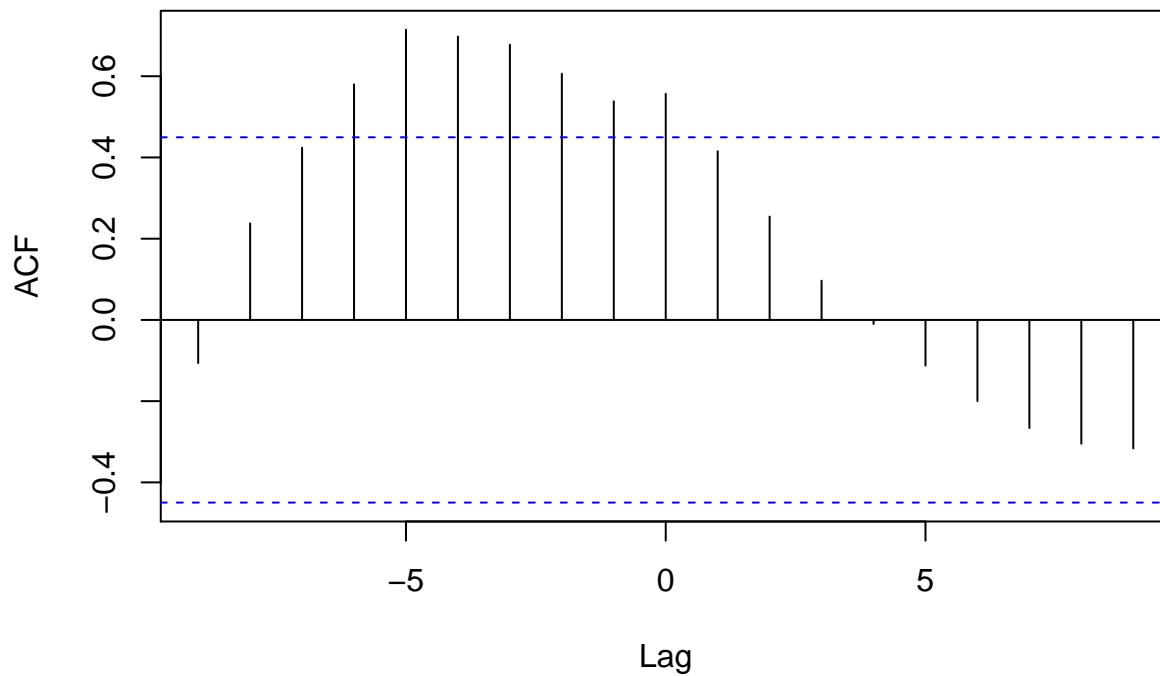
2 wk ahead – 15



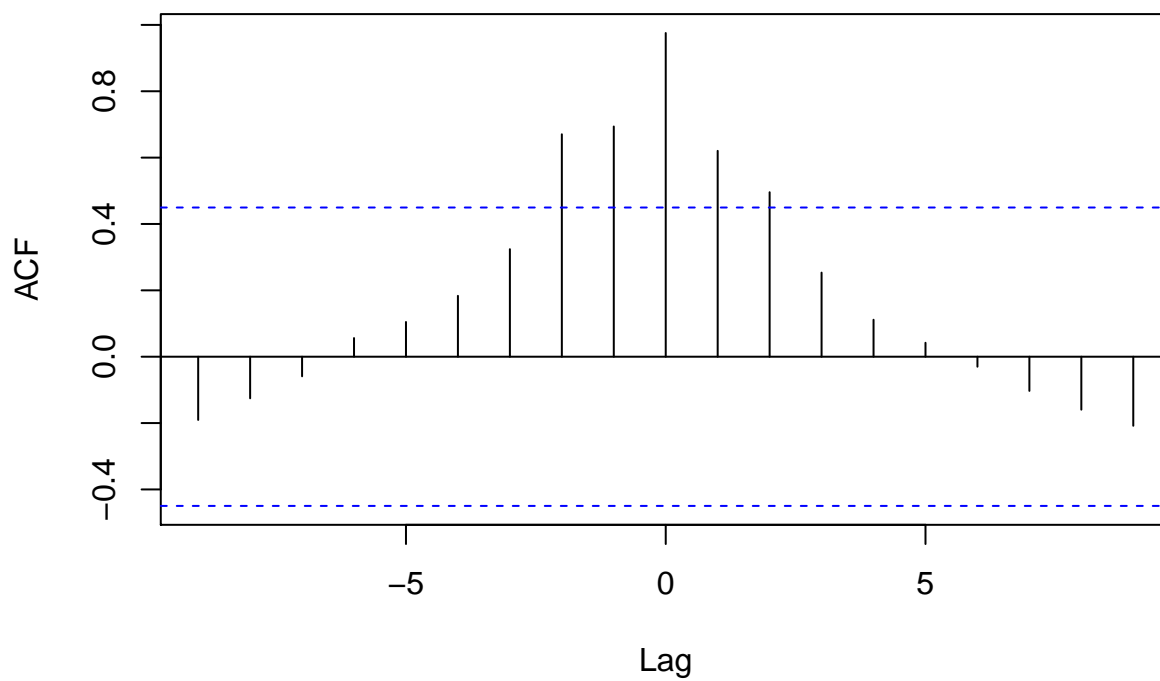
3 wk ahead – 15



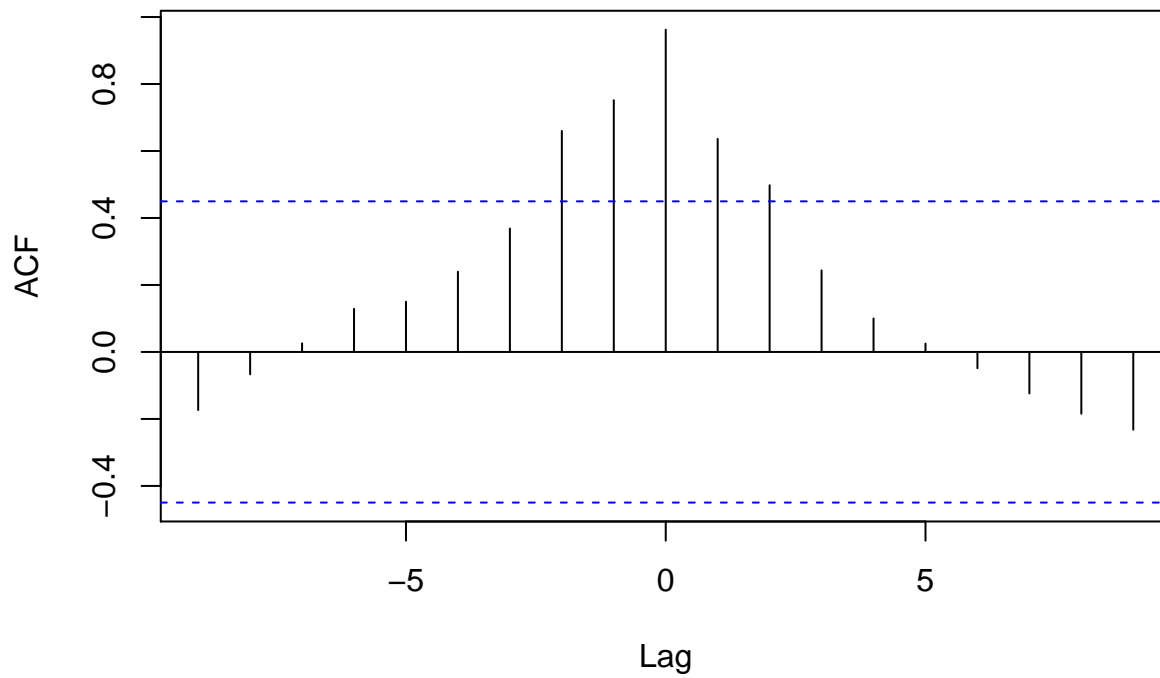
4 wk ahead – 15



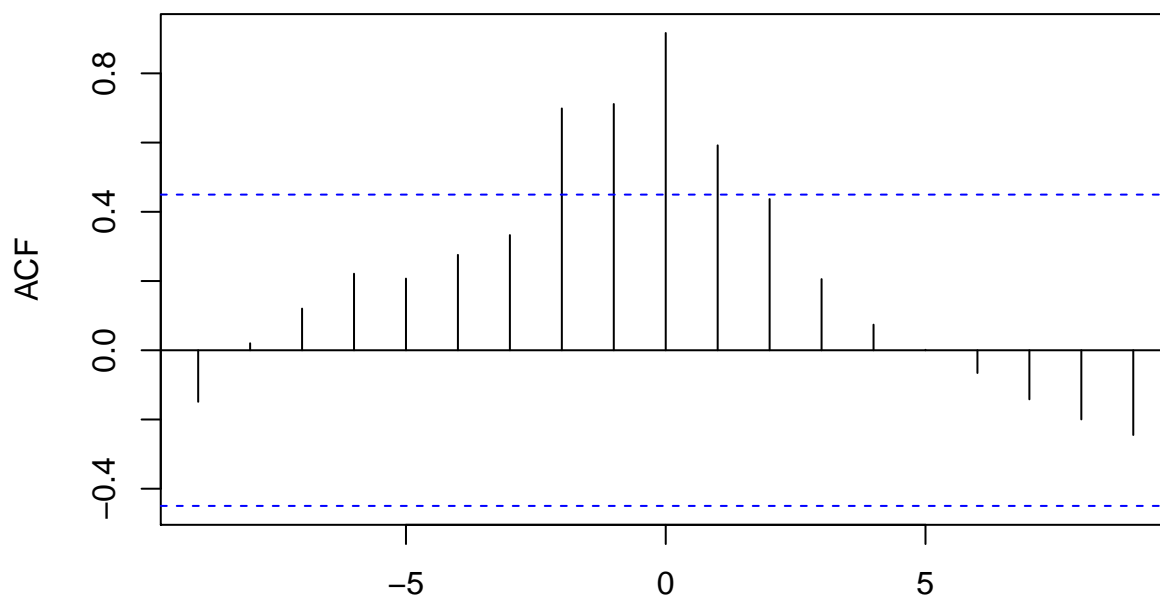
1 wk ahead – 16



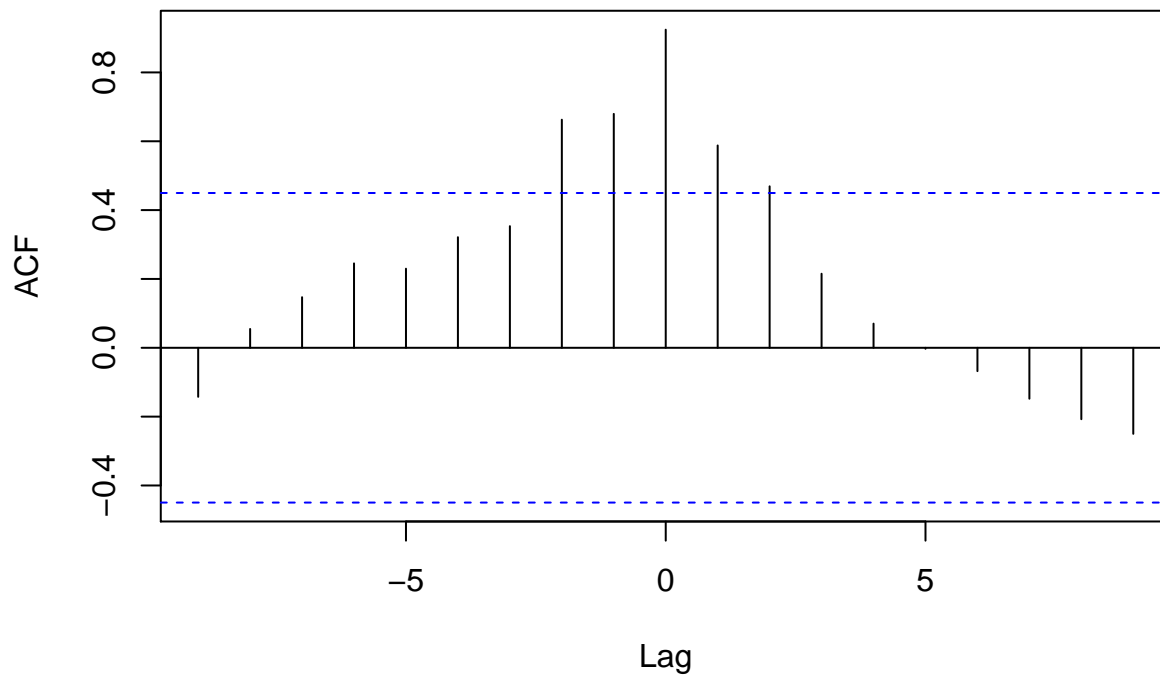
2 wk ahead – 16



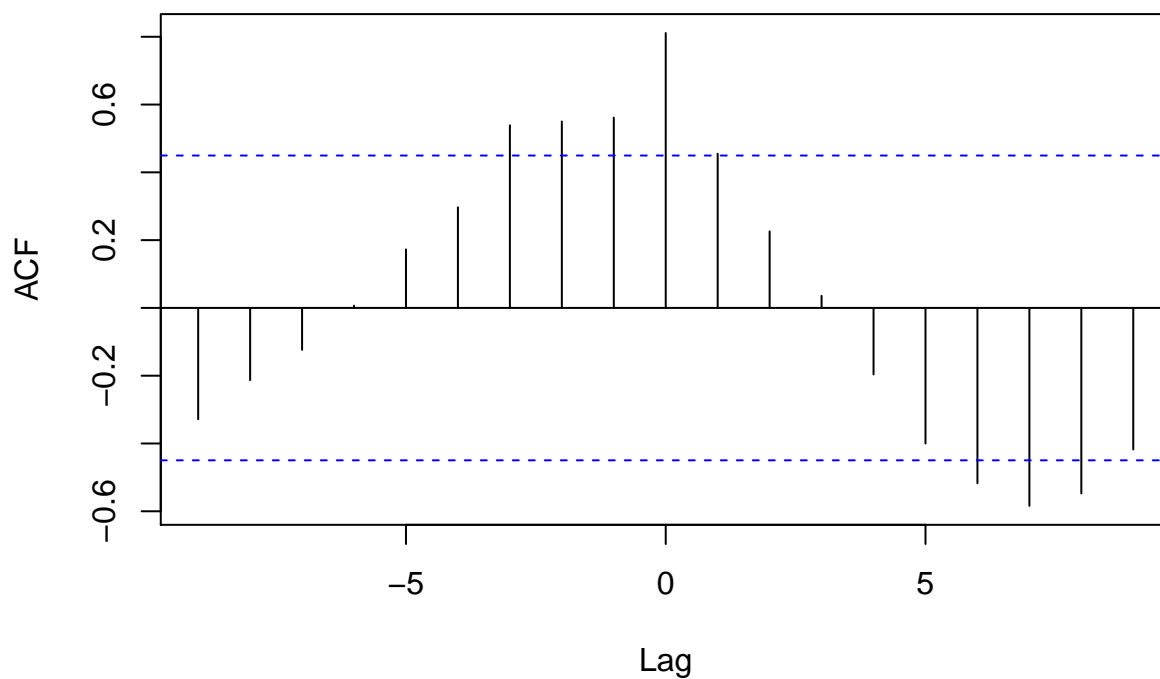
3 wk ahead – 16



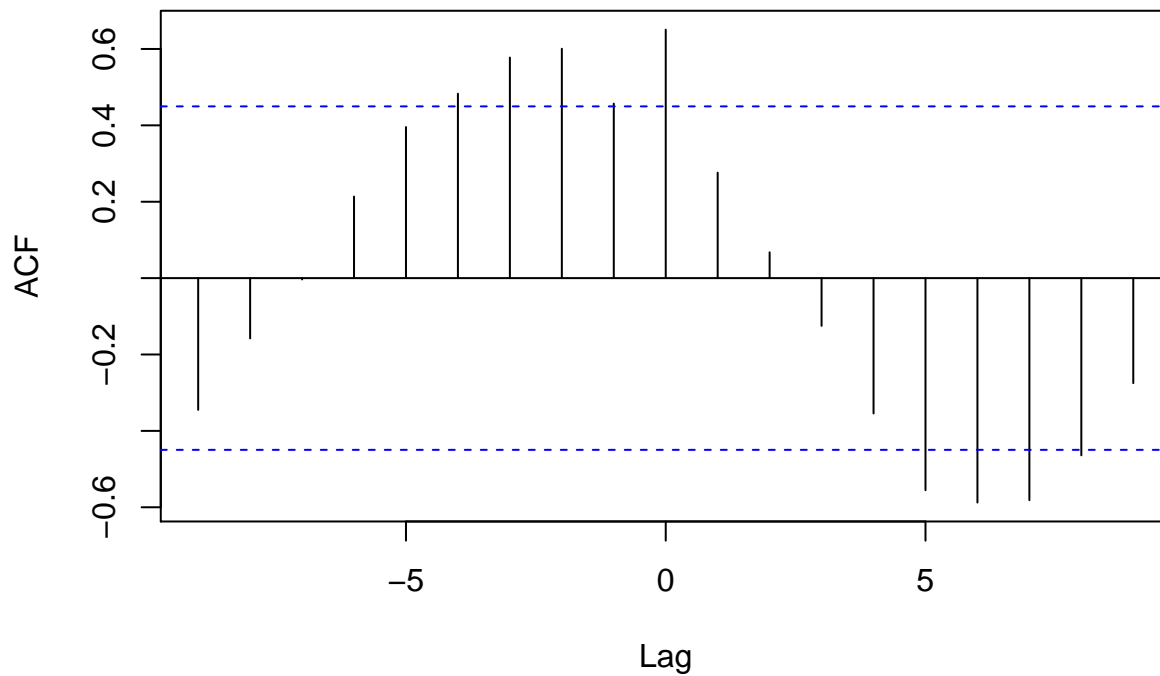
4 wk ahead – 16



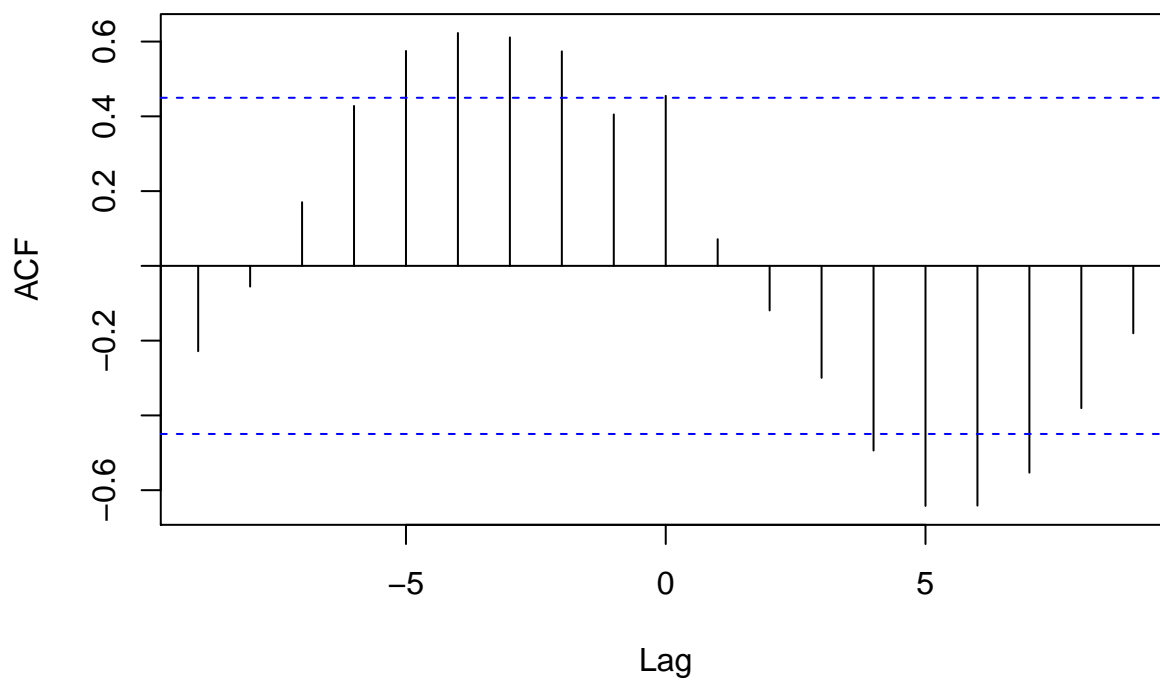
1 wk ahead – 17



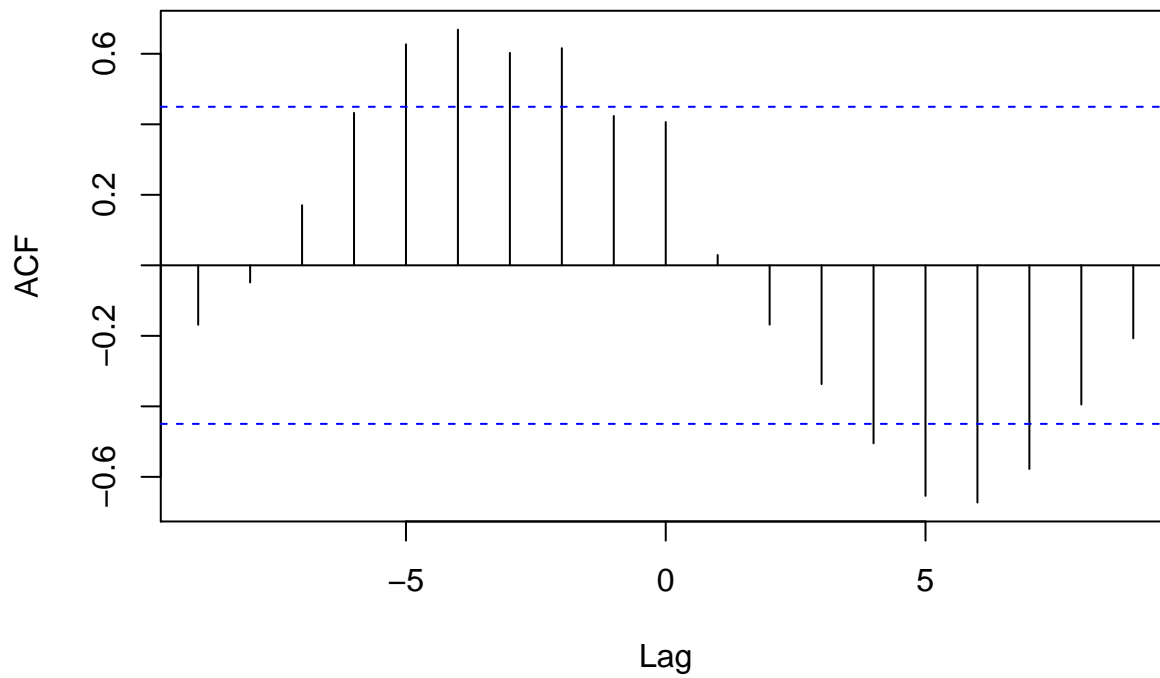
2 wk ahead – 17



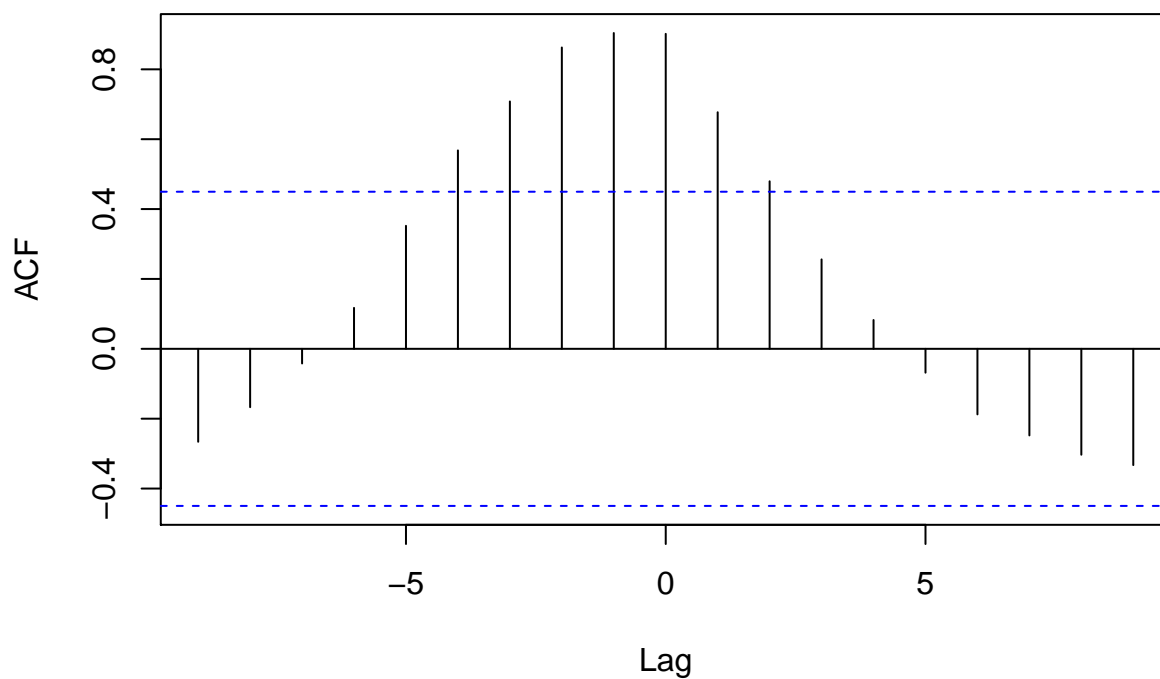
3 wk ahead – 17



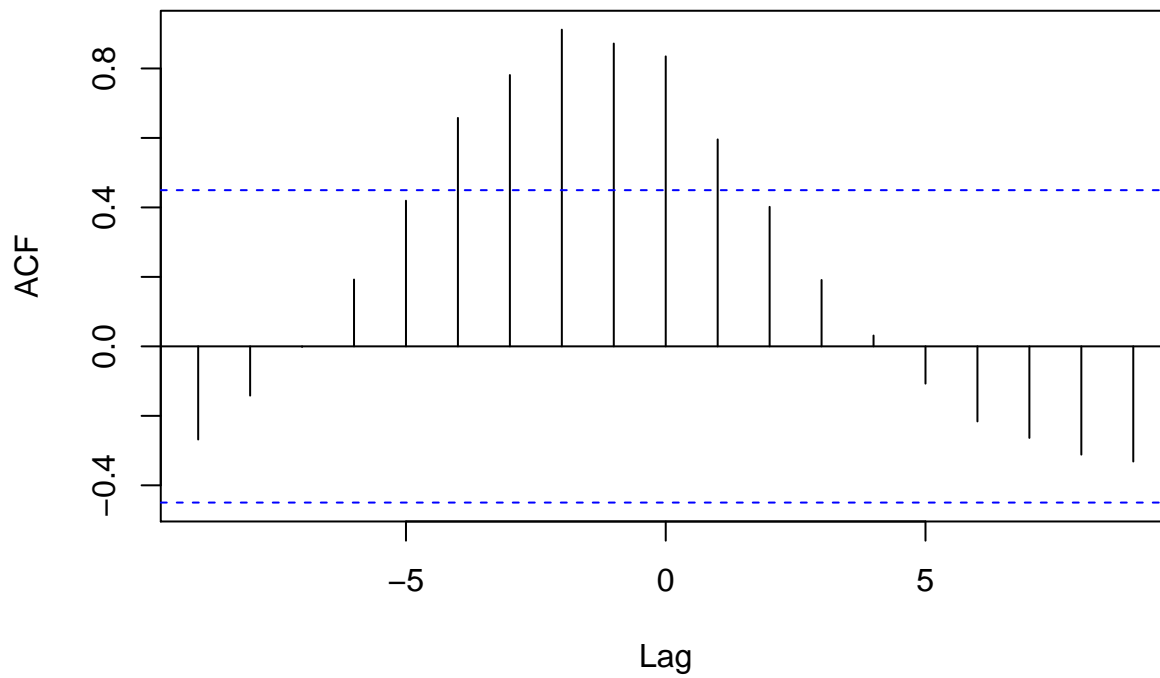
4 wk ahead – 17



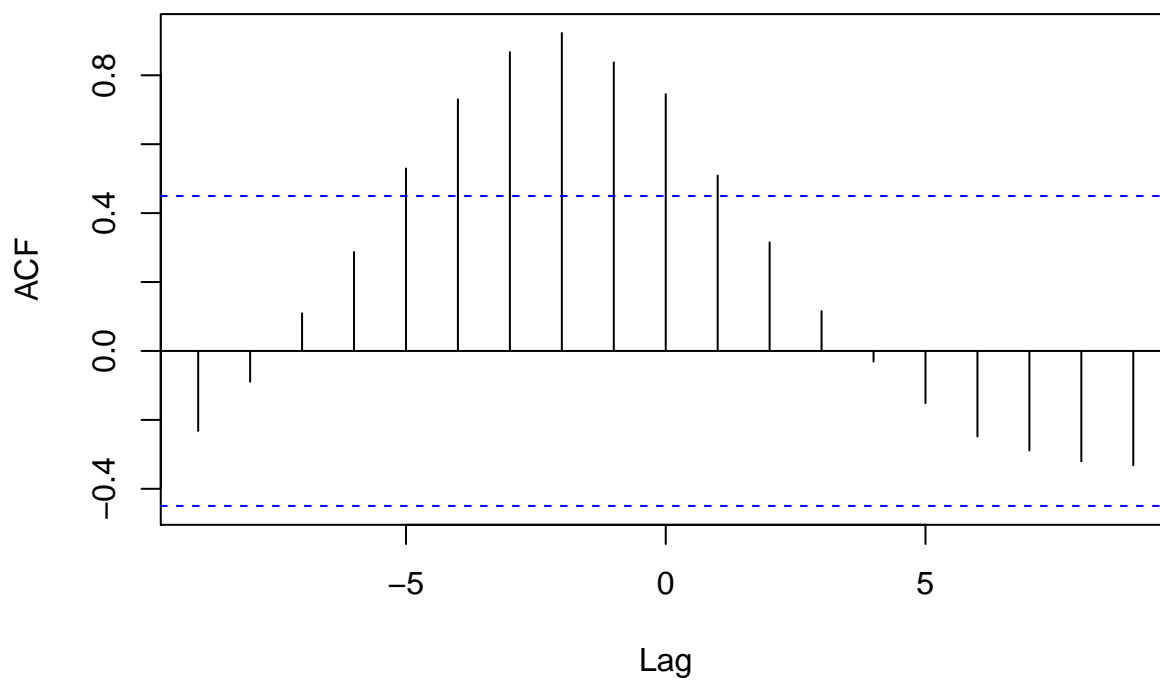
1 wk ahead – 18



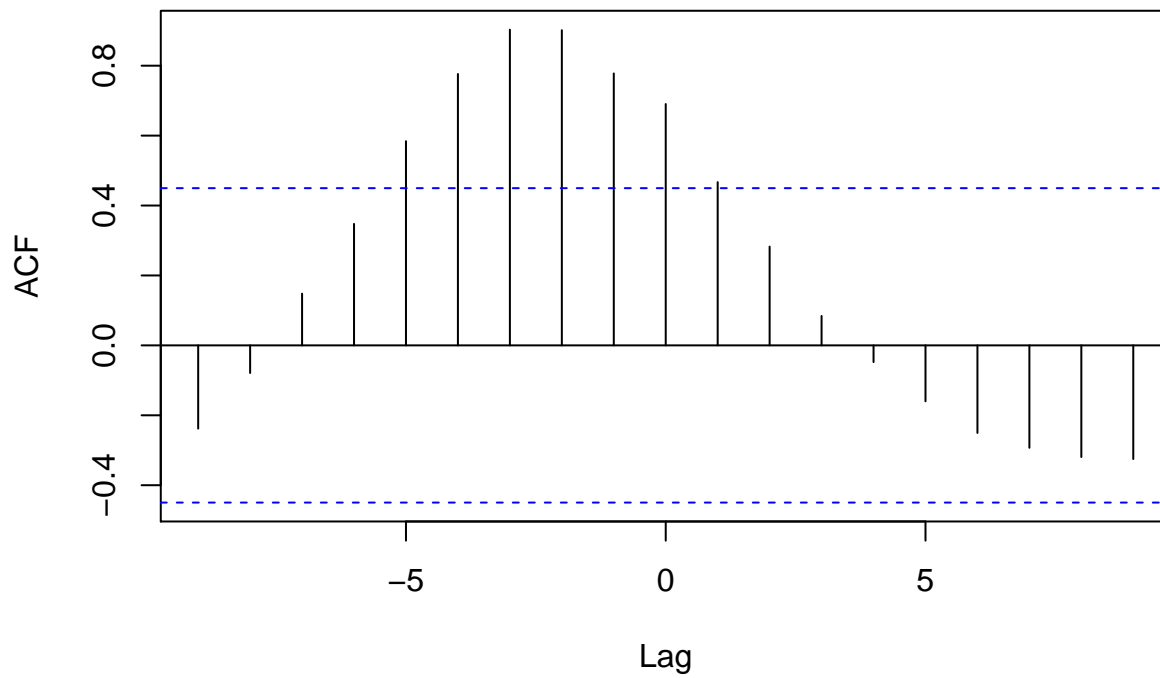
2 wk ahead – 18



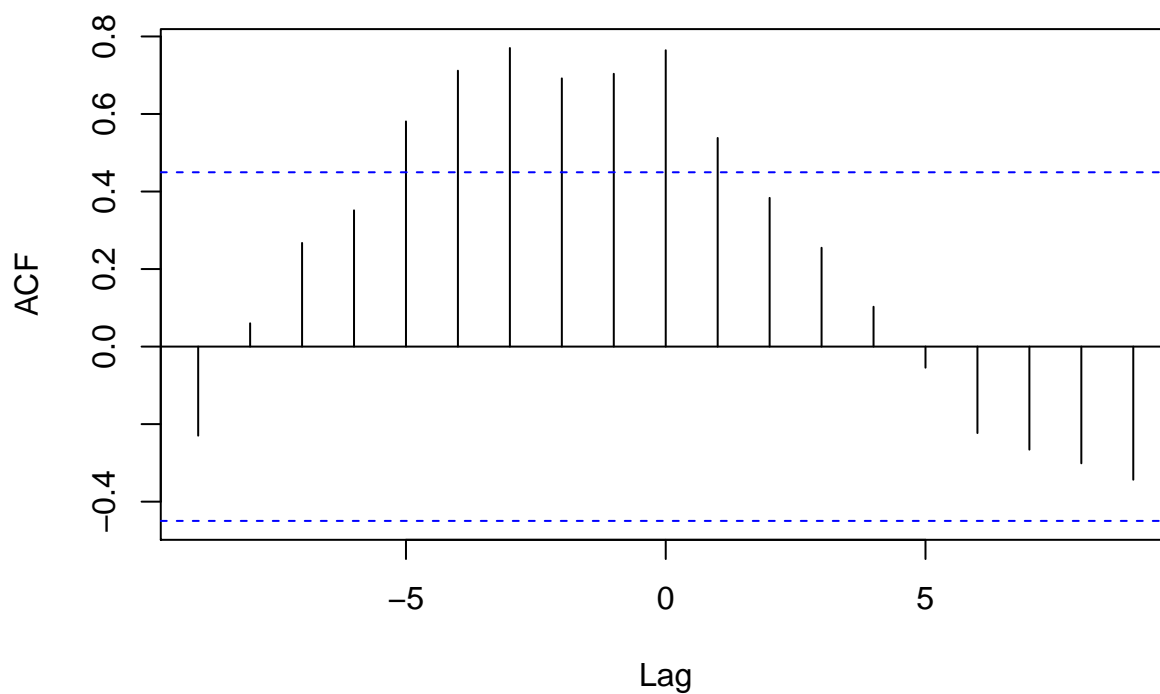
3 wk ahead – 18



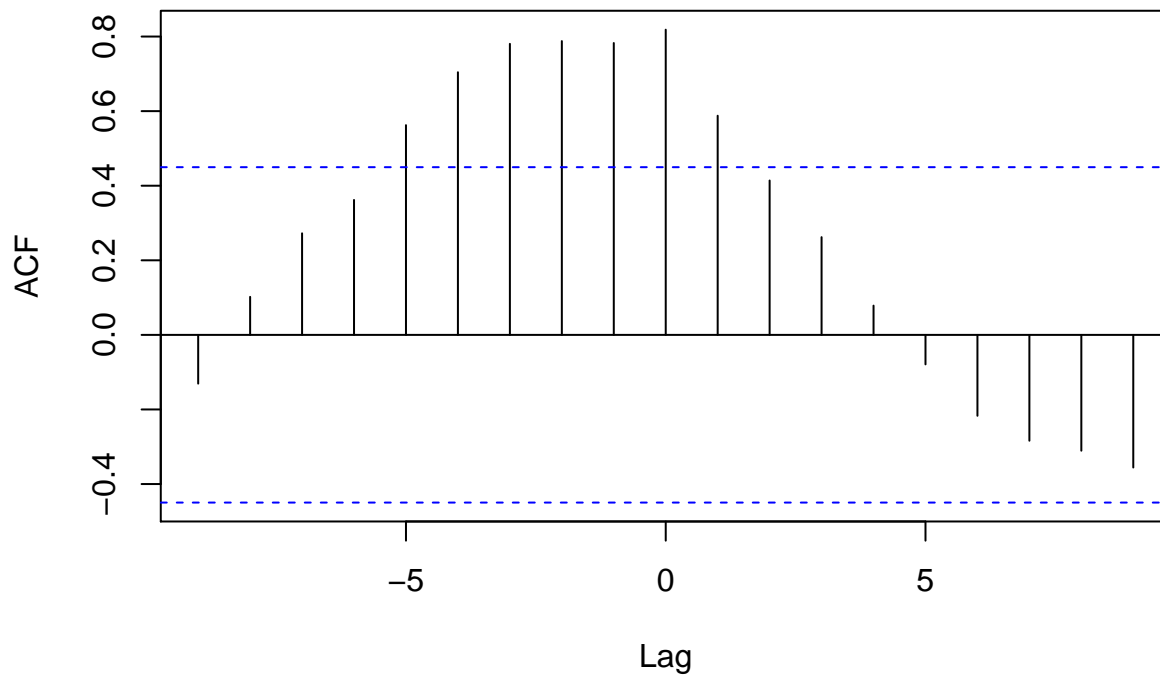
4 wk ahead – 18



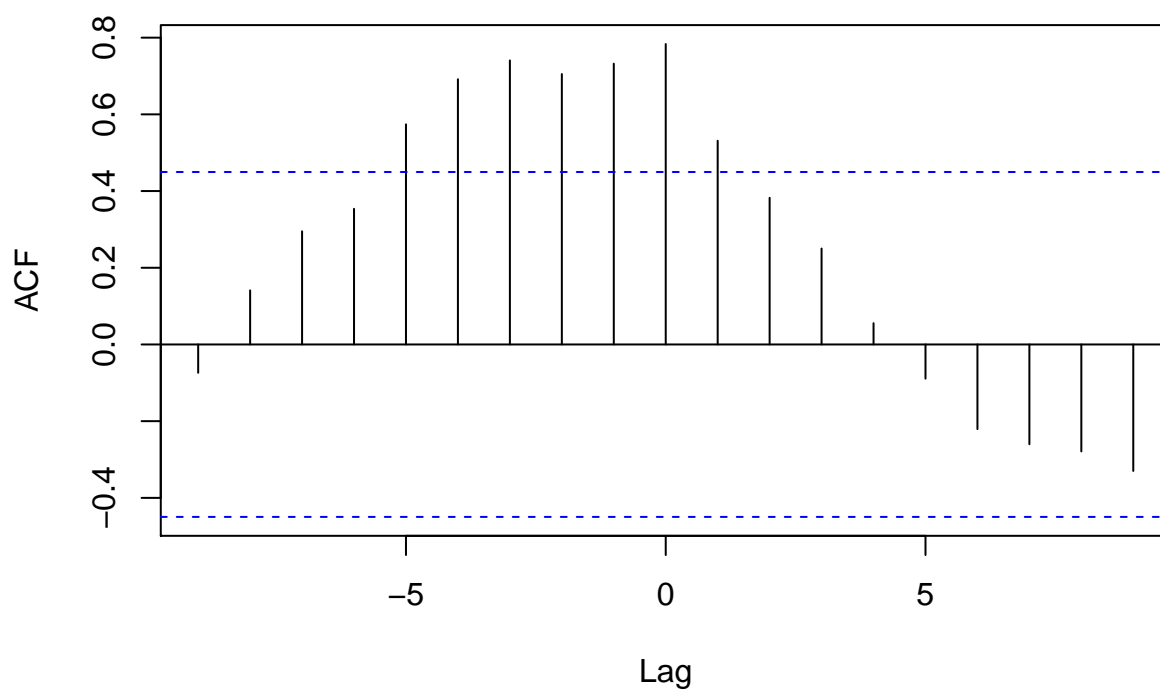
1 wk ahead – 19



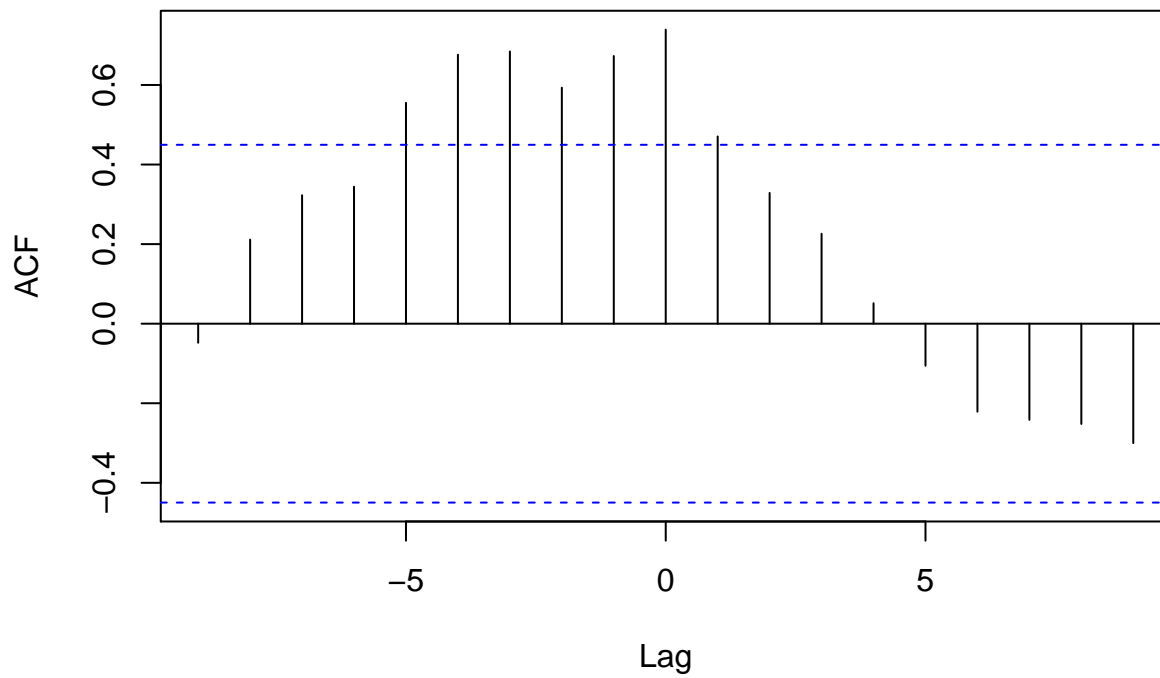
2 wk ahead – 19



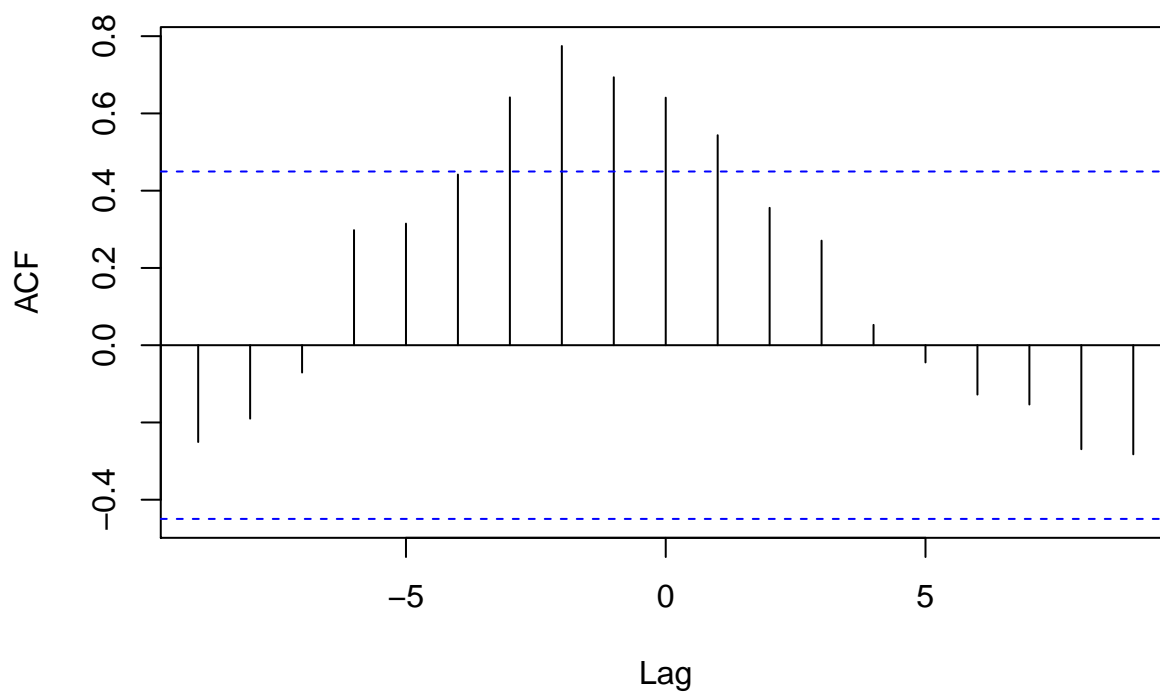
3 wk ahead – 19



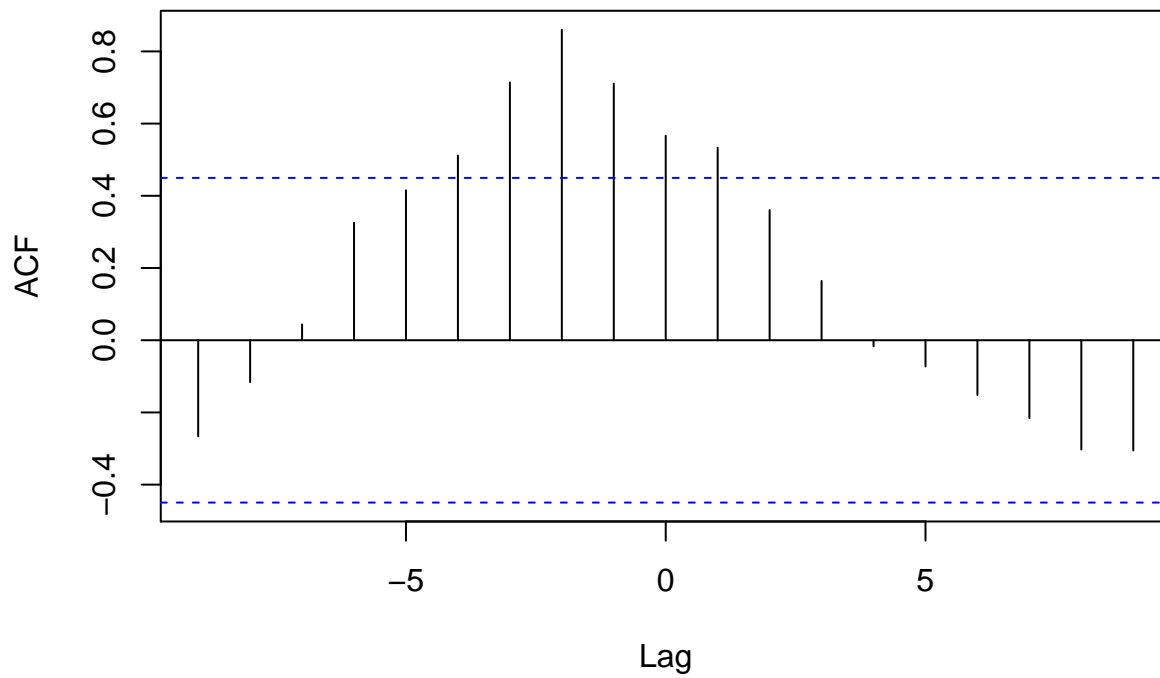
4 wk ahead – 19



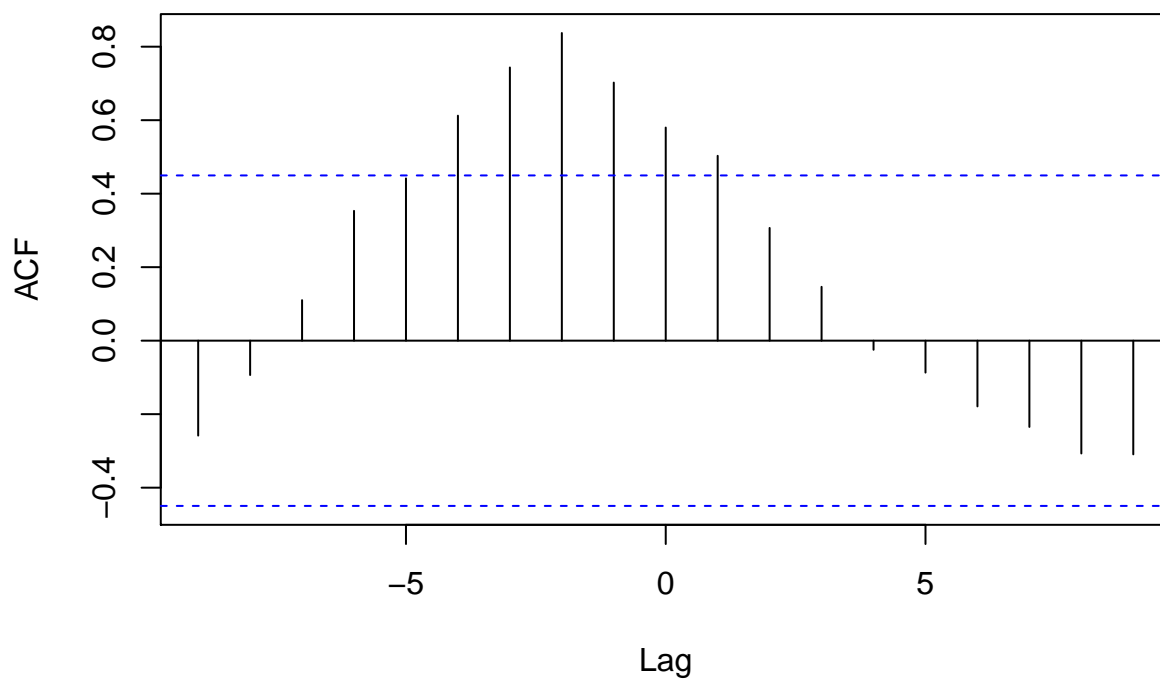
1 wk ahead – 20



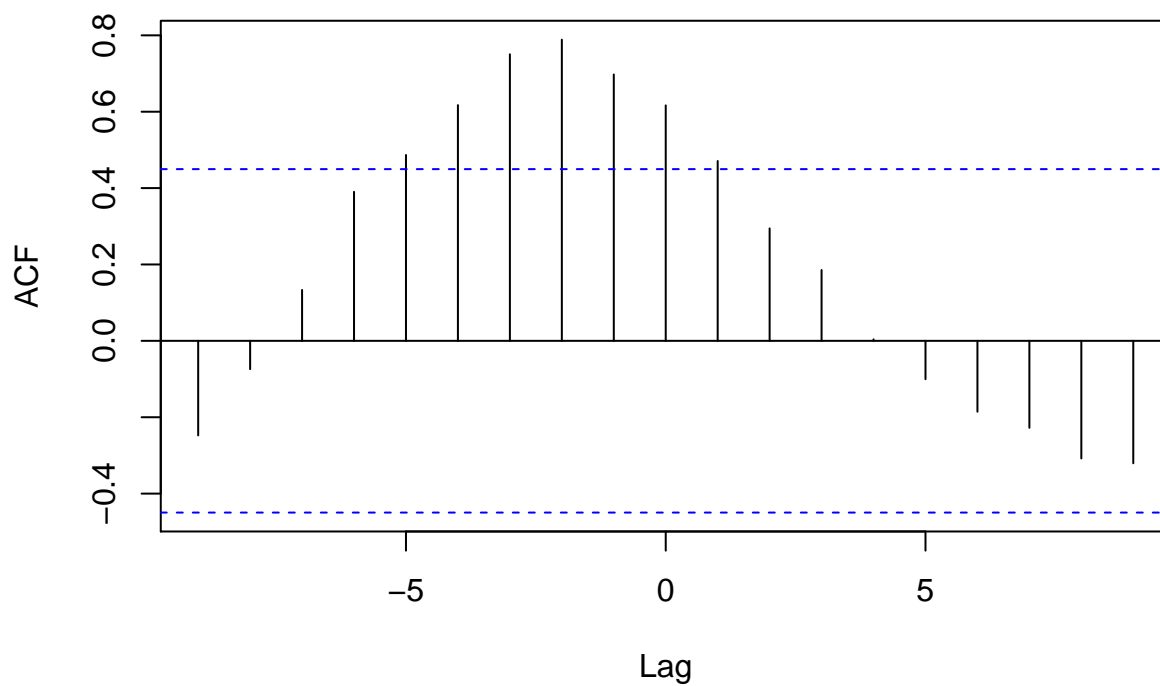
2 wk ahead – 20



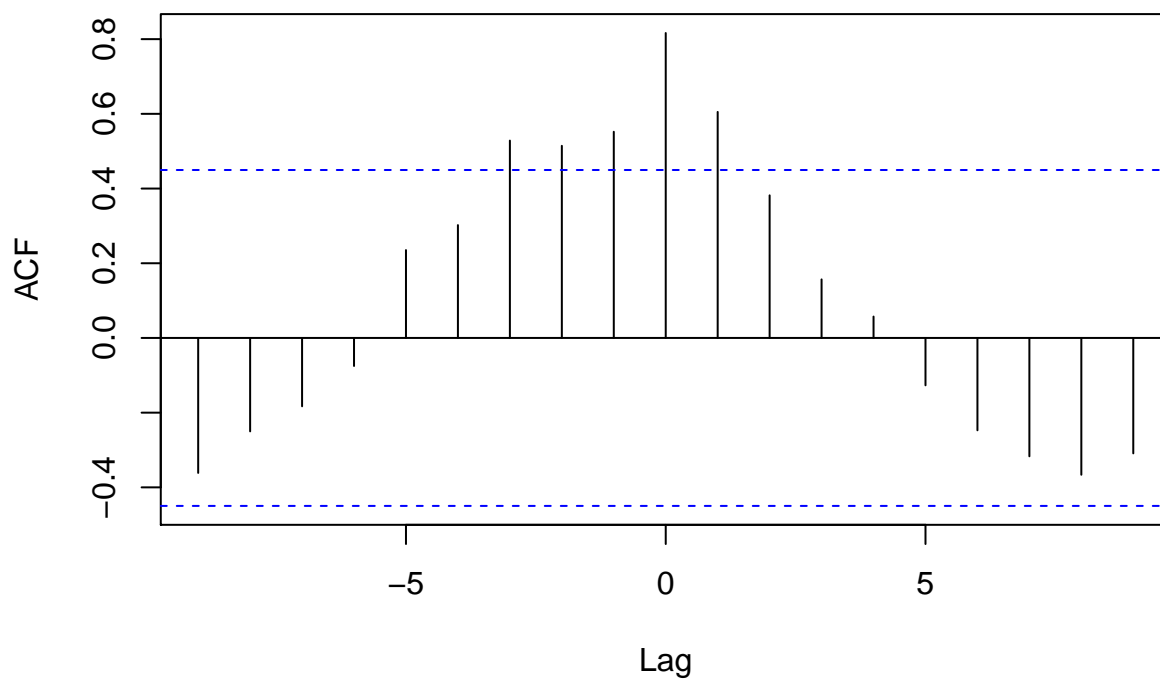
3 wk ahead – 20



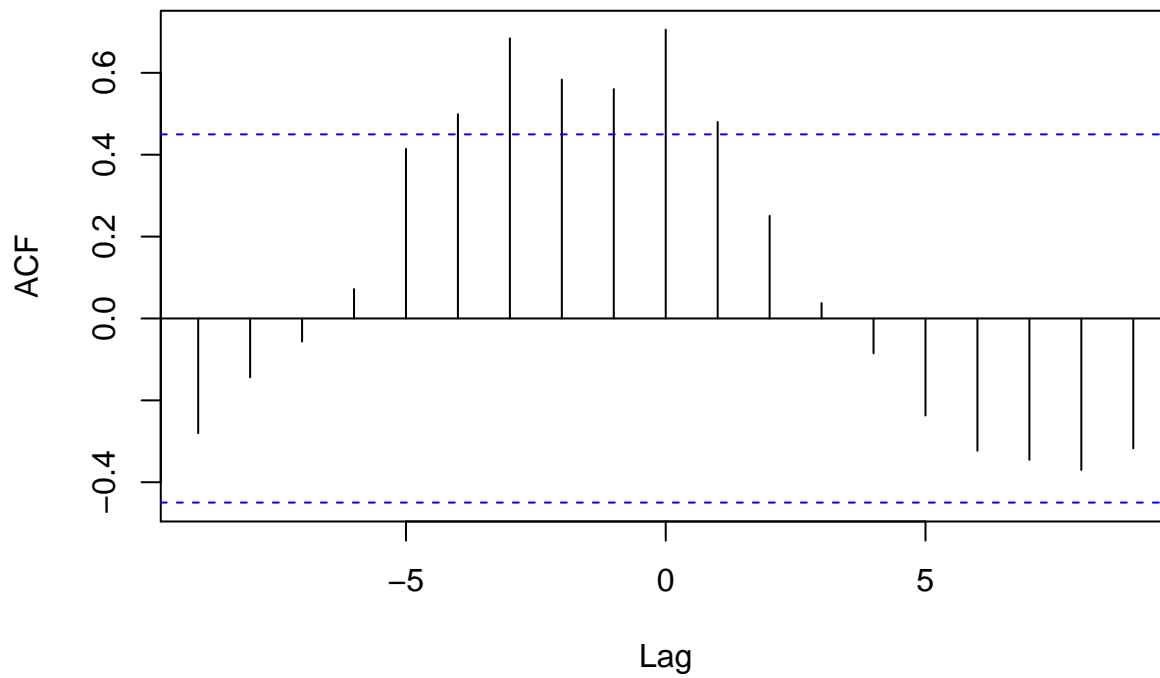
4 wk ahead – 20



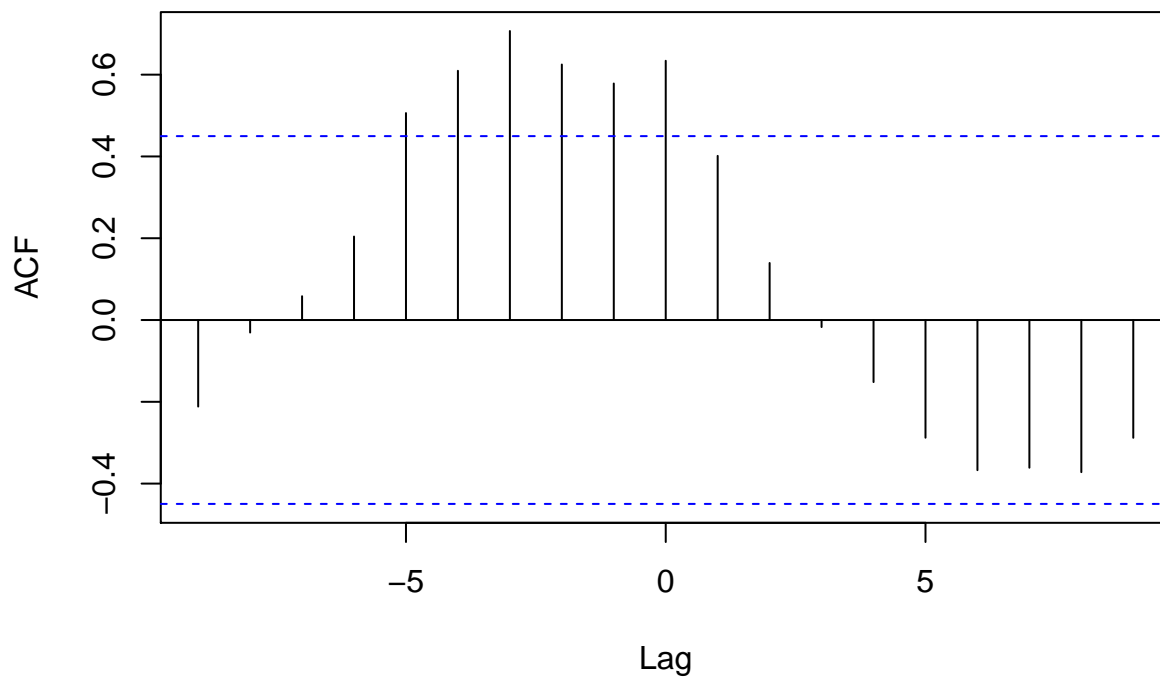
1 wk ahead – 21



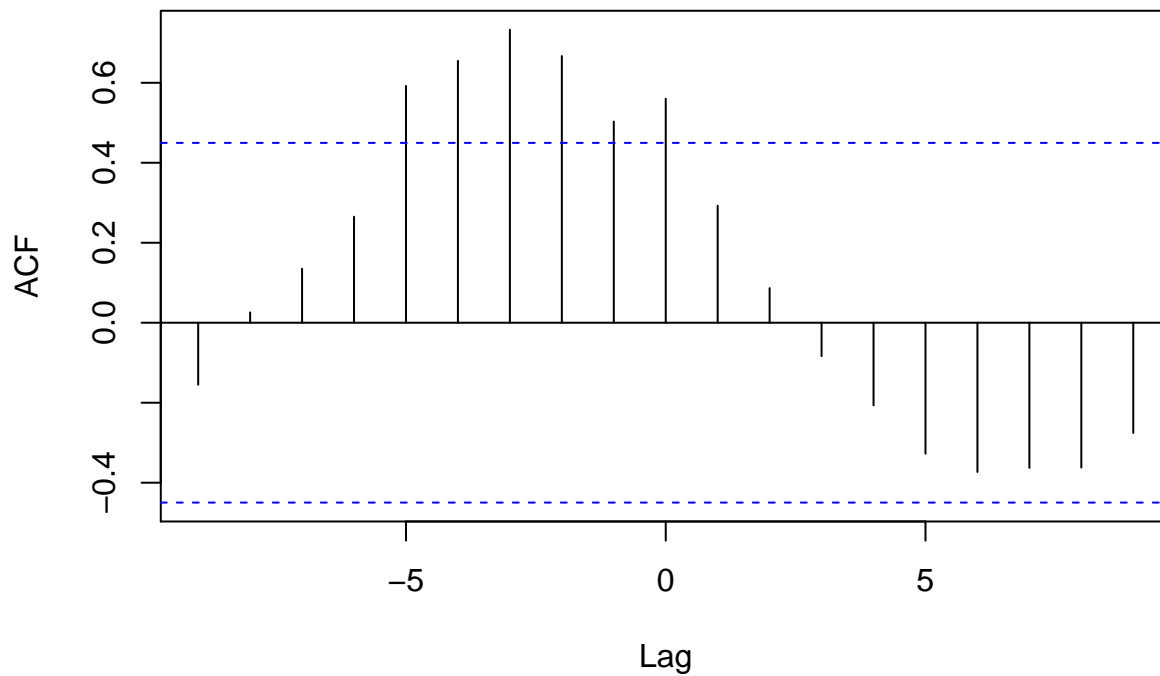
2 wk ahead – 21



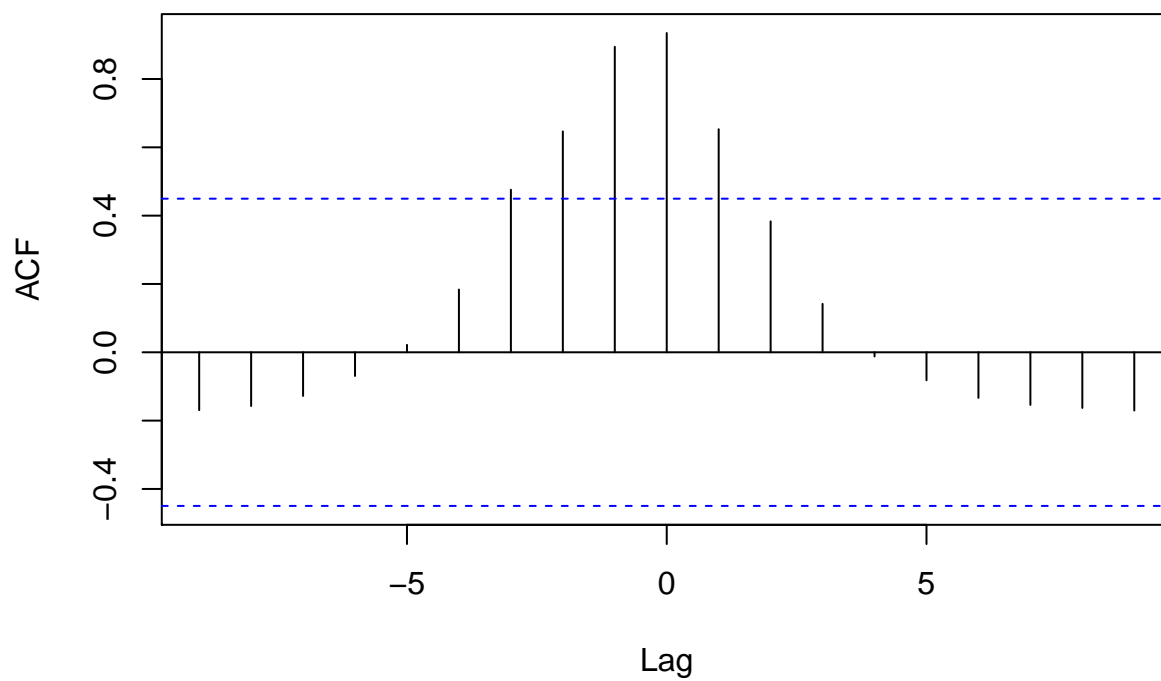
3 wk ahead – 21



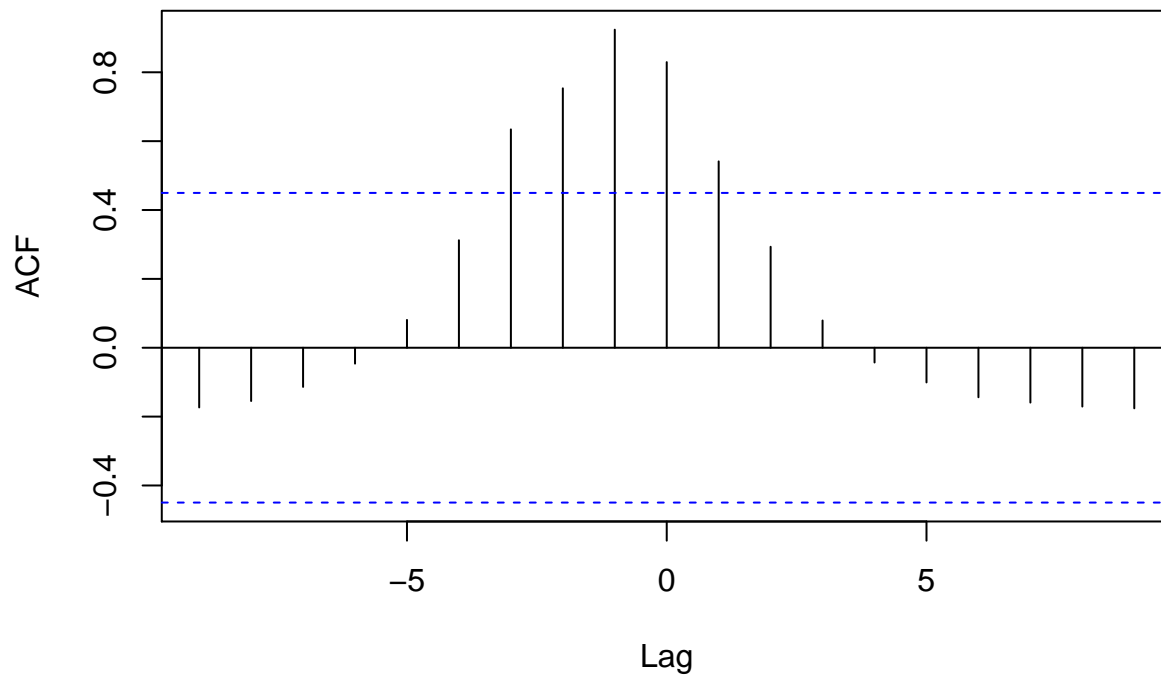
4 wk ahead – 21



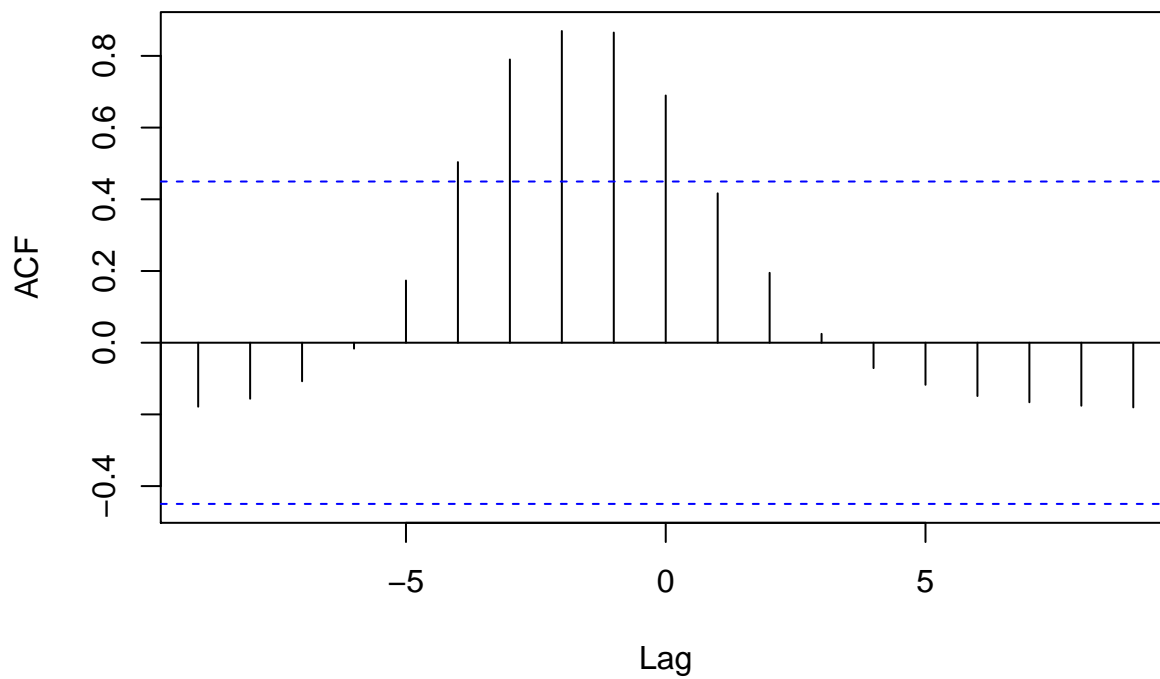
1 wk ahead – 22



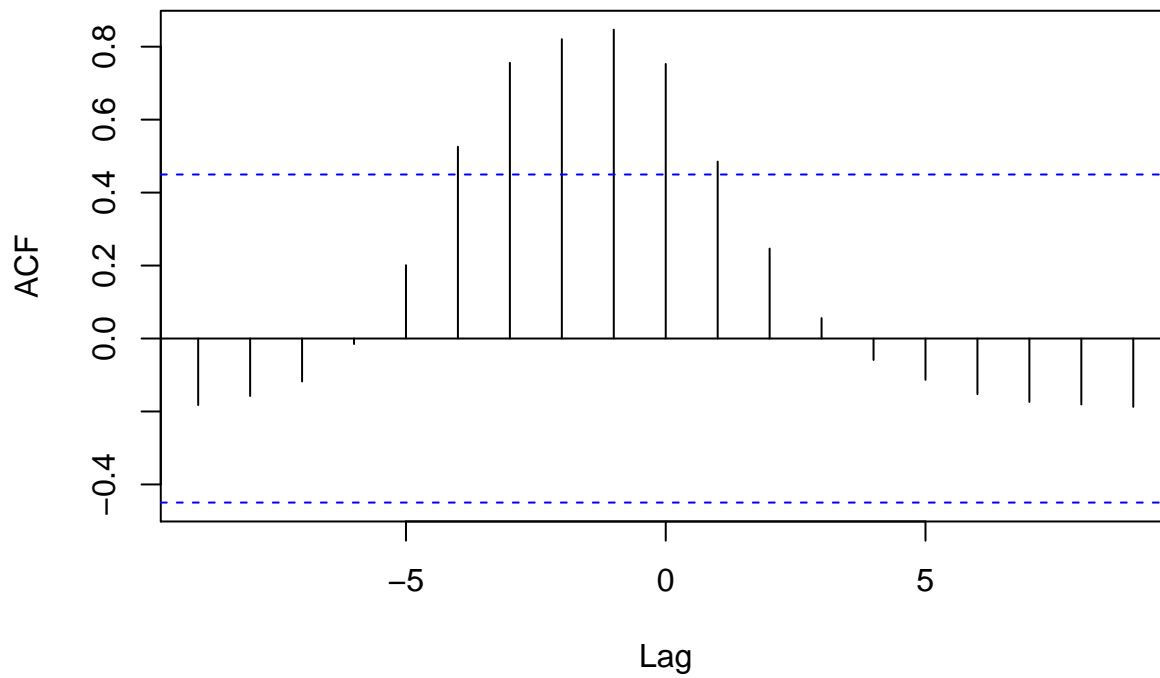
2 wk ahead – 22



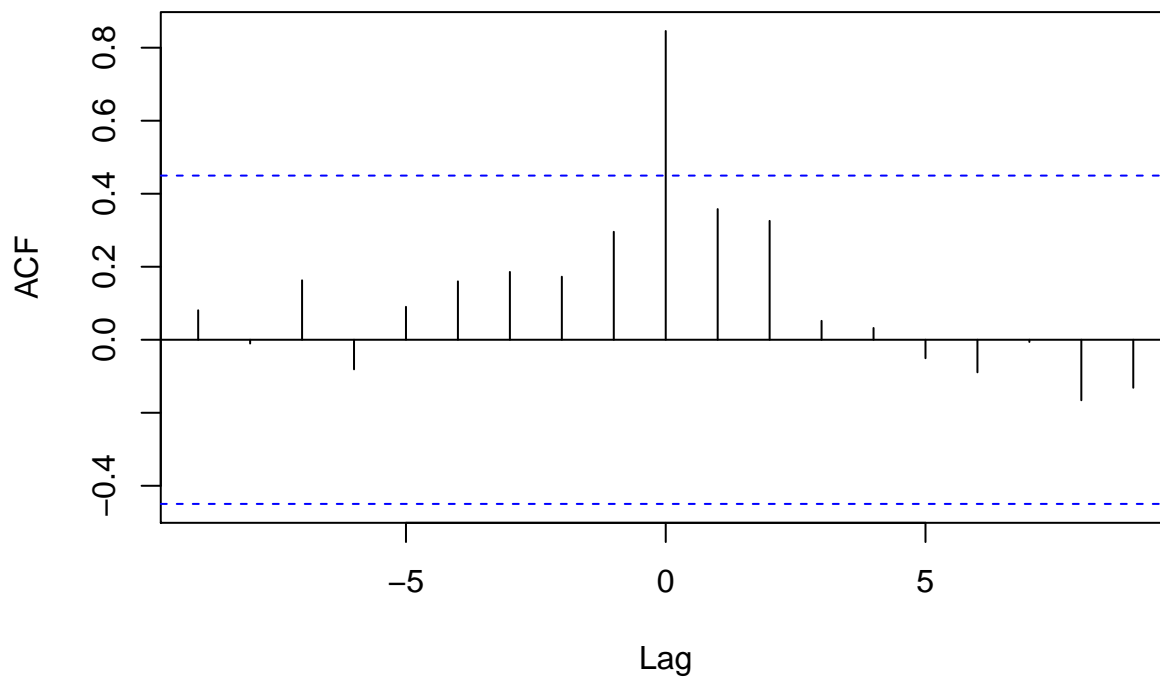
3 wk ahead – 22



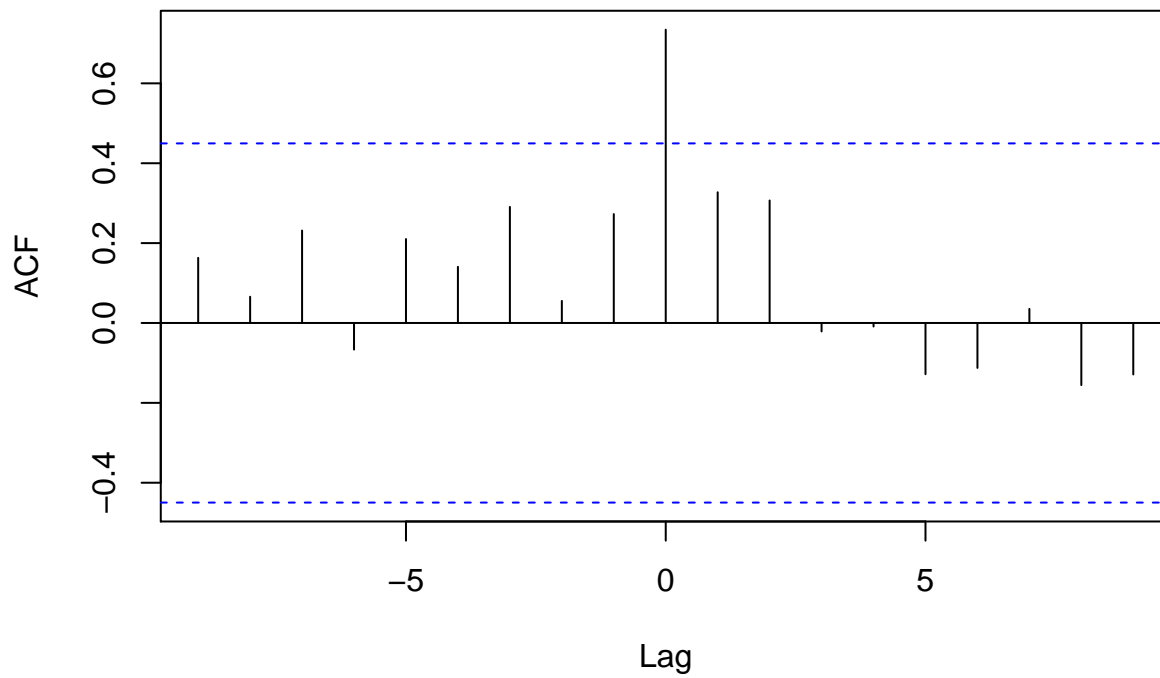
4 wk ahead – 22



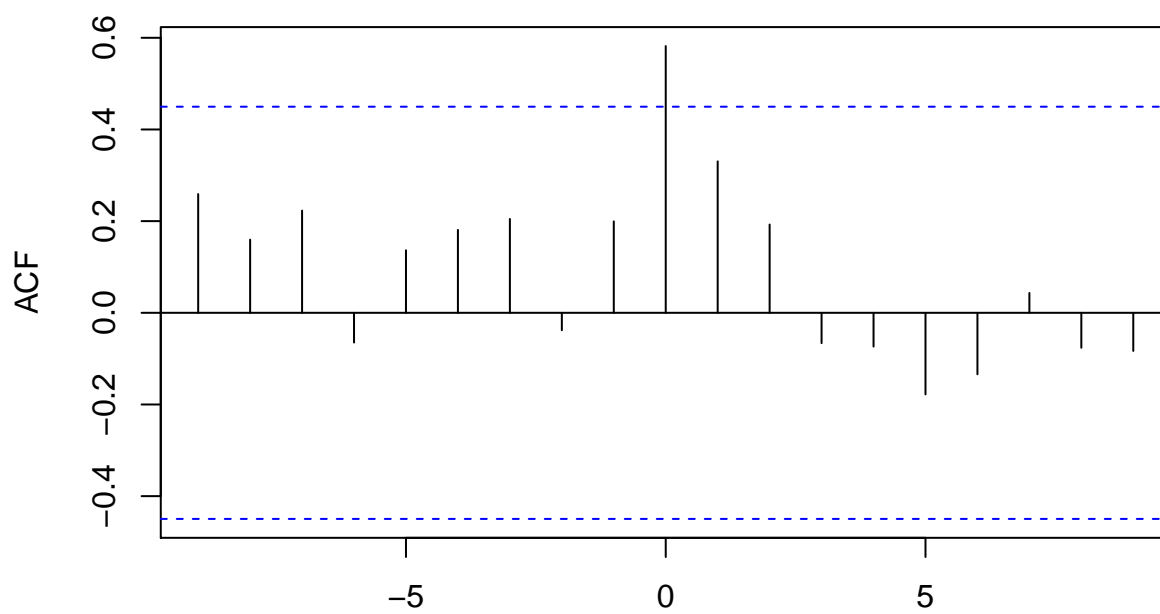
1 wk ahead – 23



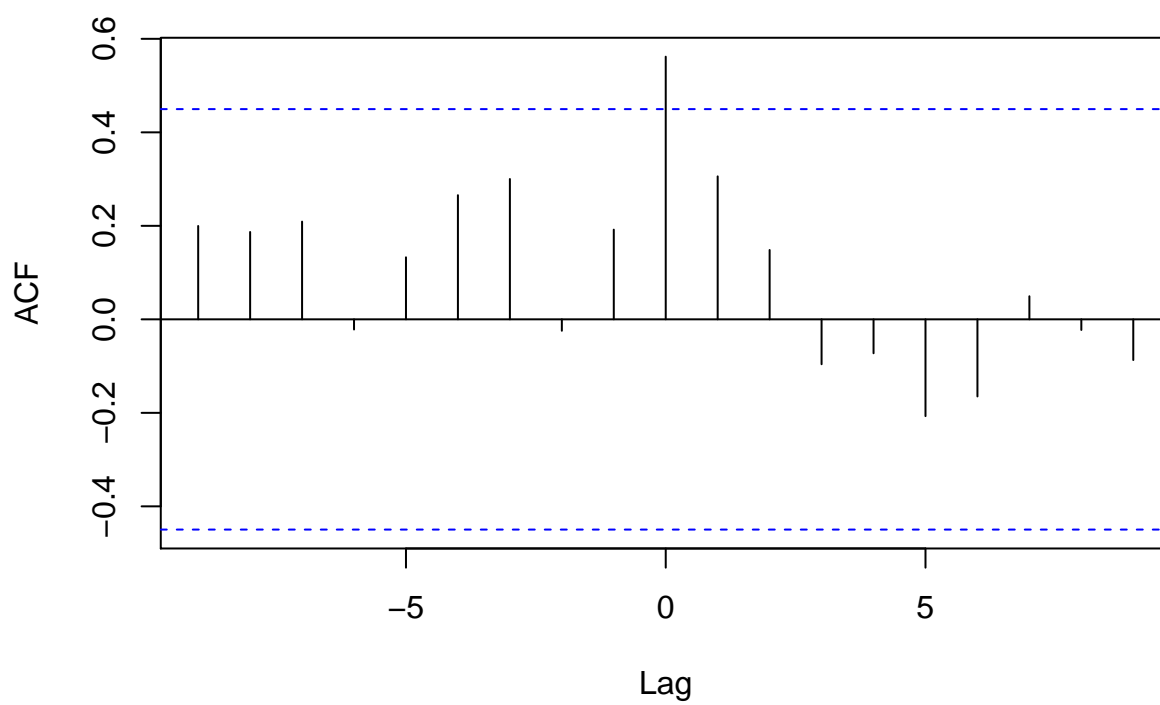
2 wk ahead – 23



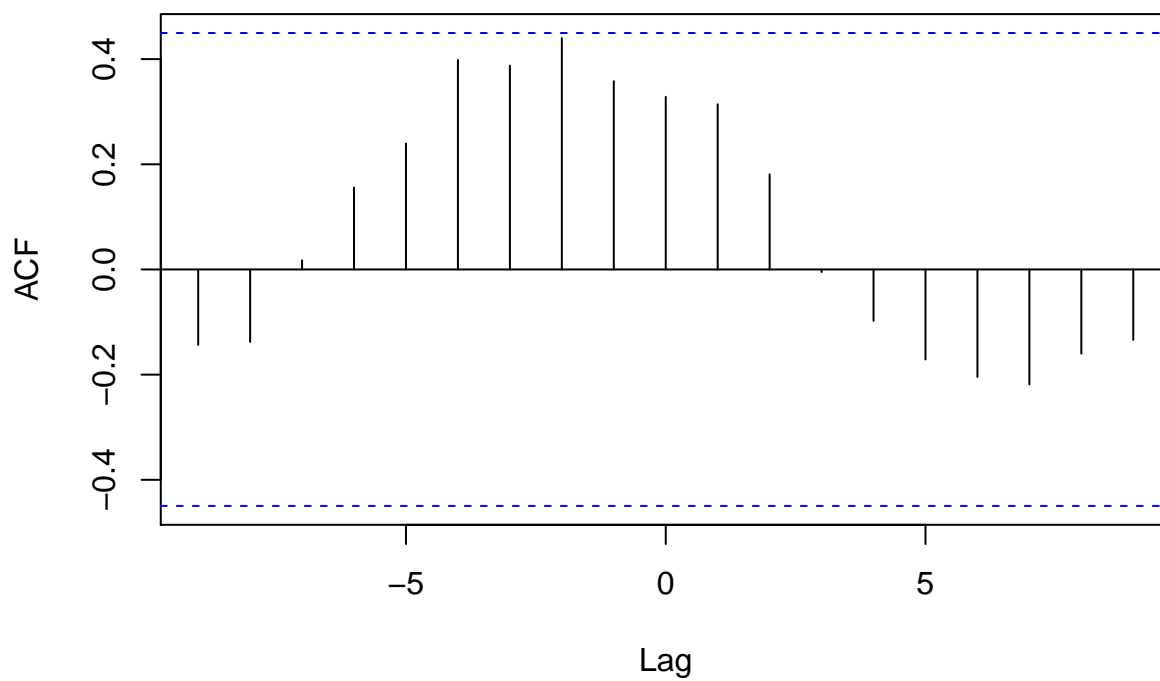
3 wk ahead – 23



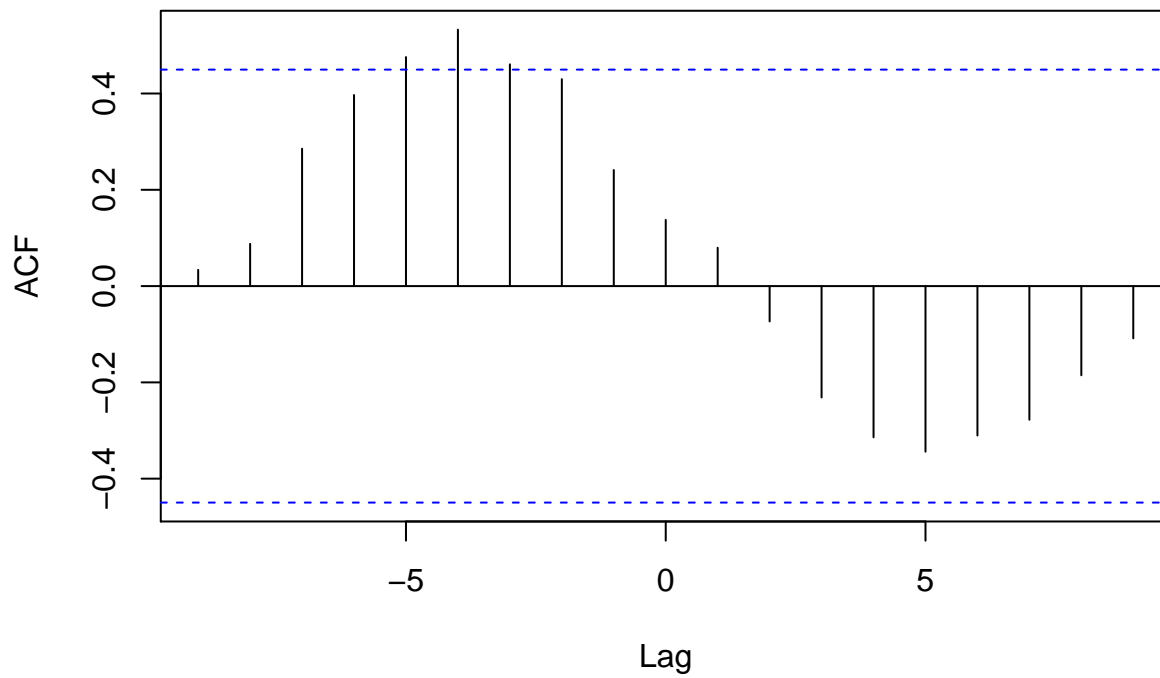
4 wk ahead – 23



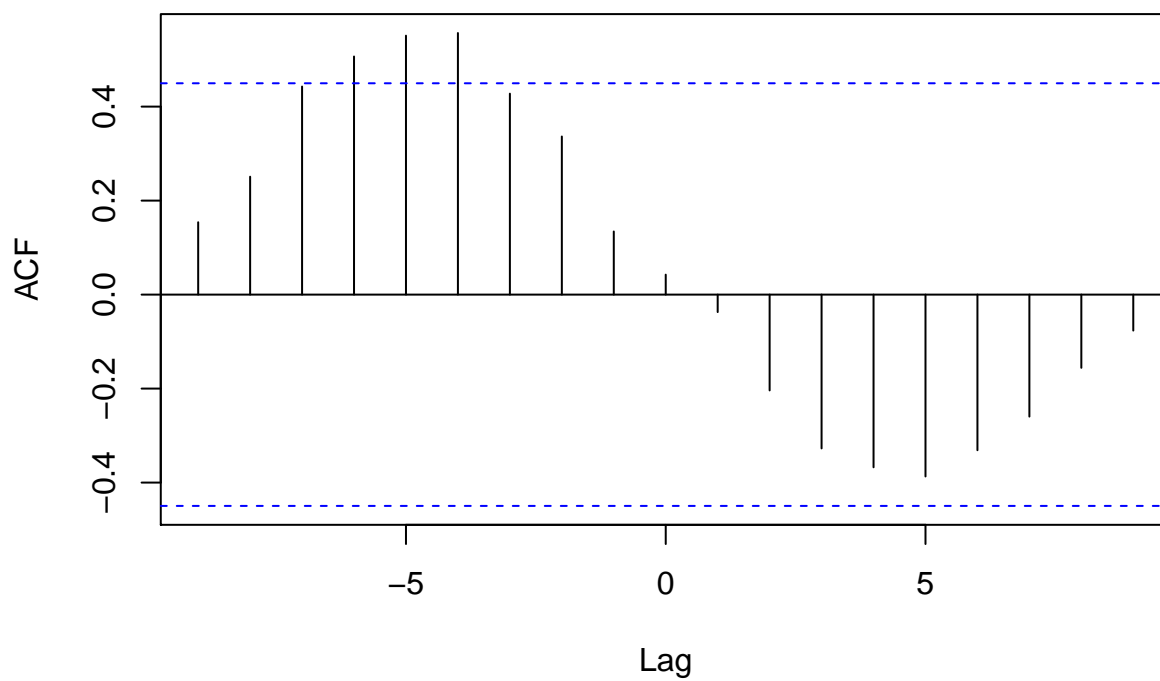
1 wk ahead – 24



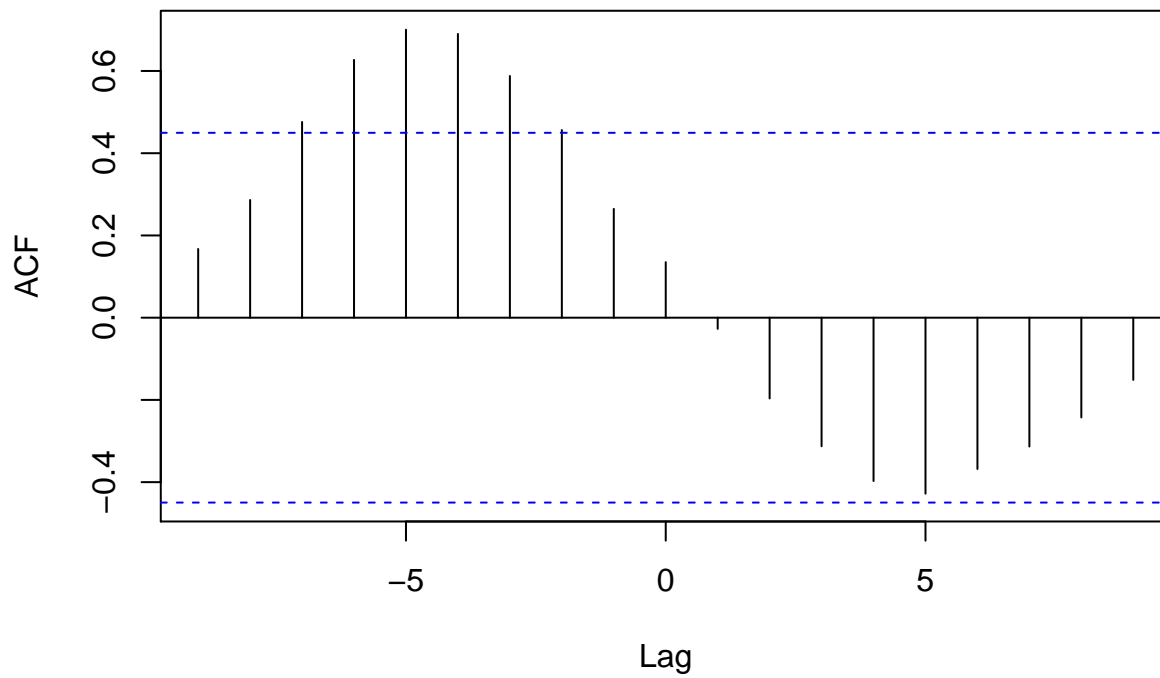
2 wk ahead – 24



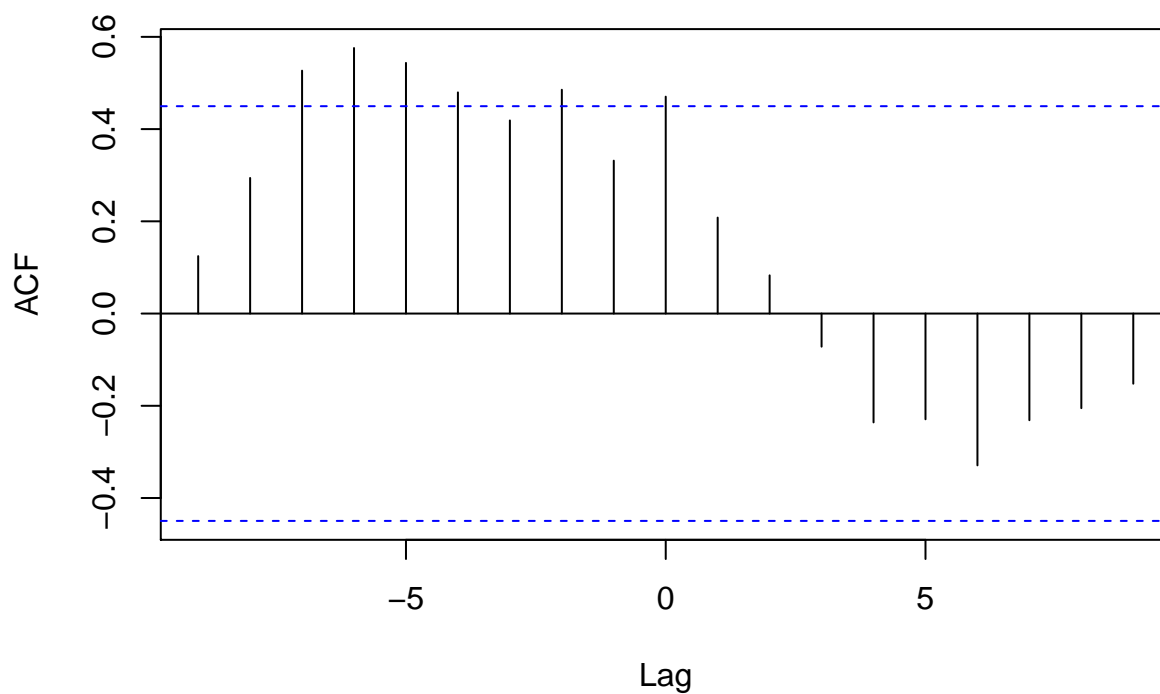
3 wk ahead – 24



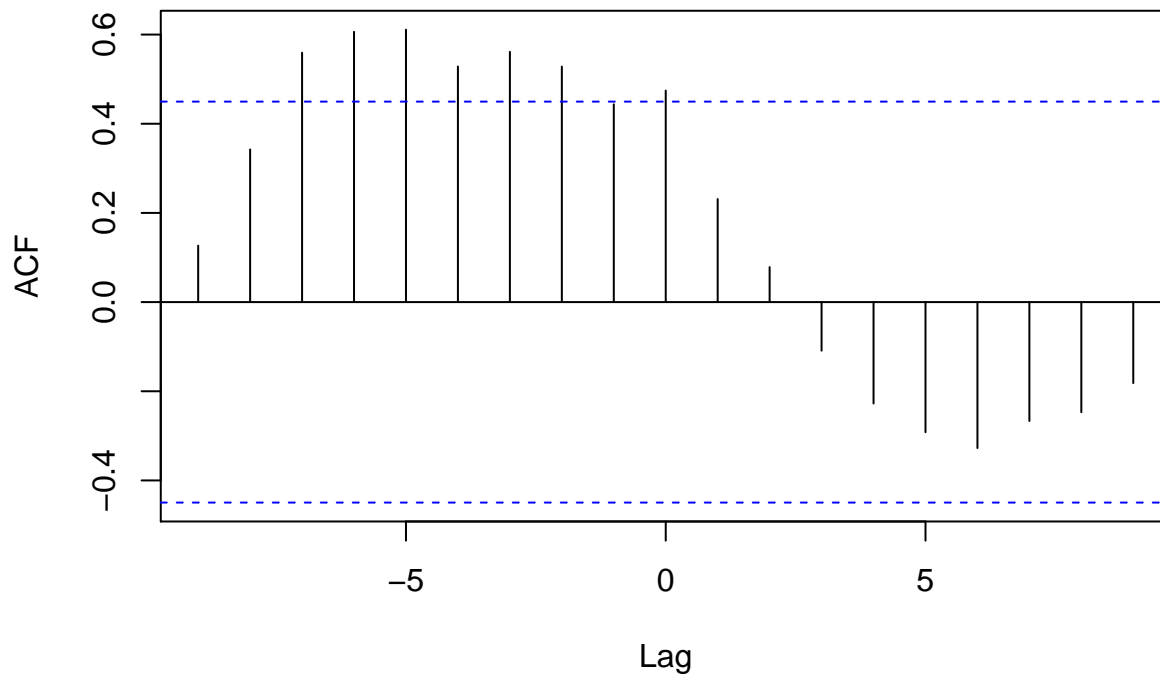
4 wk ahead – 24



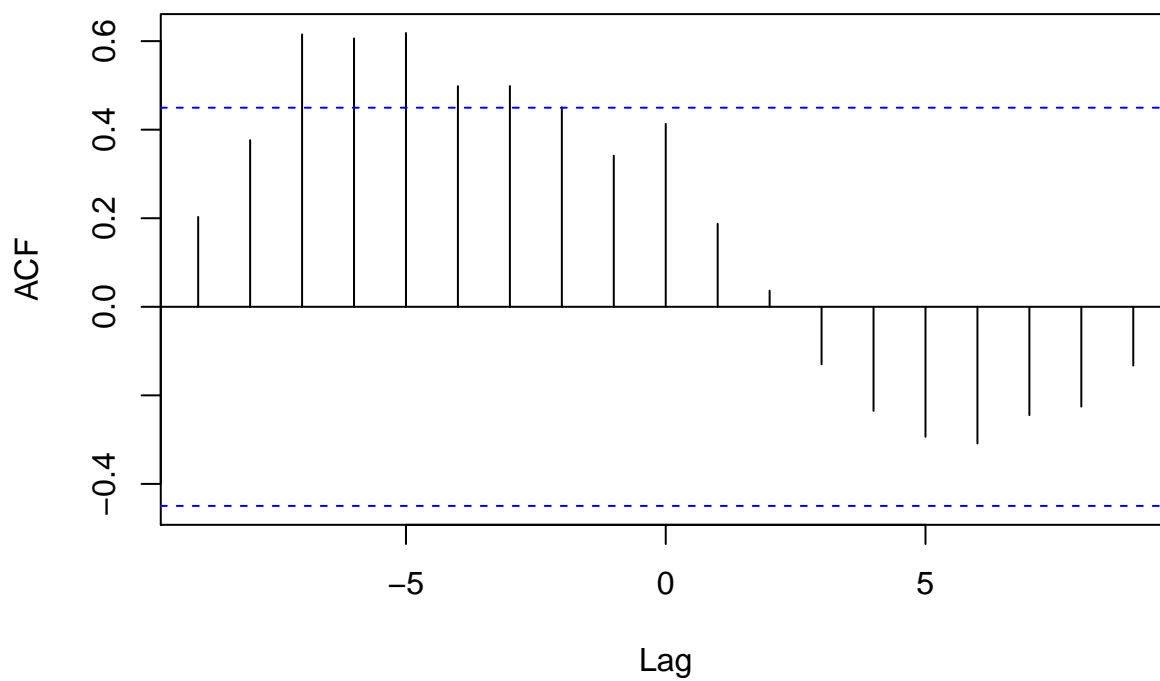
1 wk ahead – 25



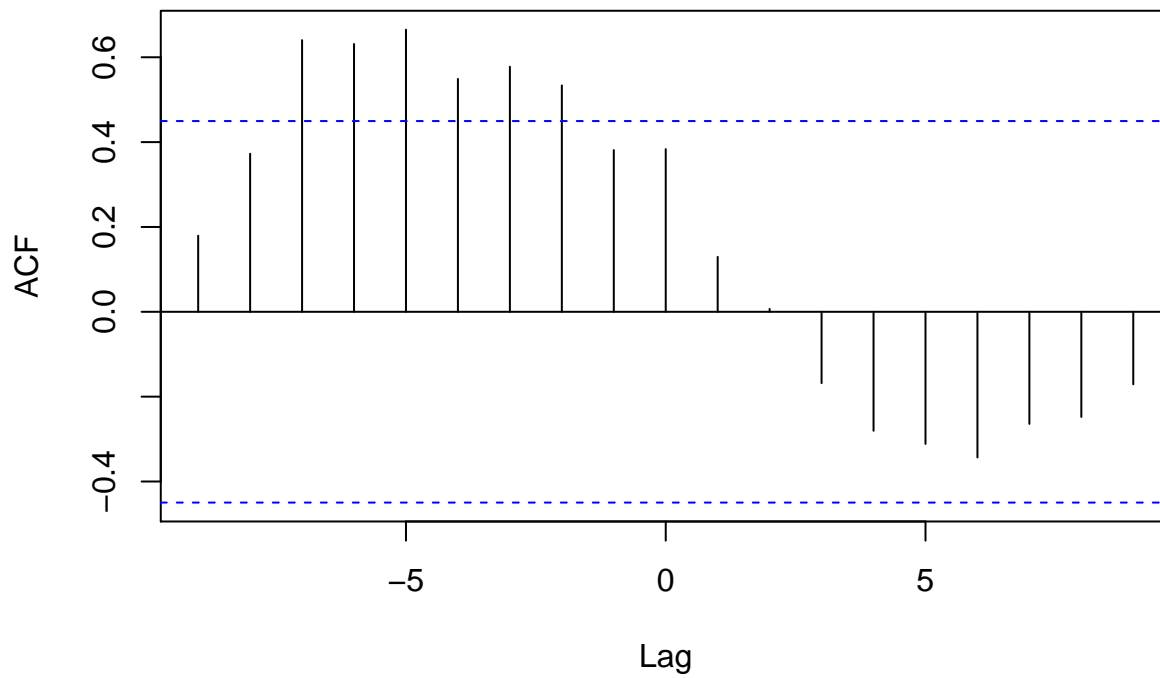
2 wk ahead – 25



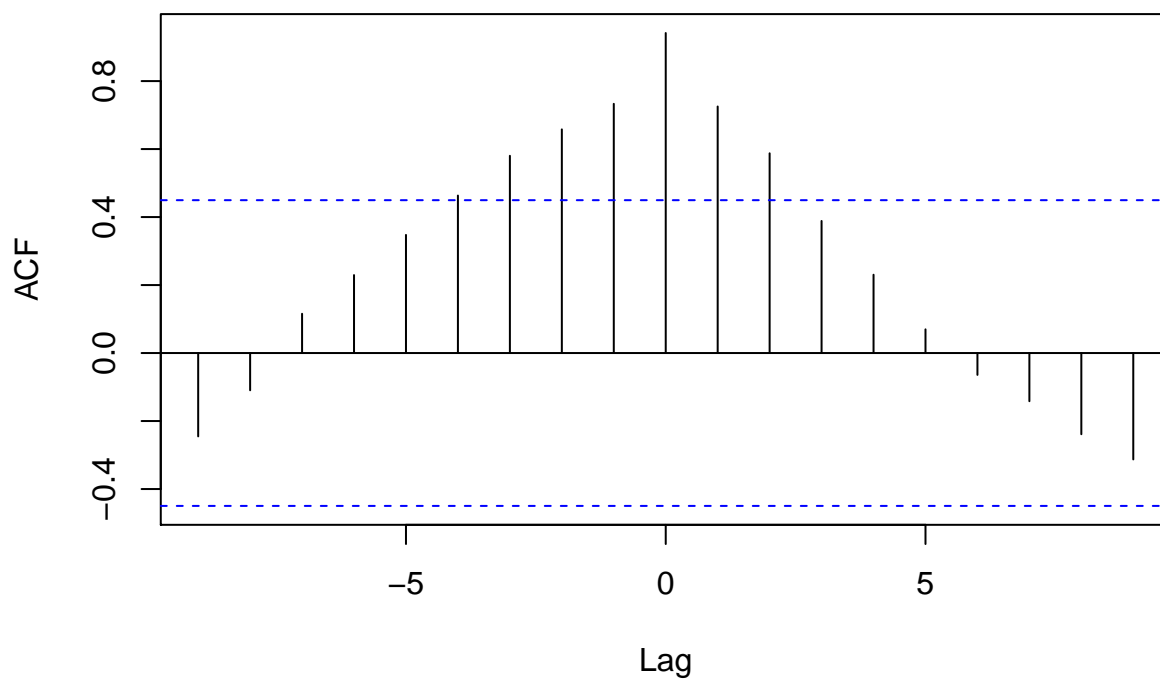
3 wk ahead – 25



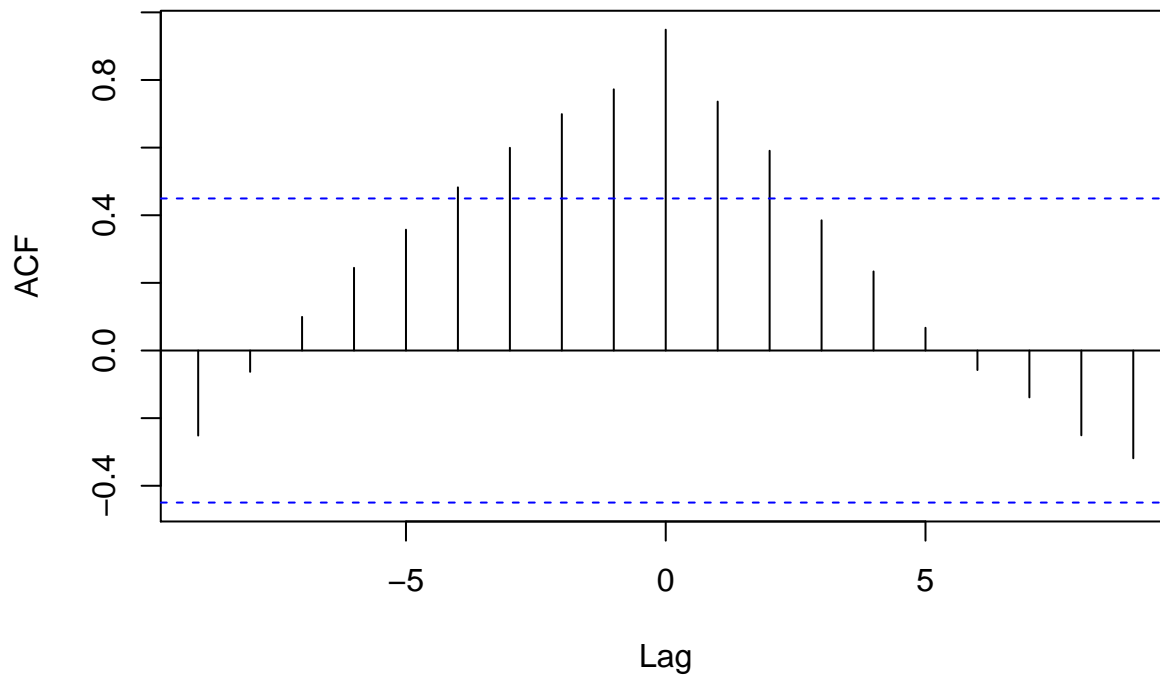
4 wk ahead – 25



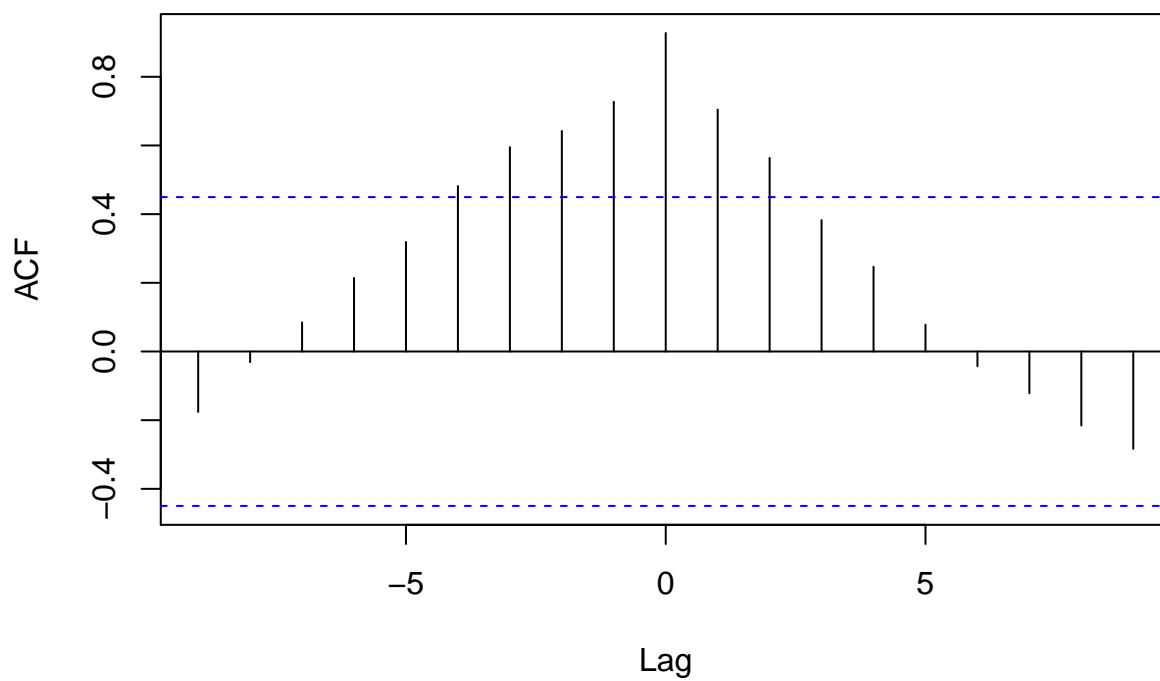
1 wk ahead – 26



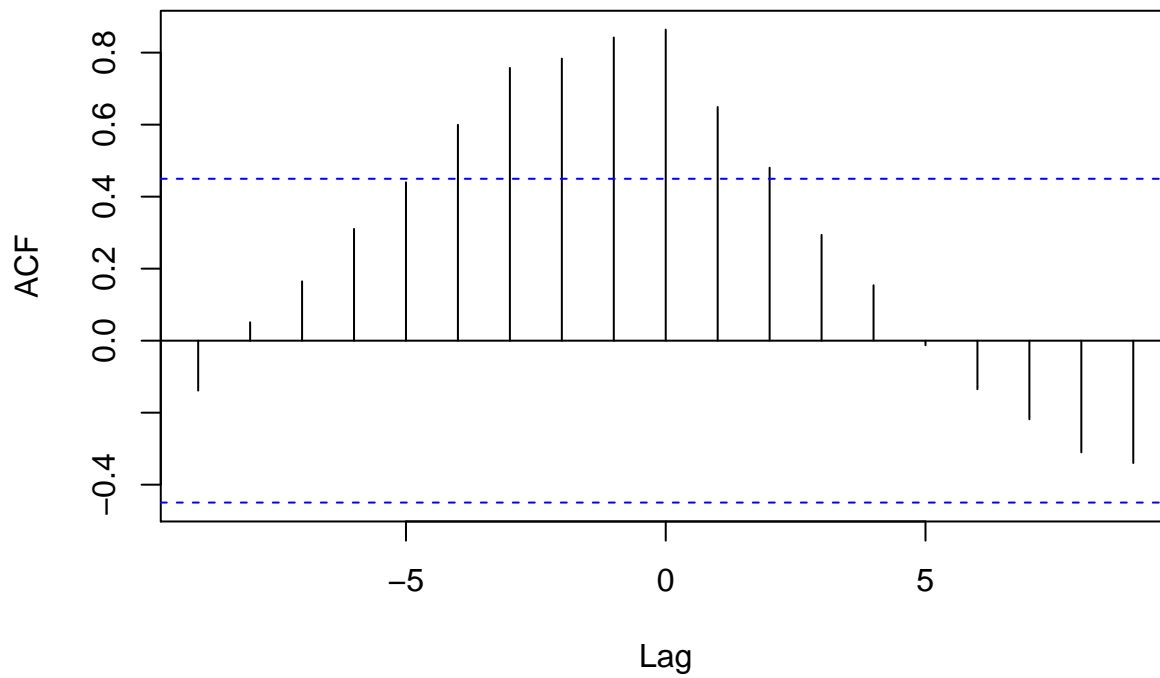
2 wk ahead – 26



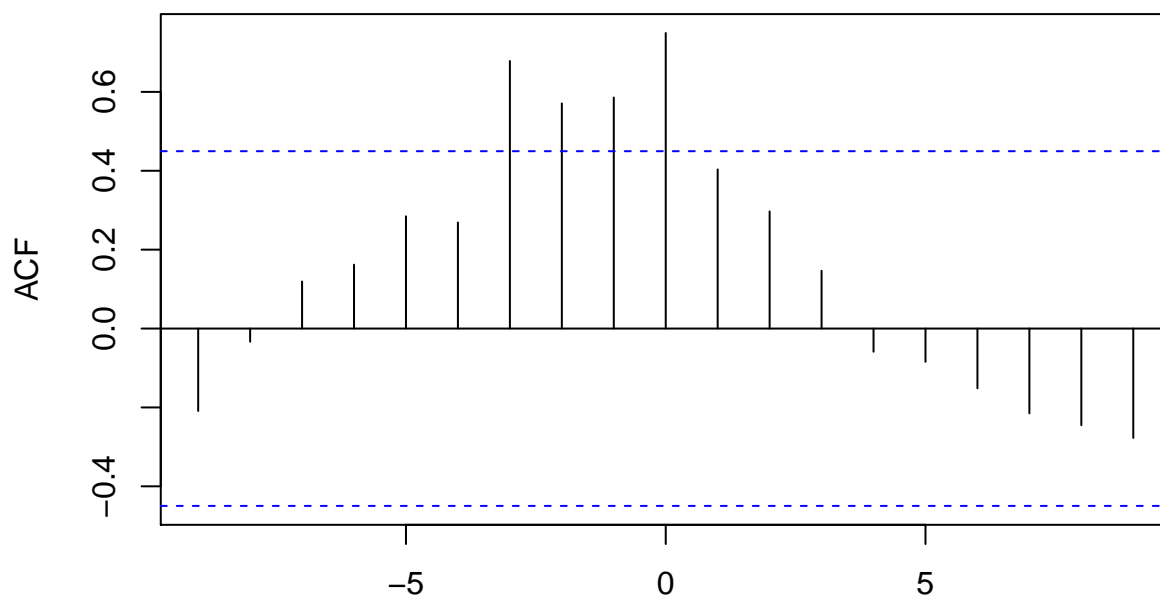
3 wk ahead – 26



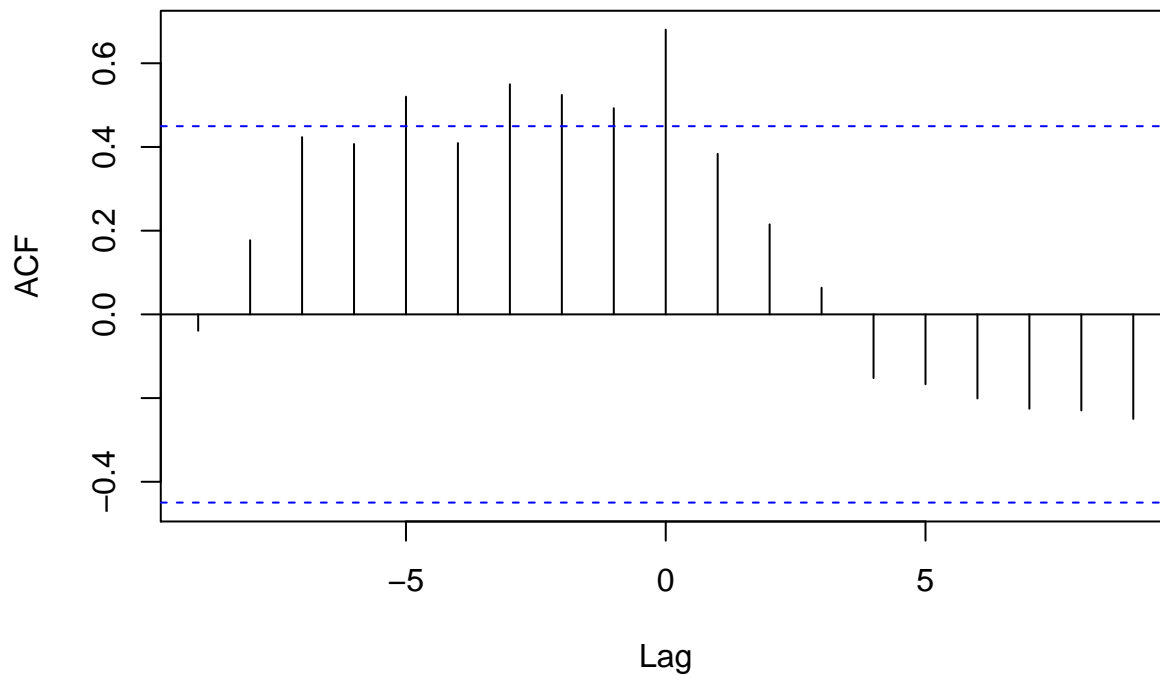
4 wk ahead – 26



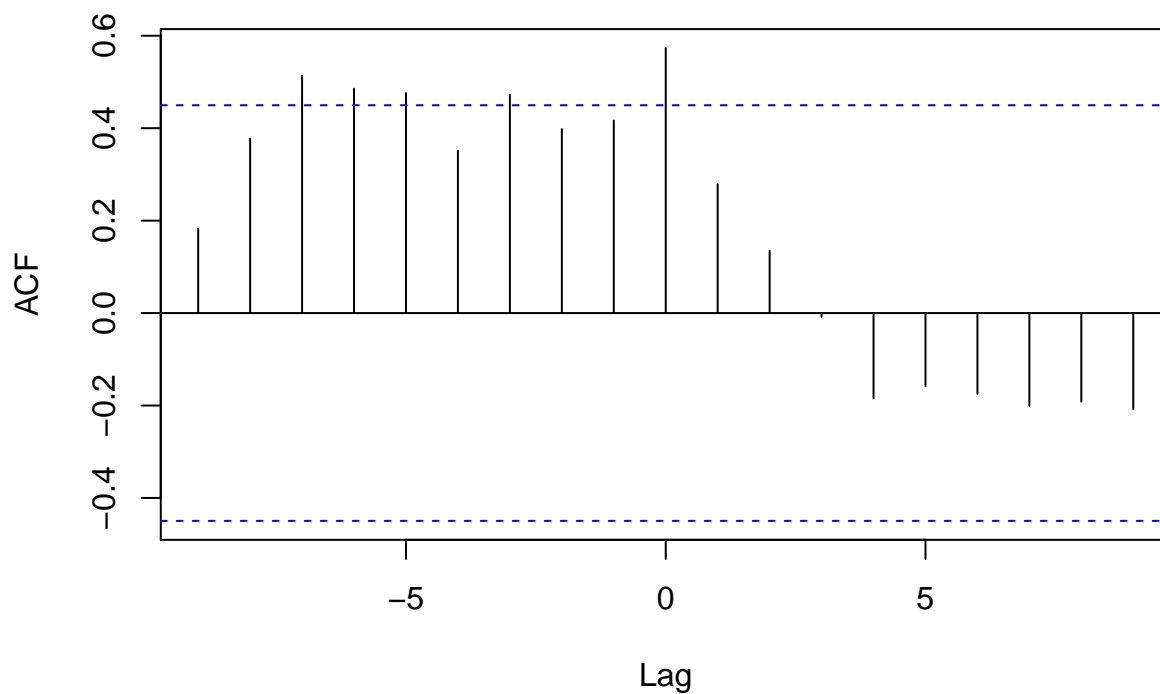
1 wk ahead – 27



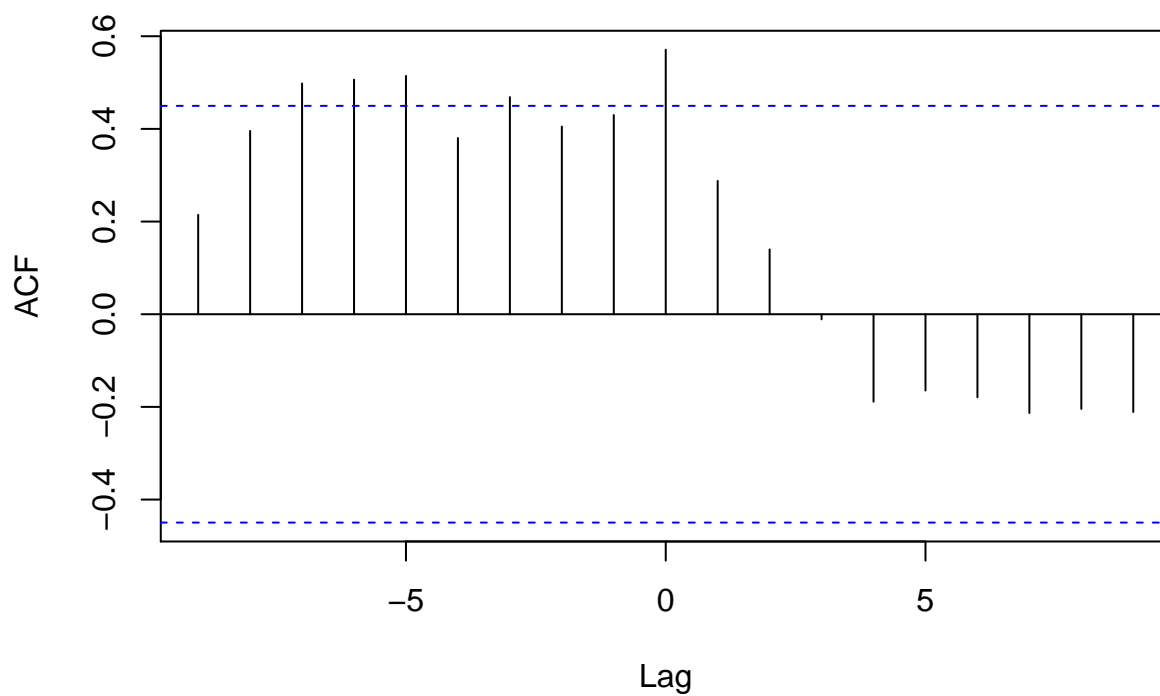
2 wk ahead – 27



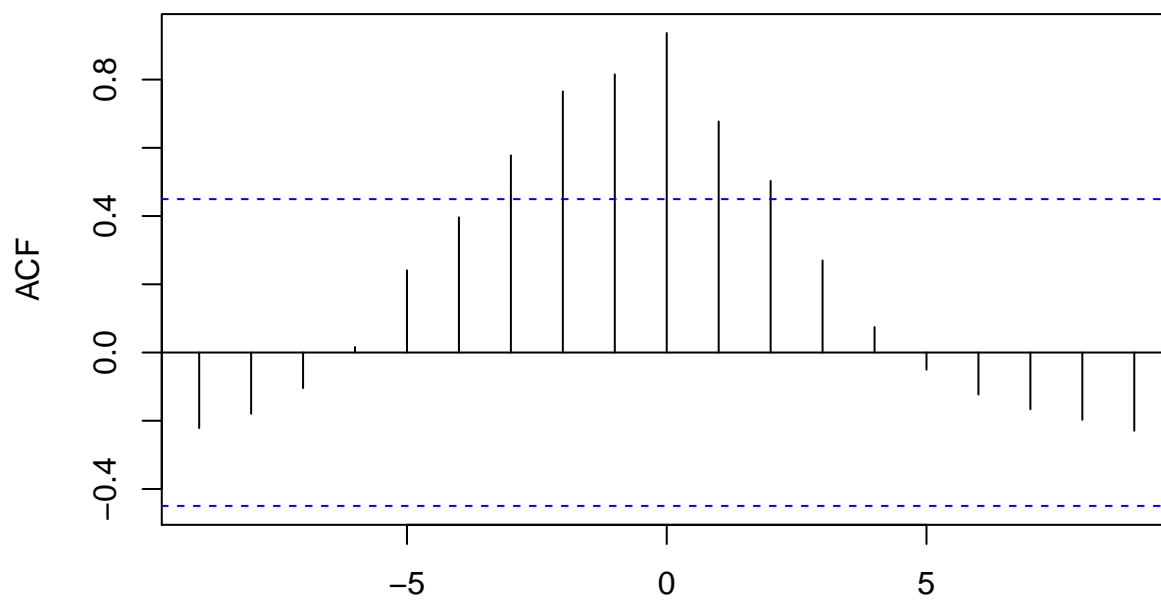
3 wk ahead – 27



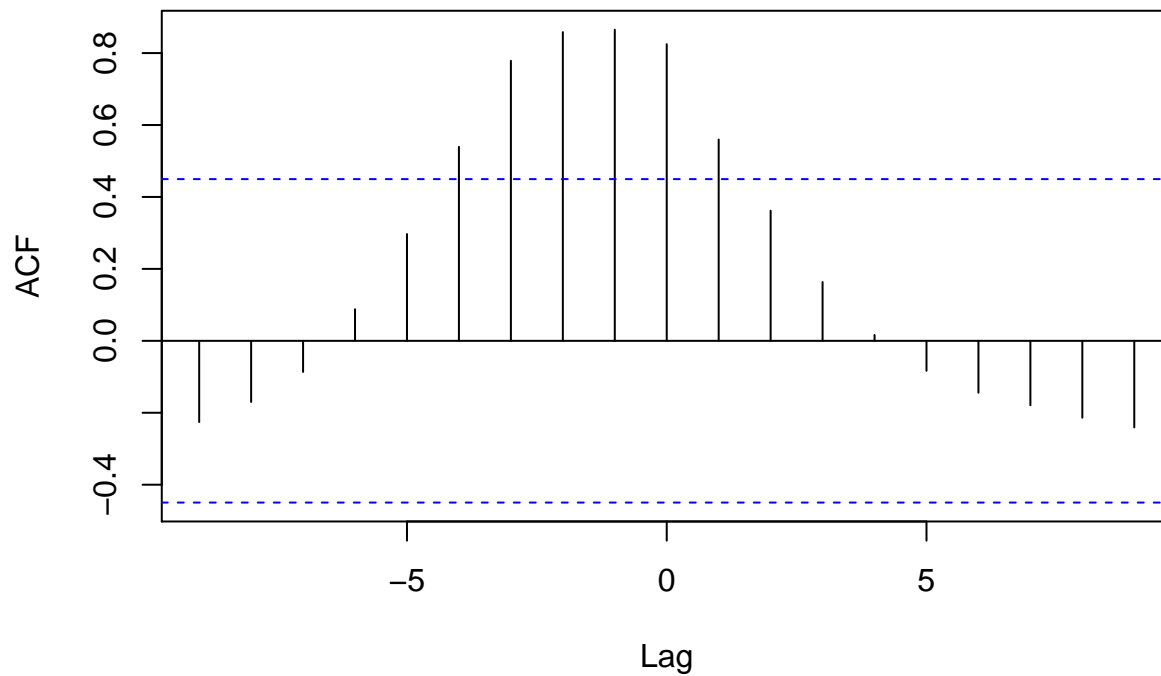
4 wk ahead – 27



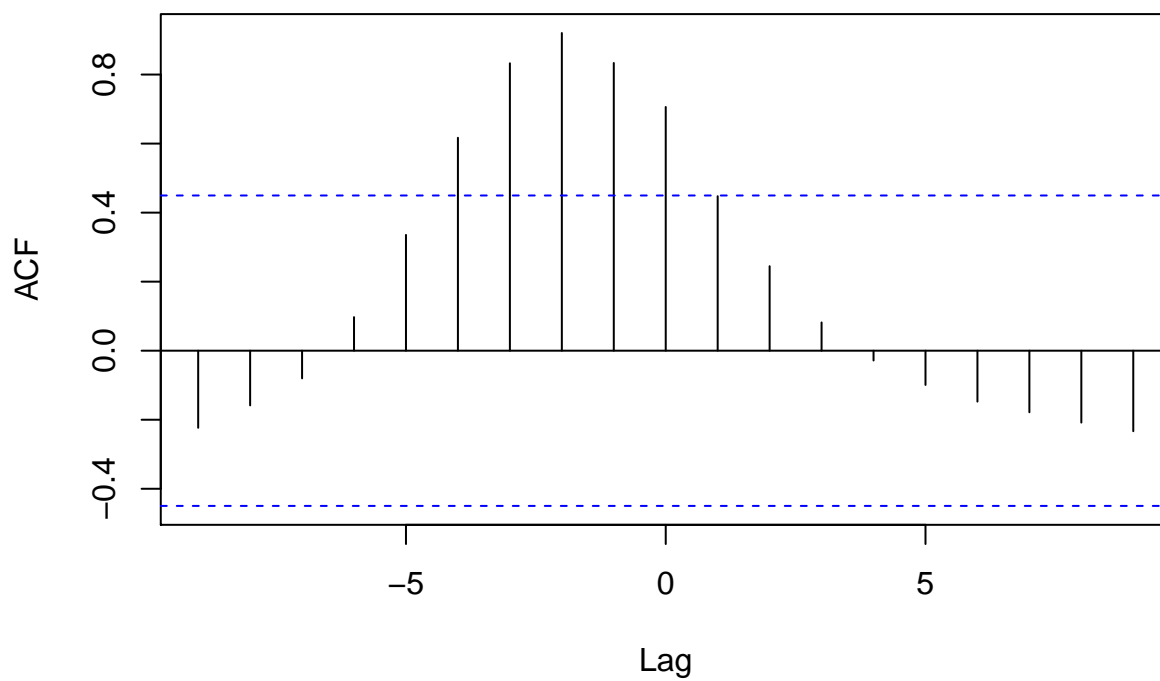
1 wk ahead – 28



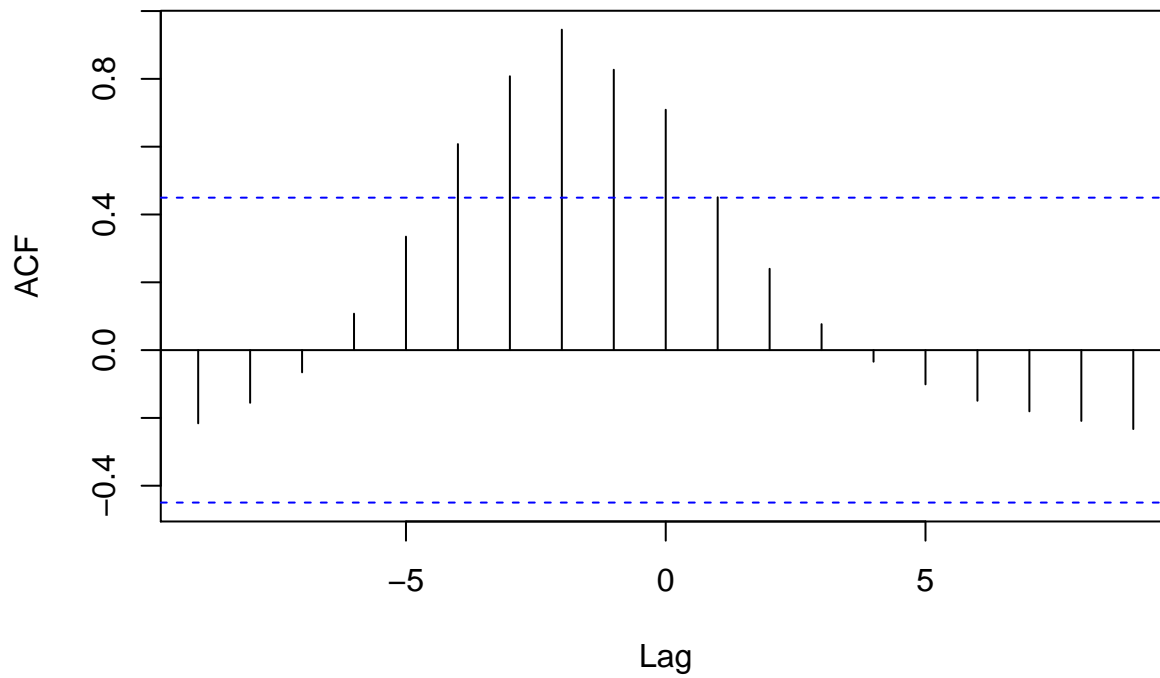
2 wk ahead – 28



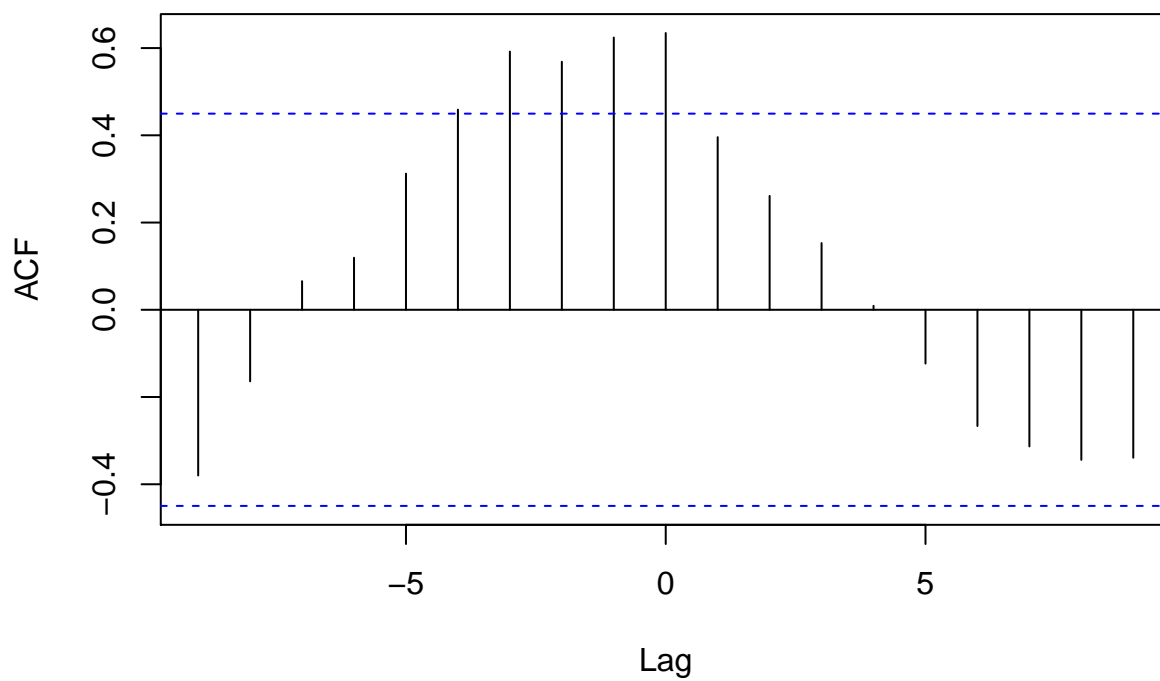
3 wk ahead – 28



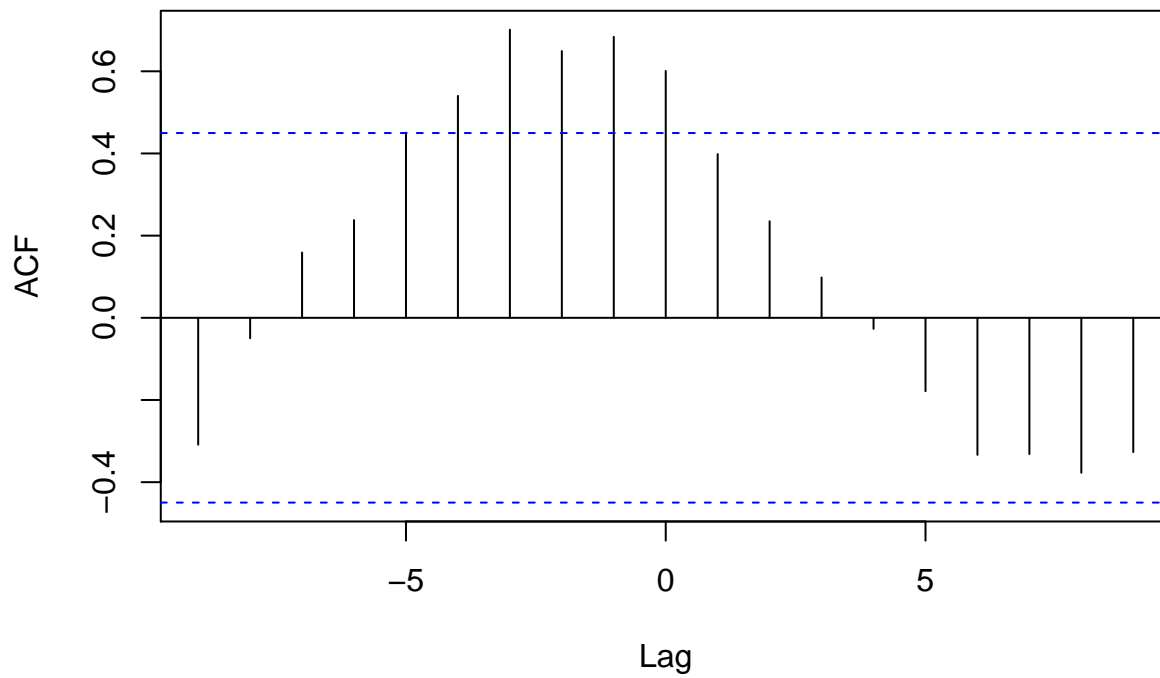
4 wk ahead – 28



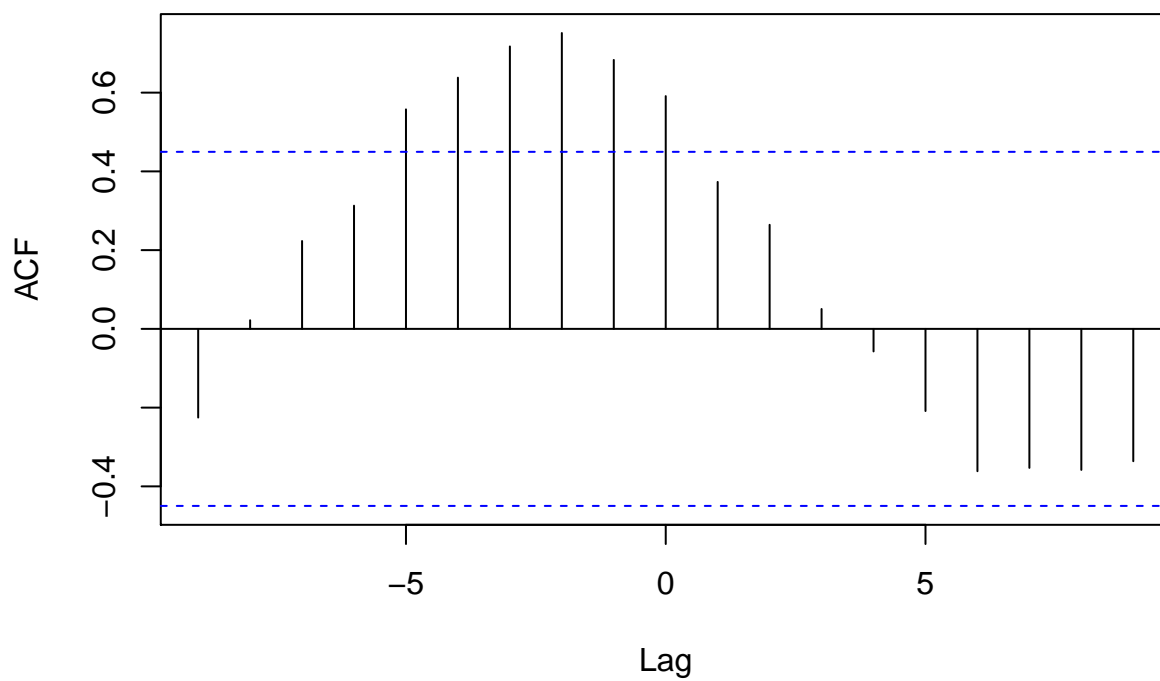
1 wk ahead – 29



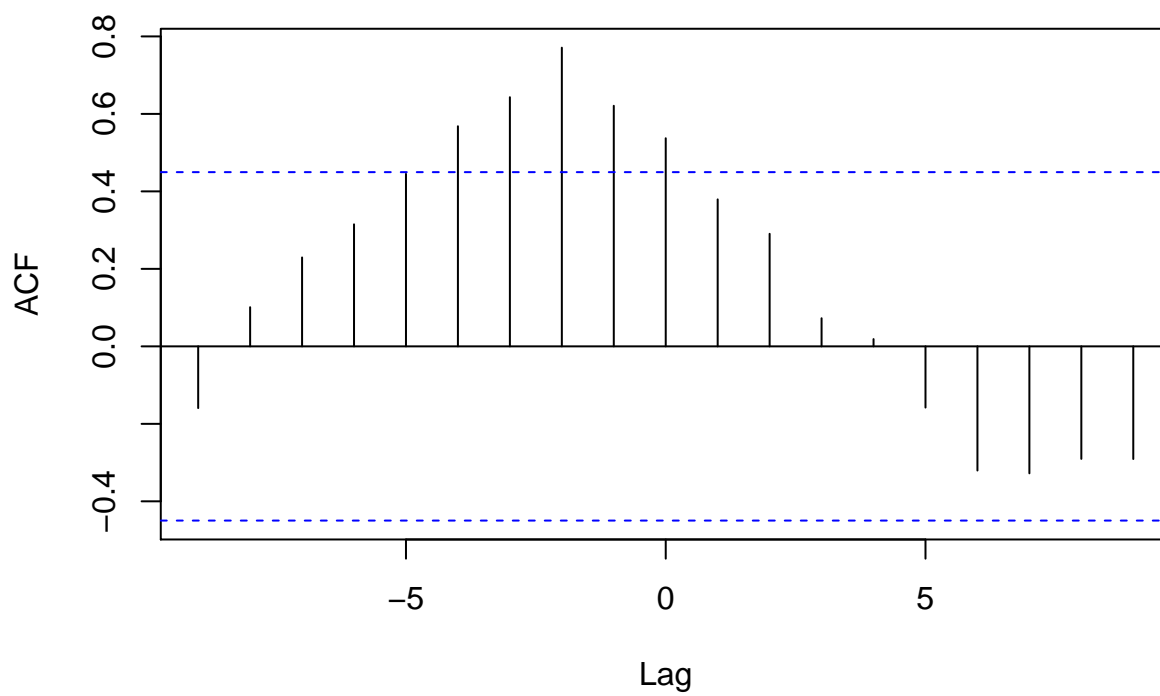
2 wk ahead – 29



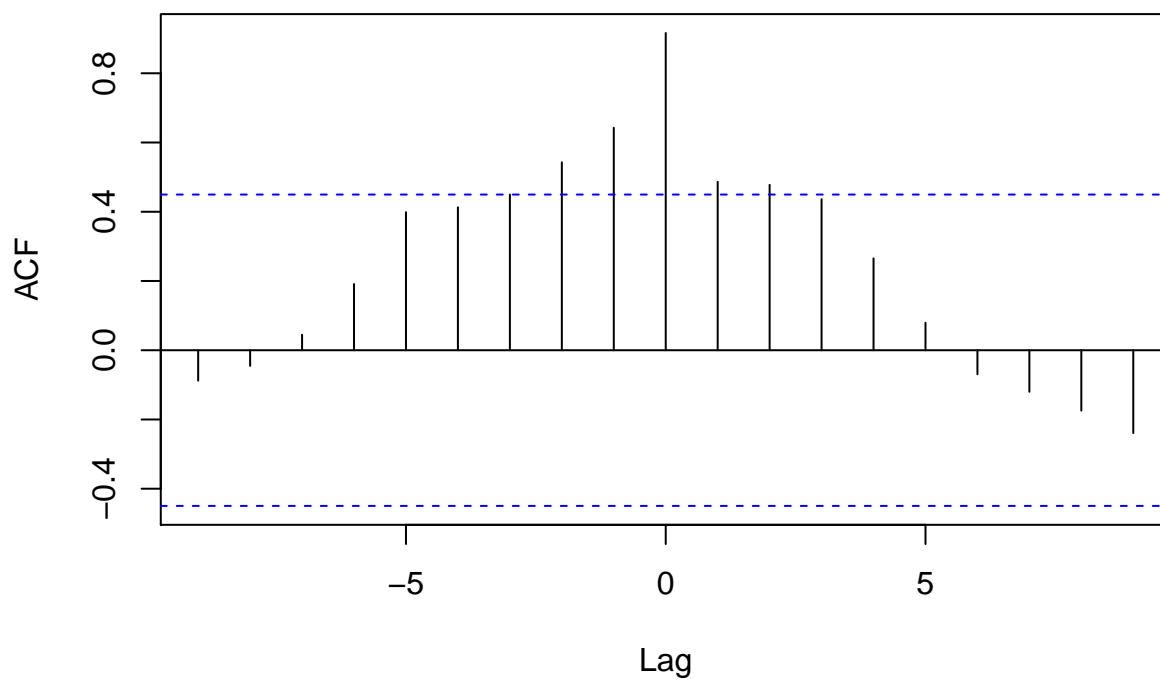
3 wk ahead – 29



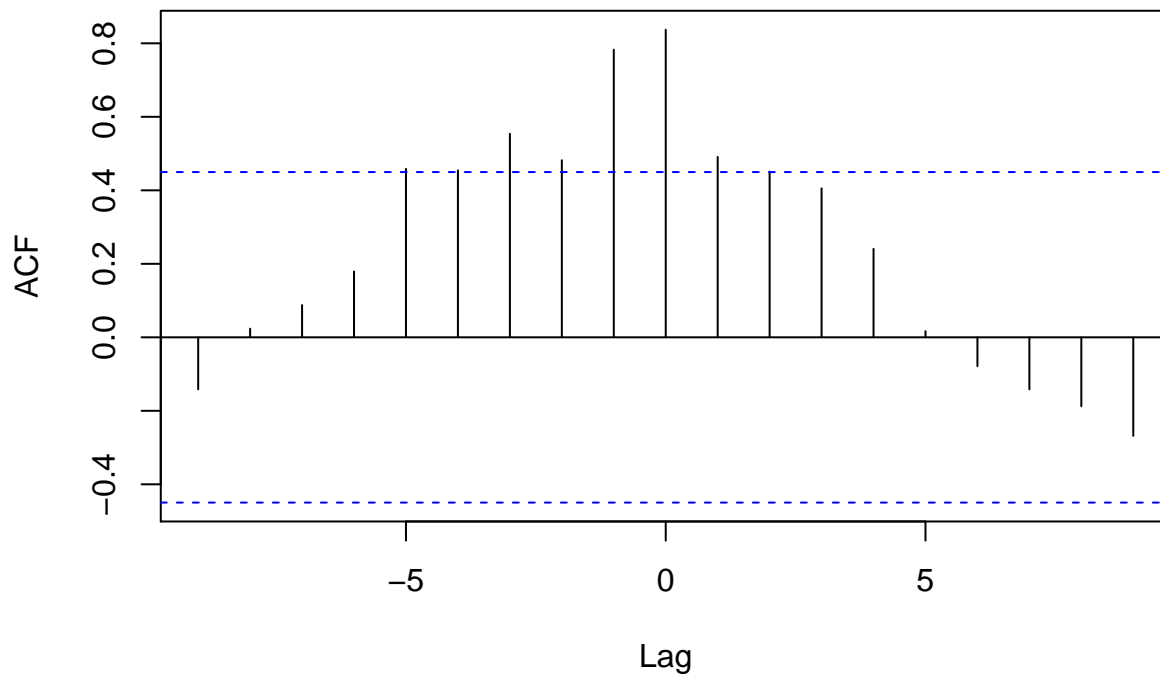
4 wk ahead – 29



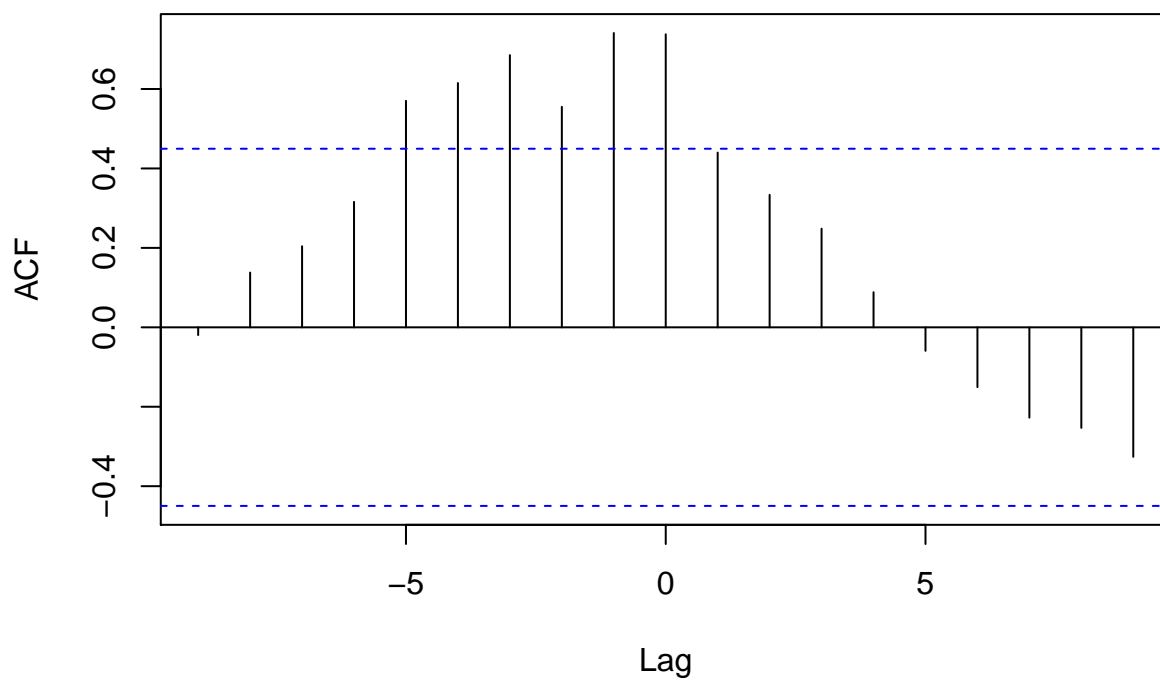
1 wk ahead – 30



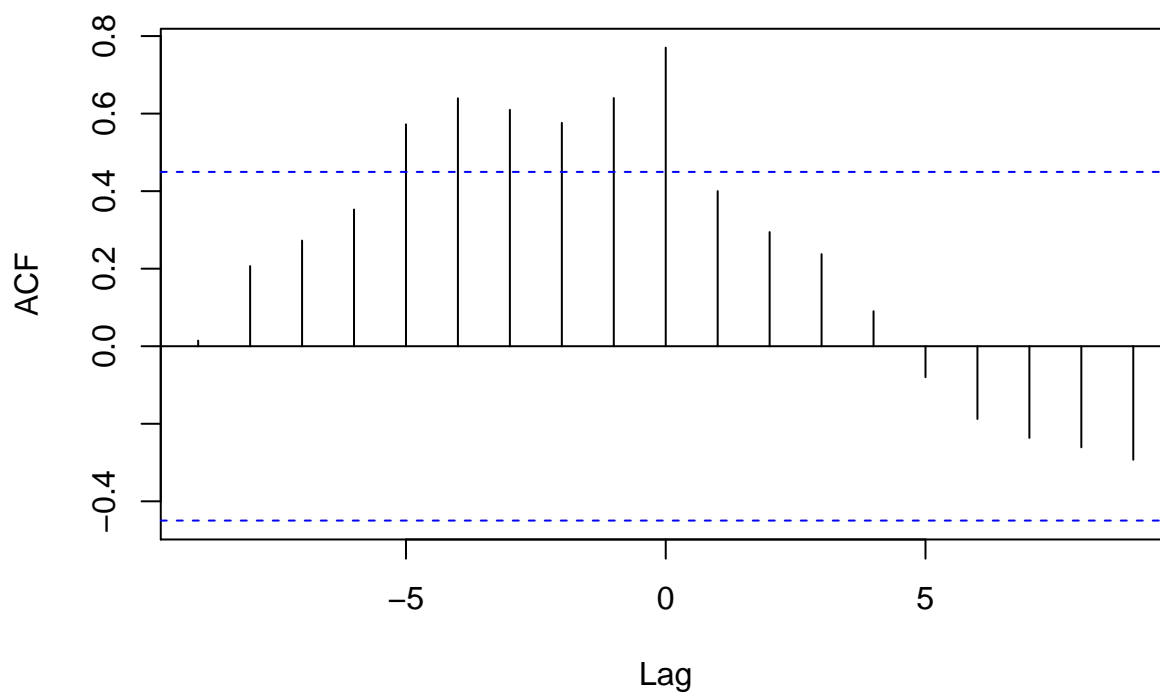
2 wk ahead – 30



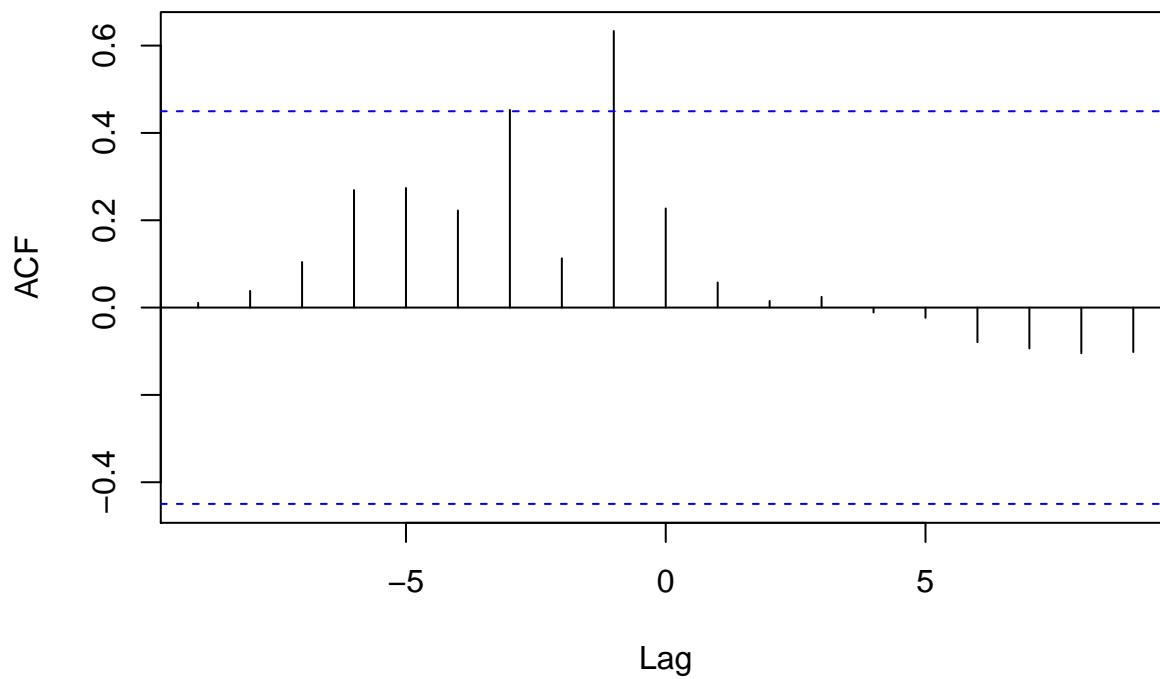
3 wk ahead – 30



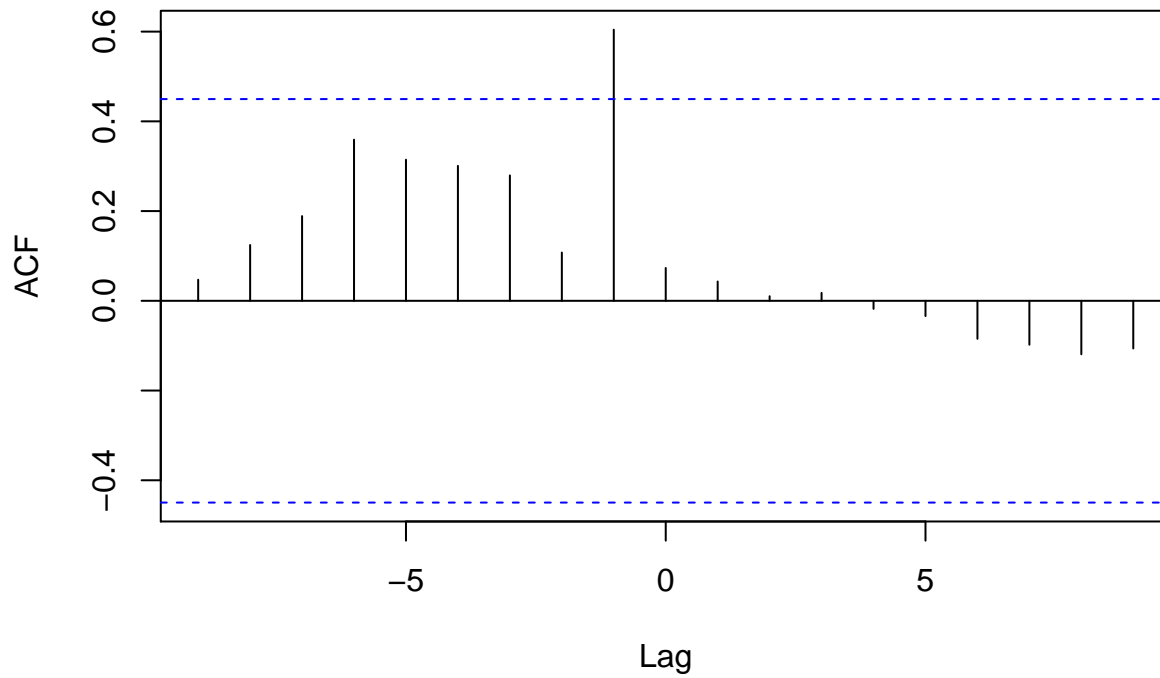
4 wk ahead – 30



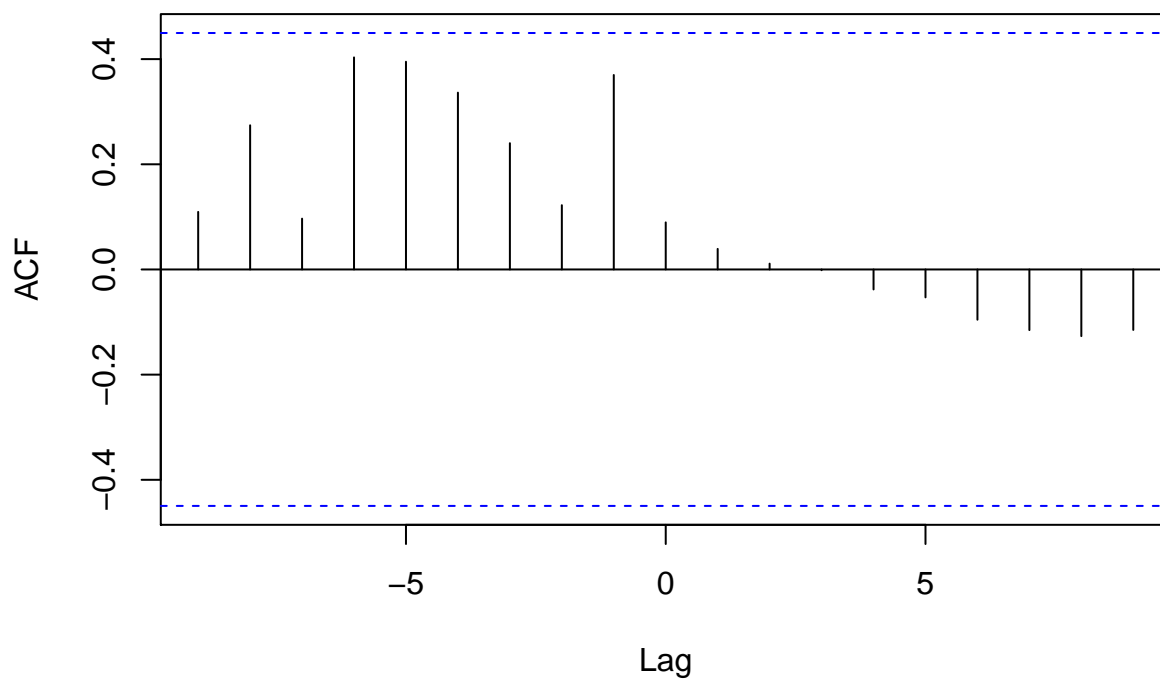
1 wk ahead – 31



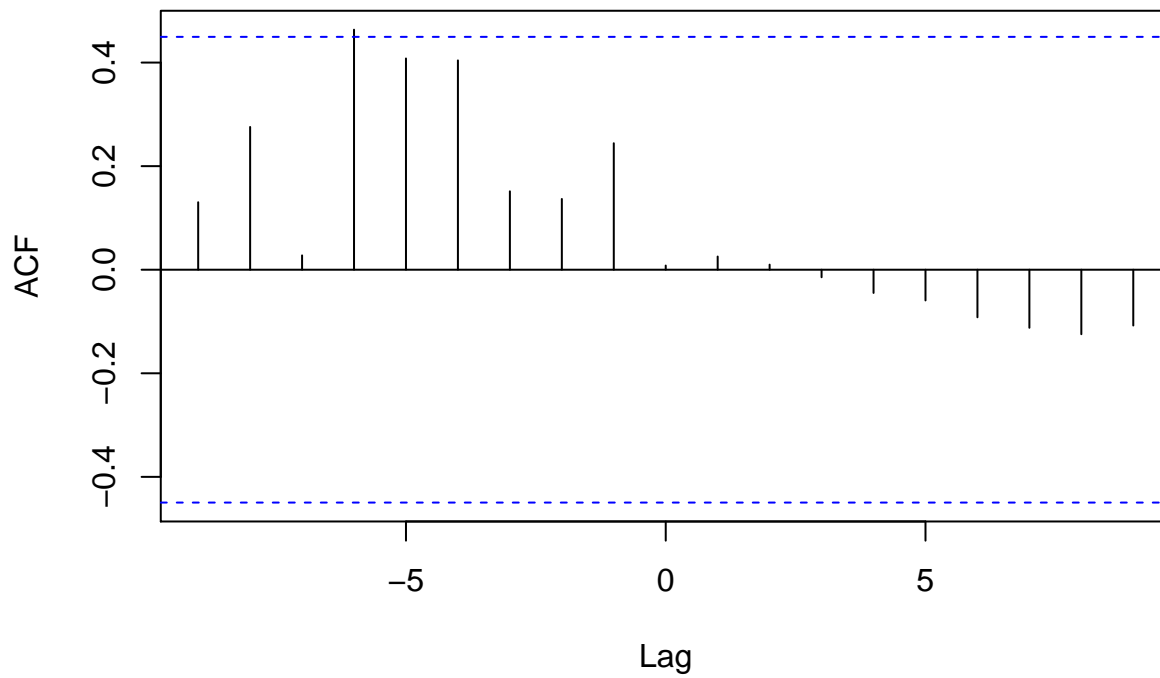
2 wk ahead – 31



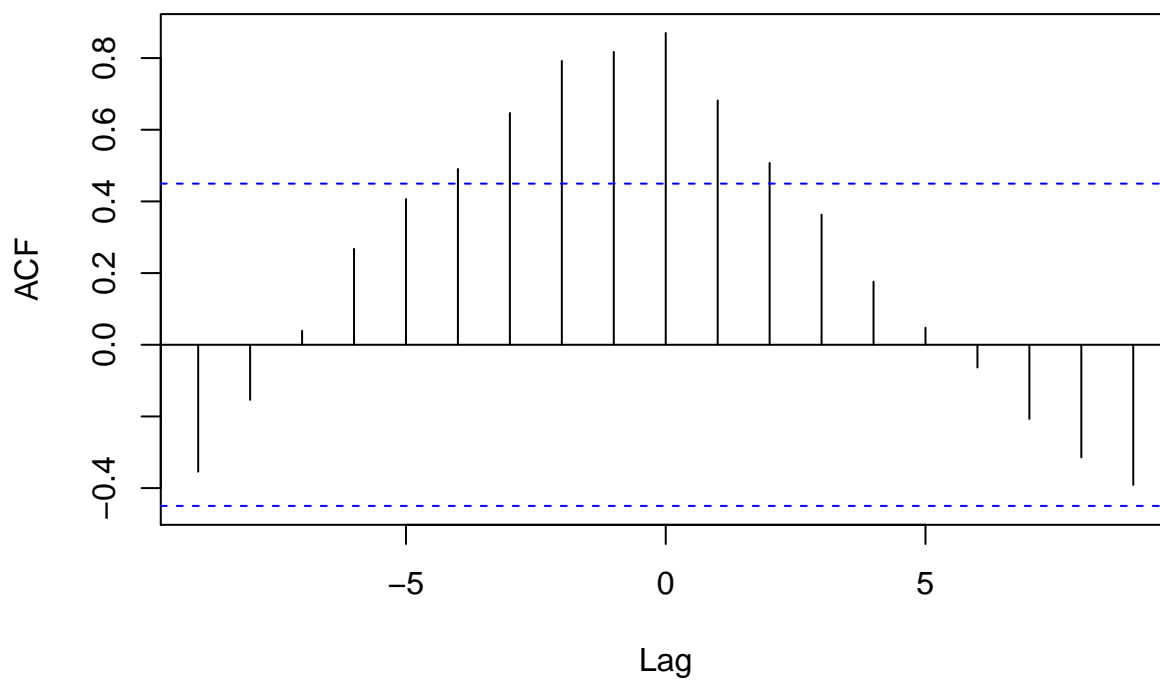
3 wk ahead – 31



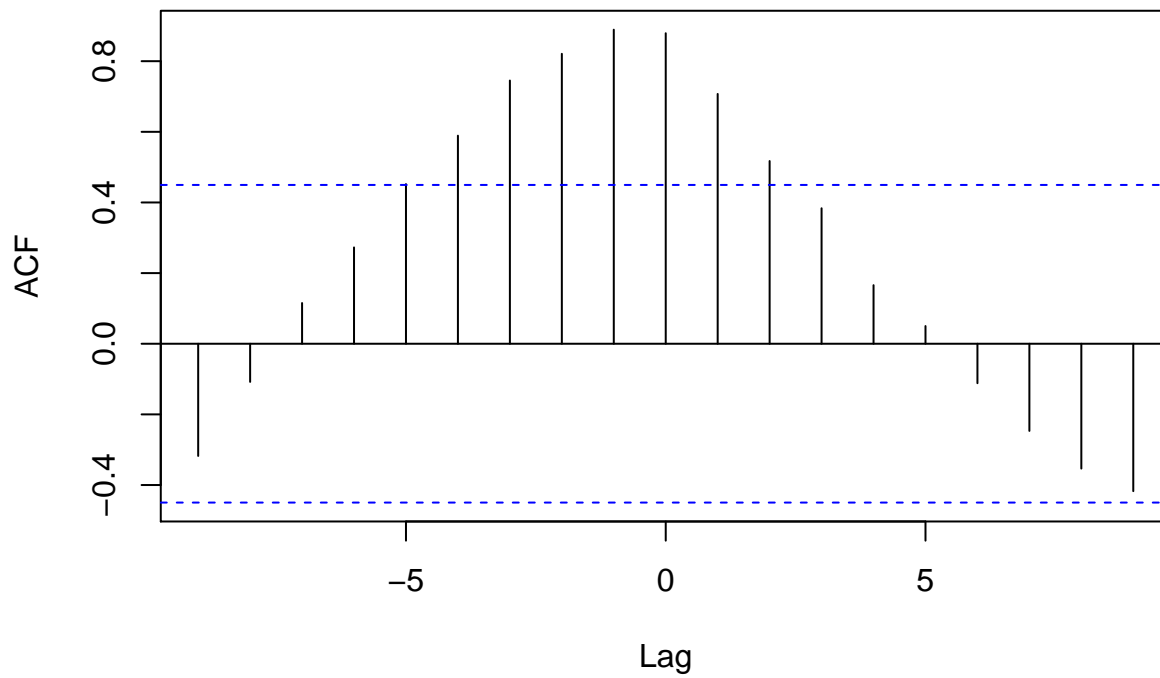
4 wk ahead – 31



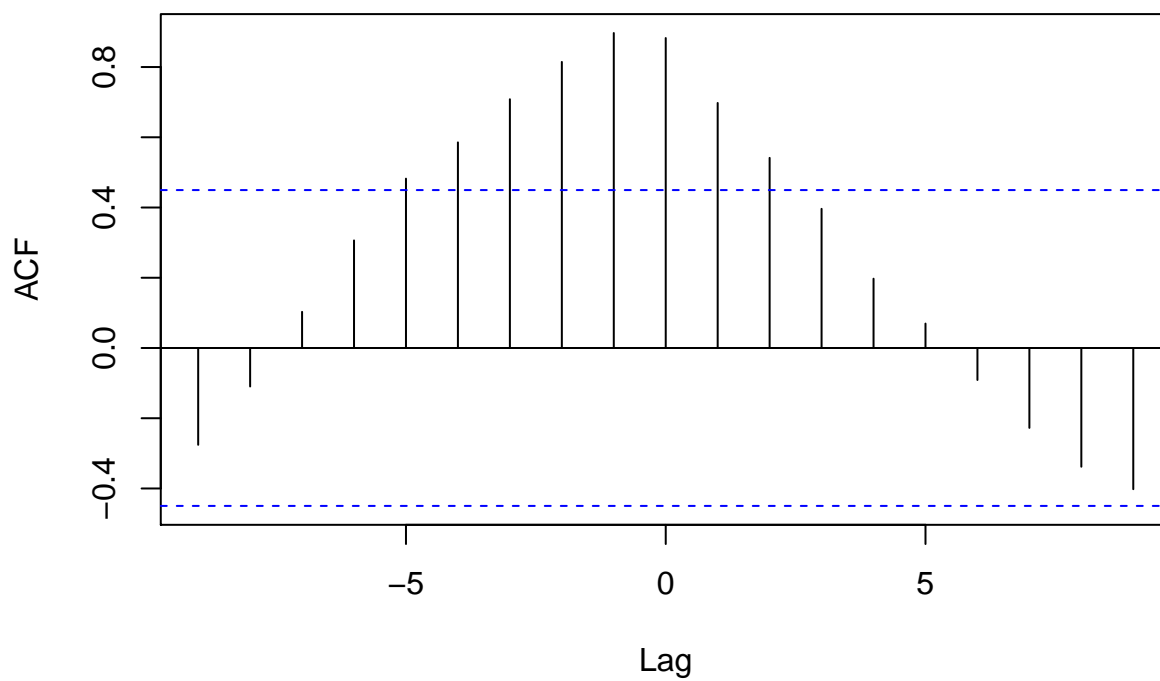
1 wk ahead – 32



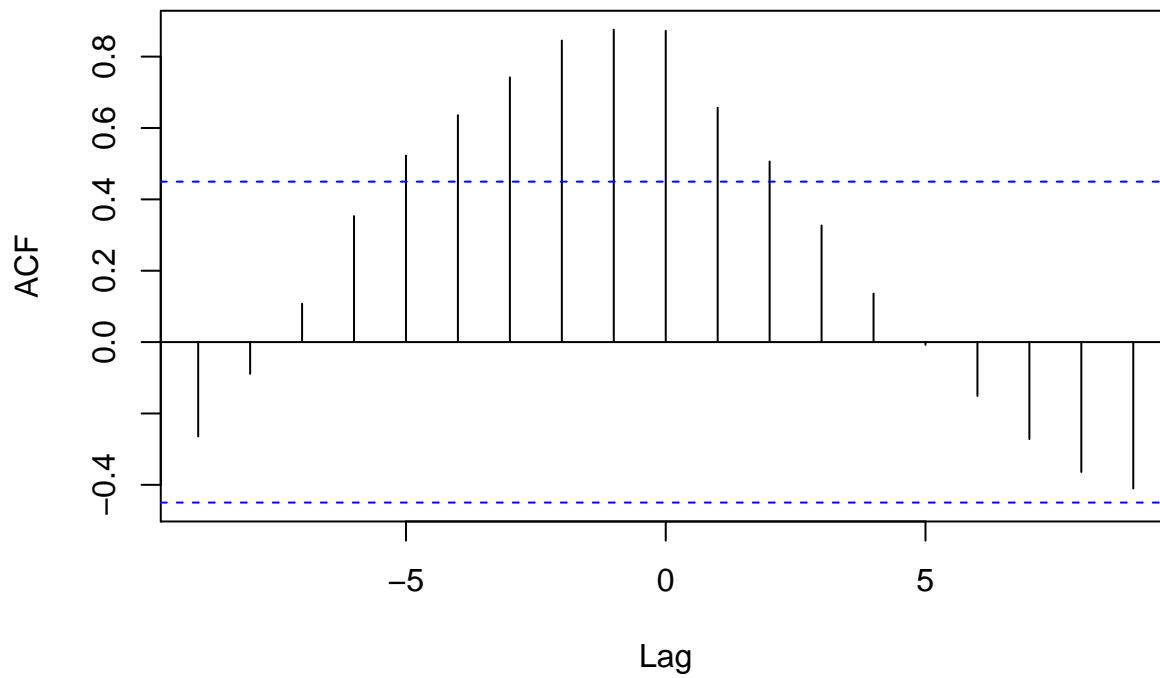
2 wk ahead – 32



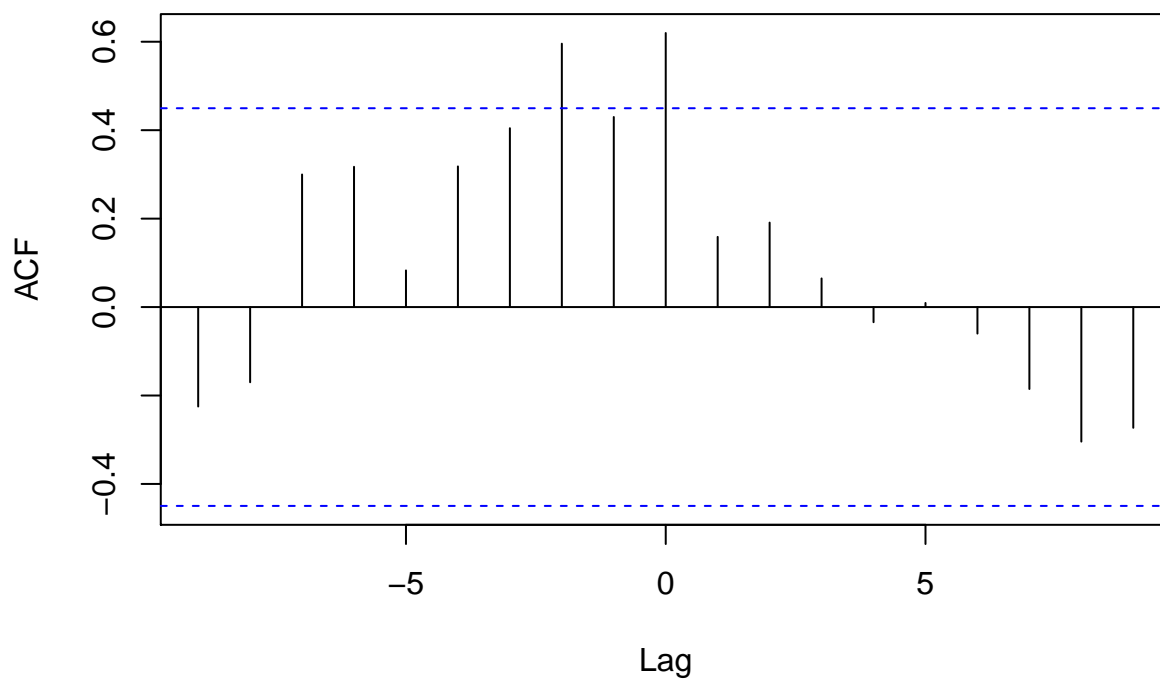
3 wk ahead – 32



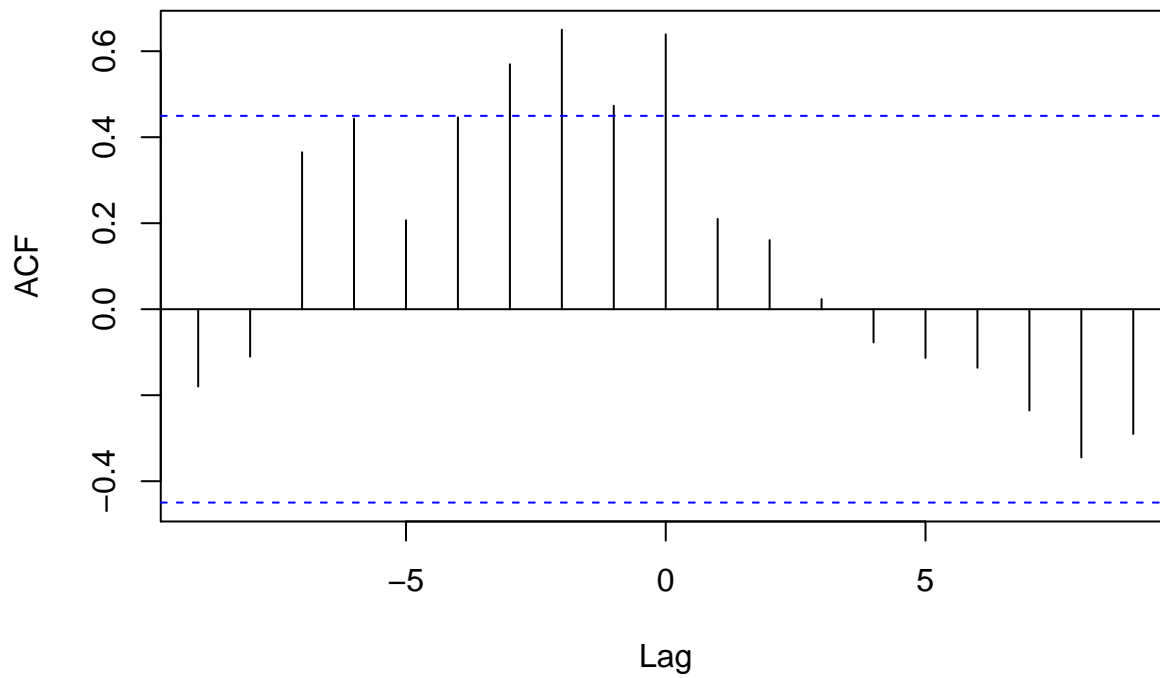
4 wk ahead – 32



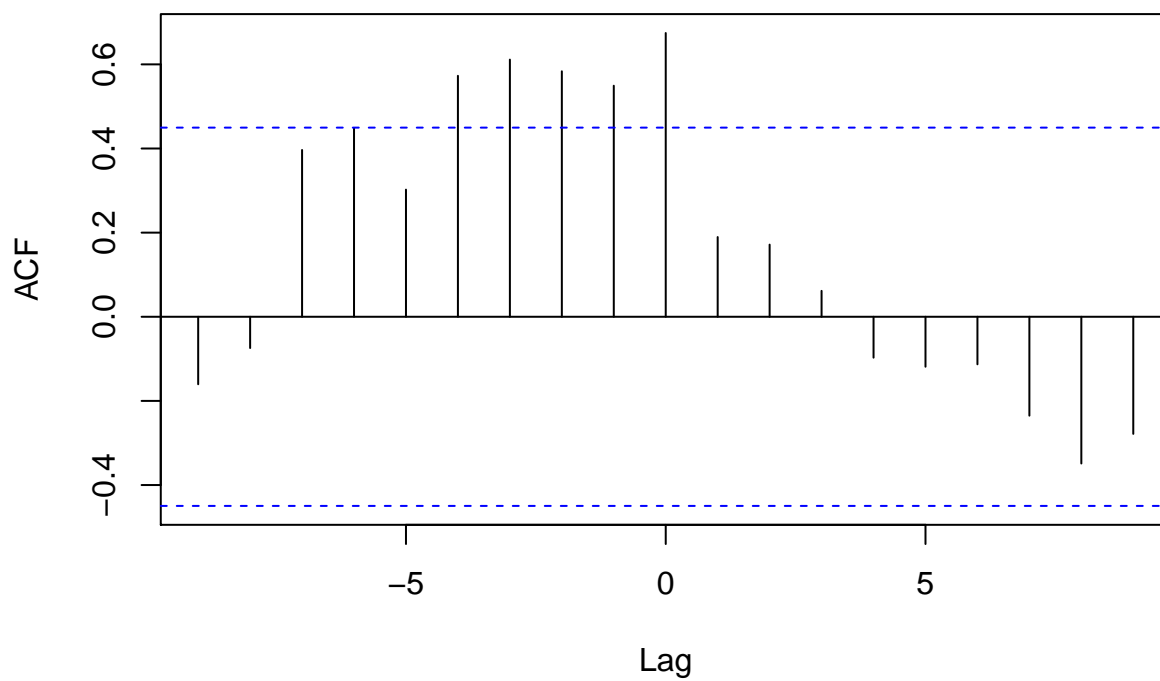
1 wk ahead – 33



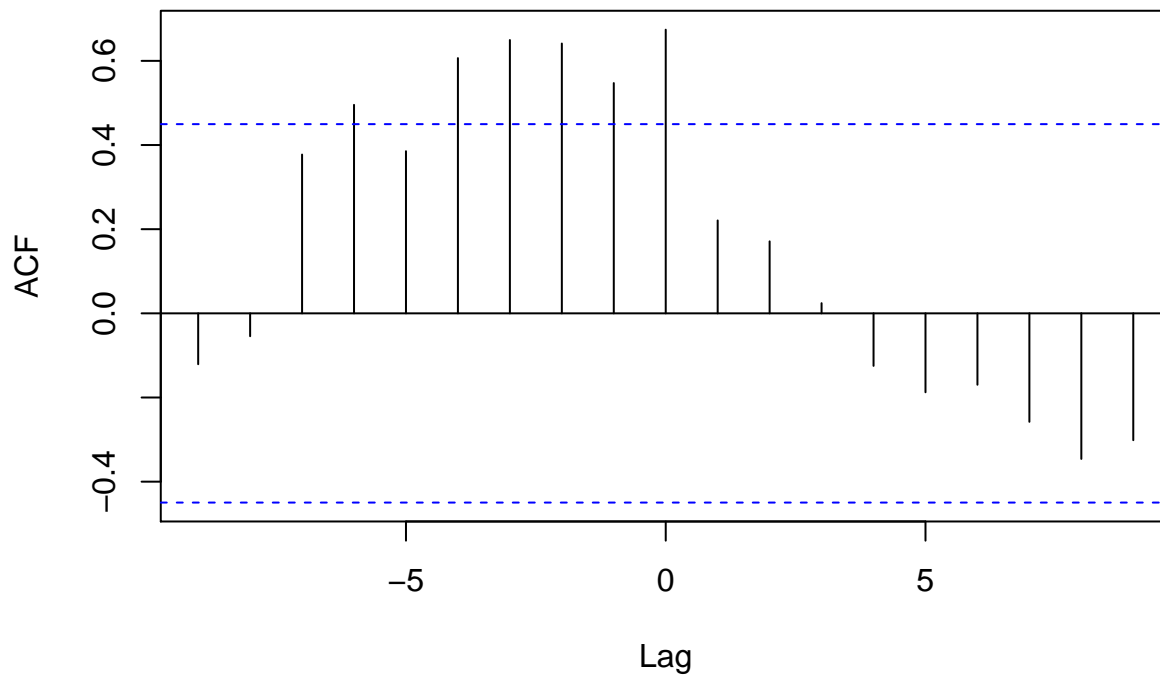
2 wk ahead – 33



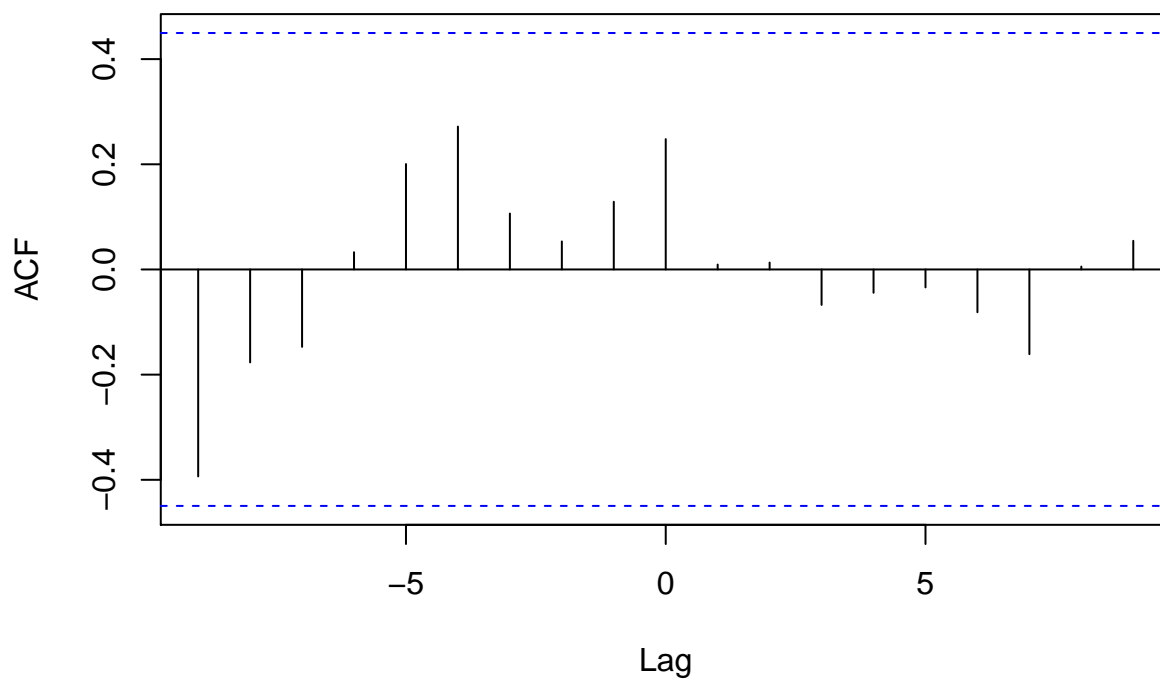
3 wk ahead – 33



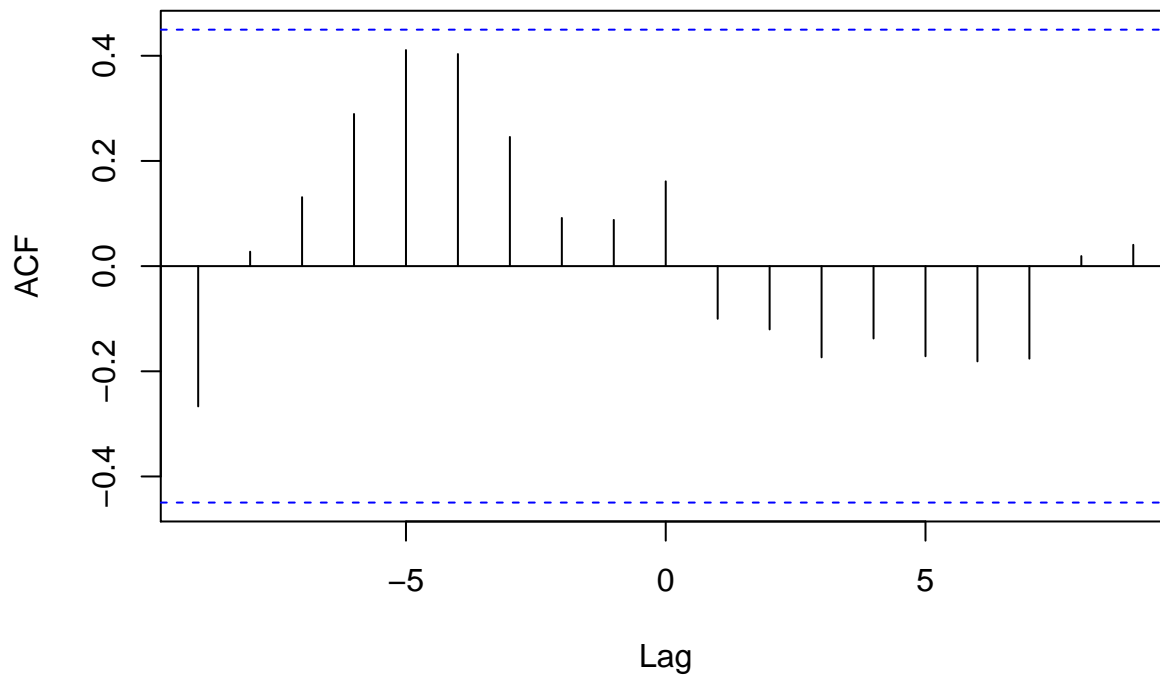
4 wk ahead – 33



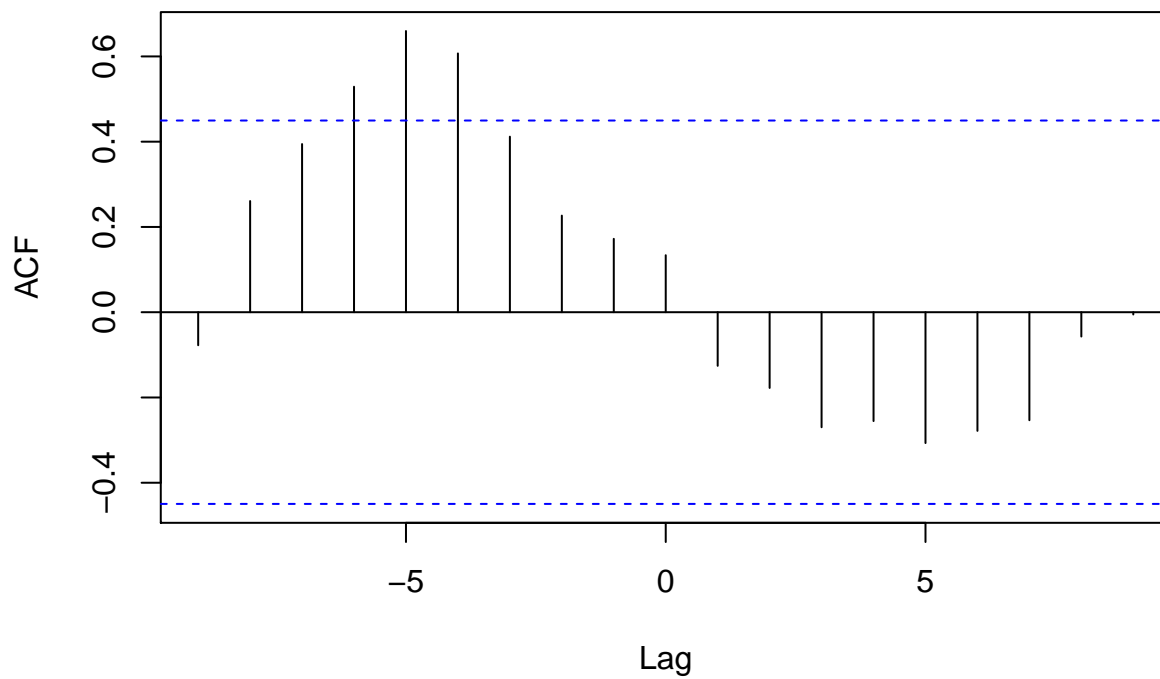
1 wk ahead – 34



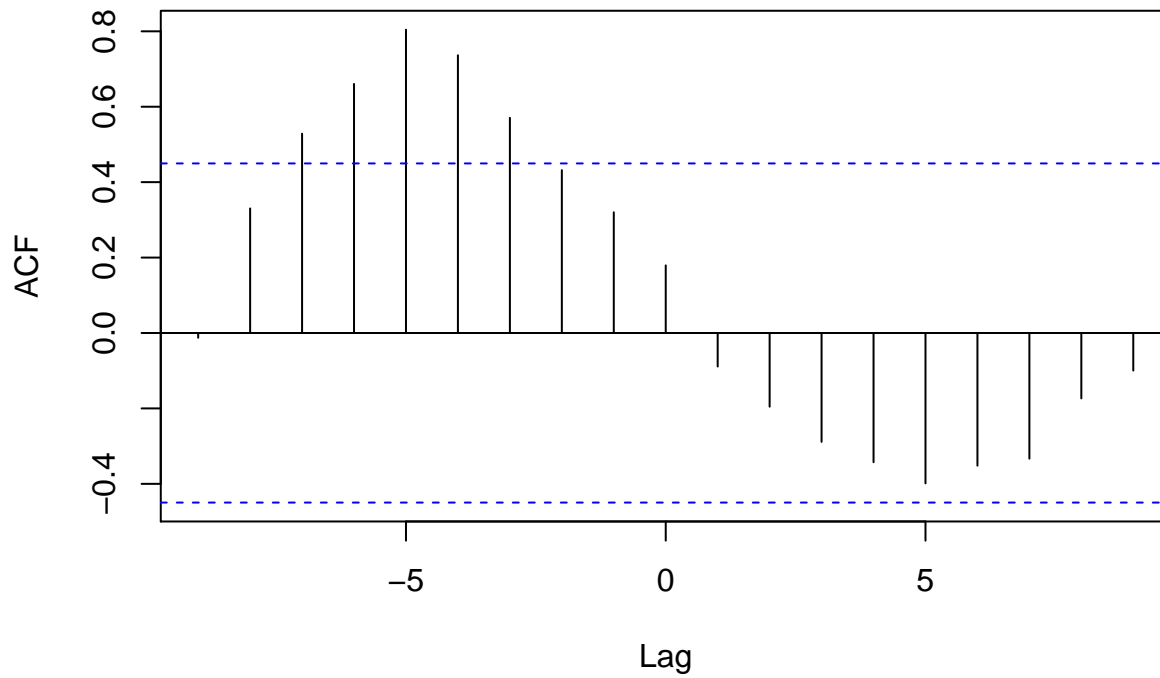
2 wk ahead – 34



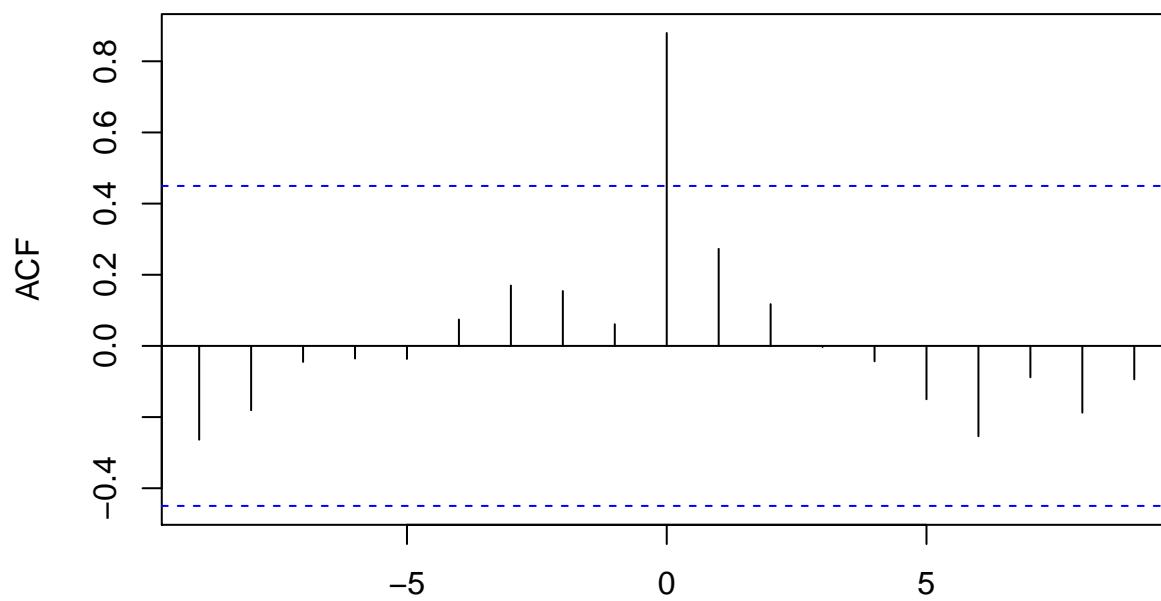
3 wk ahead – 34



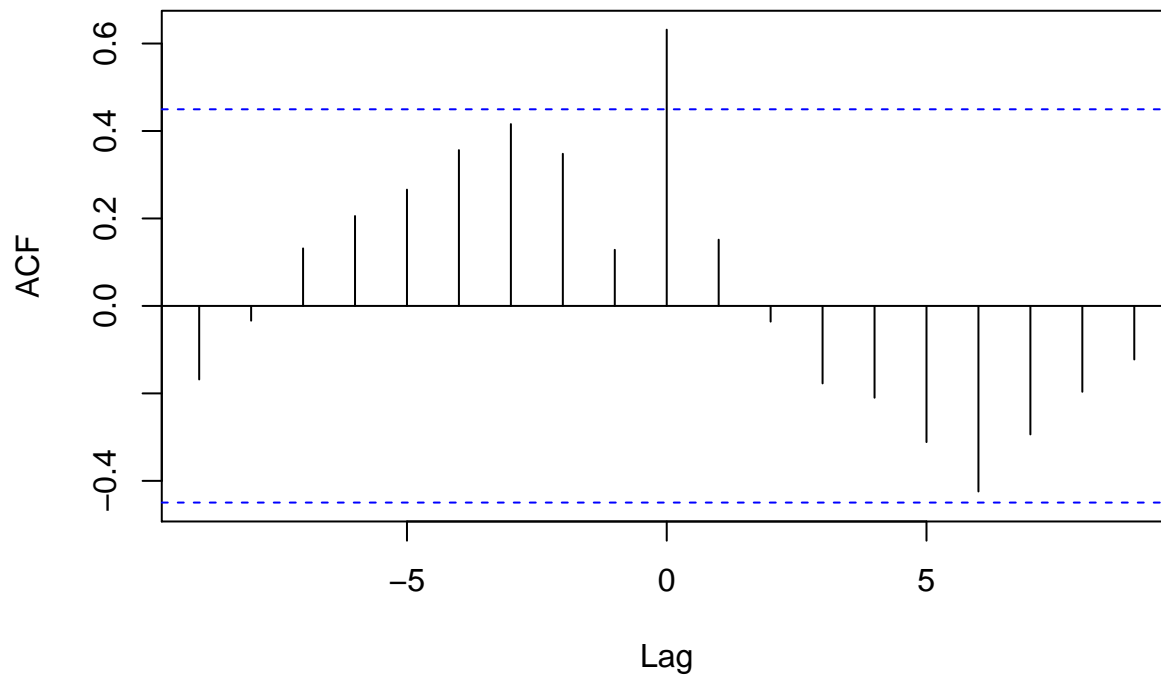
4 wk ahead – 34



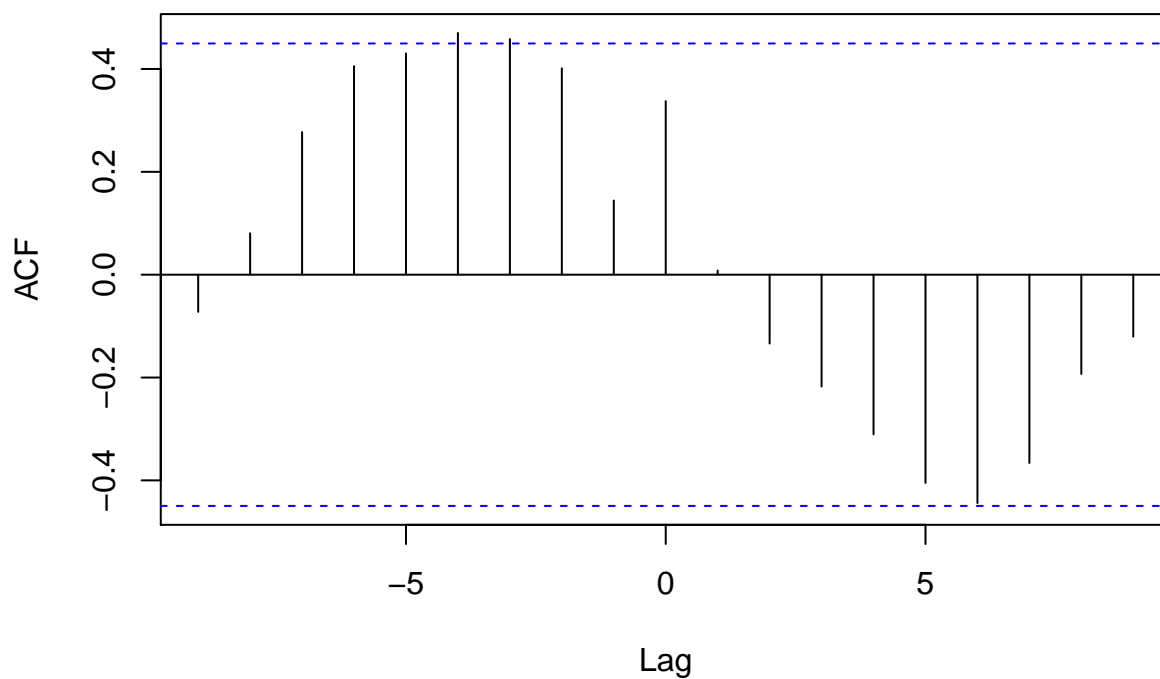
1 wk ahead – 35



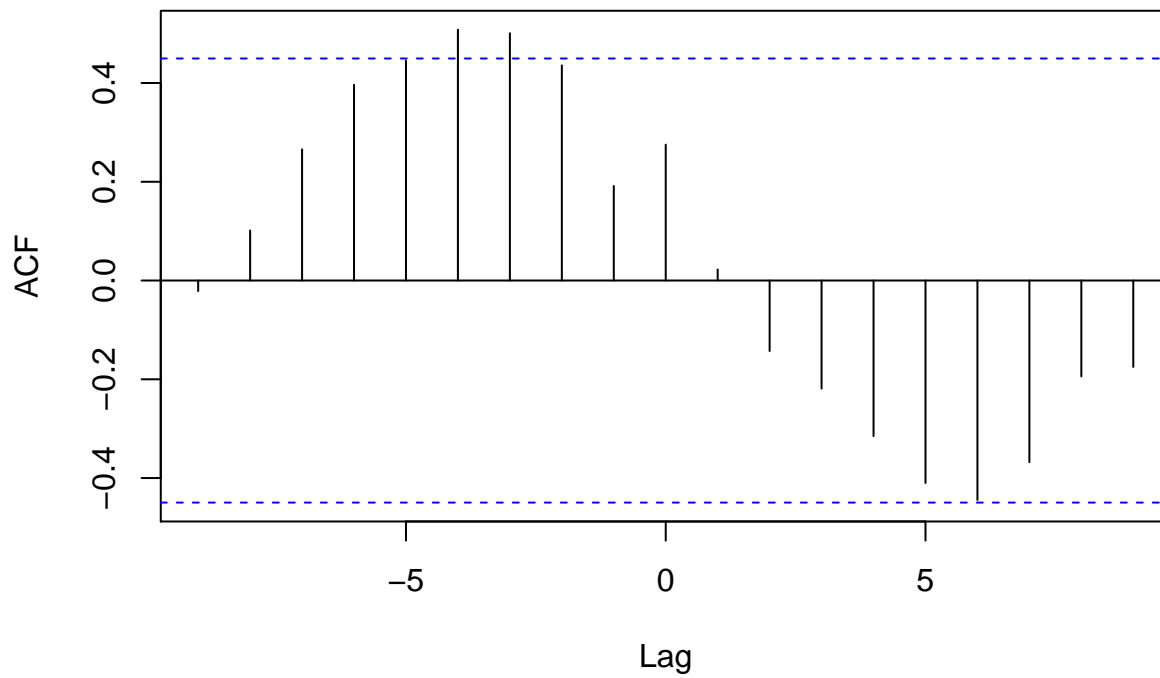
2 wk ahead – 35



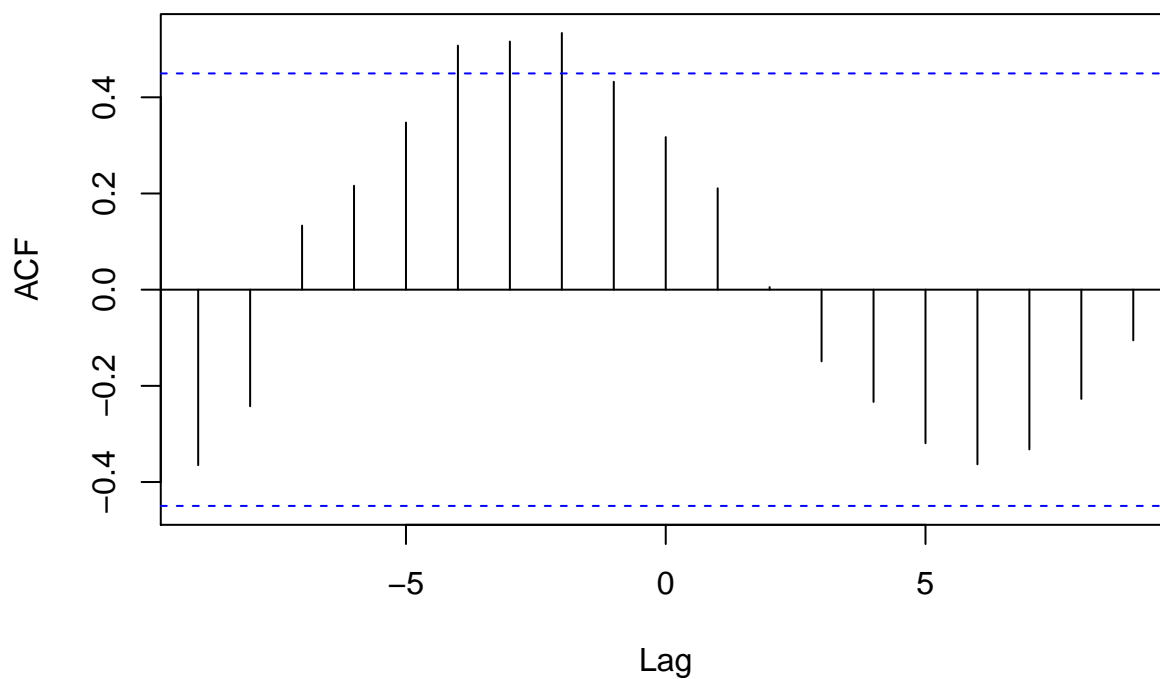
3 wk ahead – 35



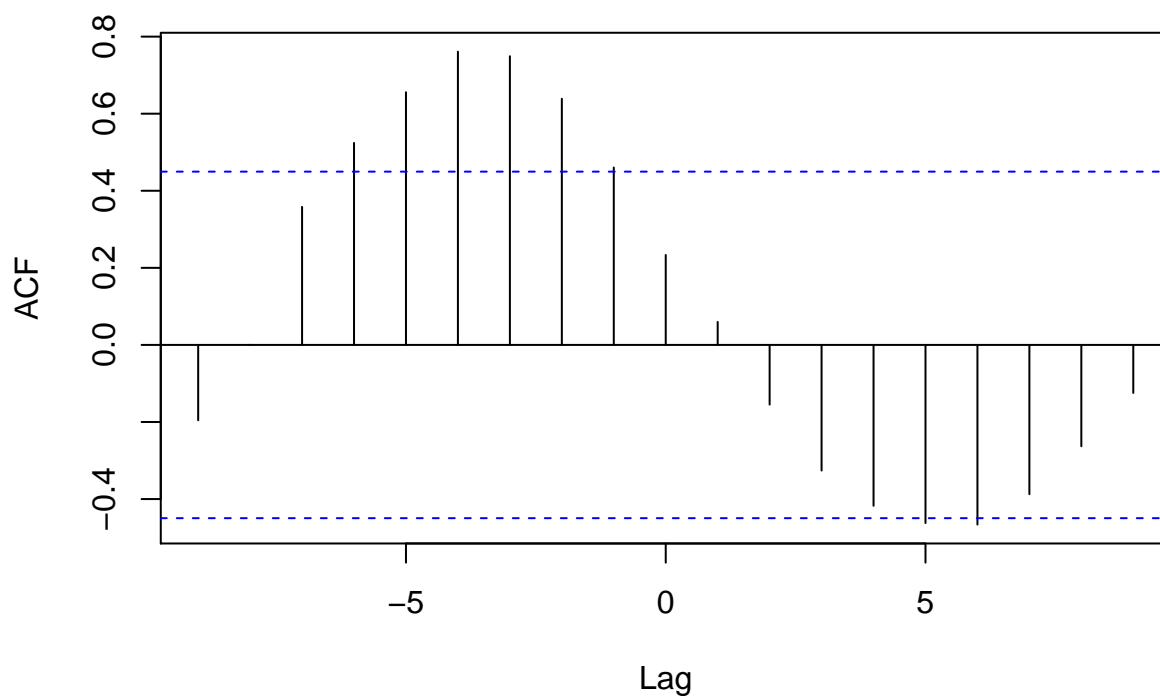
4 wk ahead – 35



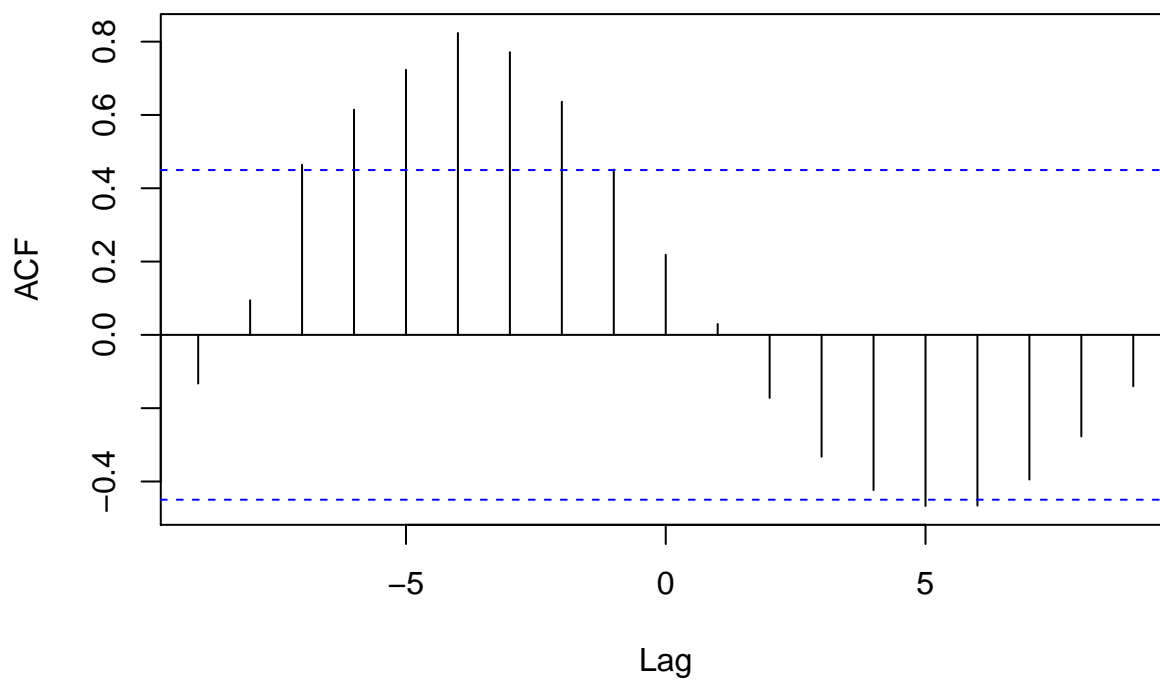
1 wk ahead – 36



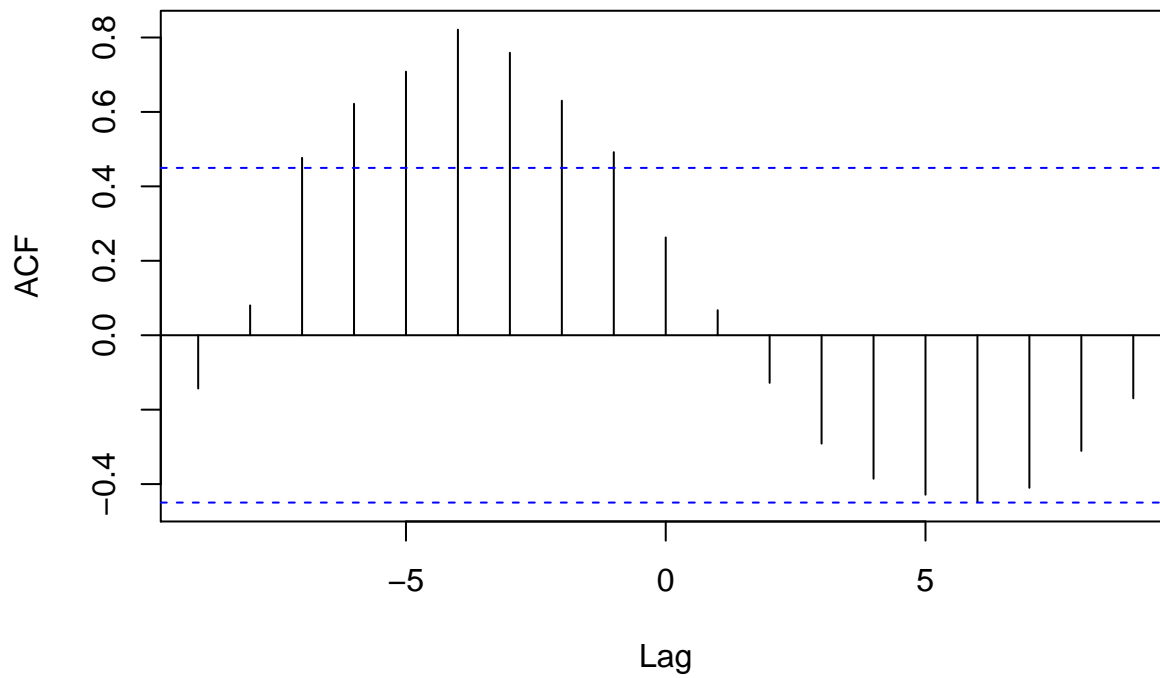
2 wk ahead – 36



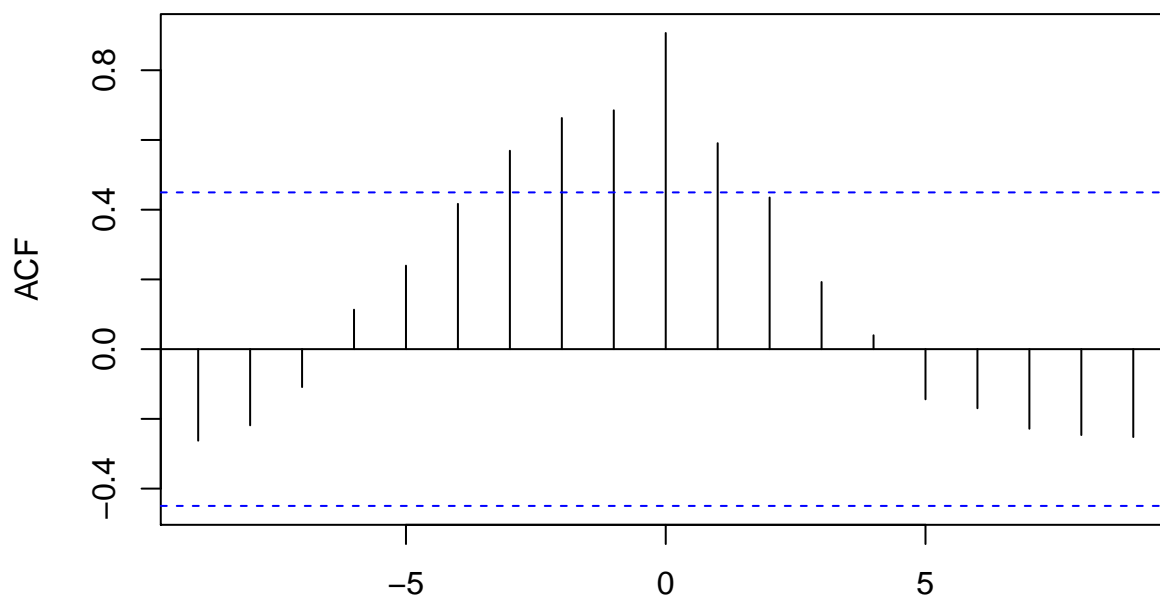
3 wk ahead – 36



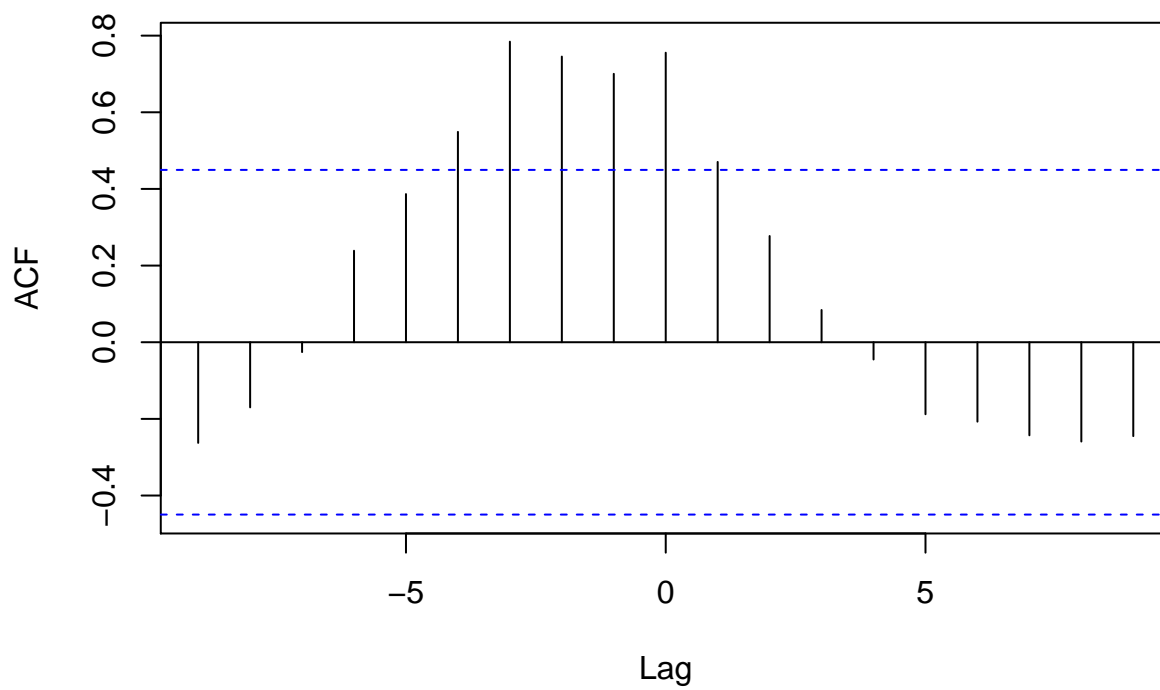
4 wk ahead – 36



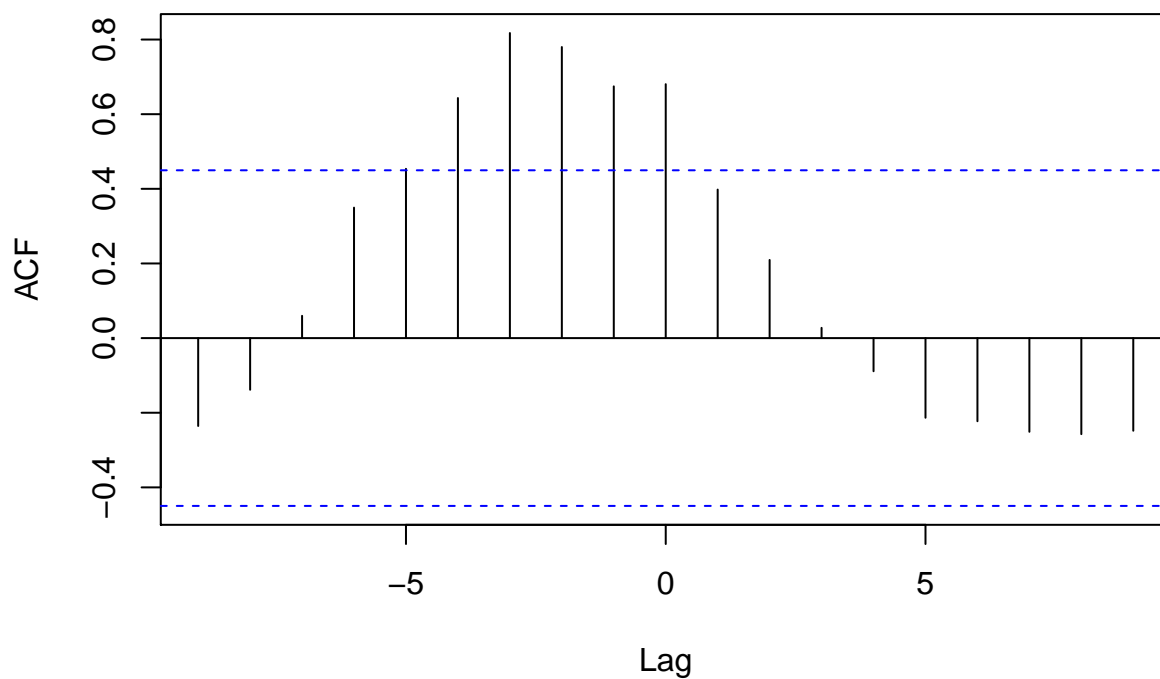
1 wk ahead – 37



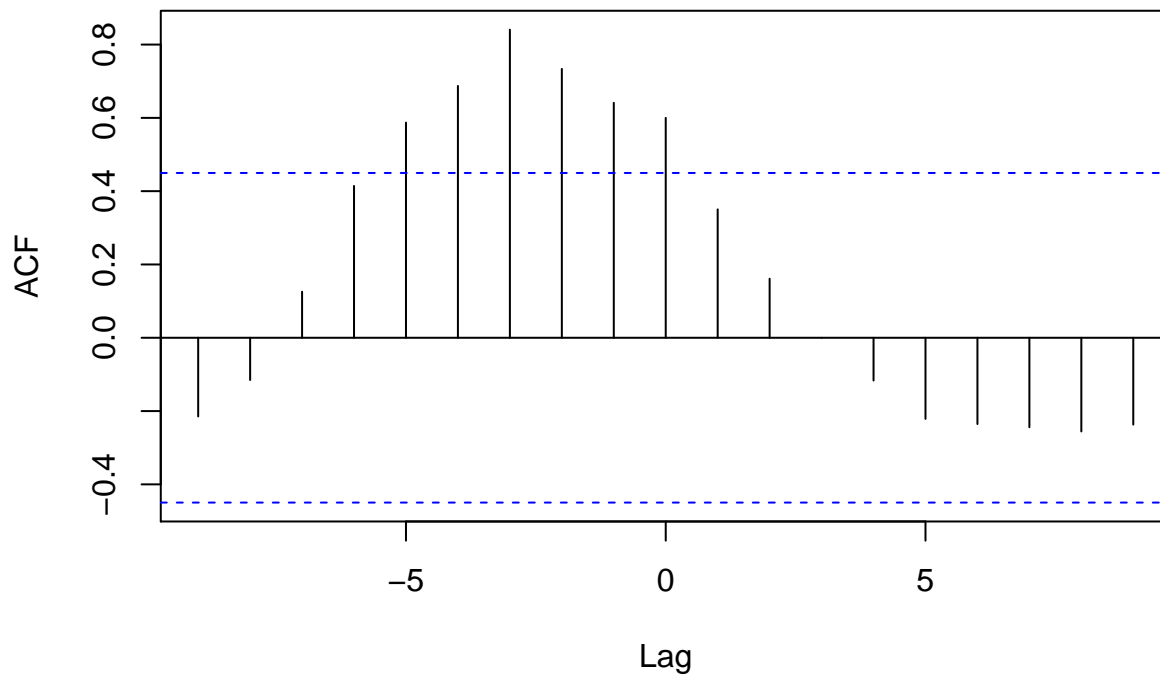
2 wk ahead – 37



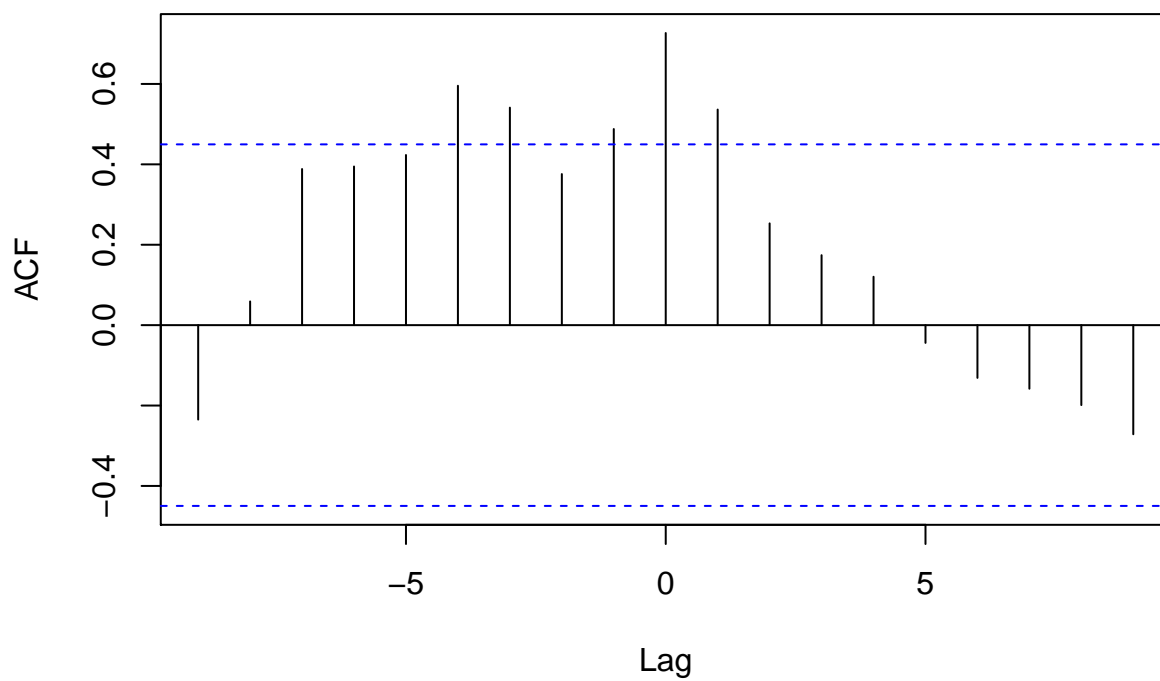
3 wk ahead – 37



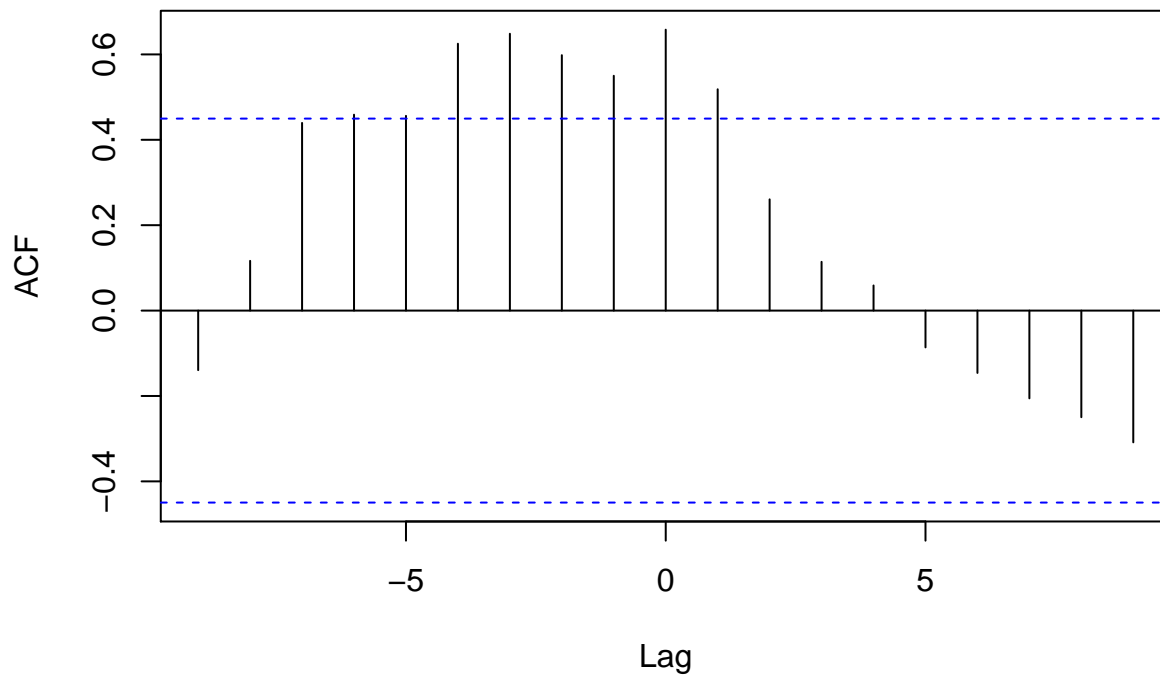
4 wk ahead – 37



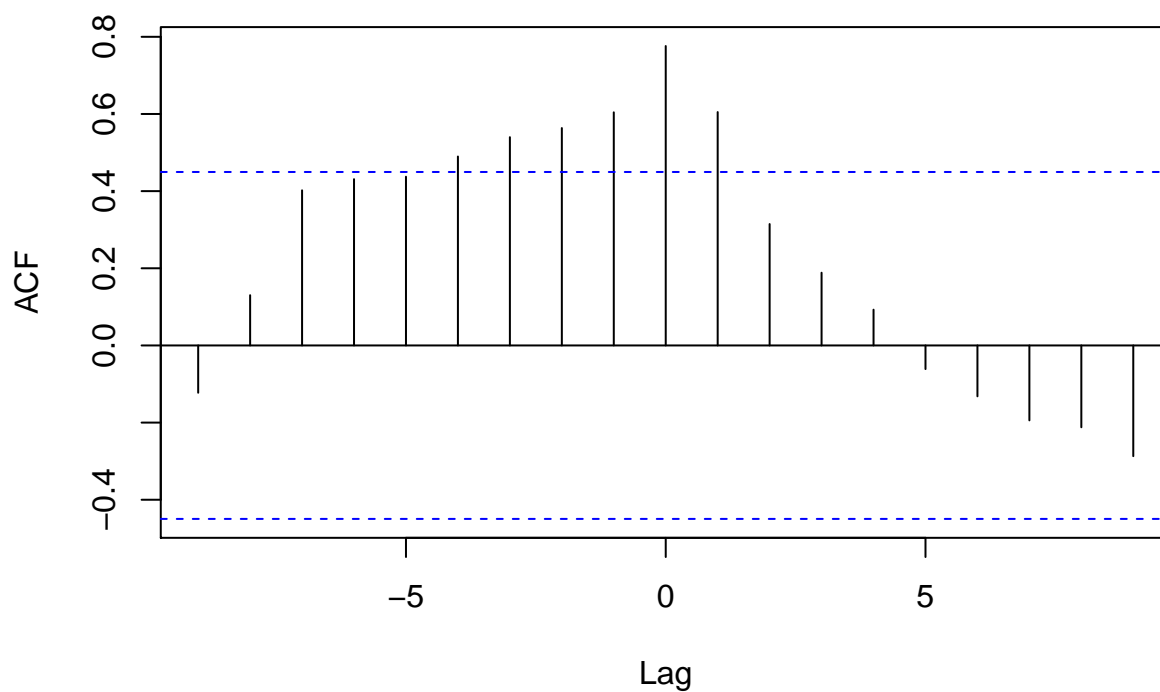
1 wk ahead – 38



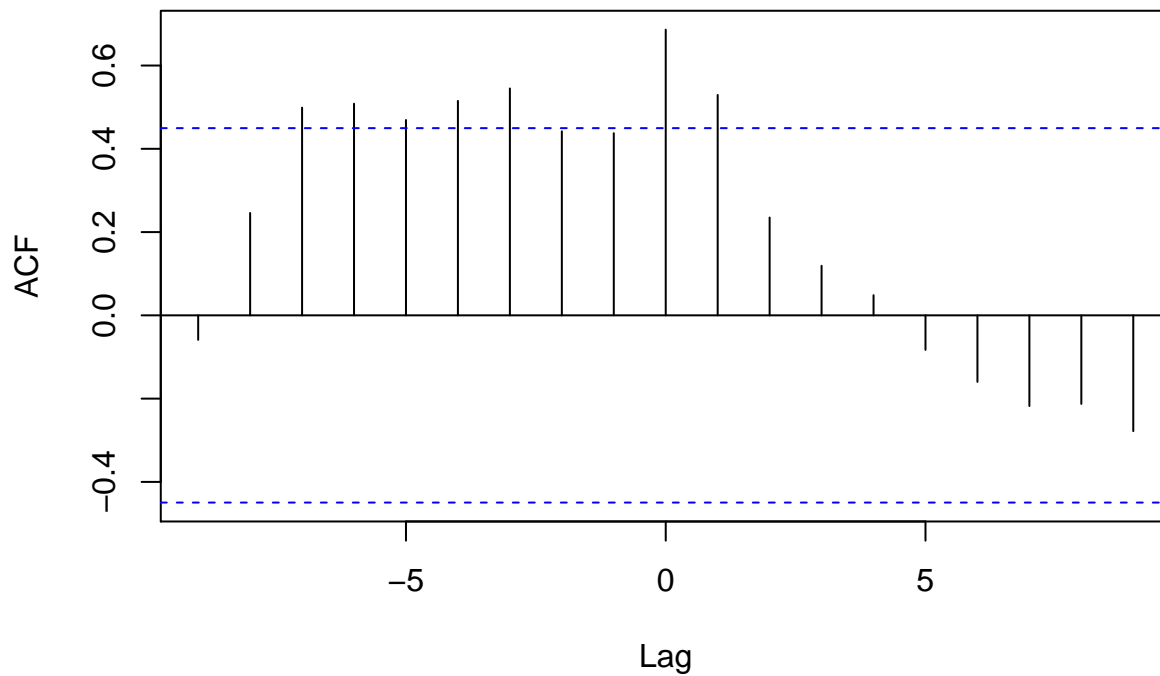
2 wk ahead – 38



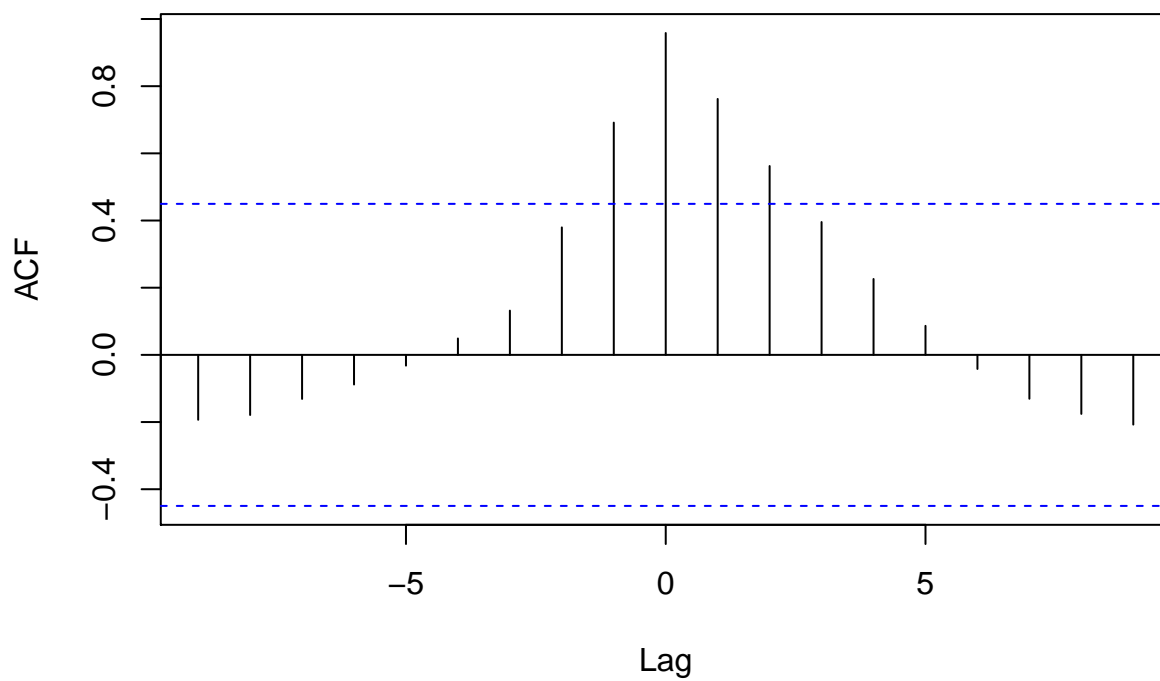
3 wk ahead – 38



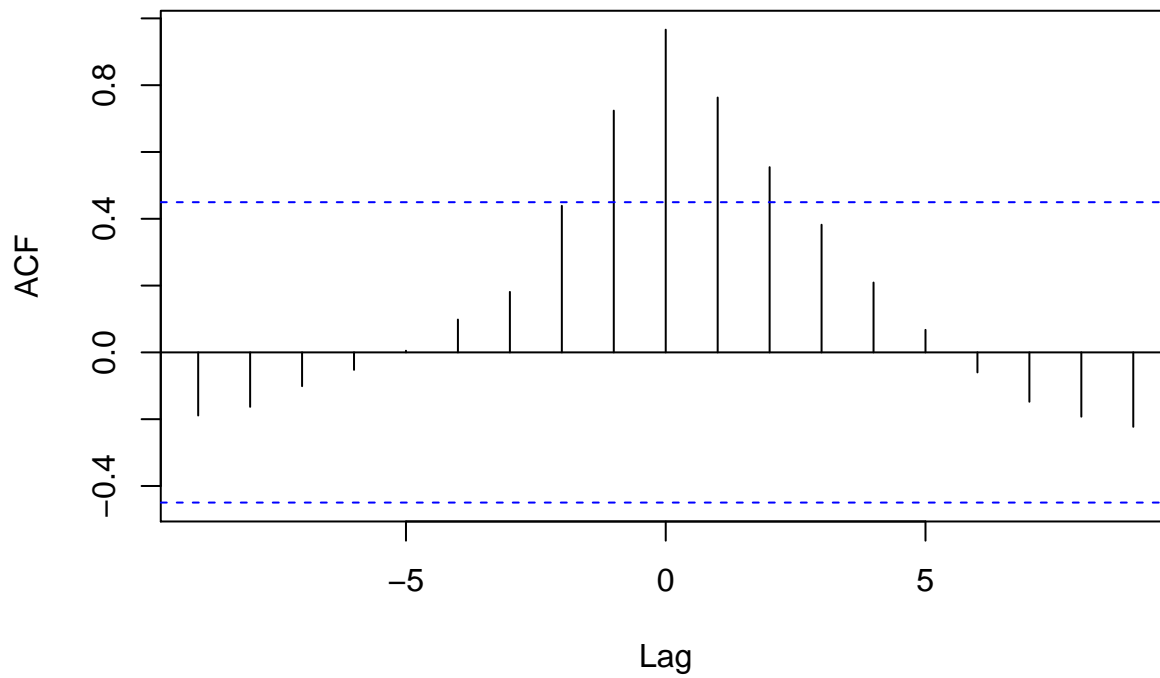
4 wk ahead – 38



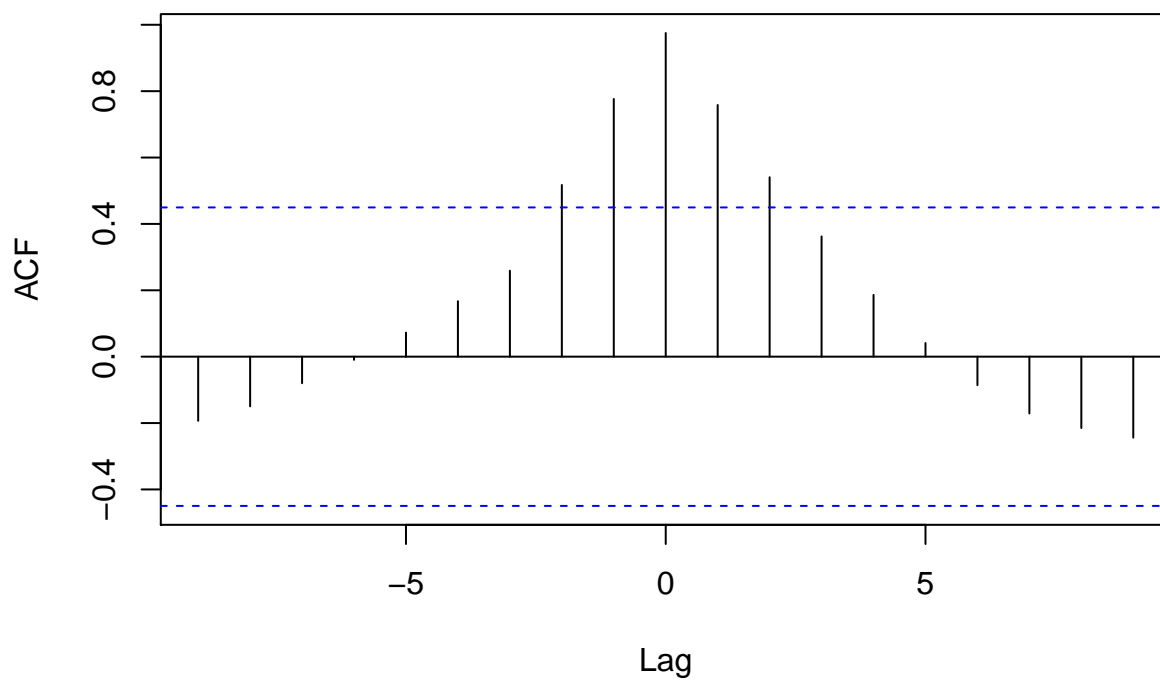
1 wk ahead – 39



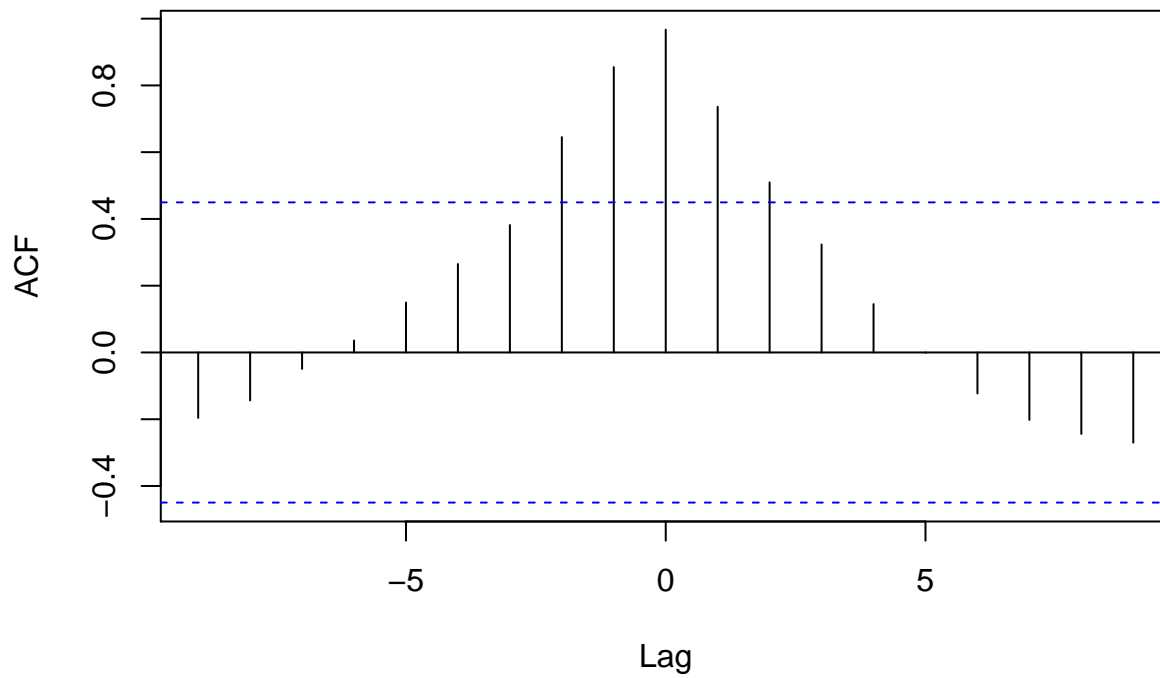
2 wk ahead – 39



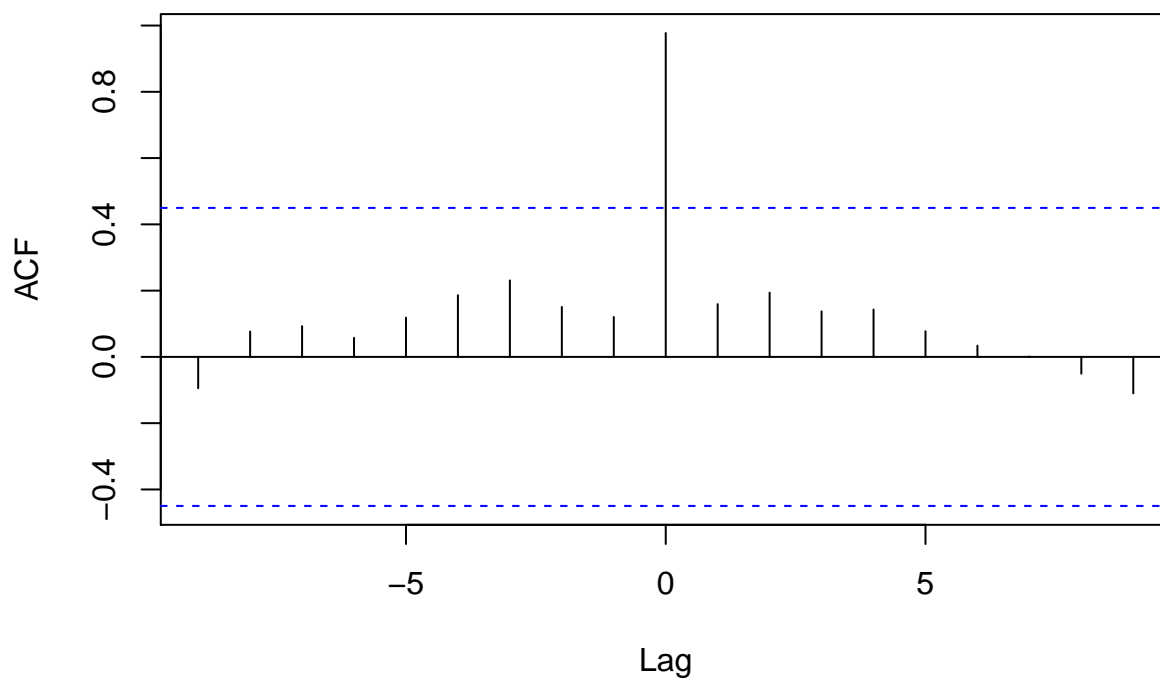
3 wk ahead – 39



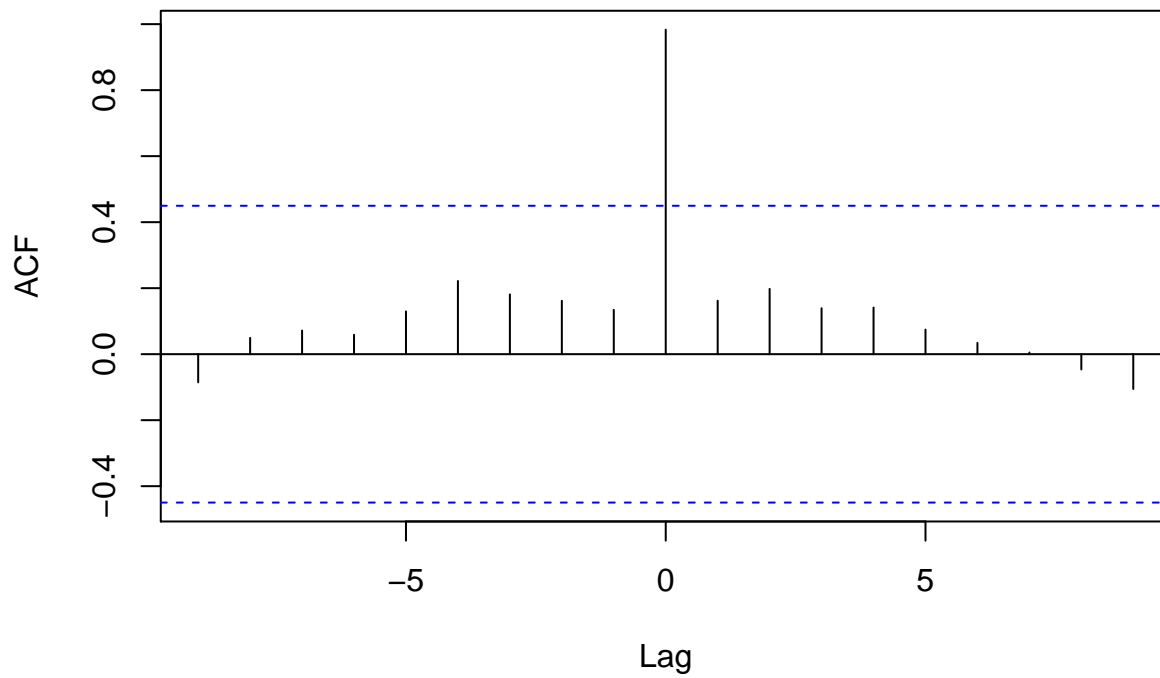
4 wk ahead – 39



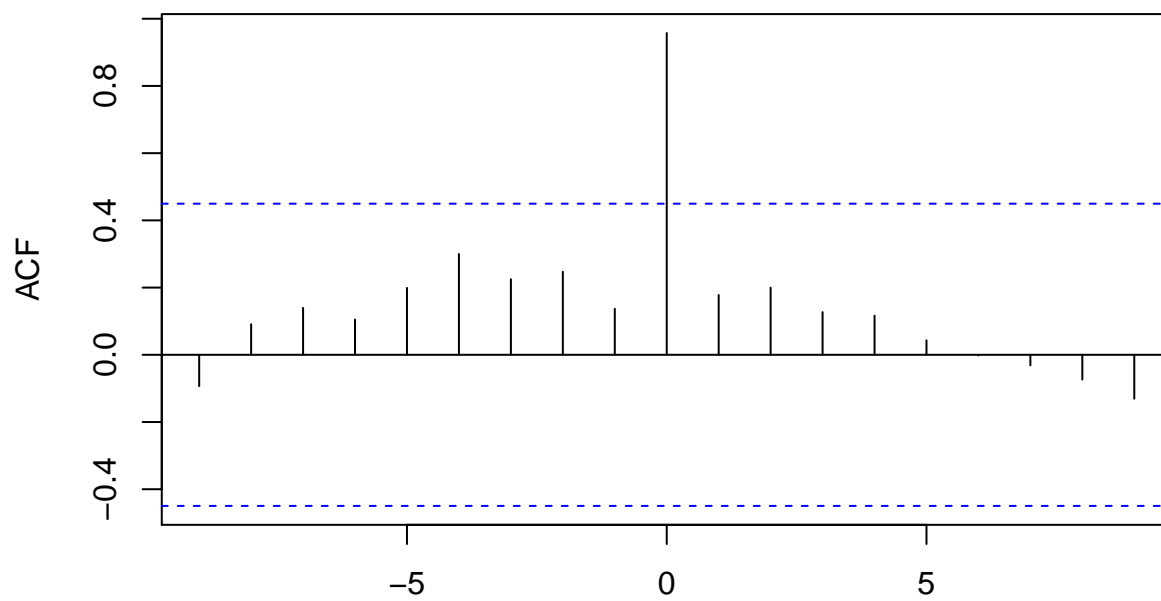
1 wk ahead – 40



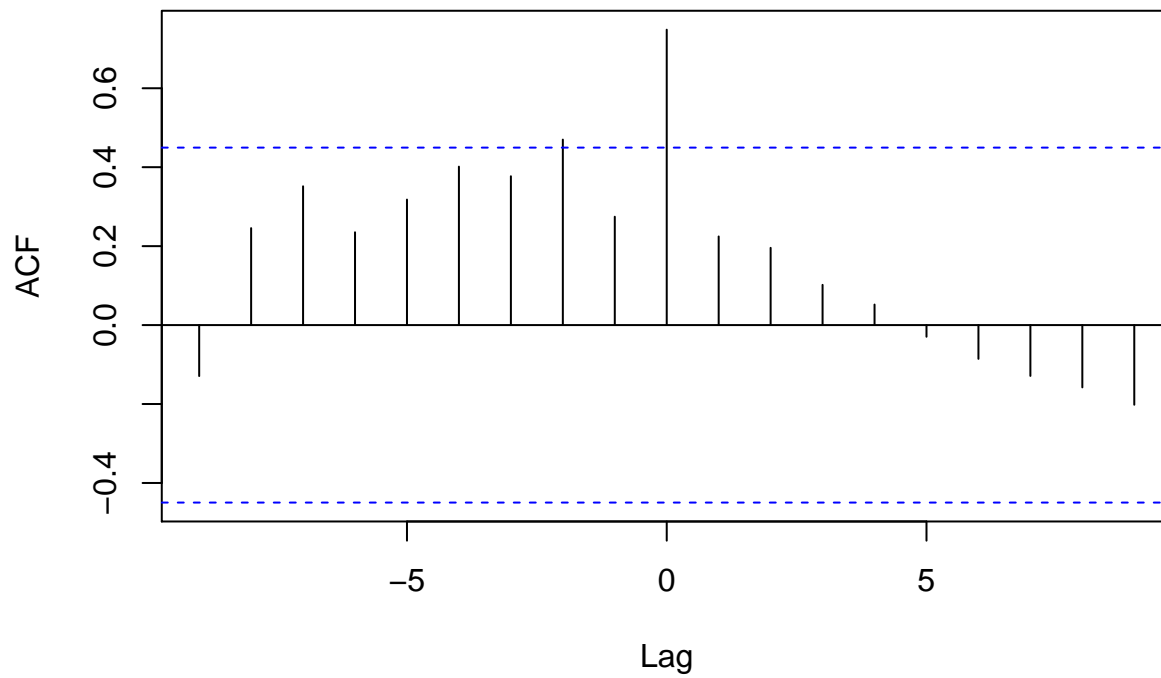
2 wk ahead – 40



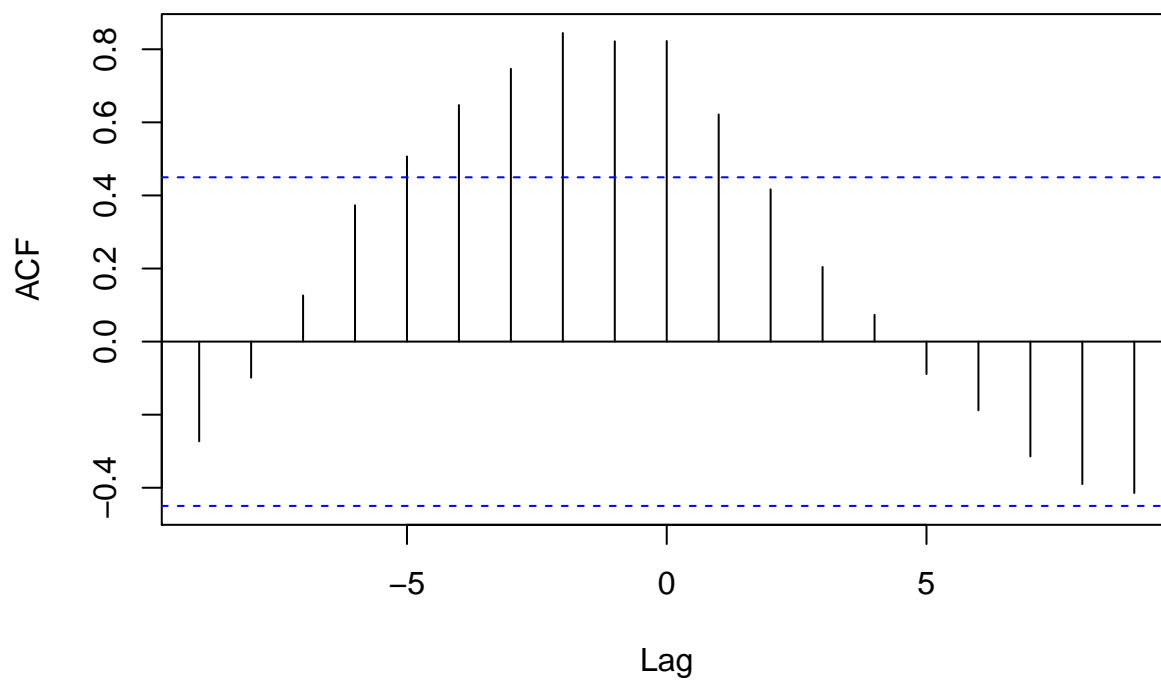
3 wk ahead – 40



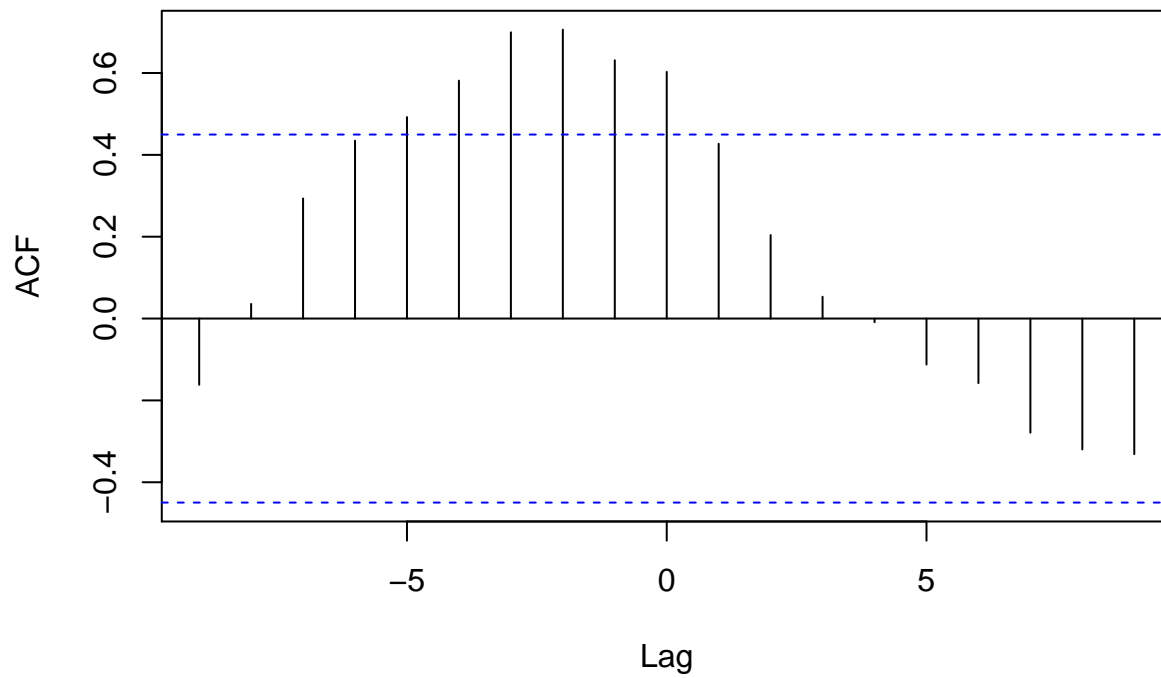
4 wk ahead – 40



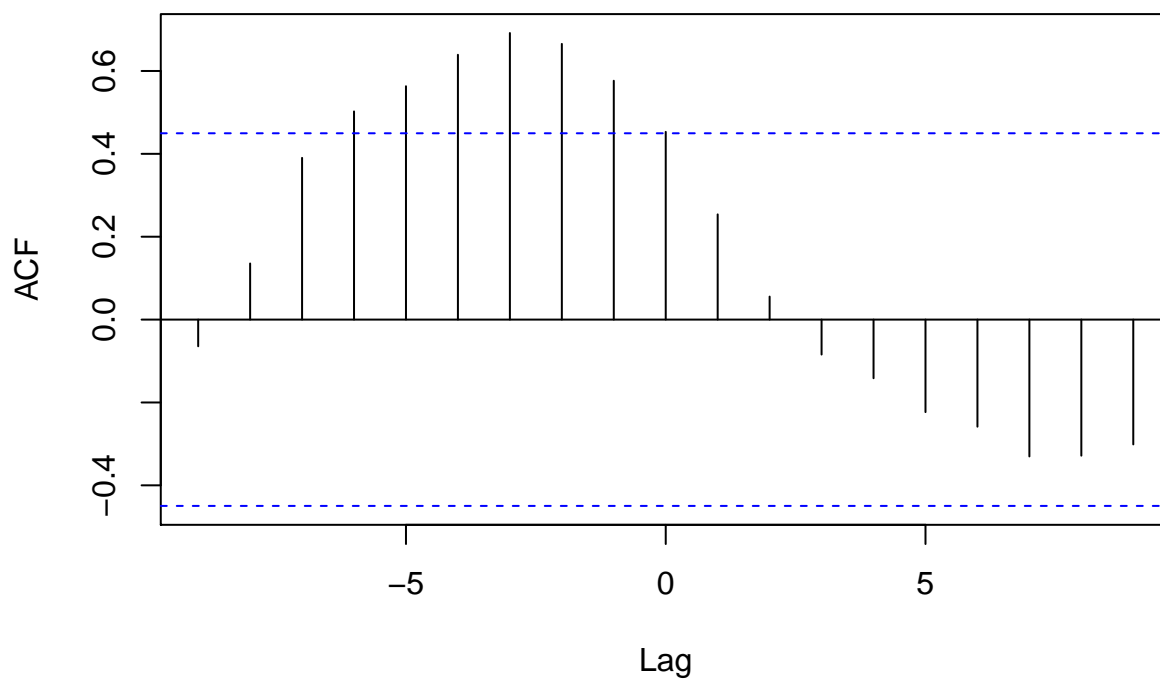
1 wk ahead – 41



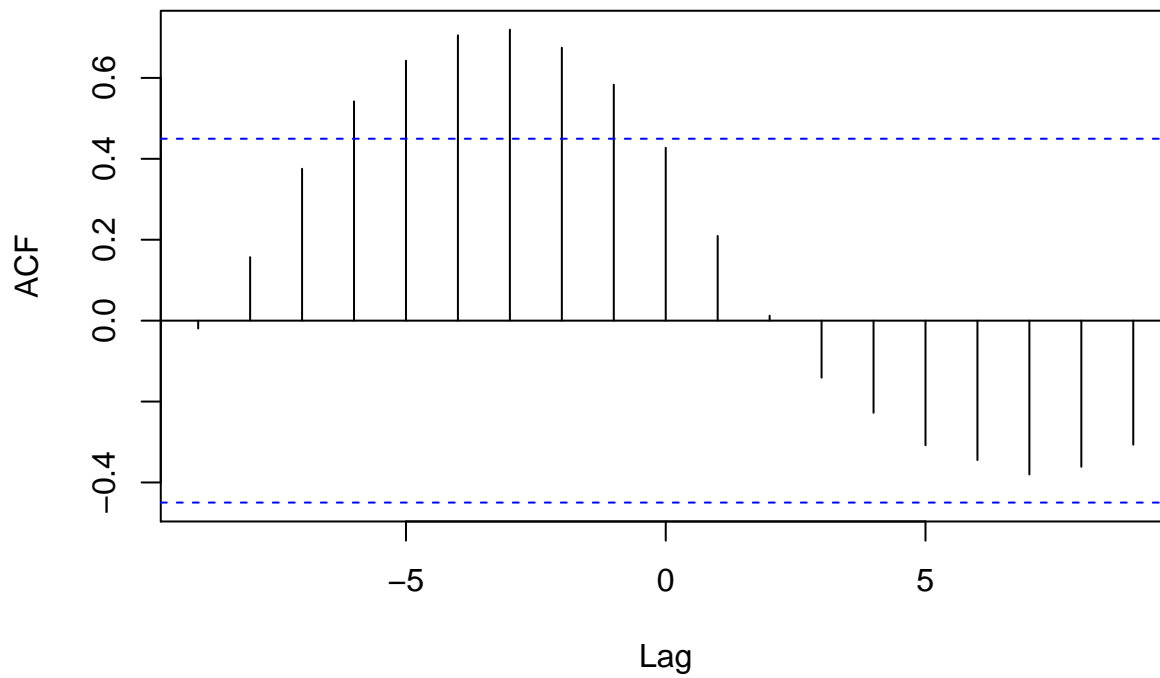
2 wk ahead – 41



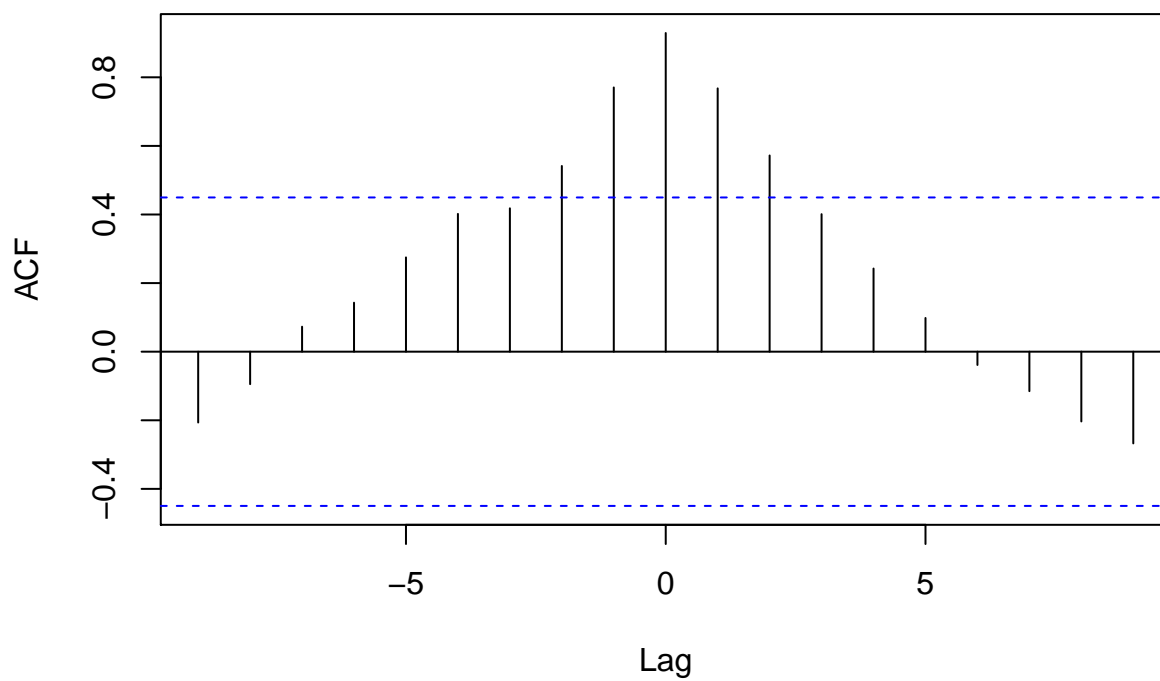
3 wk ahead – 41



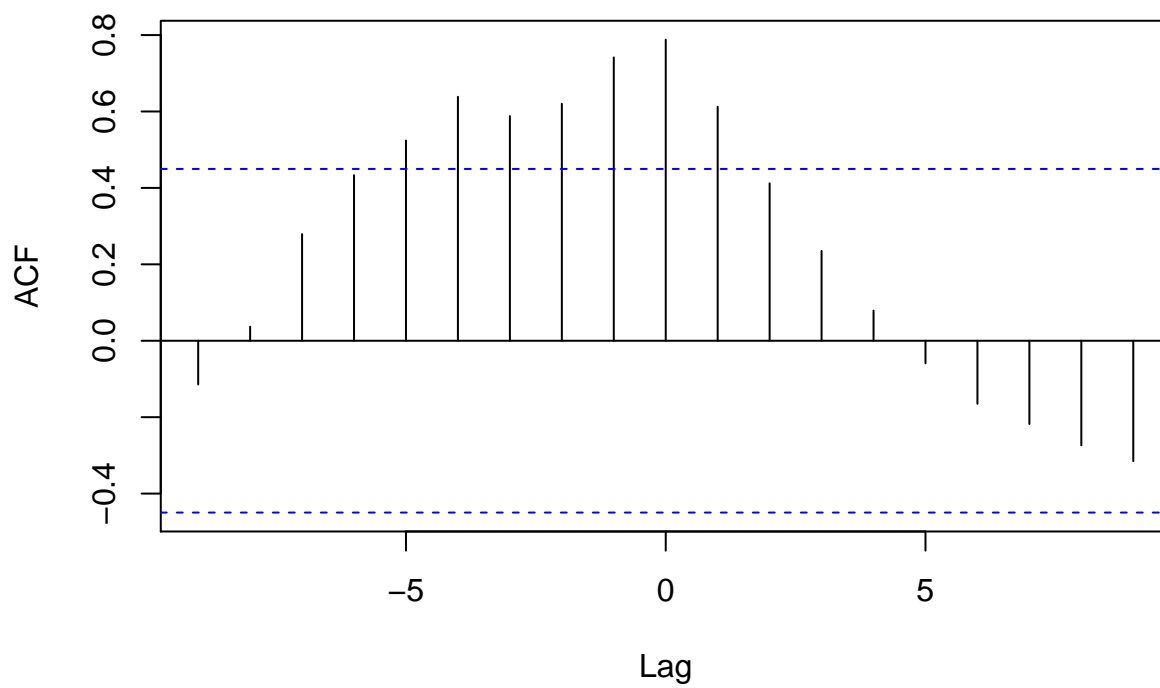
4 wk ahead – 41



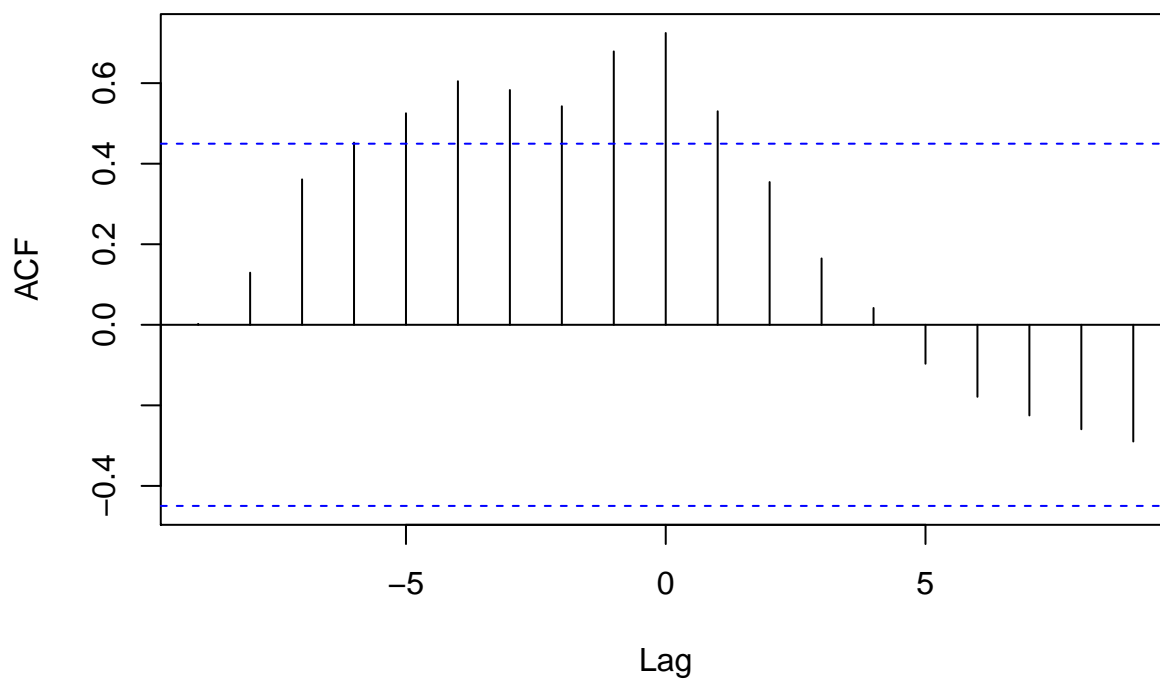
1 wk ahead – 42



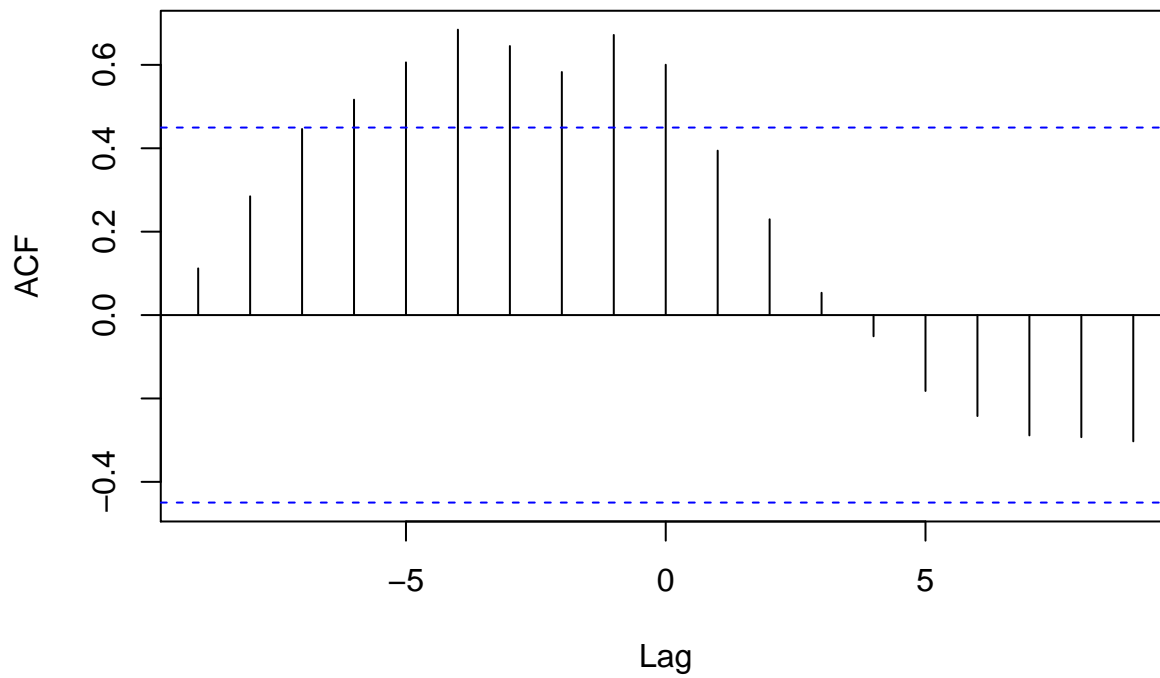
2 wk ahead – 42



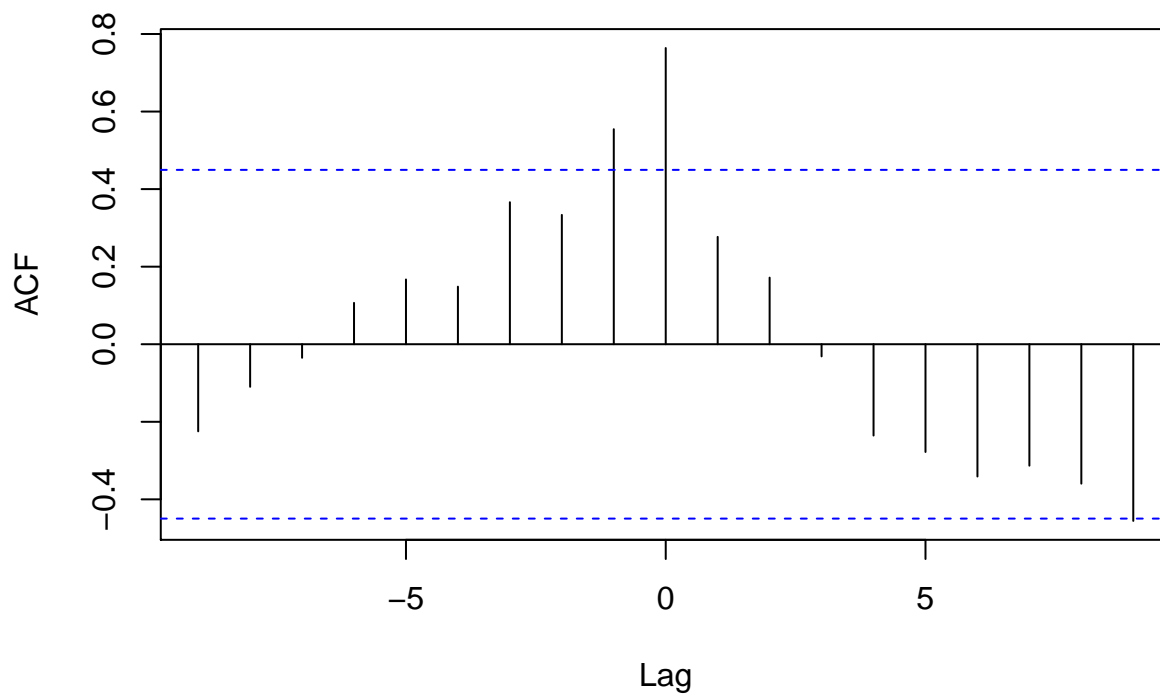
3 wk ahead – 42



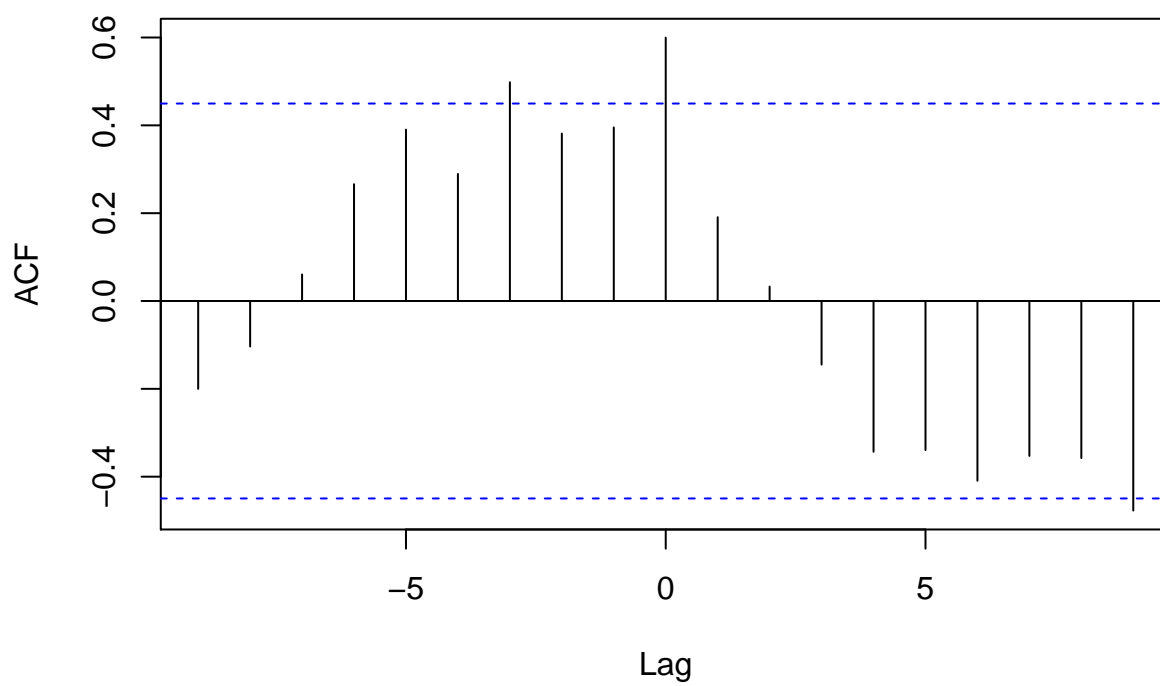
4 wk ahead – 42



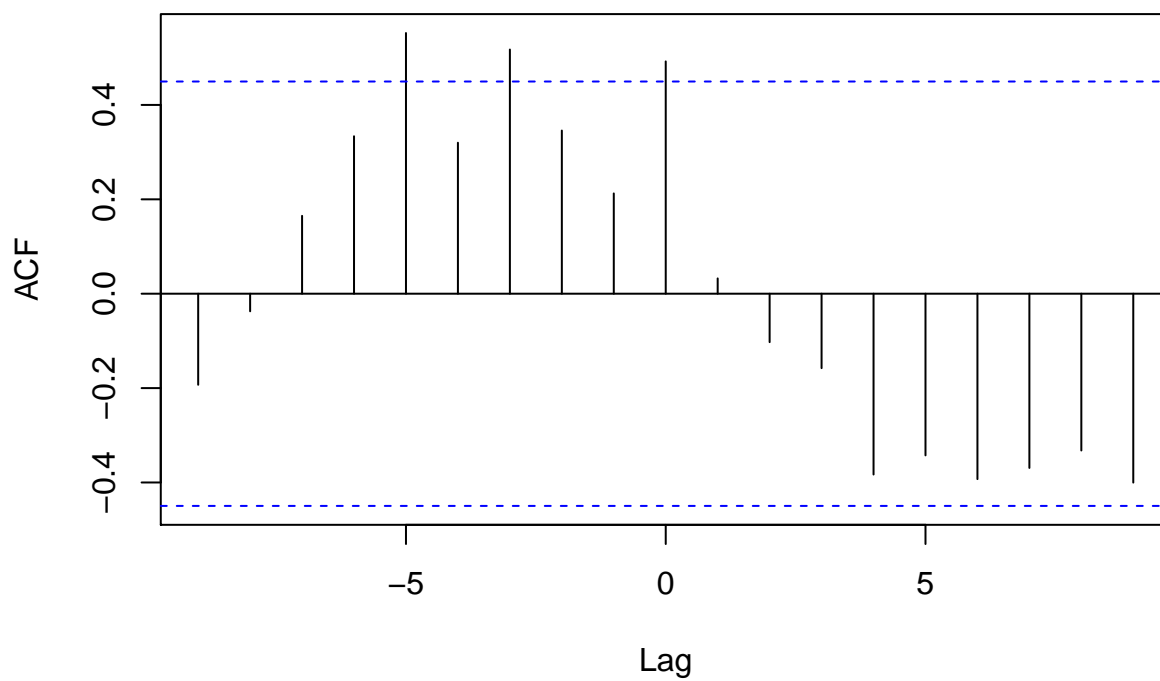
1 wk ahead – 44



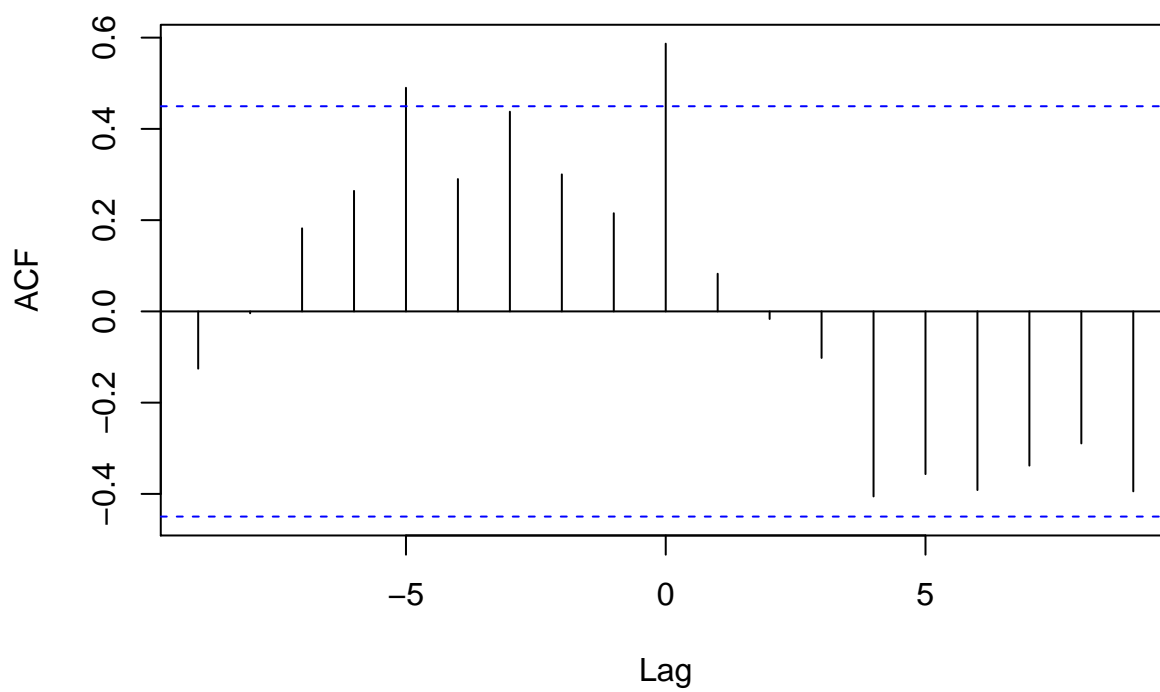
2 wk ahead – 44



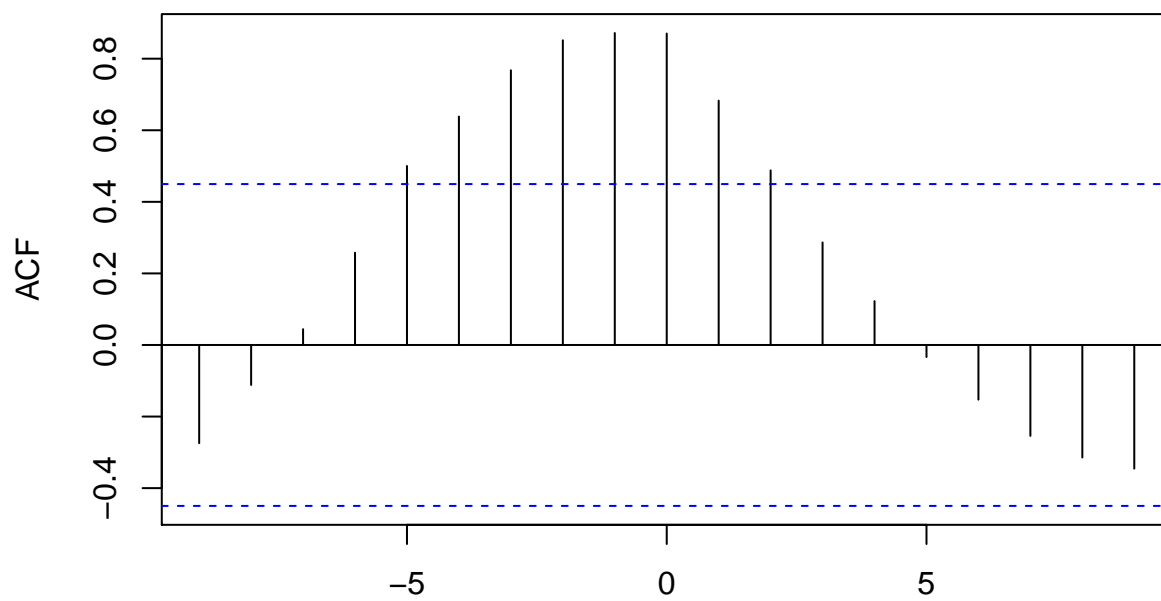
3 wk ahead – 44



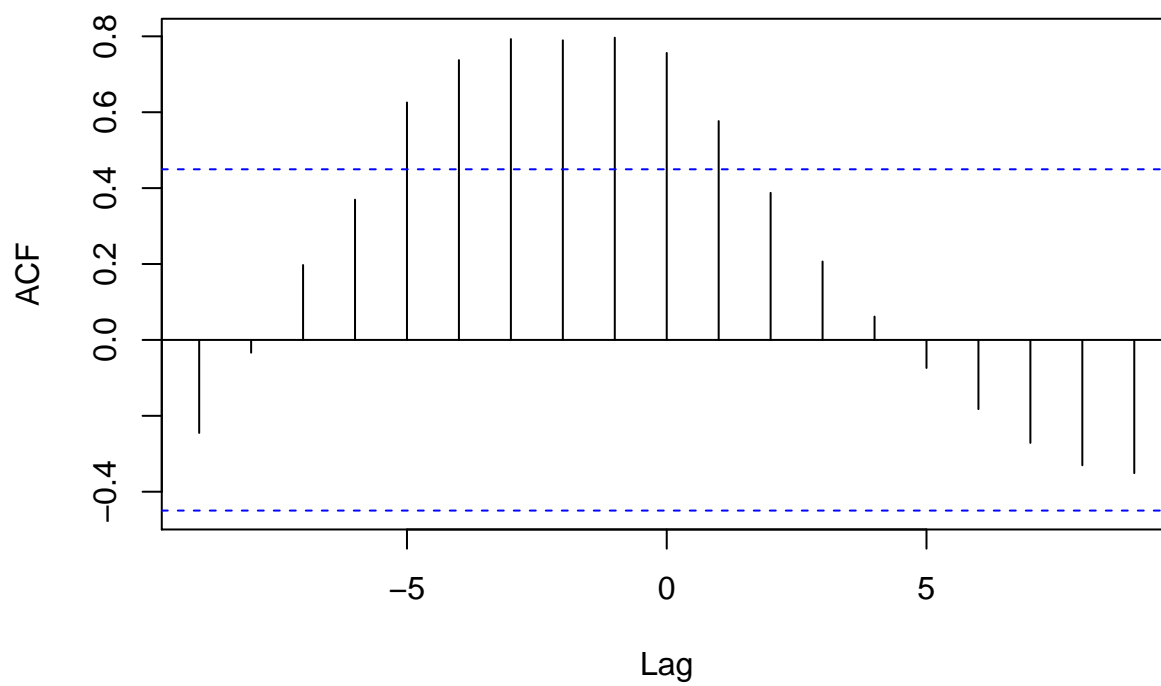
4 wk ahead – 44



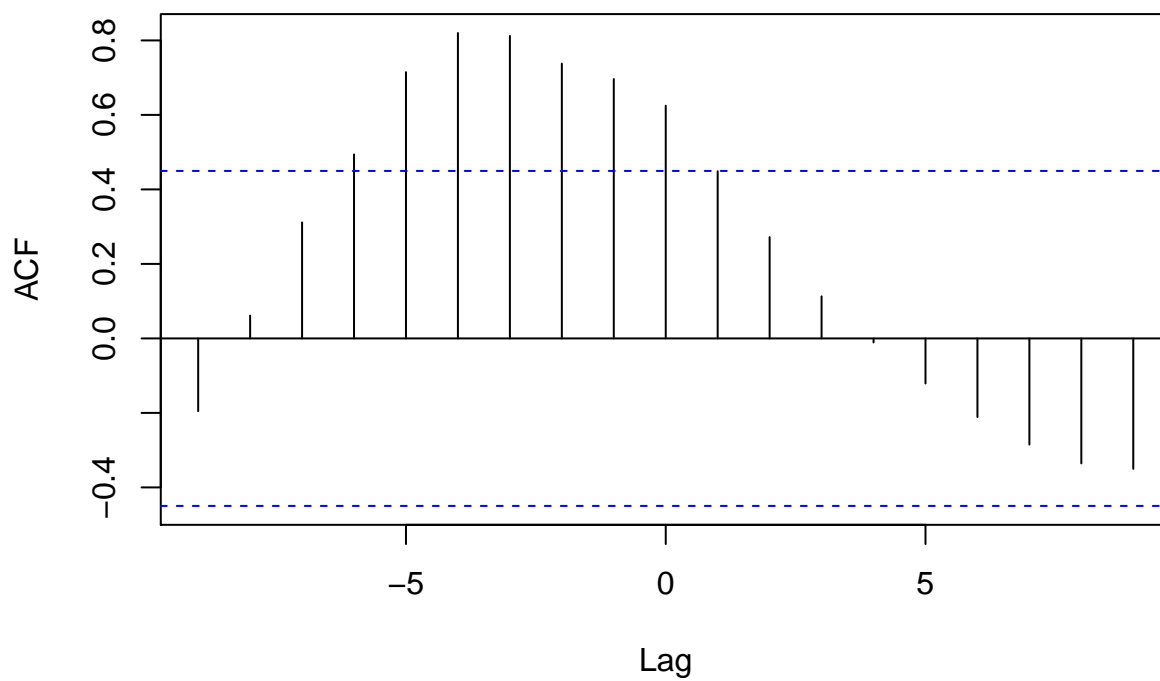
1 wk ahead – 45



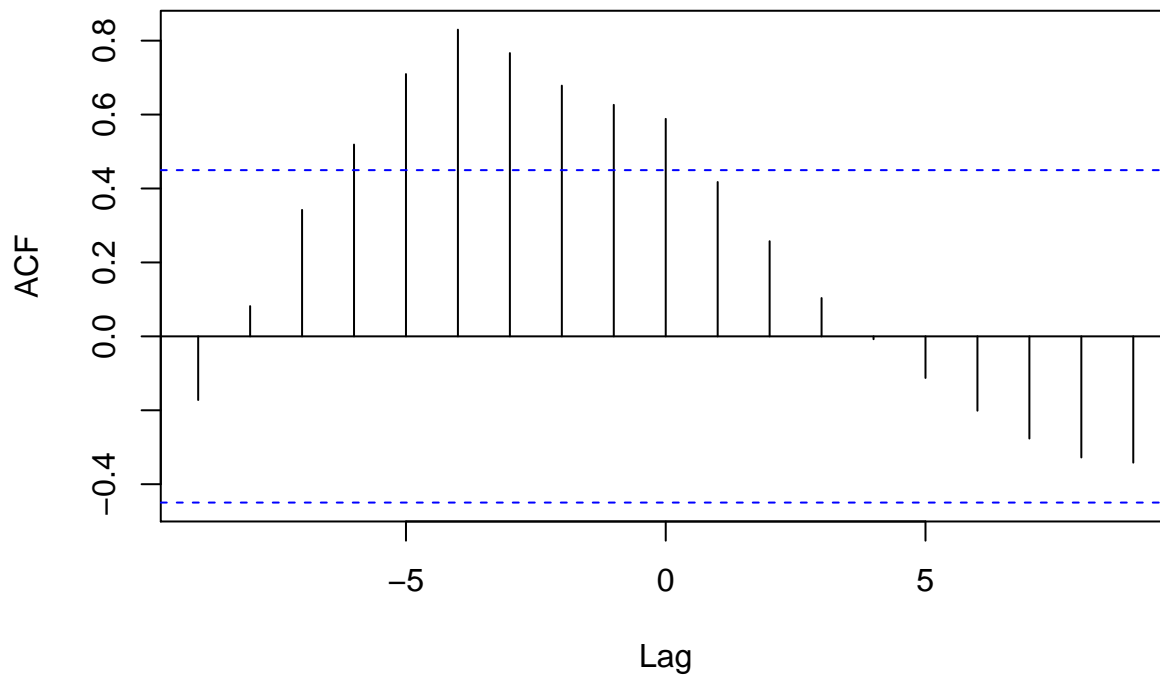
2 wk ahead – 45



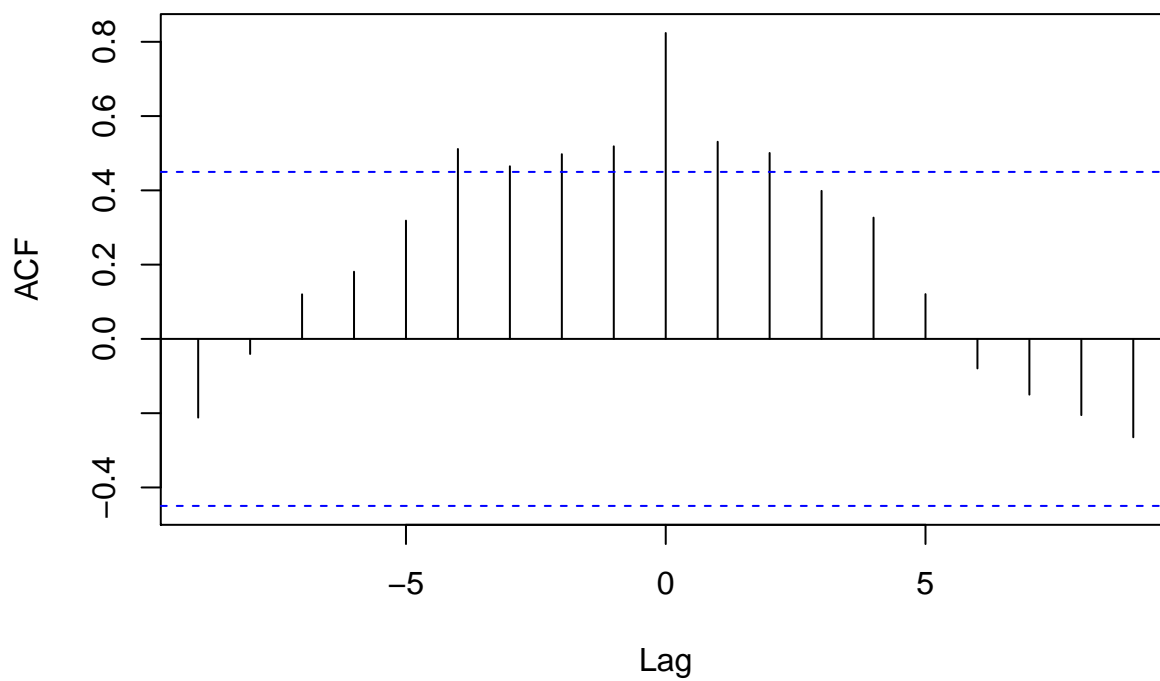
3 wk ahead – 45



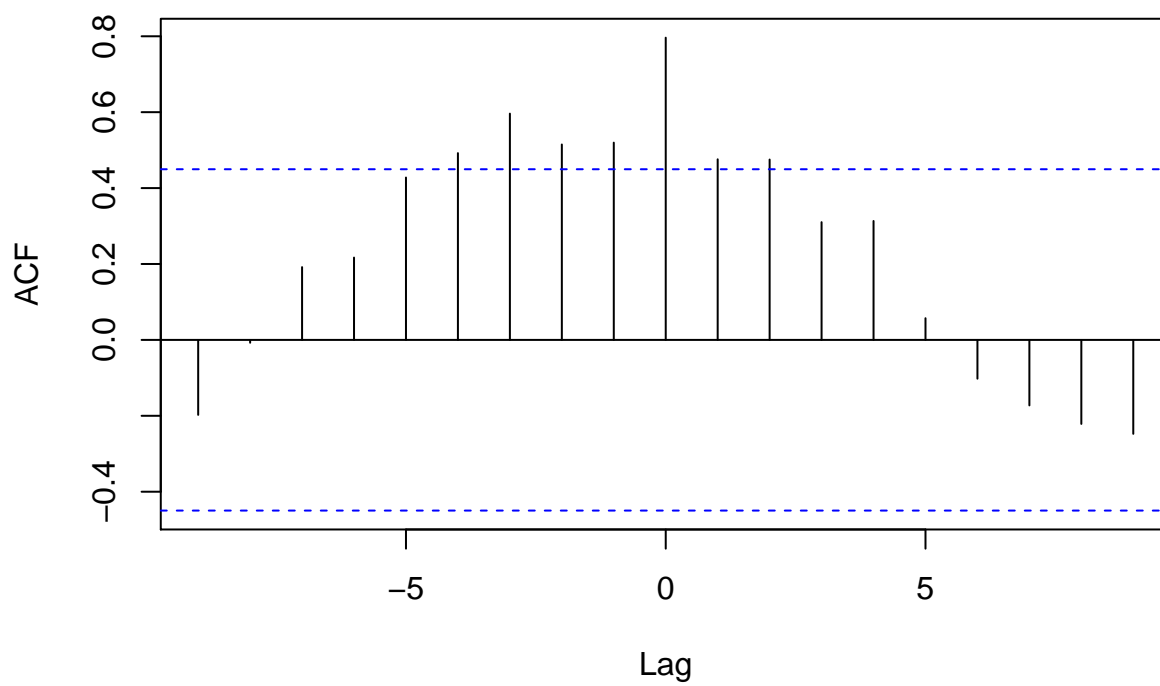
4 wk ahead – 45



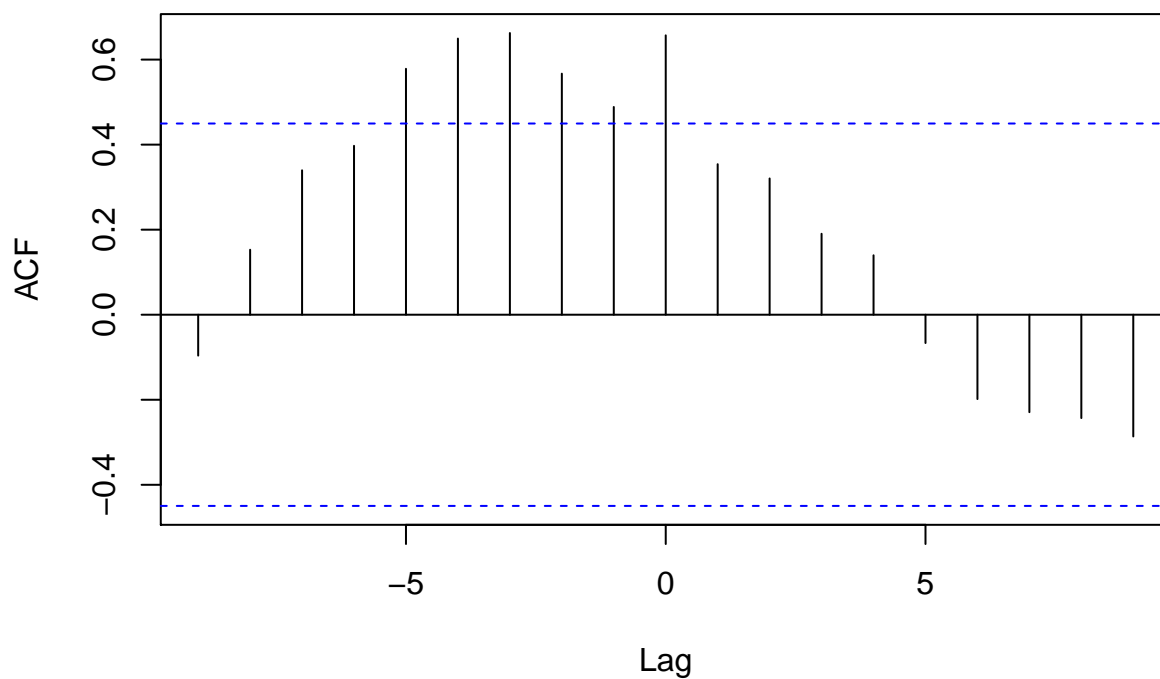
1 wk ahead – 46



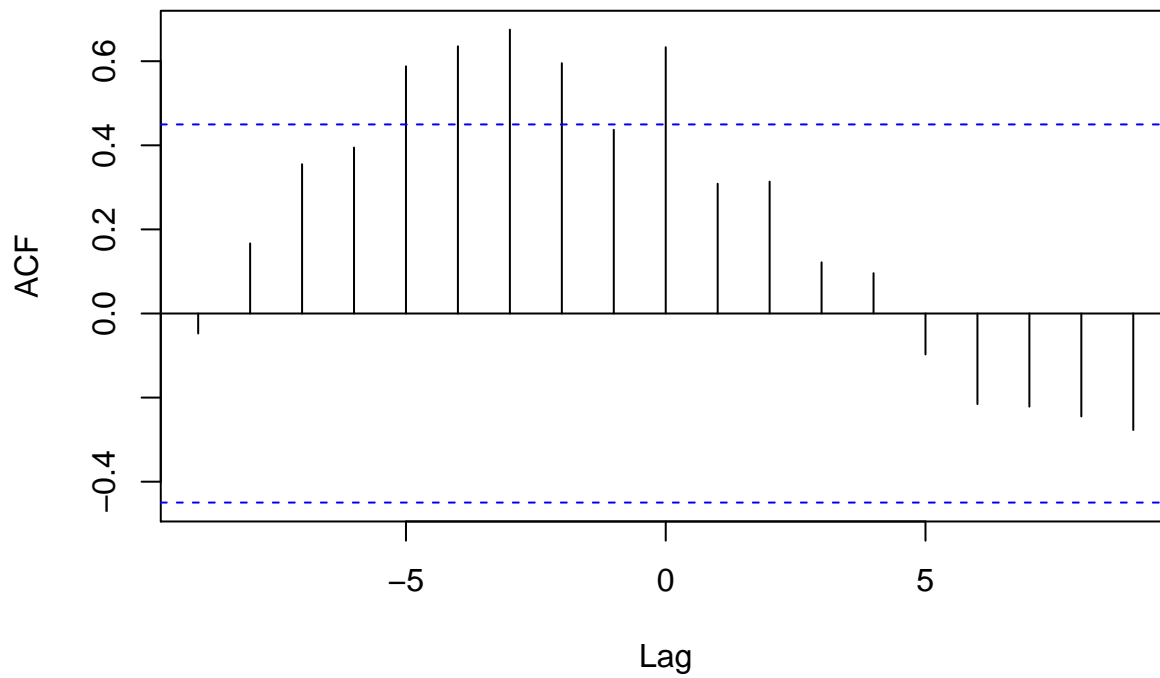
2 wk ahead – 46



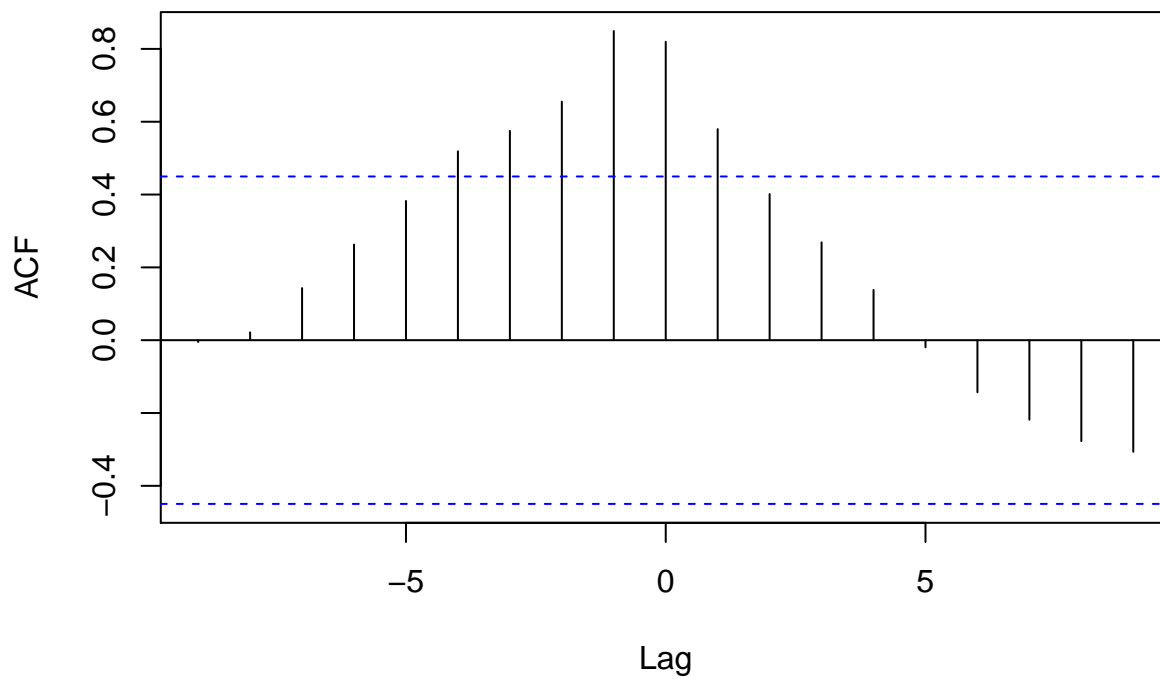
3 wk ahead – 46



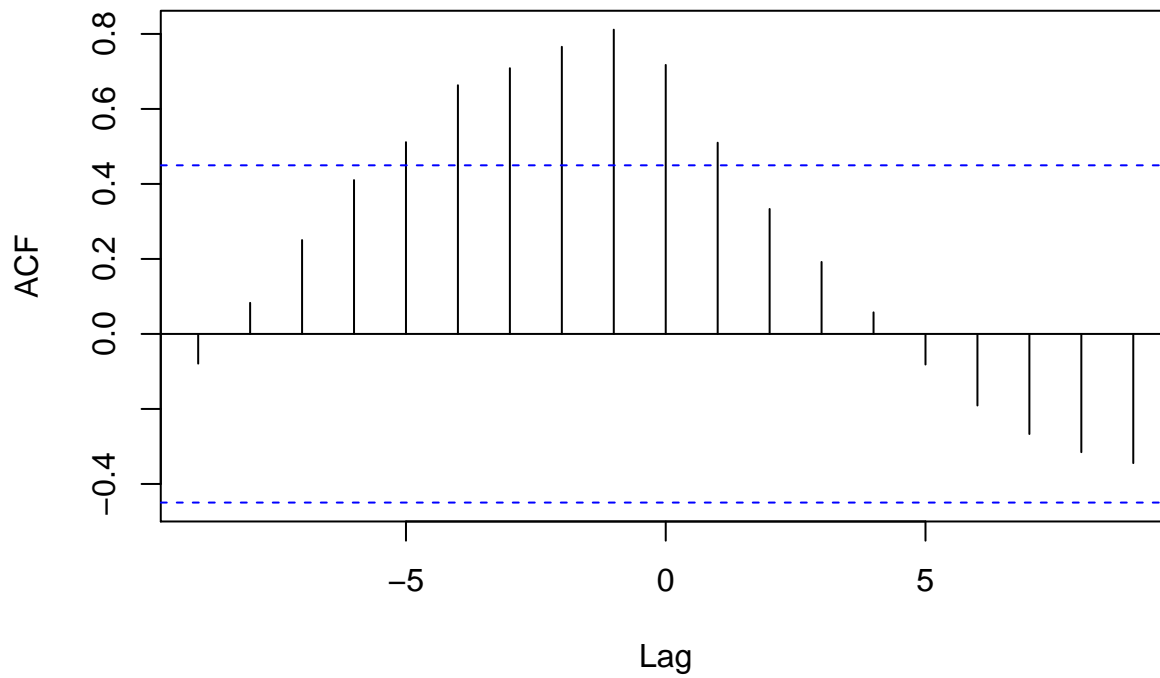
4 wk ahead – 46



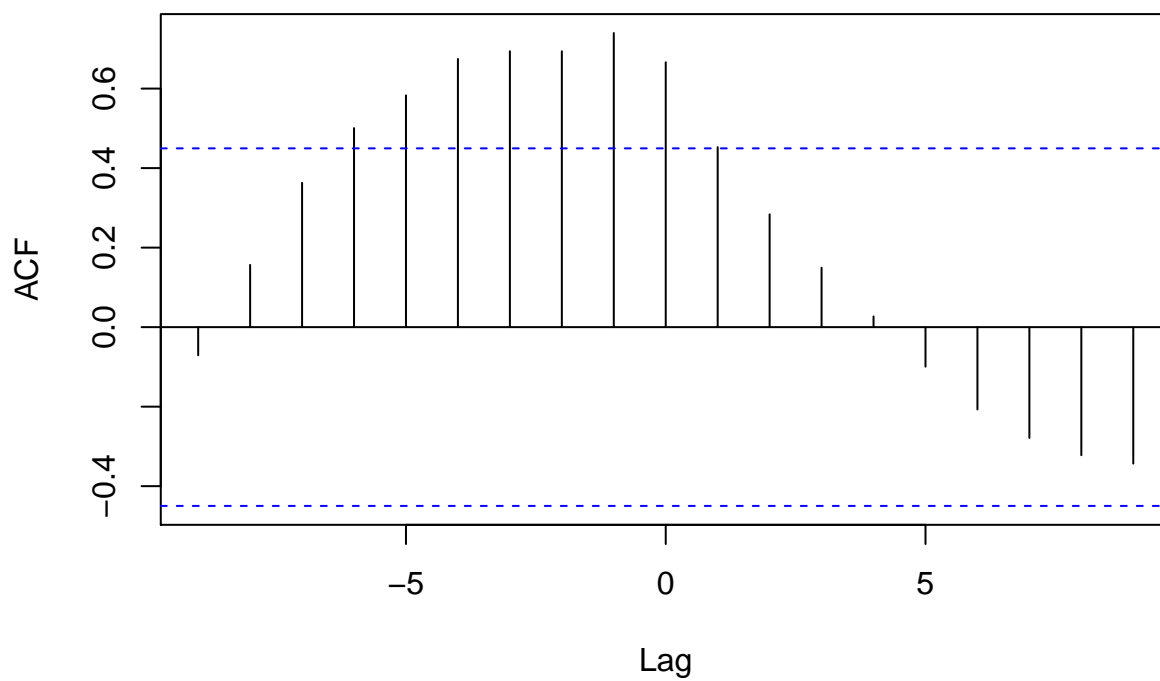
1 wk ahead – 47



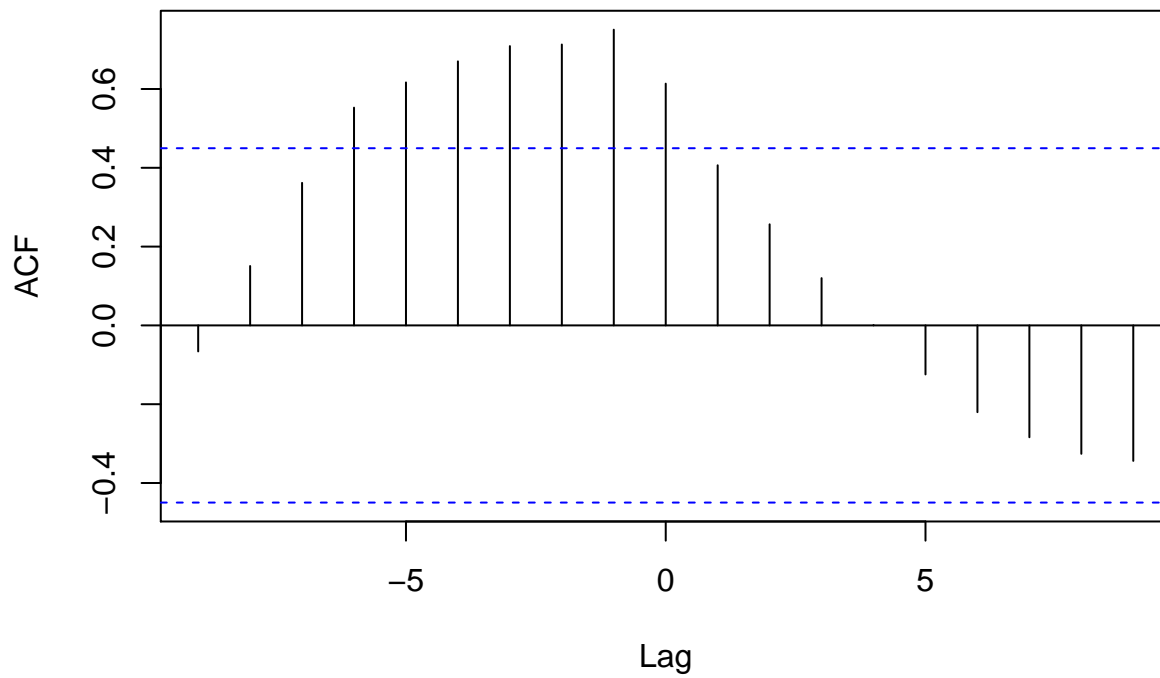
2 wk ahead – 47



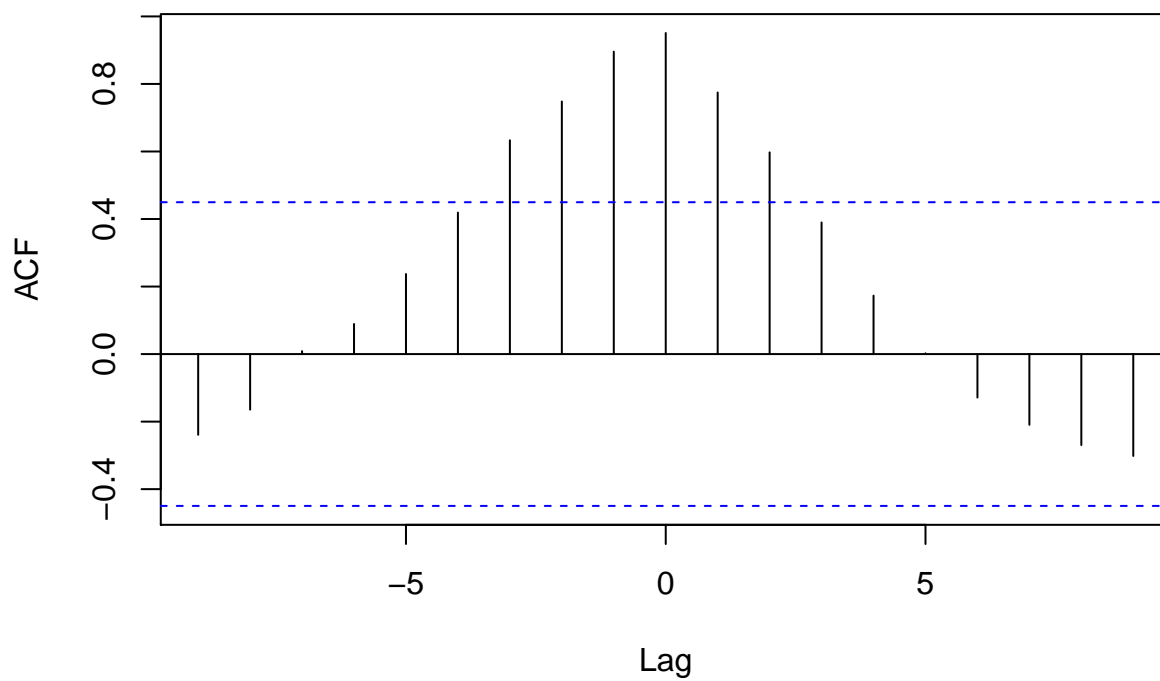
3 wk ahead – 47



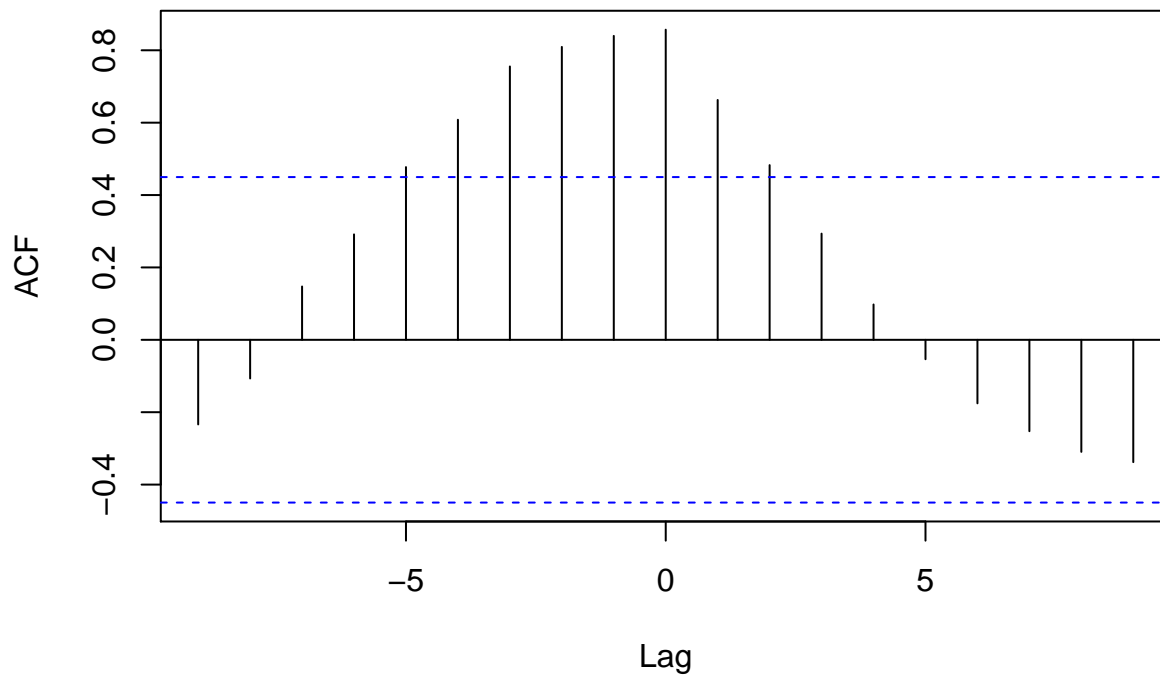
4 wk ahead – 47



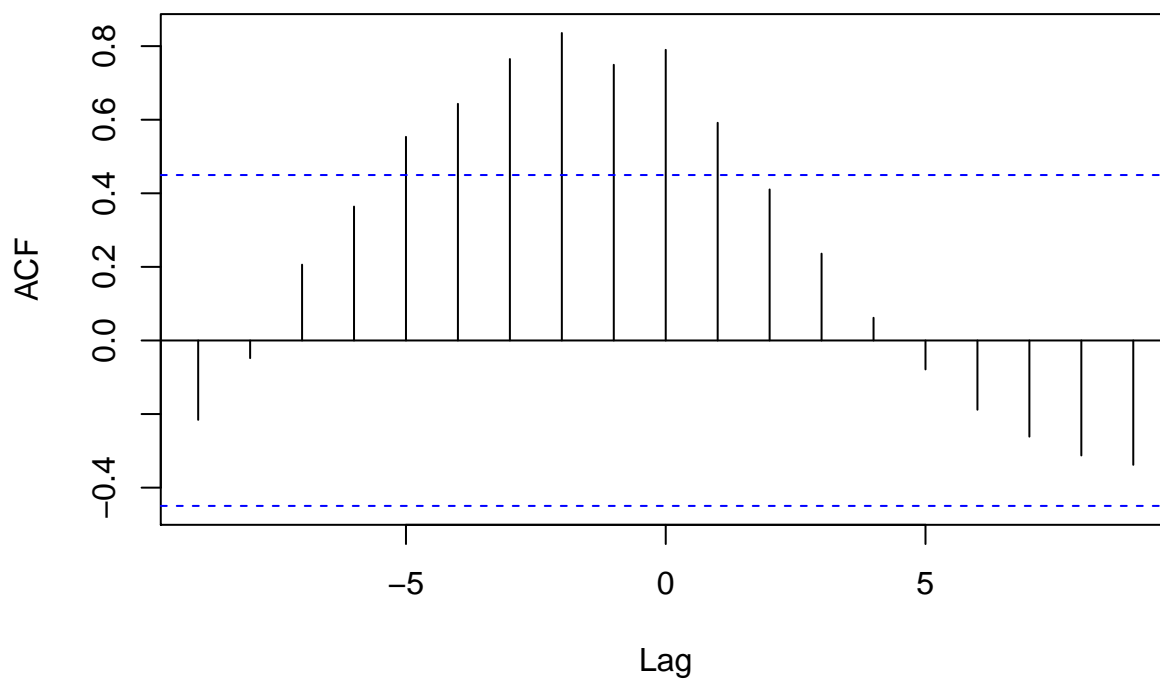
1 wk ahead – 48



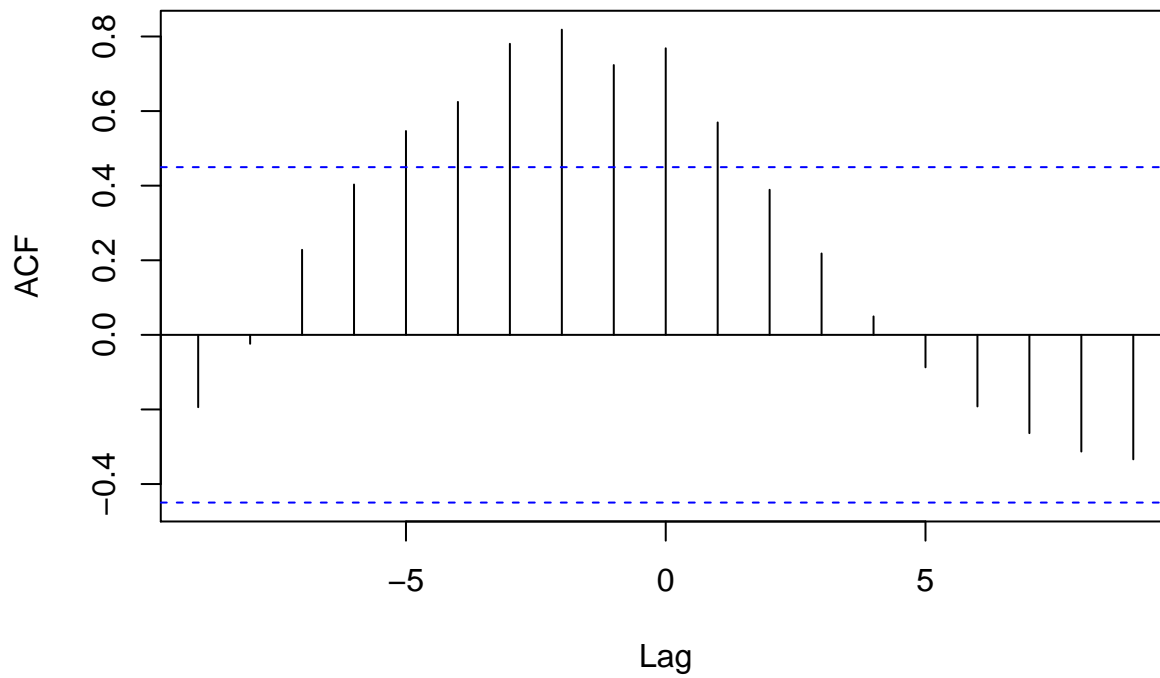
2 wk ahead – 48



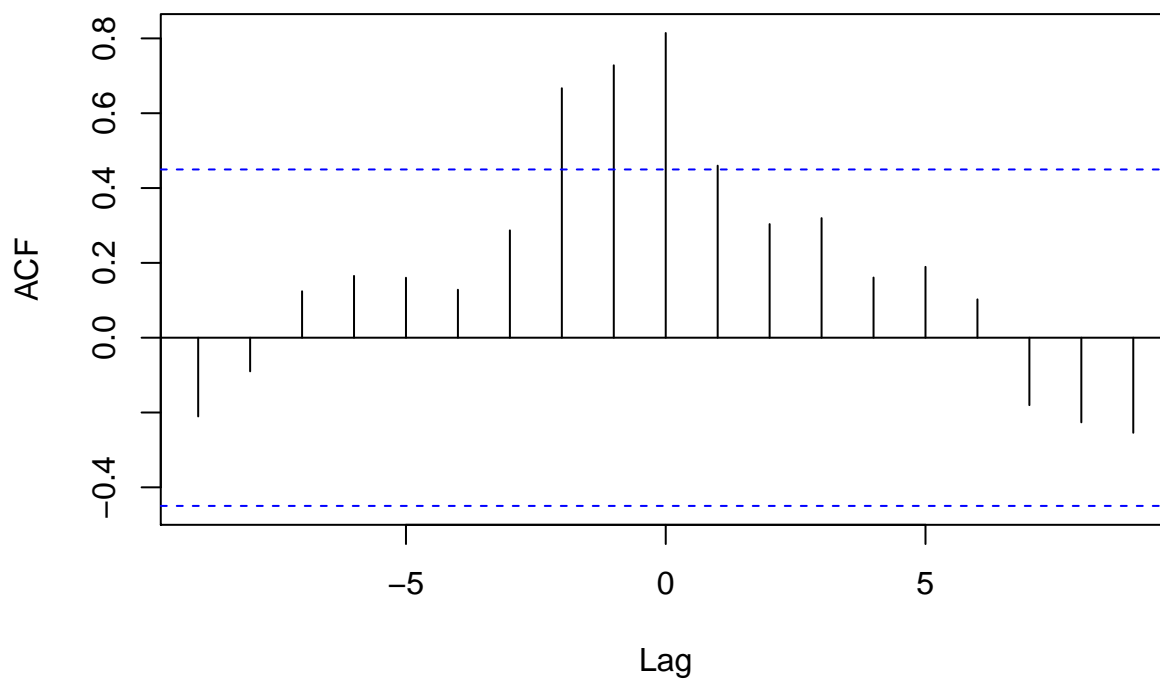
3 wk ahead – 48



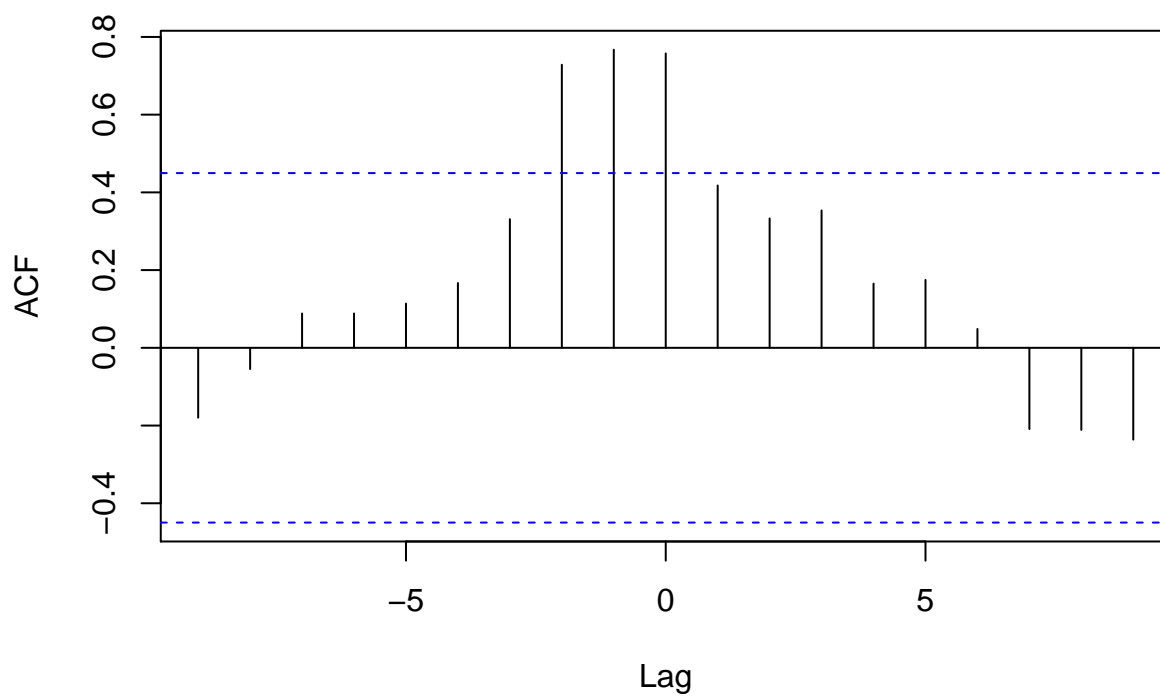
4 wk ahead – 48



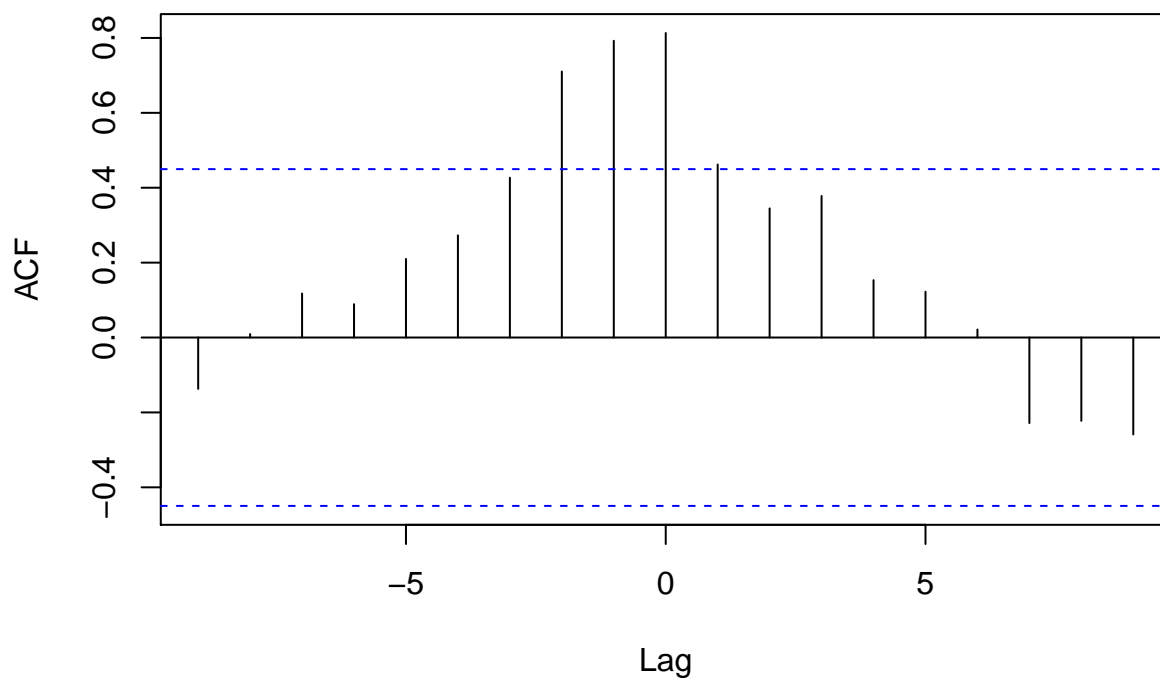
1 wk ahead – 49



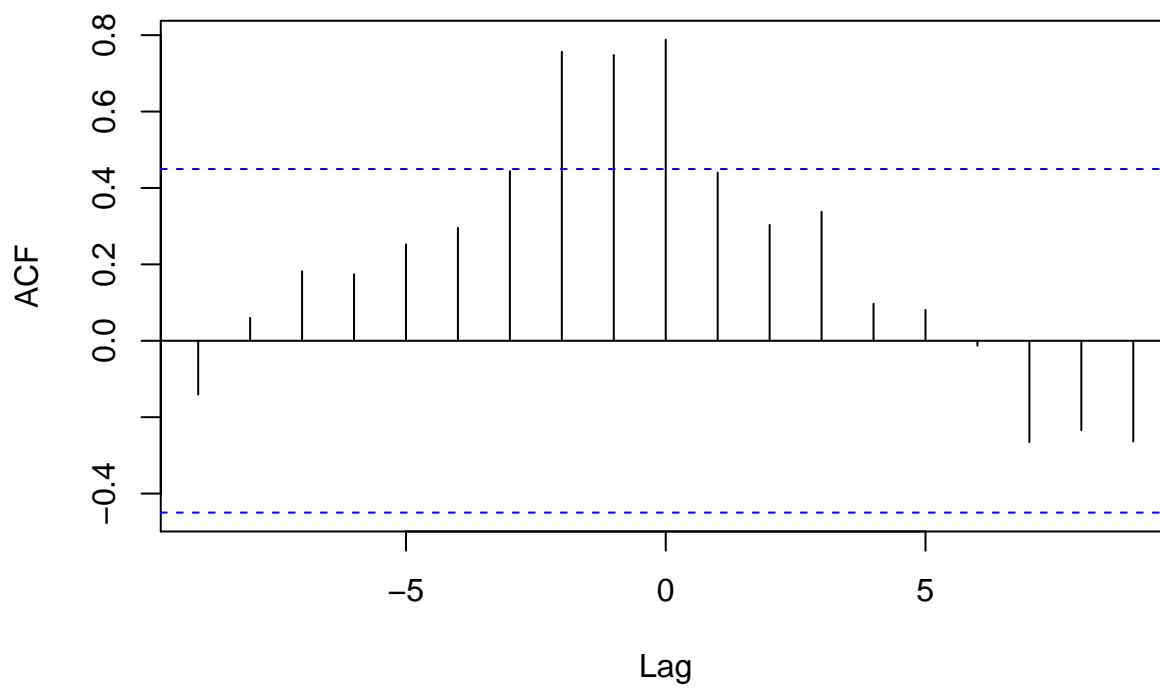
2 wk ahead – 49



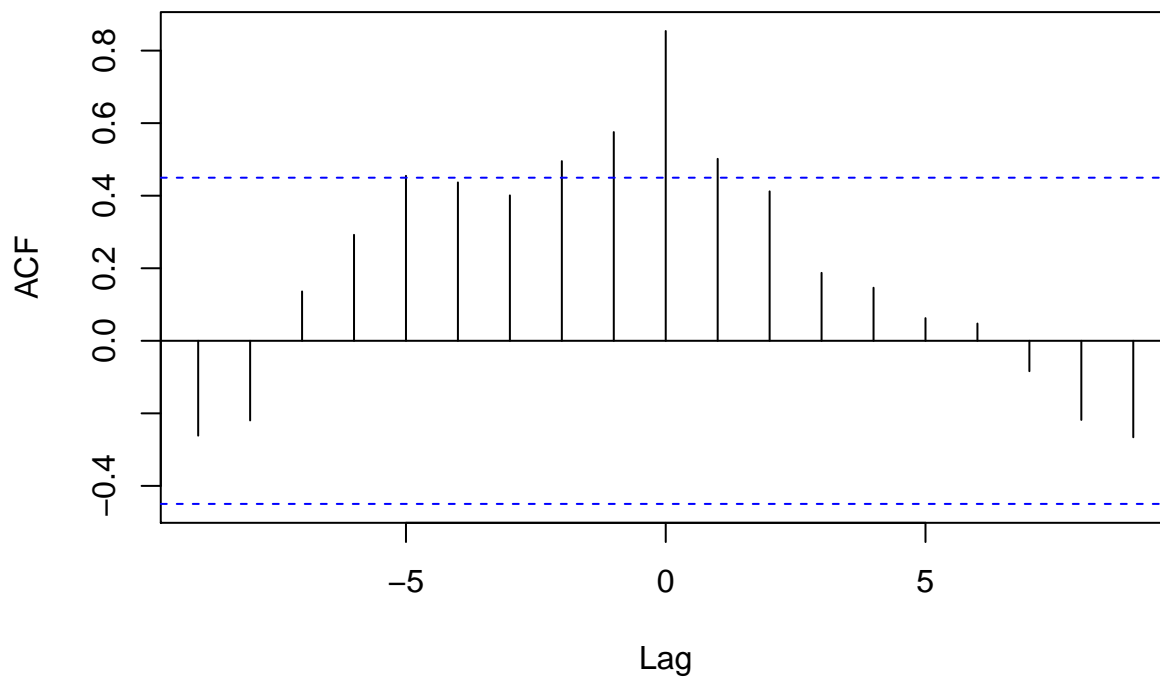
3 wk ahead – 49



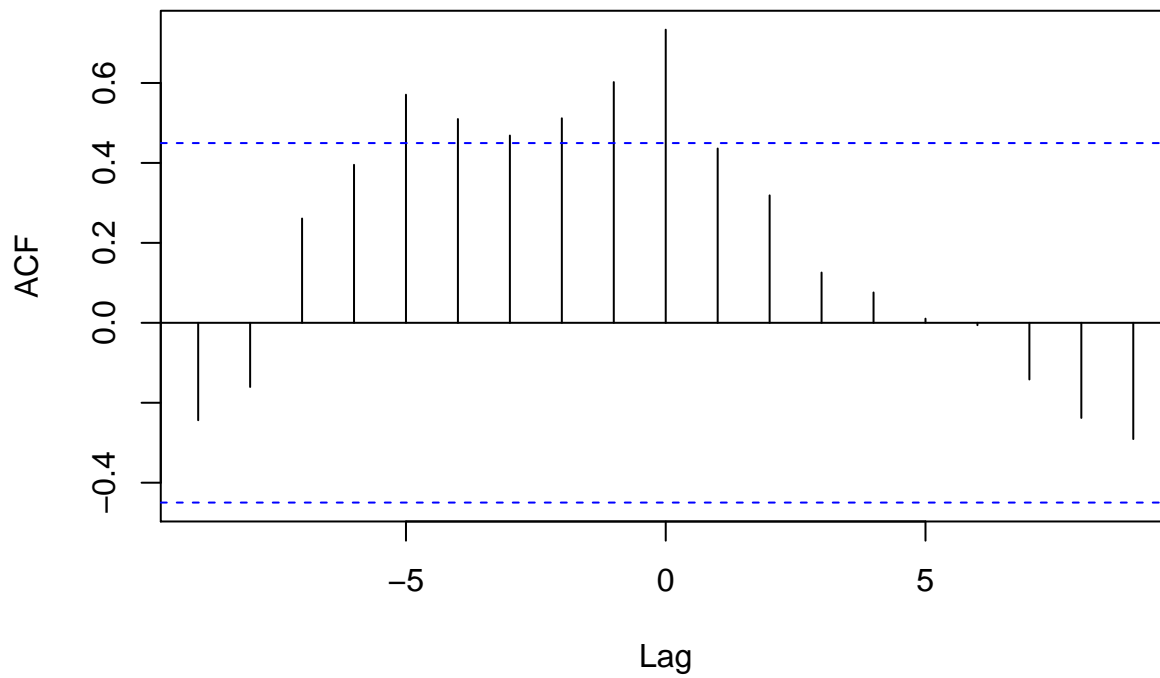
4 wk ahead – 49



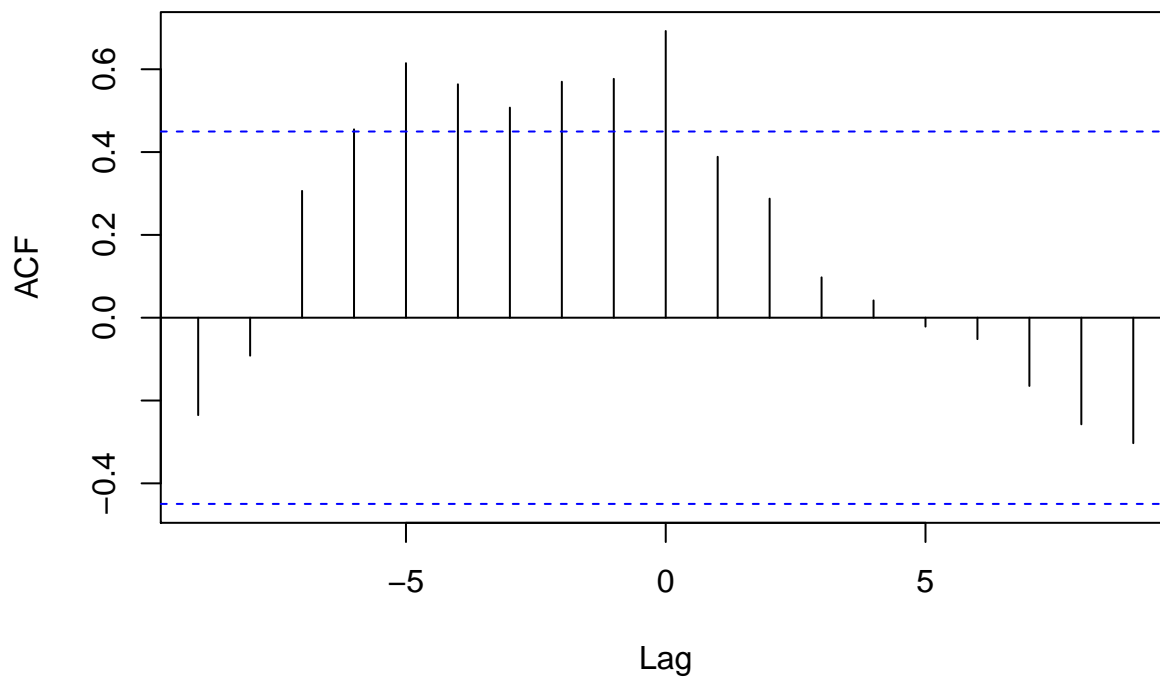
1 wk ahead – 50



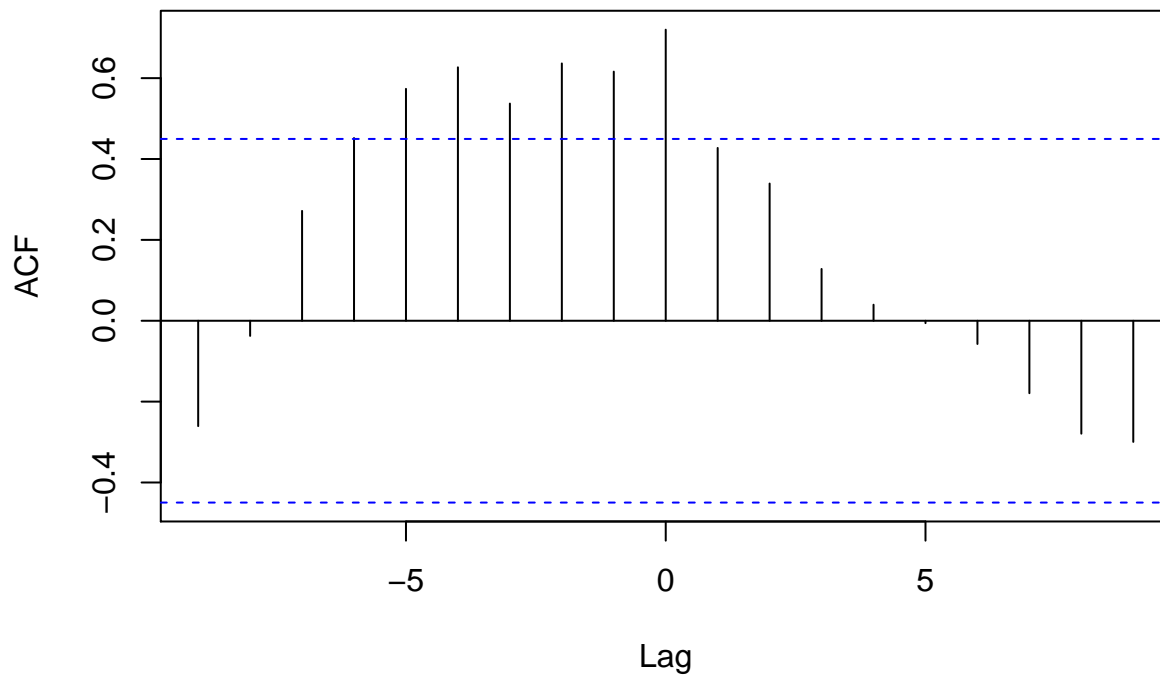
2 wk ahead – 50



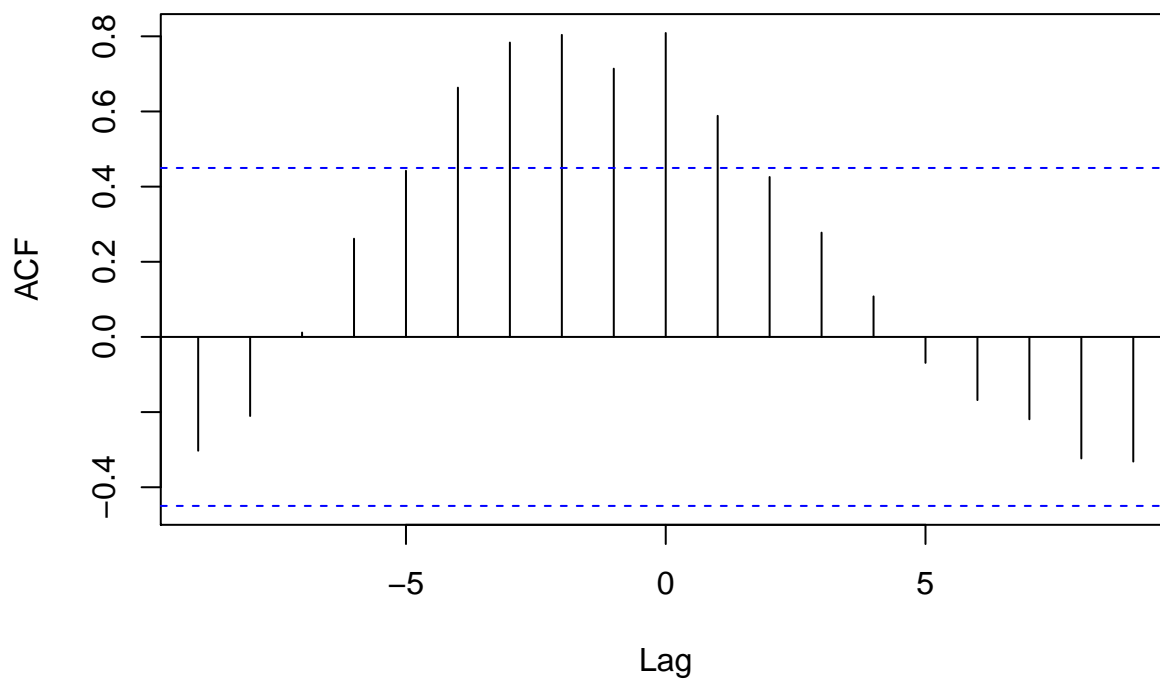
3 wk ahead – 50



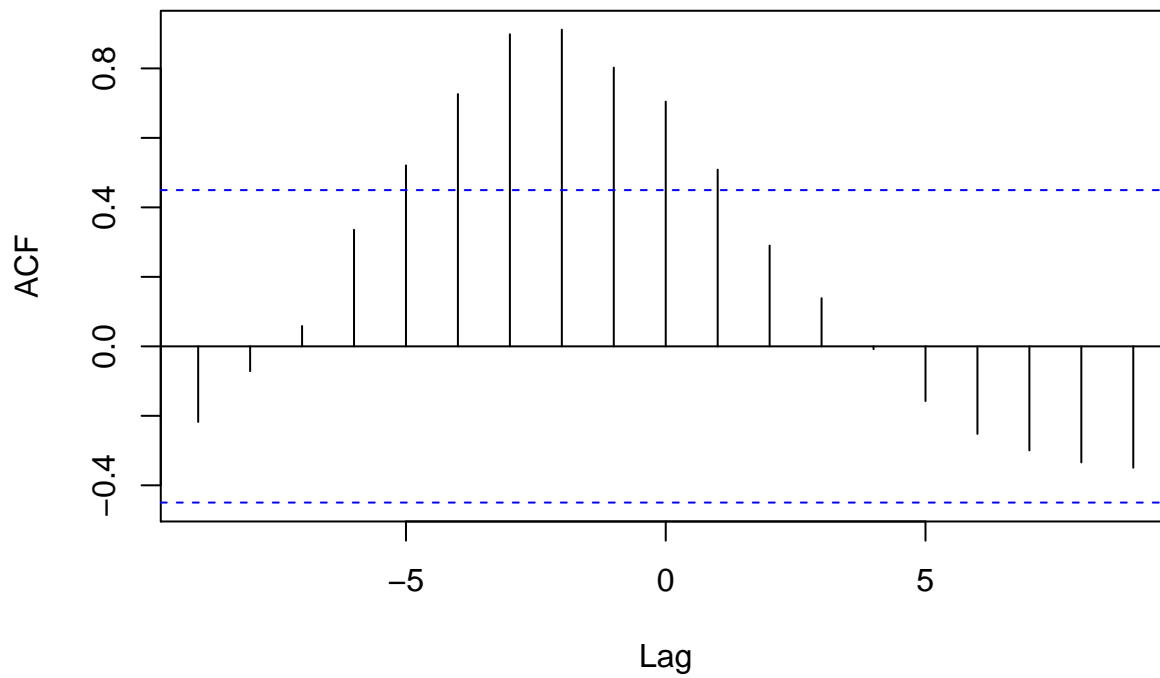
4 wk ahead – 50



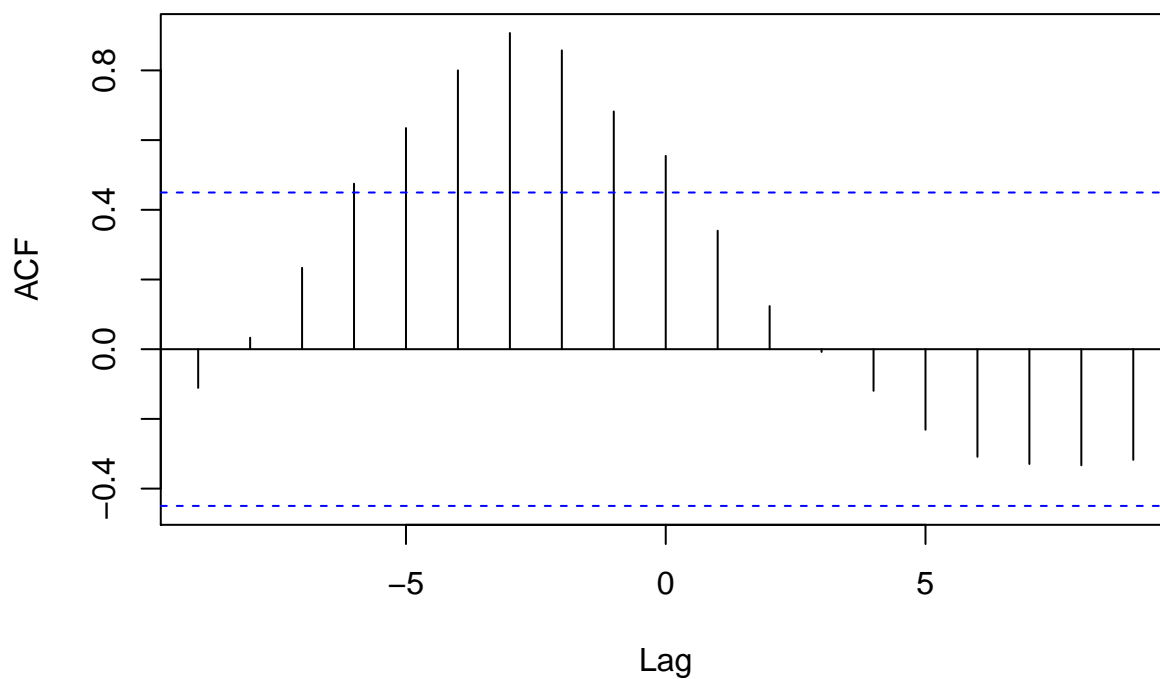
1 wk ahead – 51



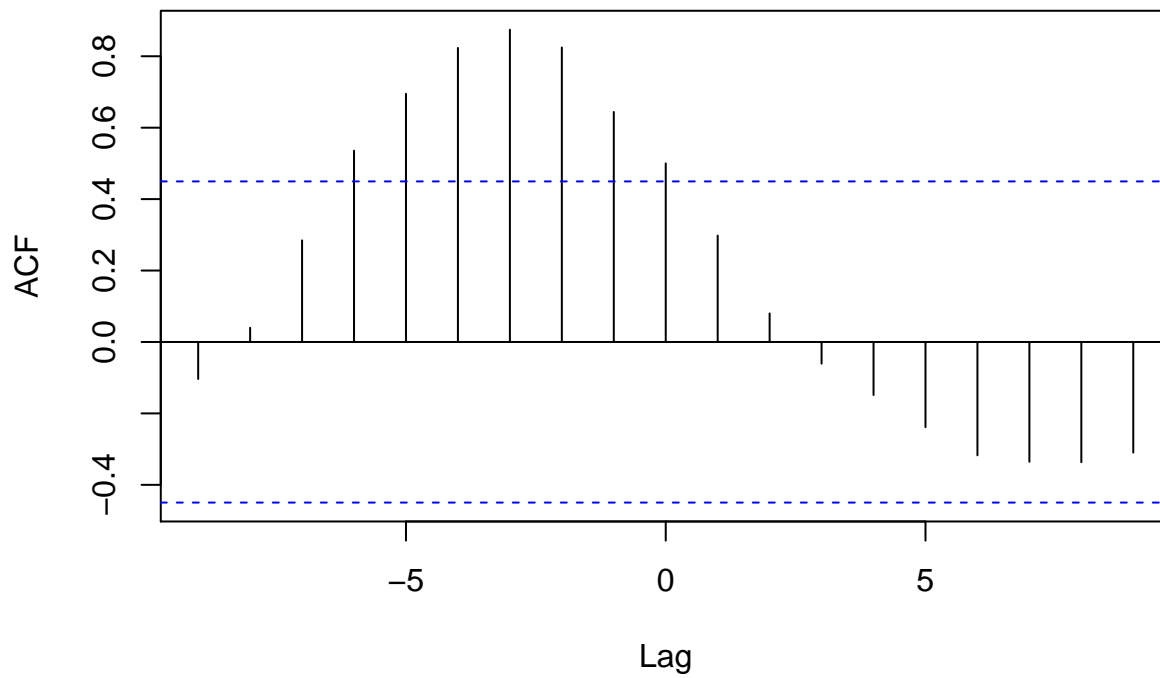
2 wk ahead – 51



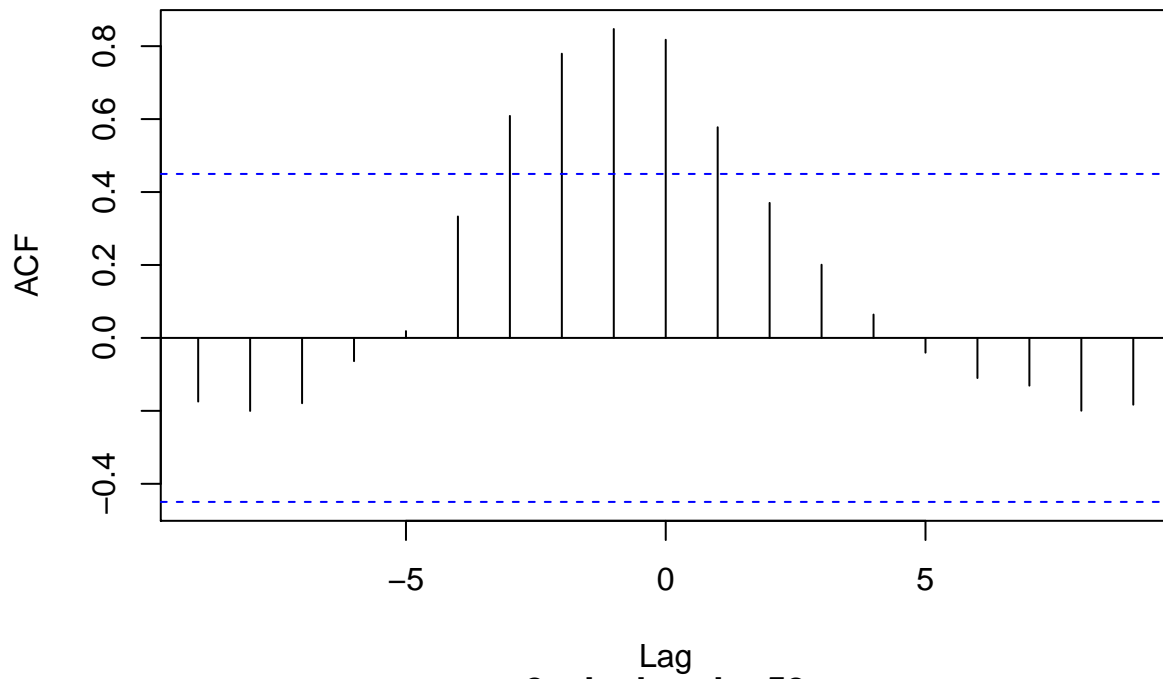
3 wk ahead – 51



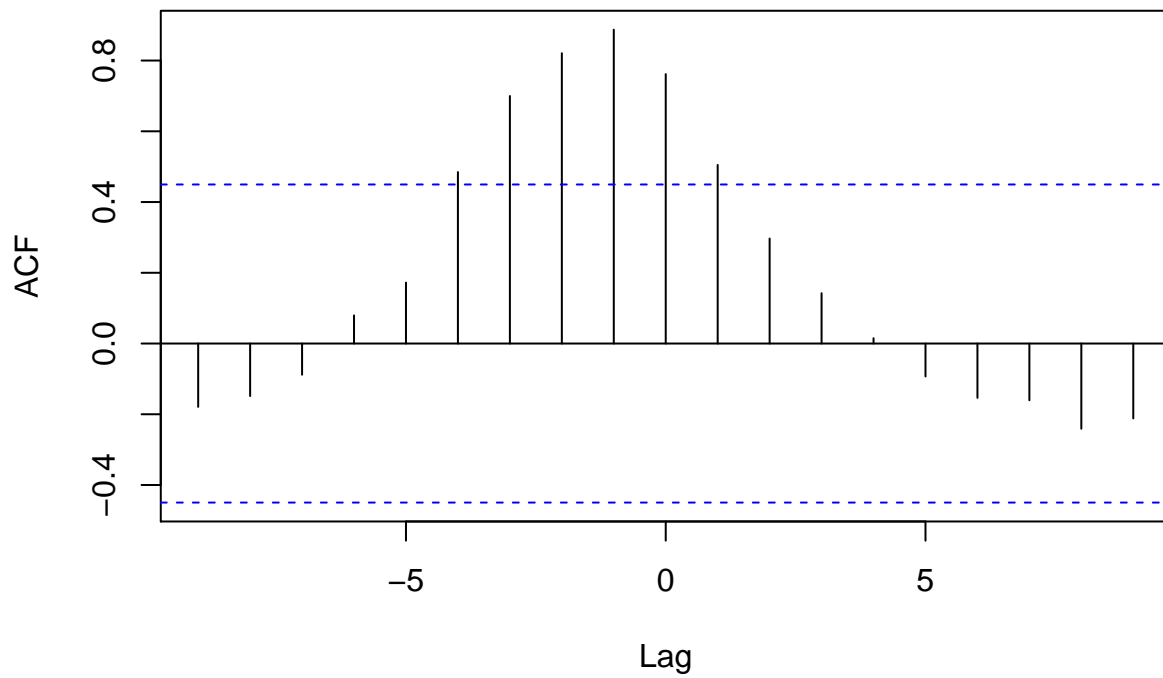
4 wk ahead – 51



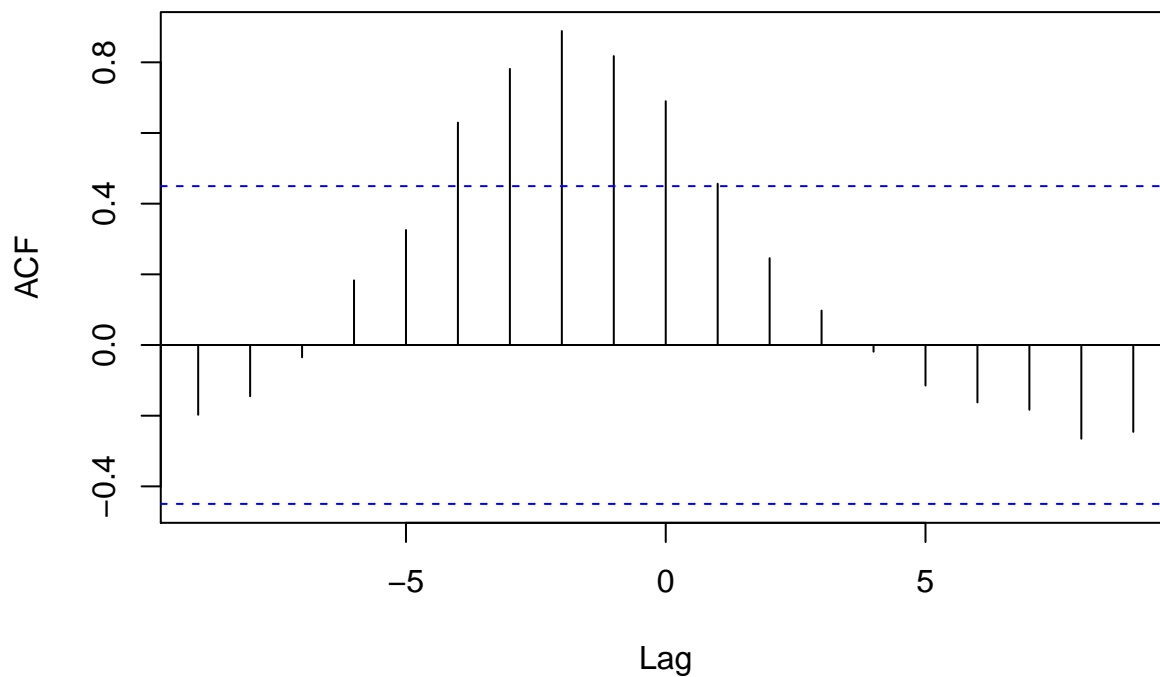
1 wk ahead – 53



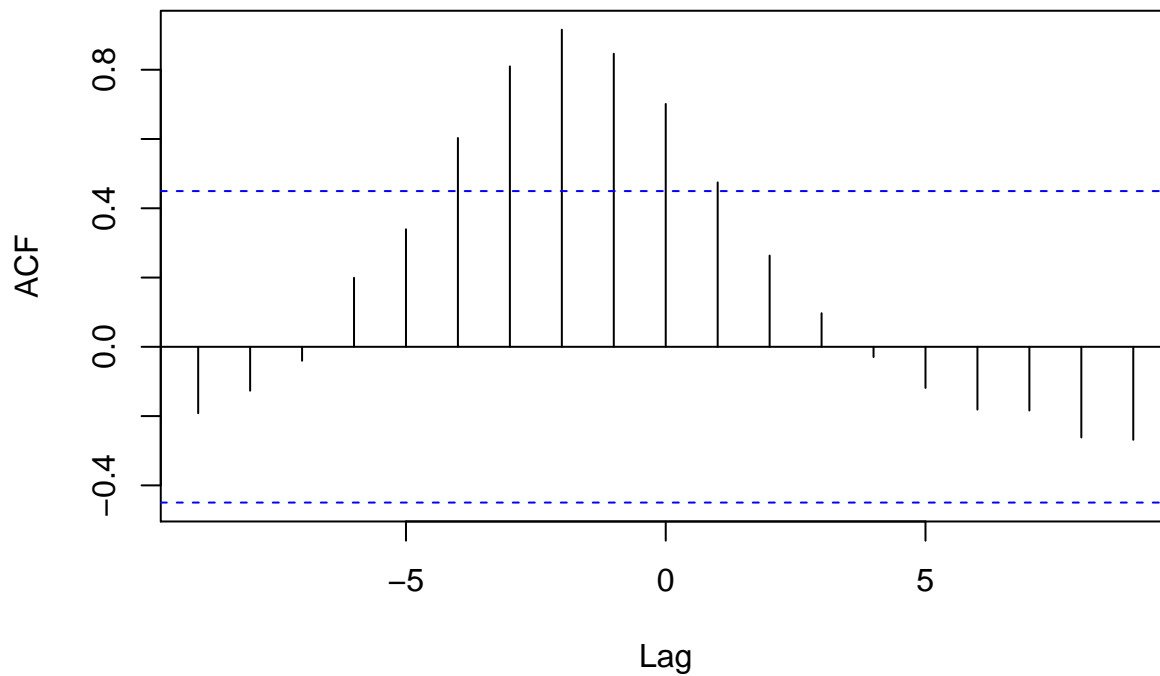
2 wk ahead – 53



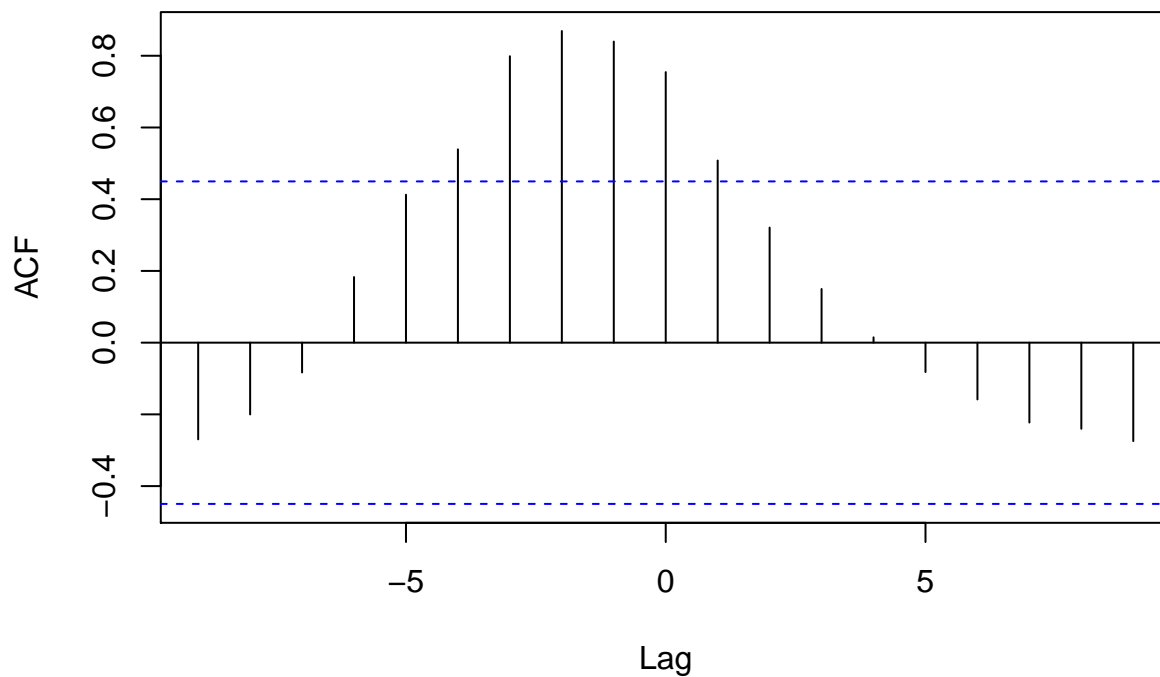
3 wk ahead – 53



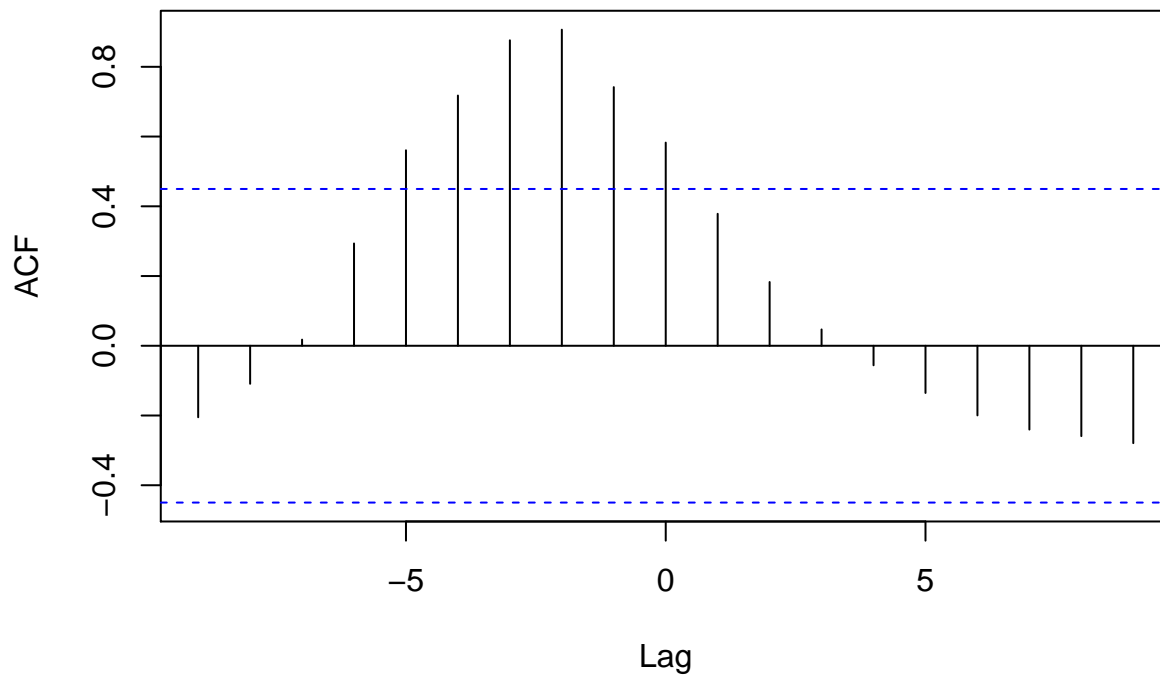
4 wk ahead – 53



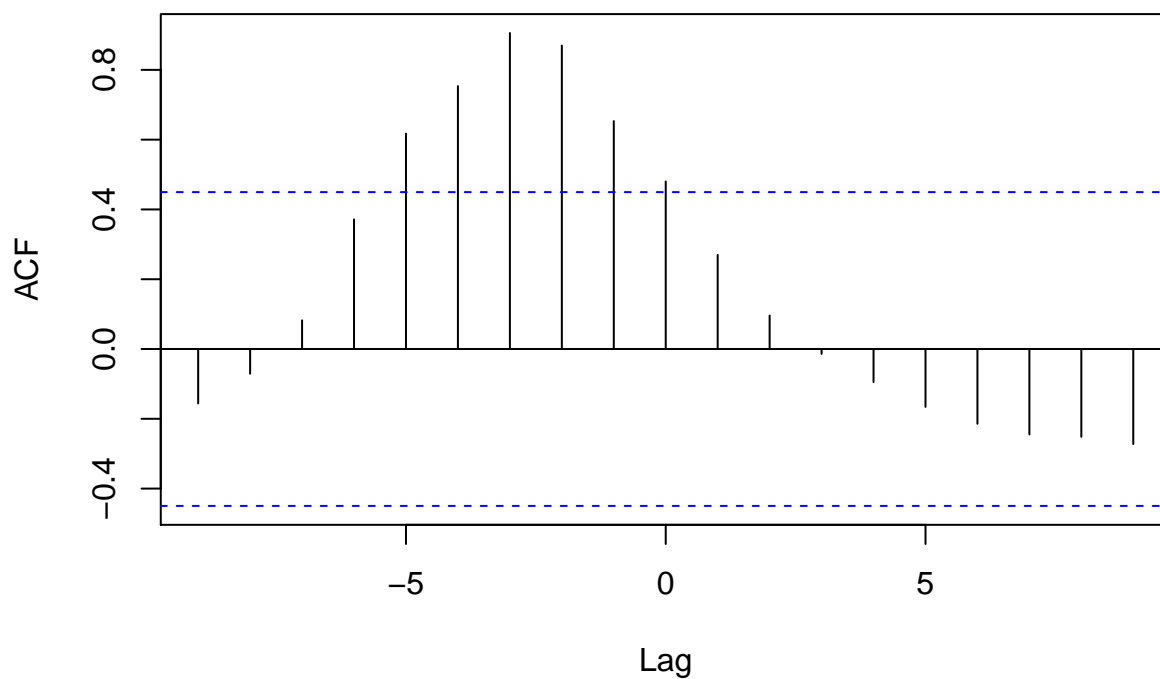
1 wk ahead – 54



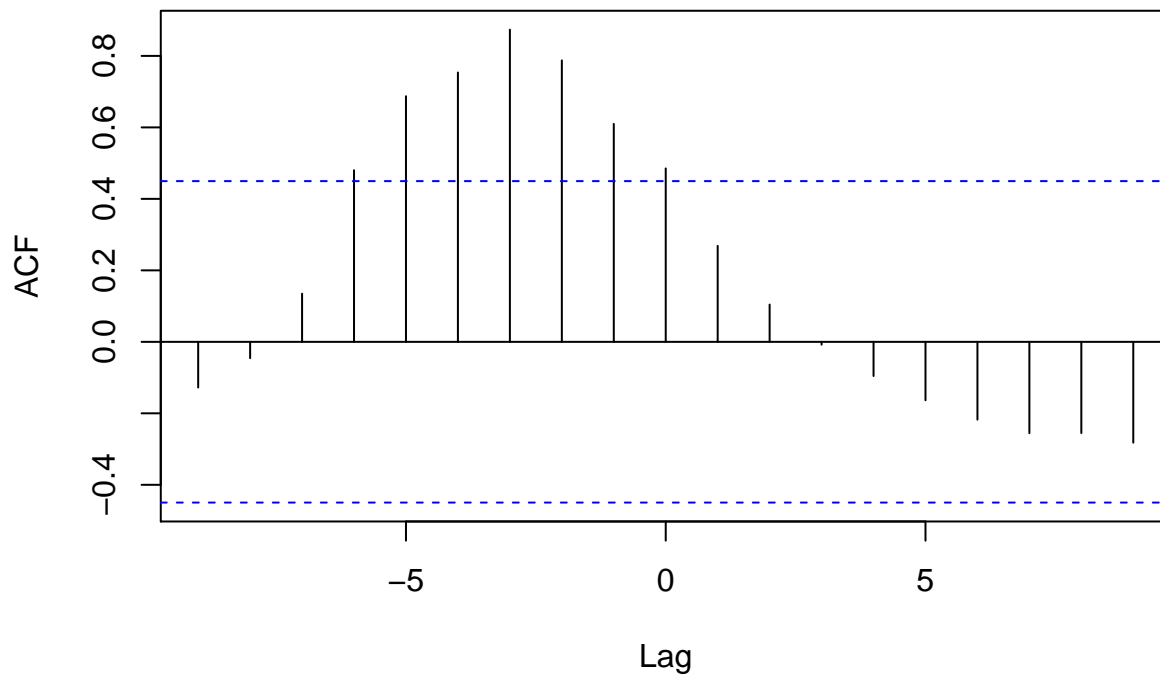
2 wk ahead – 54



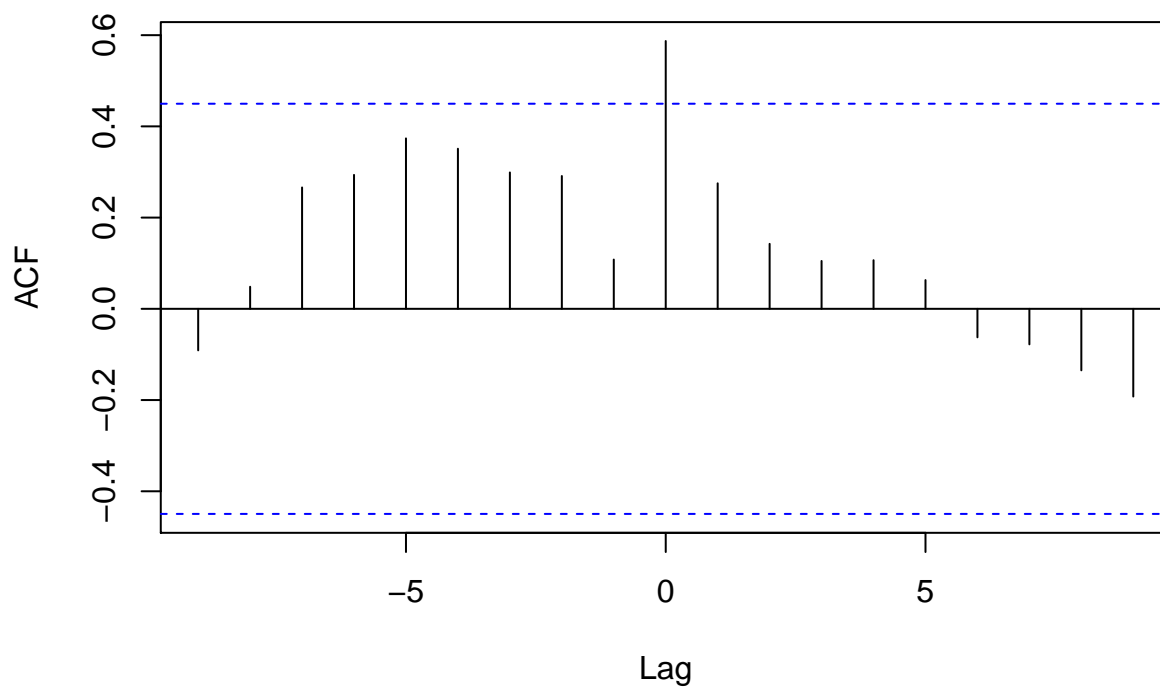
3 wk ahead – 54



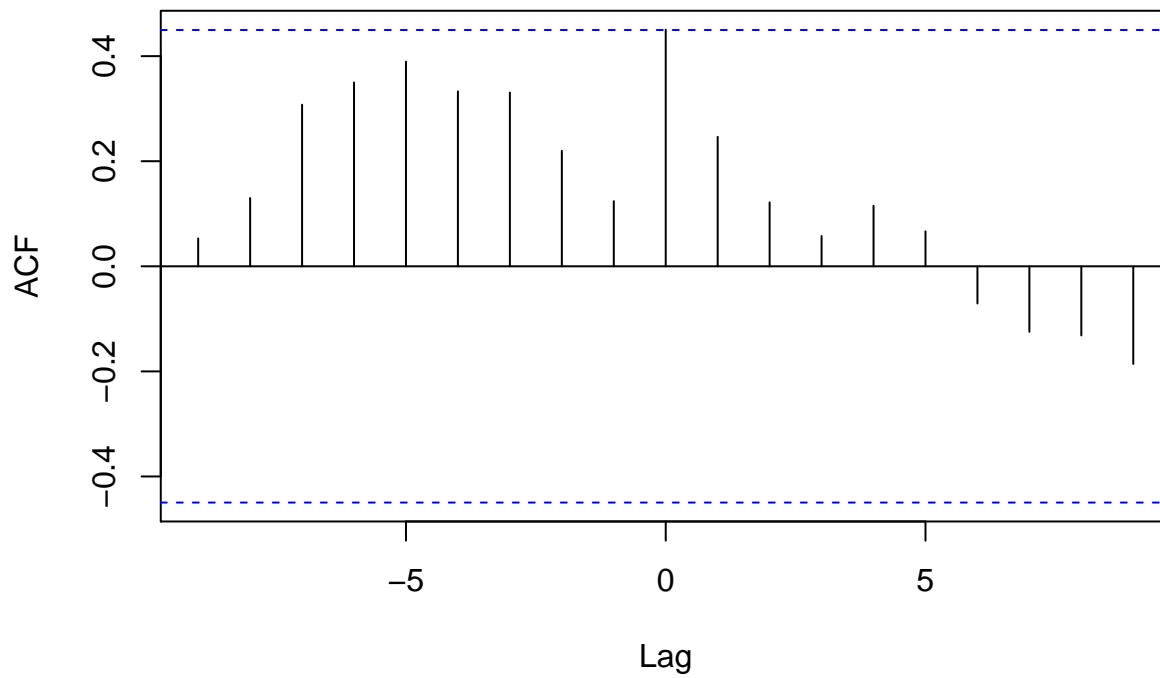
4 wk ahead – 54



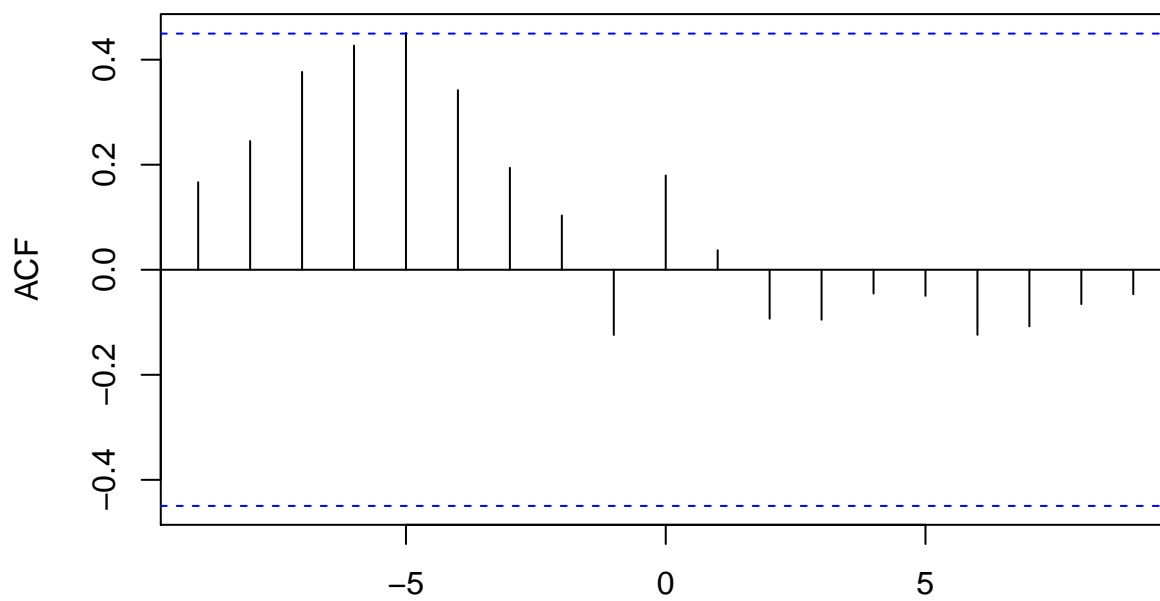
1 wk ahead – 55



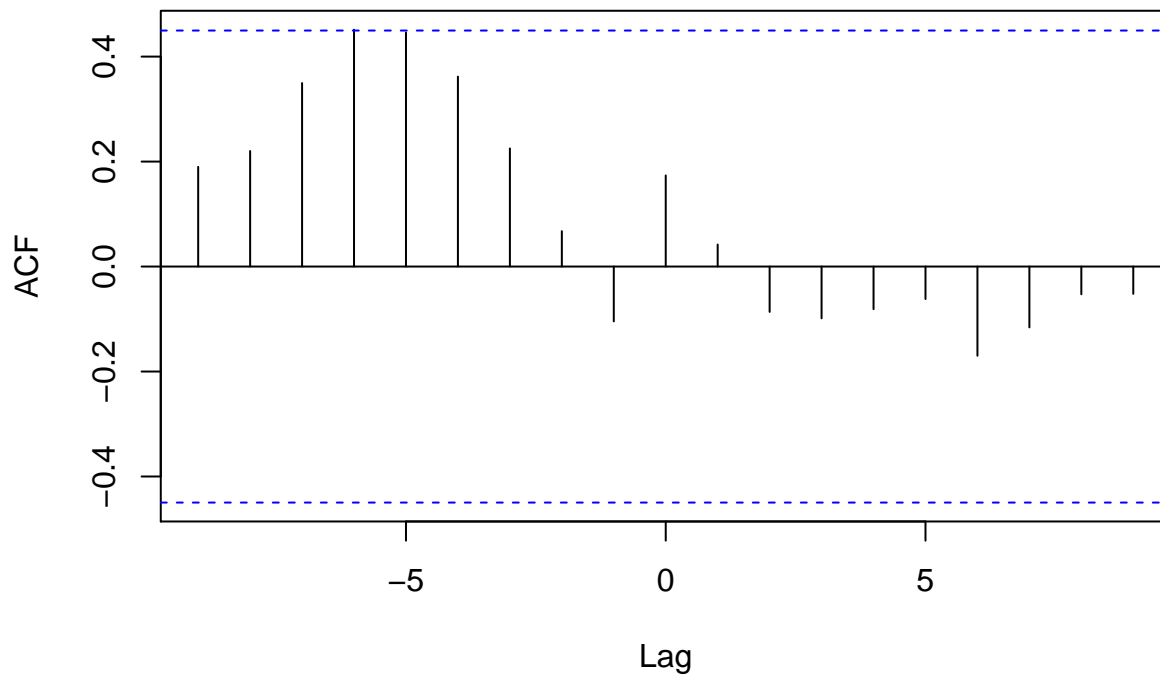
2 wk ahead – 55



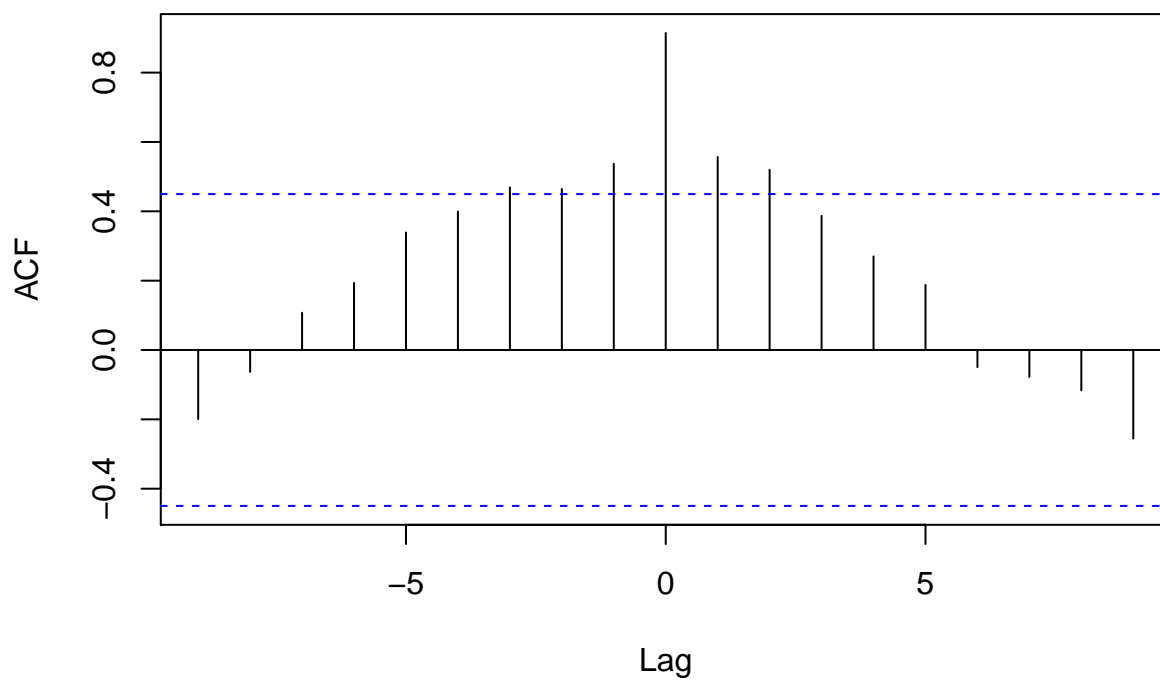
3 wk ahead – 55



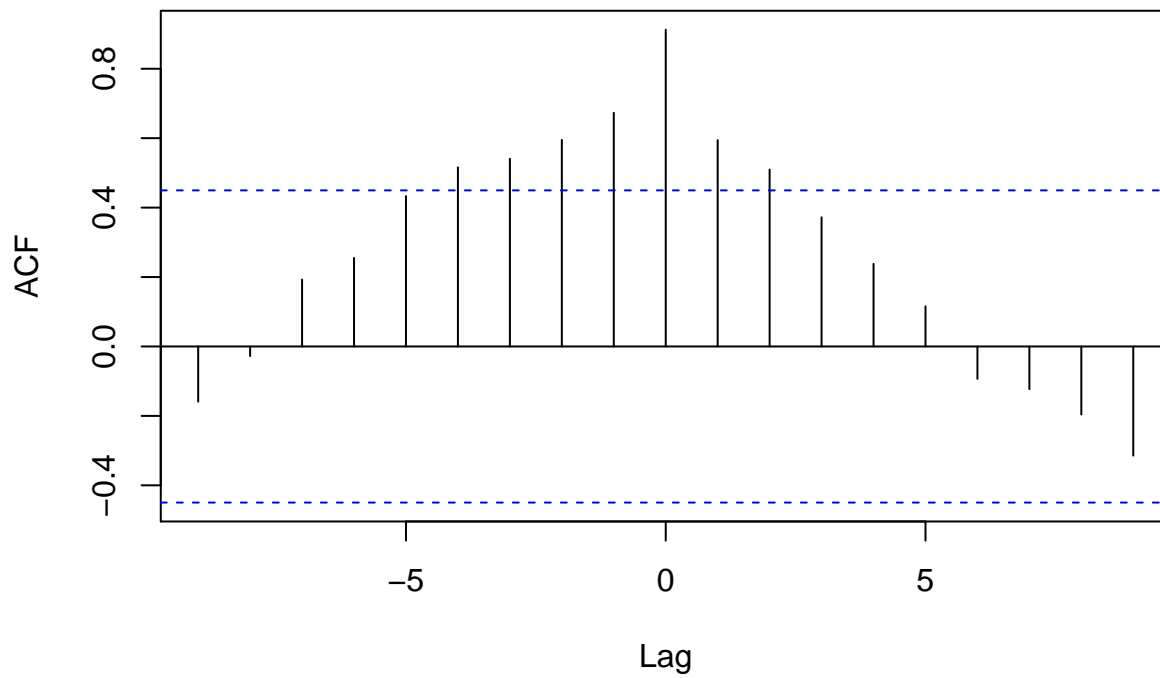
4 wk ahead – 55



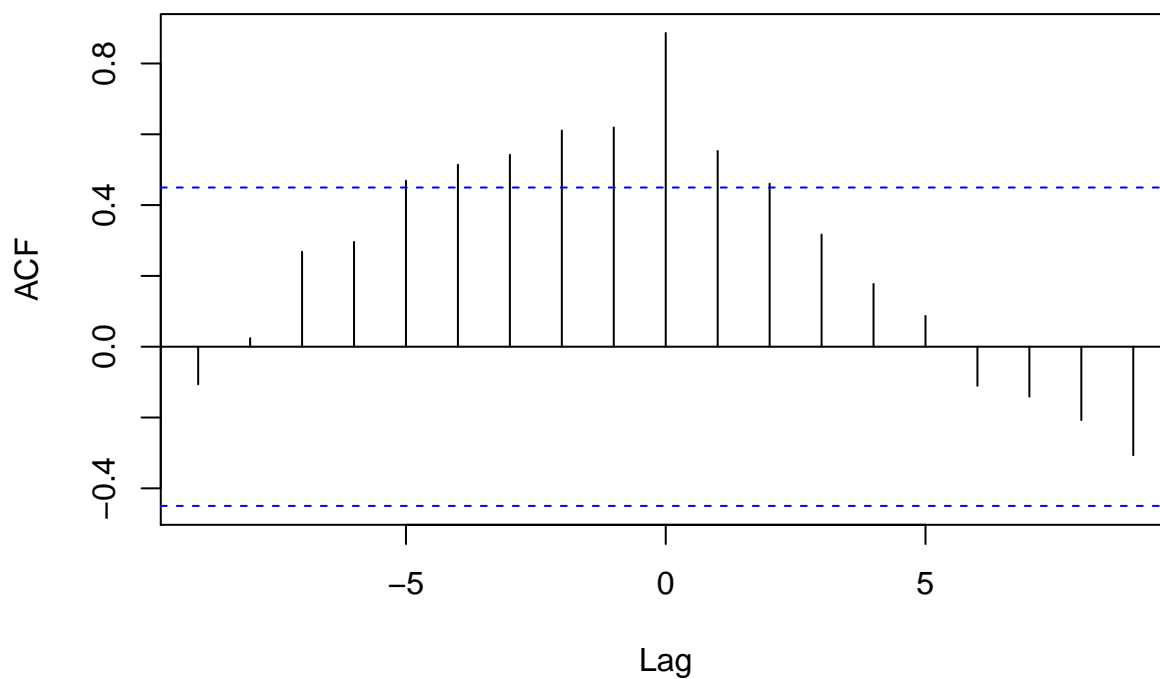
1 wk ahead – 56



2 wk ahead – 56



3 wk ahead – 56



4 wk ahead – 56

