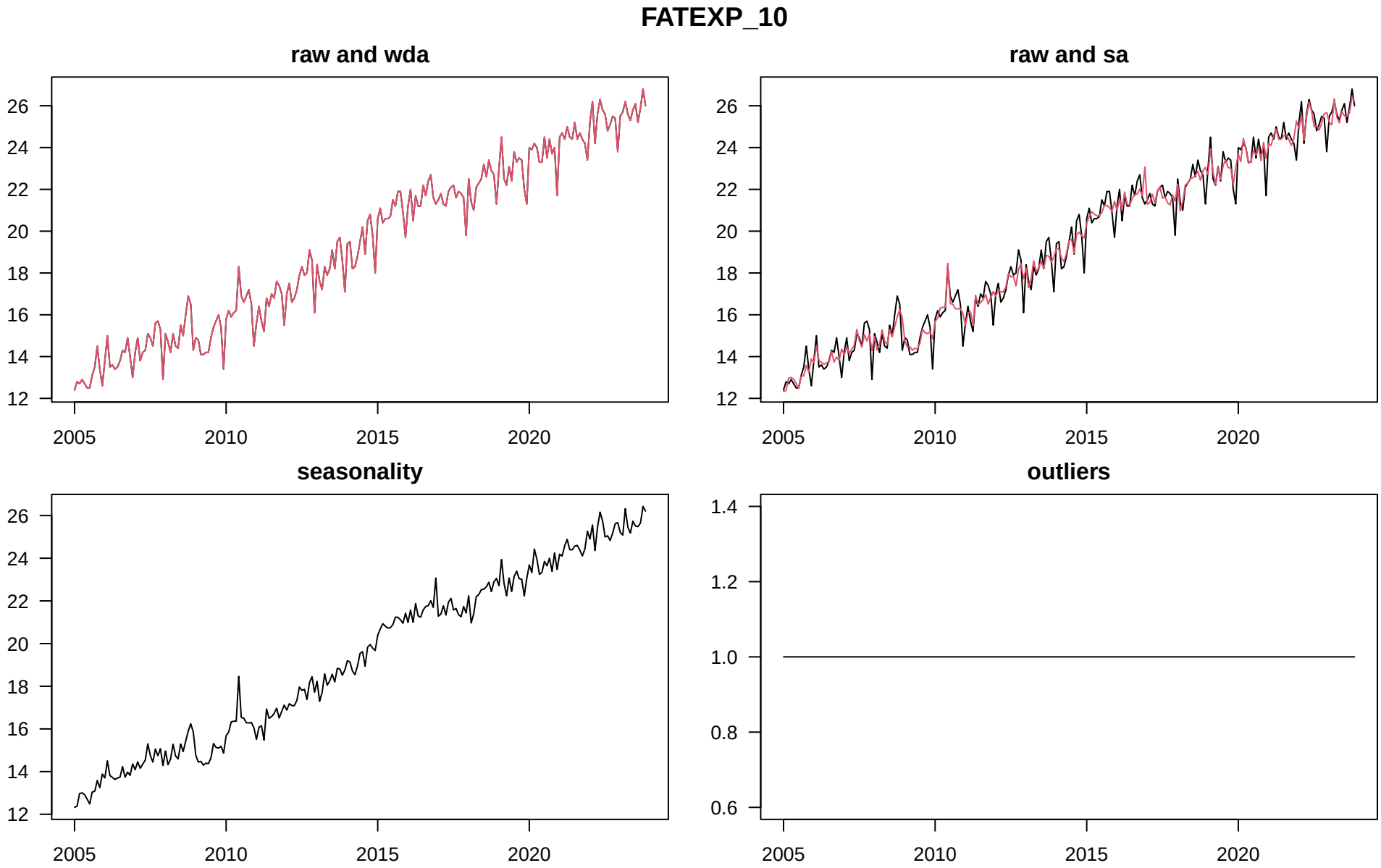
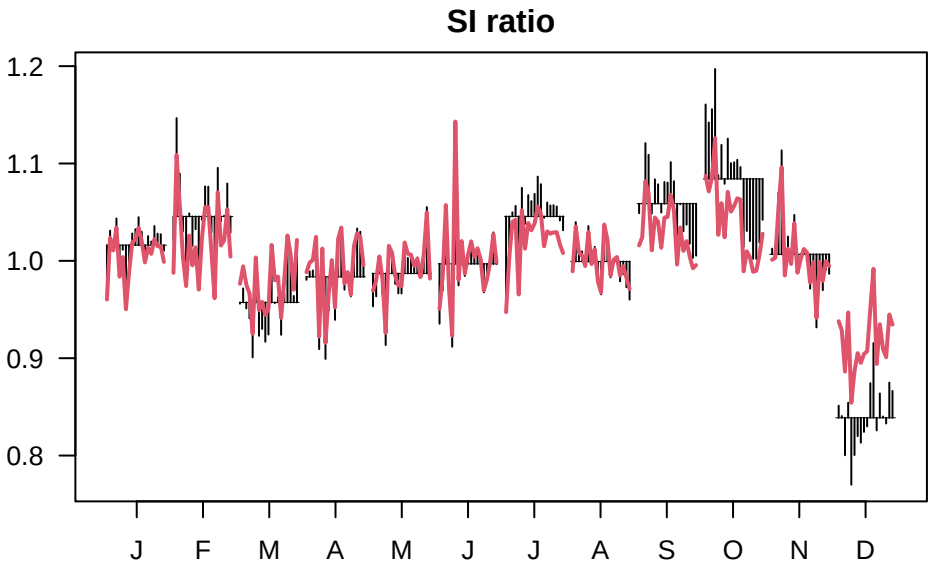
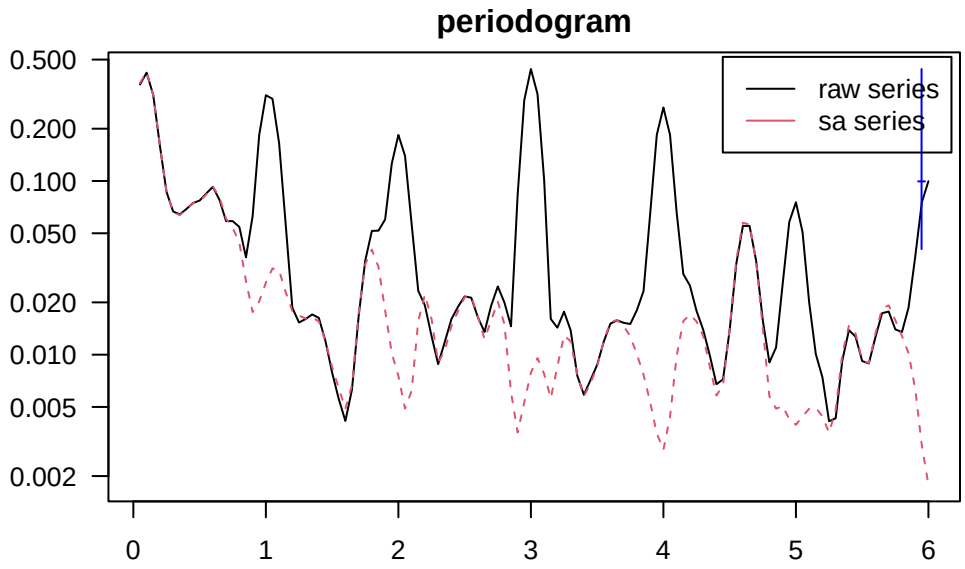
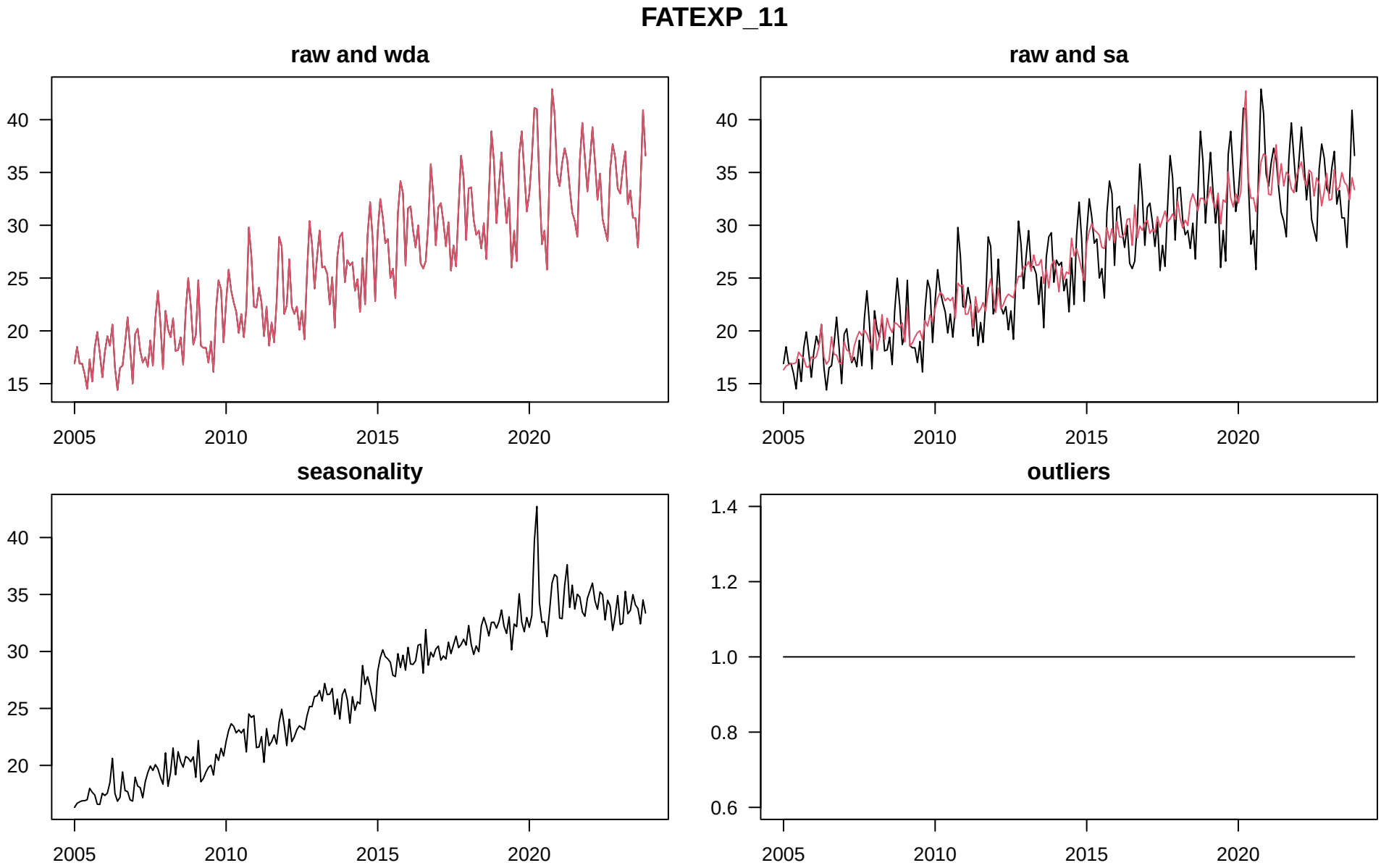

FATEXP_10
raw and wda
raw and sa
seasonality
outliers
26
24
22
20
18
16
14
12
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

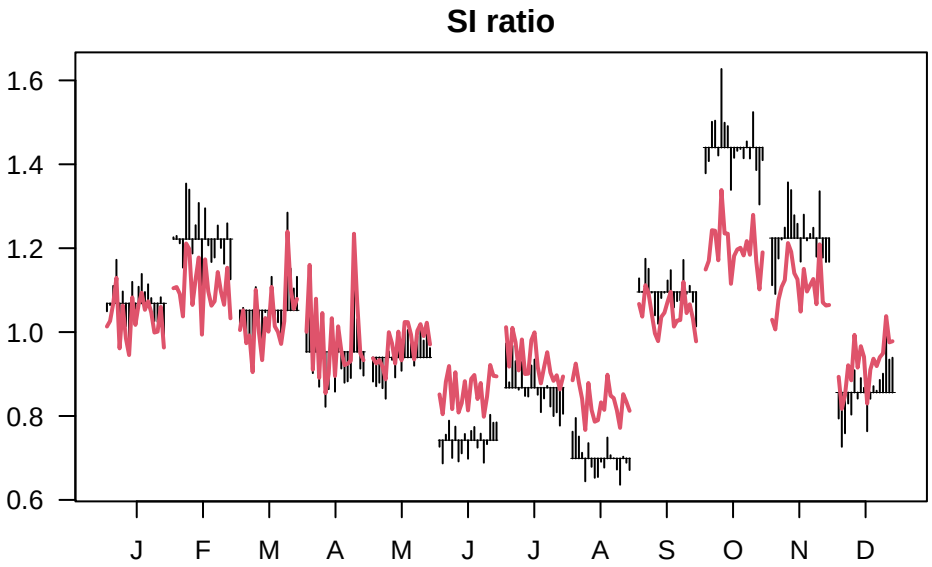
FATEXP_10

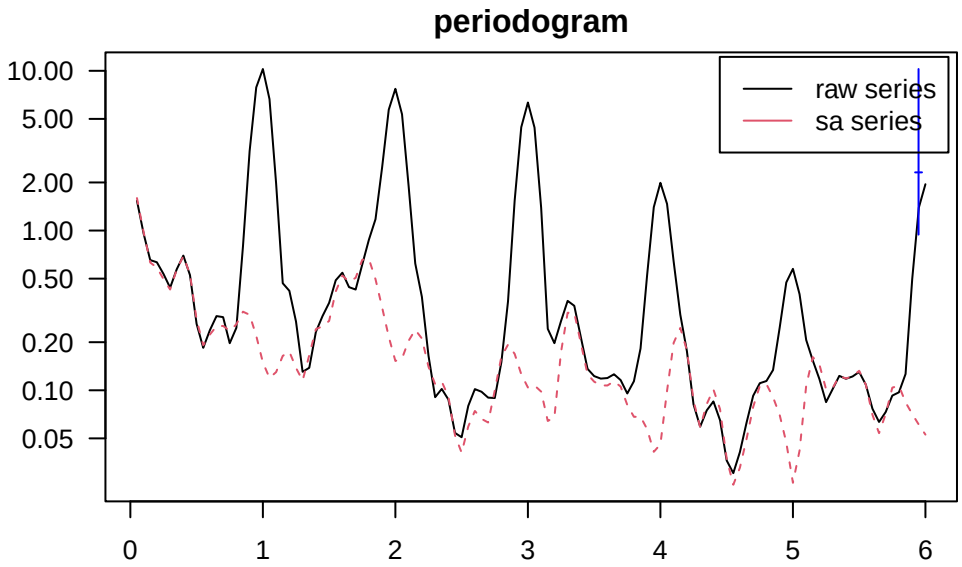

SI ratio
1.2
1.1
1.0
0.9
0.8
J
F
M
A
M
J
J
A
S
O
N
D

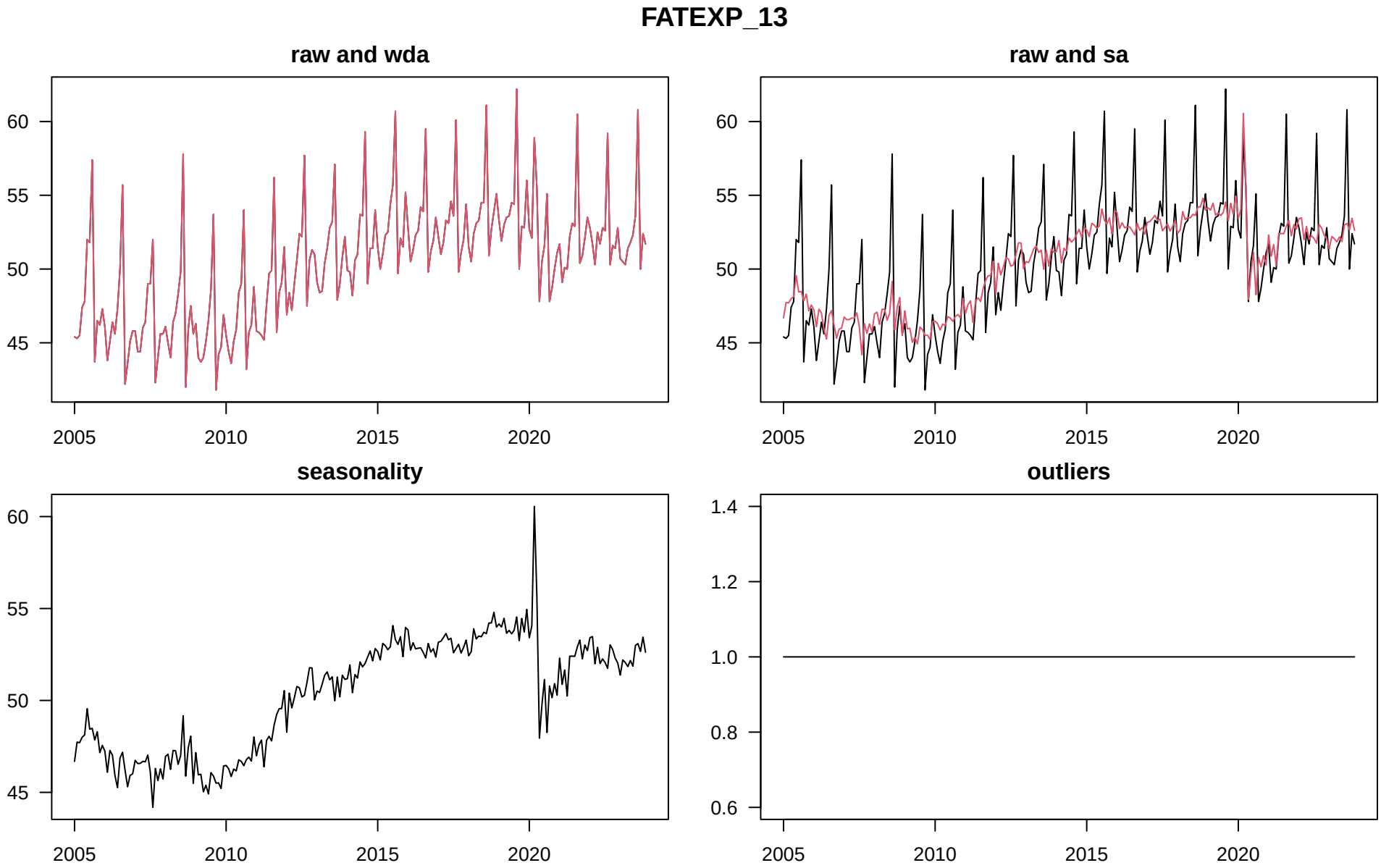

periodogram
0.500
0.200
0.100
0.050
0.020
0.010
0.005
0.002
0
1
2
3
4
5
6
raw series
sa series


FATEXP_11
raw and wda
raw and sa
seasonality
outliers
40
35
30
25
20
15
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

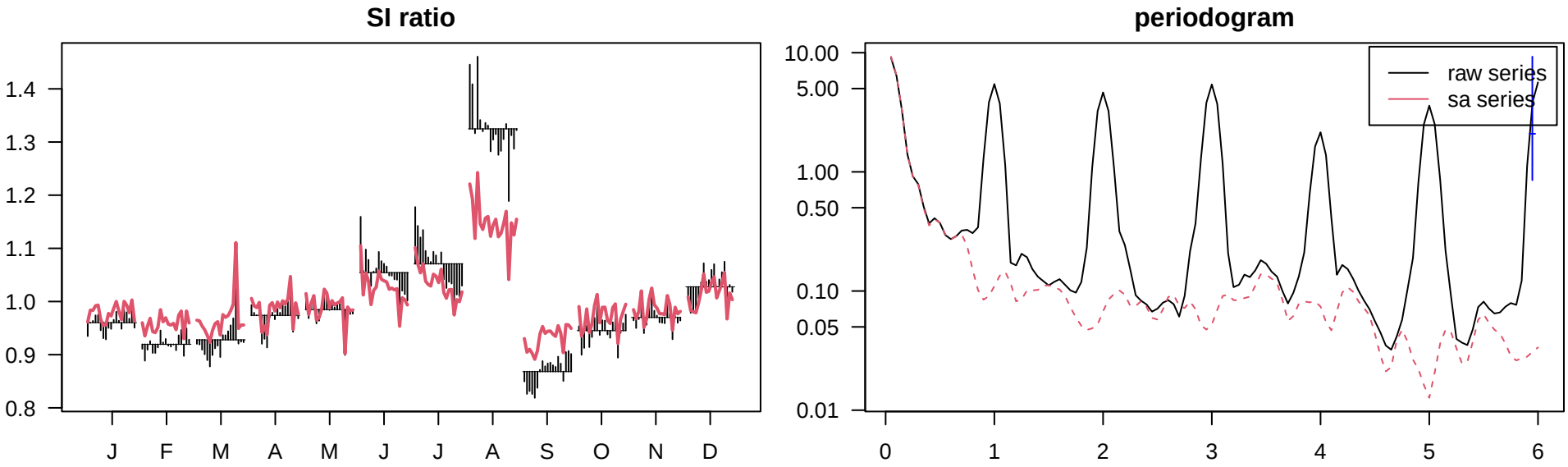
FATEXP_11

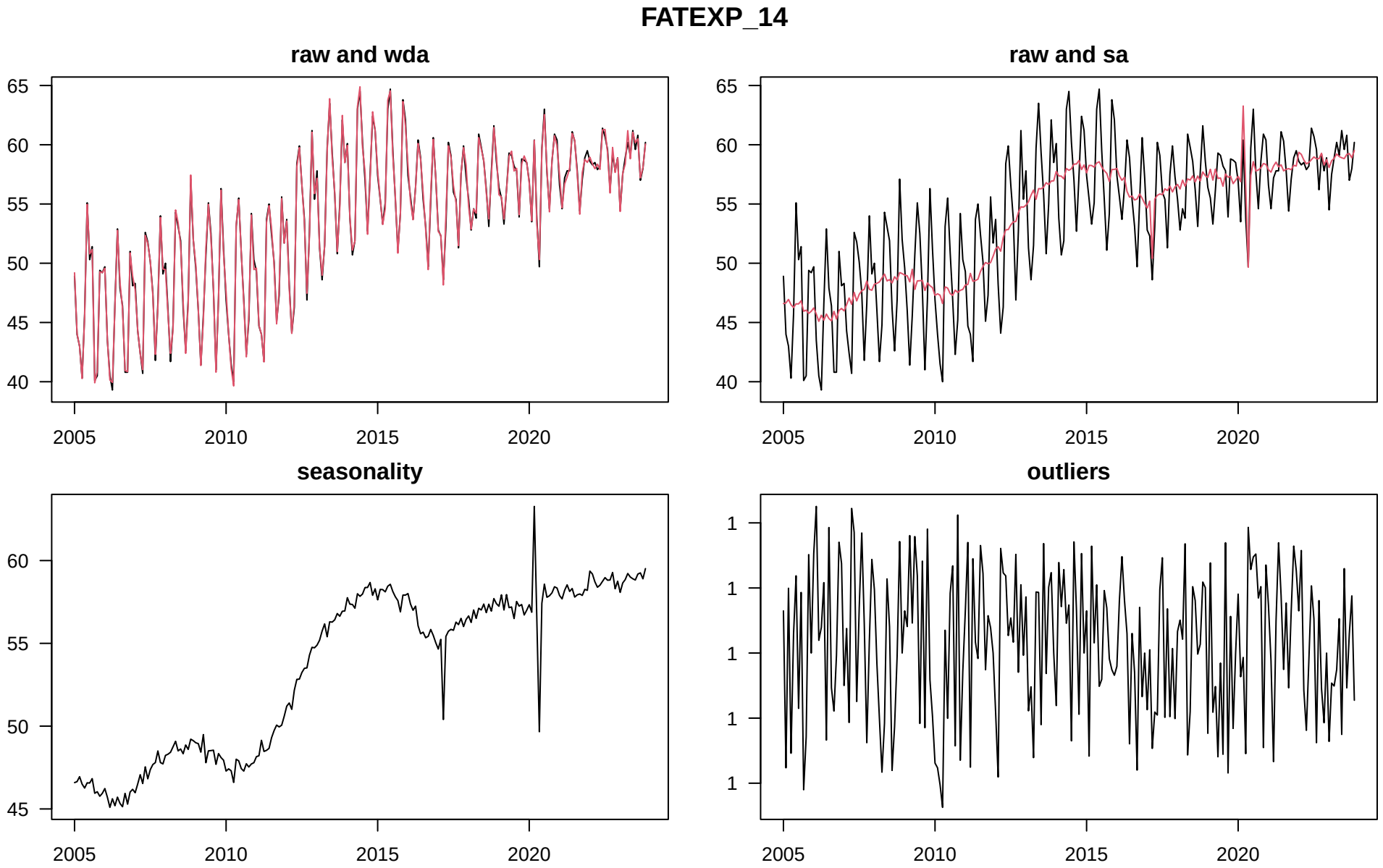

SI ratio
1.6
1.4
1.2
1.0
0.8
0.6
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
raw series
sa series
0
1
2
3
4
5
6

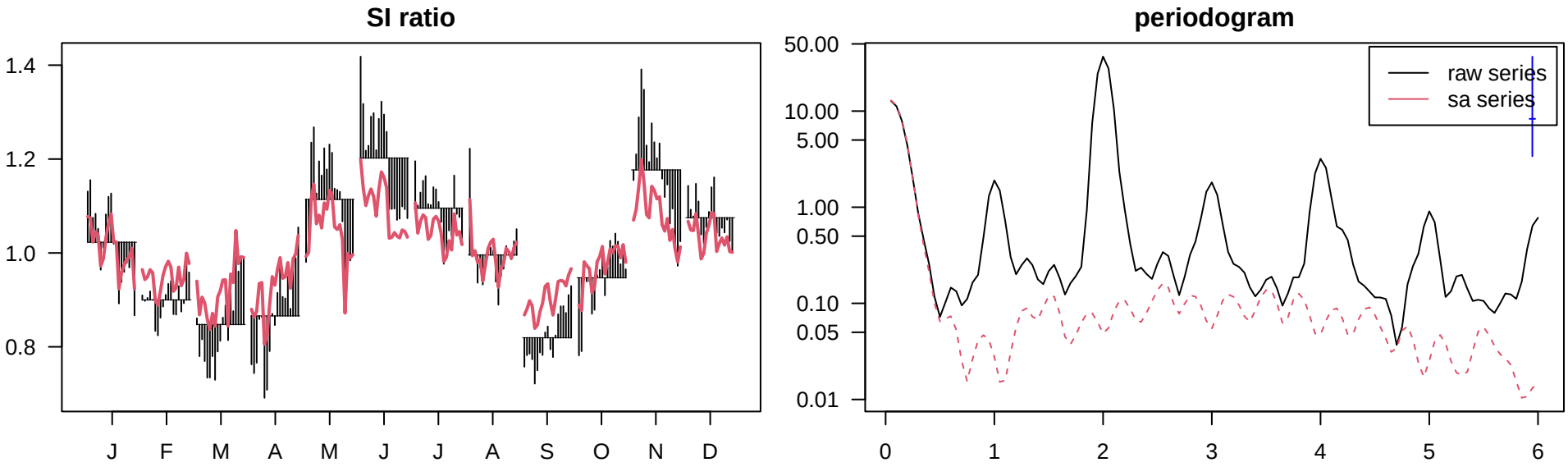

FATEXP_13
raw and wda
raw and sa
seasonality
outliers
60
55
50
45
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

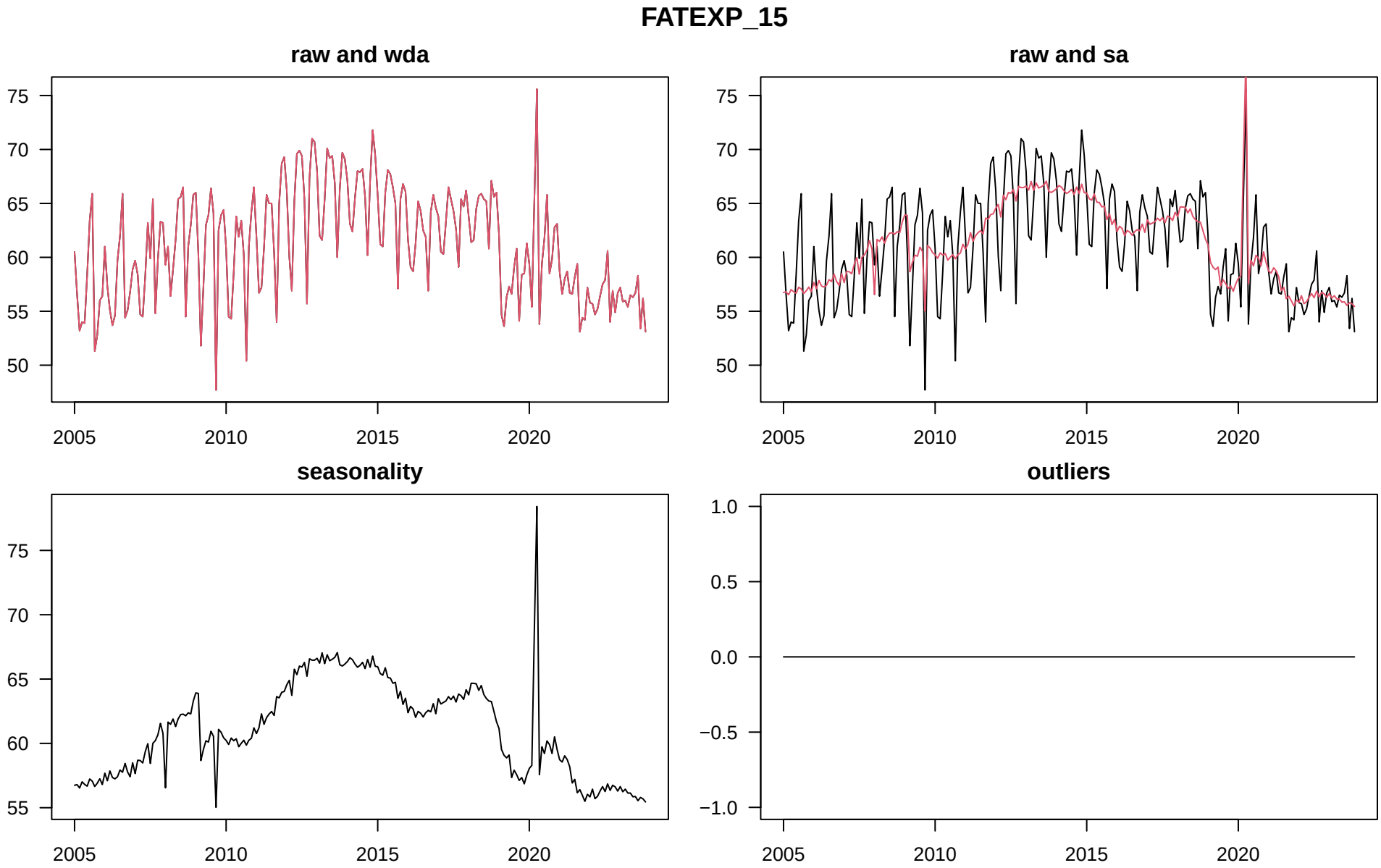
FATEXP_13


SI ratio
1.4
1.3
1.2
1.1
1.0
0.9
0.8
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
10.00
5.00
1.00
0.50
0.10
0.05
0.01
0
1
2
3
4
5
6
raw series
sa series

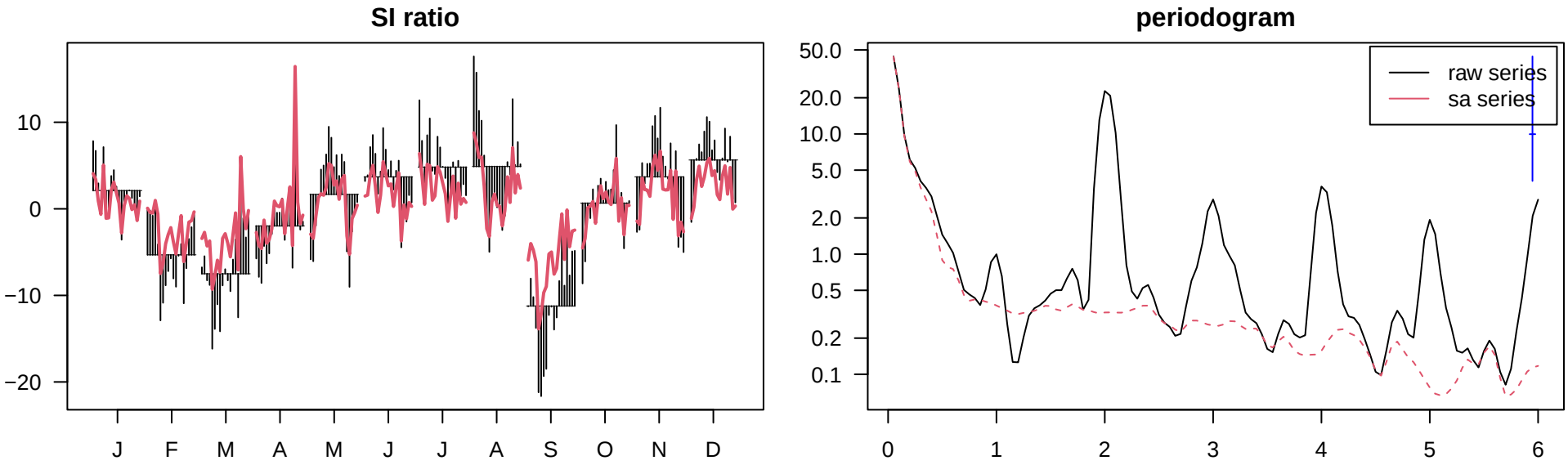

FATEXP_14
raw and wda
raw and sa
seasonality
outliers
65
60
55
50
45
40
2005
2010
2015
2020
1

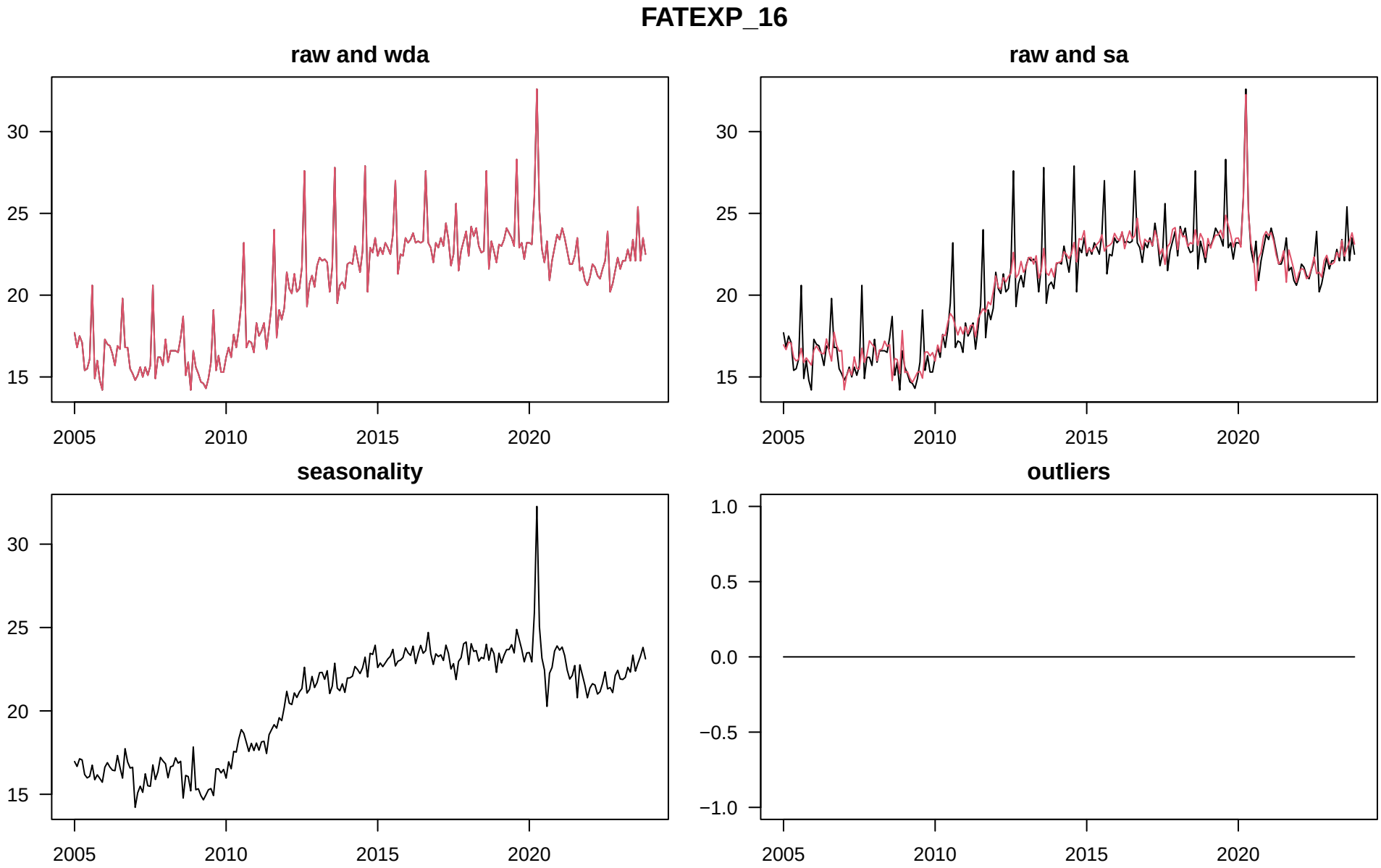
FATEXP_14


SI ratio
1.4
1.2
1.0
0.8
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
50.00
10.00
5.00
1.00
0.50
0.10
0.05
0.01
raw series
sa series
0
1
2
3
4
5
6

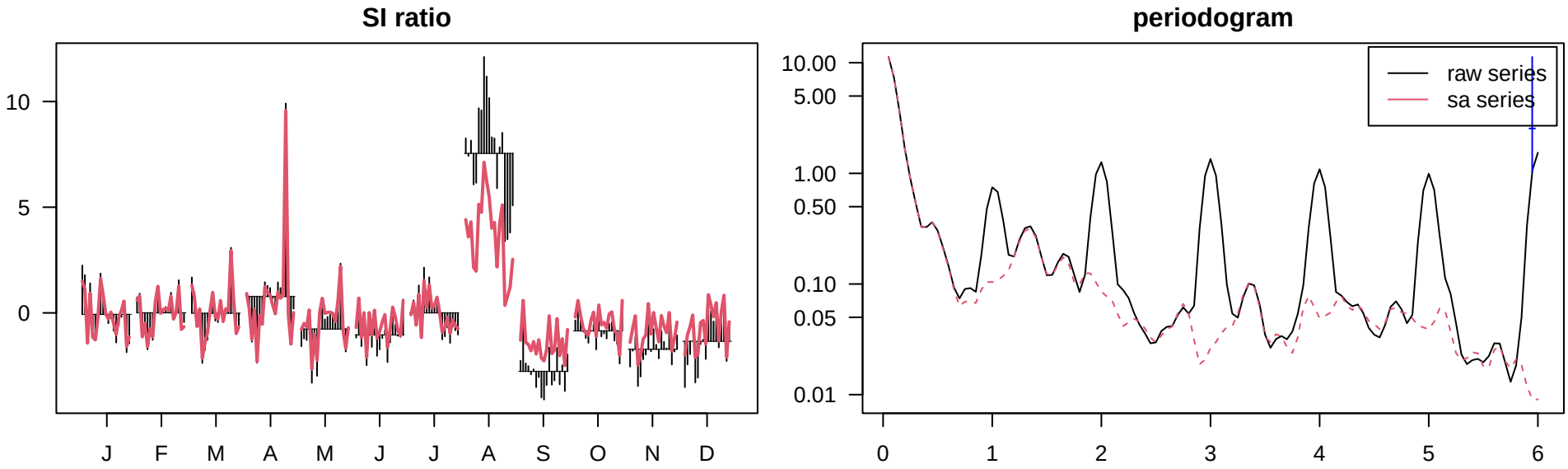

FATEXP_15
raw and wda
raw and sa
seasonality
outliers
75
70
65
60
55
50
1.0
0.5
0.0
−0.5
−1.0
2005
2010
2015
2020

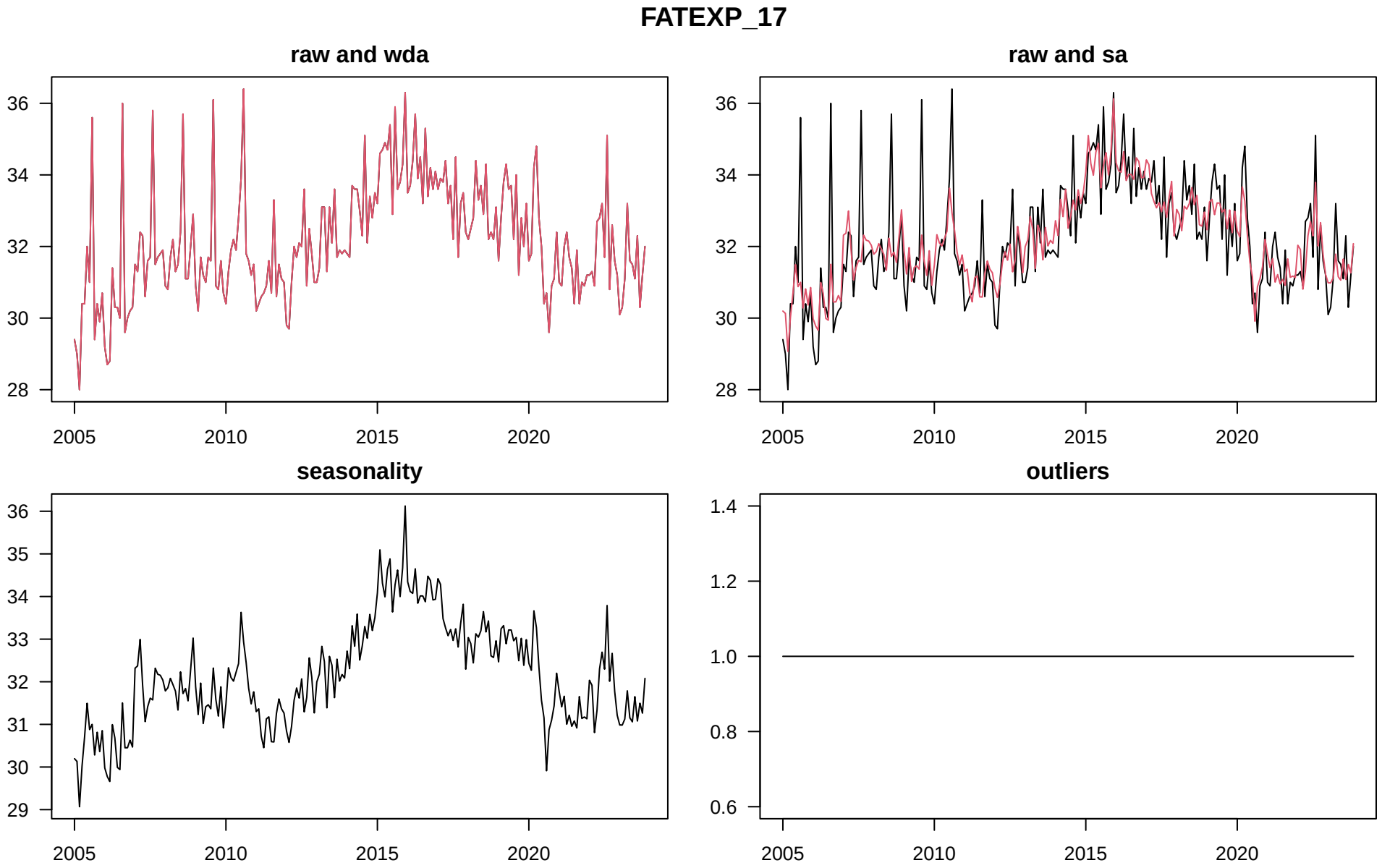
FATEXP_15


SI ratio
10
0
−10
−20
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
50.0
20.0
10.0
5.0
2.0
1.0
0.5
0.2
0.1
raw series
sa series
0
1
2
3
4
5
6

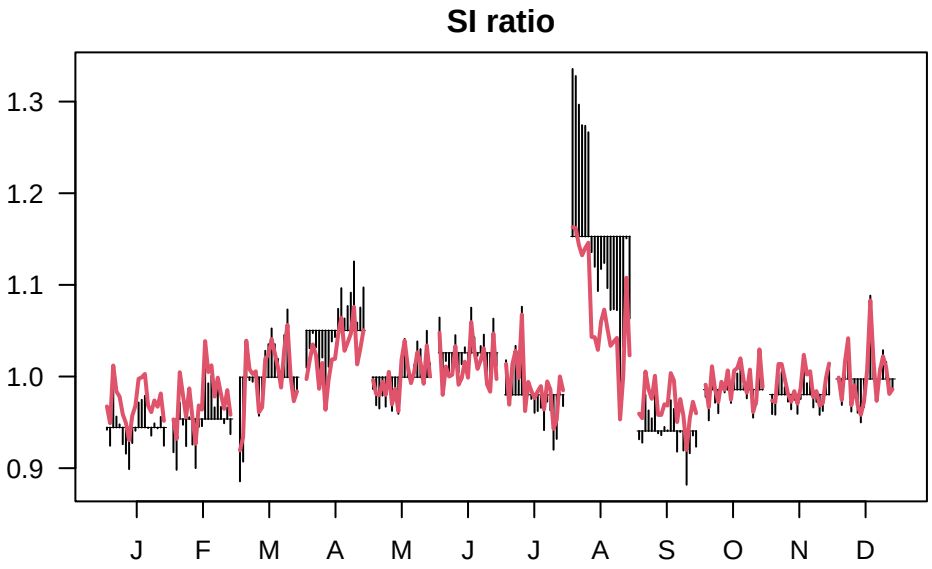

FATEXP_16
raw and wda
raw and sa
seasonality
outliers
30
25
20
15
1.0
0.5
0.0
−0.5
−1.0
2005
2010
2015
2020

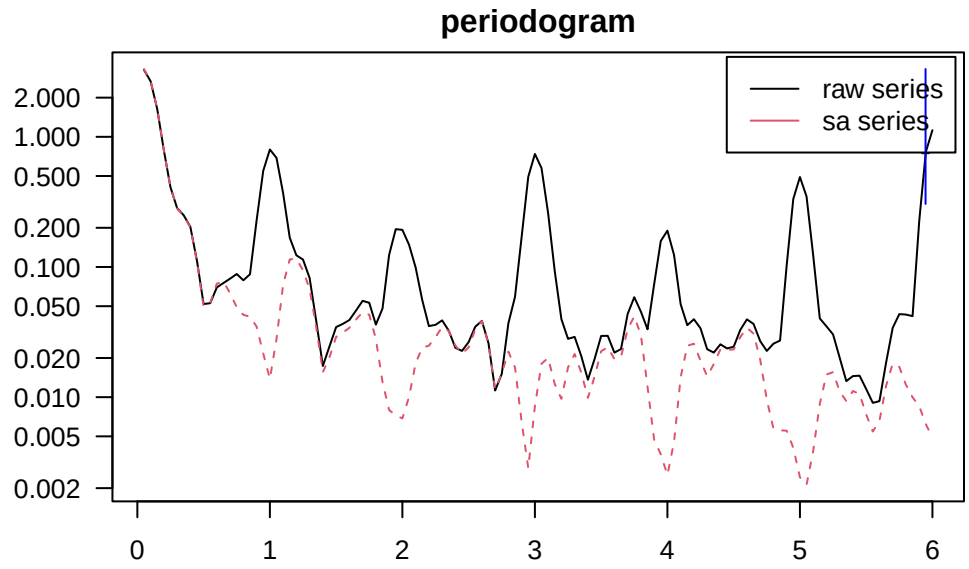
FATEXP_16

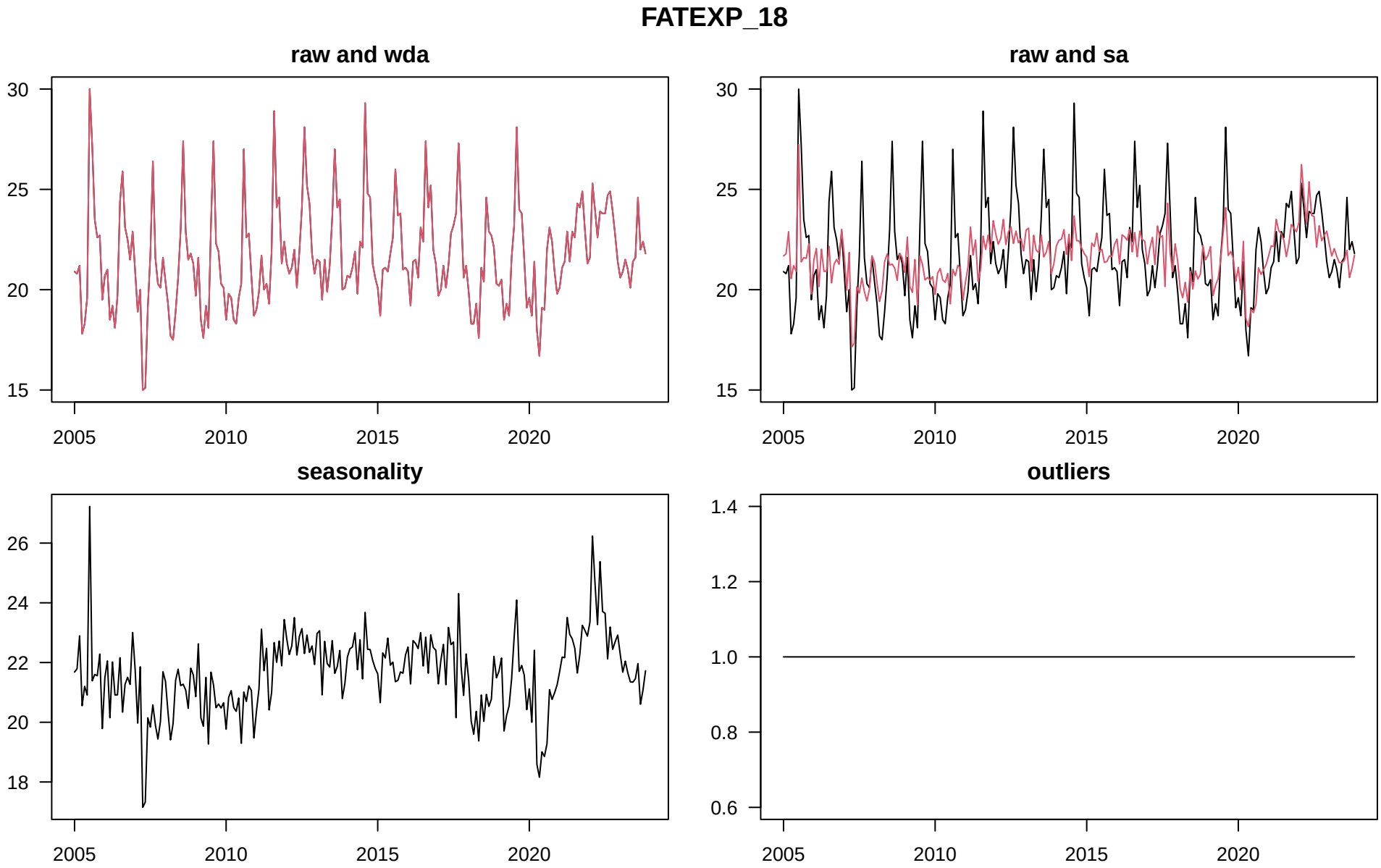

SI ratio
10
5
0
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
10.00
5.00
1.00
0.50
0.10
0.05
0.01
raw series
sa series
0
1
2
3
4
5
6


FATEXP_17
raw and wda
raw and sa
seasonality
outliers
36
34
32
30
28
35
33
31
29
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

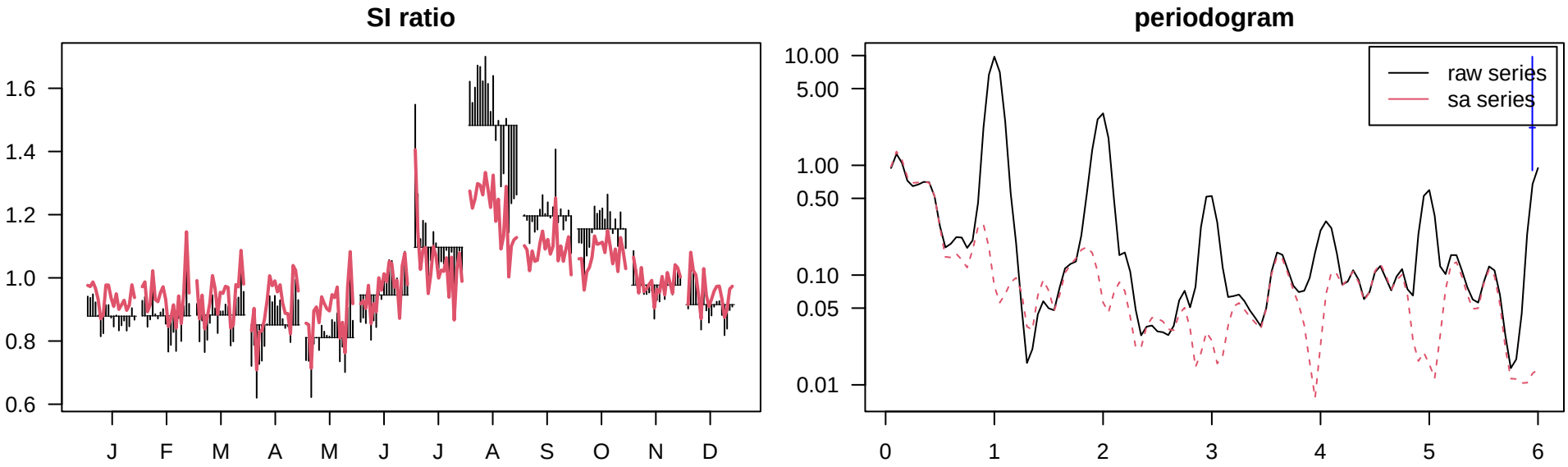
FATEXP_17

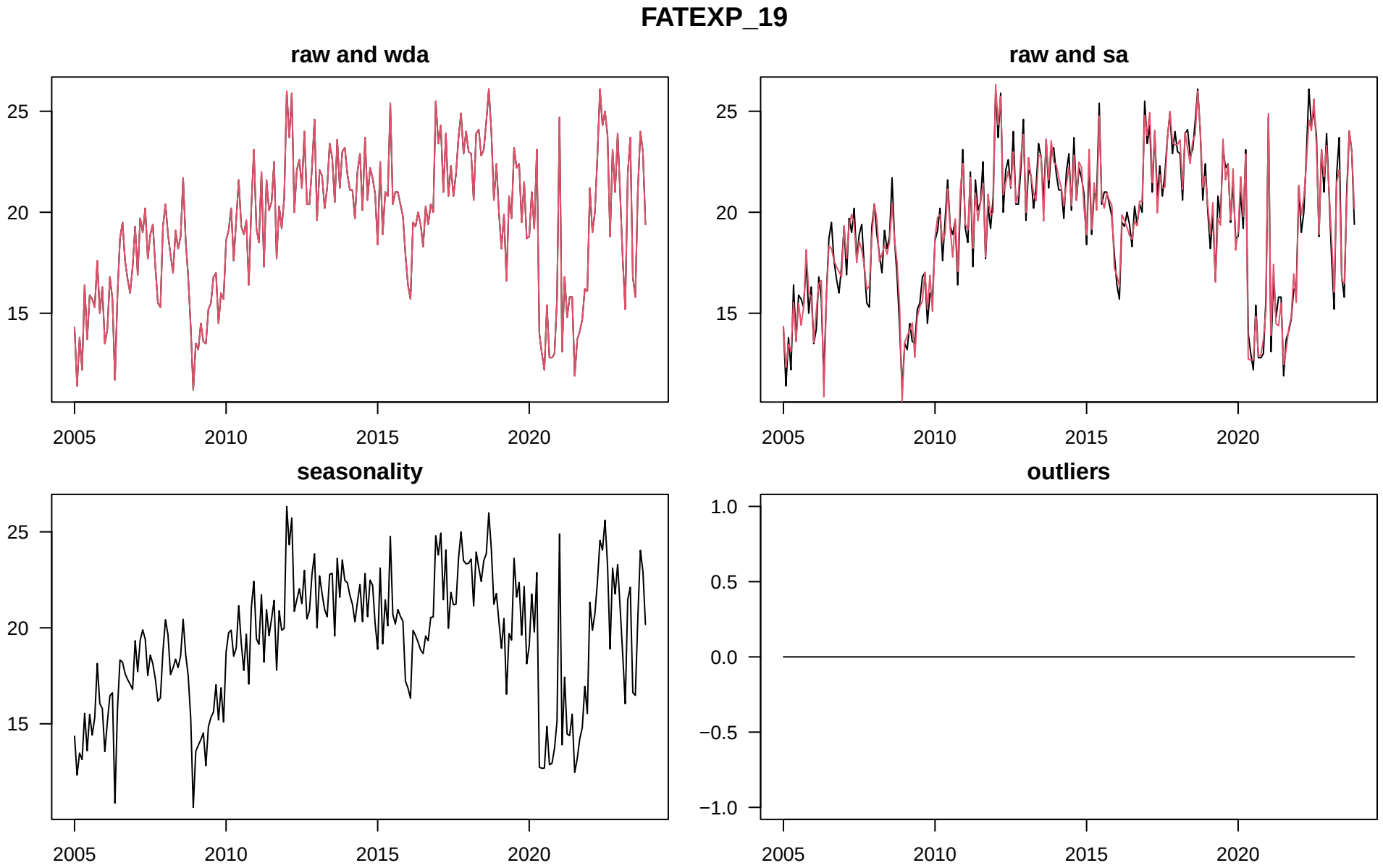

SI ratio
1.3
1.2
1.1
1.0
0.9
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
2.000
1.000
0.500
0.200
0.100
0.050
0.020
0.010
0.005
0.002
0
1
2
3
4
5
6

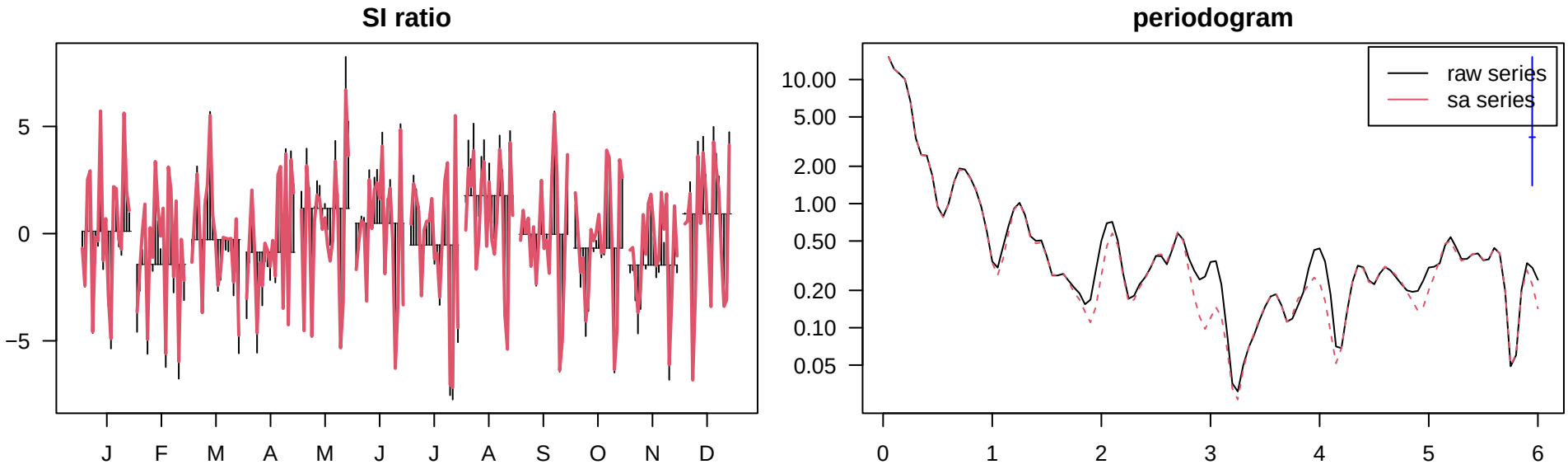

FATEXP_18
raw and wda
raw and sa
seasonality
outliers
30
25
20
15
26
24
22
20
18
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

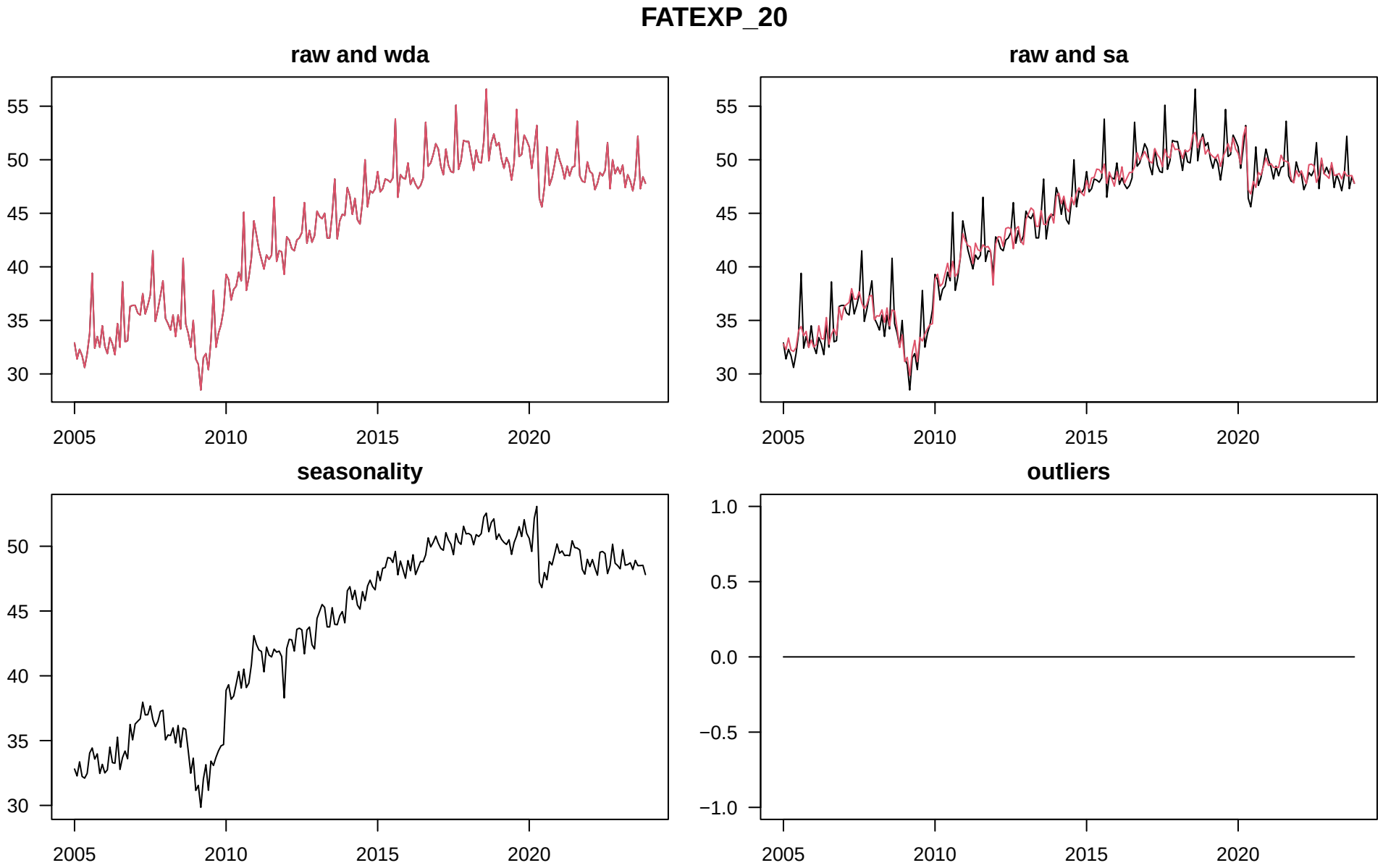
FATEXP_18


SI ratio
1.6
1.4
1.2
1.0
0.8
0.6
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
10.00
5.00
1.00
0.50
0.10
0.05
0.01
raw series
sa series
0
1
2
3
4
5
6

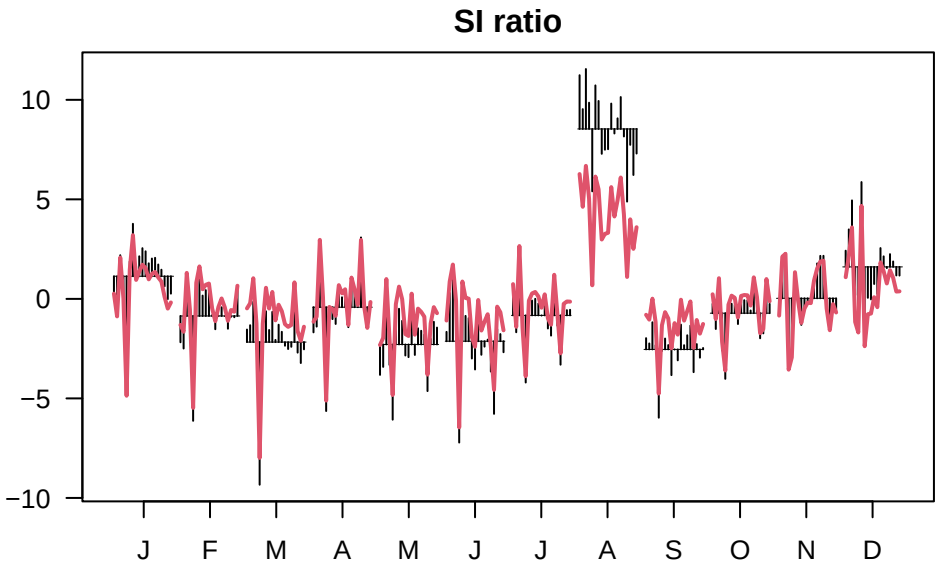

FATEXP_19
raw and wda
raw and sa
seasonality
outliers
25
20
15
1.0
0.5
0.0
−0.5
−1.0
2005
2010
2015
2020

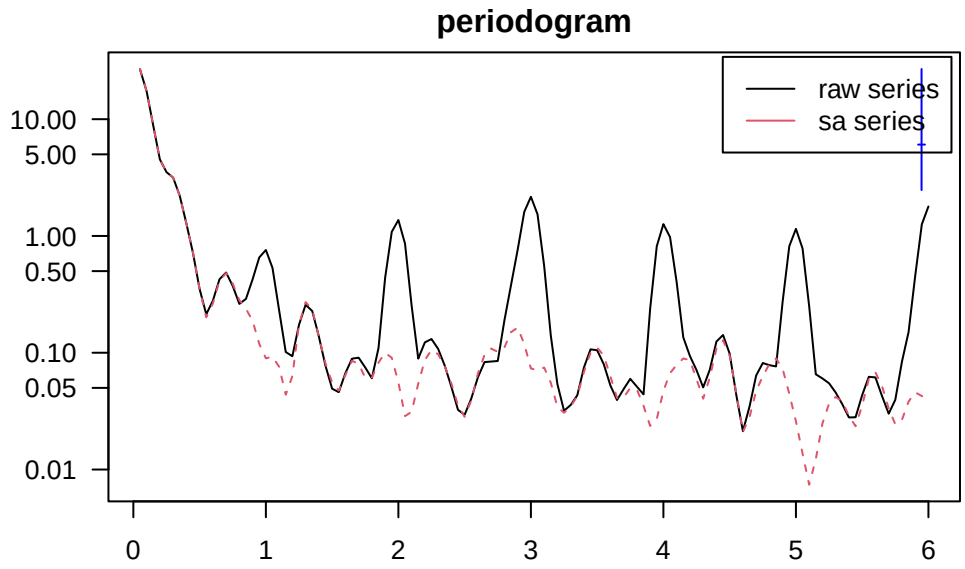
FATEXP_19

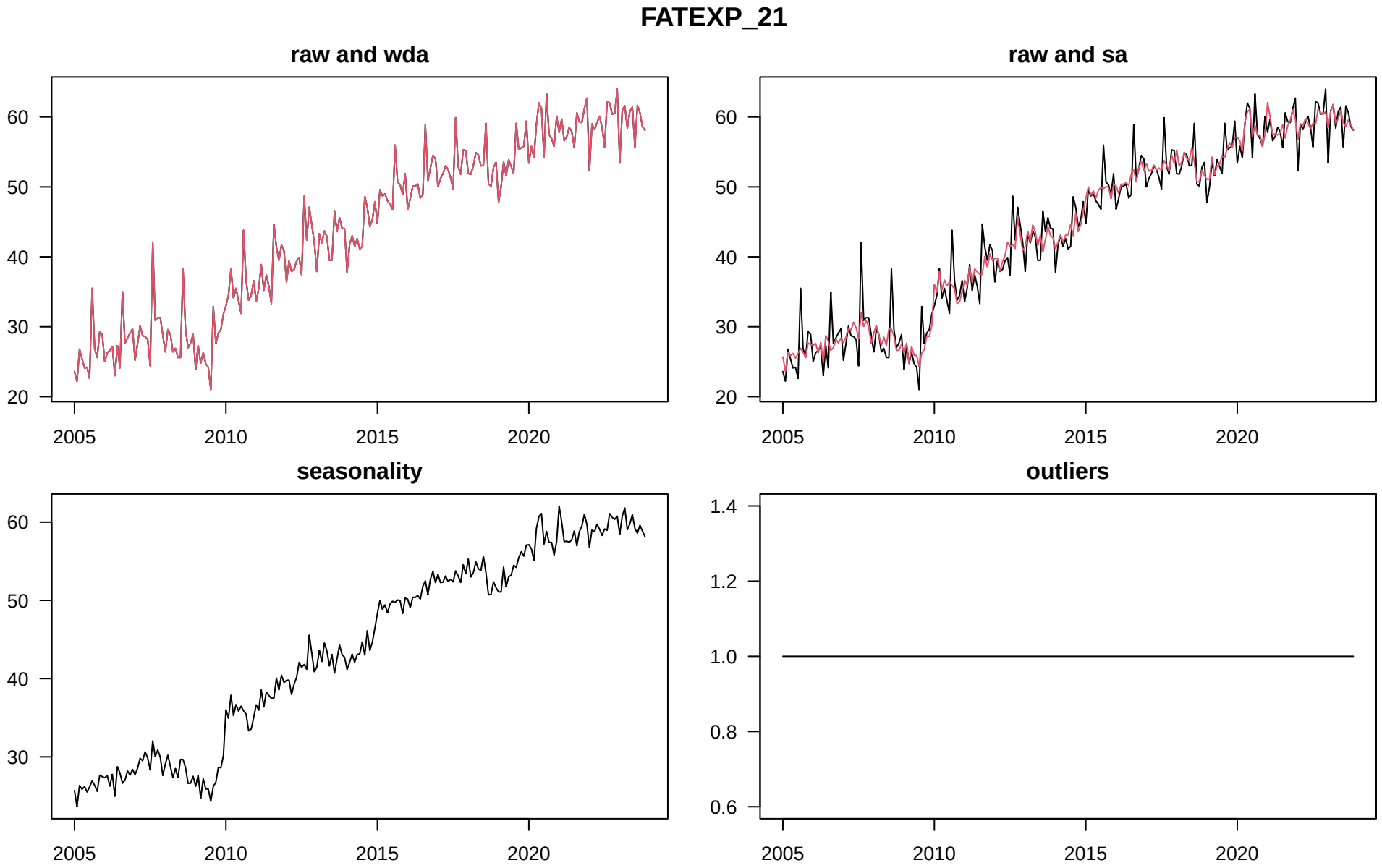

SI ratio
5
0
−5
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
raw series
sa series
0
1
2
3
4
5
6


FATEXP_20
raw and wda
raw and sa
seasonality
outliers
55
50
45
40
35
30
1.0
0.5
0.0
−0.5
−1.0
2005
2010
2015
2020

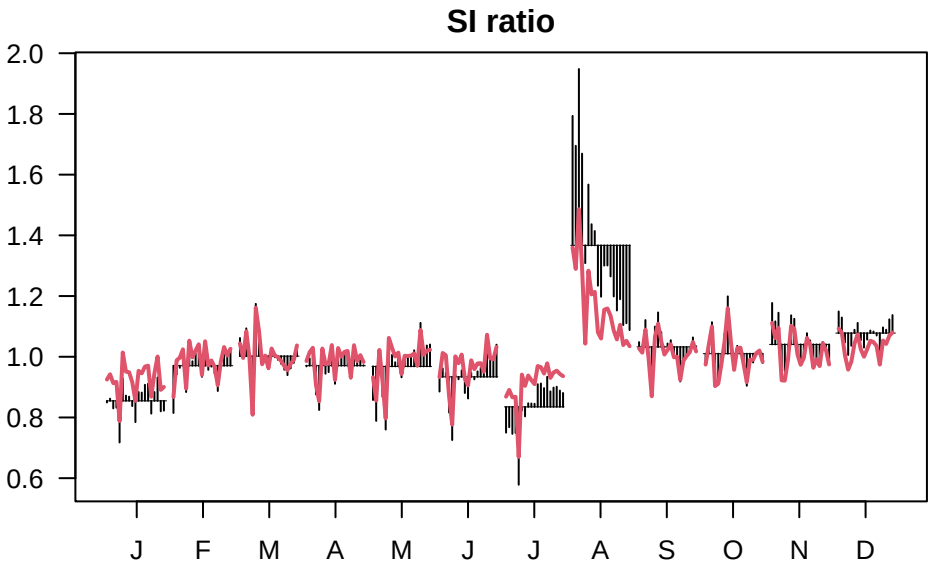
FATEXP_20

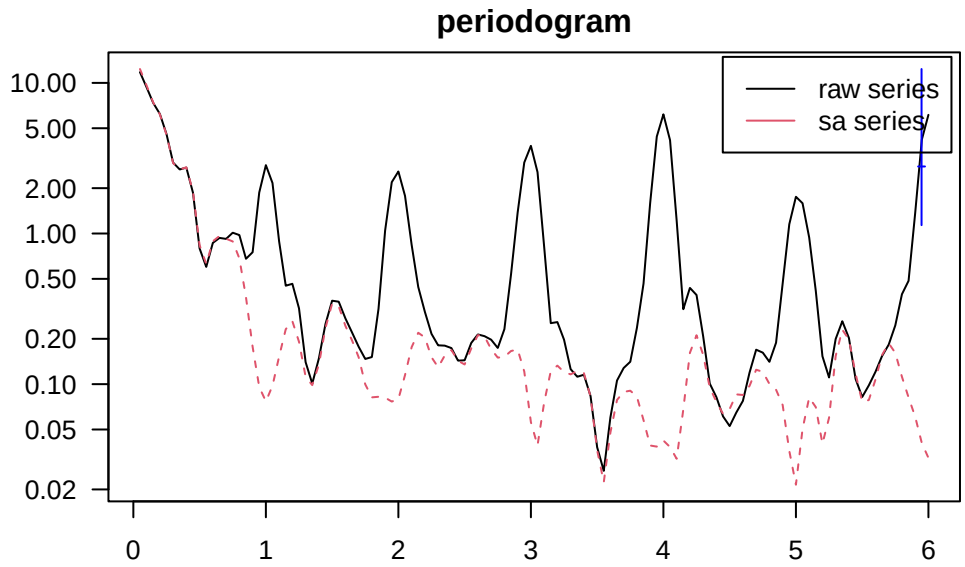

SI ratio
10
5
0
−5
−10
J
F
M
A
M
J
J
A
S
O
N
D

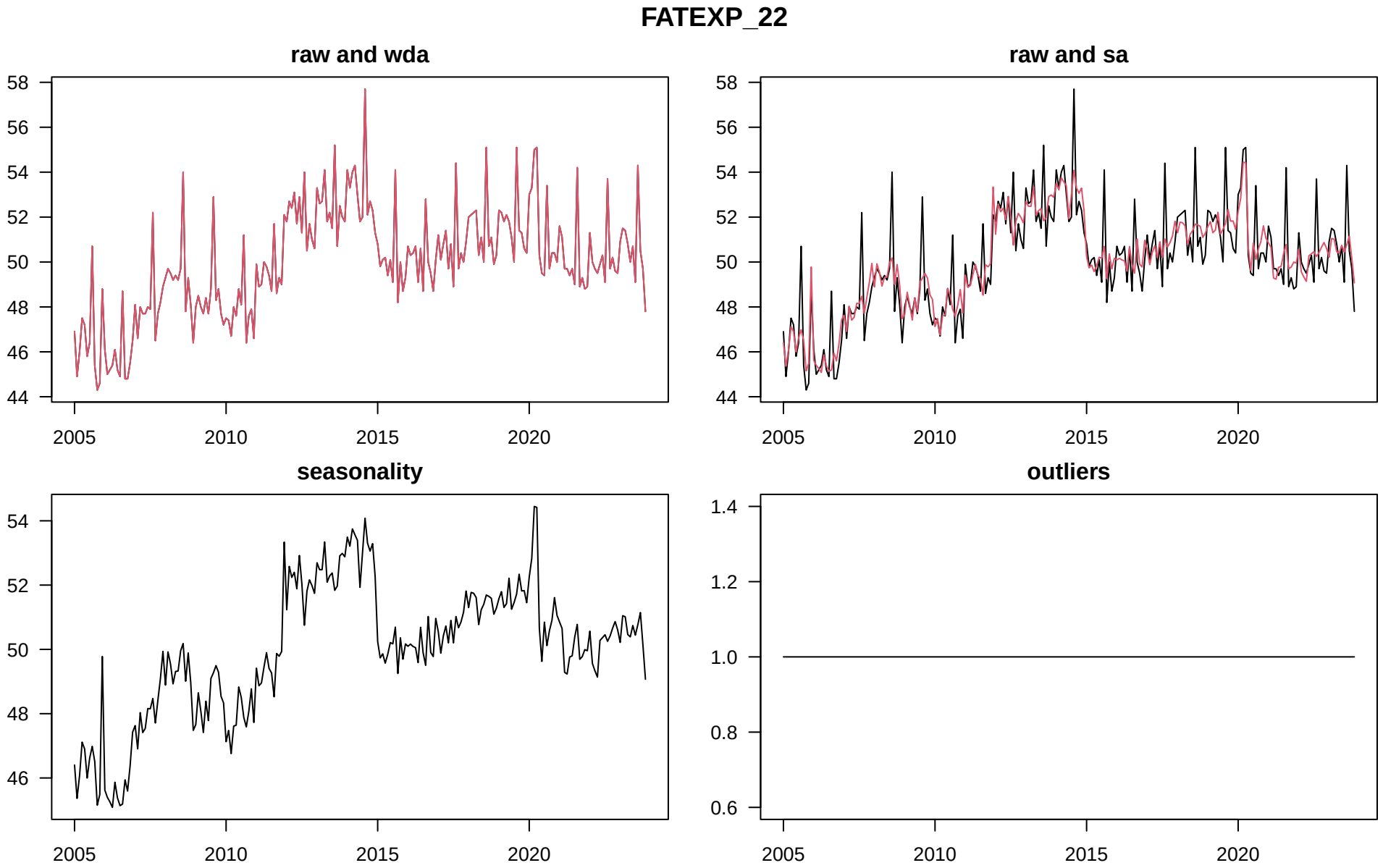

periodogram
raw series
sa series
10.00
5.00
1.00
0.50
0.10
0.05
0.01
0
1
2
3
4
5
6


FATEXP_21
raw and wda
raw and sa
seasonality
outliers
60
50
40
30
20
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

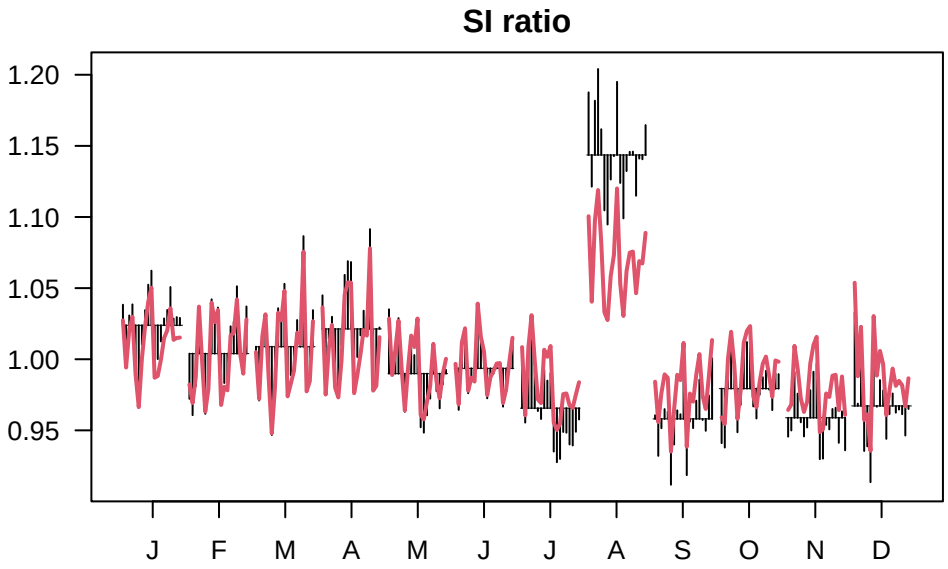
FATEXP_21

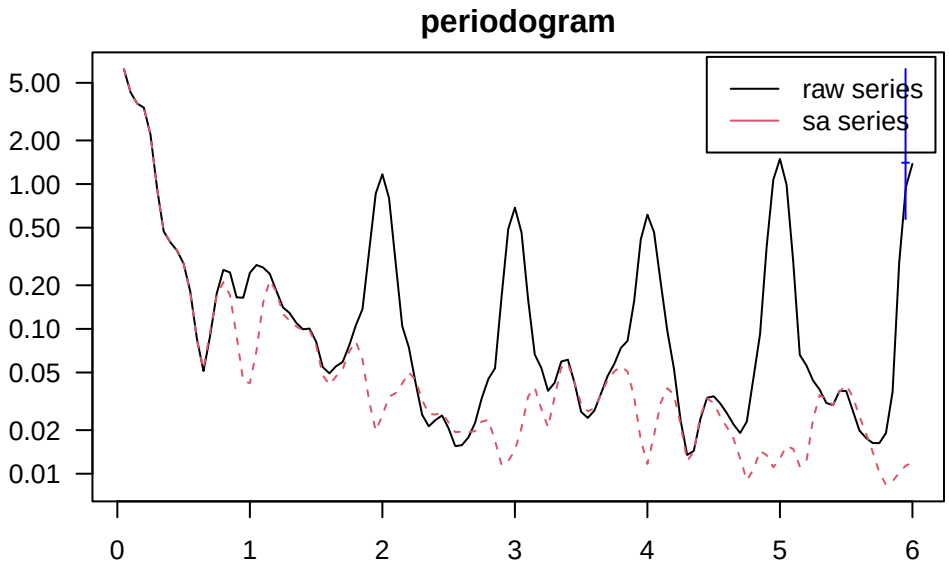

SI ratio
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
J
F
M
A
M
J
J
A
S
O
N
D

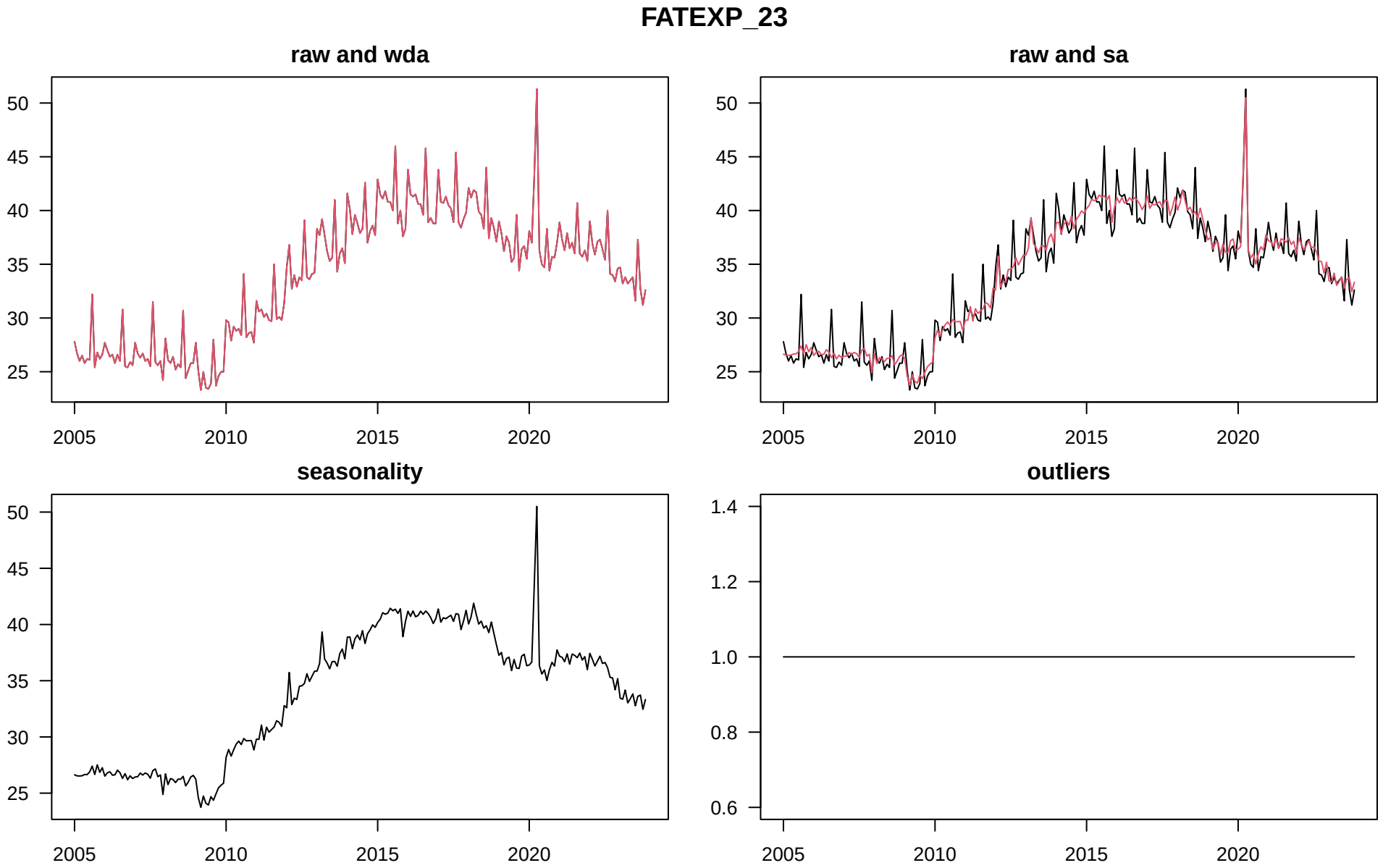

periodogram
raw series
sa series
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
0.02
0
1
2
3
4
5
6


FATEXP_22
raw and wda
raw and sa
seasonality
outliers
58
56
54
52
50
48
46
44
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

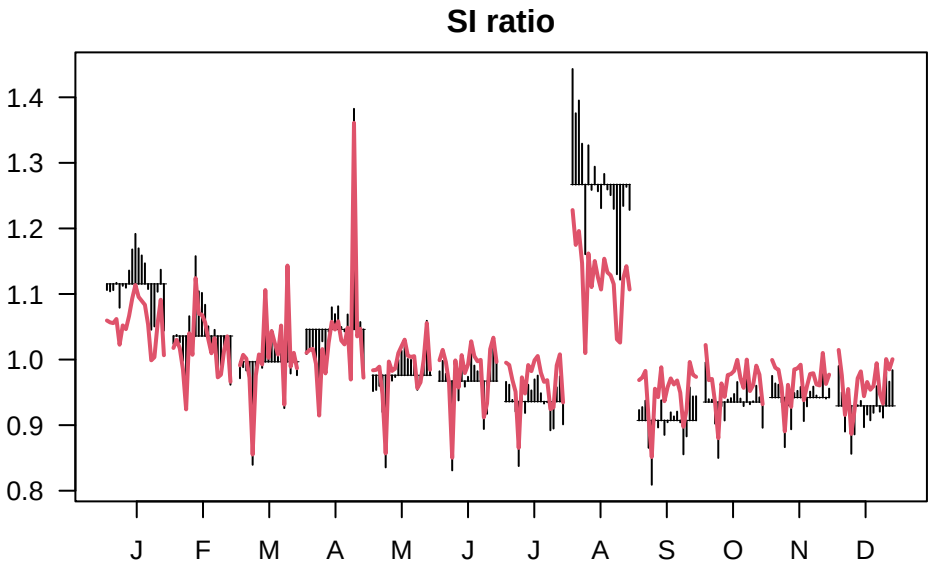
FATEXP_22

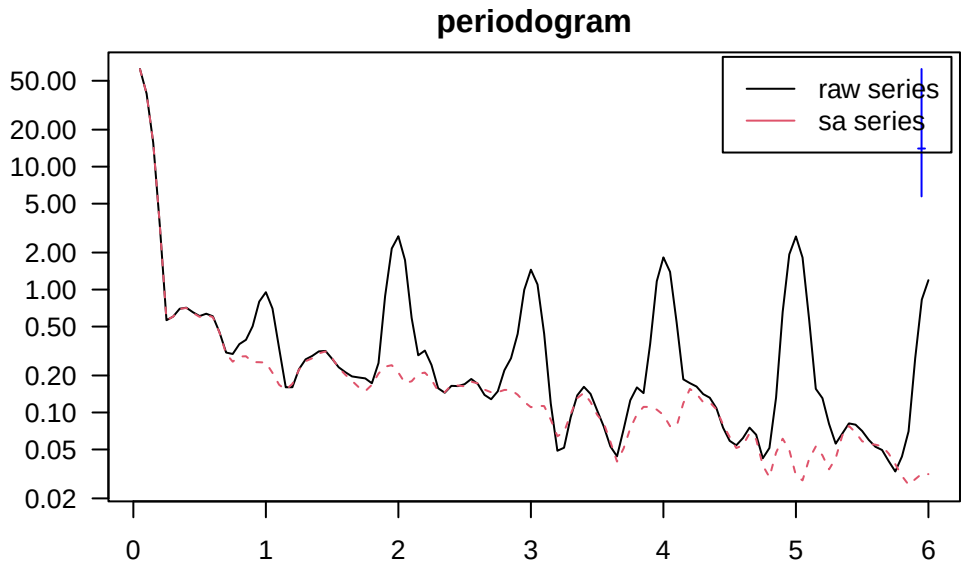

SI ratio
1.20
1.15
1.10
1.05
1.00
0.95
J
F
M
A
M
J
J
A
S
O
N
D

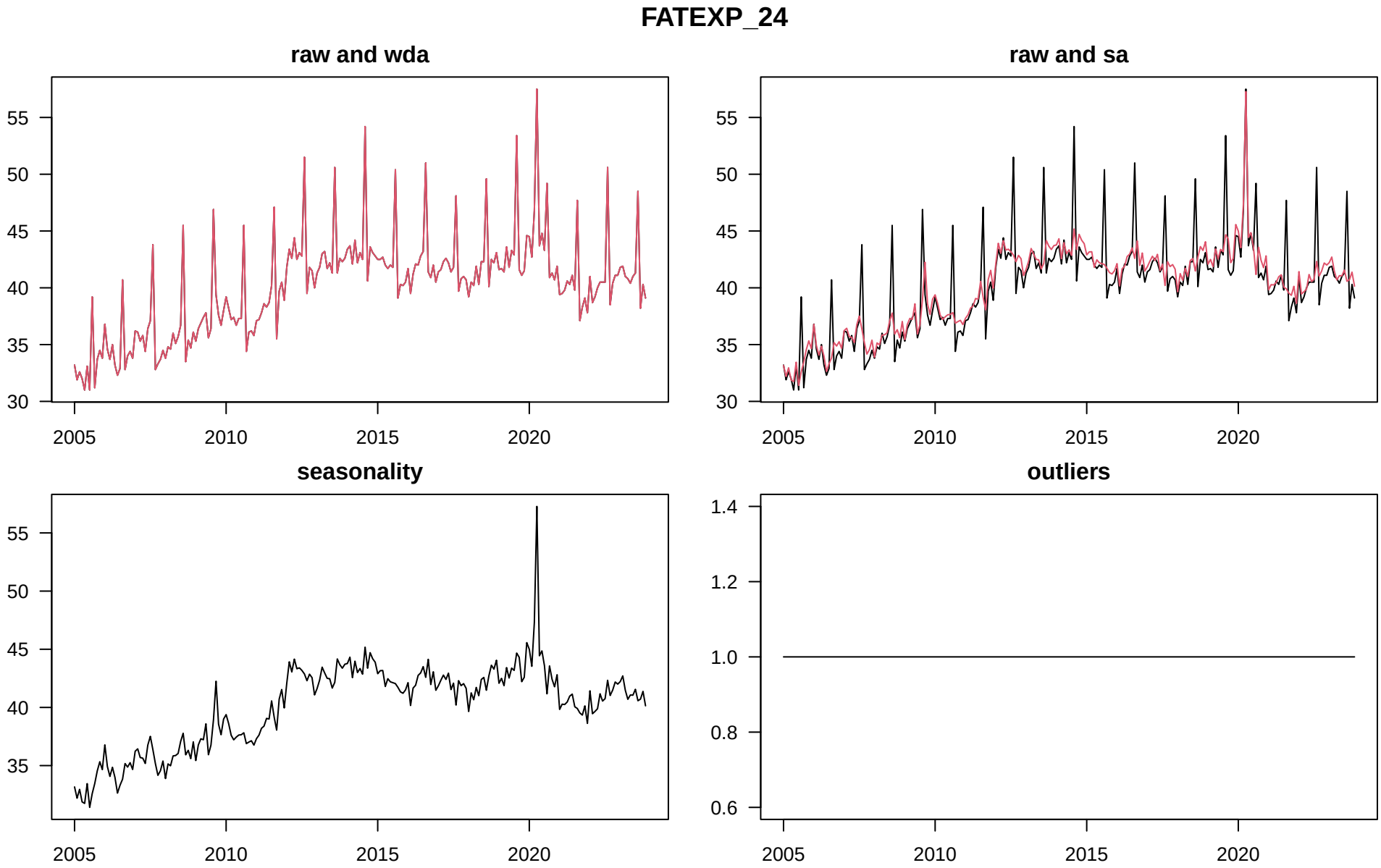

periodogram
raw series
sa series
5.00
2.00
1.00
0.50
0.20
0.10
0.05
0.02
0.01
0
1
2
3
4
5
6


FATEXP_23
raw and wda
raw and sa
seasonality
outliers
50
45
40
35
30
25
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

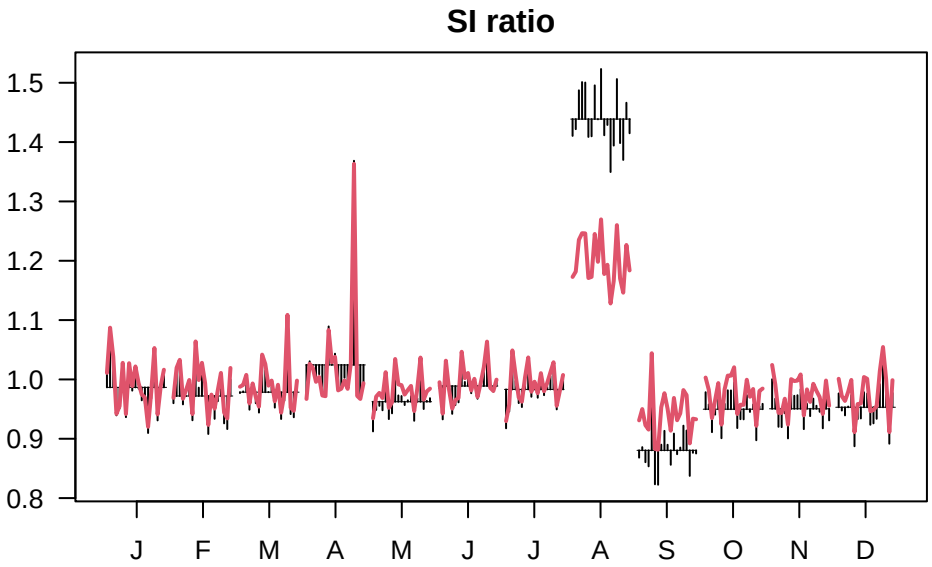
FATEXP_23

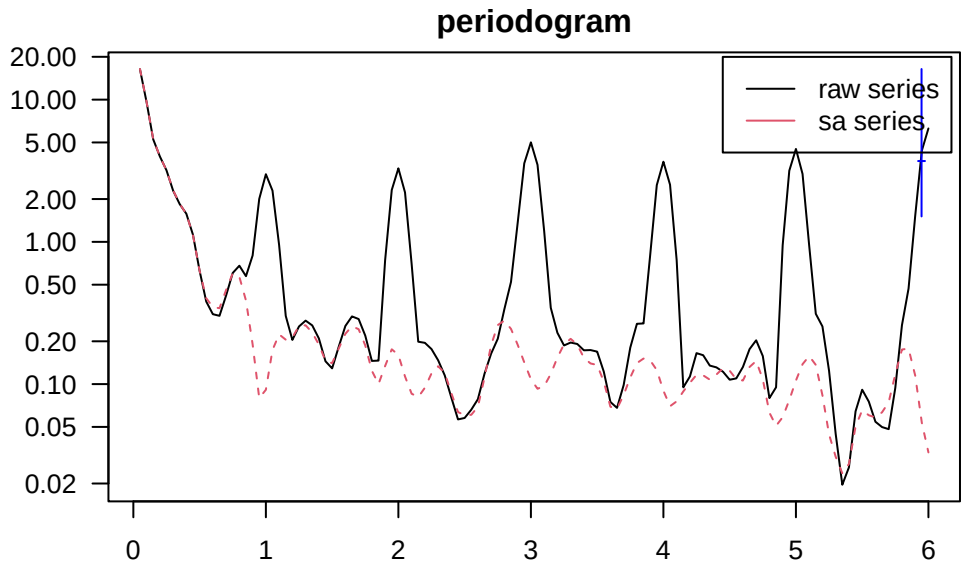

SI ratio
1.4
1.3
1.2
1.1
1.0
0.9
0.8
J
F
M
A
M
J
J
A
S
O
N
D

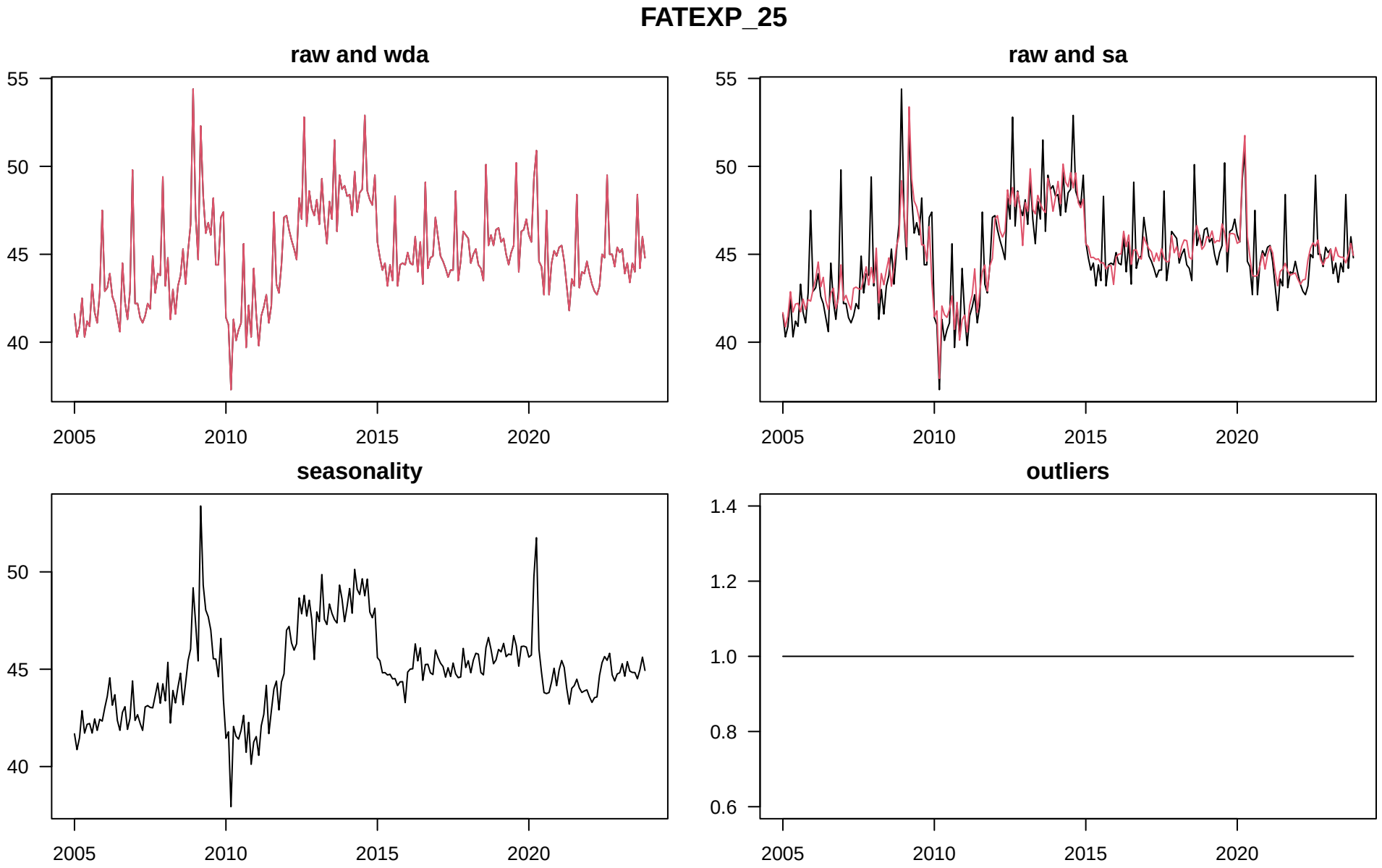

periodogram
raw series
sa series
50.00
20.00
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
0.02
0
1
2
3
4
5
6


FATEXP_24
raw and wda
raw and sa
seasonality
outliers
55
50
45
40
35
30
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

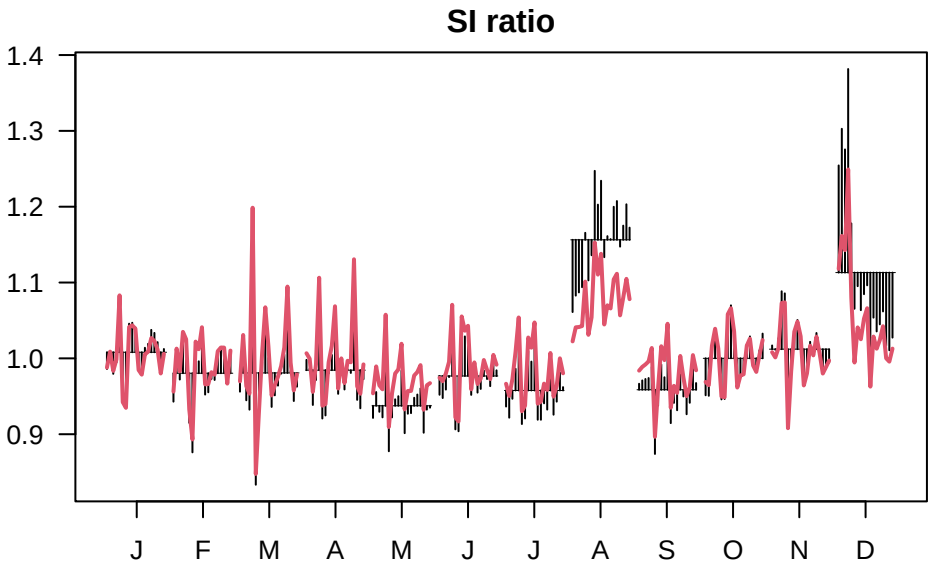
FATEXP_24

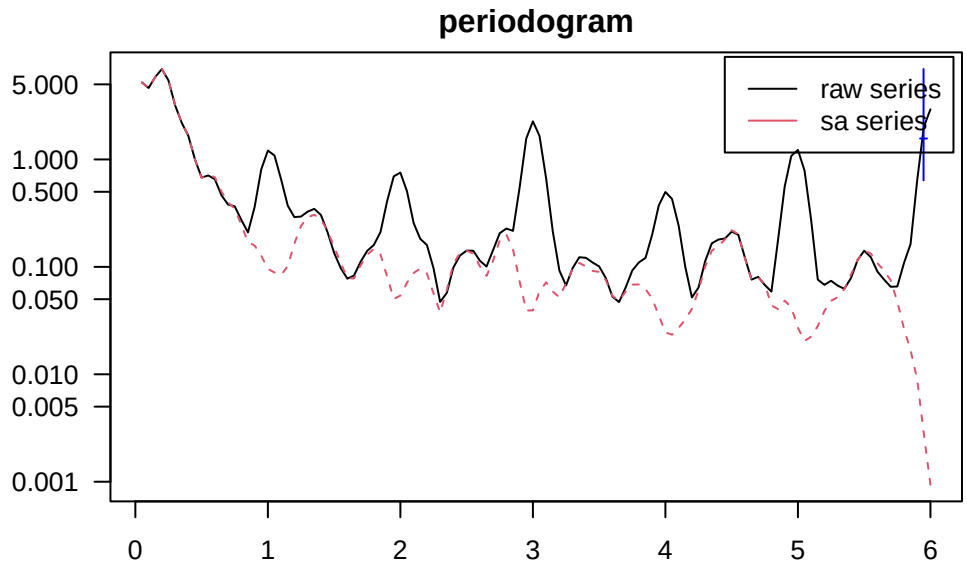

SI ratio
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
J
F
M
A
M
J
J
A
S
O
N
D

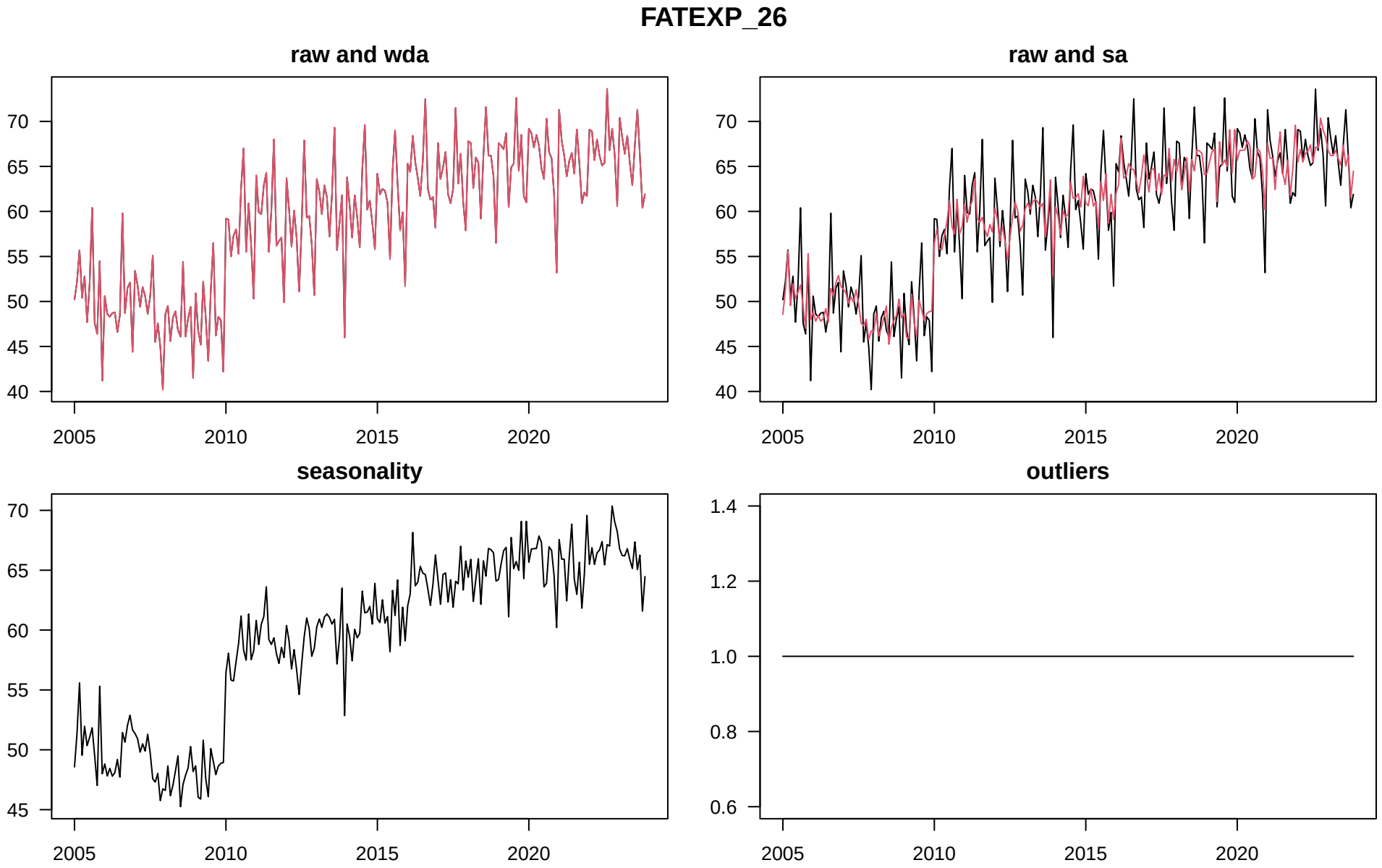

periodogram
20.00
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
0.02
raw series
sa series
0
1
2
3
4
5
6


FATEXP_25
raw and wda
raw and sa
seasonality
outliers
55
50
45
40
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

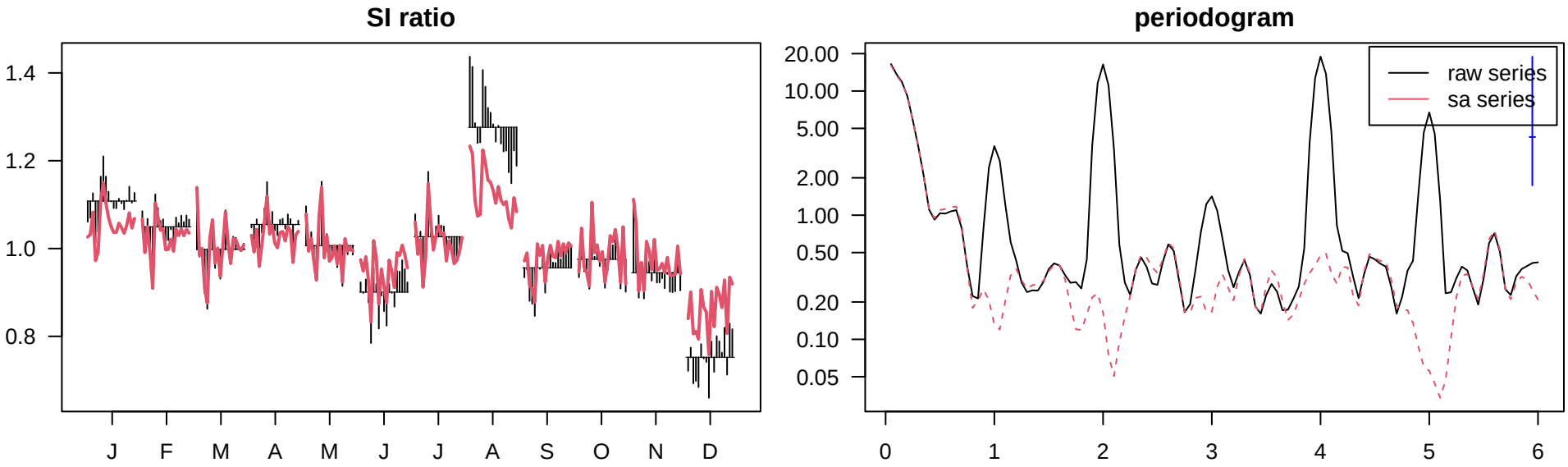
FATEXP_25

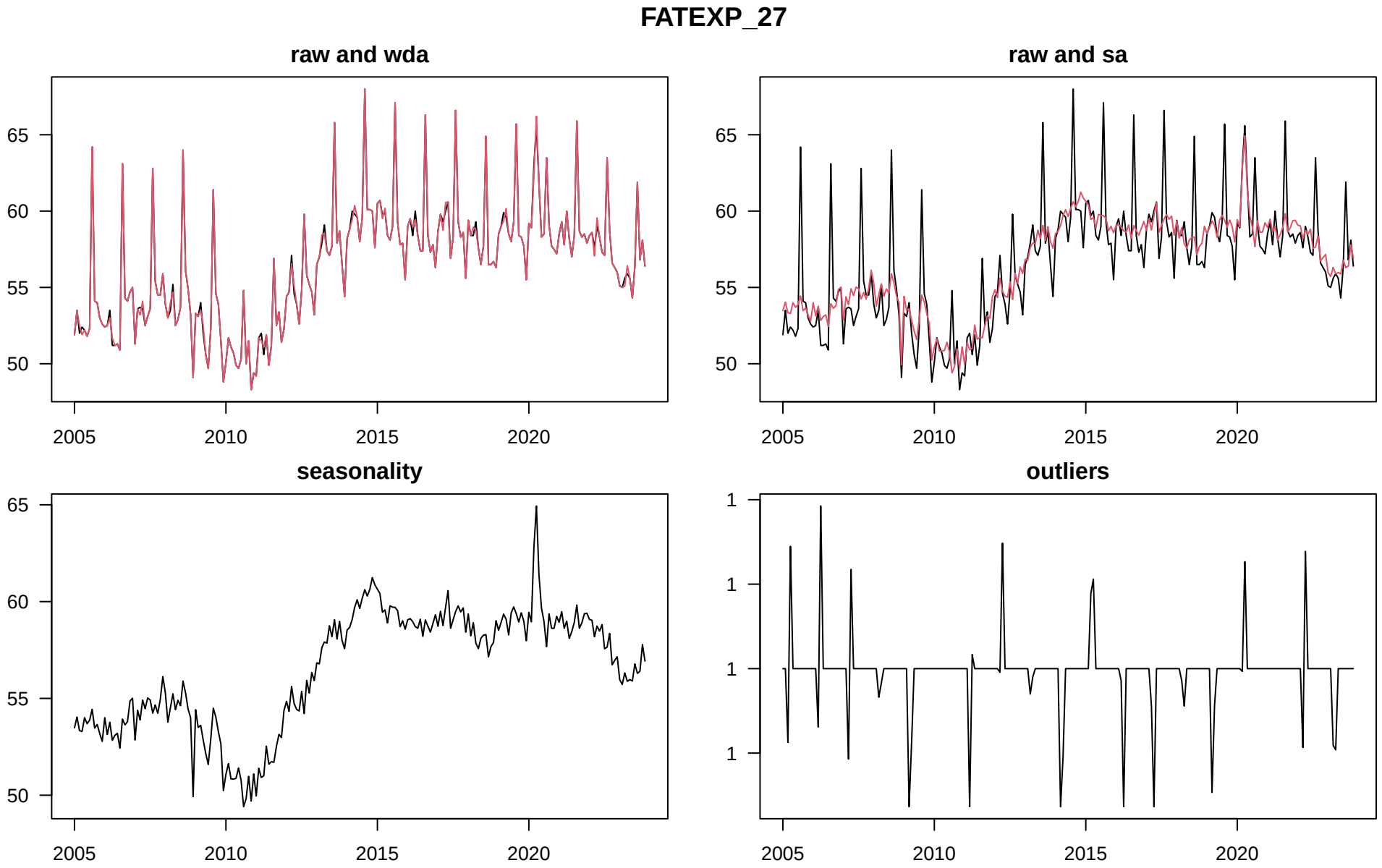

SI ratio
1.4
1.3
1.2
1.1
1.0
0.9
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
5.000
1.000
0.500
0.100
0.050
0.010
0.005
0.001
0
1
2
3
4
5
6

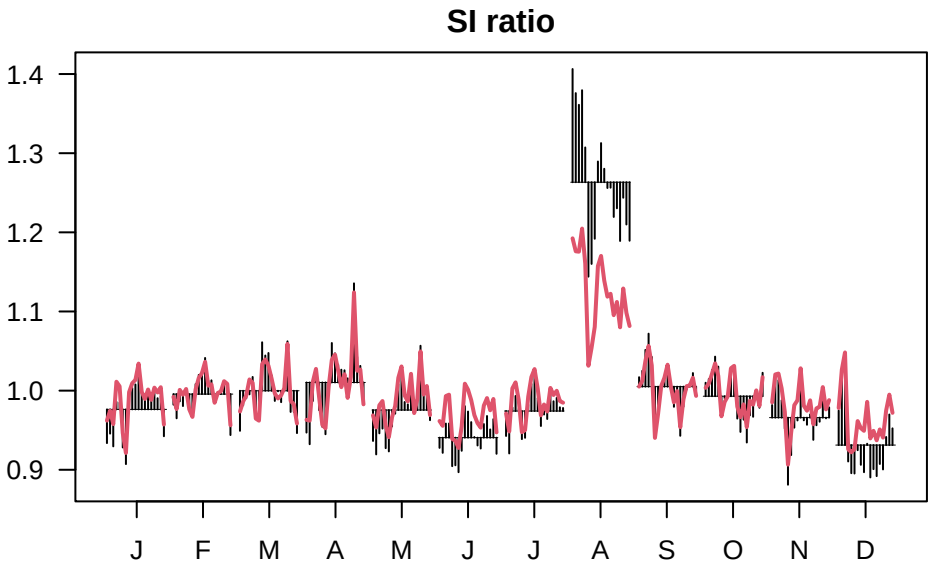

FATEXP_26
raw and wda
raw and sa
seasonality
outliers
70
65
60
55
50
45
40
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

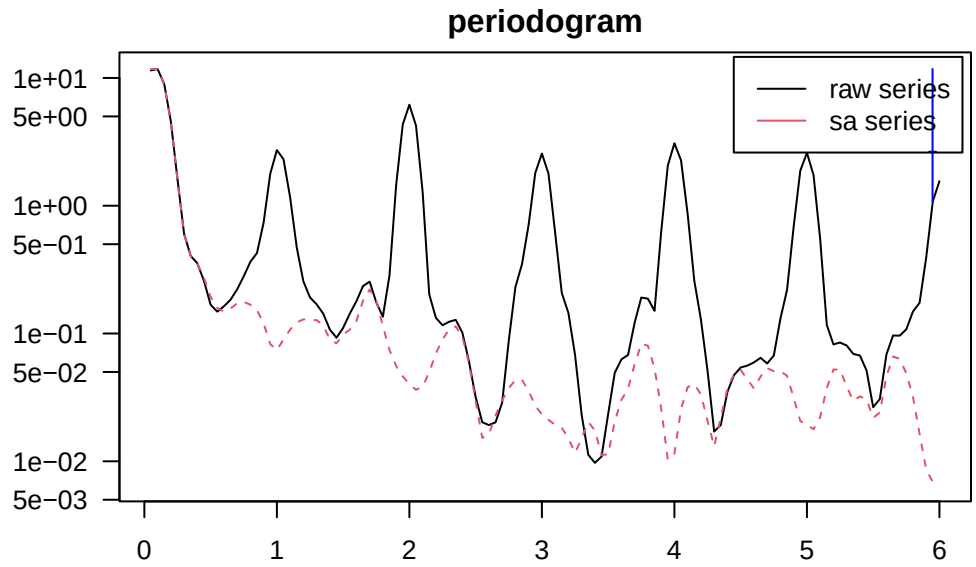
FATEXP_26

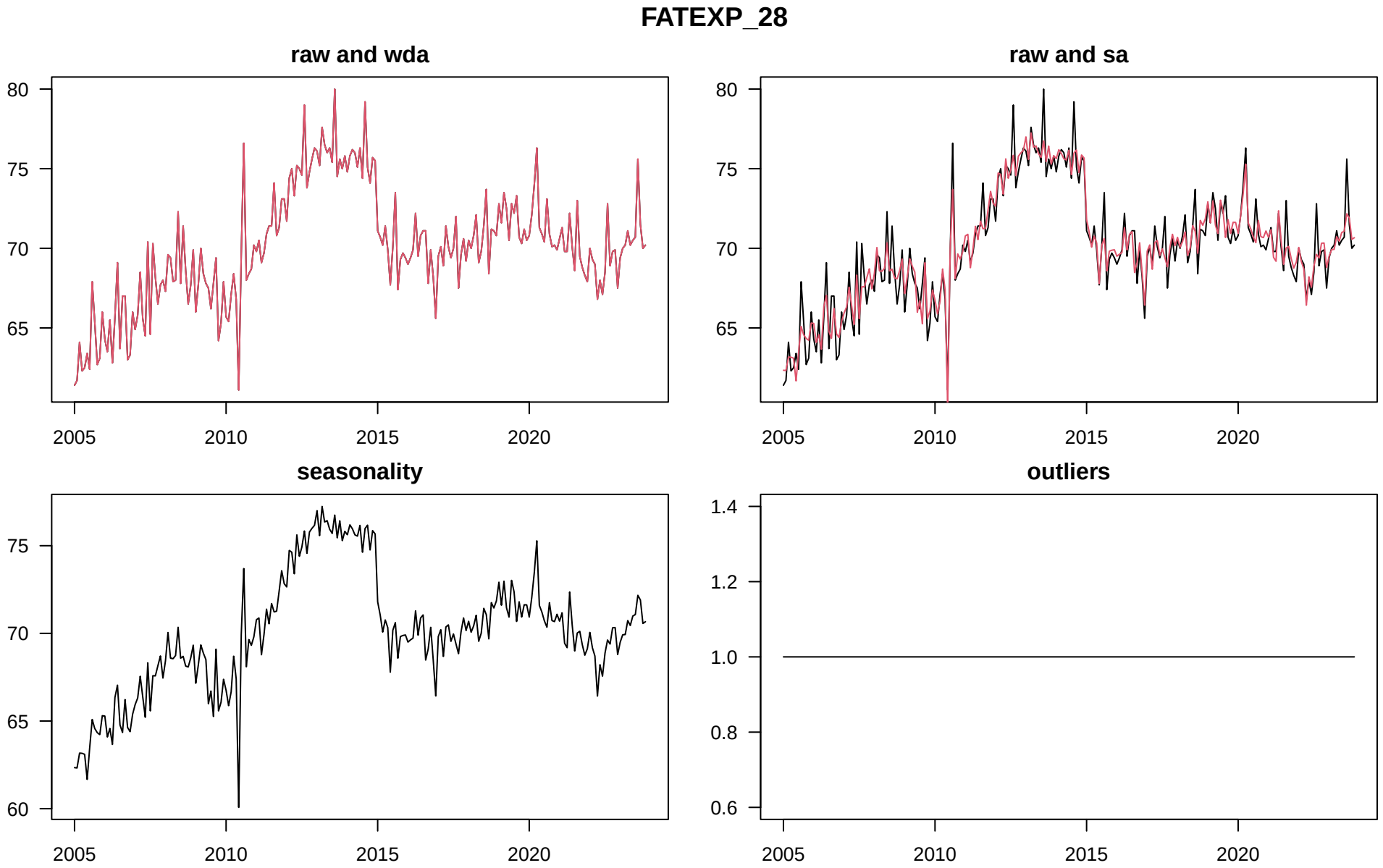

SI ratio
1.4
1.2
1.0
0.8
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
20.00
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
raw series
sa series
0
1
2
3
4
5
6


FATEXP_27
raw and wda
raw and sa
seasonality
outliers
65
60
55
50
1
2005
2010
2015
2020

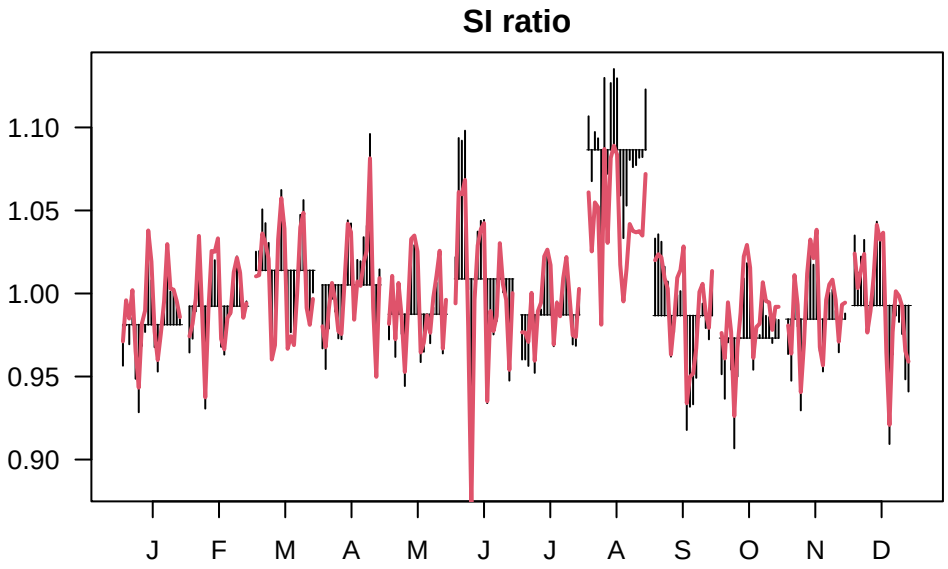
FATEXP_27

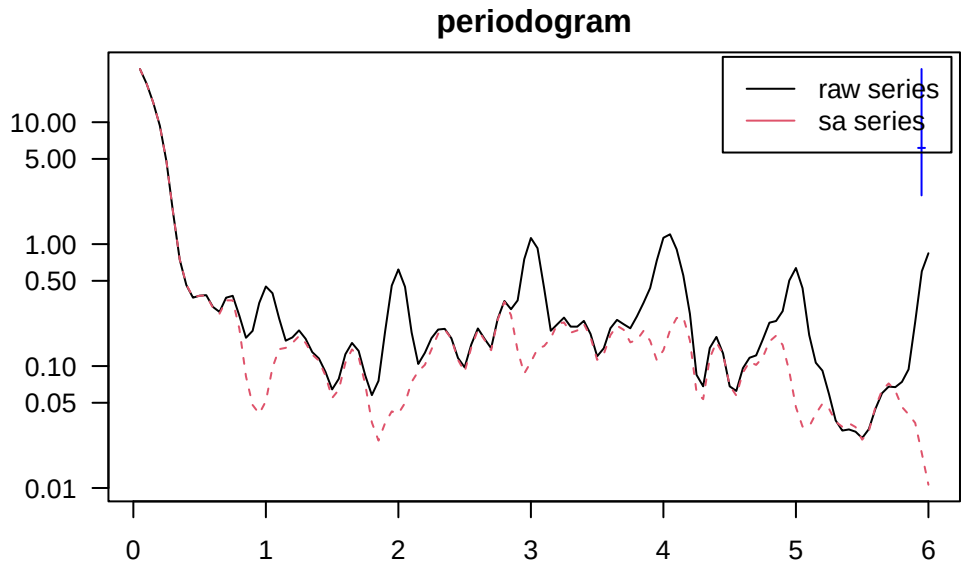

SI ratio
1.4
1.3
1.2
1.1
1.0
0.9
J
F
M
A
M
J
J
A
S
O
N
D

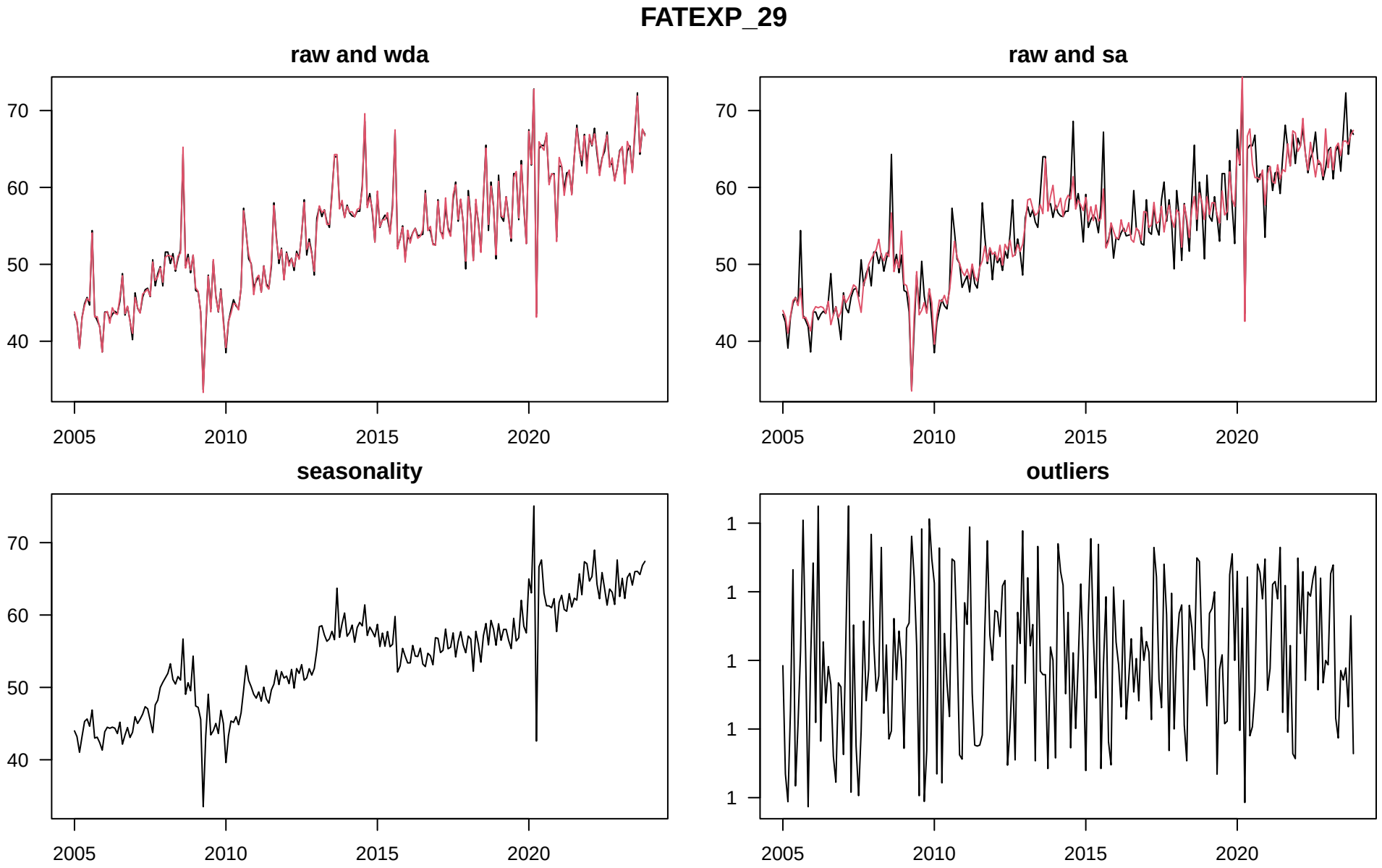

periodogram
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
1e−02
5e−03
0
1
2
3
4
5
6
raw series
sa series


FATEXP_28
raw and wda
raw and sa
seasonality
outliers
80
75
70
65
60
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

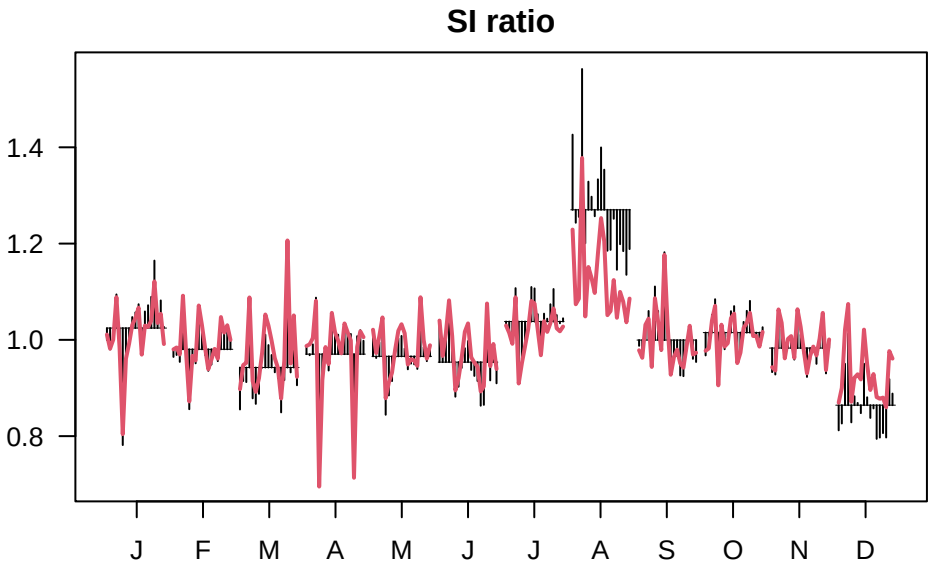
FATEXP_28

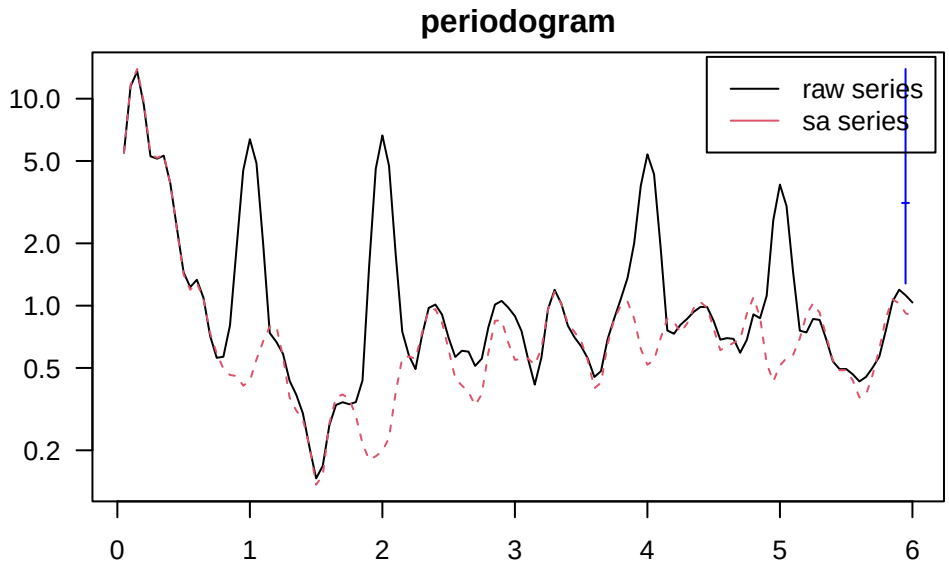

SI ratio
1.10
1.05
1.00
0.95
0.90
J
F
M
A
M
J
J
A
S
O
N
D

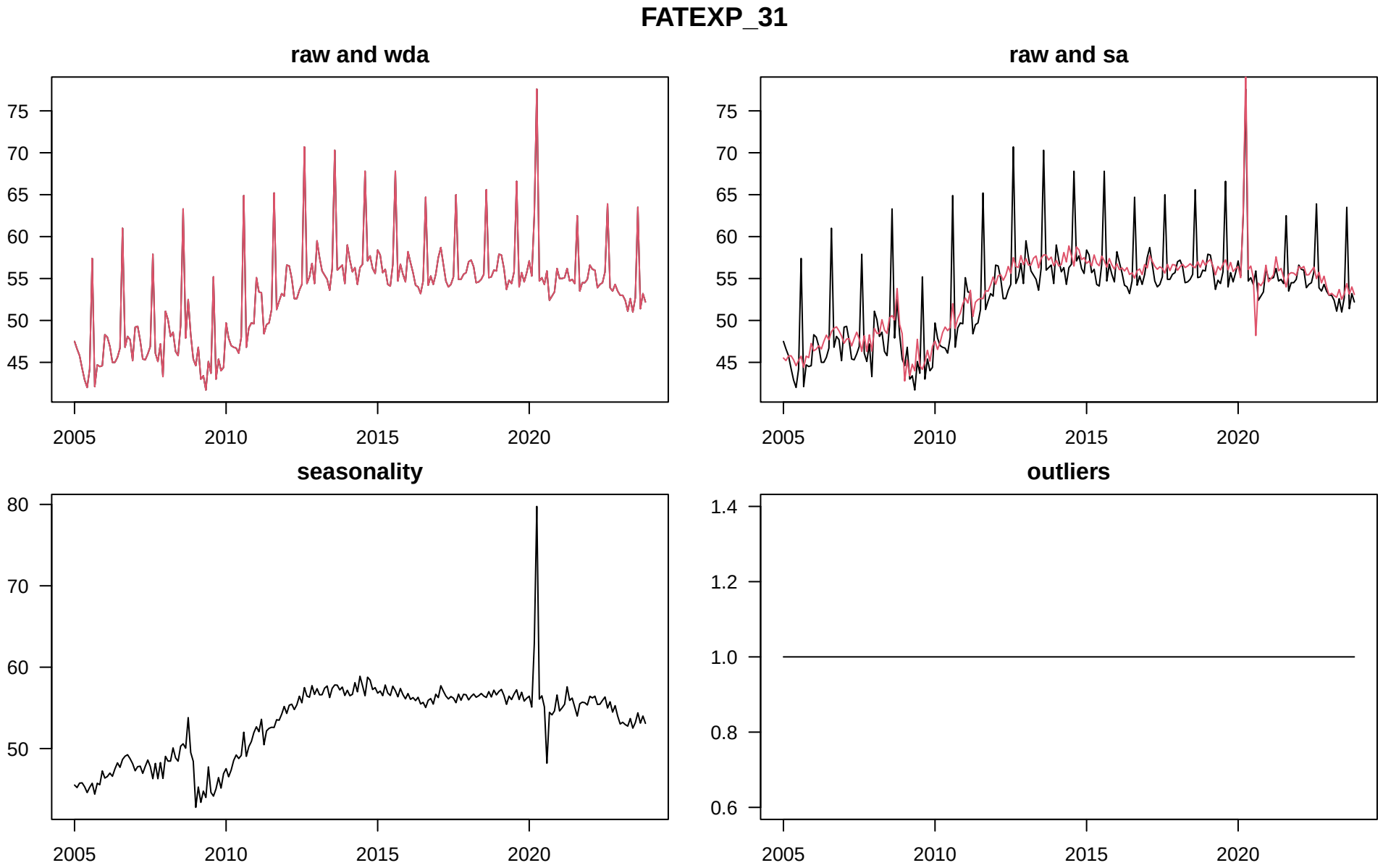

periodogram
raw series
sa series
10.00
5.00
1.00
0.50
0.10
0.05
0.01
0
1
2
3
4
5
6


FATEXP_29
raw and wda
raw and sa
seasonality
outliers
70
60
50
40
1
2005
2010
2015
2020

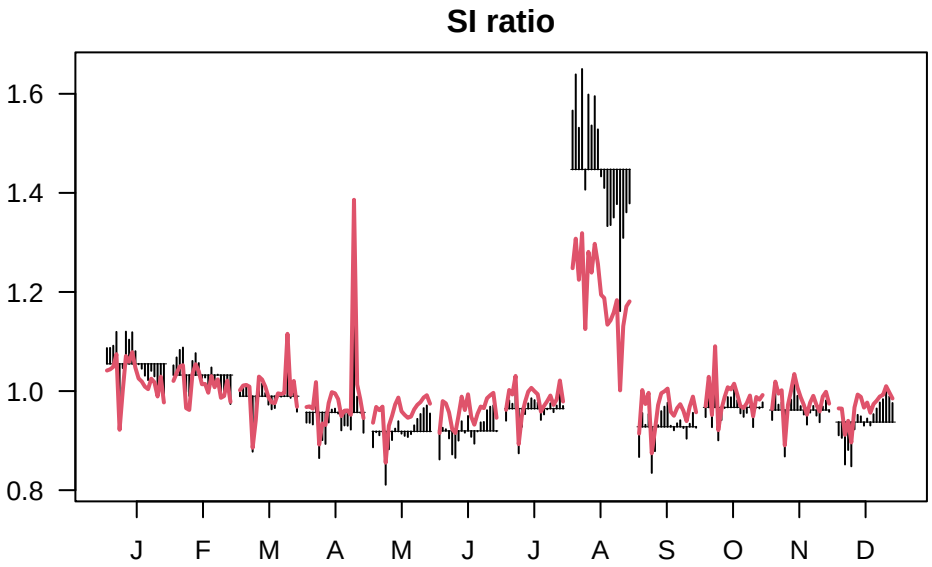
FATEXP_29

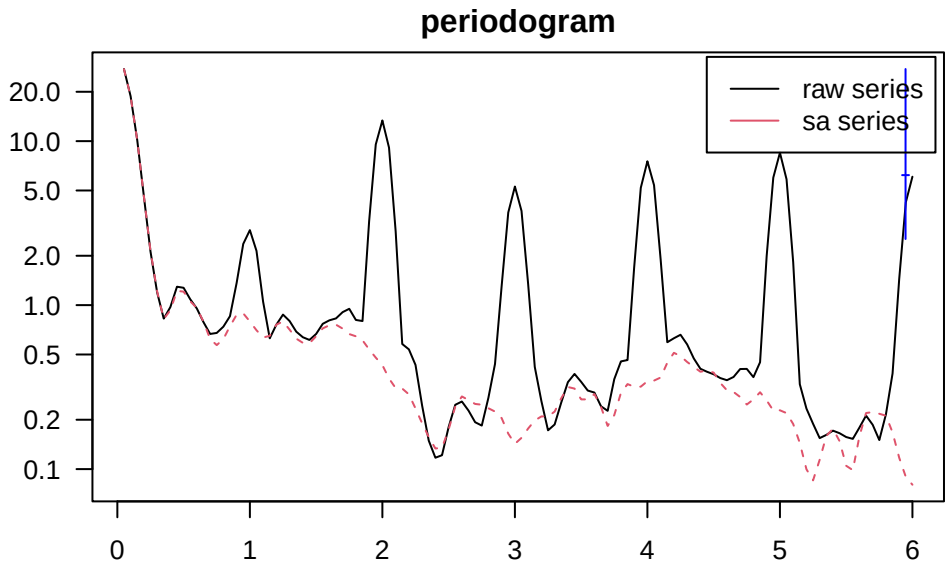

SI ratio
1.4
1.2
1.0
0.8
J
F
M
A
M
J
J
A
S
O
N
D

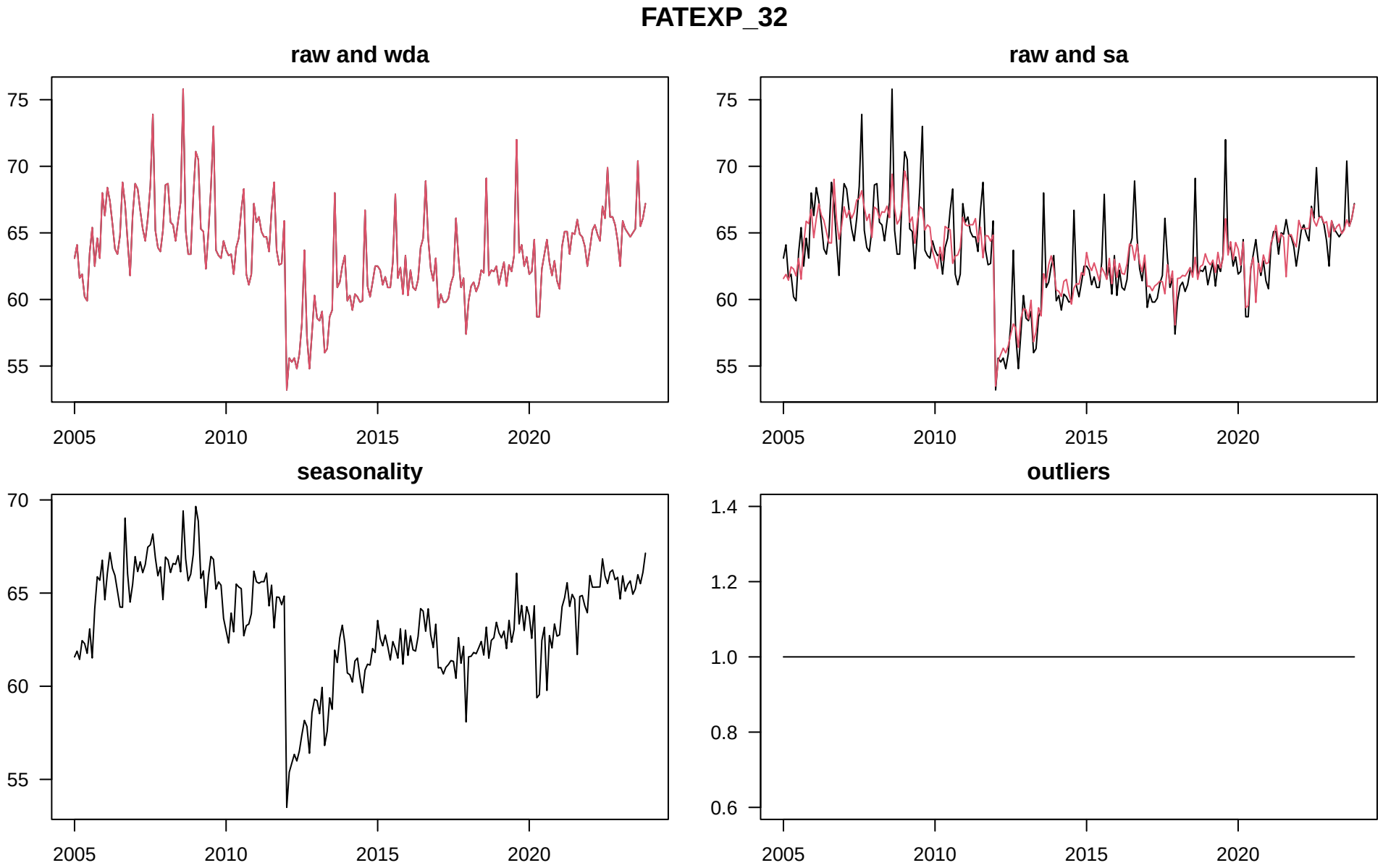

periodogram
raw series
sa series
10.0
5.0
2.0
1.0
0.5
0.2
0
1
2
3
4
5
6


FATEXP_31
raw and wda
raw and sa
seasonality
outliers
75
70
65
60
55
50
45
80
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

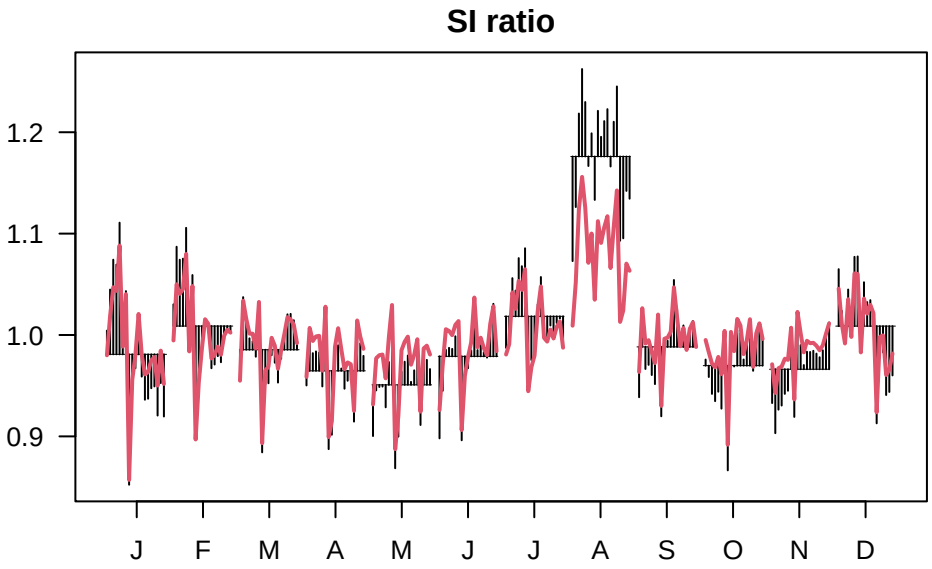
FATEXP_31

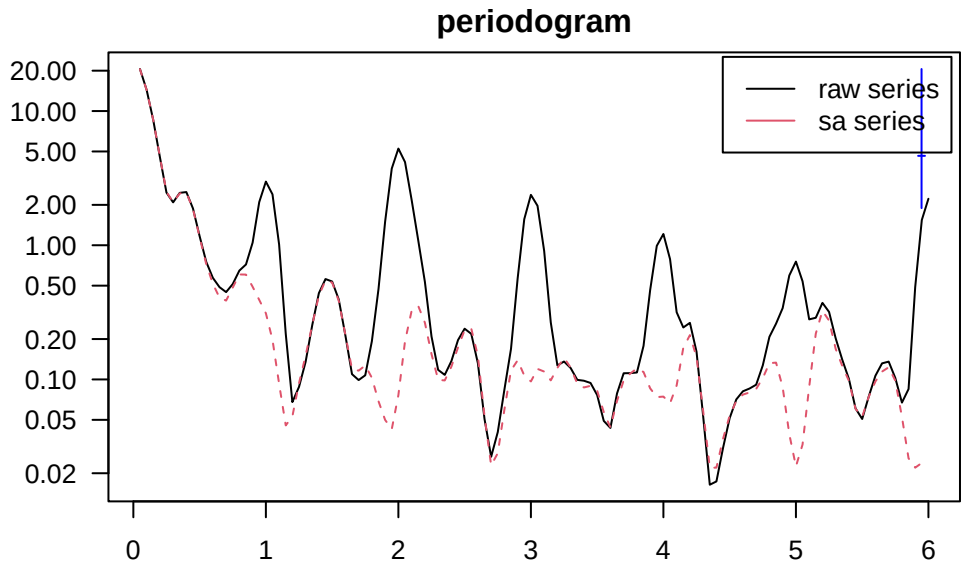

SI ratio
1.6
1.4
1.2
1.0
0.8
J
F
M
A
M
J
J
A
S
O
N
D

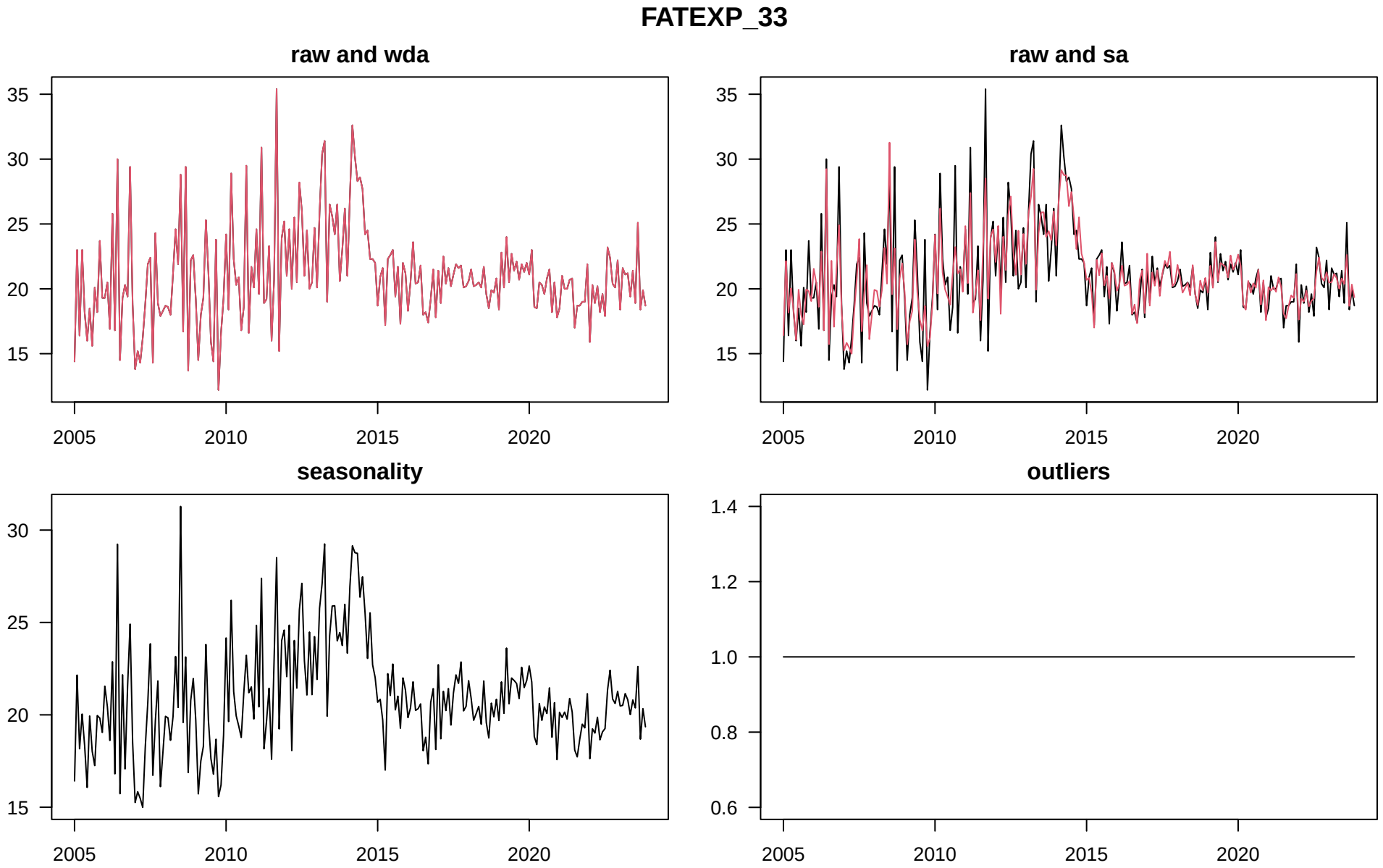

periodogram
raw series
sa series
20.0
10.0
5.0
2.0
1.0
0.5
0.2
0.1
0
1
2
3
4
5
6


FATEXP_32
raw and wda
raw and sa
seasonality
outliers
75
70
65
60
55
70
65
60
55
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

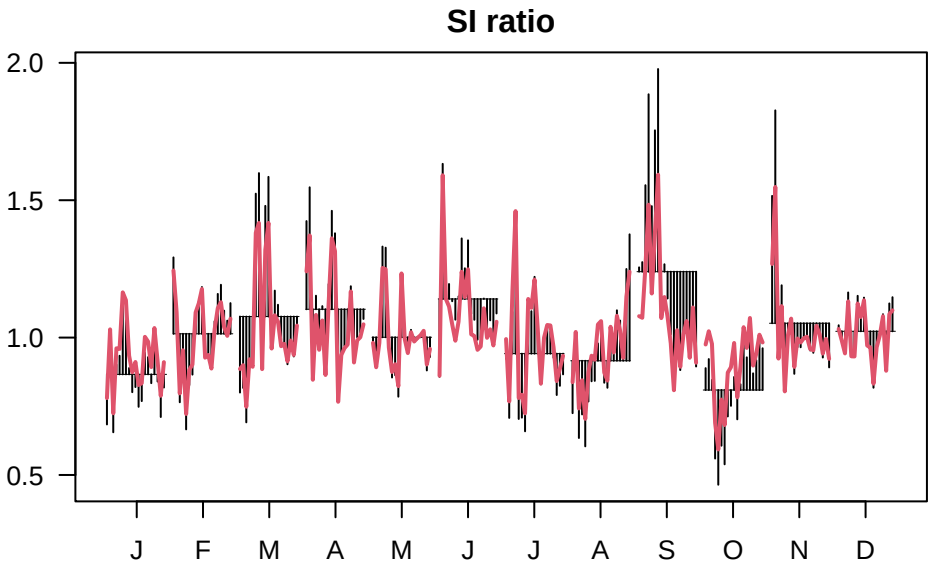
FATEXP_32

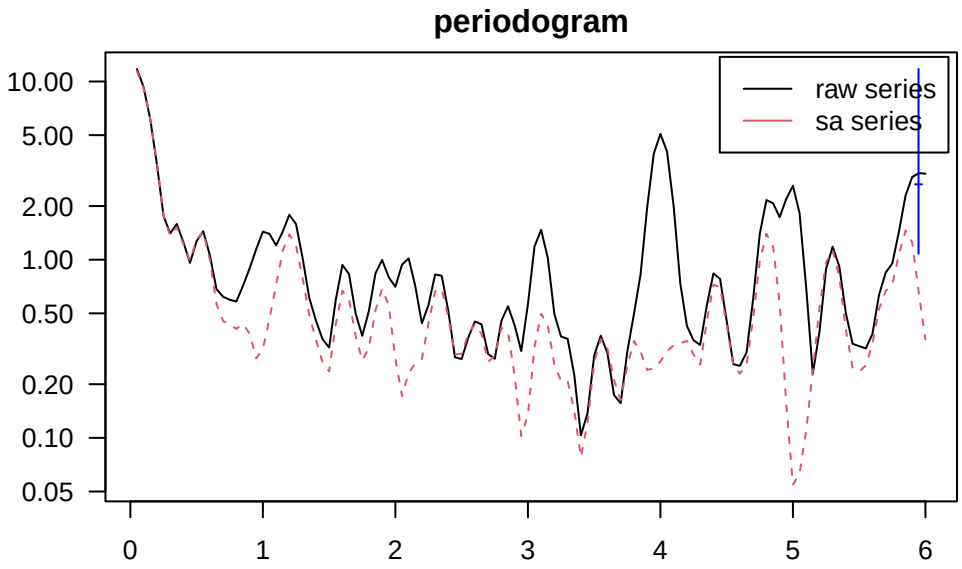

SI ratio
1.2
1.1
1.0
0.9
J
F
M
A
M
J
J
A
S
O
N
D

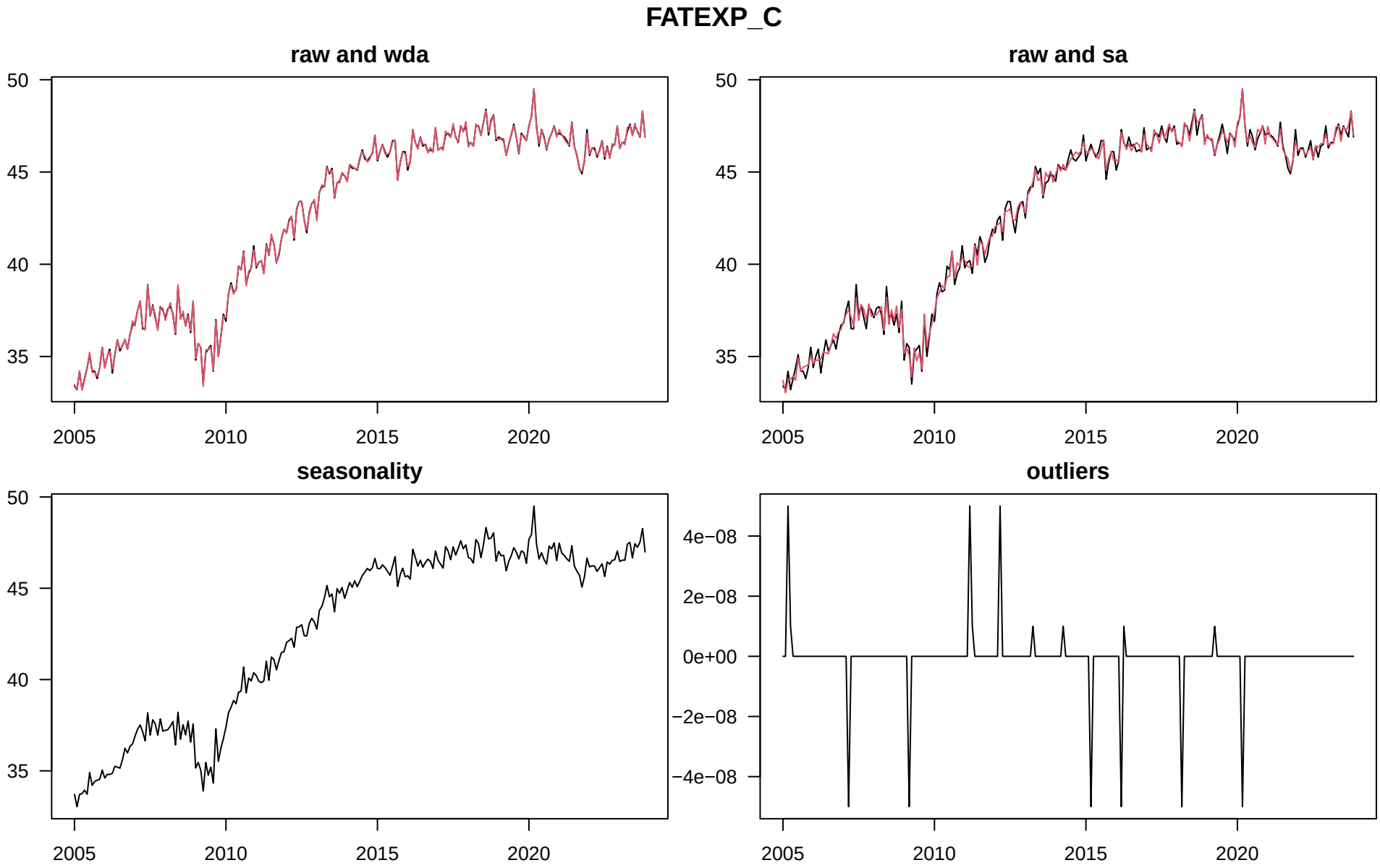

periodogram
20.00
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
0.02
raw series
sa series
0
1
2
3
4
5
6


FATEXP_33
raw and wda
raw and sa
seasonality
outliers
35
30
25
20
15
1.4
1.2
1.0
0.8
0.6
2005
2010
2015
2020

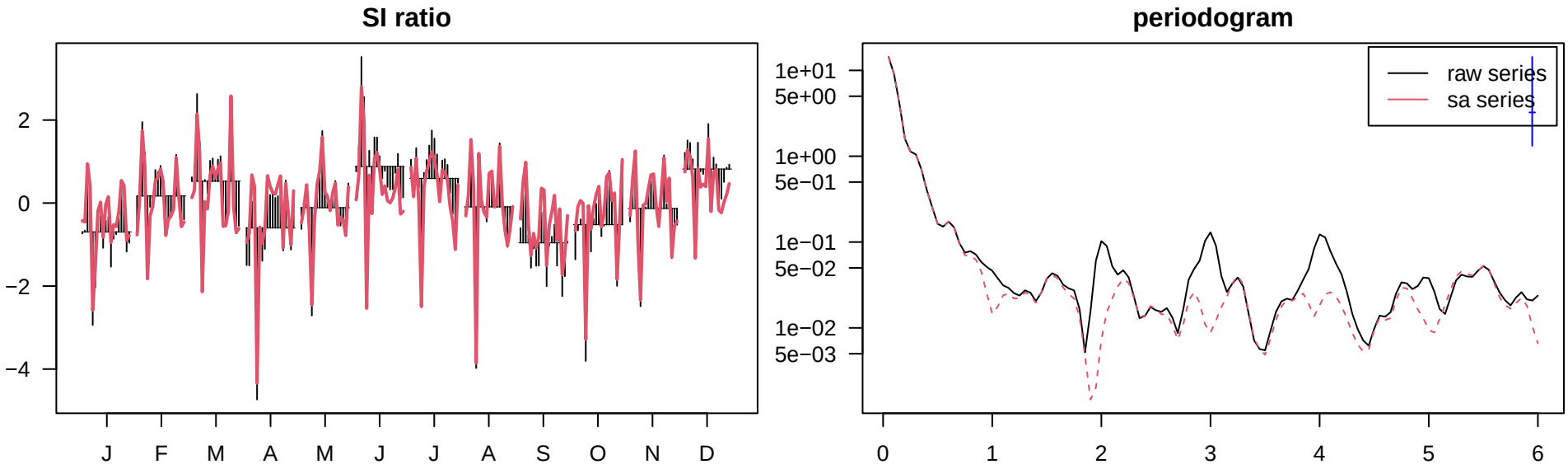
FATEXP_33

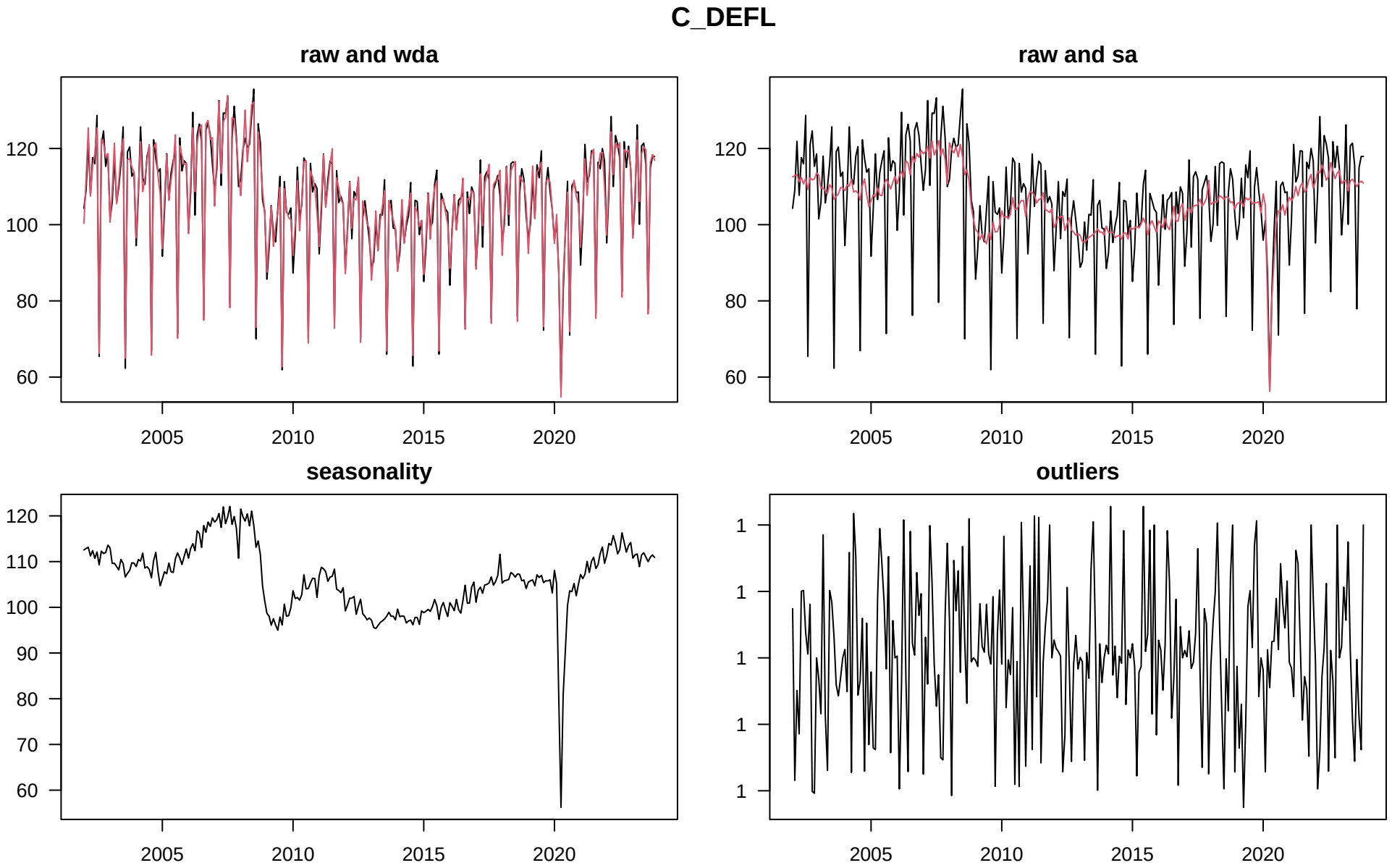

SI ratio
2.0
1.5
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D

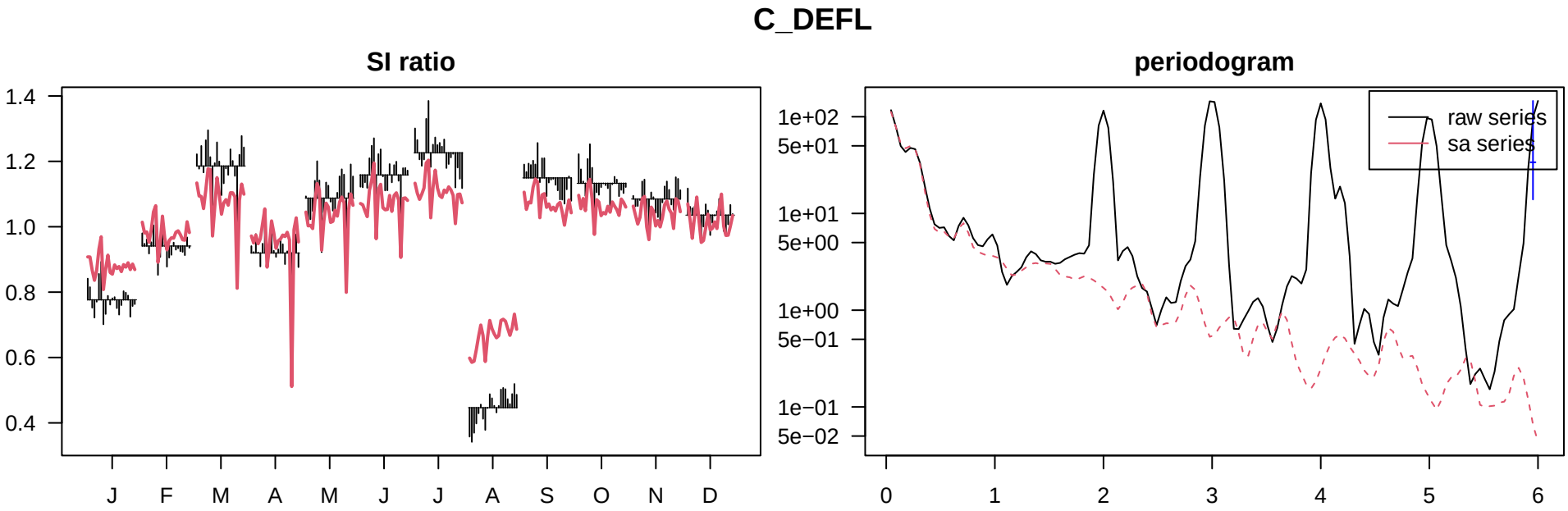

periodogram
raw series
sa series
10.00
5.00
2.00
1.00
0.50
0.20
0.10
0.05
0
1
2
3
4
5
6

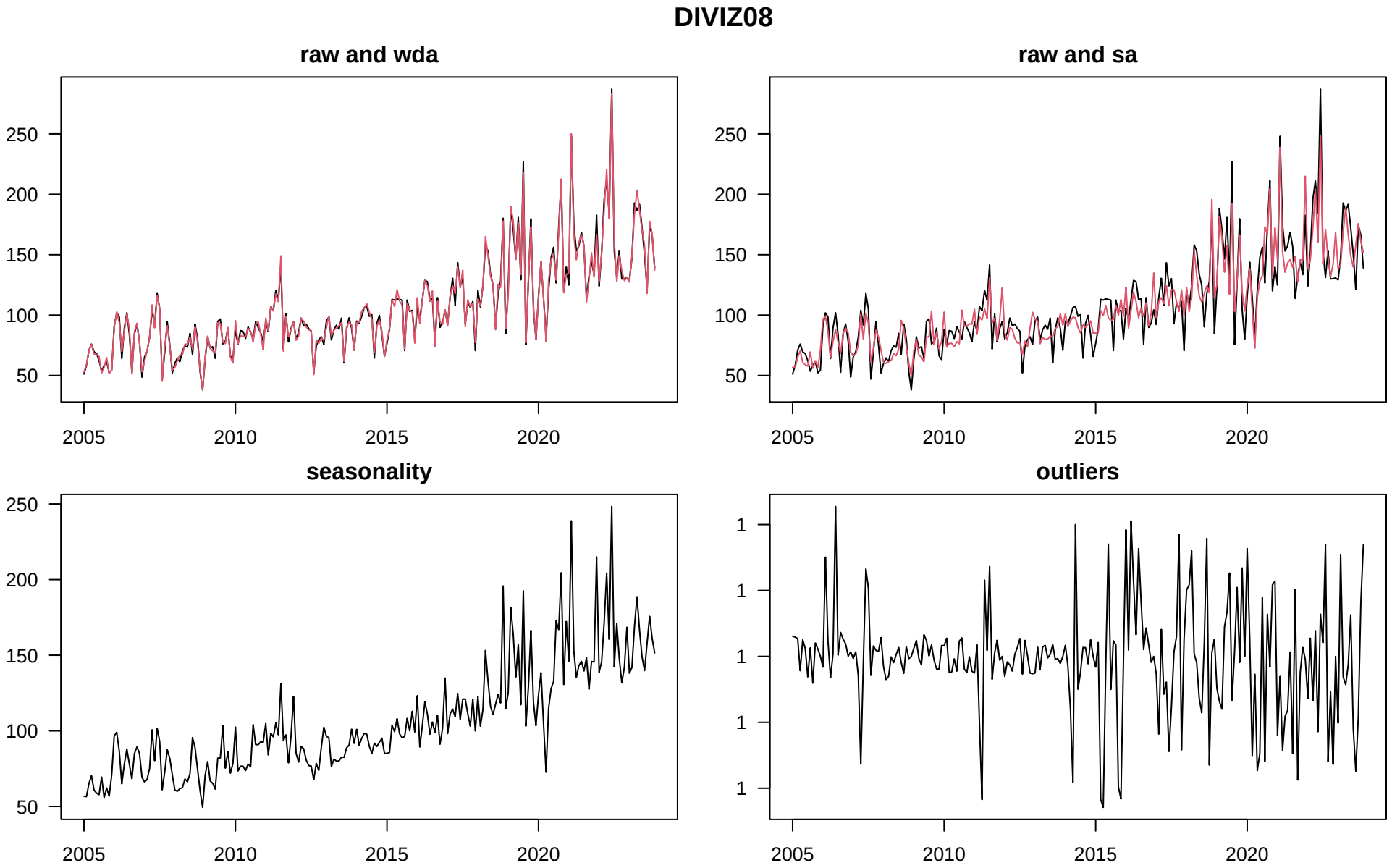

FATEXP_C
raw and wda
raw and sa
seasonality
outliers
50
45
40
35
2005
2010
2015
2020
4e−08
2e−08
0e+00
−2e−08
−4e−08

FATEXP_C

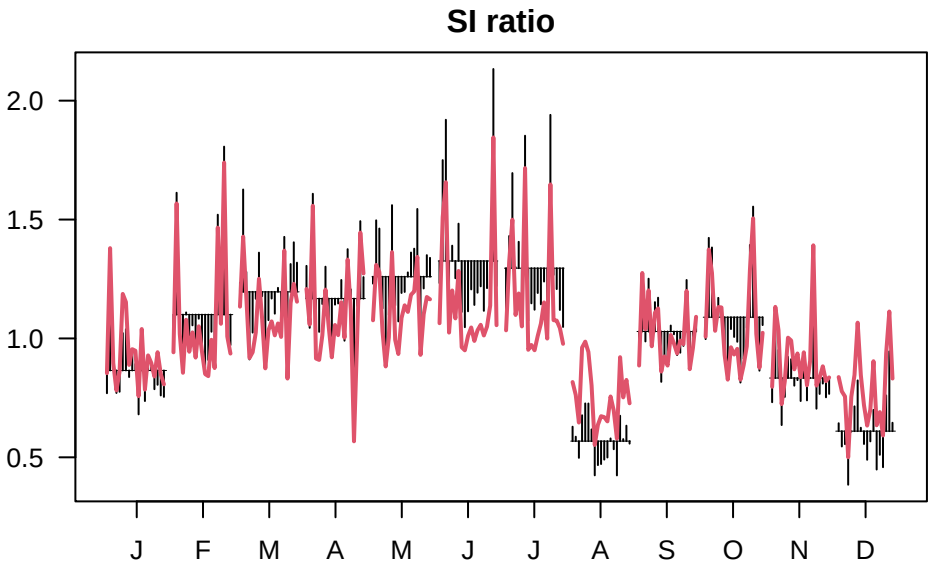

SI ratio
2
0
−2
−4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
1e−02
5e−03
raw series
sa series
0
1
2
3
4
5
6

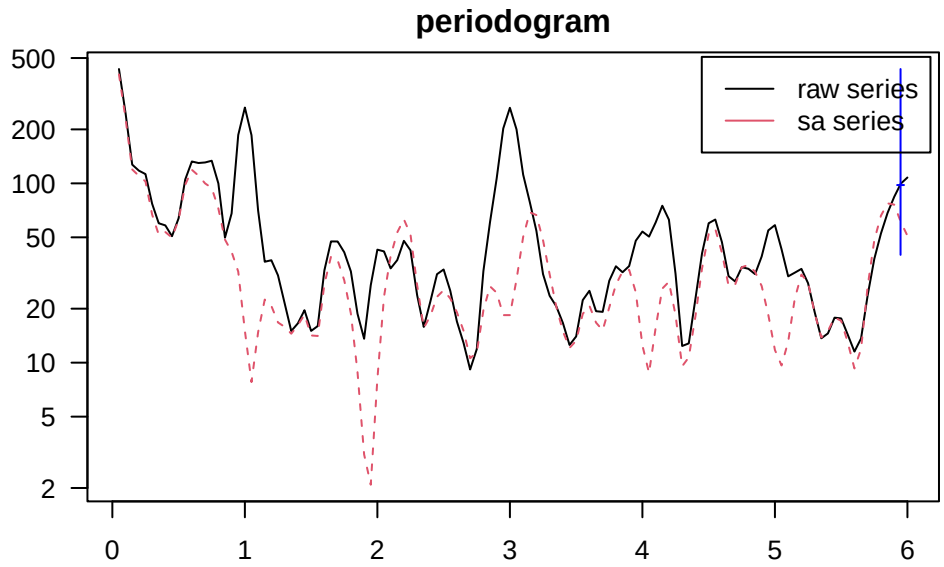

C_DEFL
raw and wda
raw and sa
seasonality
outliers
120
100
80
60
110
90
70
1
2005
2010
2015
2020

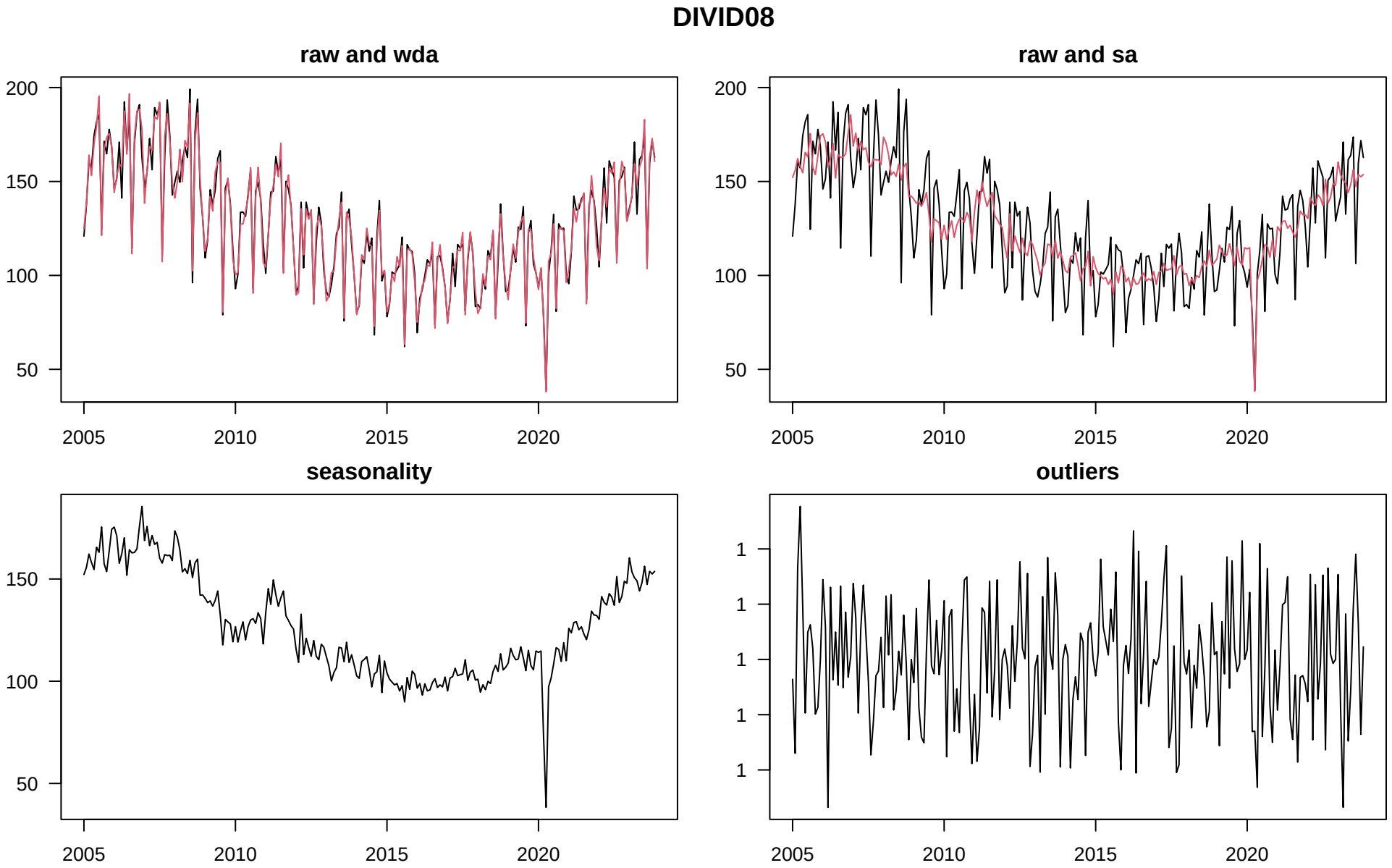

C_DEFL
SI ratio
1.4
1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
0
1
2
3
4
5
6
raw series
sa series


DIVIZ08
raw and wda
raw and sa
seasonality
outliers
250
200
150
100
50
1
2005
2010
2015
2020

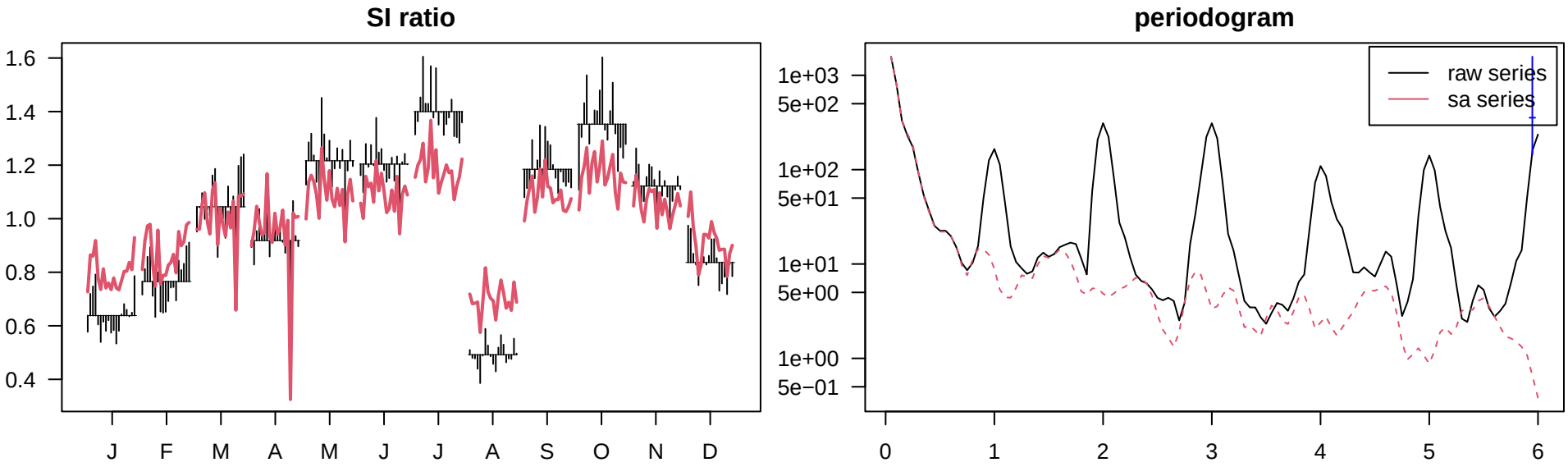
DIVIZ08

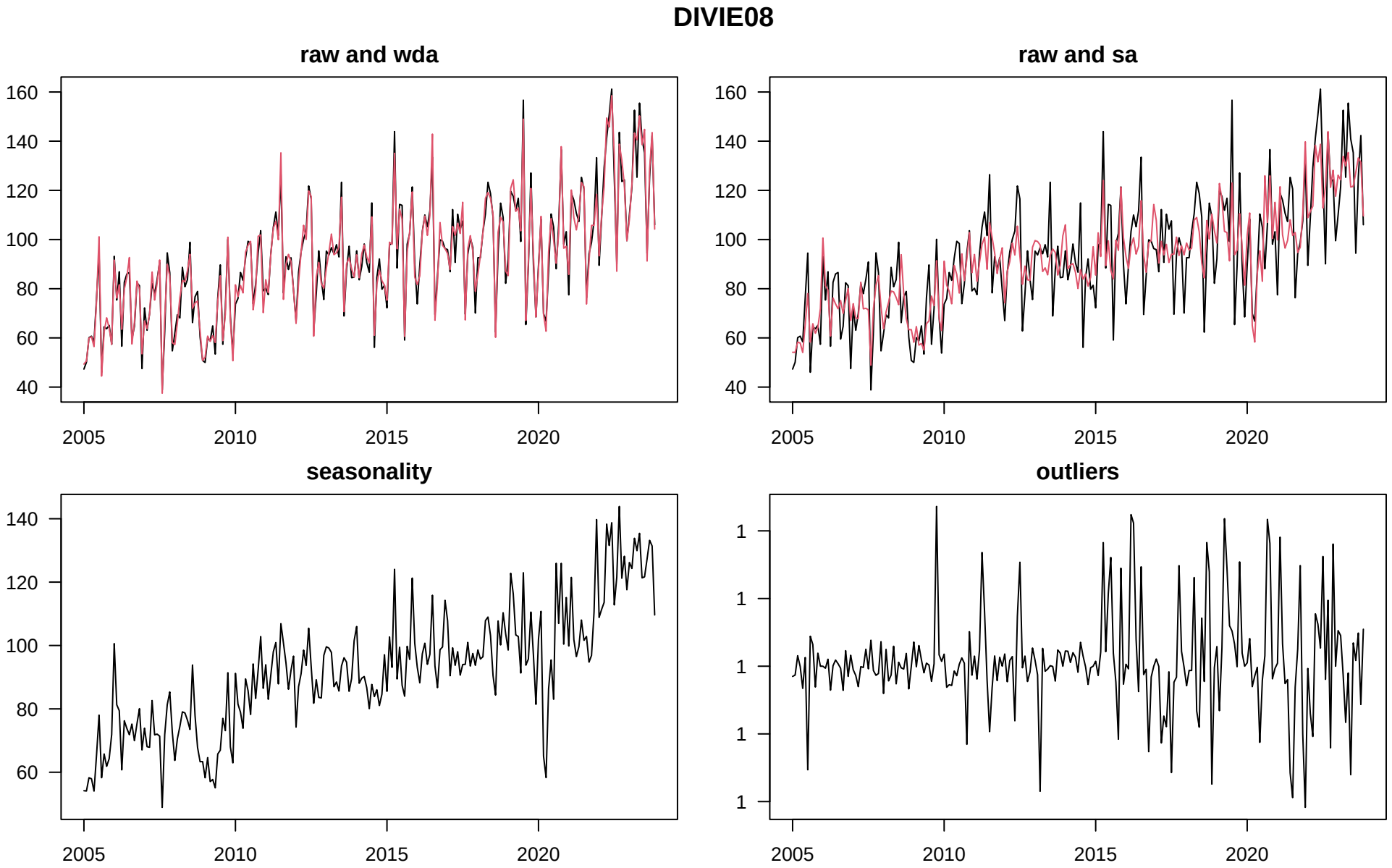

SI ratio
2.0
1.5
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
500
200
100
50
20
10
5
2
0
1
2
3
4
5
6
raw series
sa series

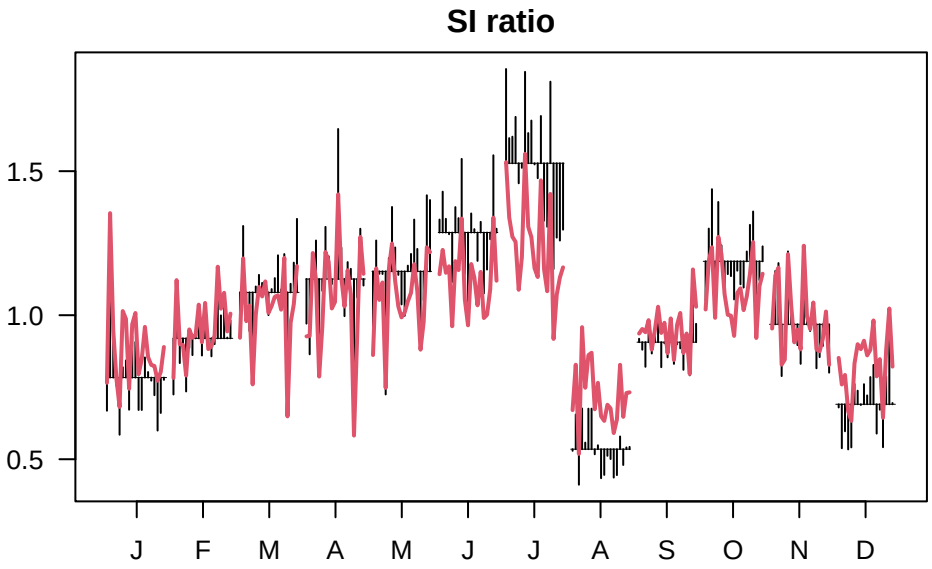

DIVID08
raw and wda
raw and sa
seasonality
outliers
200
150
100
50
1
2005
2010
2015
2020

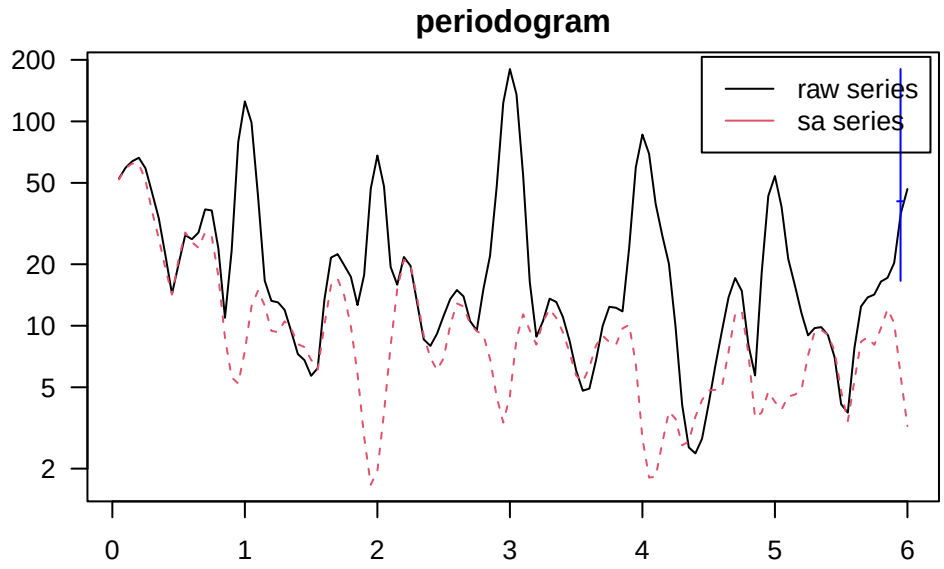
DIVID08

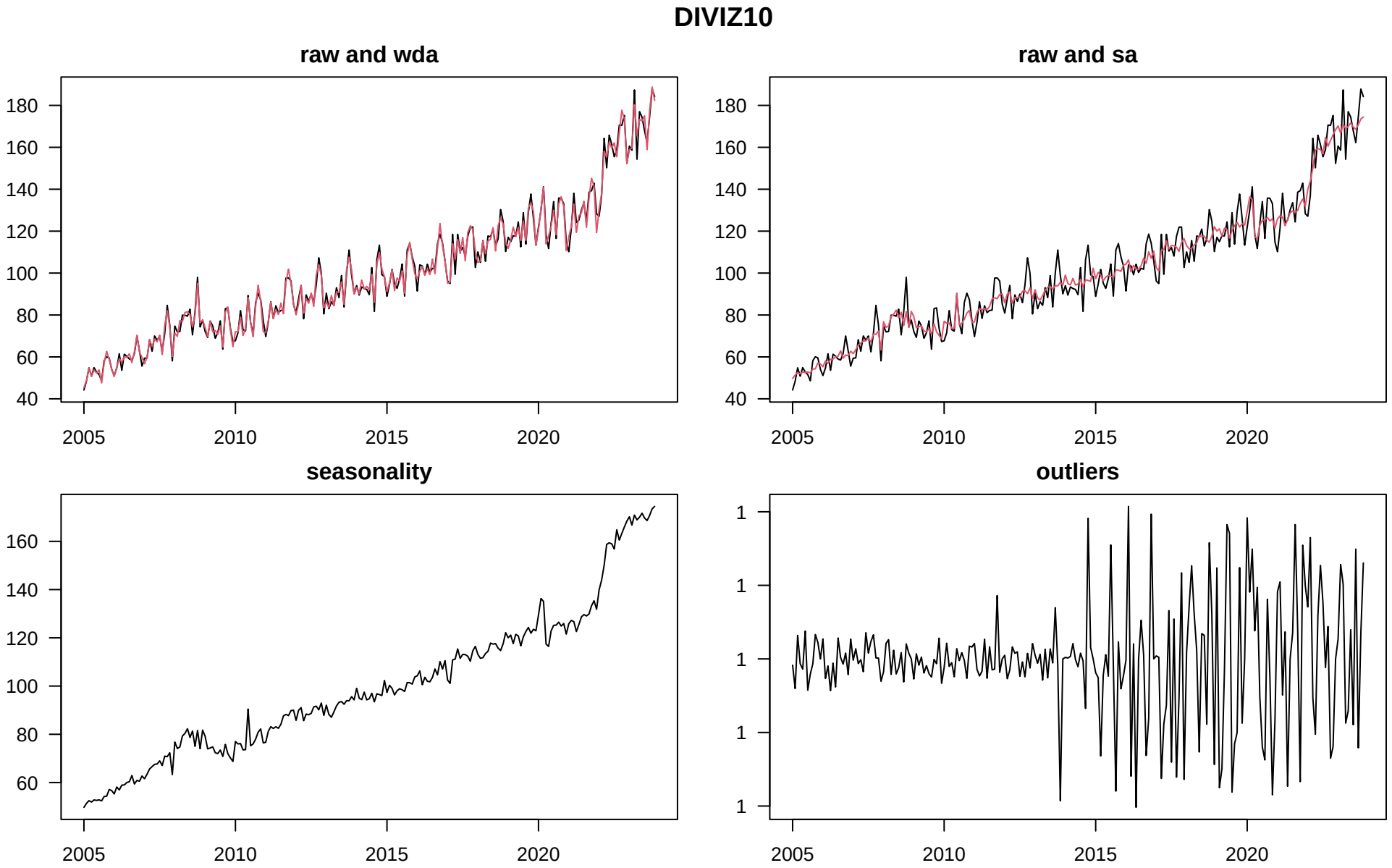

SI ratio
1.6
1.4
1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
1e+03
5e+02
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
0
1
2
3
4
5
6
raw series
sa series

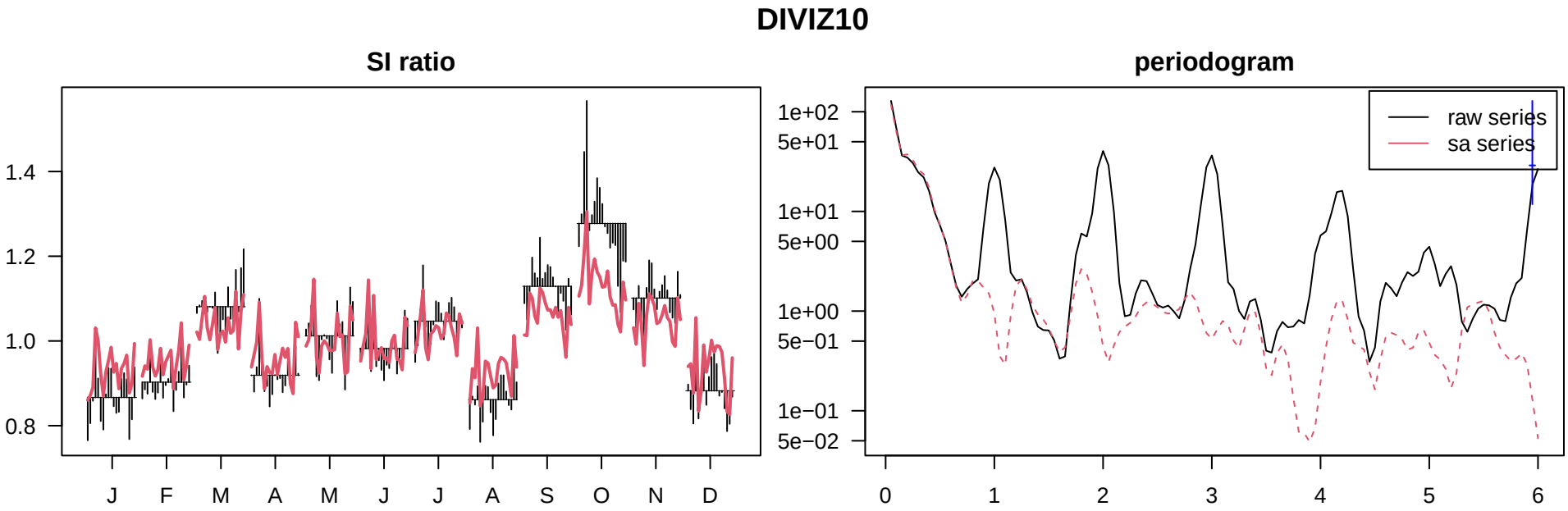

DIVIE08
raw and wda
raw and sa
seasonality
outliers
160
140
120
100
80
60
40
2005
2010
2015
2020
1

DIVIE08


SI ratio
1.5
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
200
100
50
20
10
5
2
0
1
2
3
4
5
6
raw series
sa series


DIVIZ10
raw and wda
raw and sa
seasonality
outliers
180
160
140
120
100
80
60
40
2005
2010
2015
2020
1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SI ratio
periodogram
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1.2
1.0
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J
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M
J
J
A
S
O
N
D
1e+02
5e+01
1e+01
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1e−01
5e−02
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sa series
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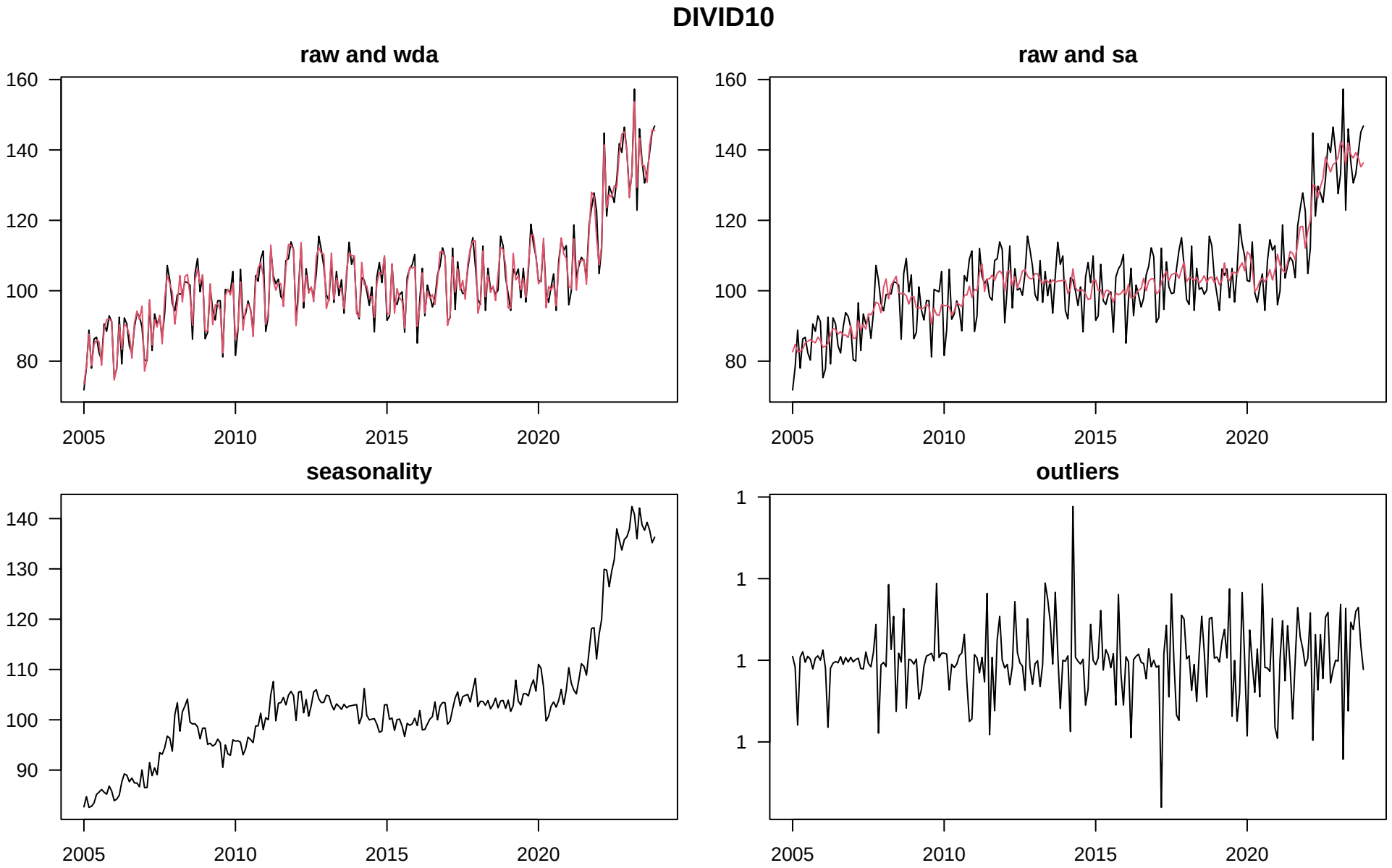
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raw and wda
raw and sa
seasonality
outliers
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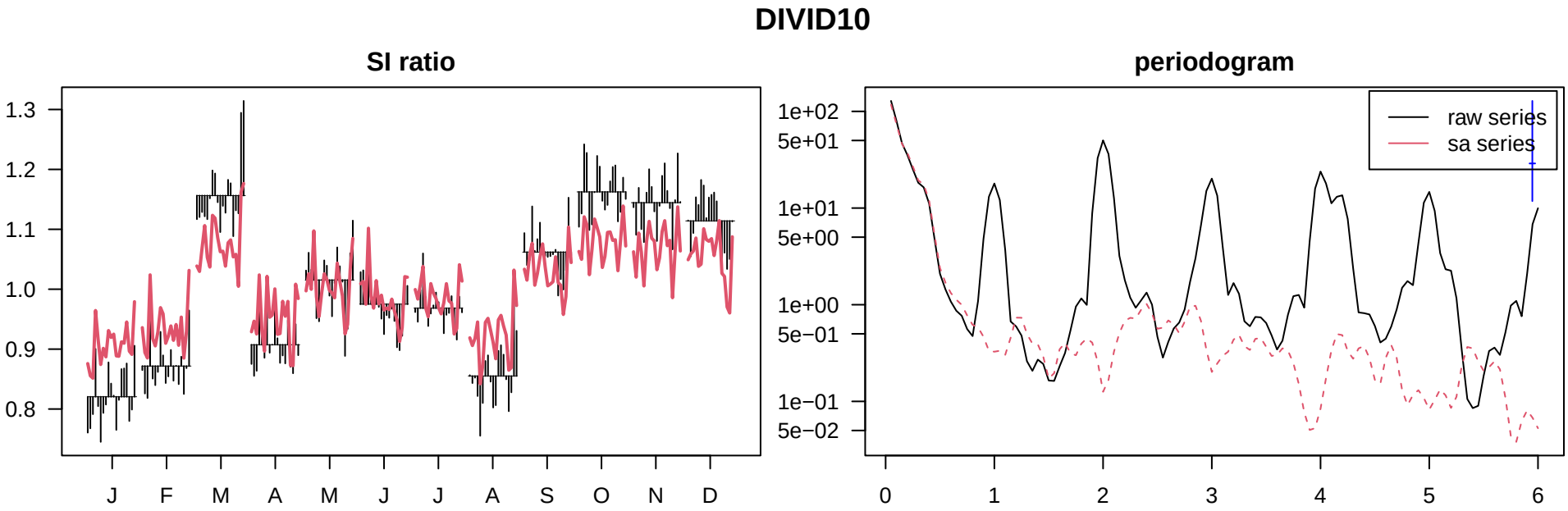
2010
2015
2020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M
J
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A
S
O
N
D
periodogram
1e+02
5e+01
1e+01
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5e−02
raw series
sa series
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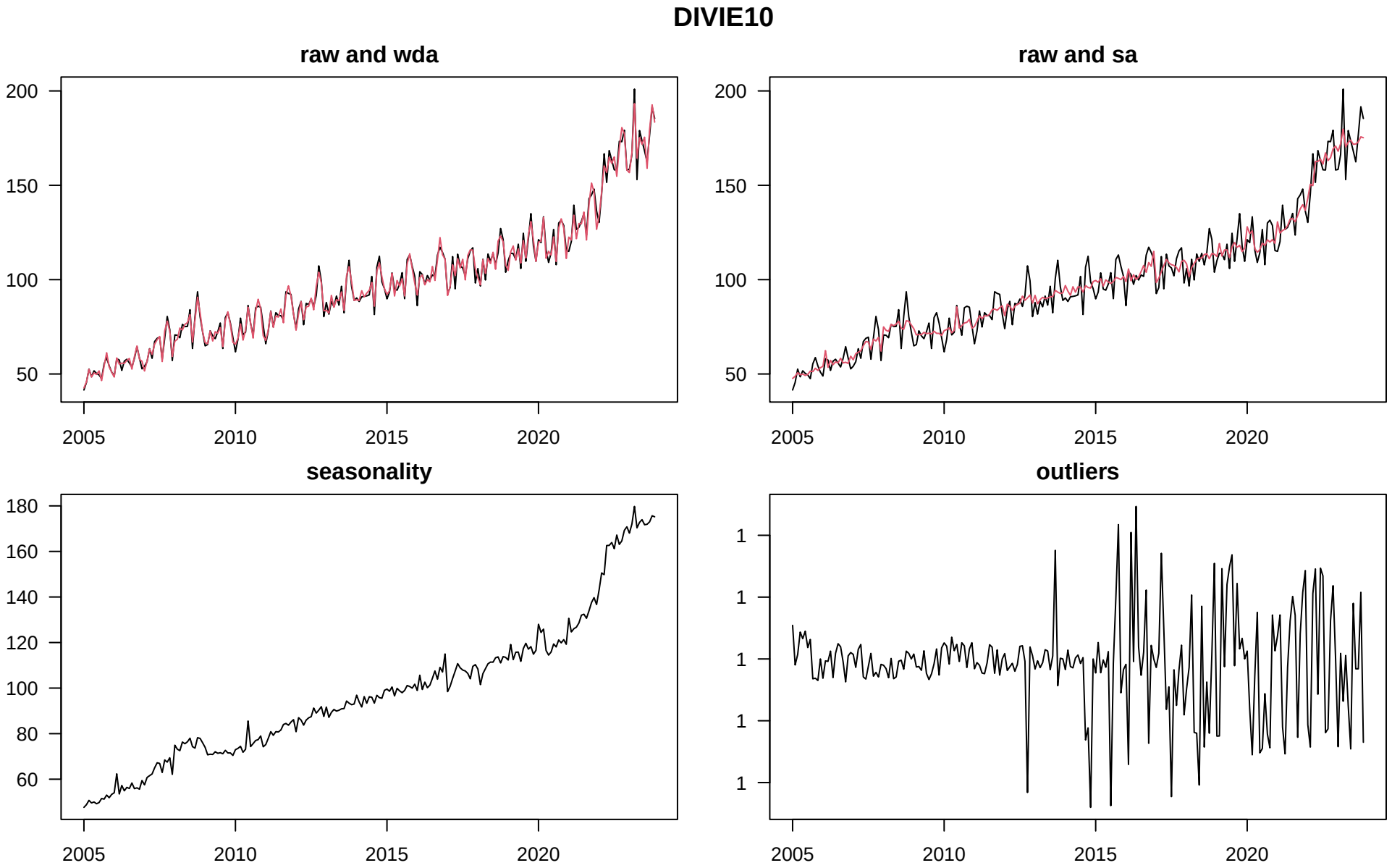
DIVIE10
raw and wda
raw and sa
seasonality
outliers
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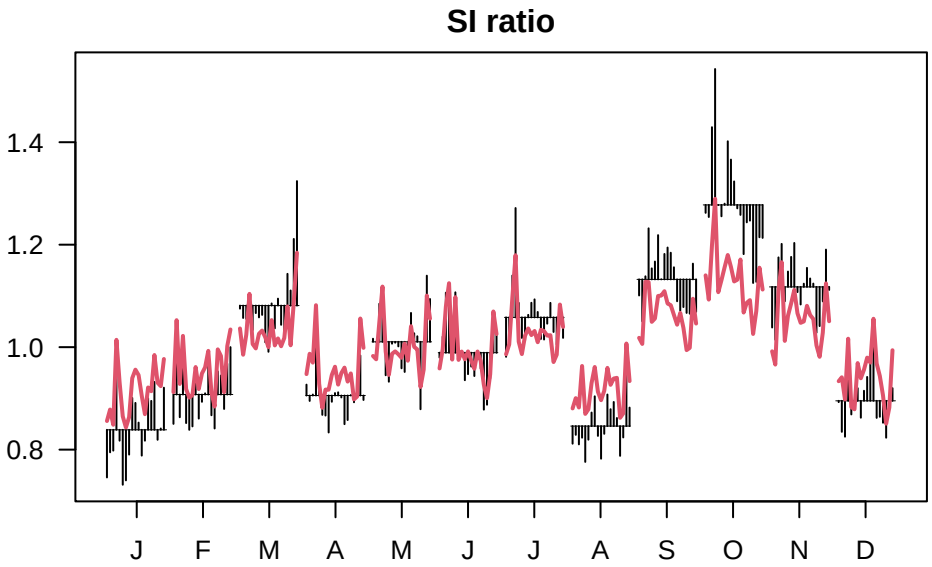
2015
2020

DIVIE10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N
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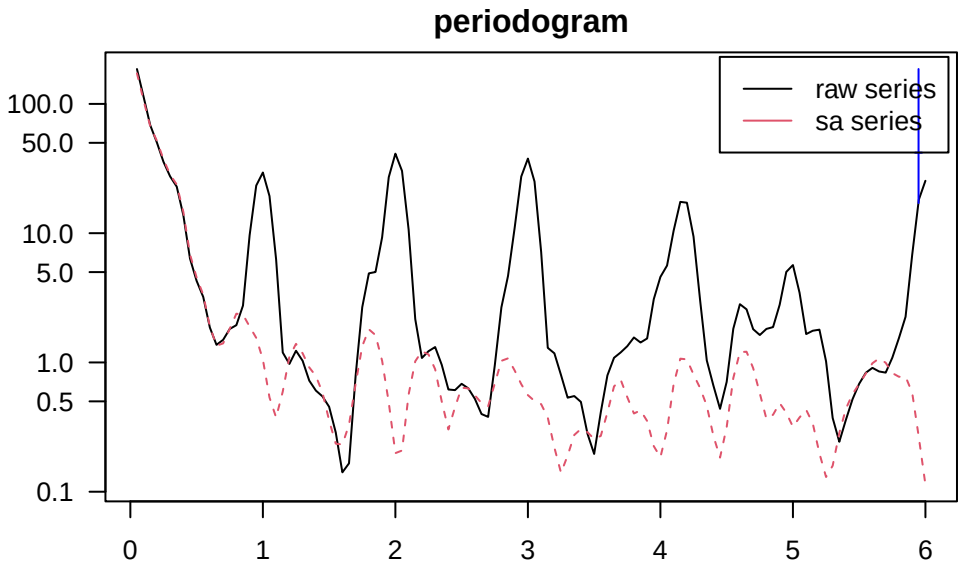
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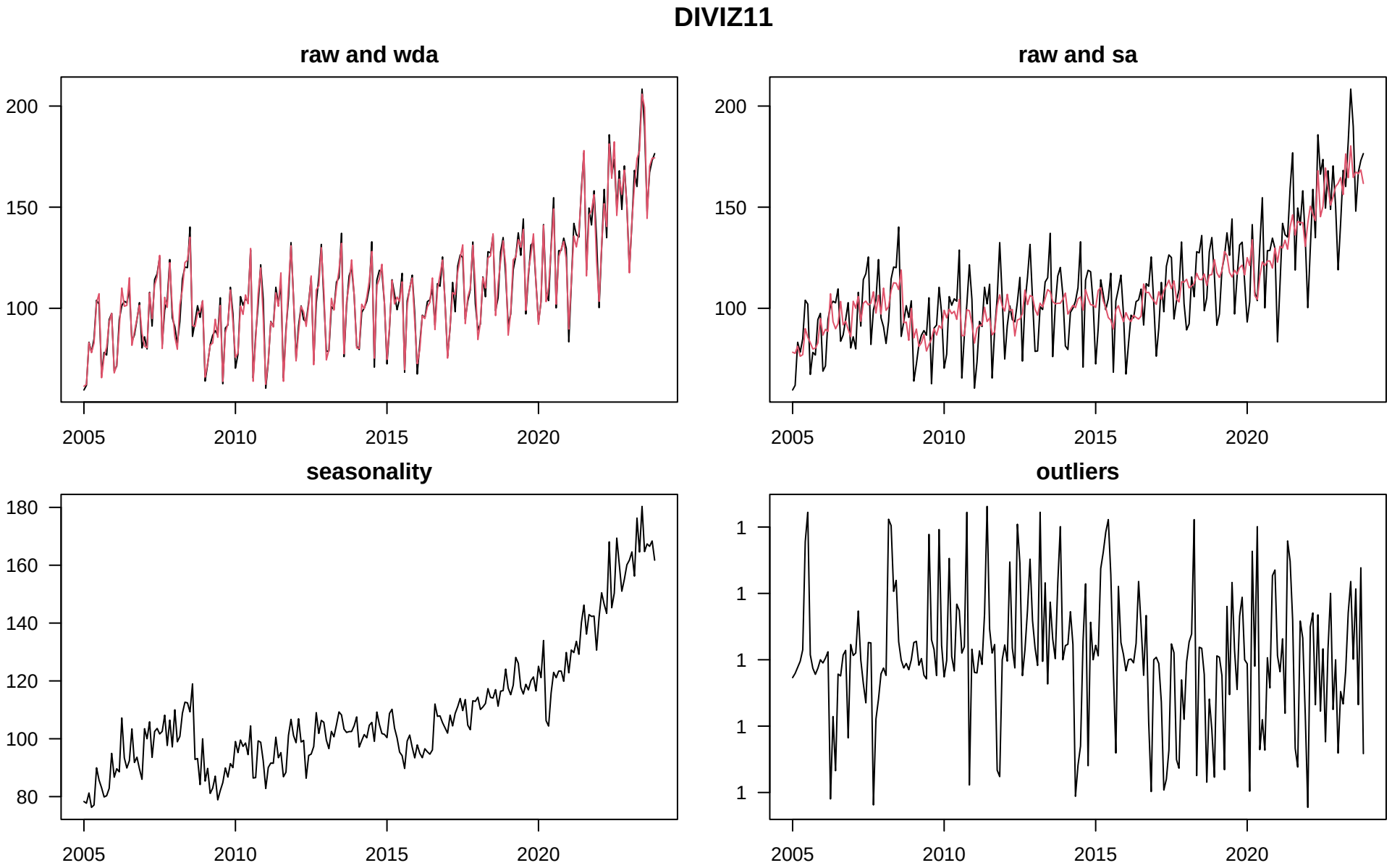
DIVIZ11
raw and wda
raw and sa
seasonality
outliers
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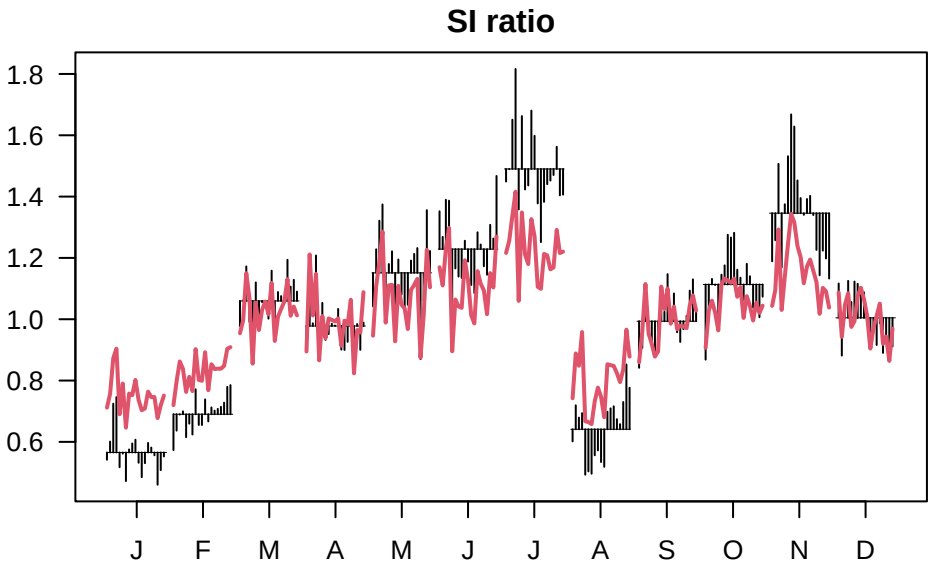
2010
2015
2020

DIVIZ11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1.6
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J
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N
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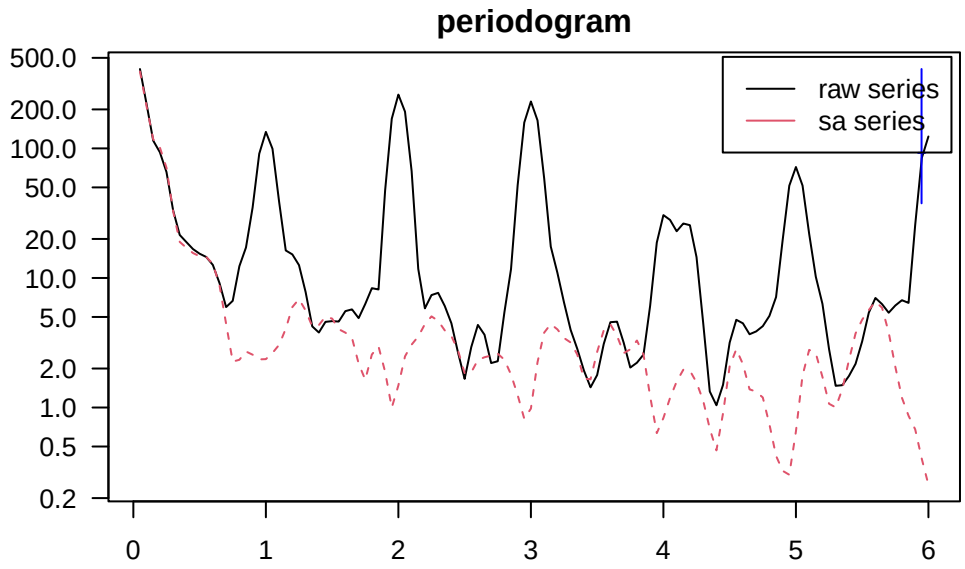
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sa series
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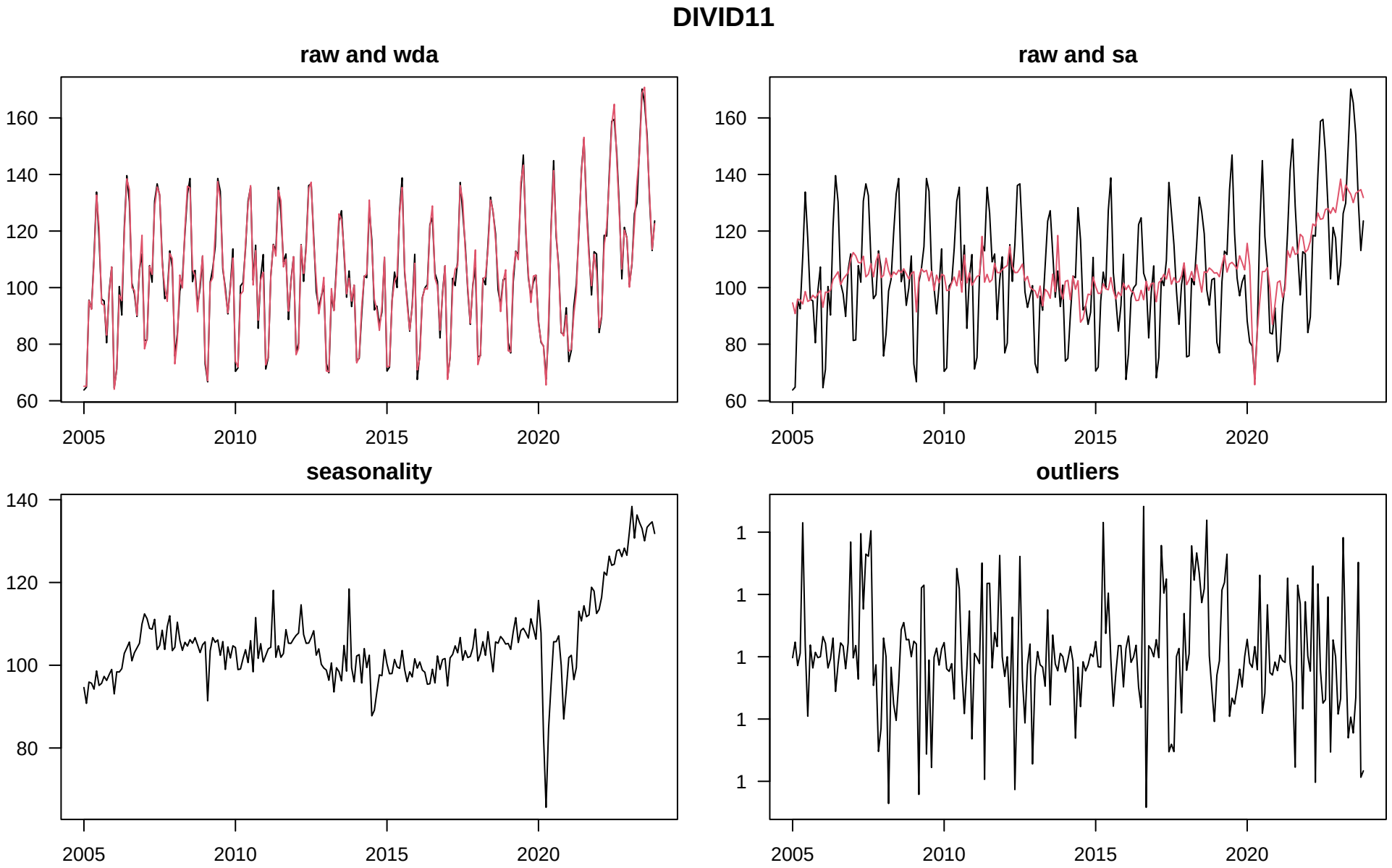
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raw and sa
seasonality
outliers
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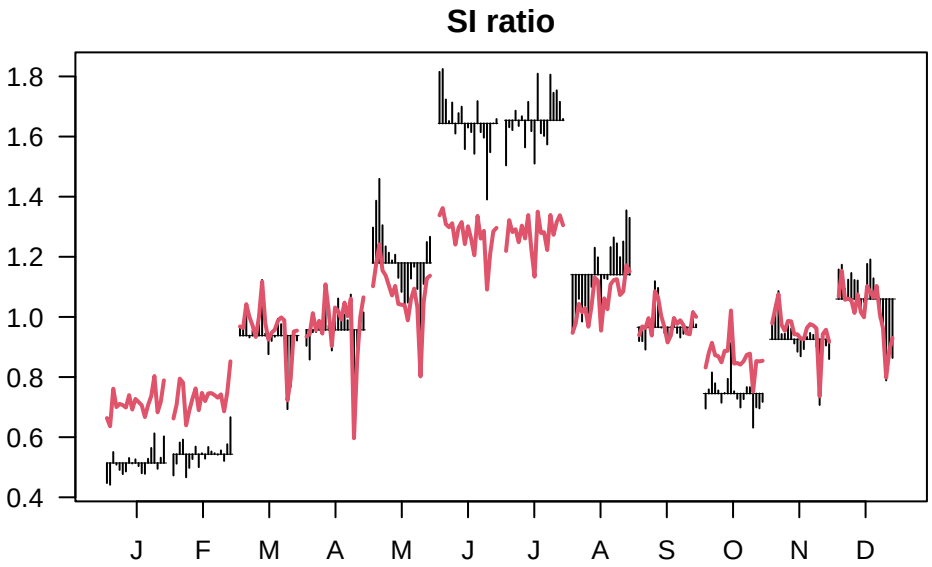
DIVID11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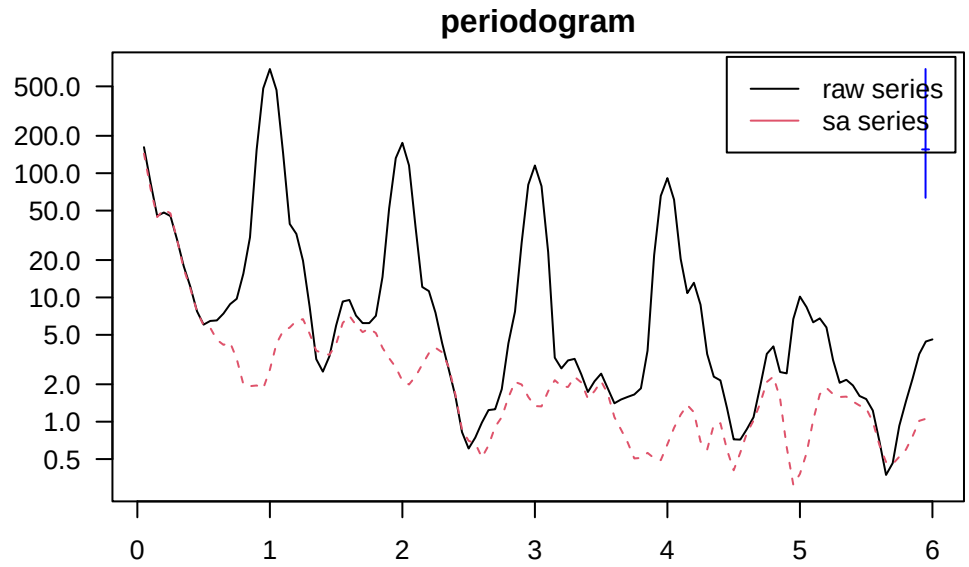
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raw series
sa series
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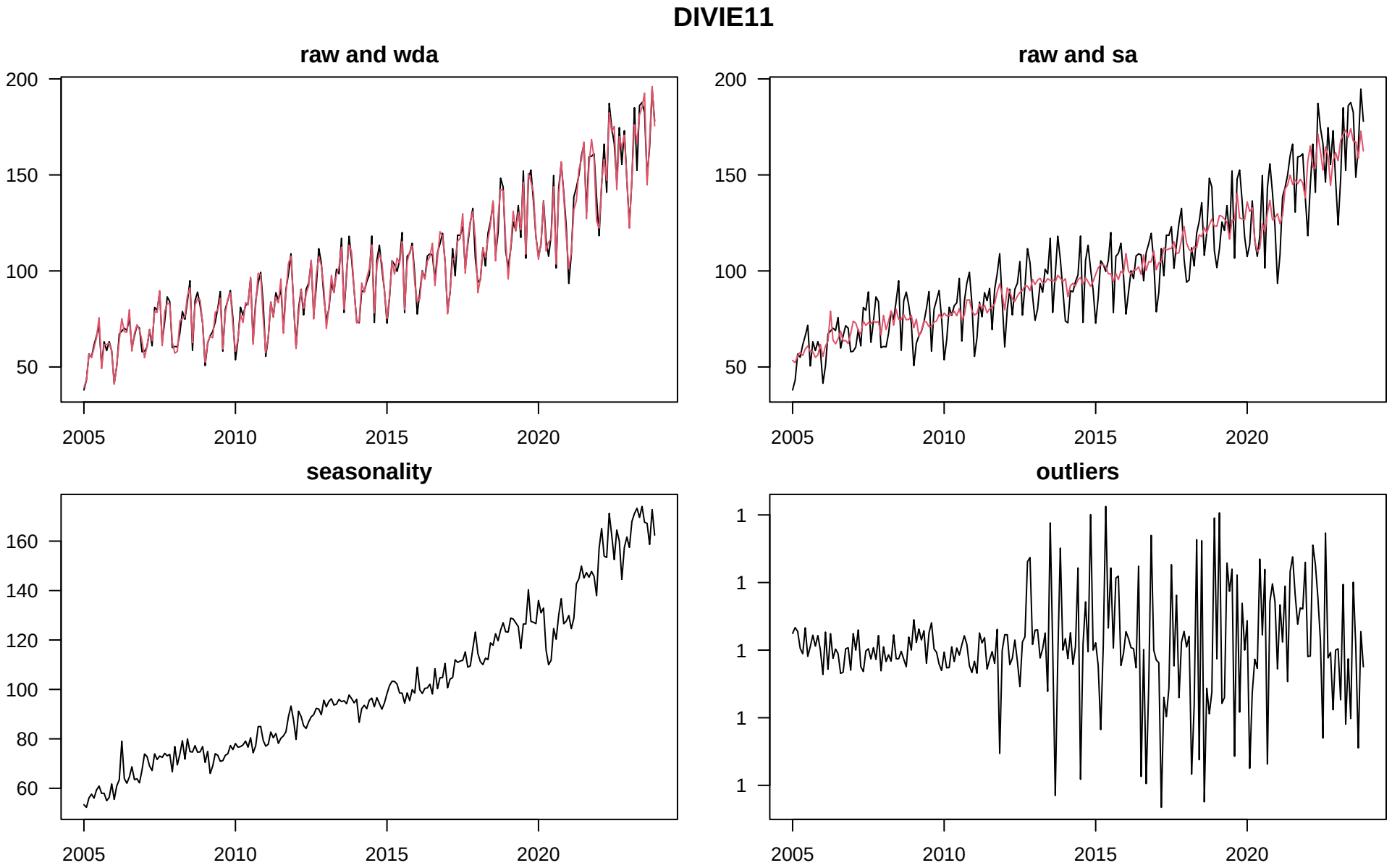
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raw and wda
raw and sa
seasonality
outliers
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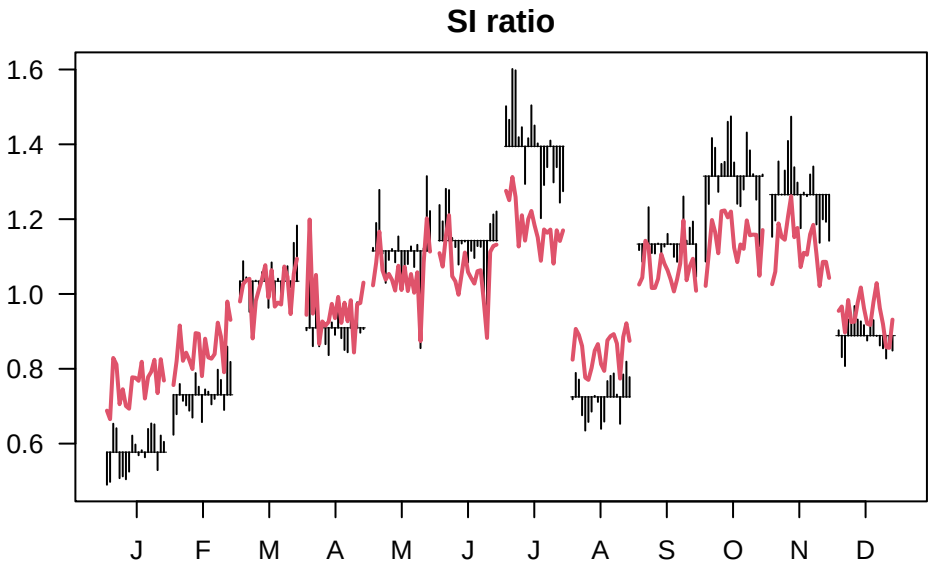
2010
2015
2020

DIVIE11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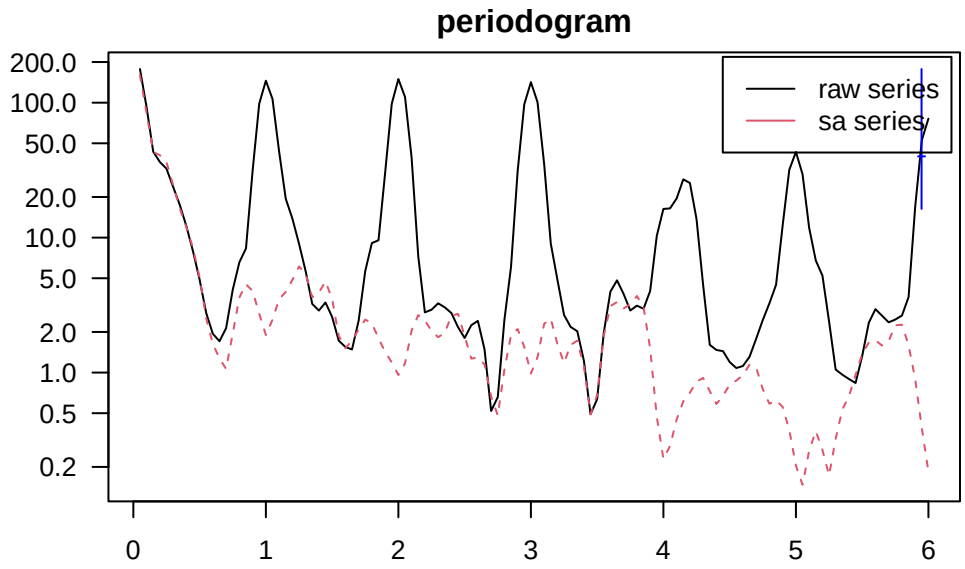
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4
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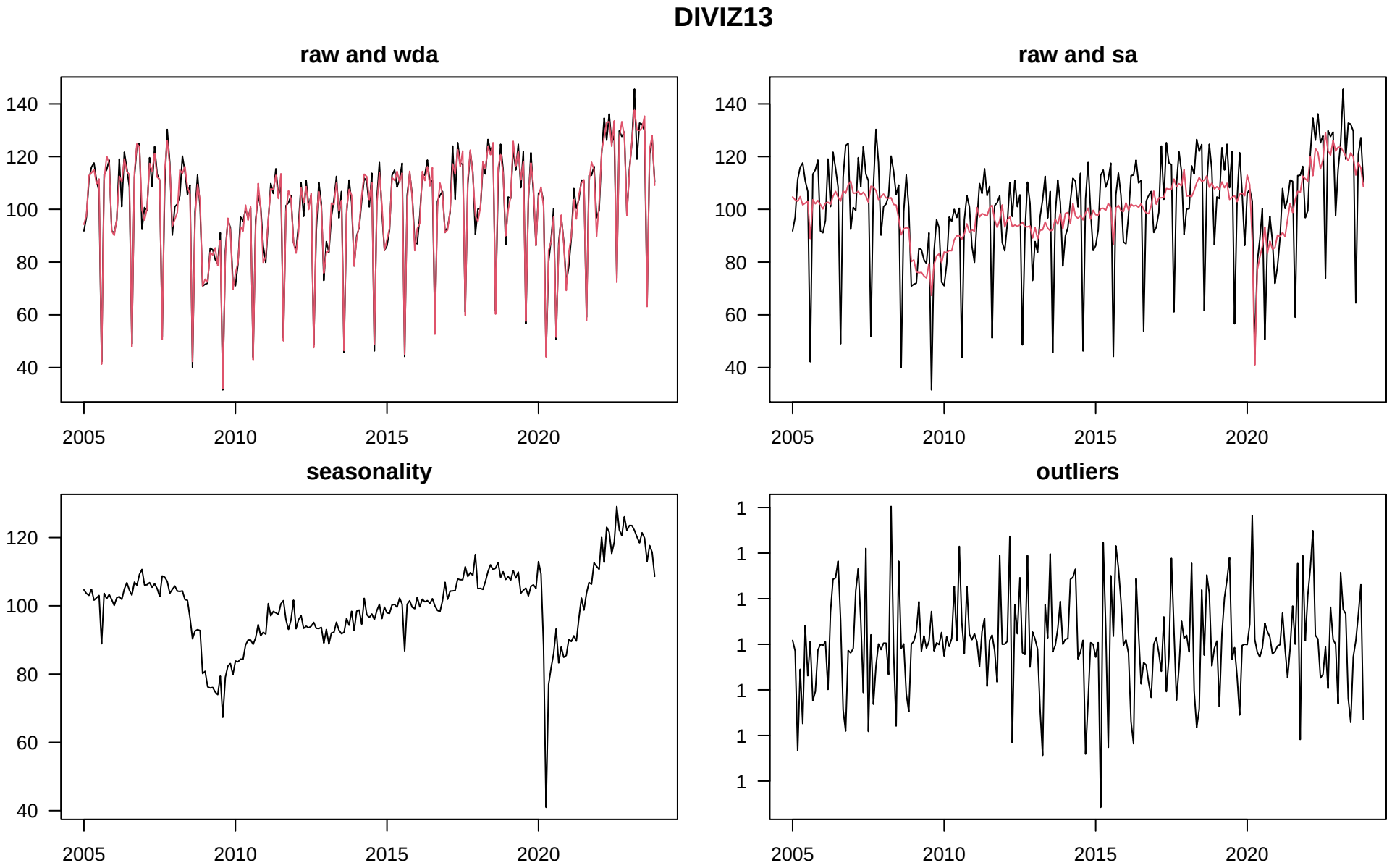
6
raw series
sa series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raw and sa
seasonality
outliers
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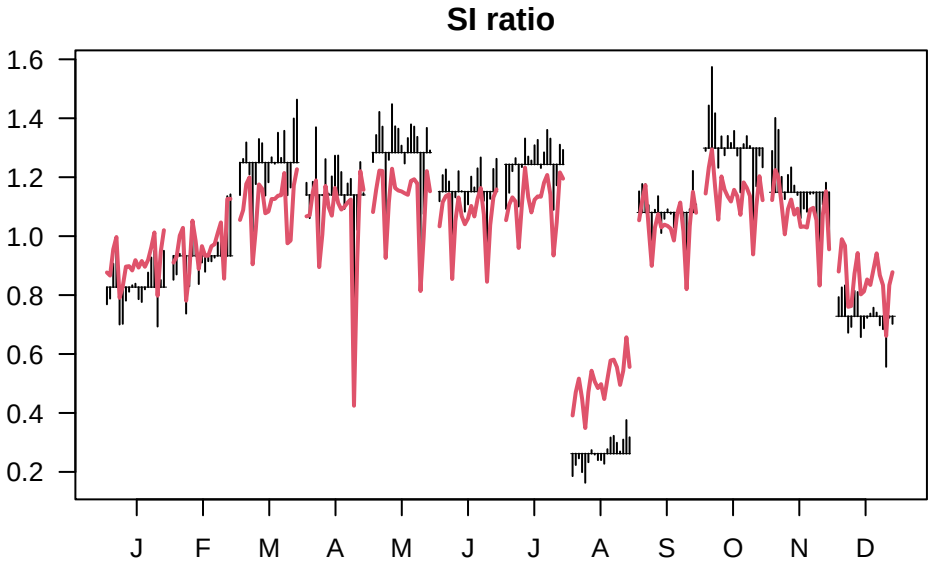
2005
2010
2015
2020

DIVIZ13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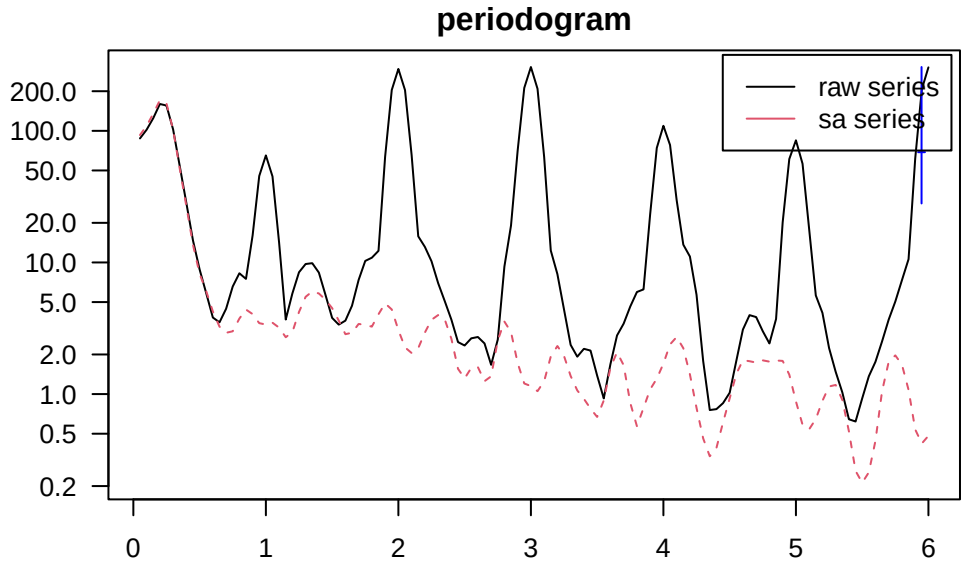
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raw series
sa series
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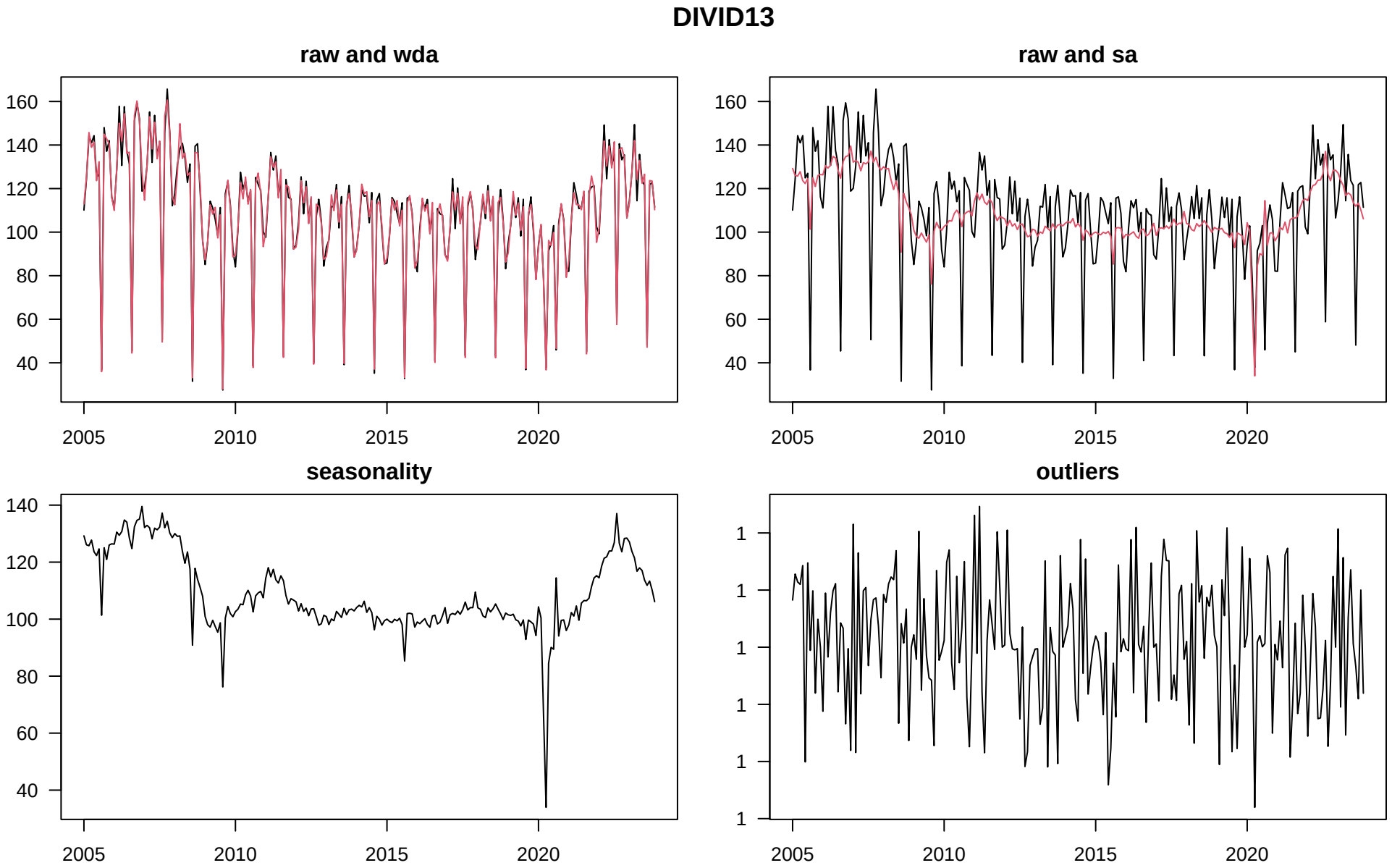
DIVID13
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raw and sa
seasonality
outliers
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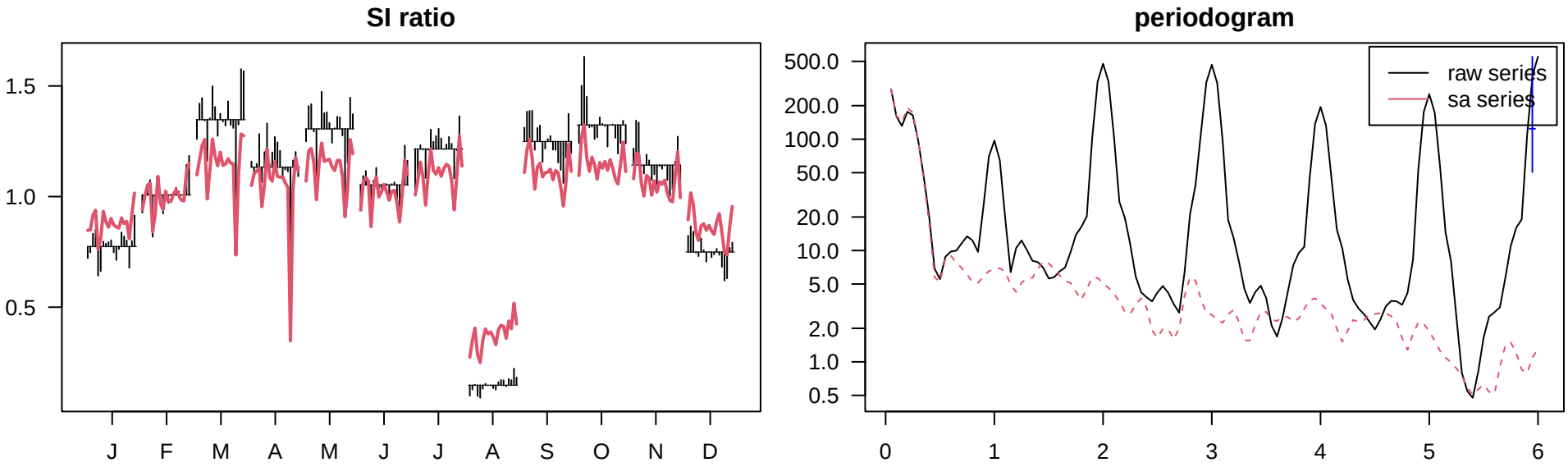
2020

DIVID13


SI ratio
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1.0
0.5
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S
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N
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periodogram
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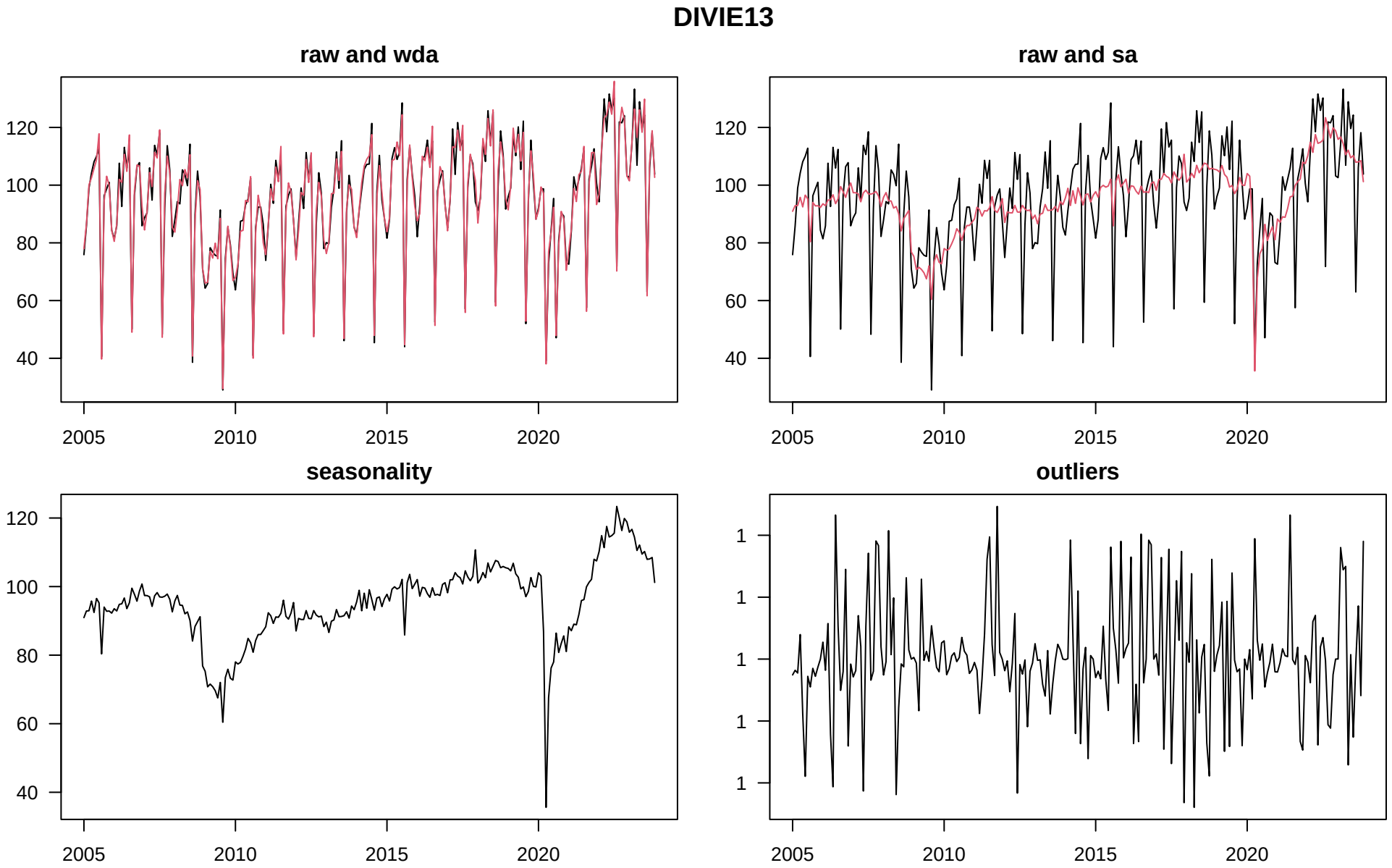
6
raw series
sa series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raw and sa
seasonality
outliers
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2010
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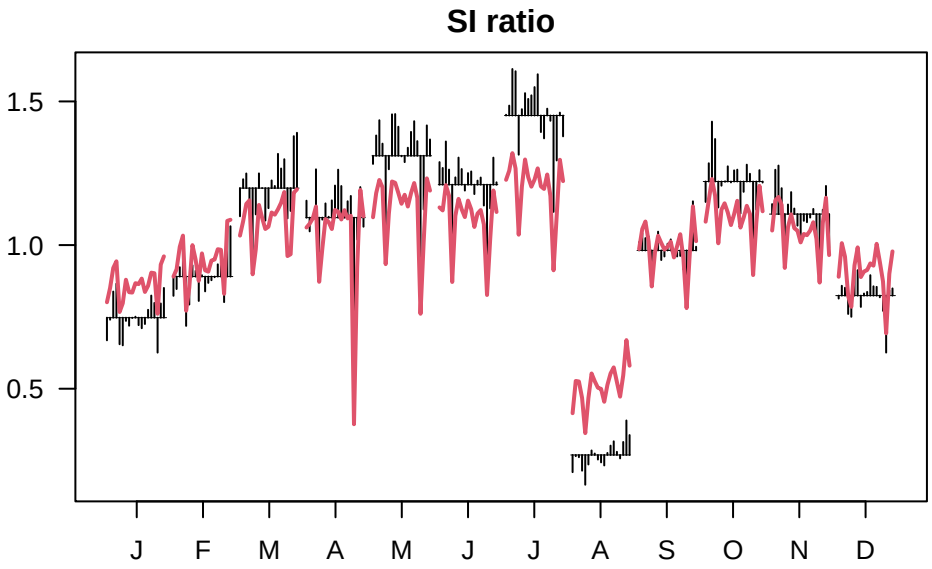
DIVIE13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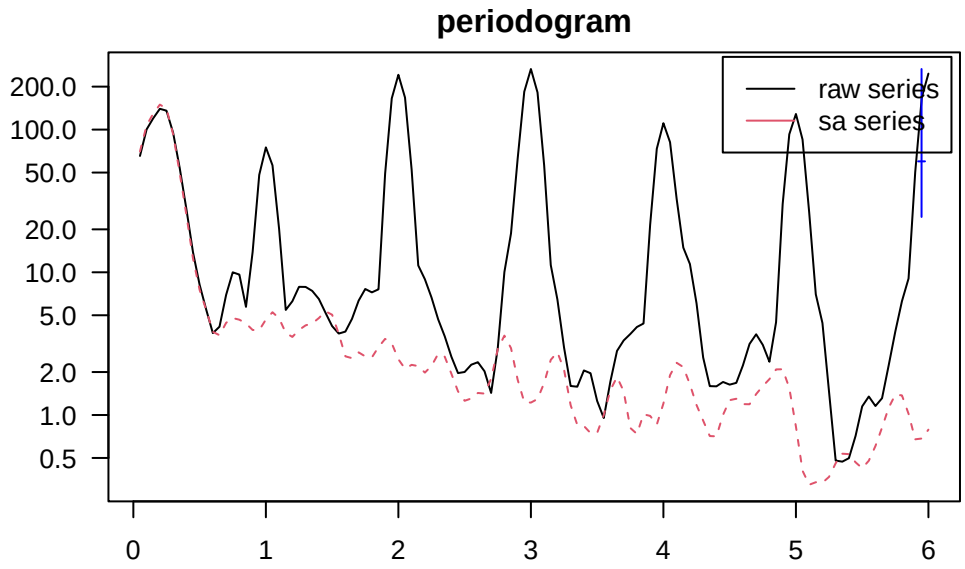
periodogram
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sa series
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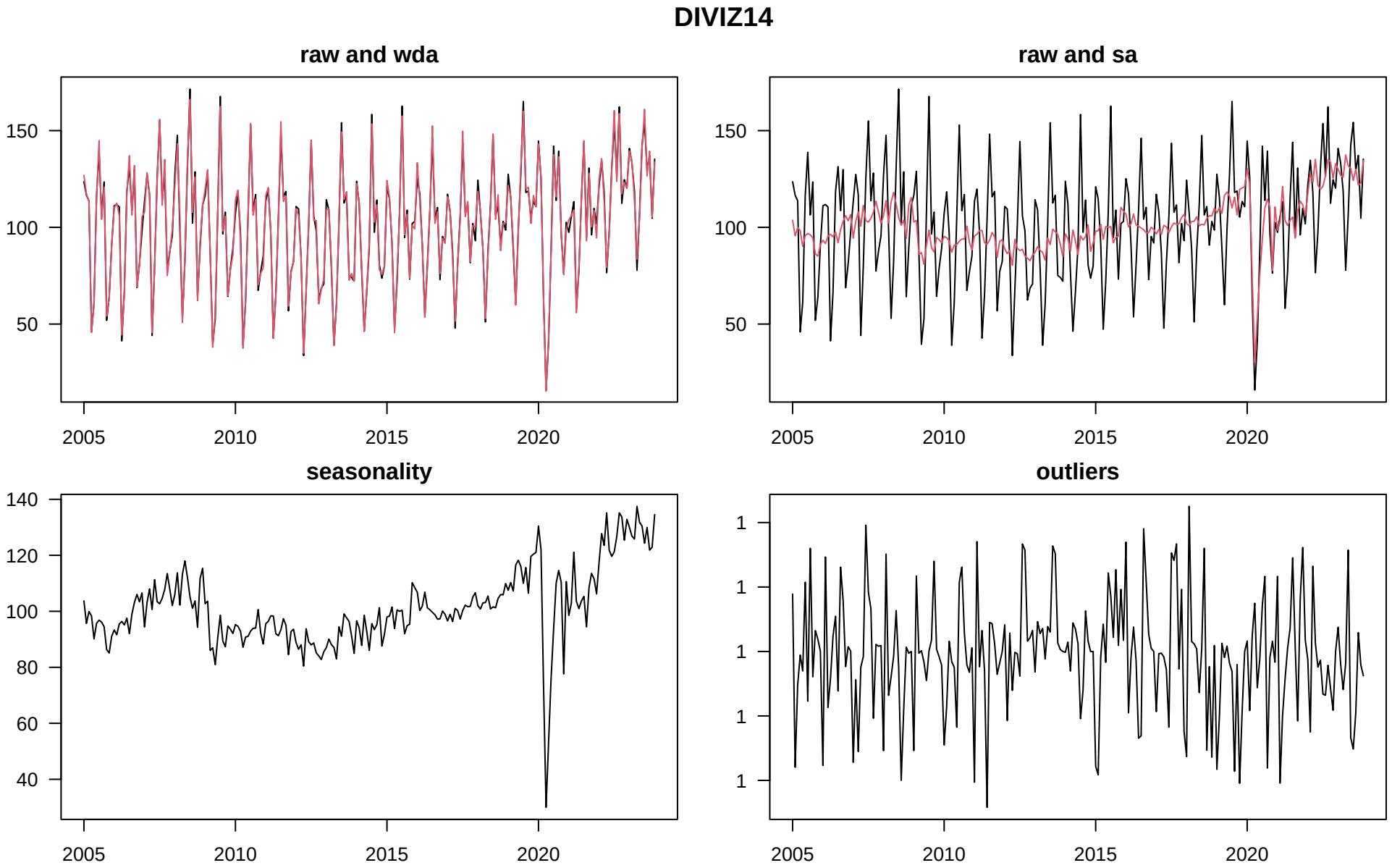
DIVIZ14
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raw and sa
seasonality
outliers
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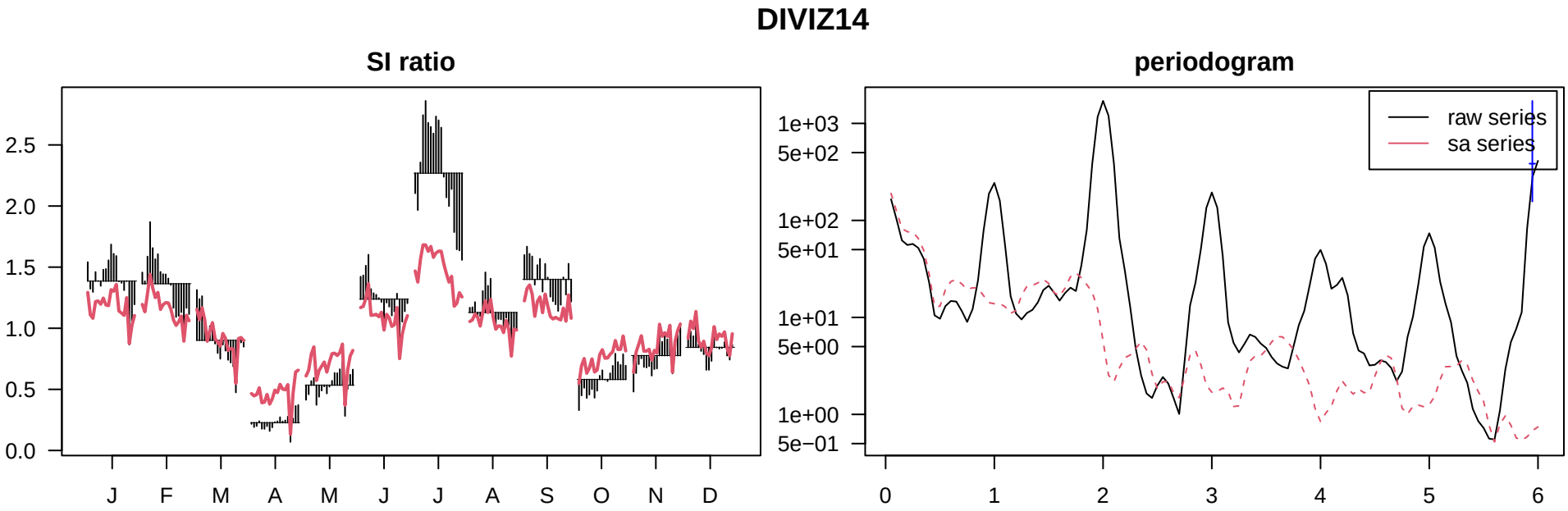
DIVIZ14
SI ratio
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0.0
J
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M
J
J
A
S
O
N
D
1e+03
5e+02
1e+02
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5e−01
raw series
sa series
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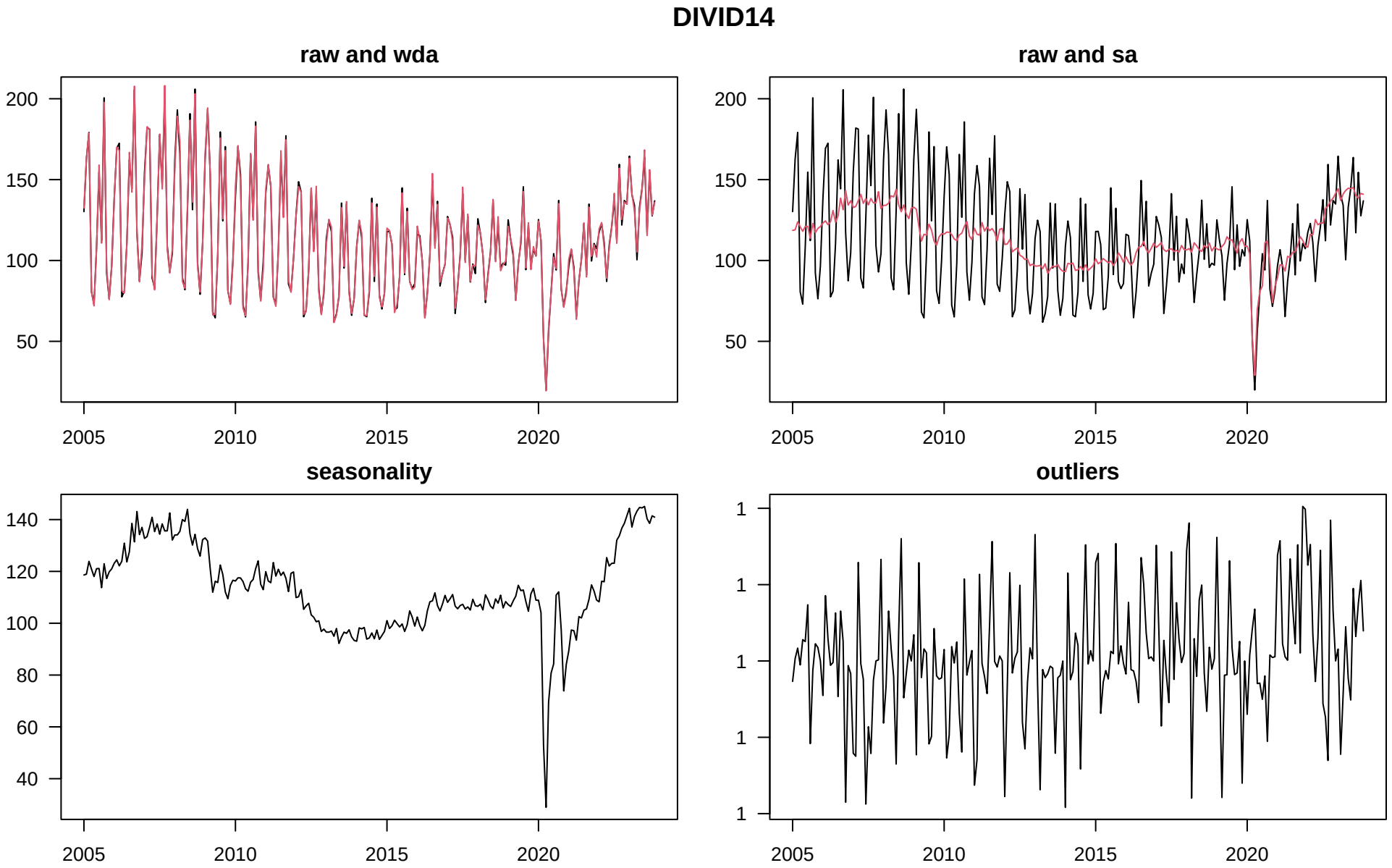
DIVID14
raw and wda
raw and sa
seasonality
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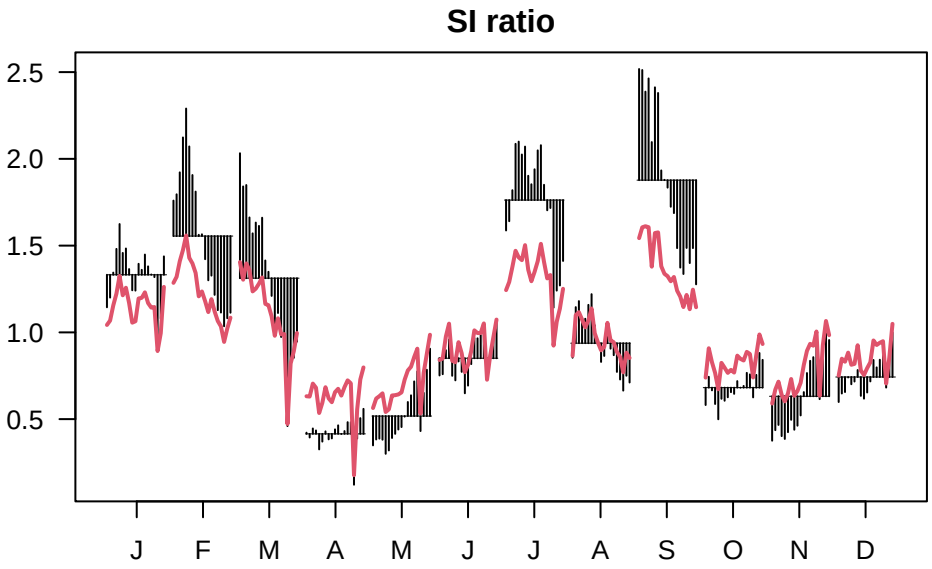
2020

DIVID14


SI ratio
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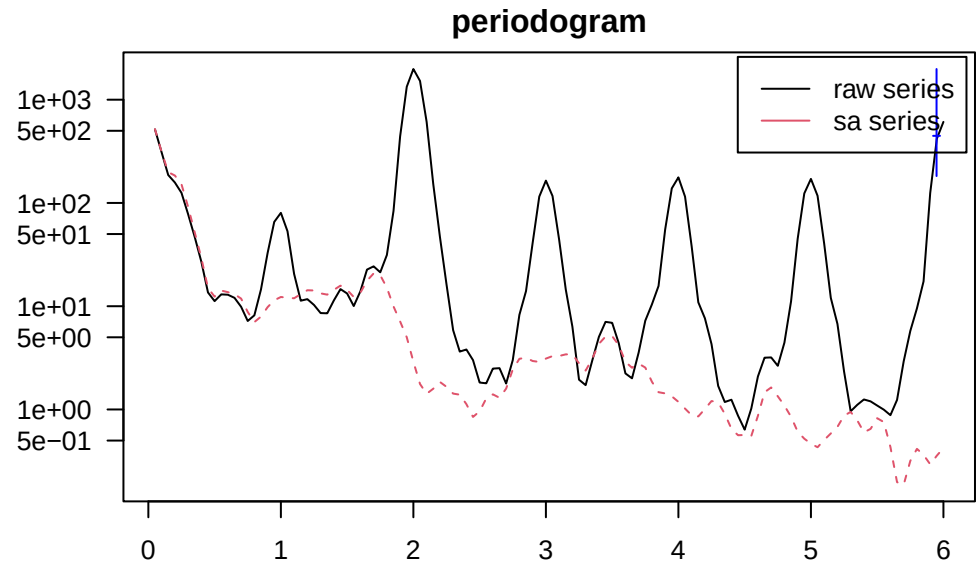
periodogram
raw series
sa series
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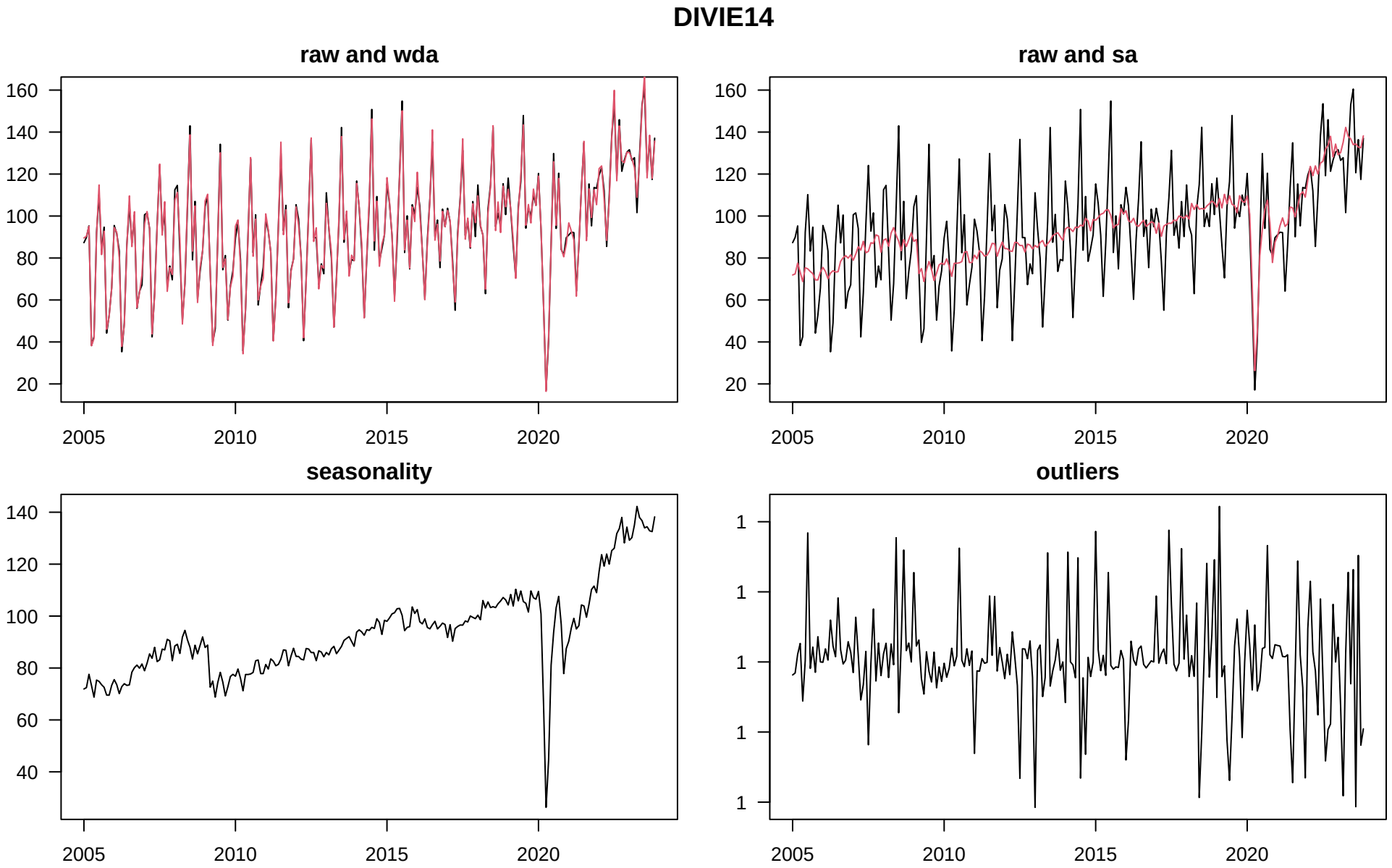
DIVIE14
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raw and sa
seasonality
outliers
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20
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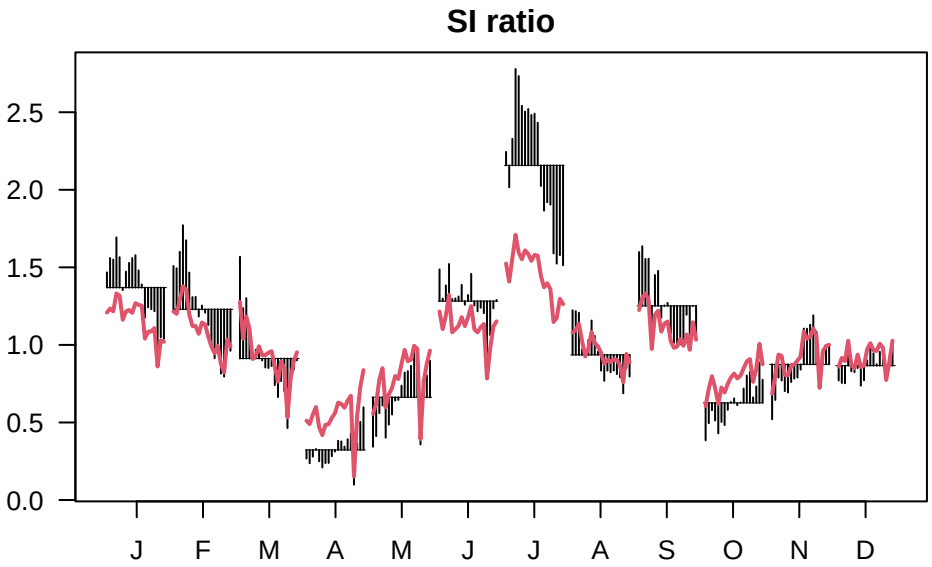
2010
2015
2020
1

DIVIE14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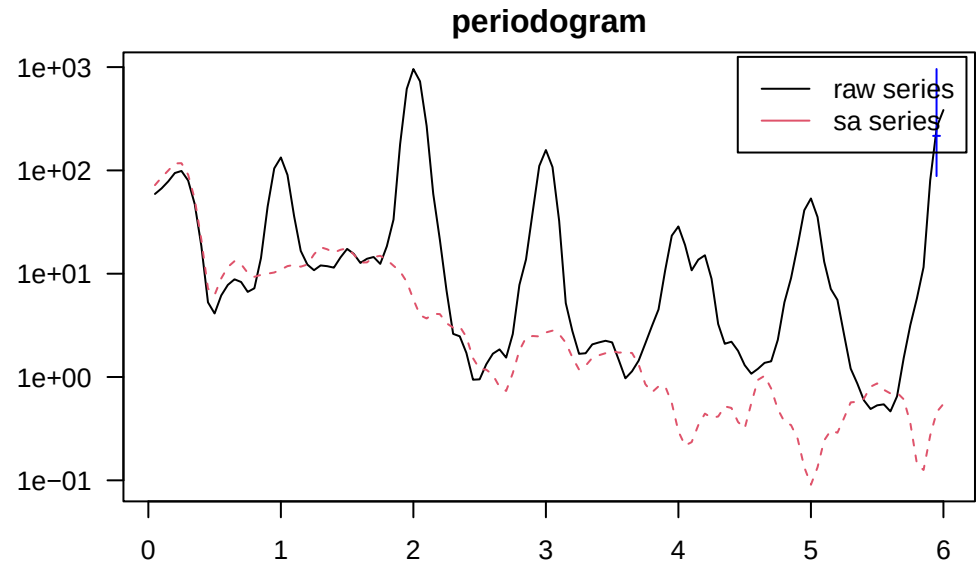
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1e+01
1e+00
1e−01
raw series
sa series
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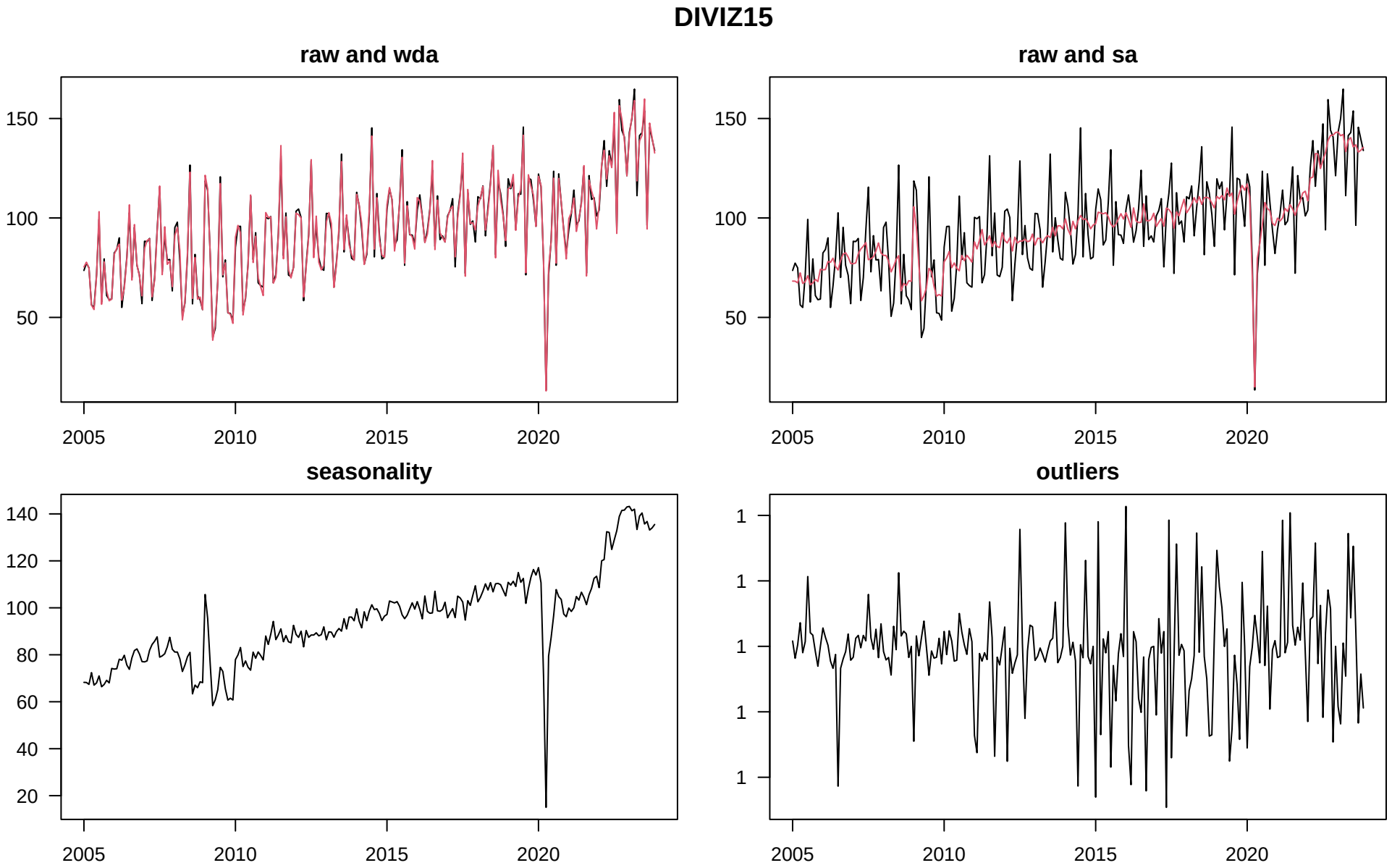
DIVIZ15
raw and wda
raw and sa
seasonality
outliers
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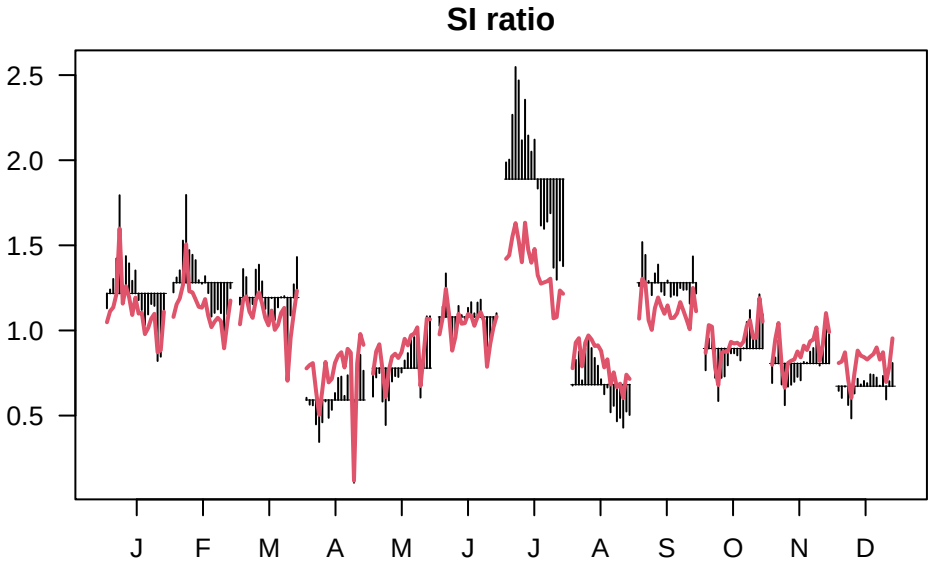
2005
2010
2015
2020

DIVIZ15


SI ratio
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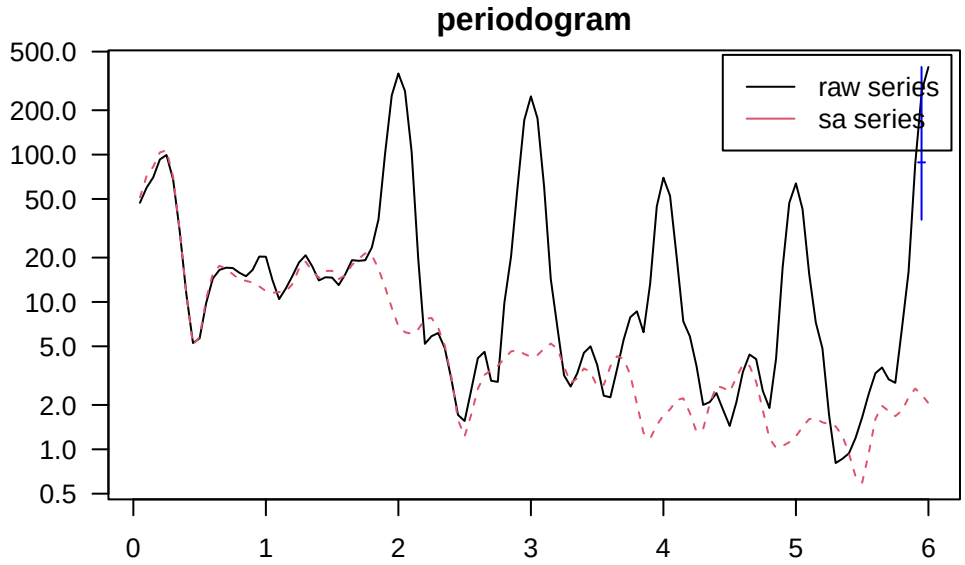
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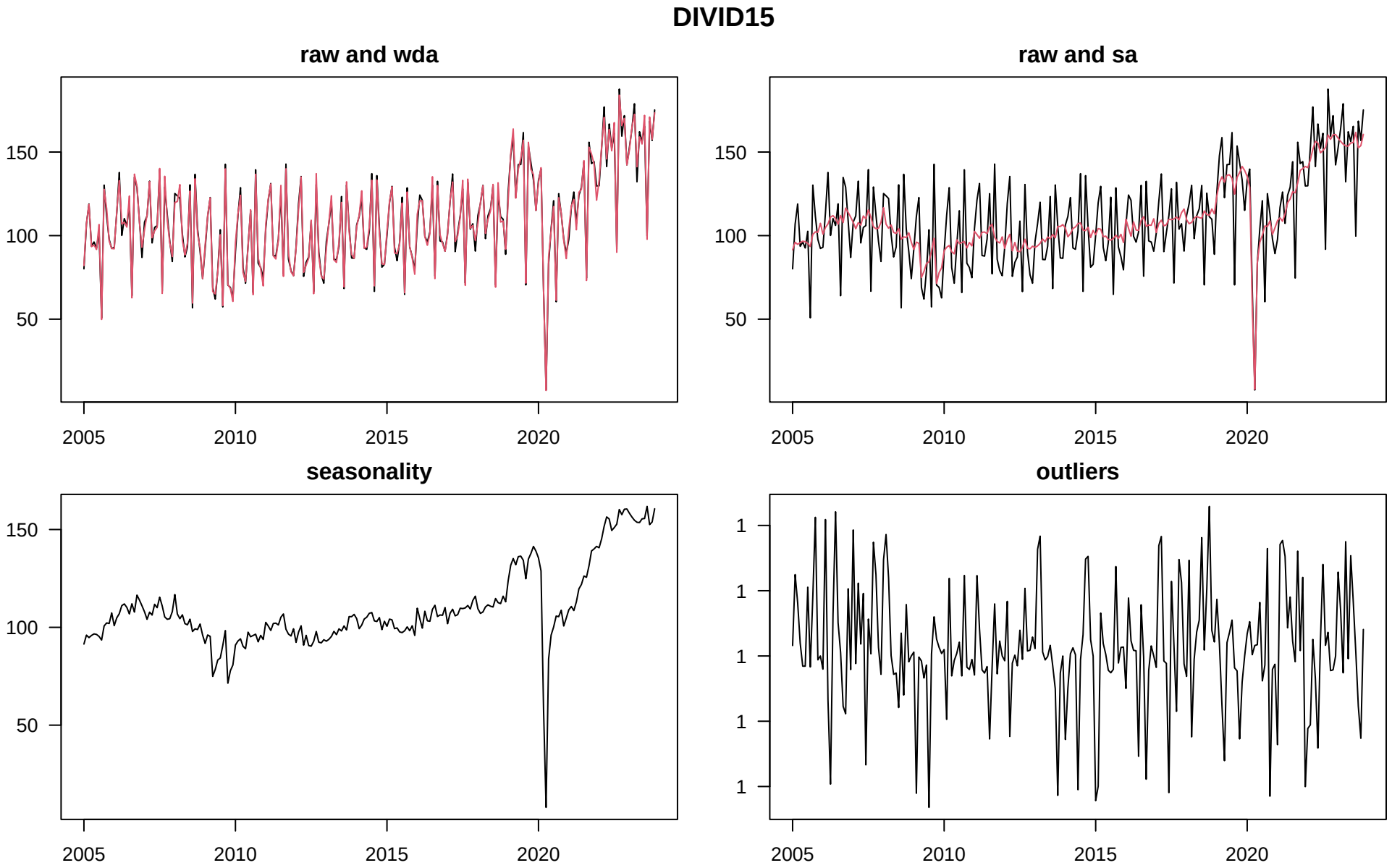
6
raw series
sa series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raw and sa
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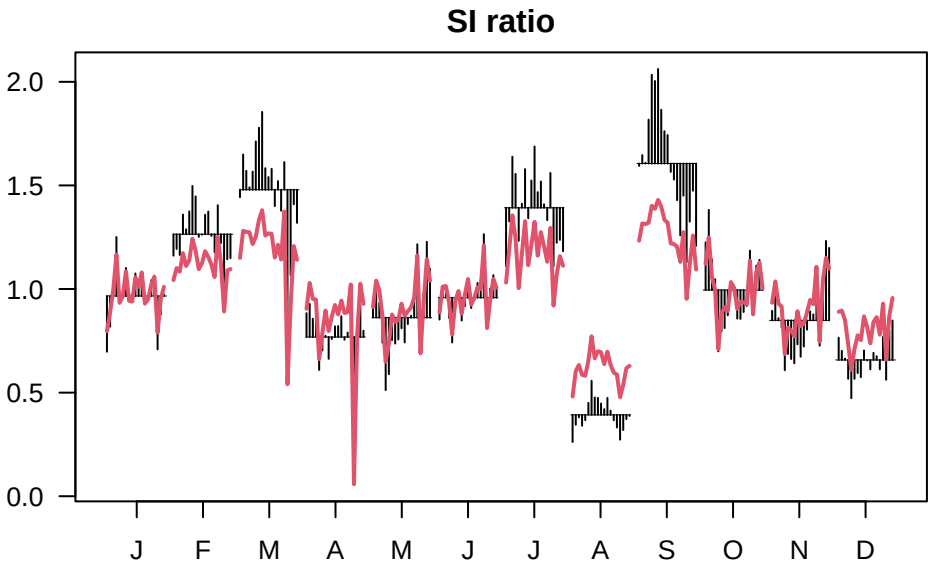
2010
2015
2020

DIVID15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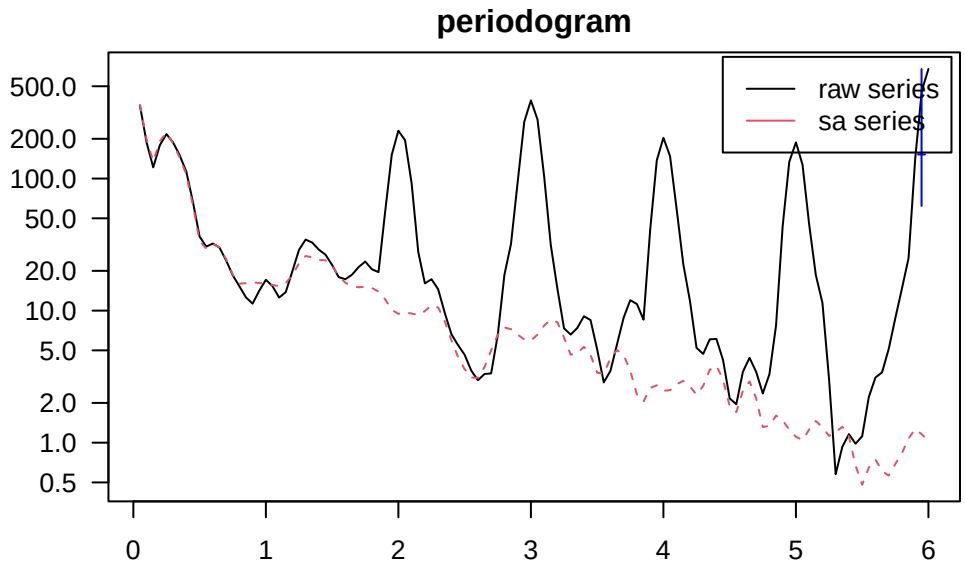
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sa series
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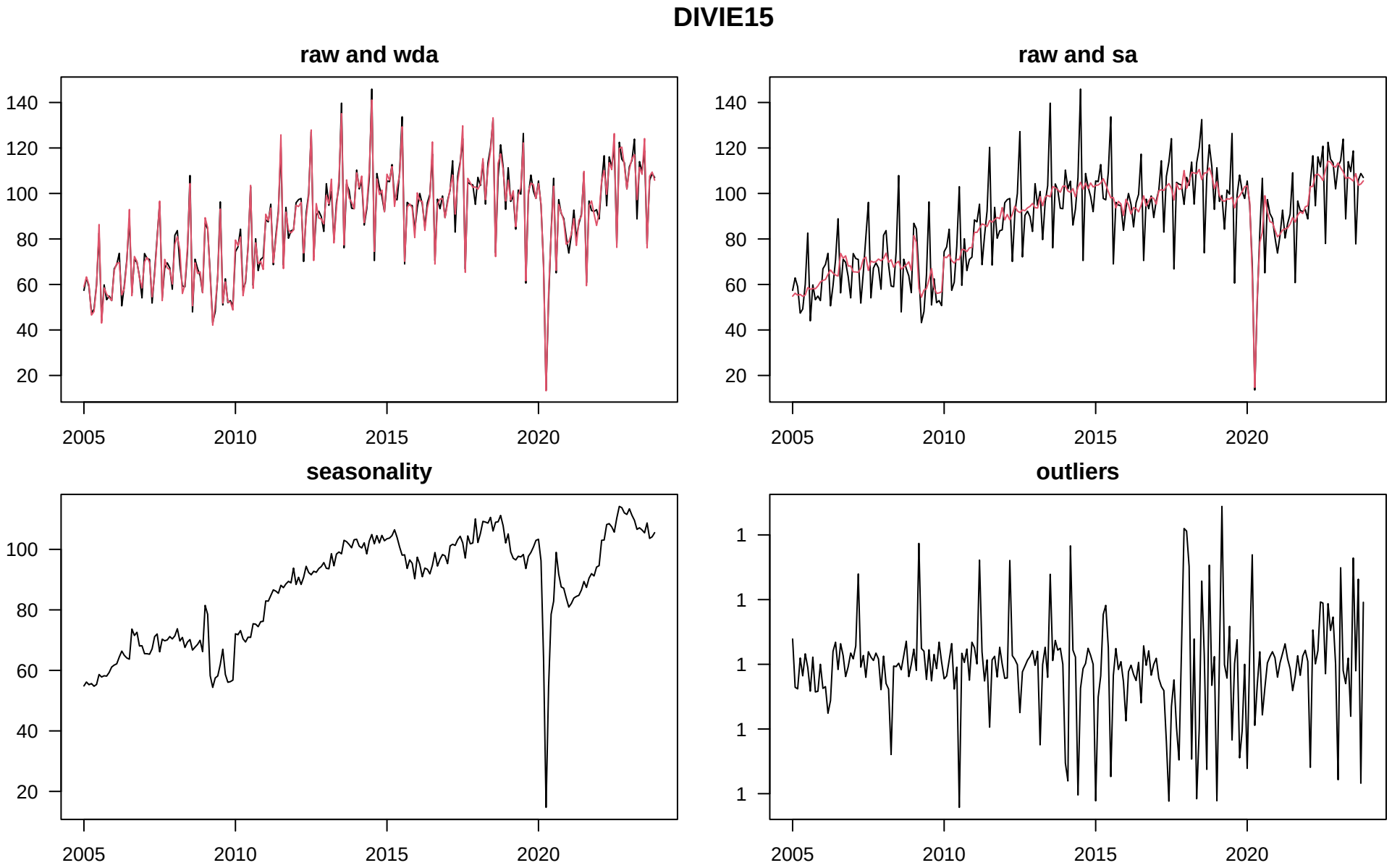
DIVIE15
raw and wda
raw and sa
seasonality
outliers
140
120
100
80
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40
20
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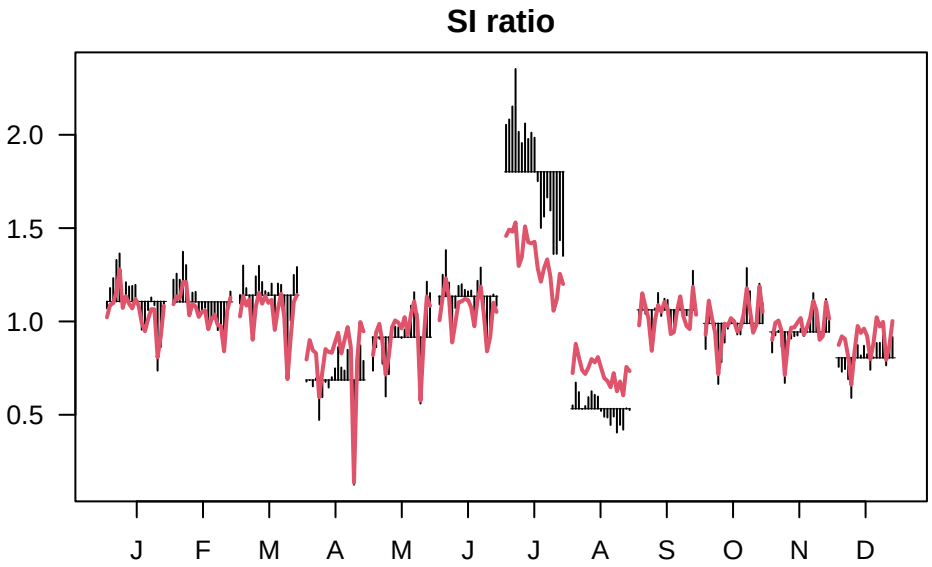
2005
2010
2015
2020

DIVIE15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1.0
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J
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M
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S
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N
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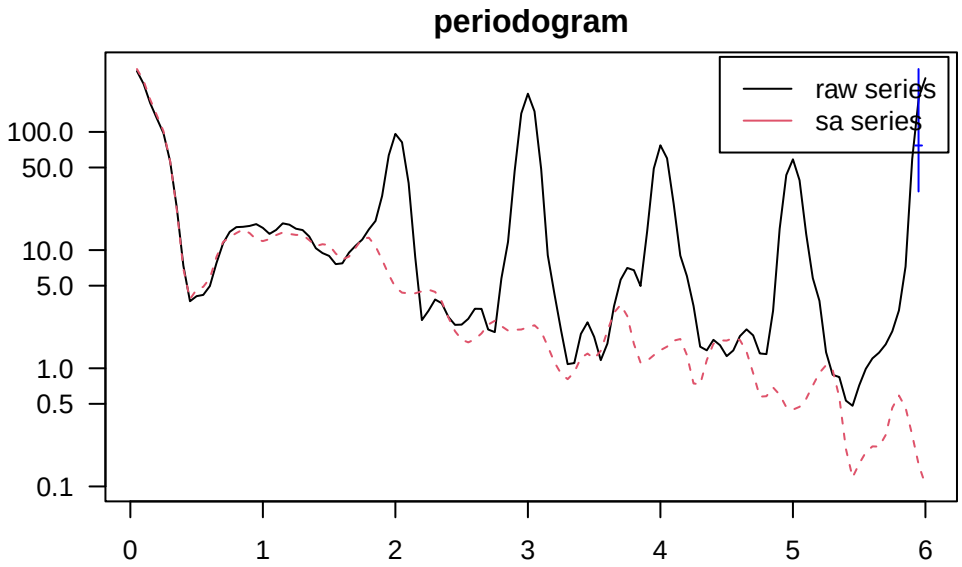
periodogram
raw series
sa series
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1.0
0.5
0.1
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5
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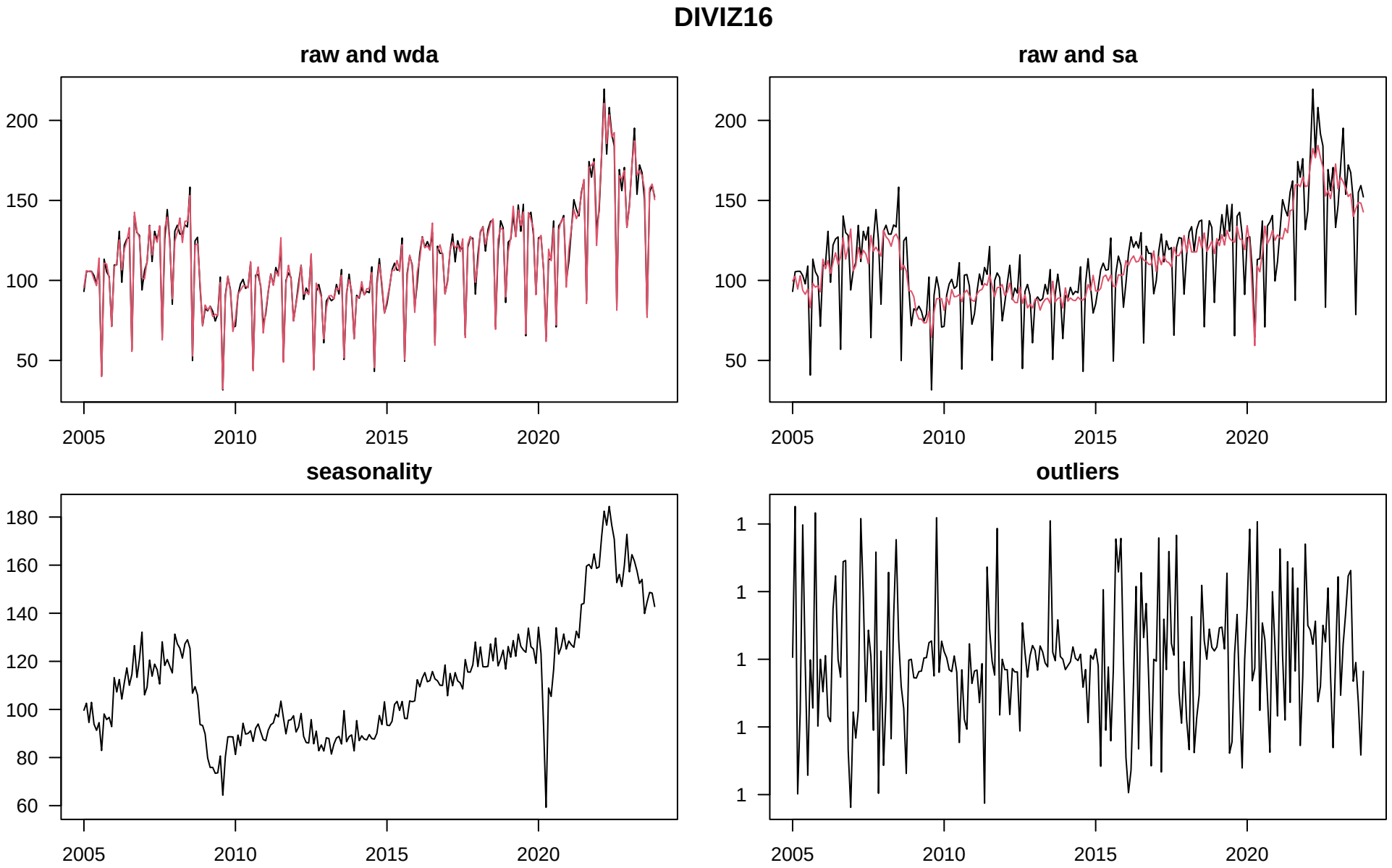
DIVIZ16
raw and wda
raw and sa
seasonality
outliers
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150
100
50
180
160
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120
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80
60
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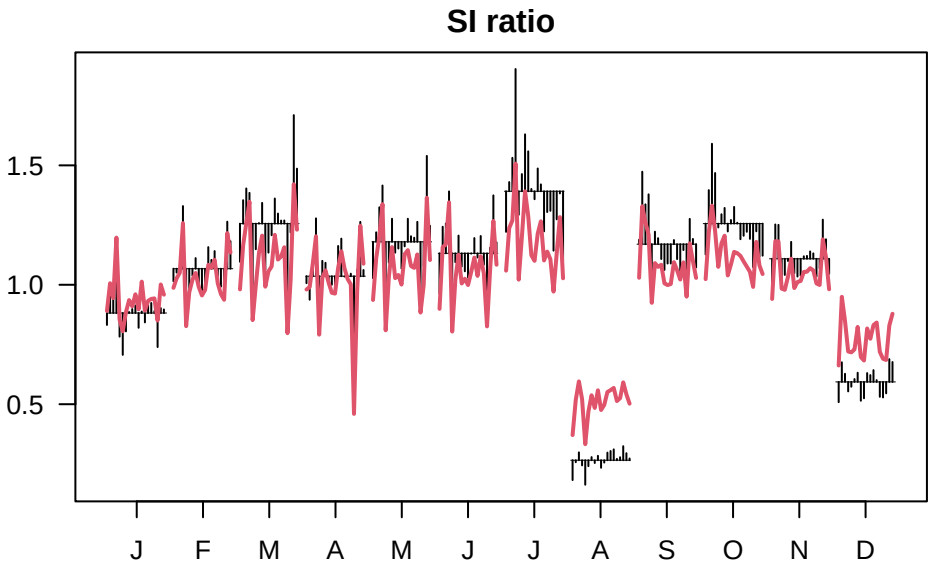
2005
2010
2015
2020

DIVIZ16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N
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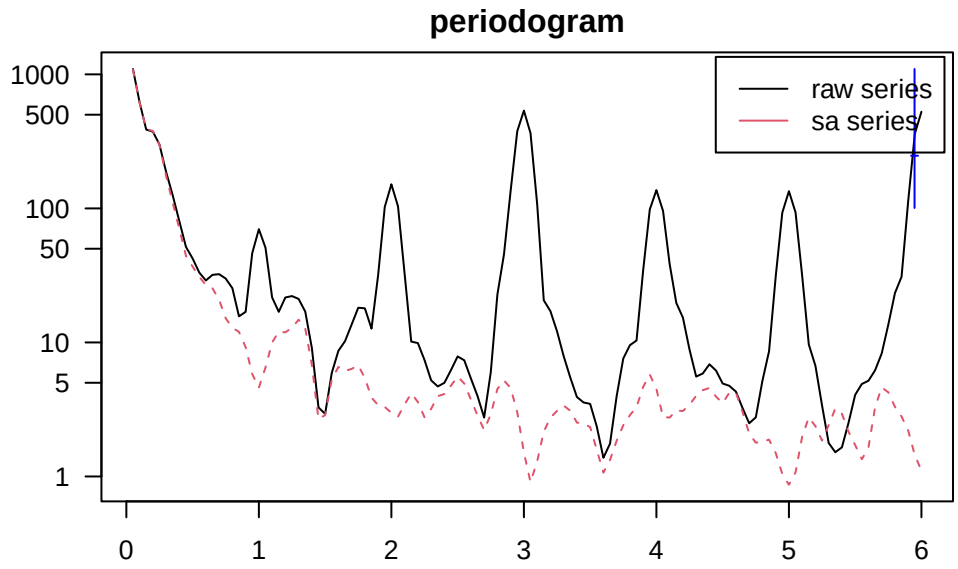
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1000
500
100
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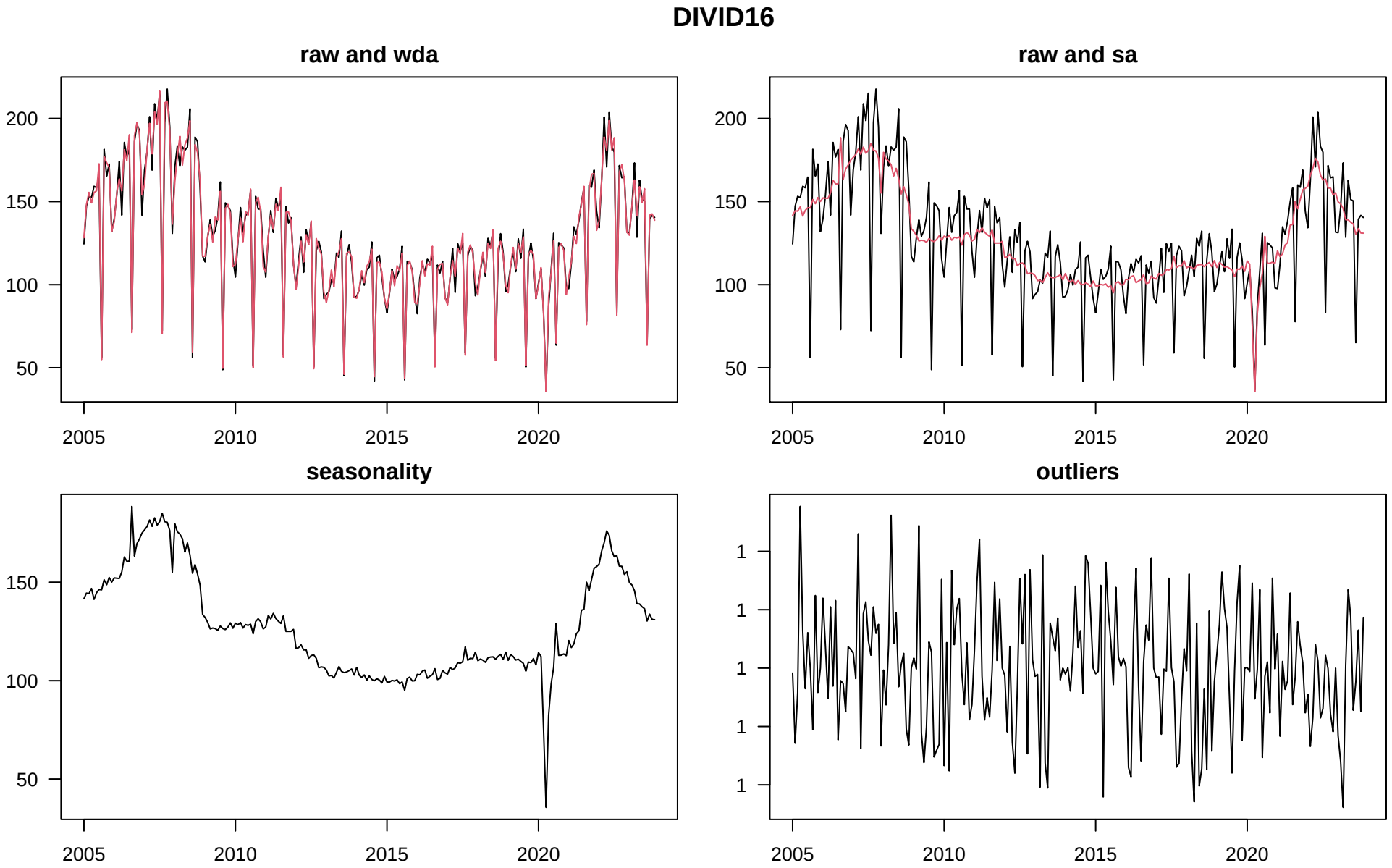
10
5
1
0
1
2
3
4
5
6
raw series
sa series


DIVID16
raw and wda
raw and sa
seasonality
outliers
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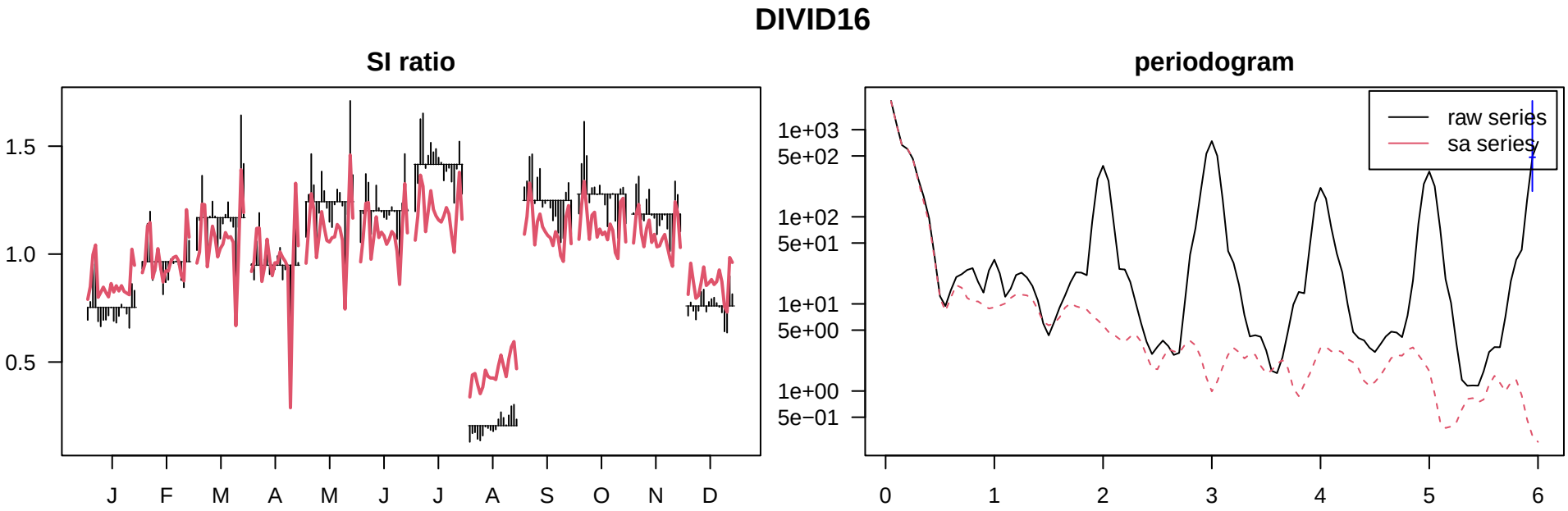
2005
2010
2015
2020


DIVID16
SI ratio
1.5
1.0
0.5
J
F
M
A
M
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J
A
S
O
N
D
periodogram
raw series
sa series
1e+03
5e+02
1e+02
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1e+01
5e+00
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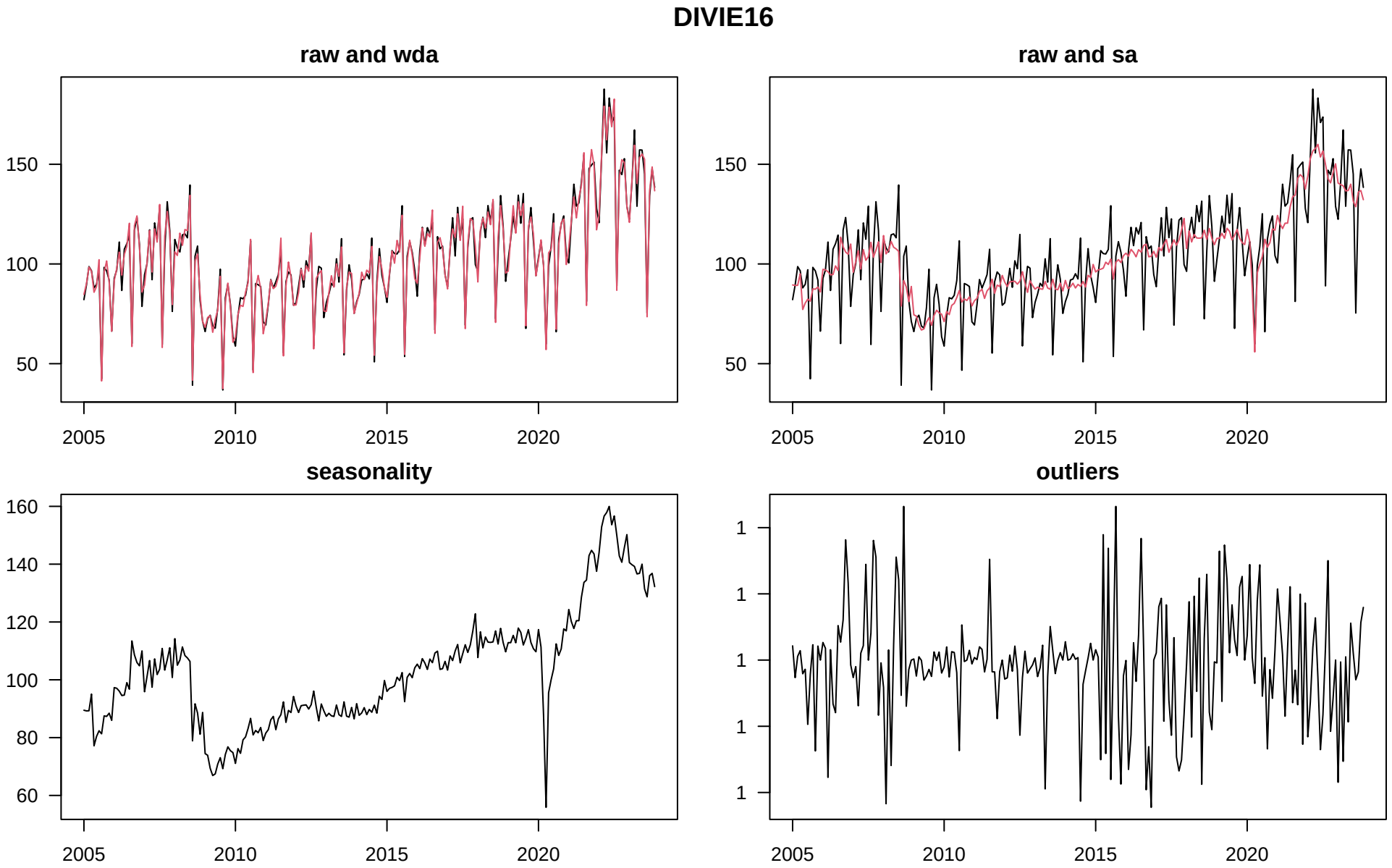
DIVIE16
raw and wda
raw and sa
seasonality
outliers
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100
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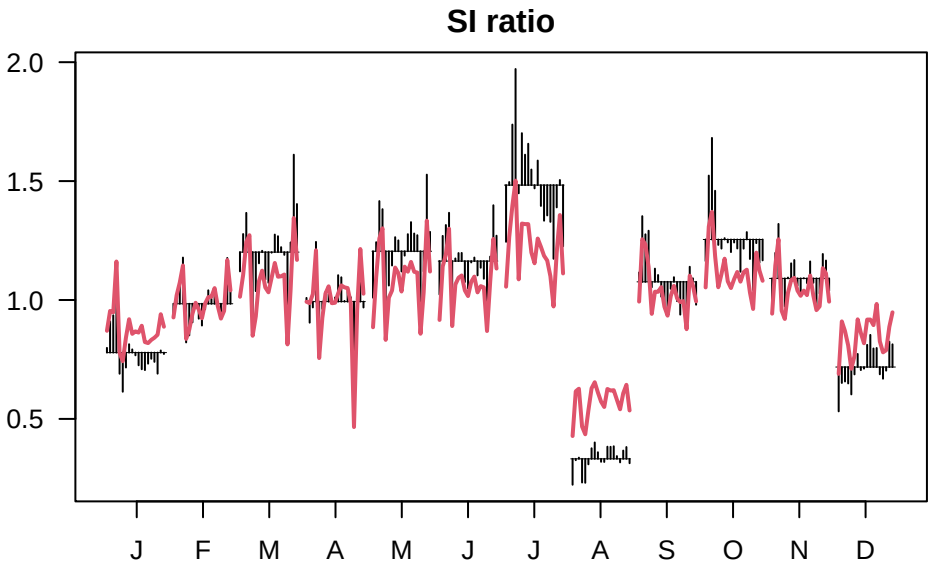
80
60
1
2005
2010
2015
2020

DIVIE16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1.0
0.5
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M
J
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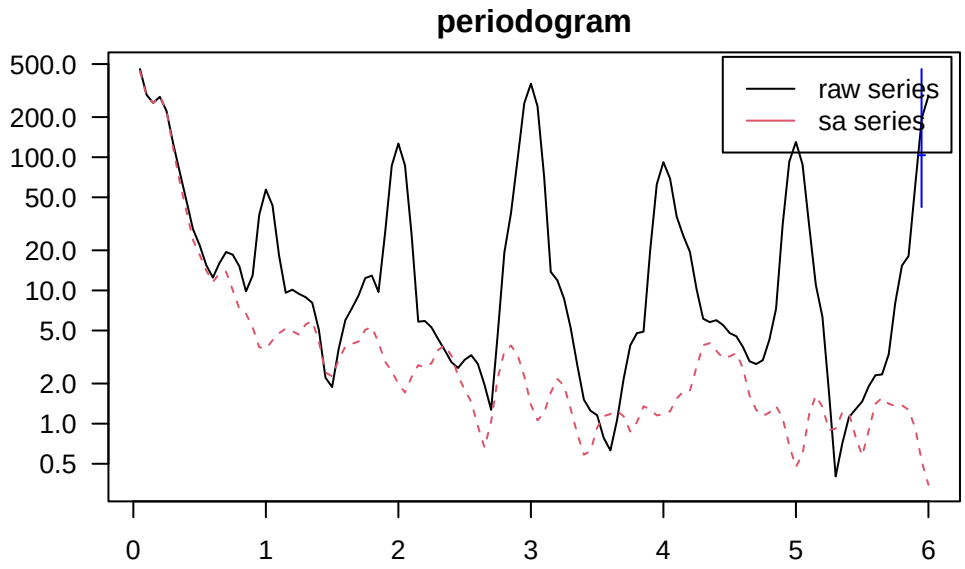
S
O
N
D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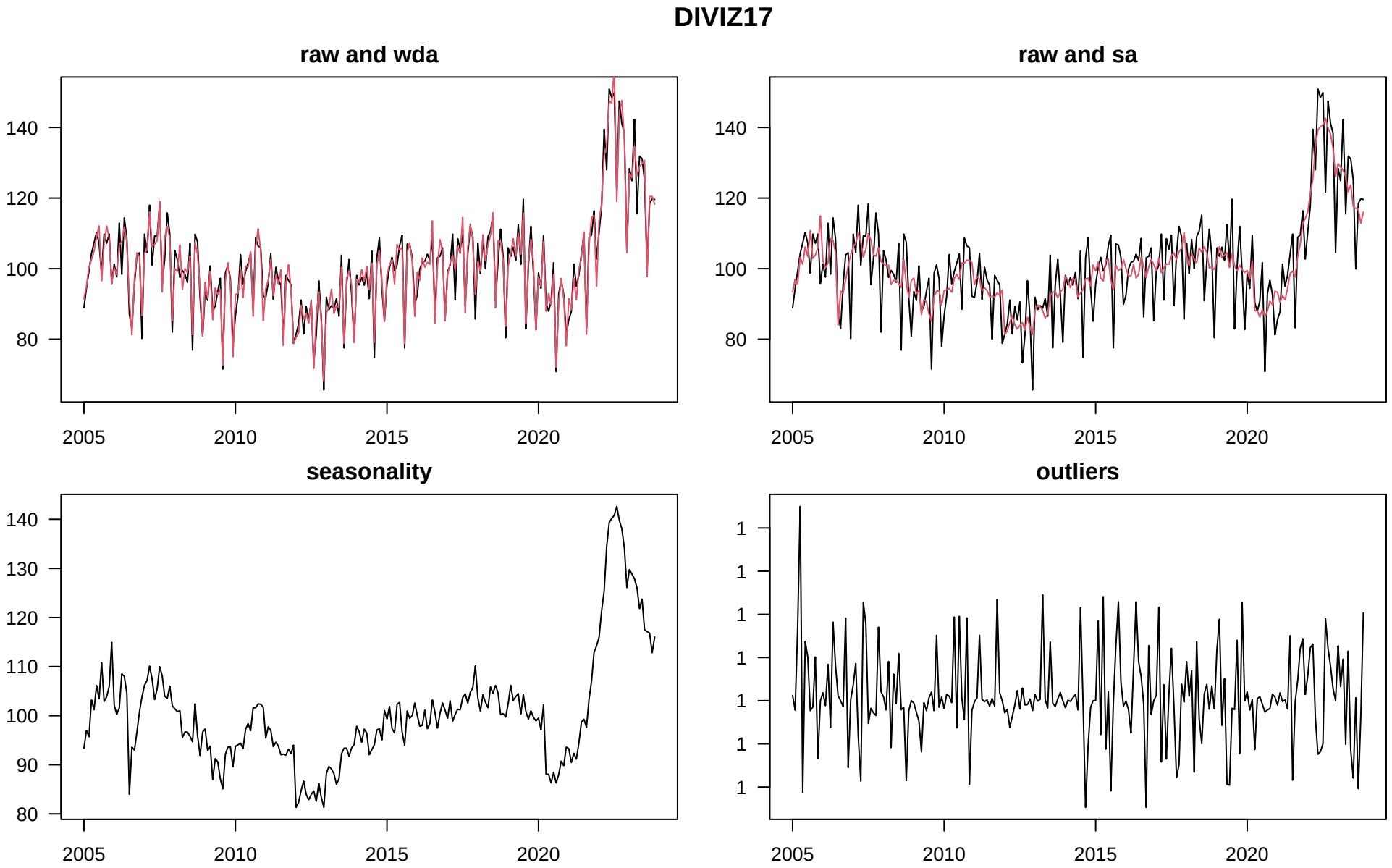
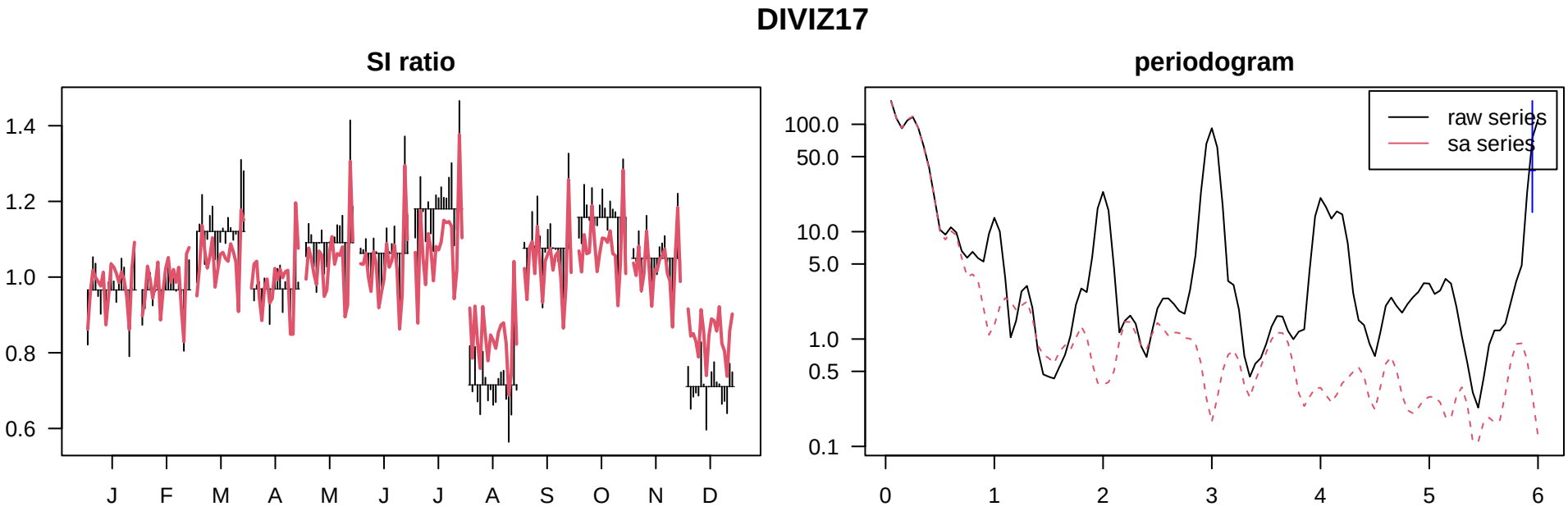
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.5
0
1
2
3
4
5
6
raw series
sa series


DIVIZ17
raw and wda
raw and sa
seasonality
outliers
140
120
100
80
130
110
90
1
2005
2010
2015
2020


DIVIZ17
SI ratio
1.4
1.2
1.0
0.8
0.6
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
raw series
sa series
100.0
50.0
10.0
5.0
1.0
0.5
0.1
0
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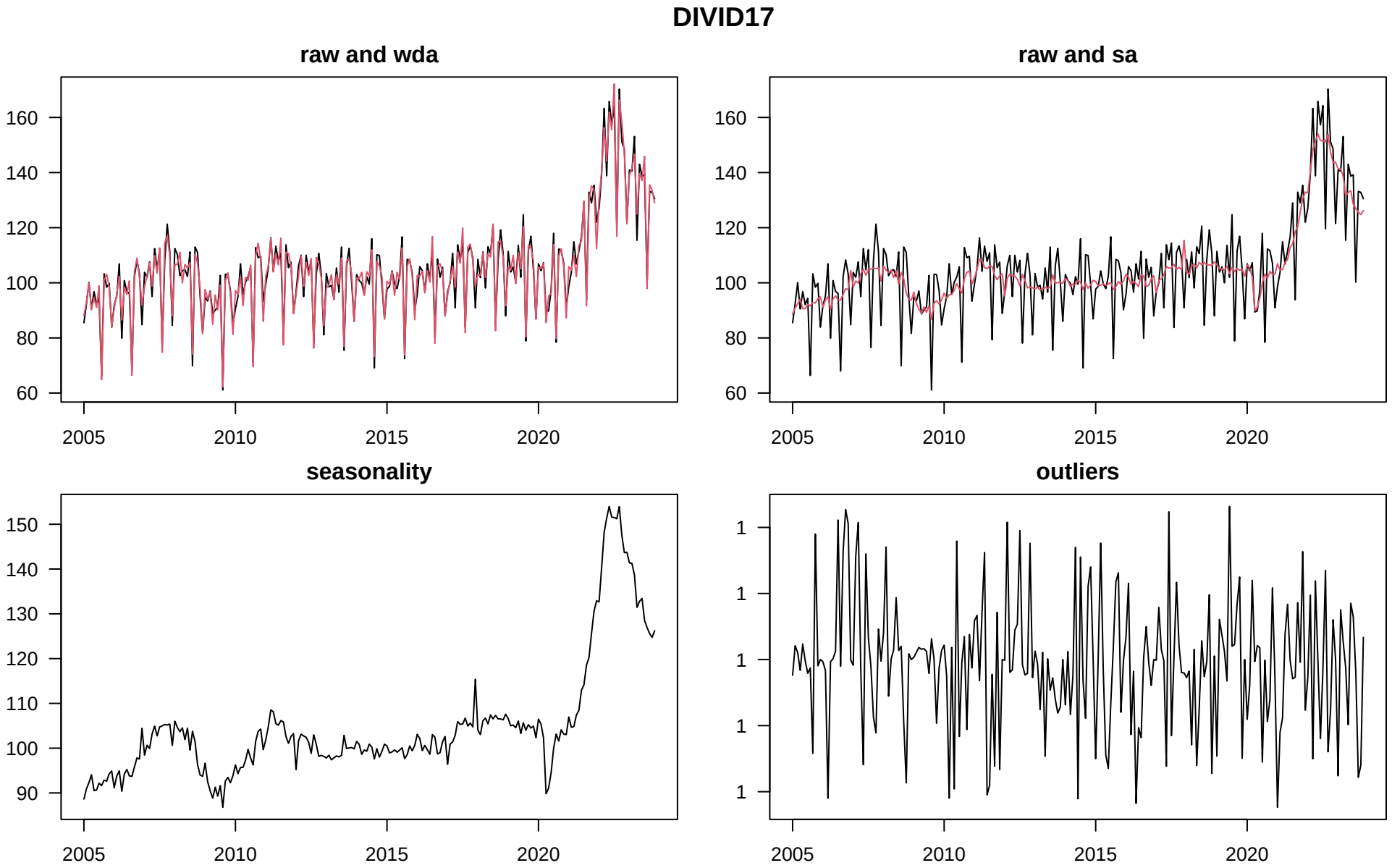
3
4
5
6


DIVID17
raw and wda
raw and sa
seasonality
outliers
160
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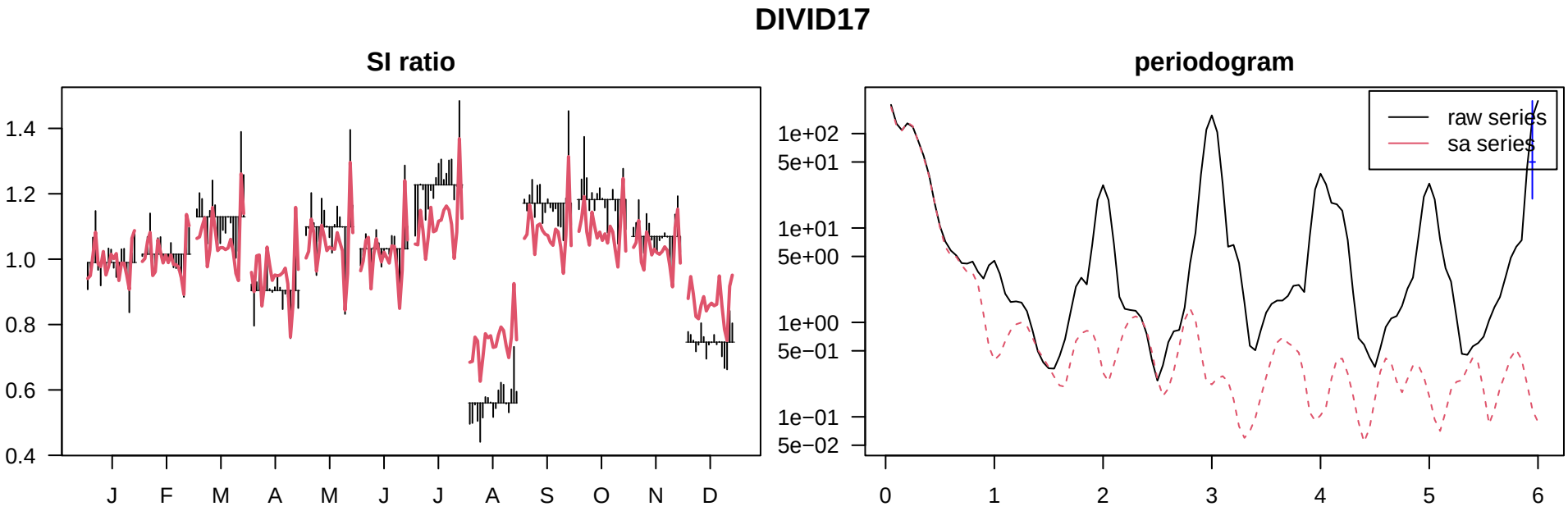
130
110
90
1
2005
2010
2015
2020


DIVID17
SI ratio
1.4
1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
raw series
sa series
1e+02
5e+01
1e+01
5e+00
1e+00
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1e−01
5e−02
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3
4
5
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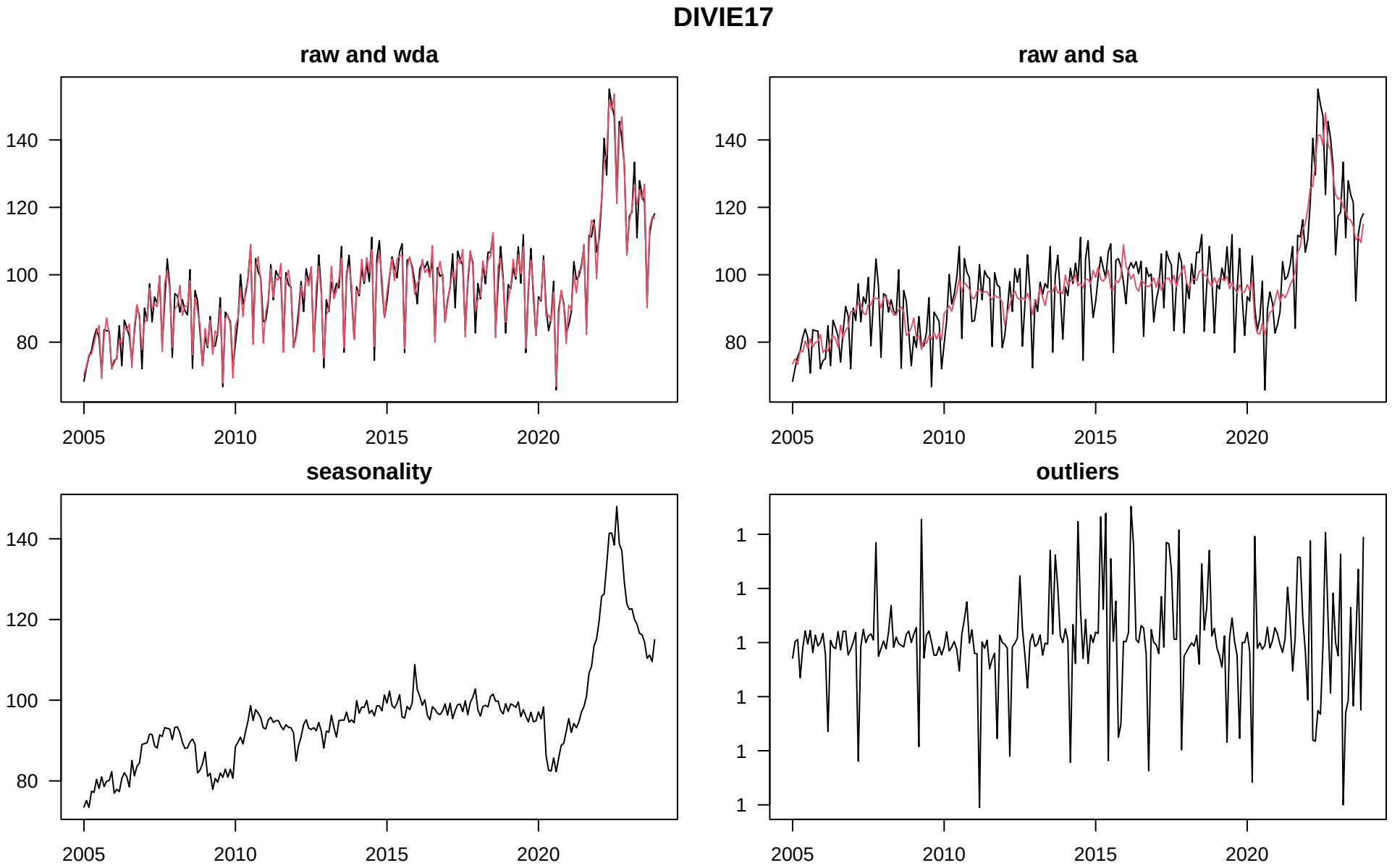
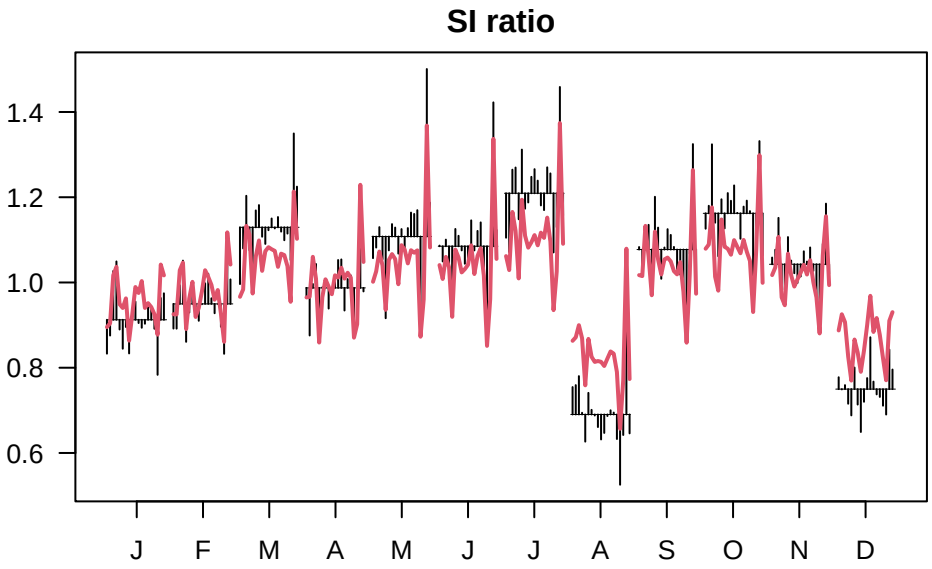

DIVIE17
raw and wda
raw and sa
seasonality
outliers
140
120
100
80
1
2005
2010
2015
2020

DIVIE17


SI ratio
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1.2
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0.8
0.6
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F
M
A
M
J
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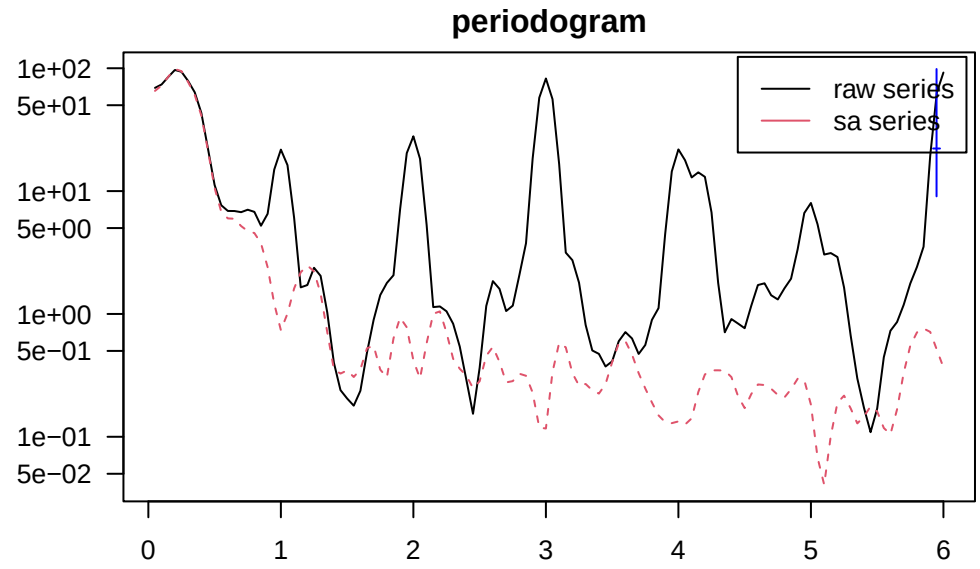
N
D


periodogram
1e+02
5e+01
1e+01
5e+00
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5e−01
1e−01
5e−02
raw series
sa series
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3
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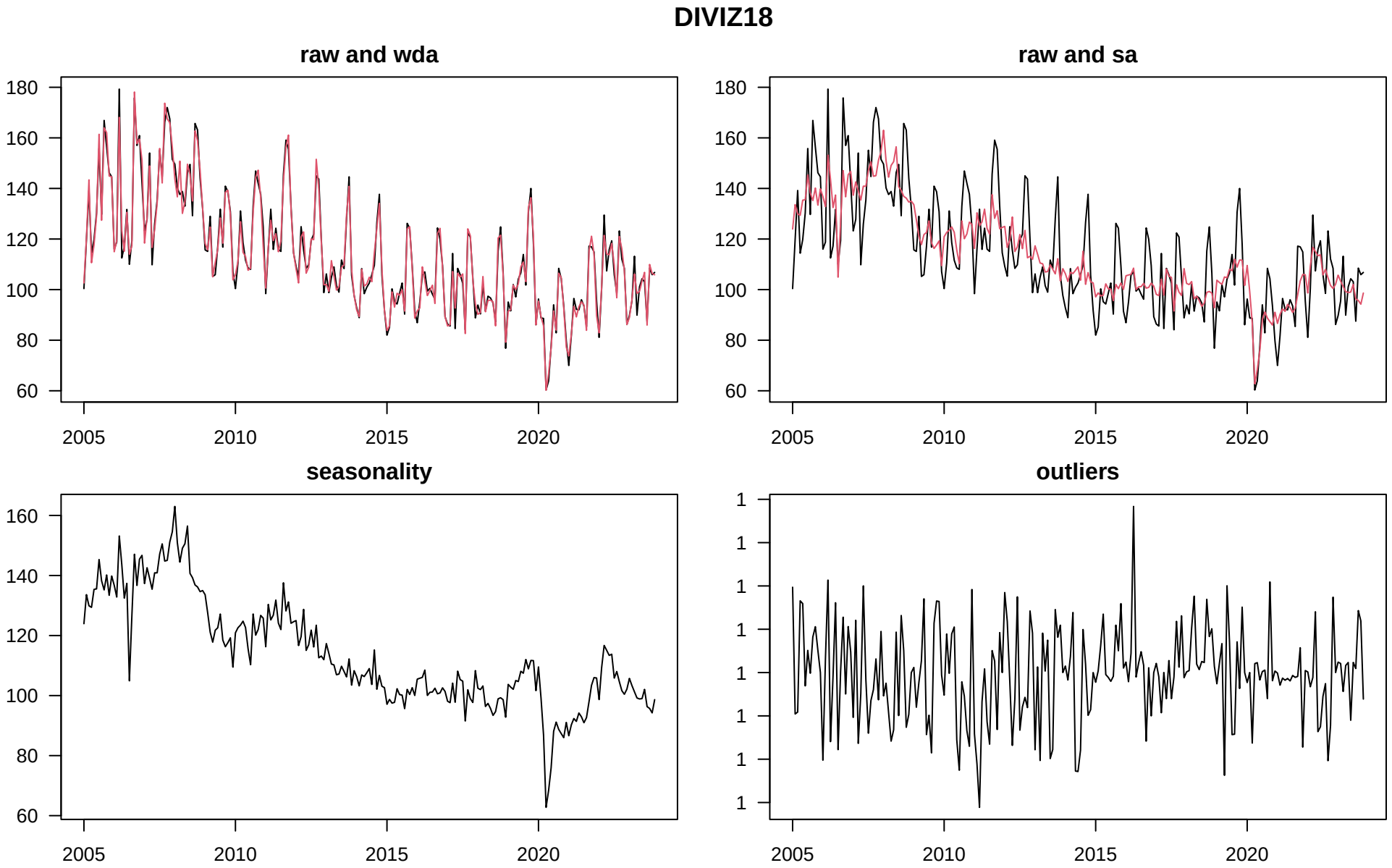
5
6


DIVIZ18
raw and wda
raw and sa
seasonality
outliers
180
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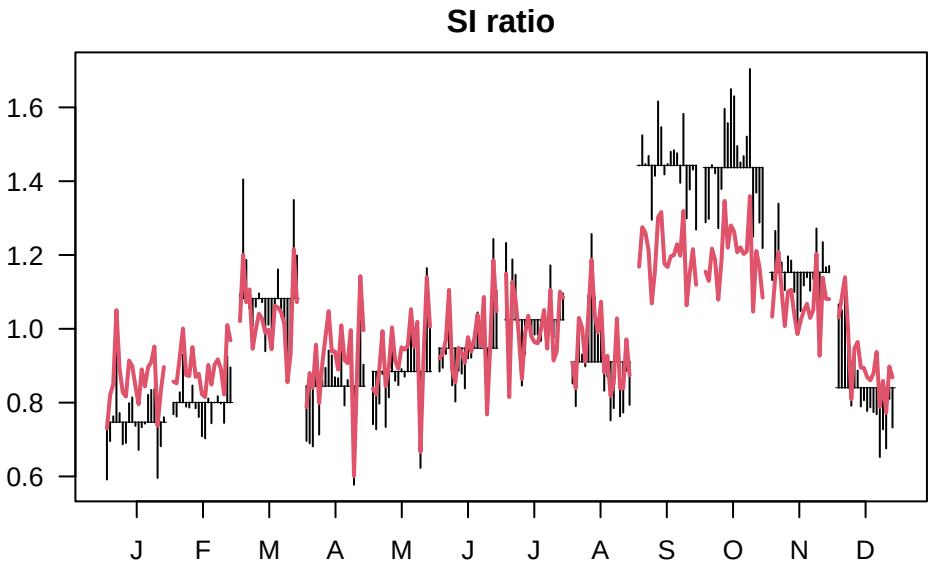
60
2005
2010
2015
2020
1

DIVIZ18


SI ratio
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0.6
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M
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M
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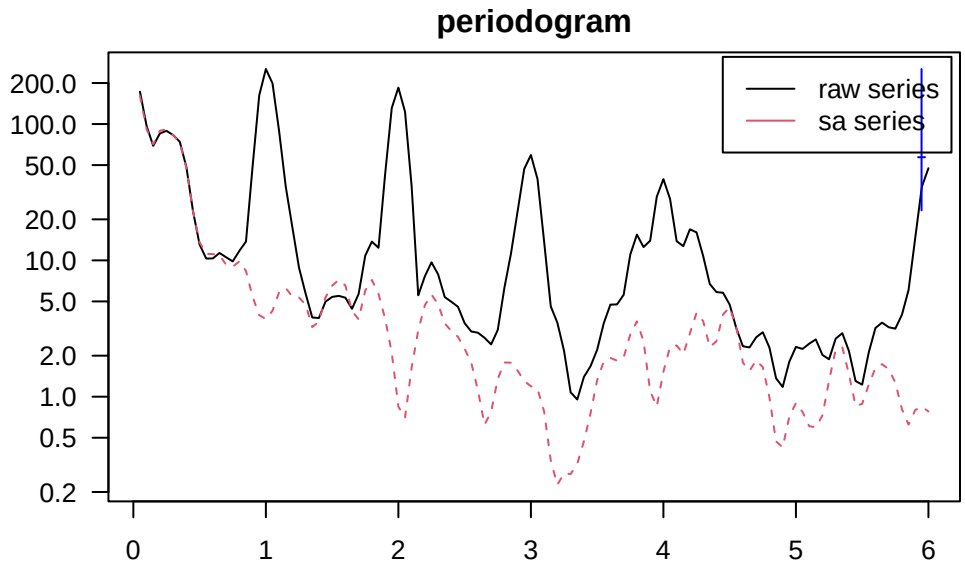
S
O
N
D


periodogram
raw series
sa series
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1.0
0.5
0.2
0
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3
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5
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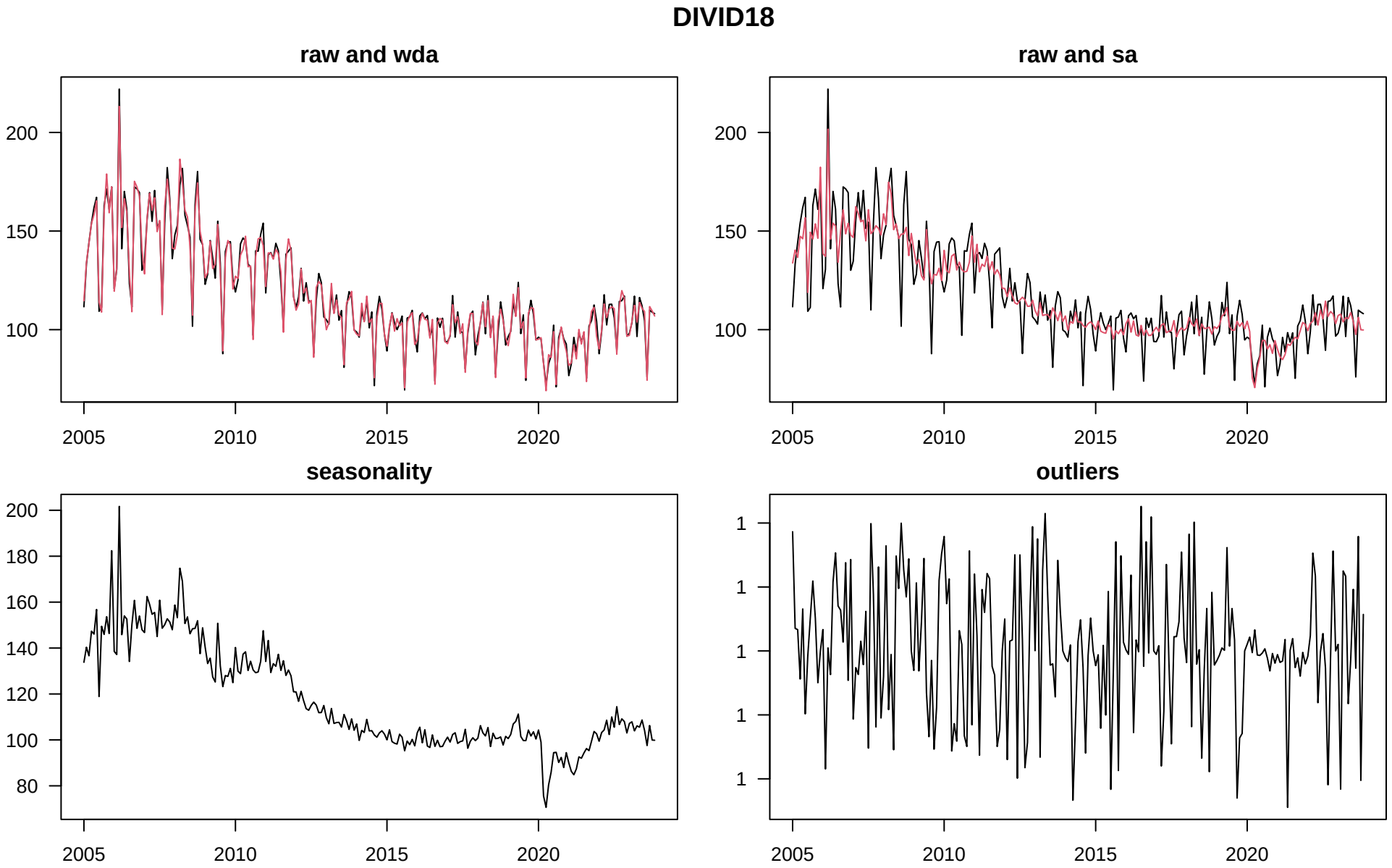
DIVID18
raw and wda
raw and sa
seasonality
outliers
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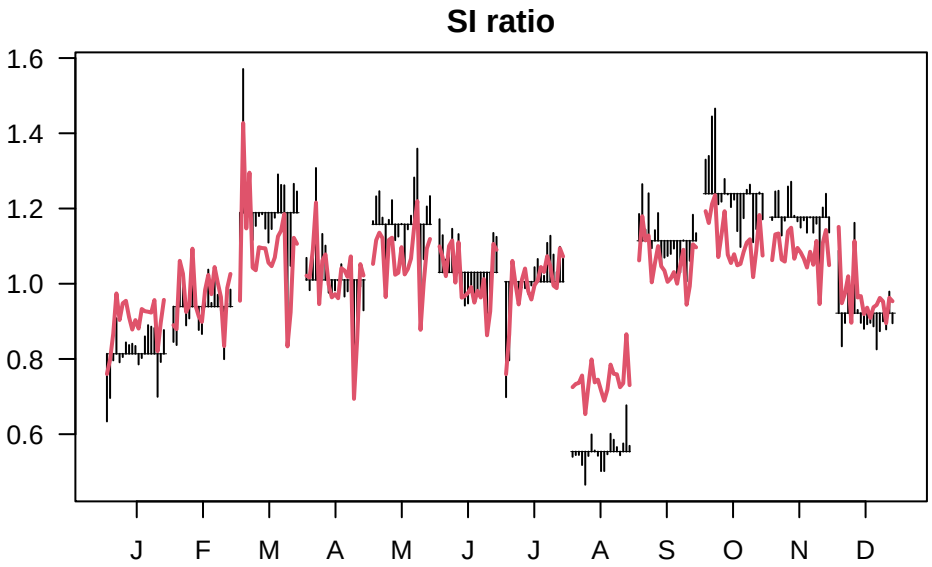
2010
2015
2020

DIVID18


SI ratio
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J
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M
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M
J
J
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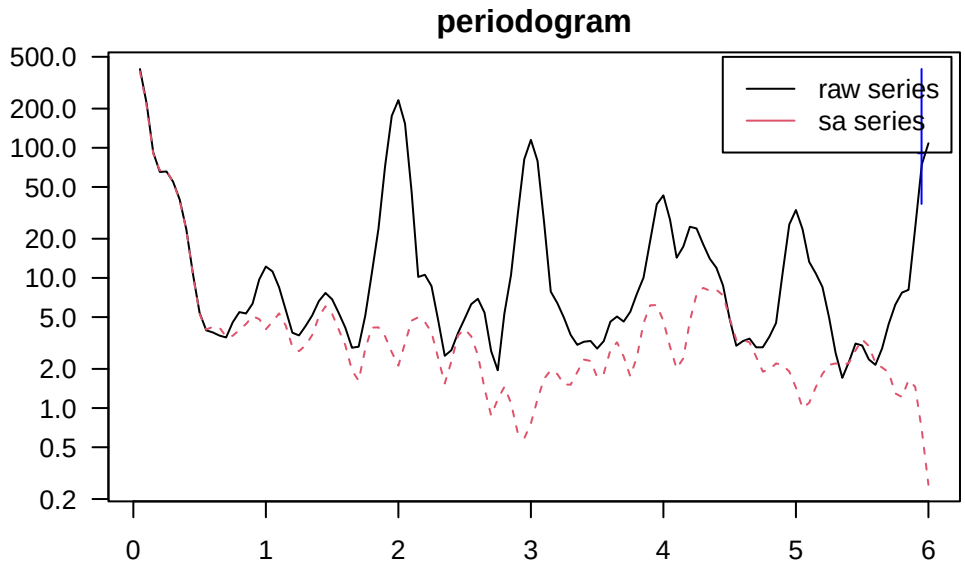
N
D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2
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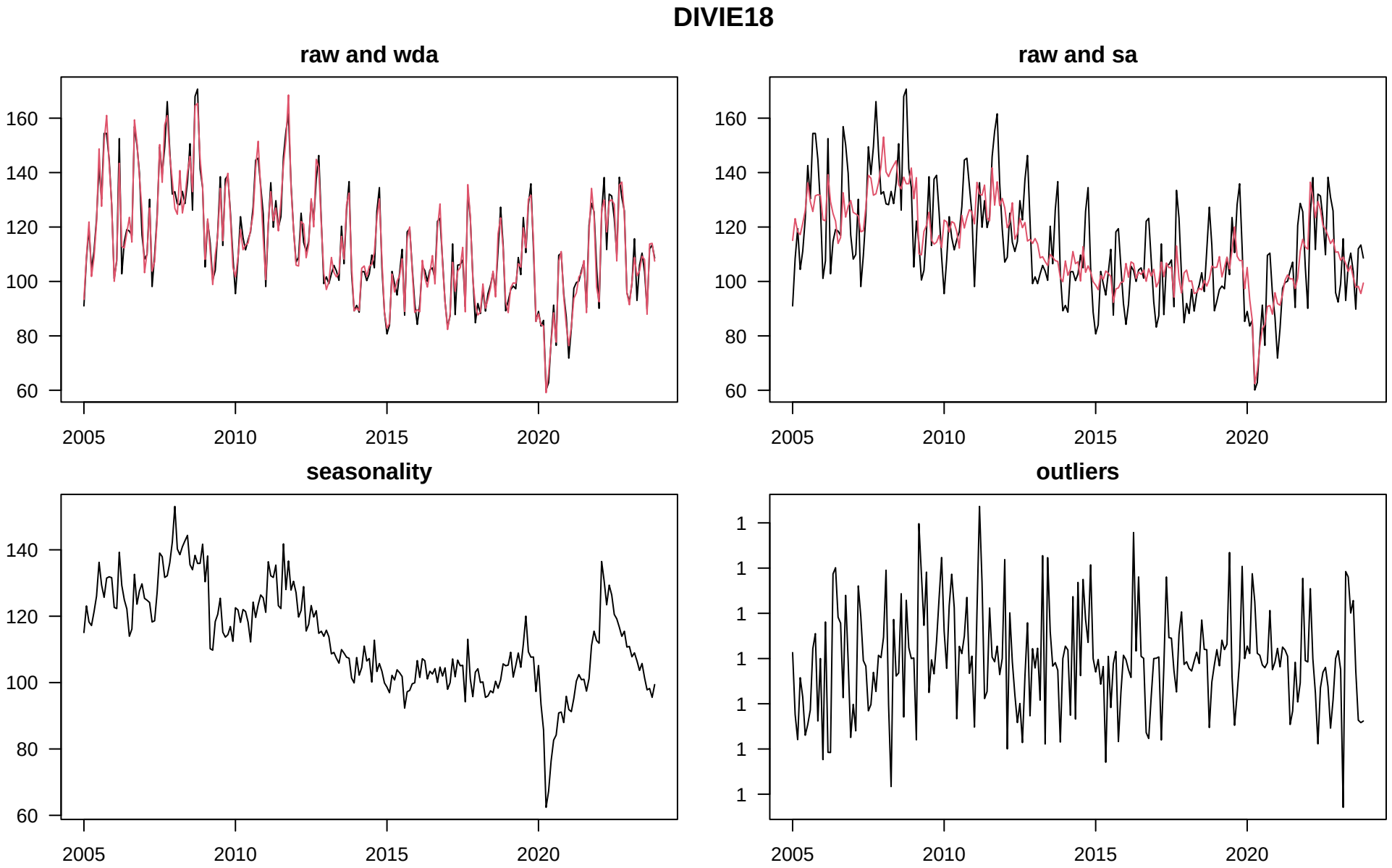
4
5
6
raw series
sa series


DIVIE18
raw and wda
raw and sa
seasonality
outliers
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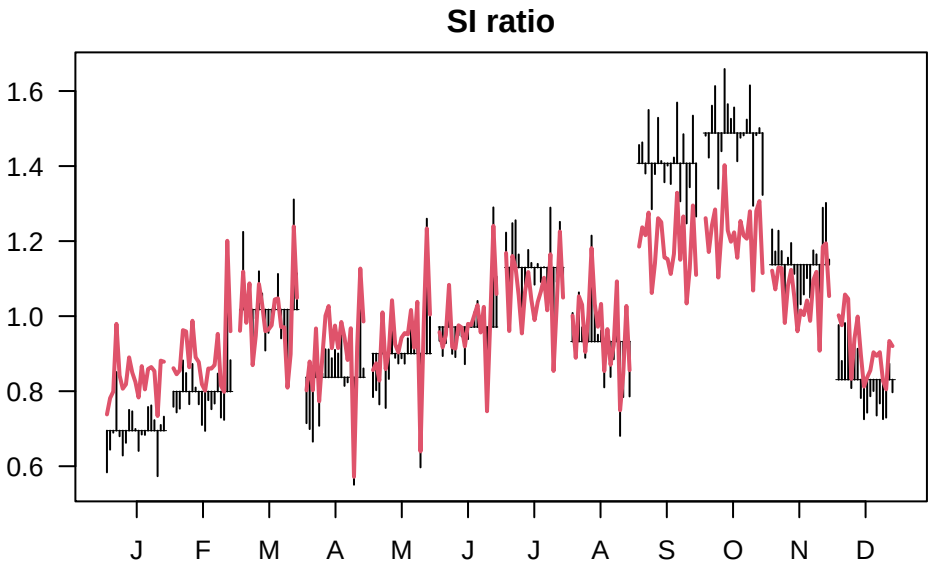
140
120
100
80
60
2005
2010
2015
2020
1

DIVIE18


SI ratio
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J
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M
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M
J
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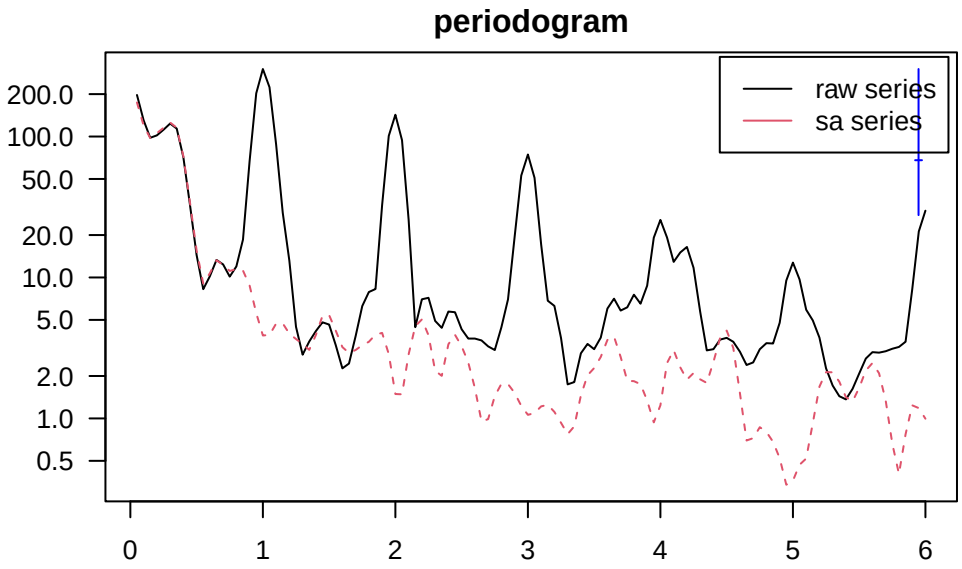
S
O
N
D


periodogram
raw series
sa series
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1.0
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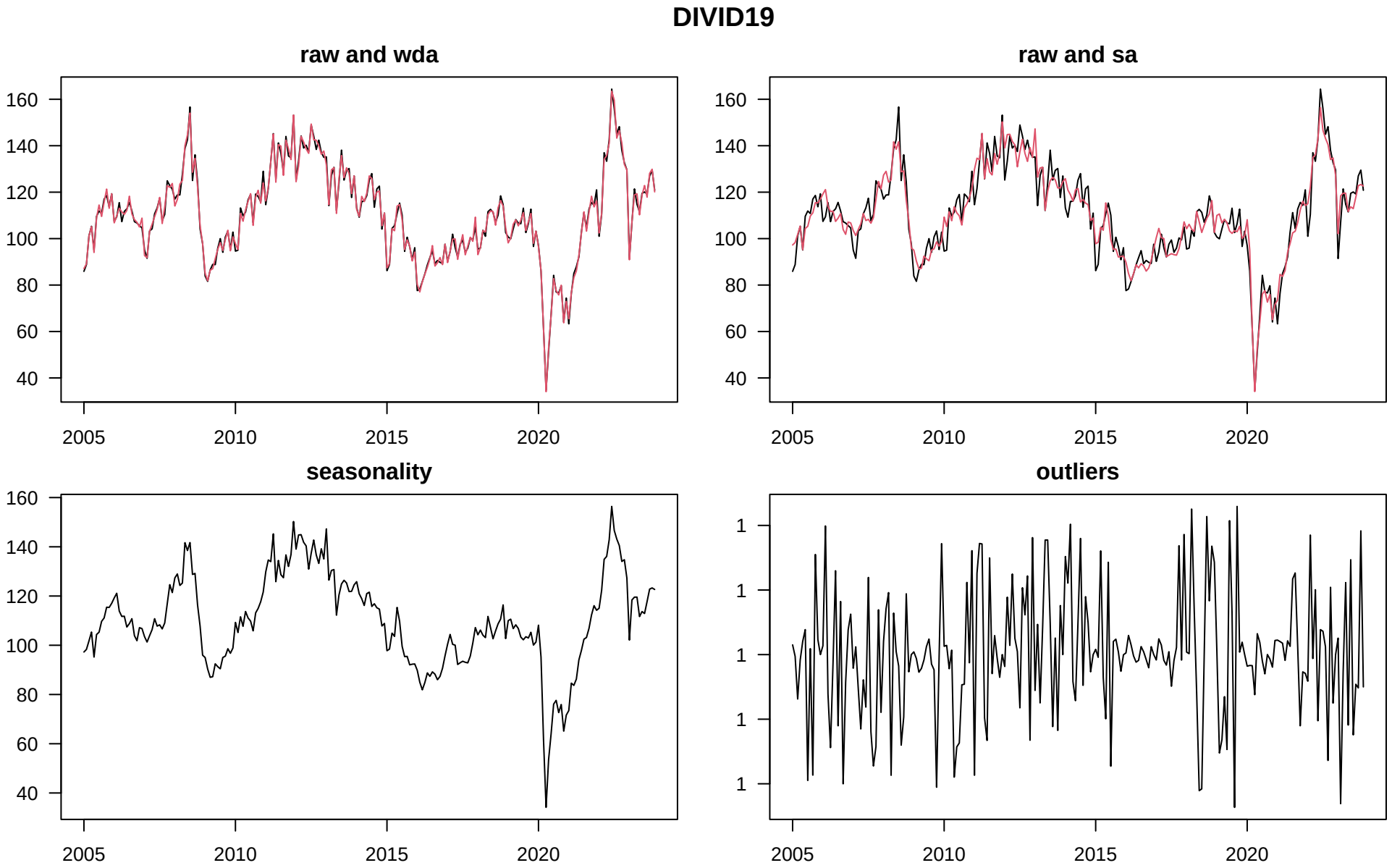
3
4
5
6


DIVID19
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raw and sa
seasonality
outliers
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60
40
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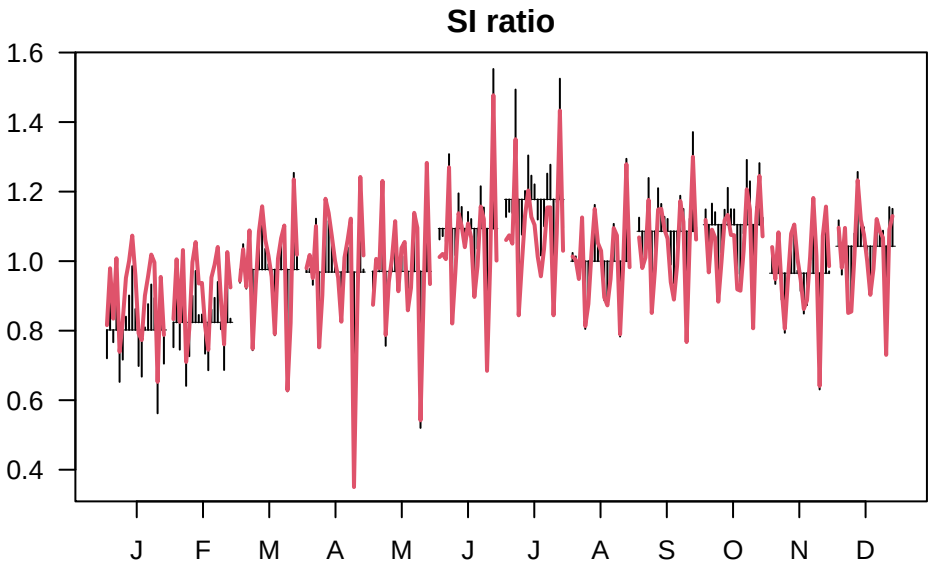
2005
2010
2015
2020

DIVID19


SI ratio
1.6
1.4
1.2
1.0
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0.6
0.4
J
F
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A
M
J
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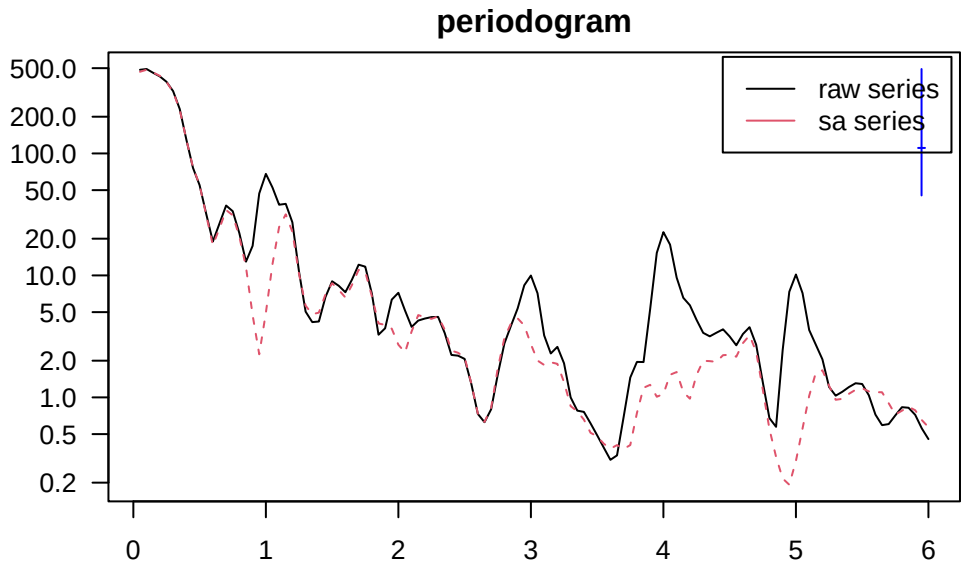
S
O
N
D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2.0
1.0
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0.2
raw series
sa series
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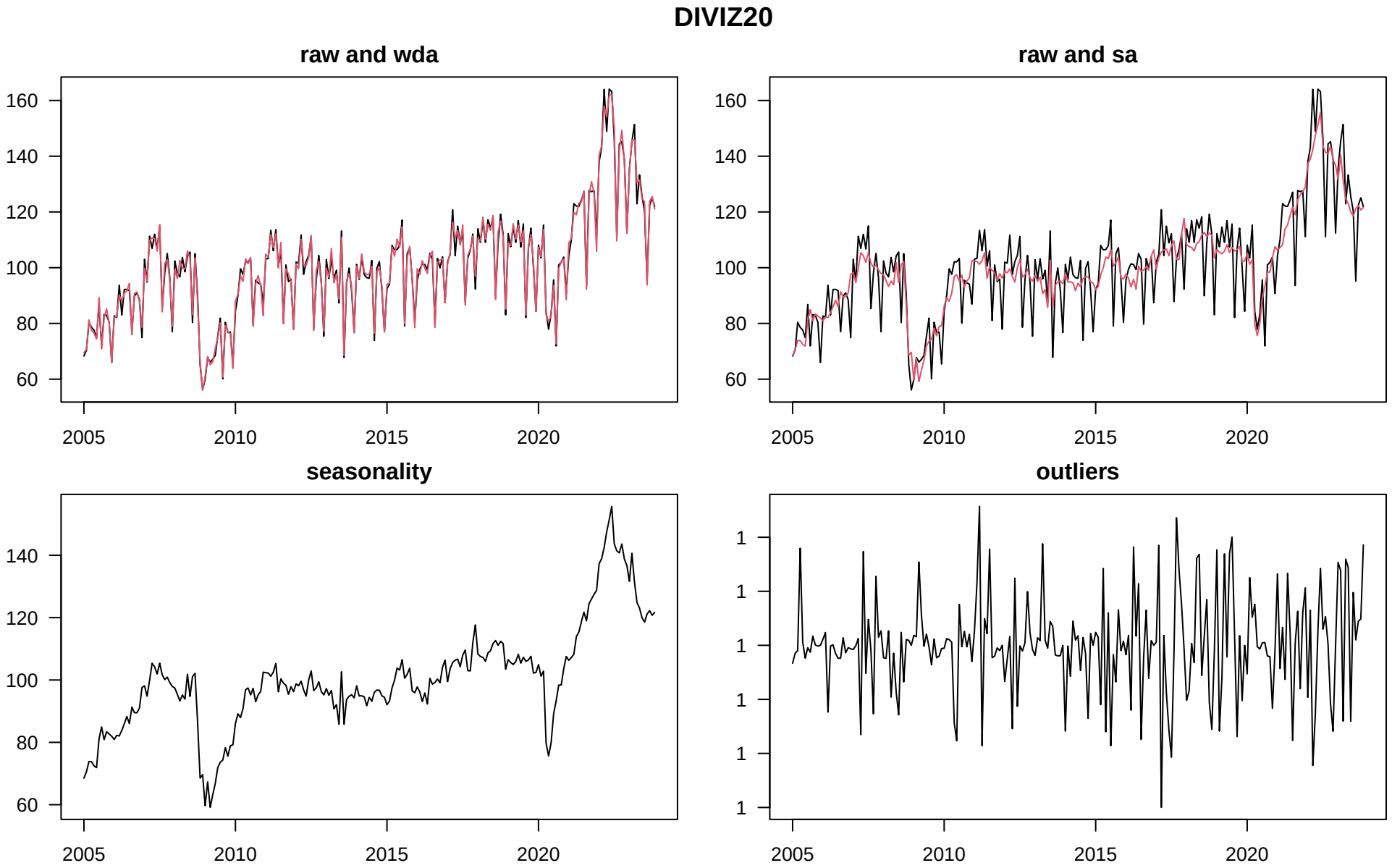
3
4
5
6


DIVIZ20
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raw and sa
seasonality
outliers
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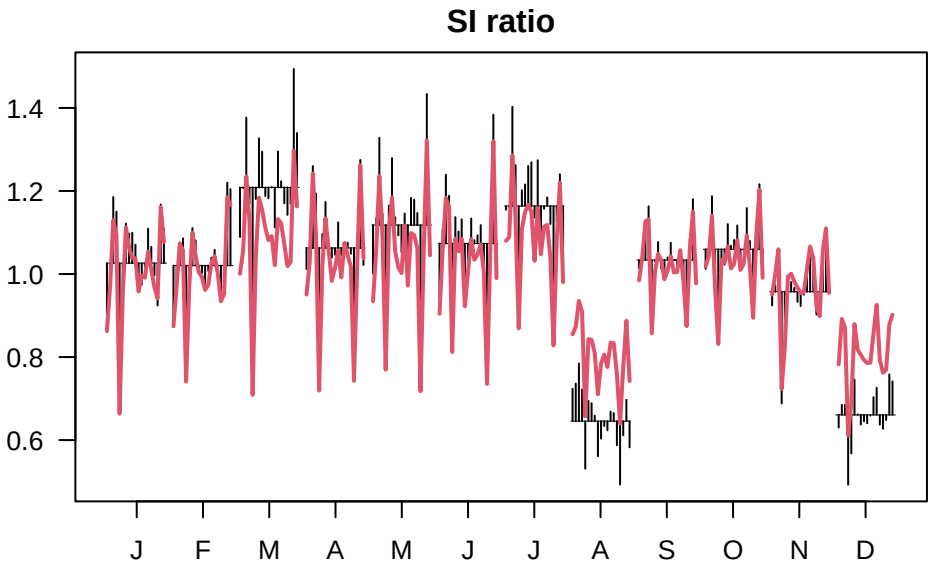
140
120
100
80
60
2005
2010
2015
2020
1

DIVIZ20


SI ratio
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1.2
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0.8
0.6
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M
J
J
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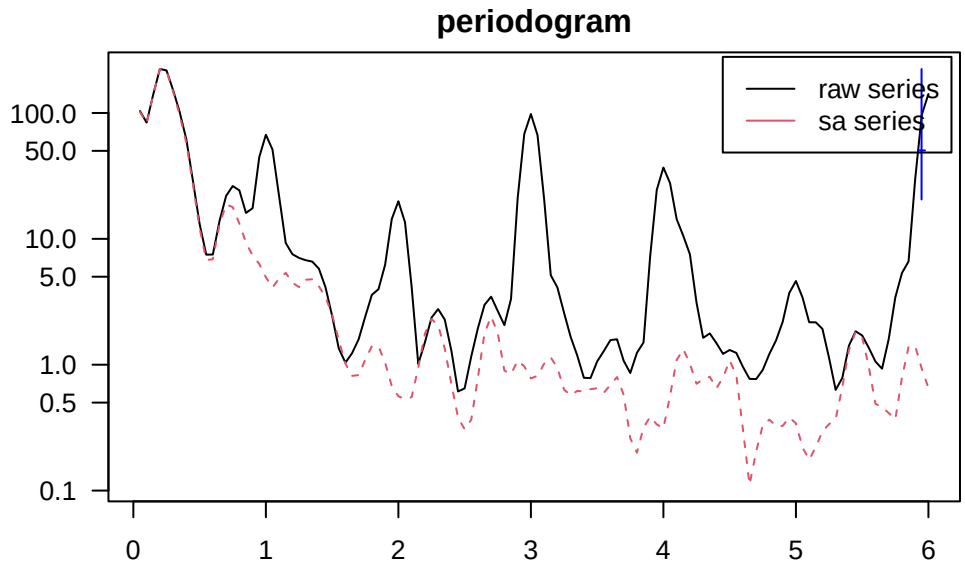
S
O
N
D


periodogram
raw series
sa series
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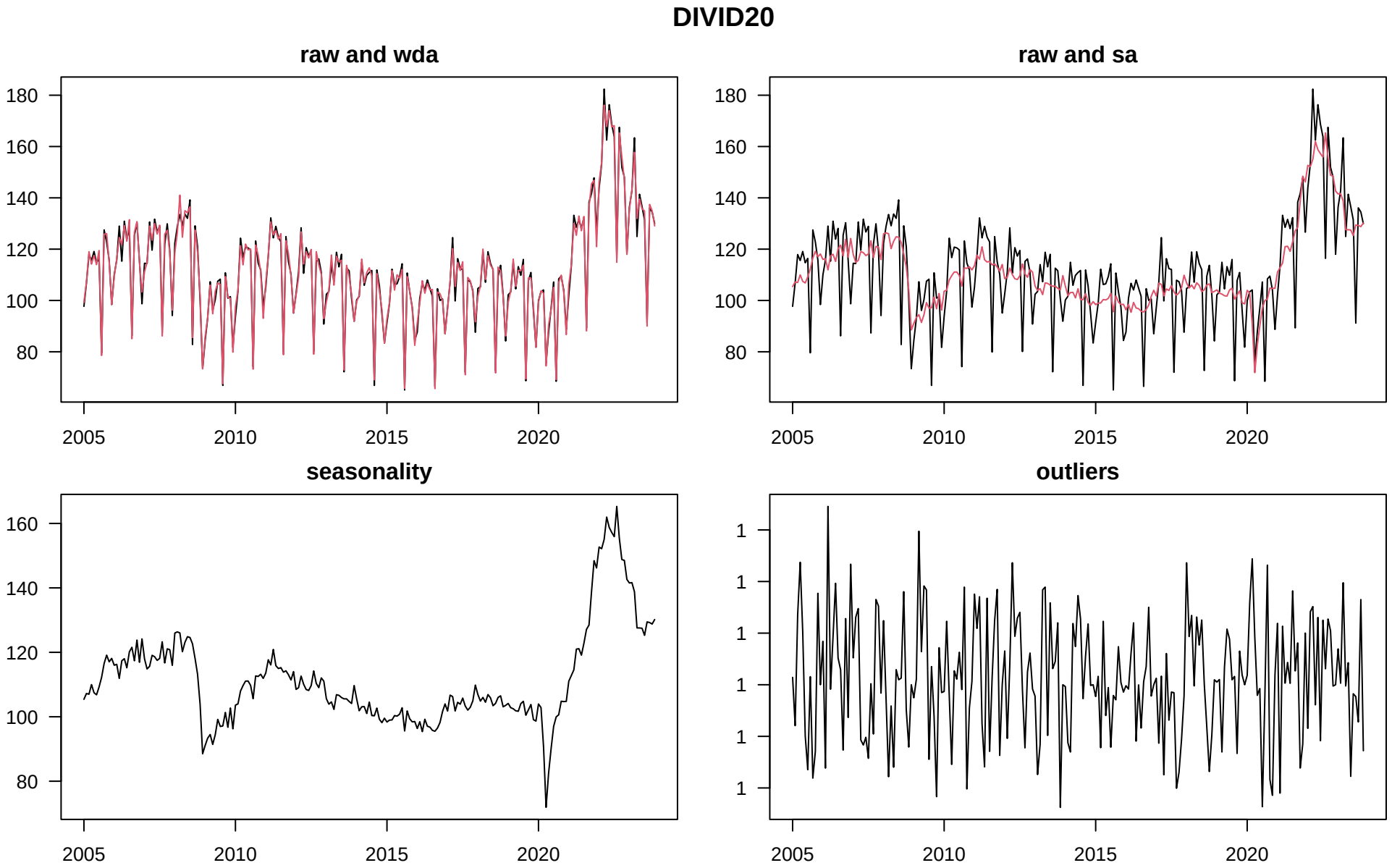
6


DIVID20
raw and wda
raw and sa
seasonality
outliers
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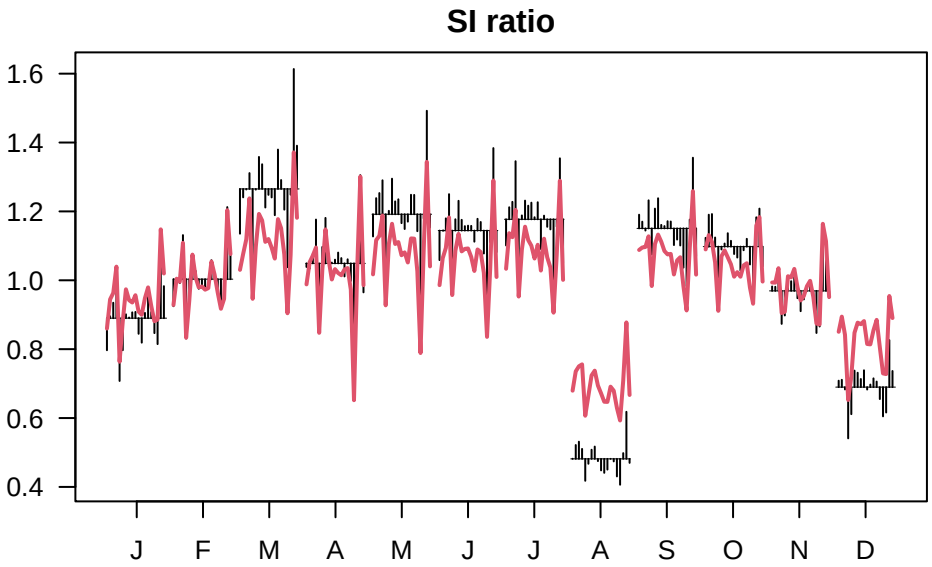
100
80
2005
2010
2015
2020
1

DIVID20


SI ratio
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1.4
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J
F
M
A
M
J
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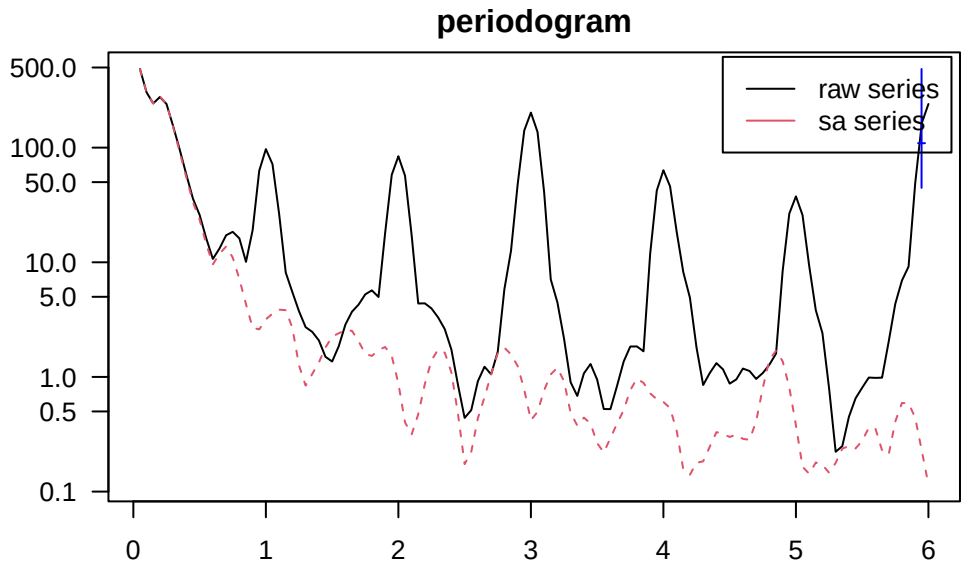
S
O
N
D


periodogram
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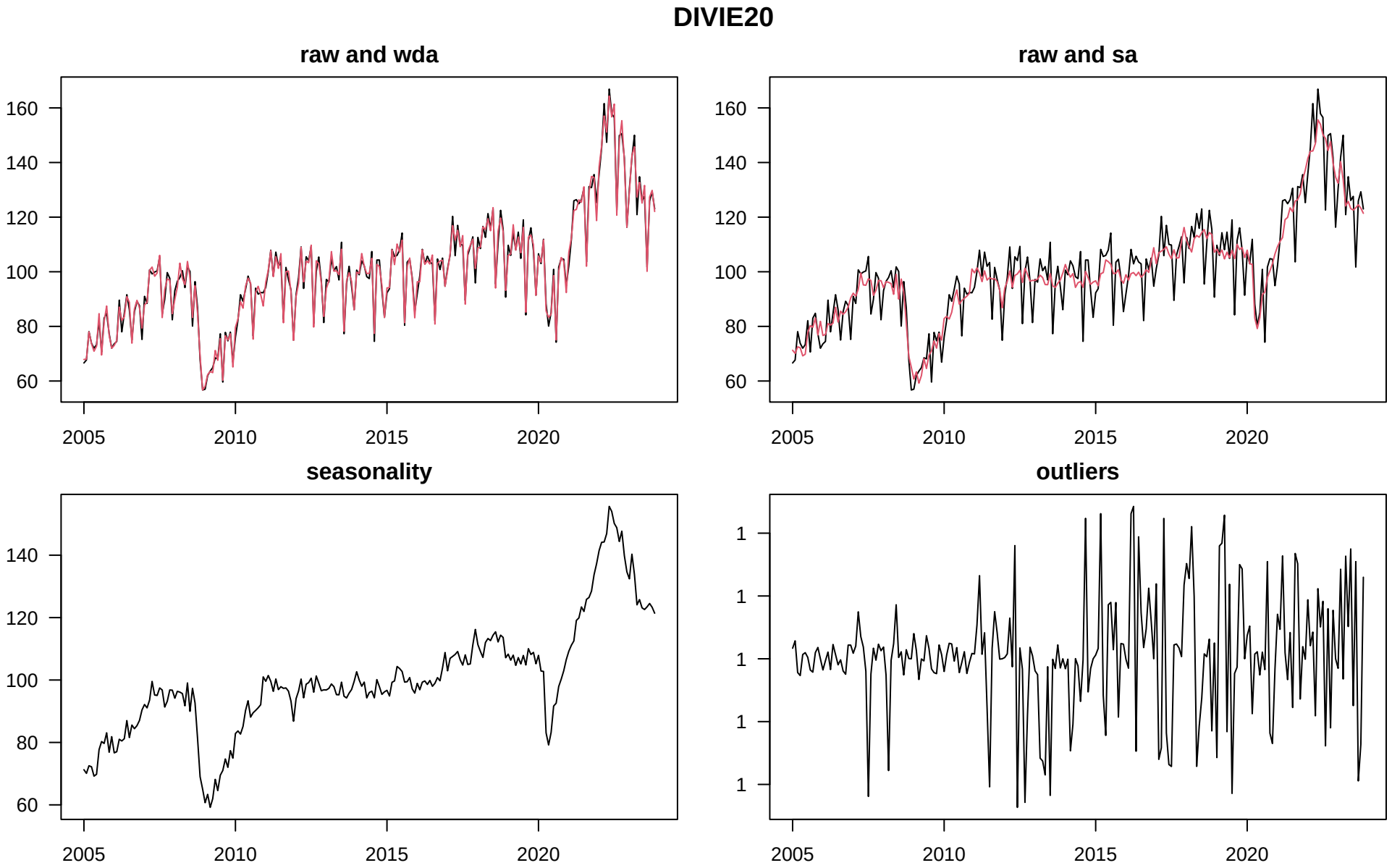
0.5
0.1
0
1
2
3
4
5
6
raw series
sa series


DIVIE20
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raw and sa
seasonality
outliers
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140
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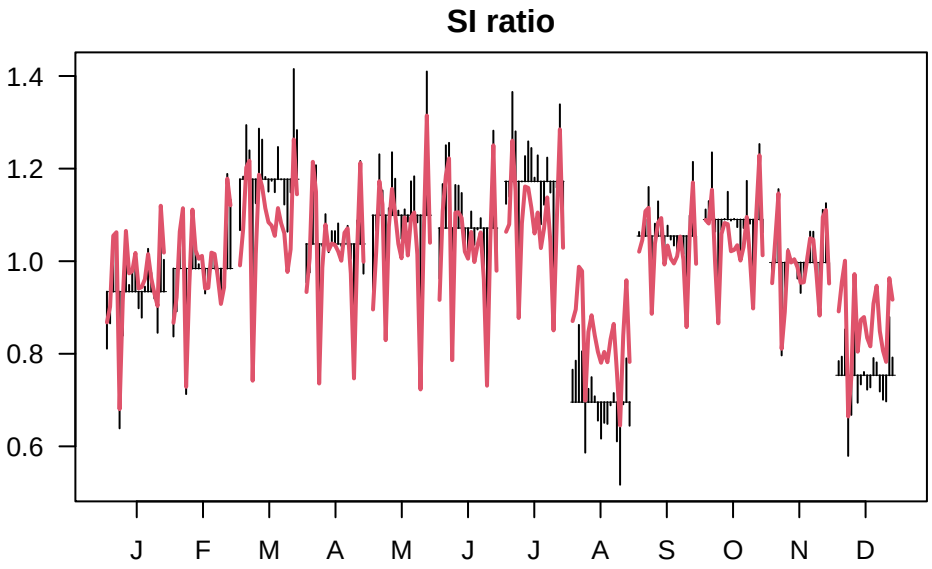
100
80
60
2005
2010
2015
2020
1

DIVIE20


SI ratio
1.4
1.2
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J
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M
A
M
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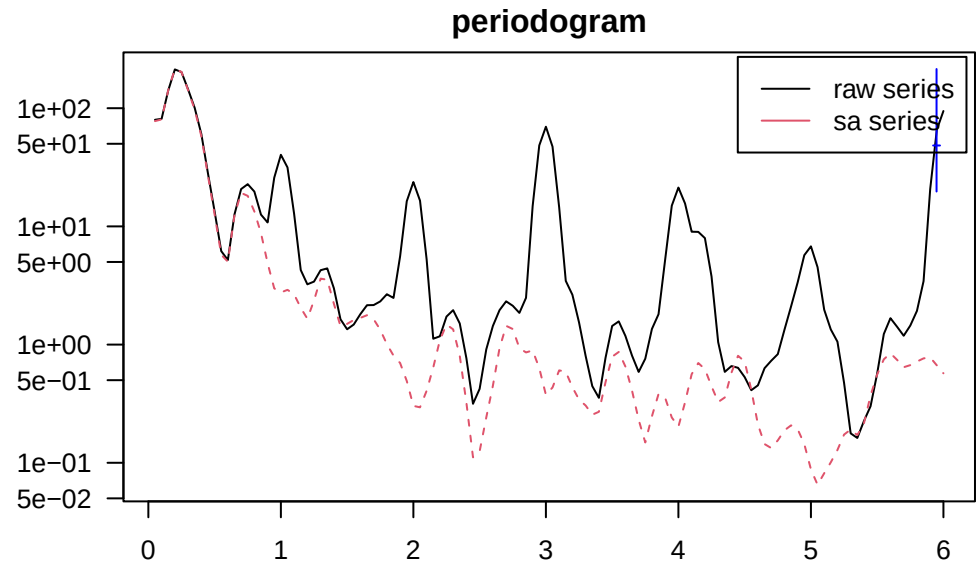
J
A
S
O
N
D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raw series
sa series
1e+02
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1e+01
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1e+00
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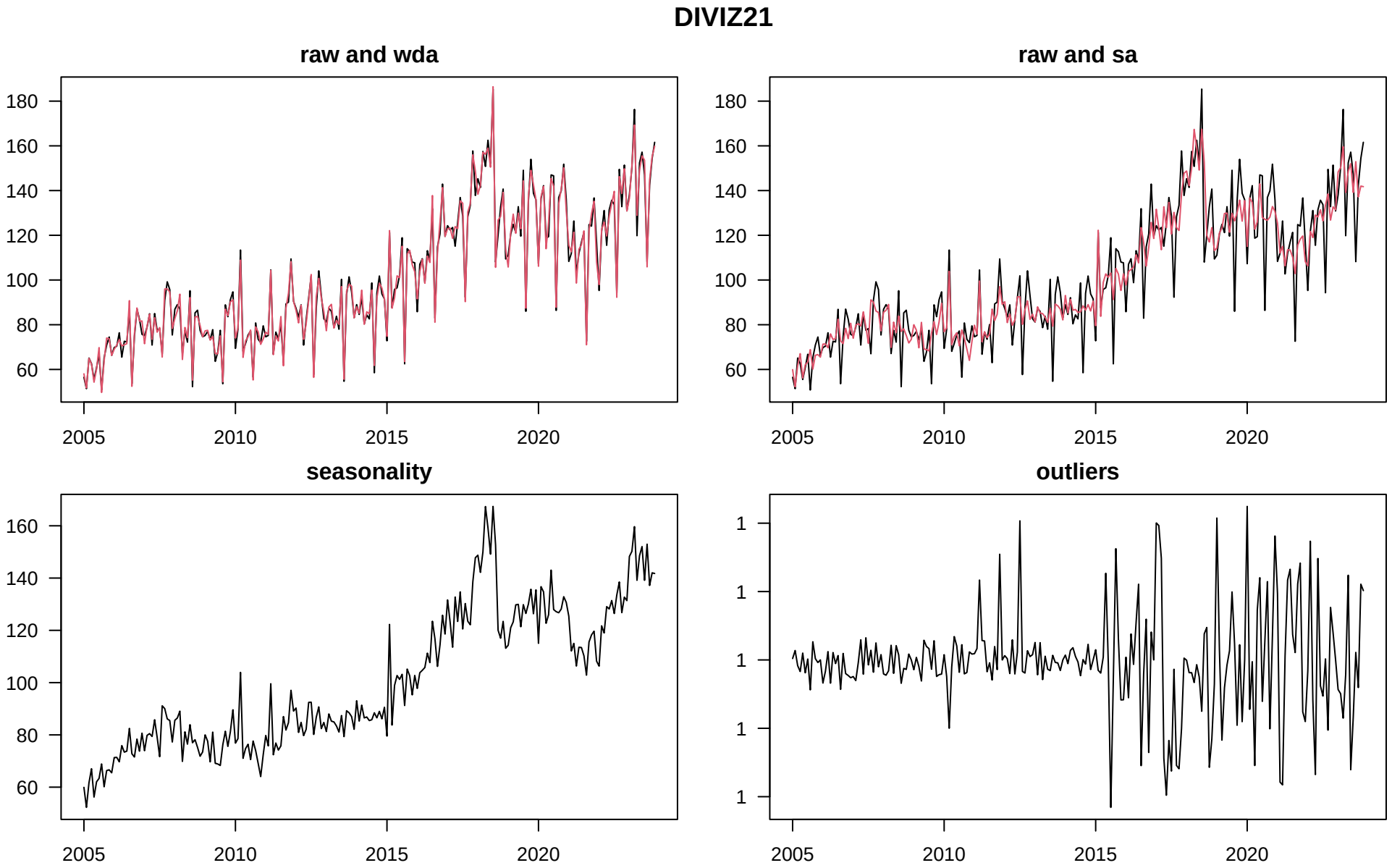
DIVIZ21
raw and wda
raw and sa
seasonality
outliers
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2005
2010
2015
2020
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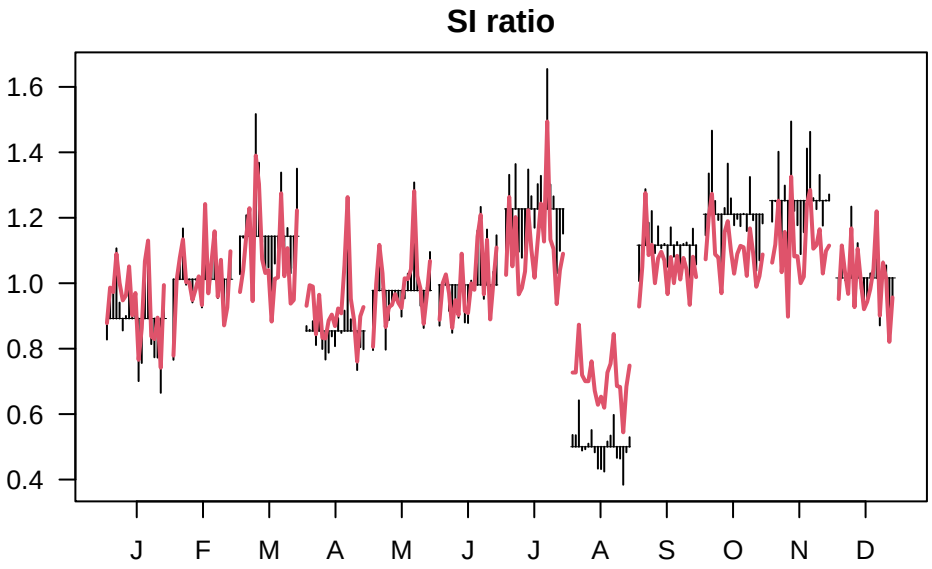
DIVIZ21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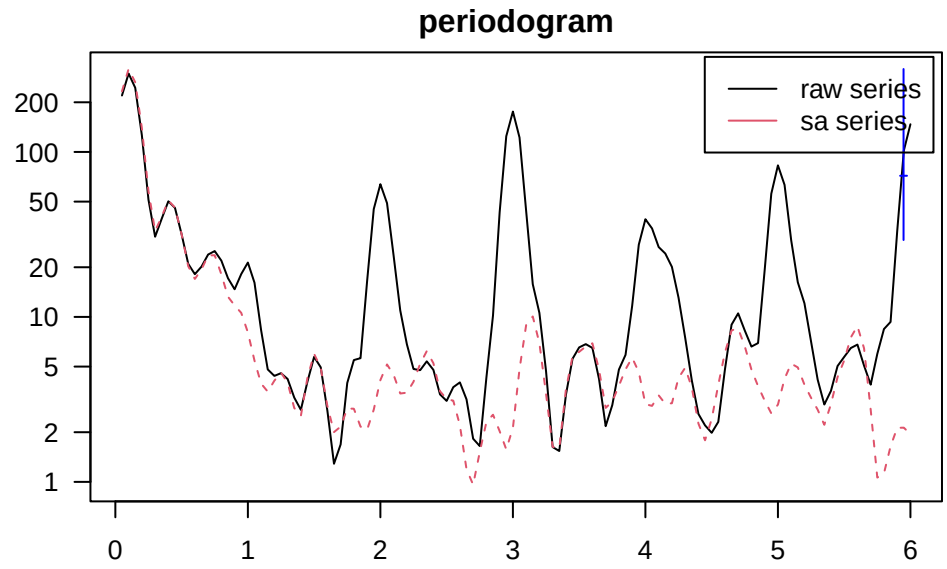
N
D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sa series
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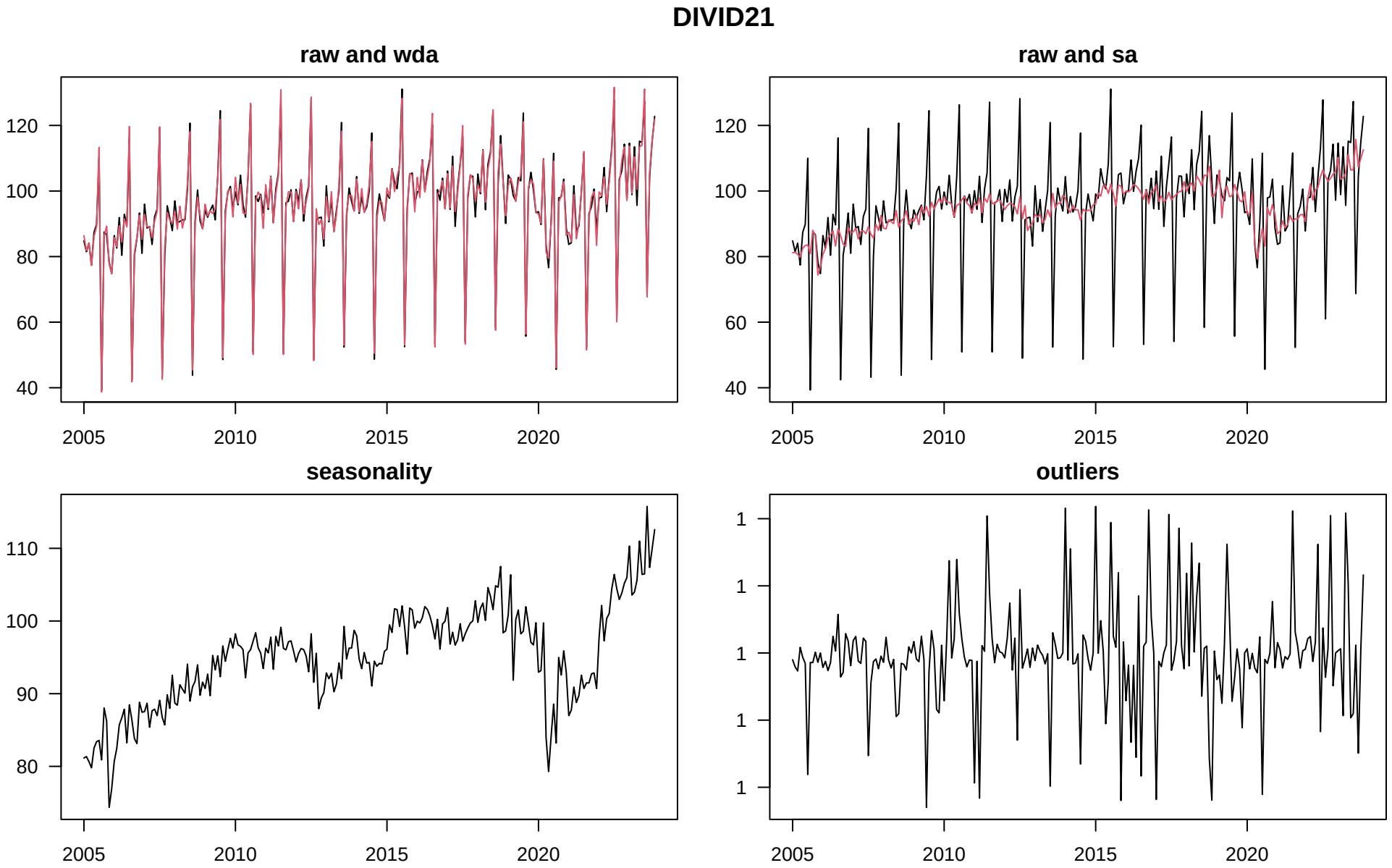
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raw and wda
raw and sa
seasonality
outliers
120
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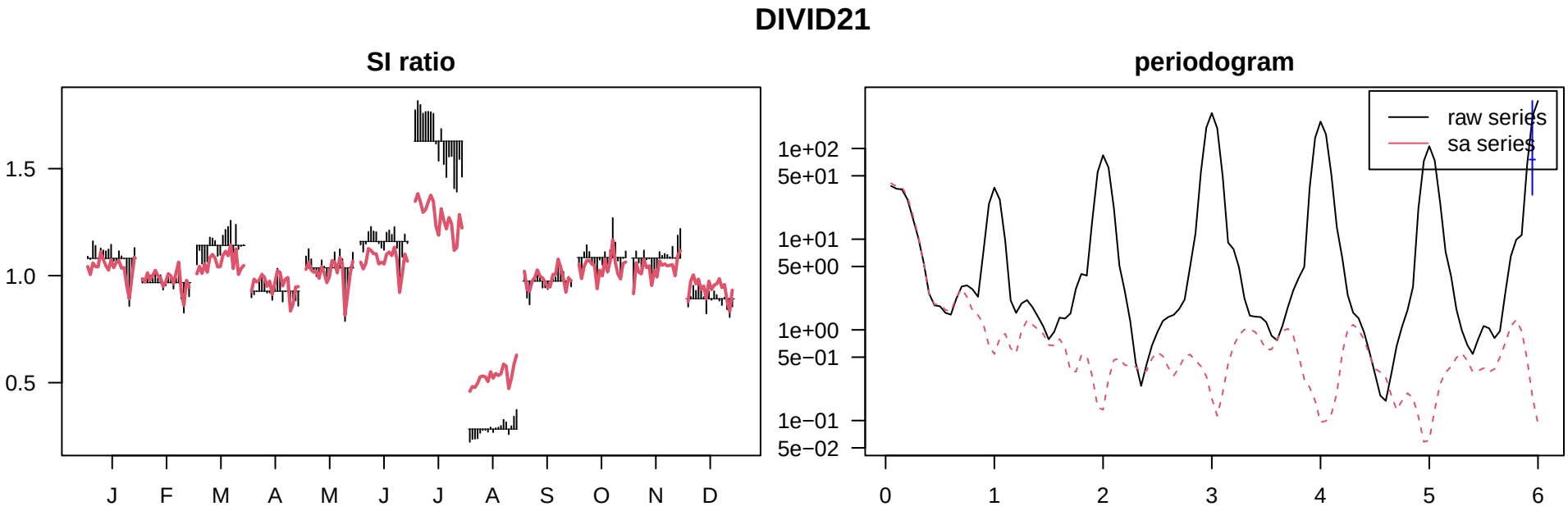
2005
2010
2015
2020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M
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S
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N
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periodogram
raw series
sa series
1e+02
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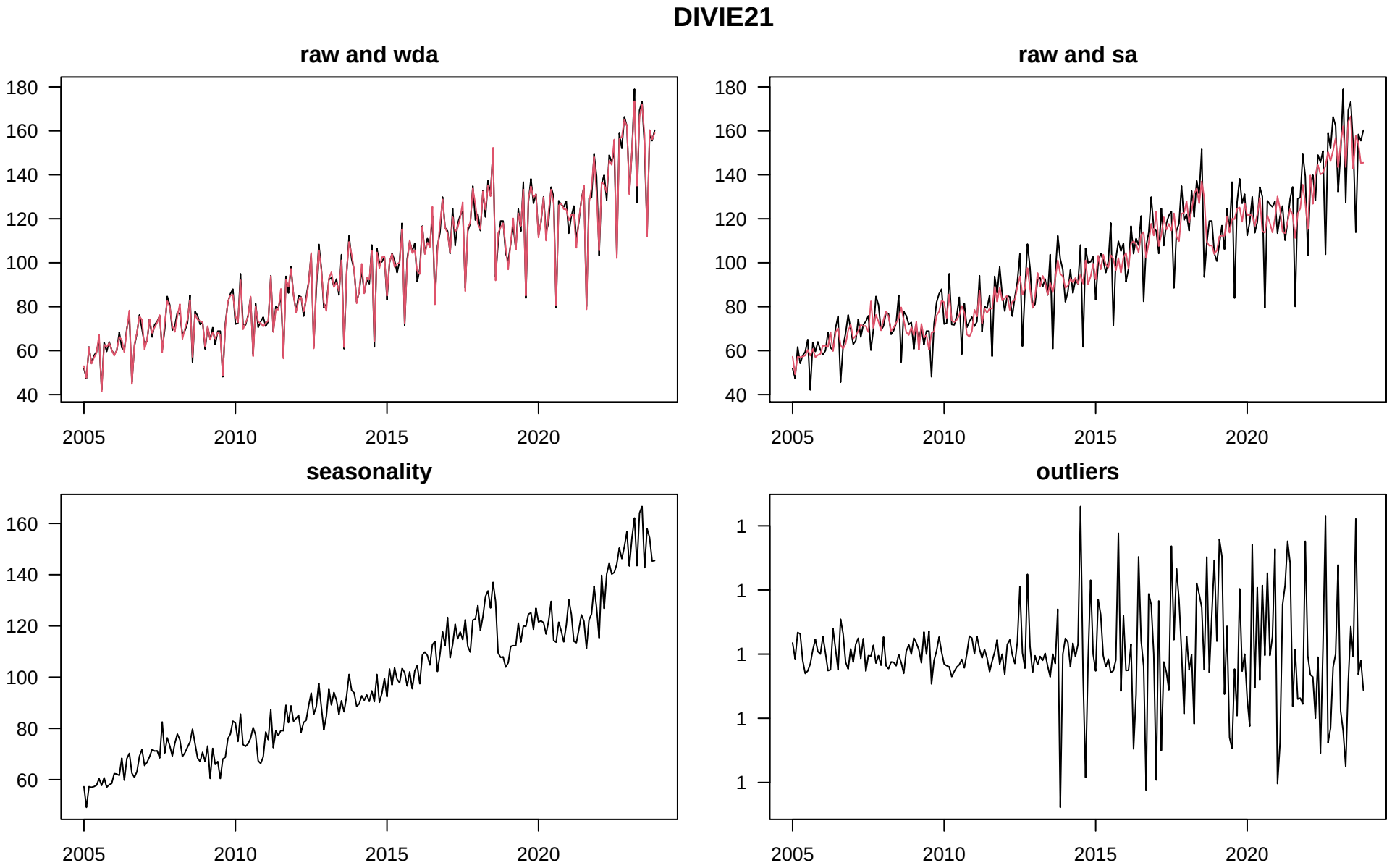
DIVIE21
raw and wda
raw and sa
seasonality
outliers
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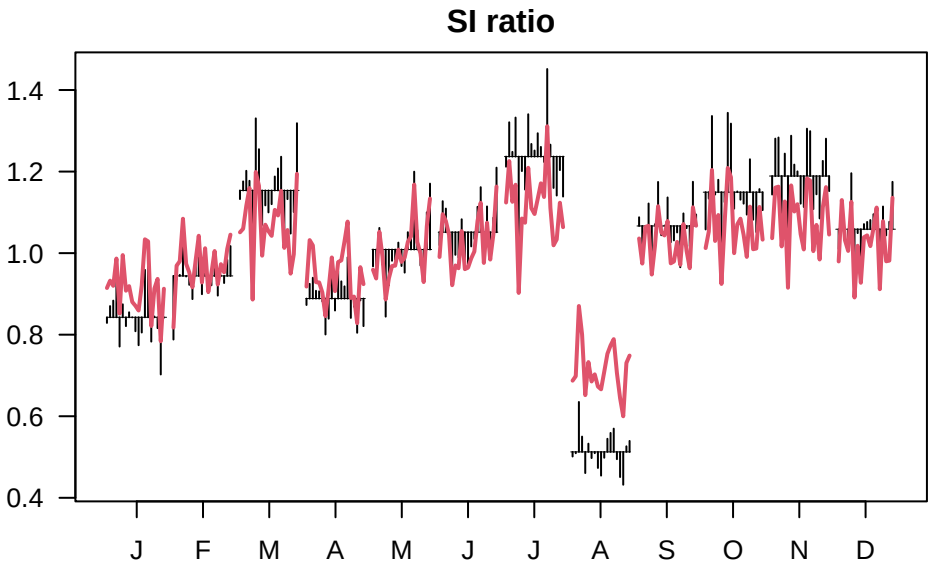
60
40
2005
2010
2015
2020
1

DIVIE21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J
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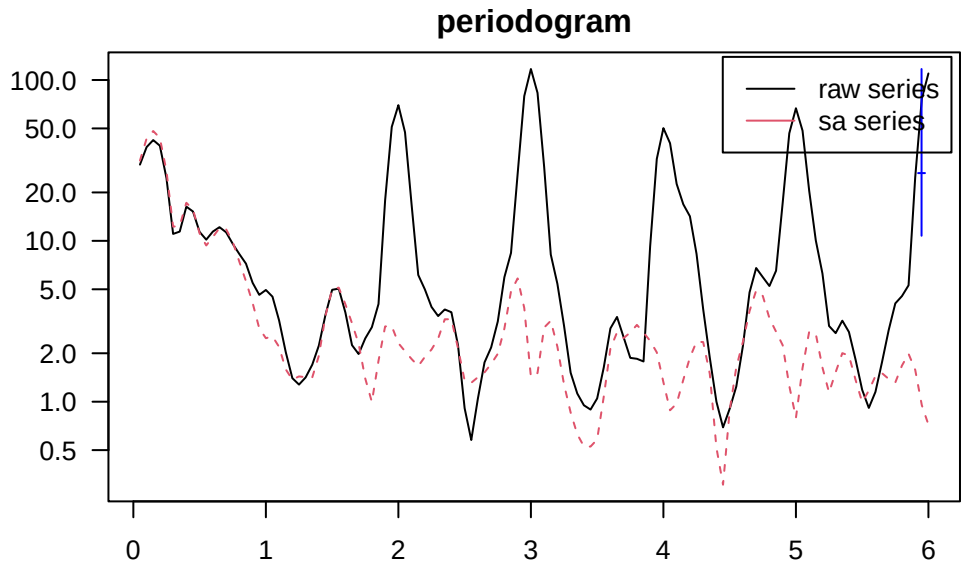
O
N
D


periodogram
raw series
sa series
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1.0
0.5
0
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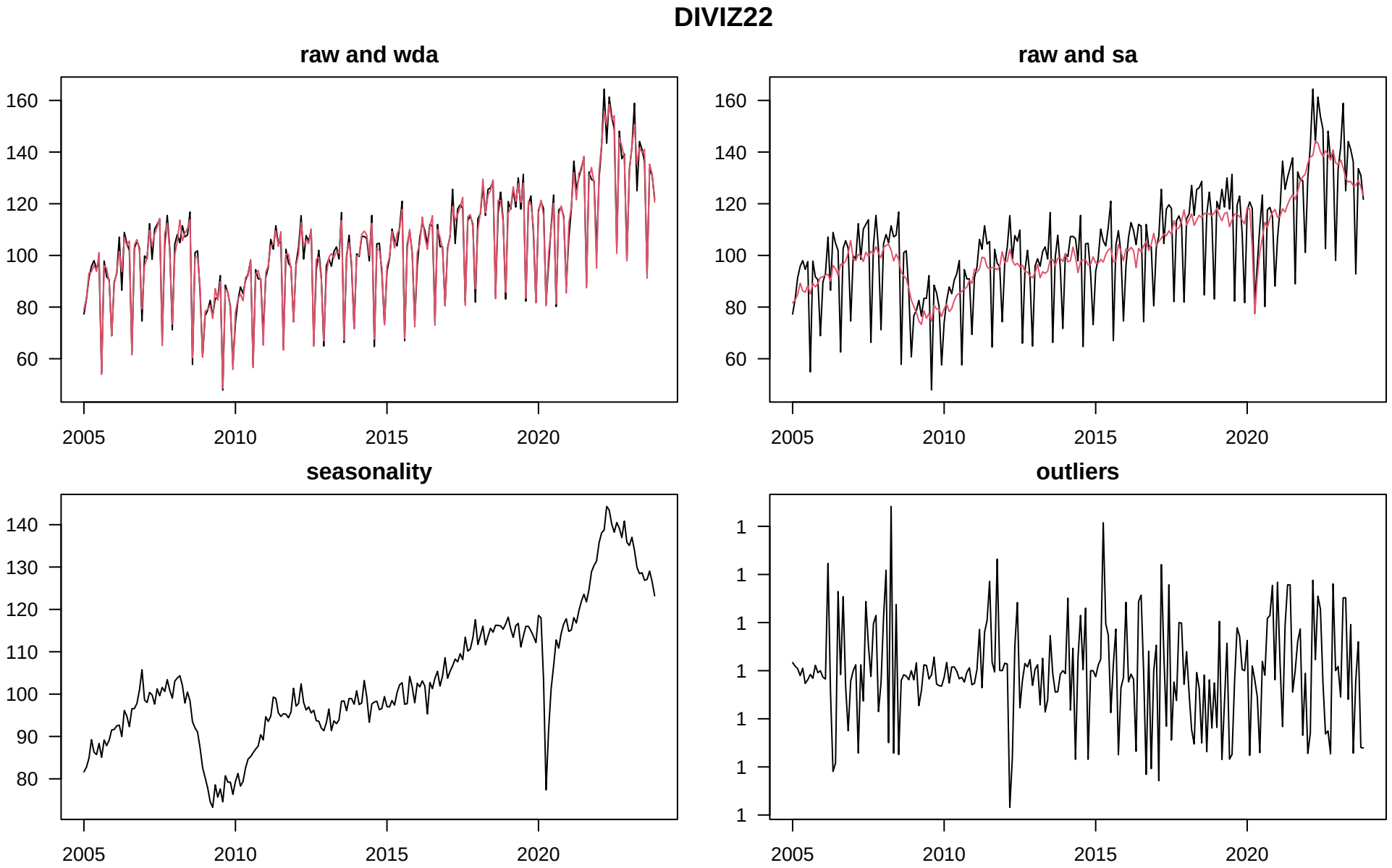
DIVIZ22
raw and wda
raw and sa
seasonality
outliers
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140
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100
80
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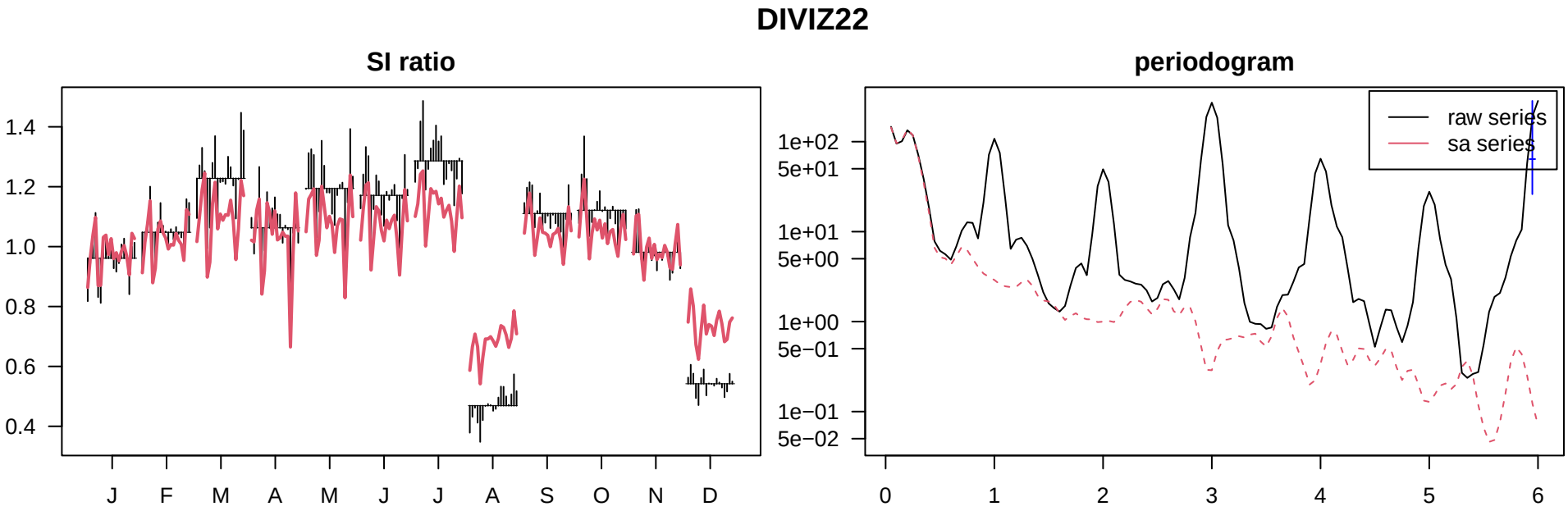
130
110
90
1
2005
2010
2015
2020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1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
raw series
sa series
1e+02
5e+01
1e+01
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1e+00
5e−01
1e−01
5e−02
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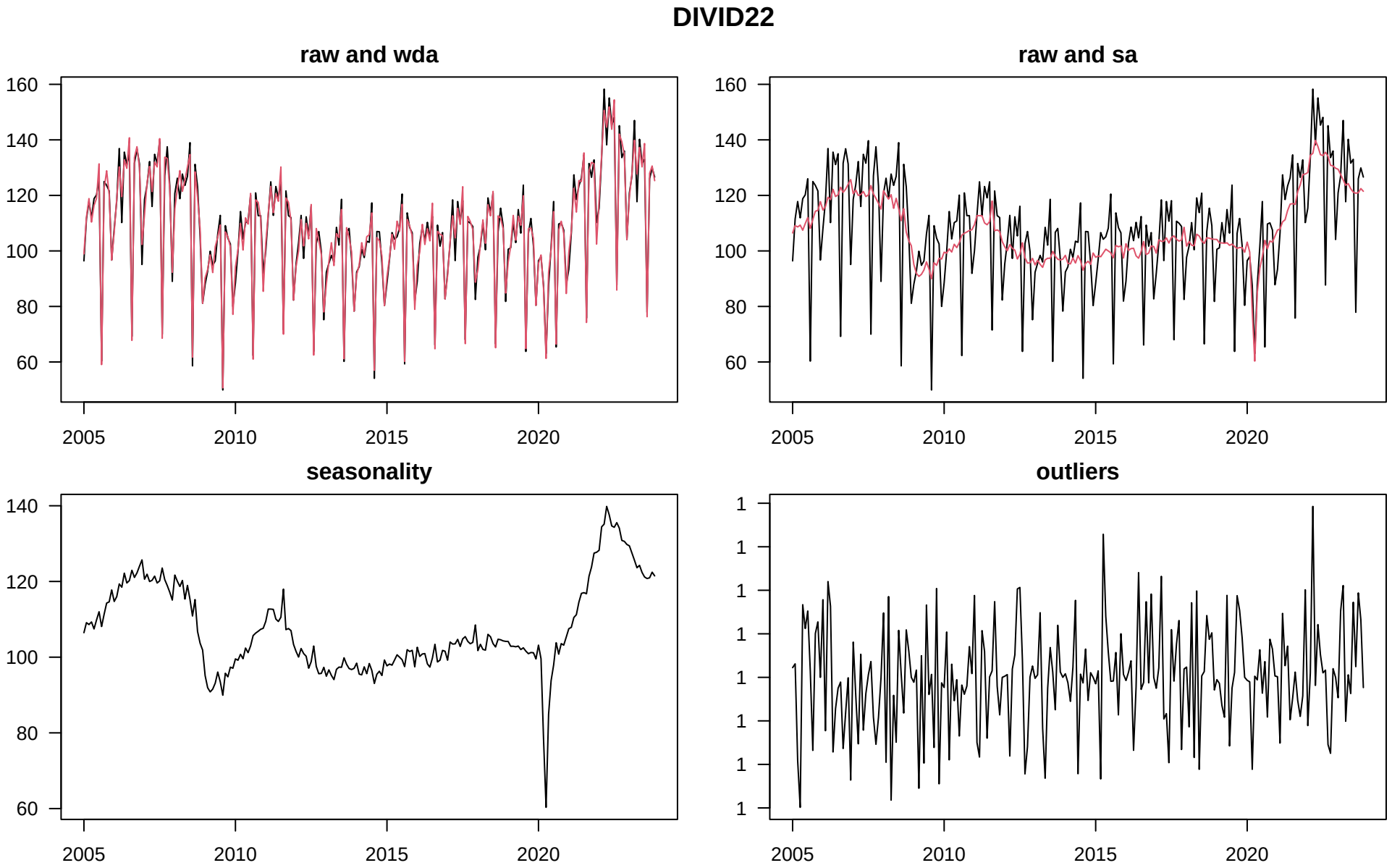
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raw and wda
raw and sa
seasonality
outliers
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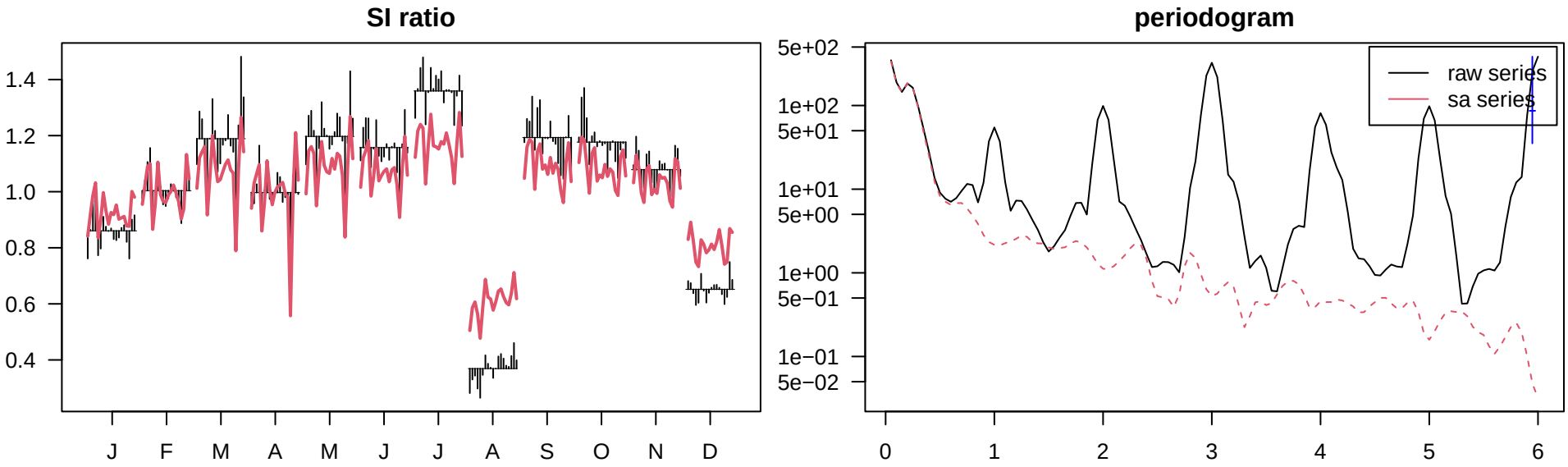
140
120
100
80
60
2005
2010
2015
2020
1

DIVID22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1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
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O
N
D
periodogram
5e+02
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
raw series
sa series
0
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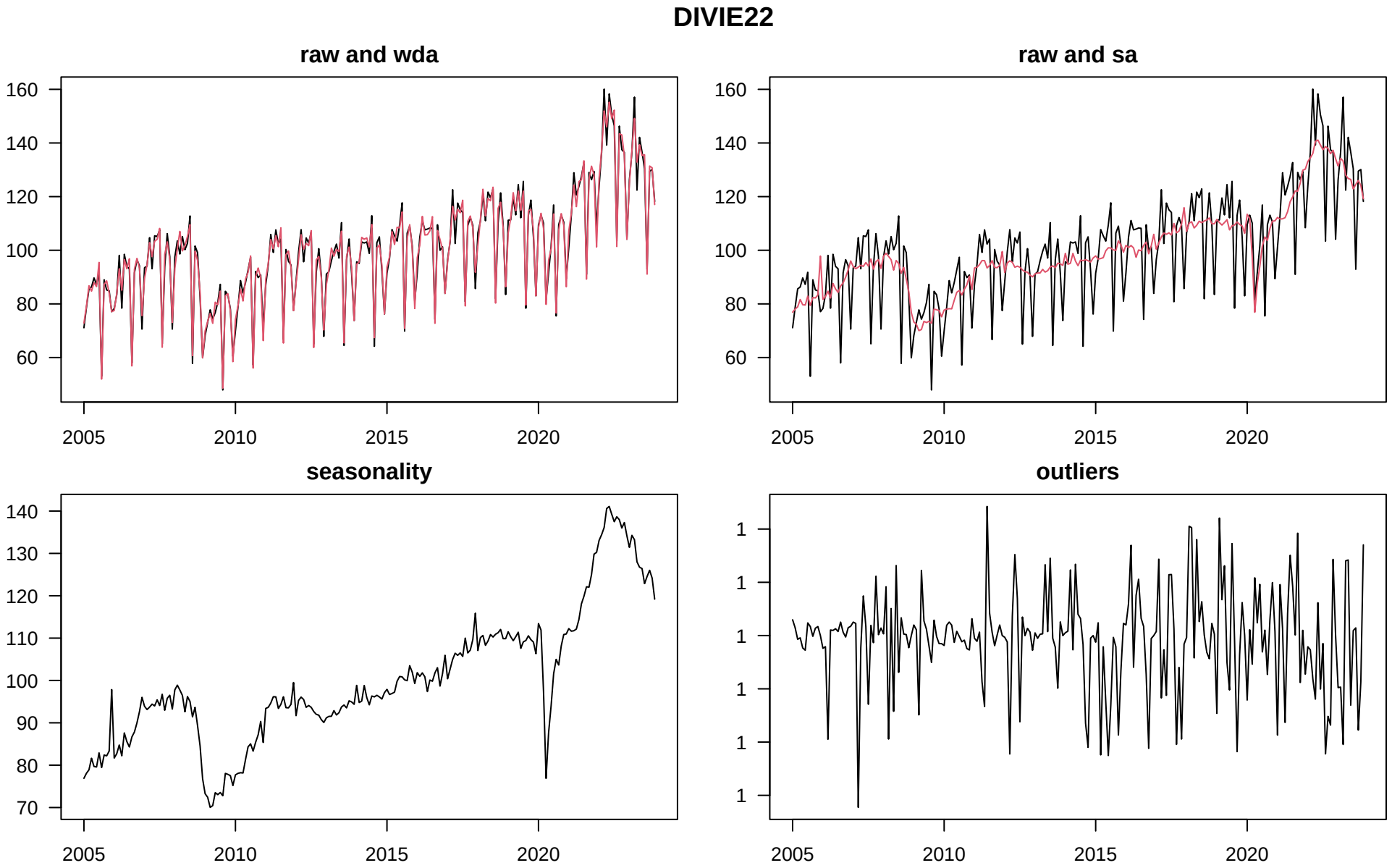
3
4
5
6


DIVIE22
raw and wda
raw and sa
seasonality
outliers
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120
110
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90
80
70
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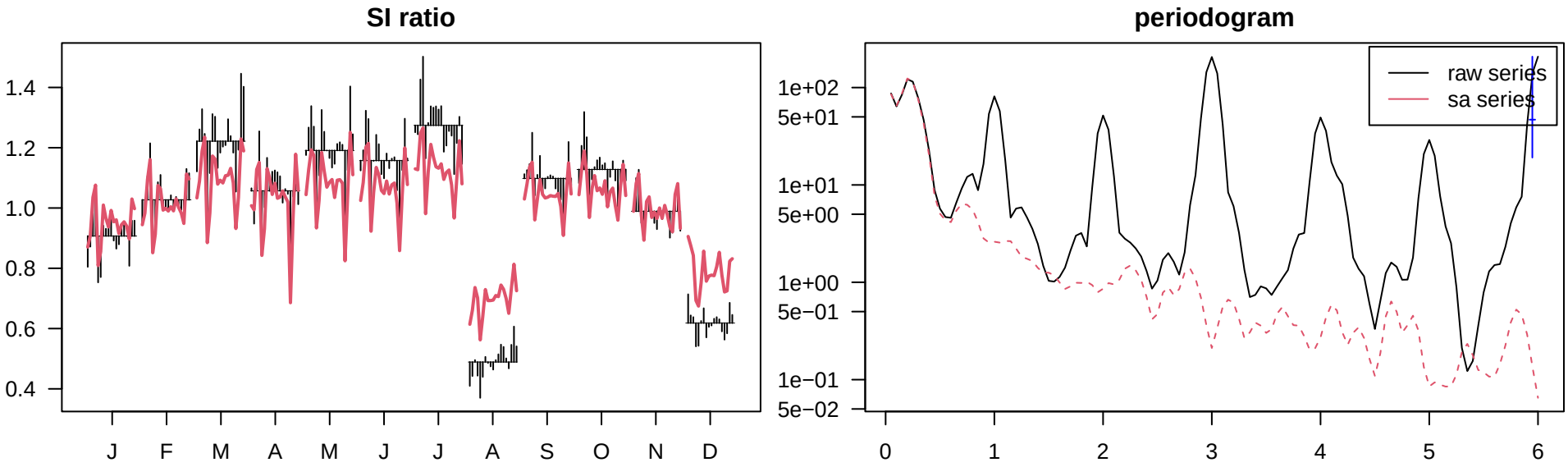
2005
2010
2015
2020

DIVIE22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1.2
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0.8
0.6
0.4
J
F
M
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M
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A
S
O
N
D
periodogram
raw series
sa series
1e+02
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1e+00
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1e−01
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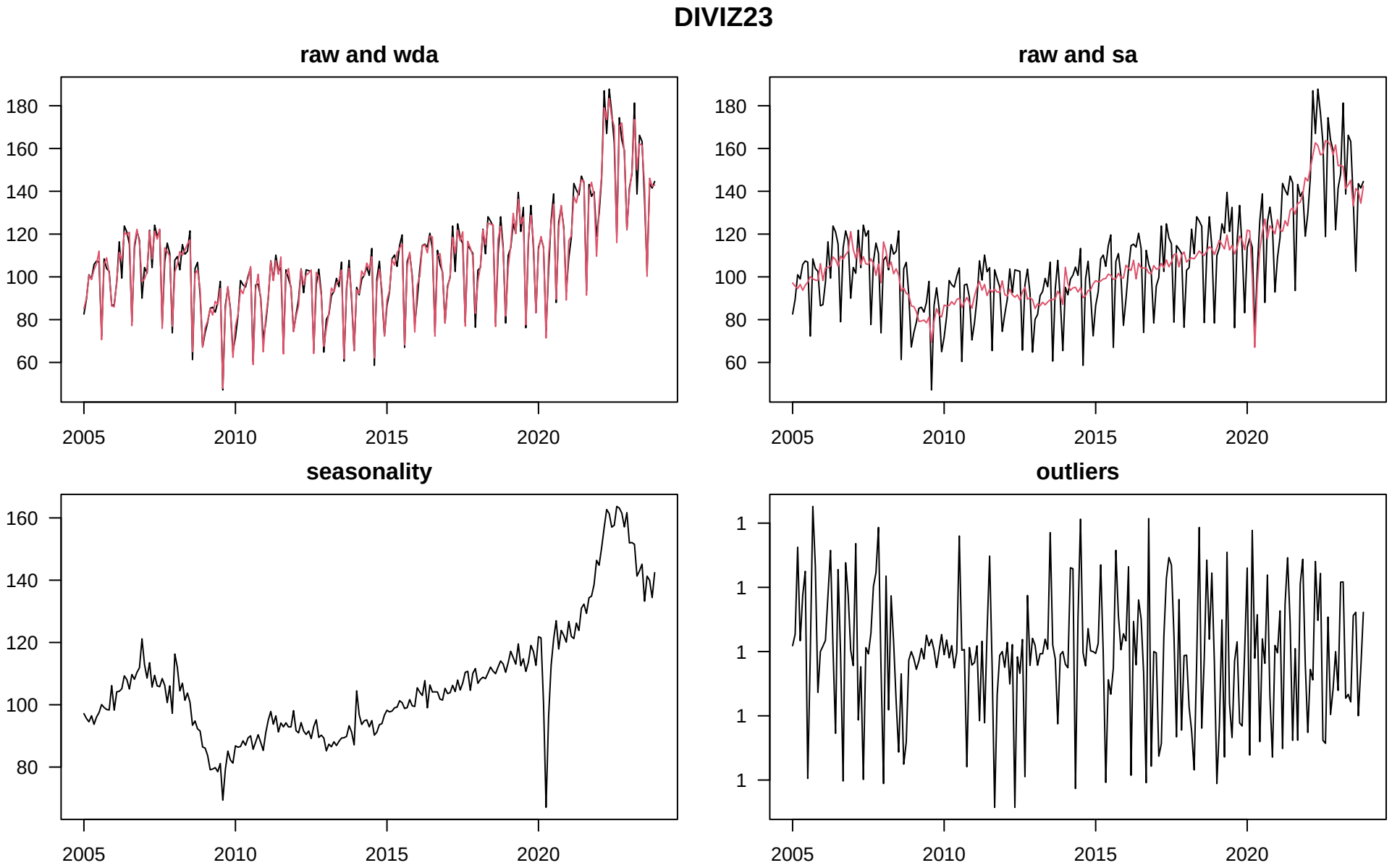
DIVIZ23
raw and wda
raw and sa
seasonality
outliers
180
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120
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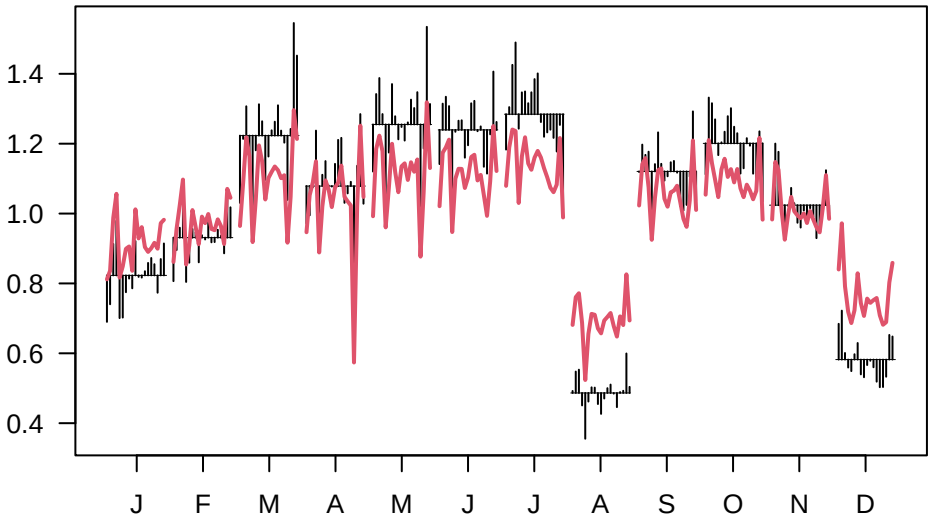
80
60
2005
2010
2015
2020
1

DIVIZ23

SI ratio



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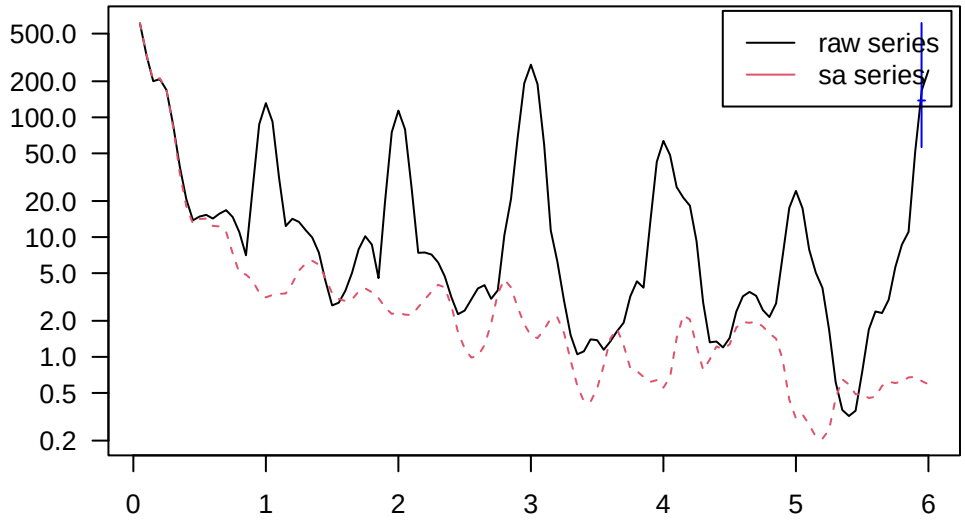

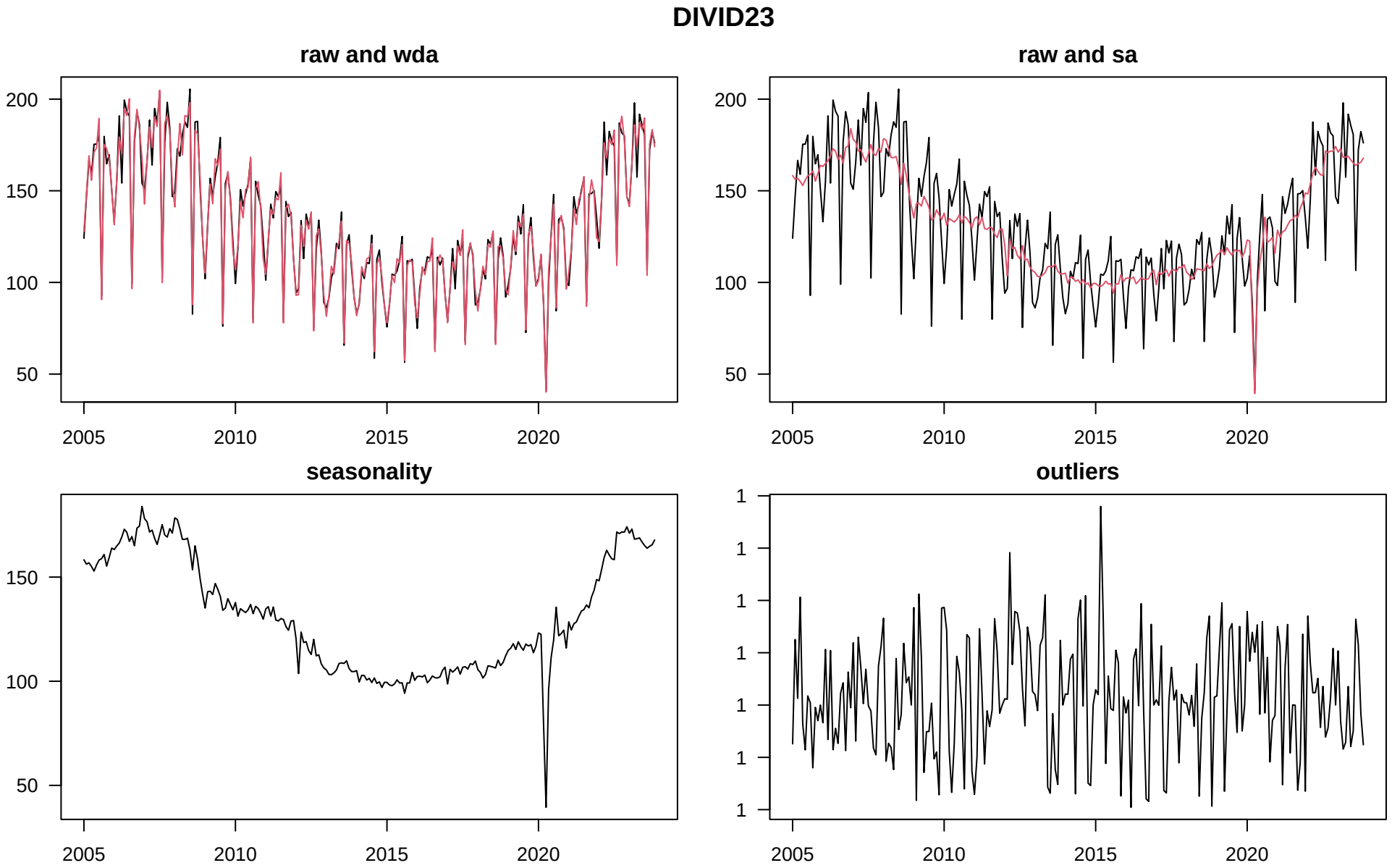
DIVID23
raw and wda
raw and sa
seasonality
outliers
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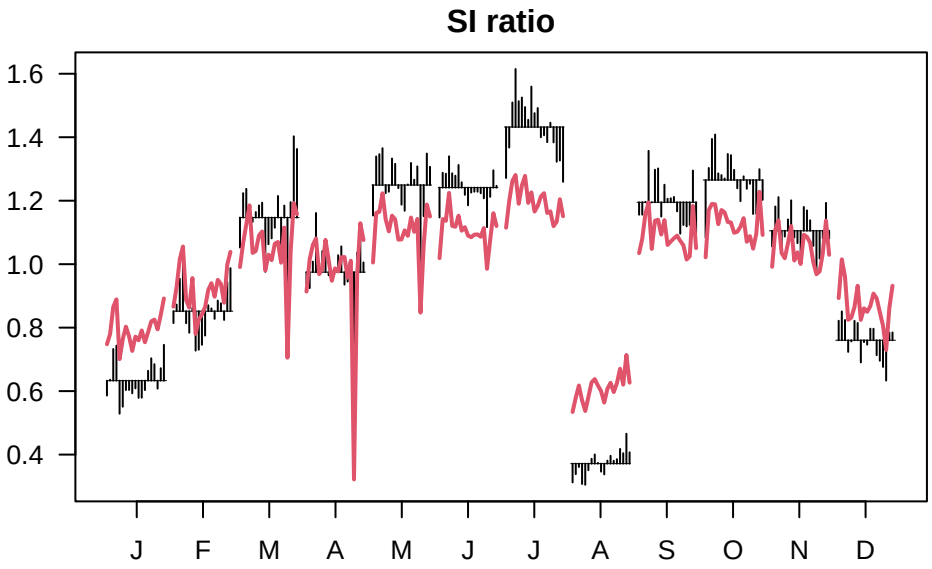
2005
2010
2015
2020

DIVID23


SI ratio
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1.0
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0.6
0.4
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M
J
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S
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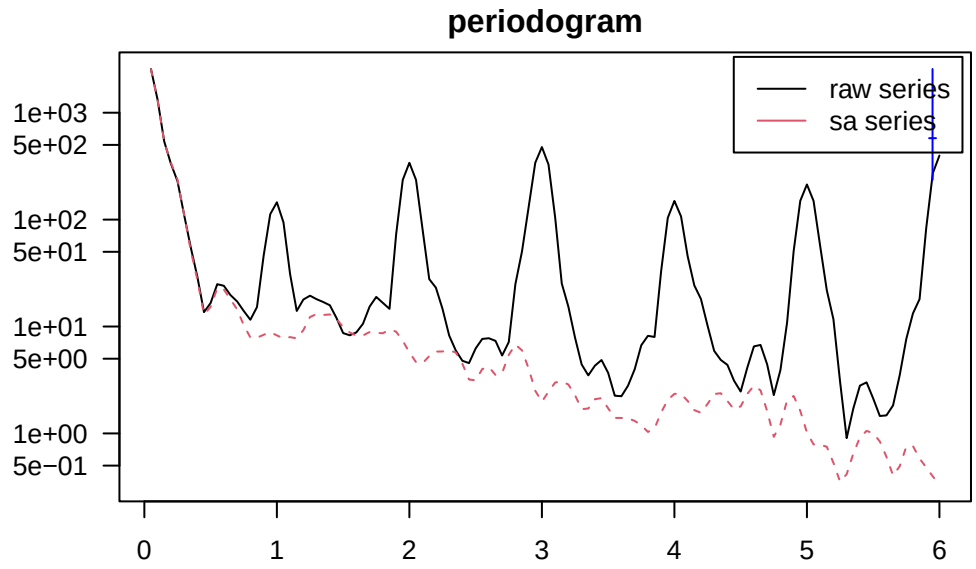
N
D


periodogram
raw series
sa series
1e+03
5e+02
1e+02
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1e+01
5e+00
1e+00
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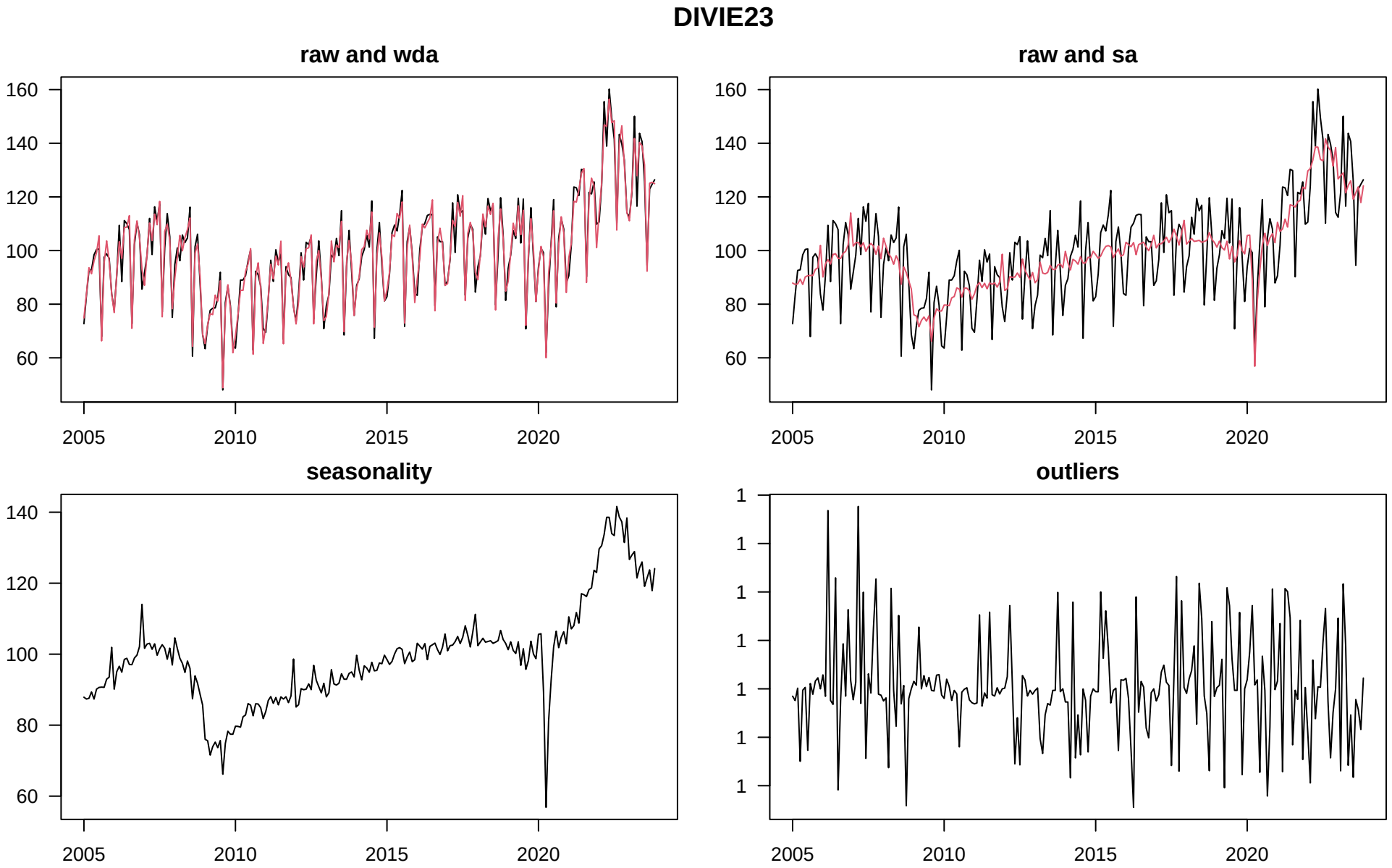
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raw and sa
seasonality
outliers
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2010
2015
2020
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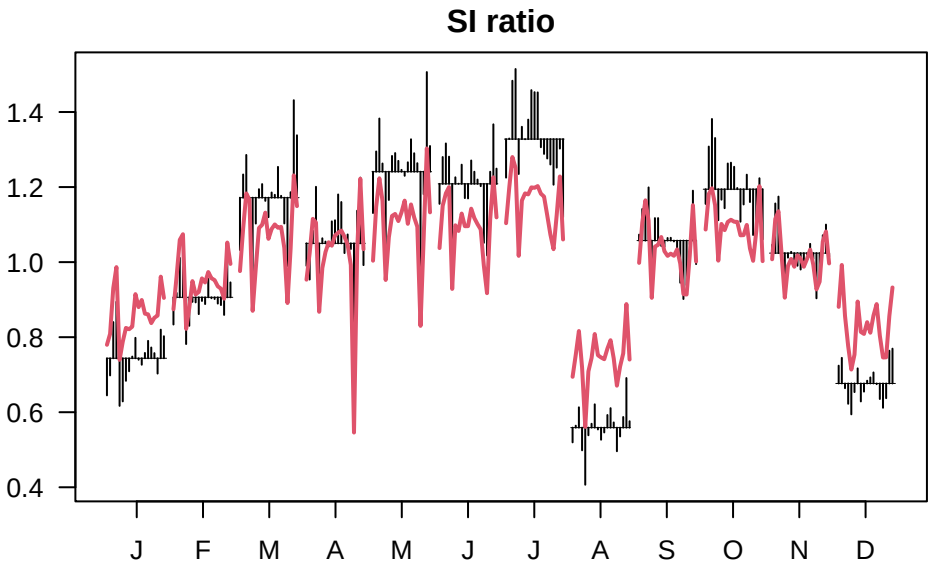
DIVIE23


SI ratio
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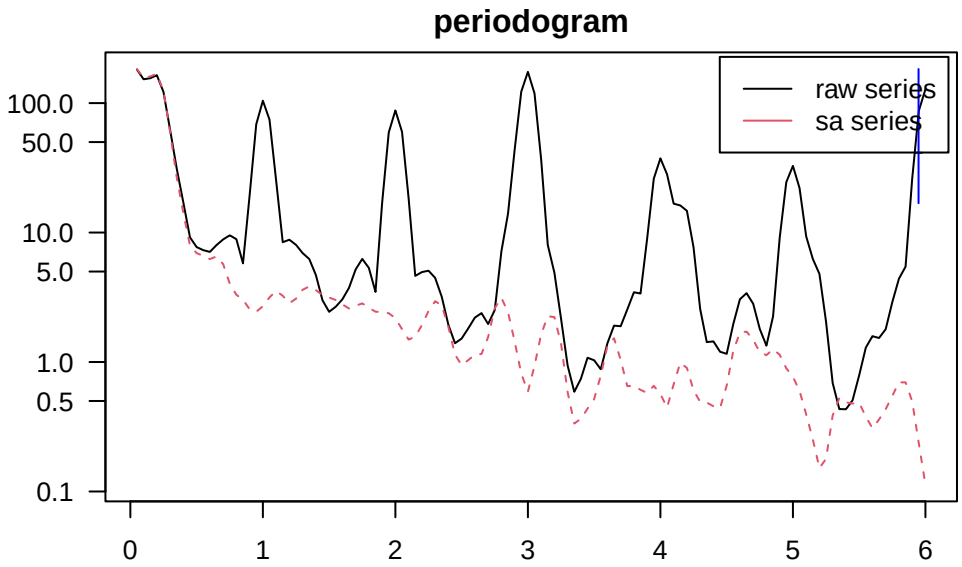
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sa series
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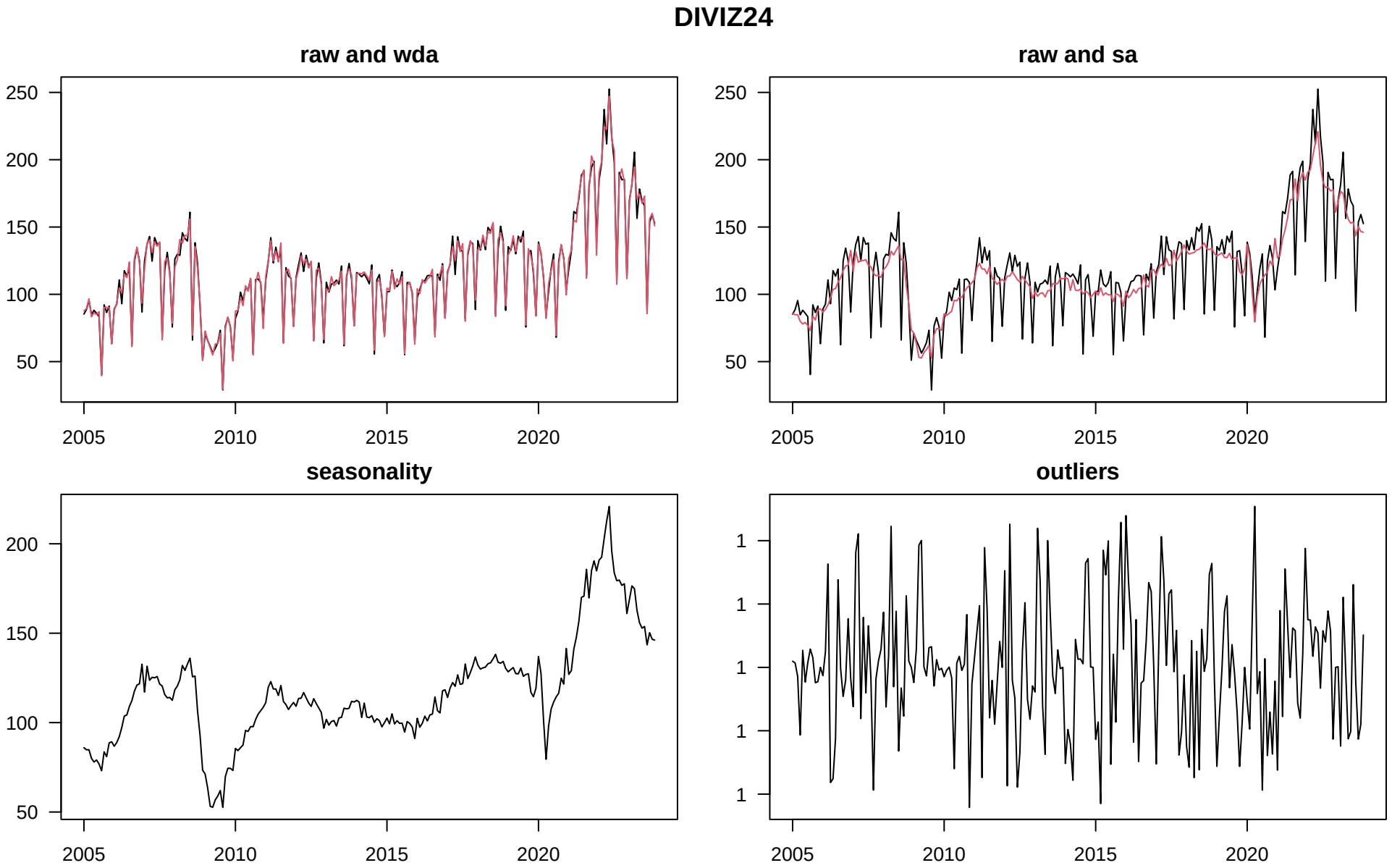
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raw and sa
seasonality
outliers
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100
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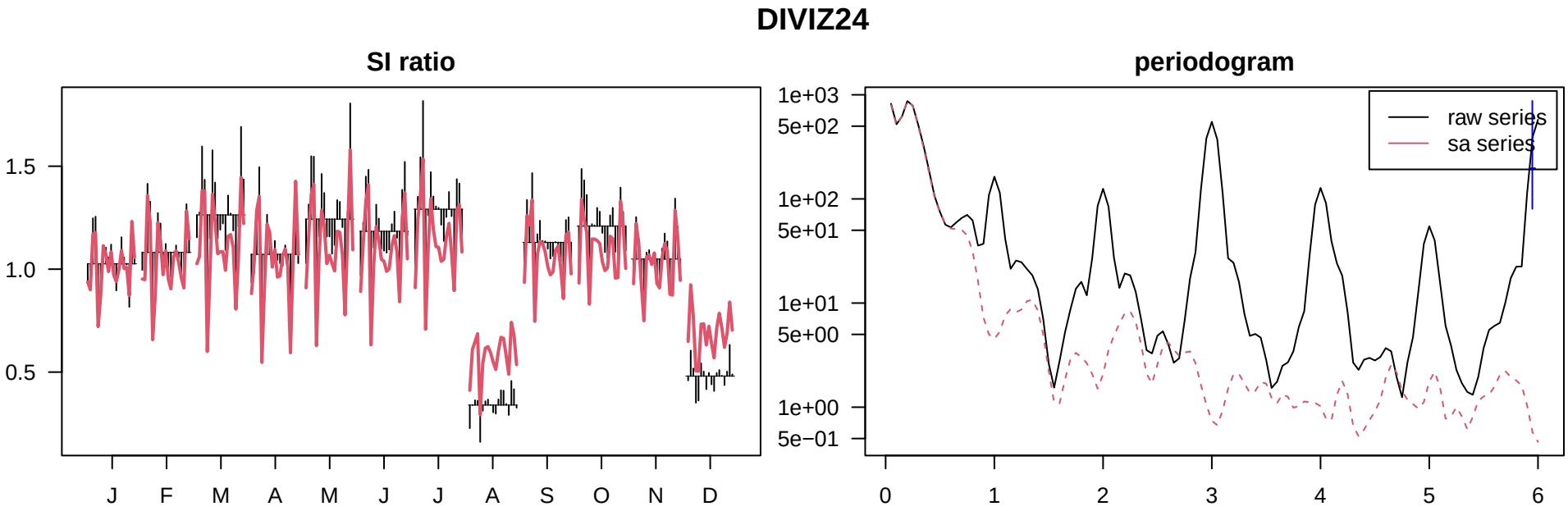
2010
2015
2020


DIVIZ24
SI ratio
1.5
1.0
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F
M
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M
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J
A
S
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N
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periodogram
1e+03
5e+02
1e+02
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5e−01
raw series
sa series
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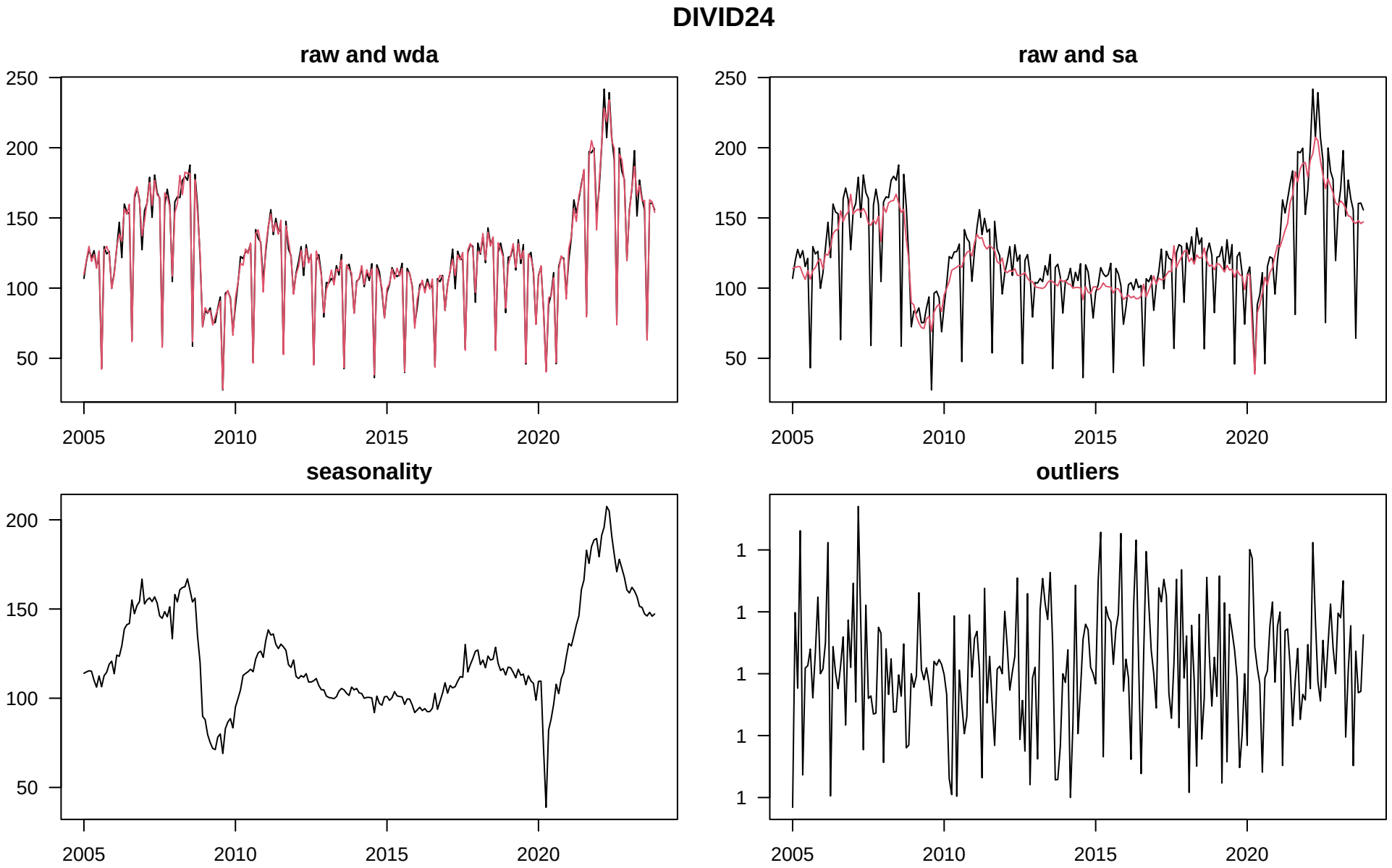
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raw and sa
seasonality
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2010
2015
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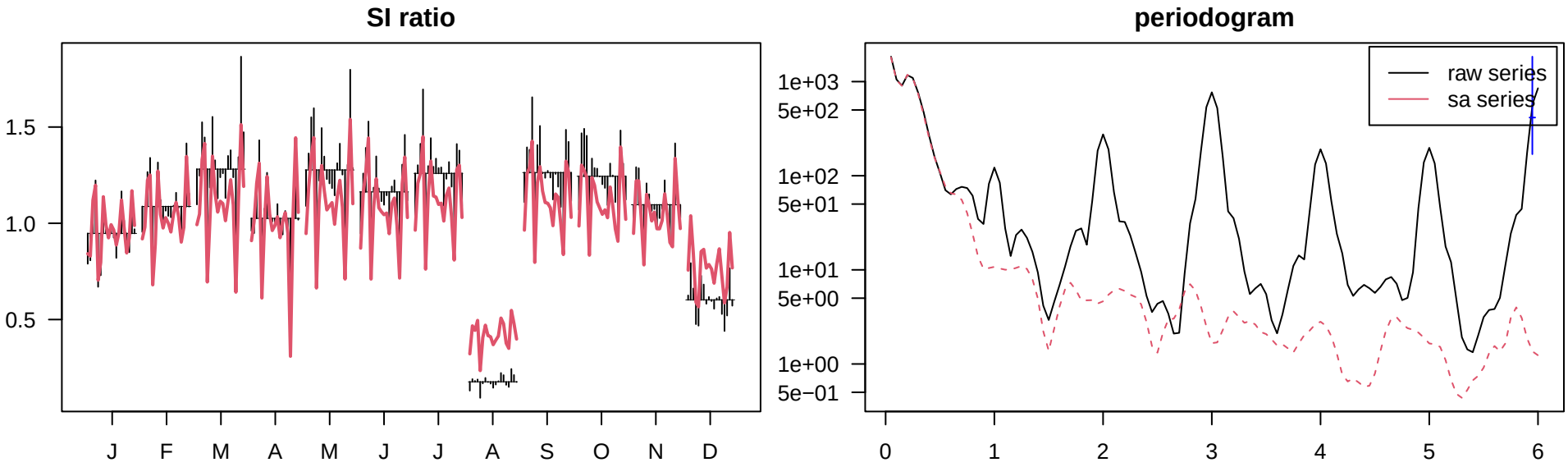
DIVID24


SI ratio
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periodogram
1e+03
5e+02
1e+02
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5e−01
raw series
sa series
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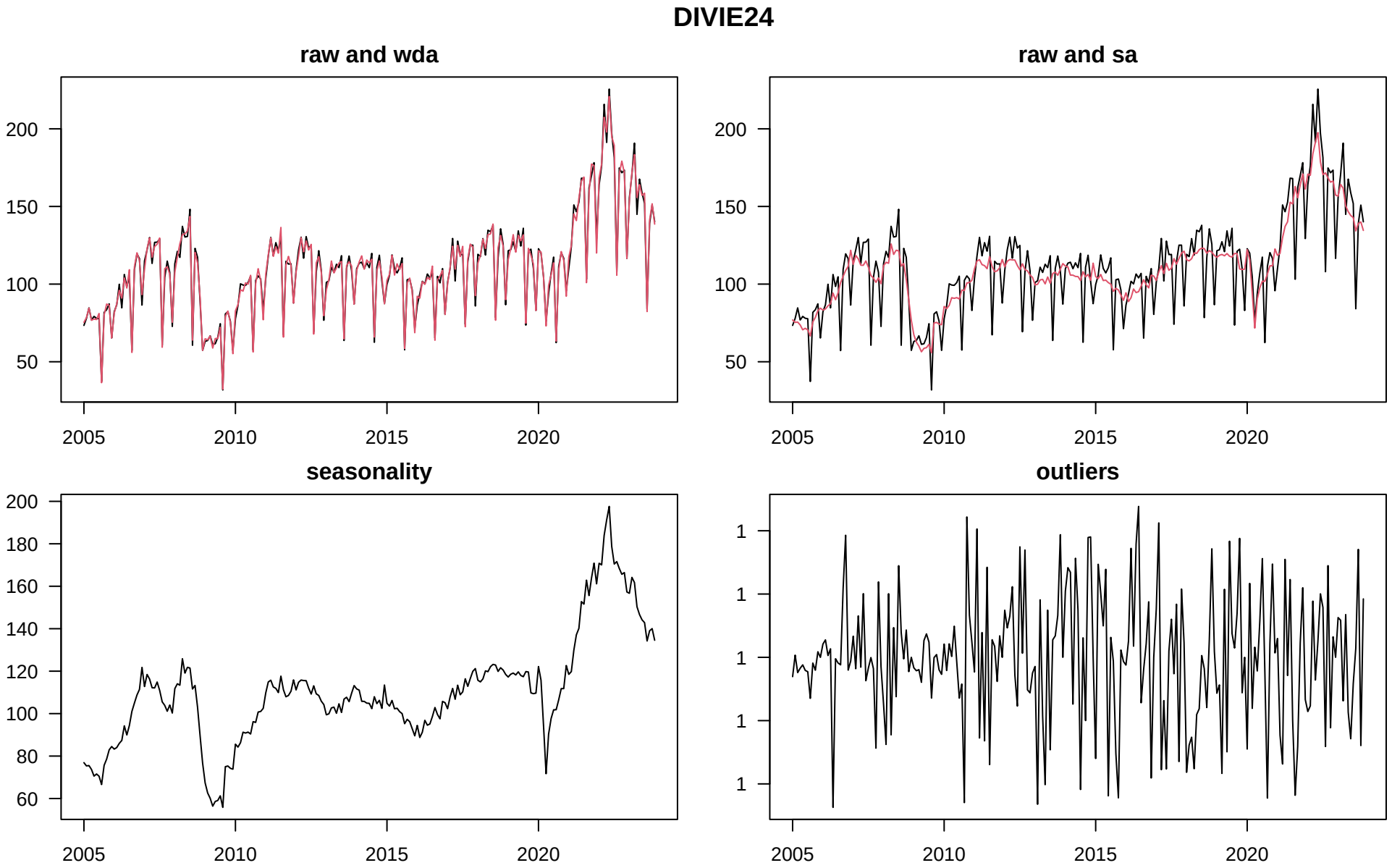
DIVIE24
raw and wda
raw and sa
seasonality
outliers
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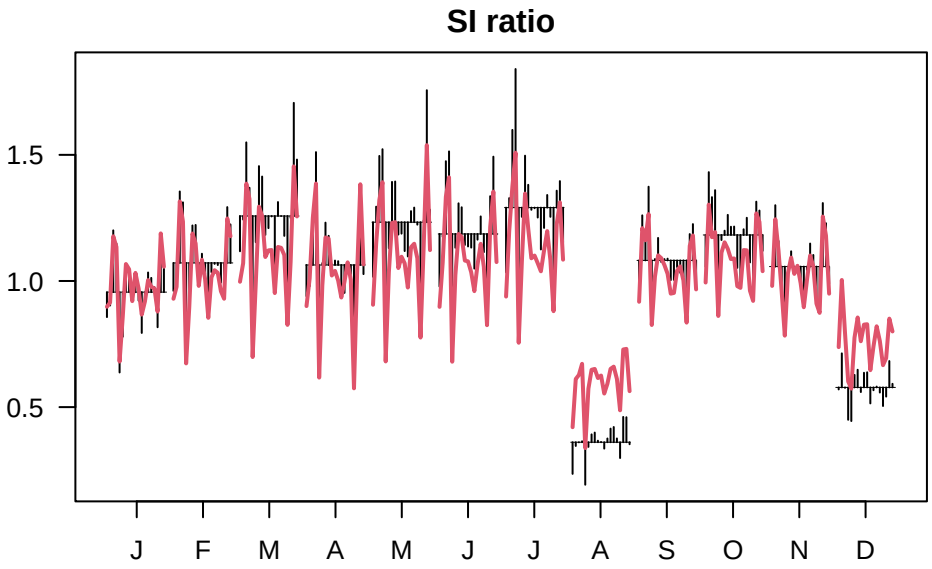
2010
2015
2020

DIVIE24


SI ratio
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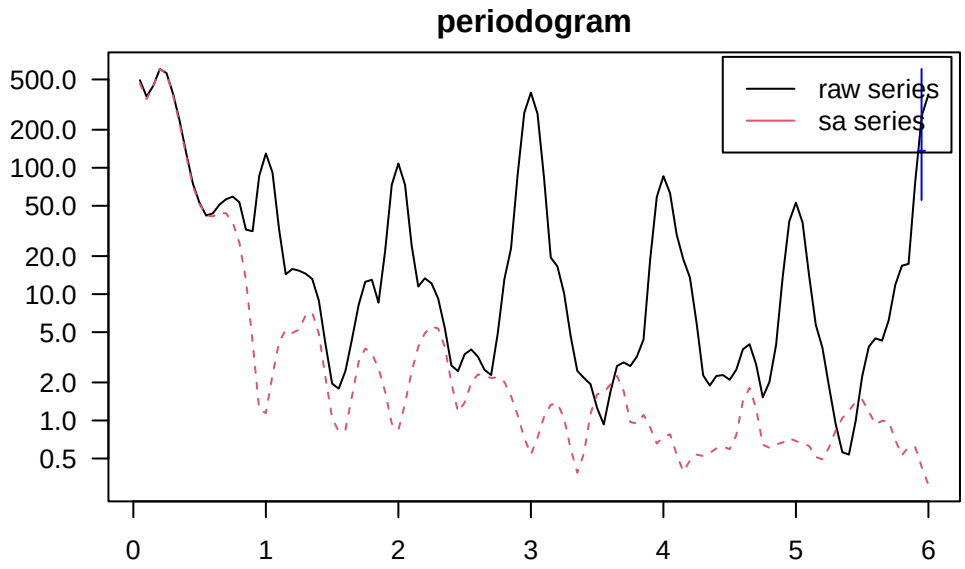
A
S
O
N
D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raw series
sa series
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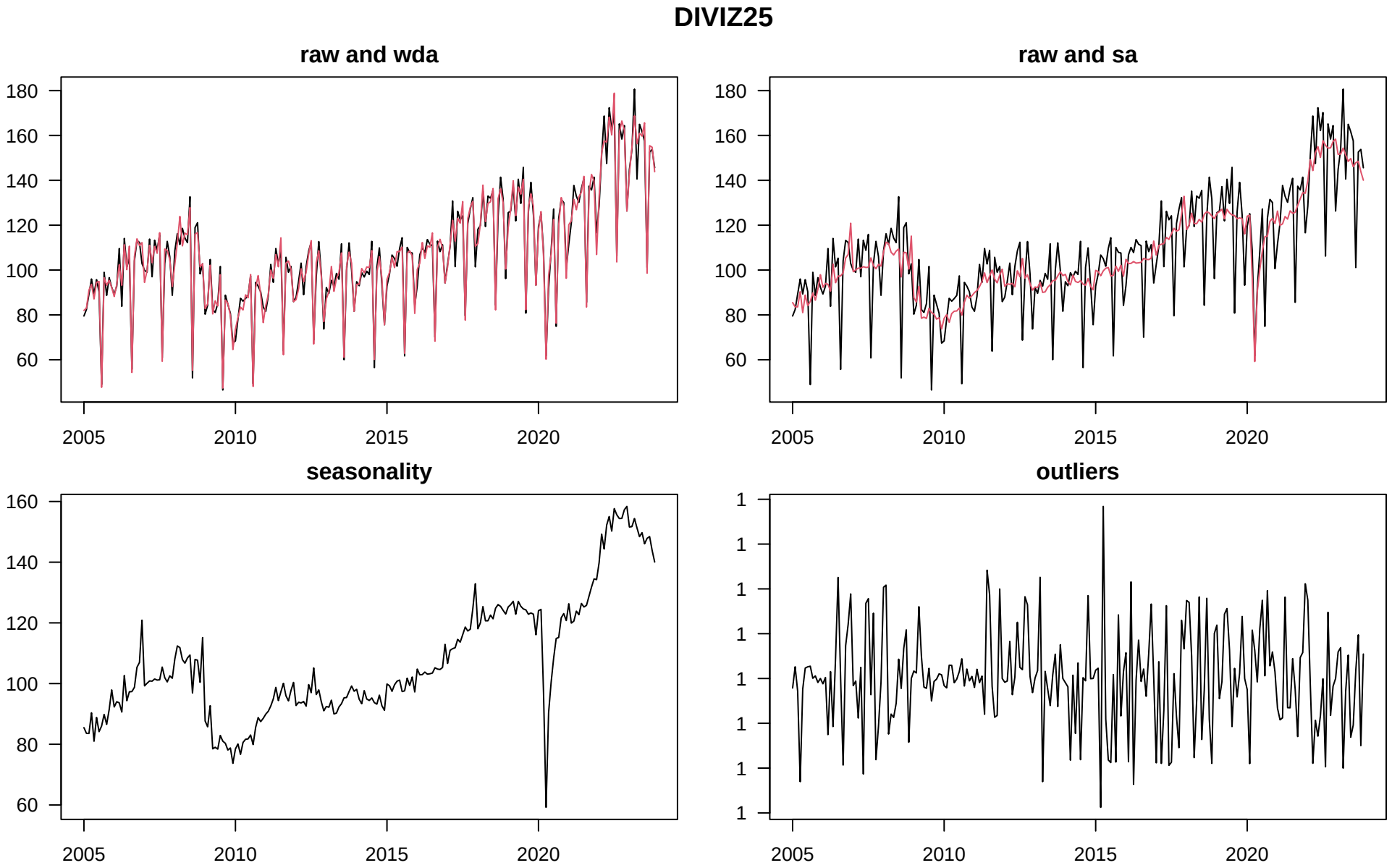
DIVIZ25
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raw and sa
seasonality
outliers
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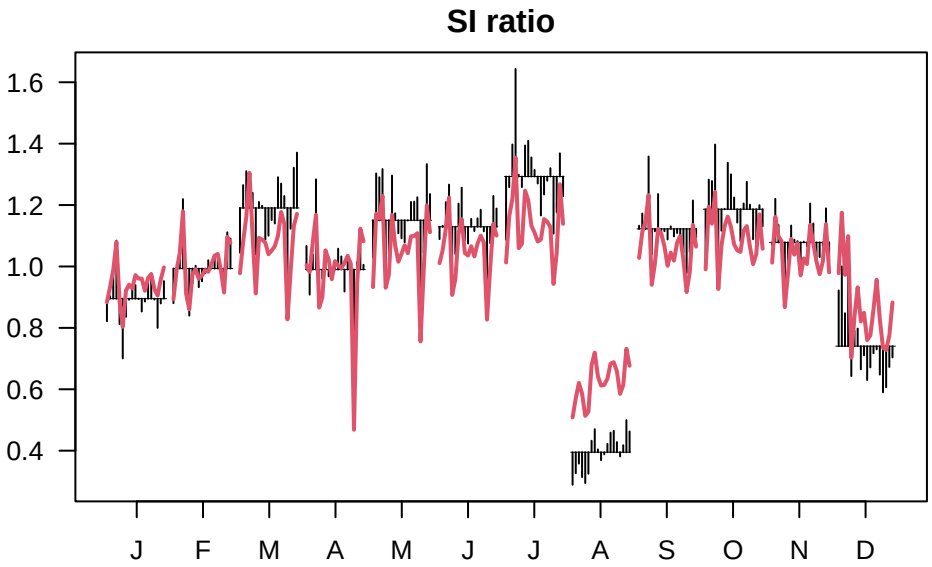
2010
2015
2020

DIVIZ25


SI ratio
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0.4
J
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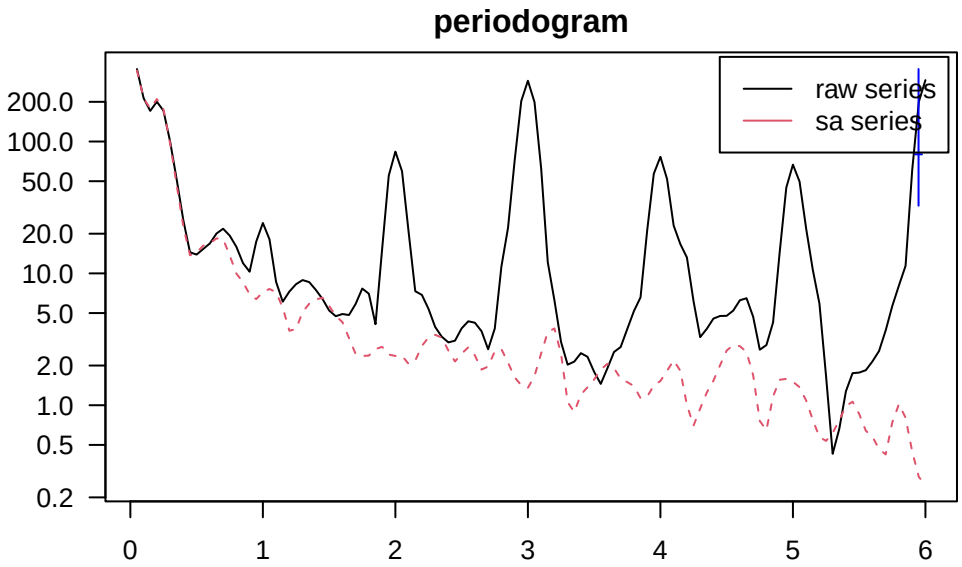
N
D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raw series
sa series
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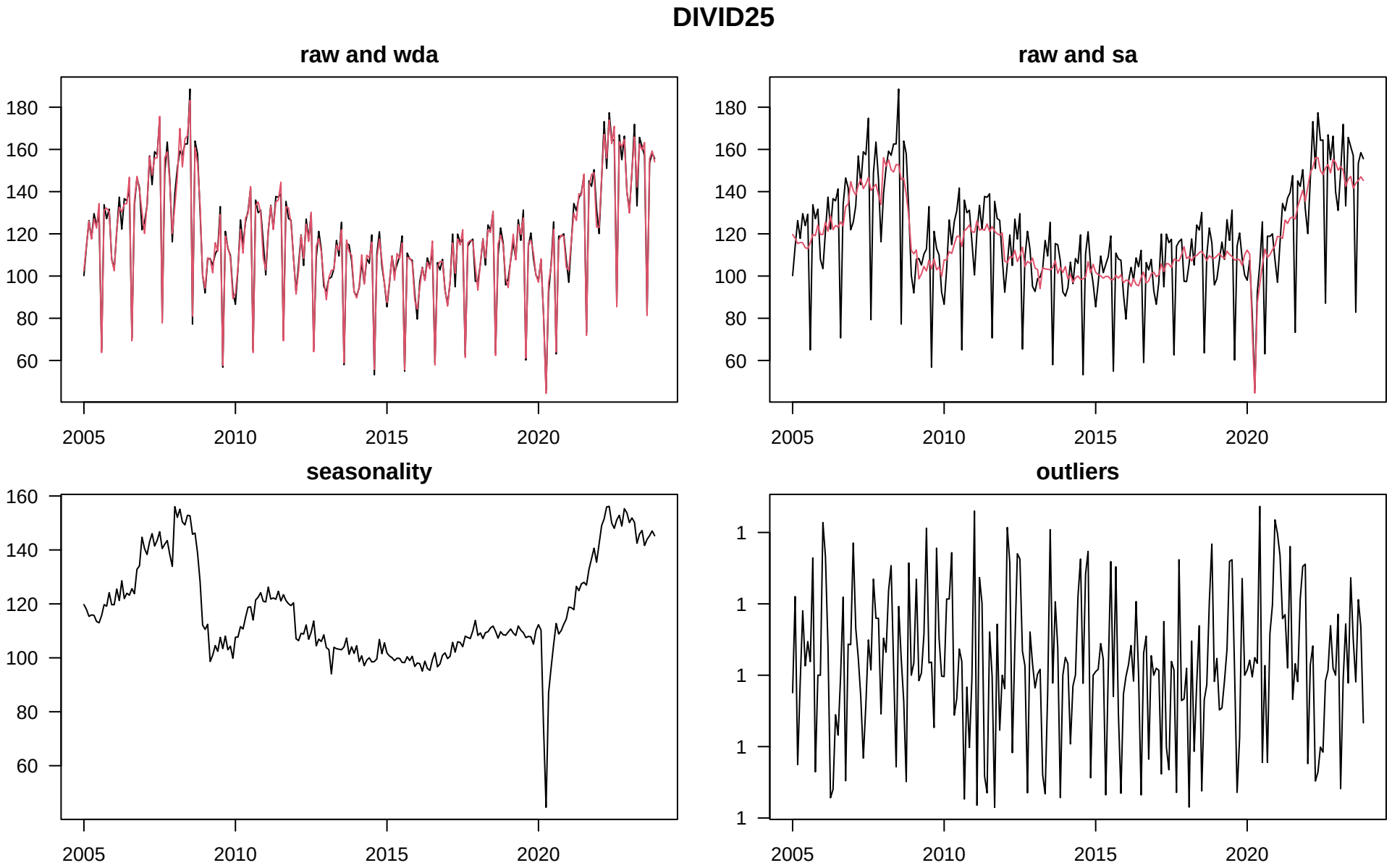
DIVID25
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raw and sa
seasonality
outliers
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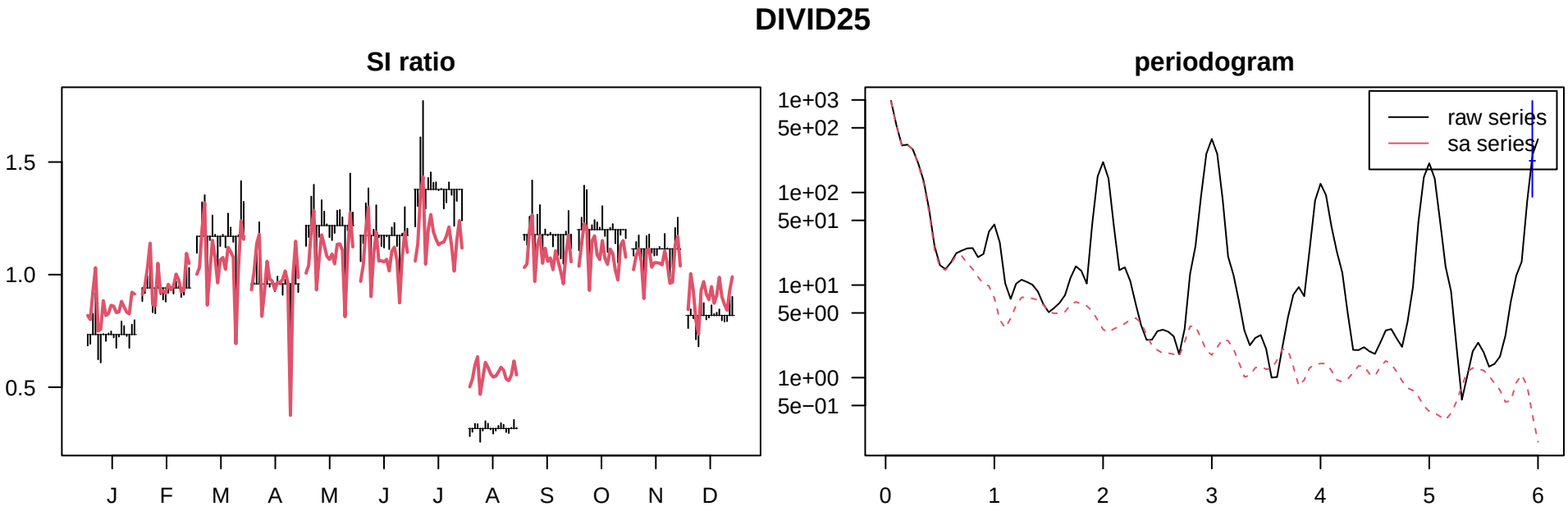
2005
2010
2015
2020


DIVID25
SI ratio
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1.0
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A
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O
N
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periodogram
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5e+02
1e+02
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5e−01
raw series
sa series
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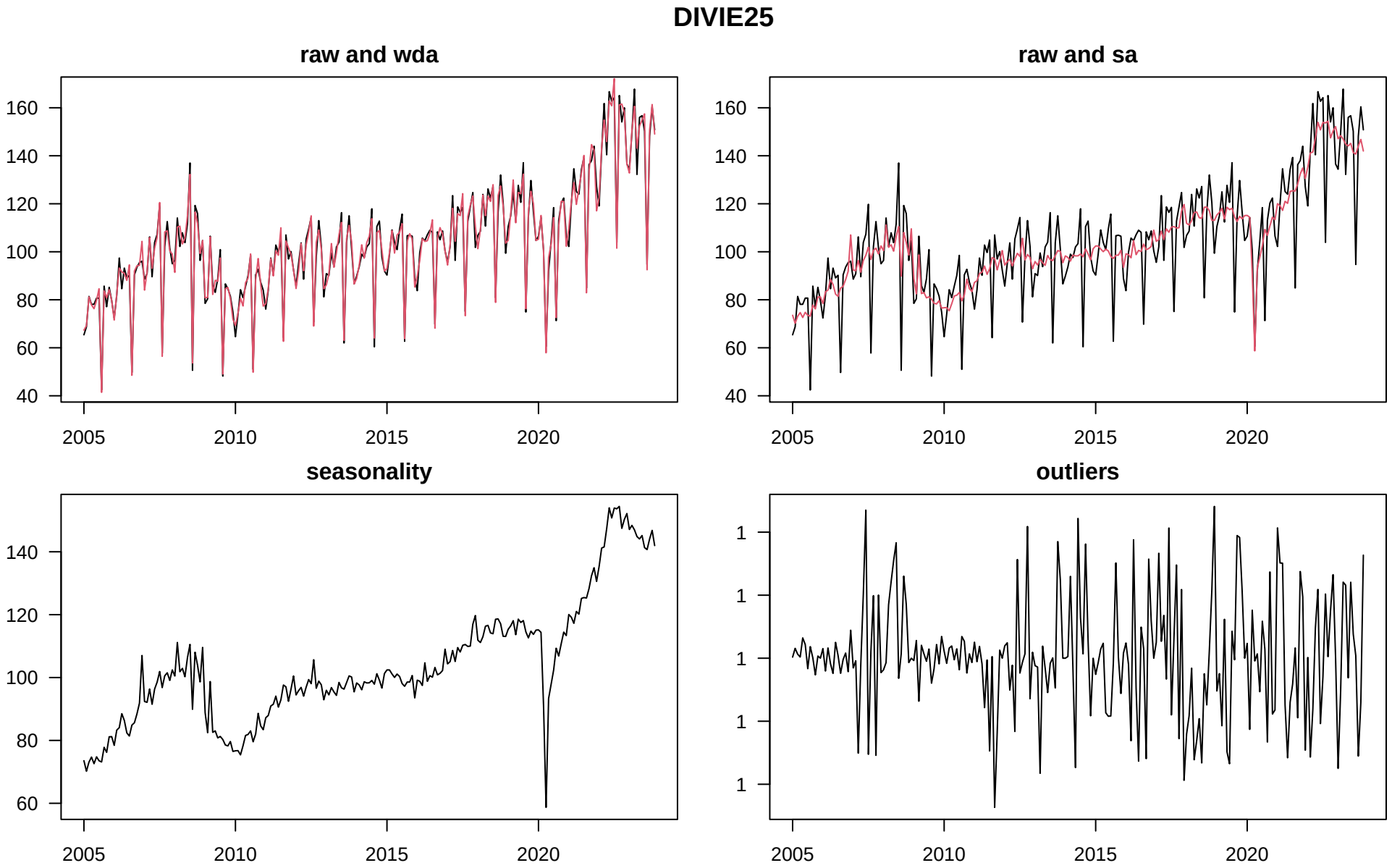
6


DIVIE25
raw and wda
raw and sa
seasonality
outliers
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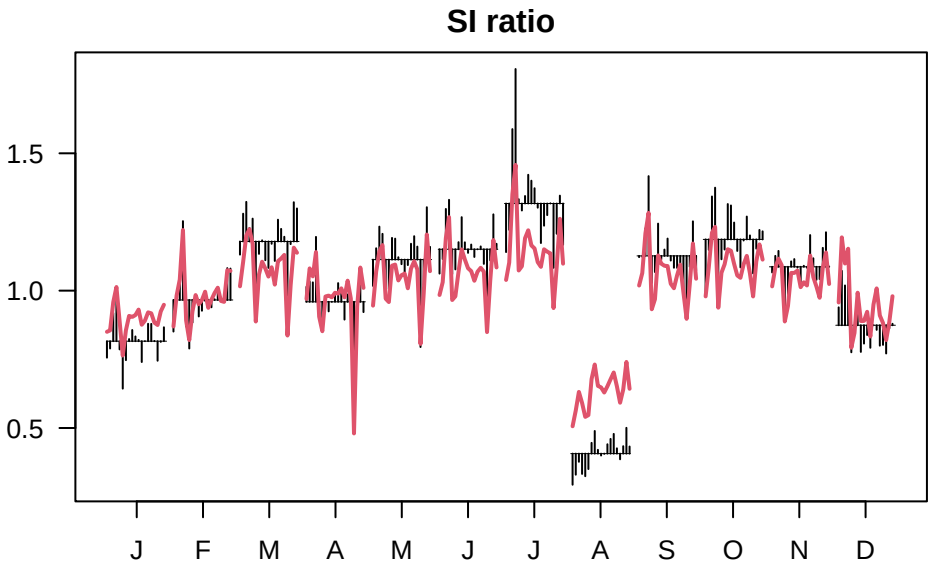
2005
2010
2015
2020
1

DIVIE25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1.0
0.5
J
F
M
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M
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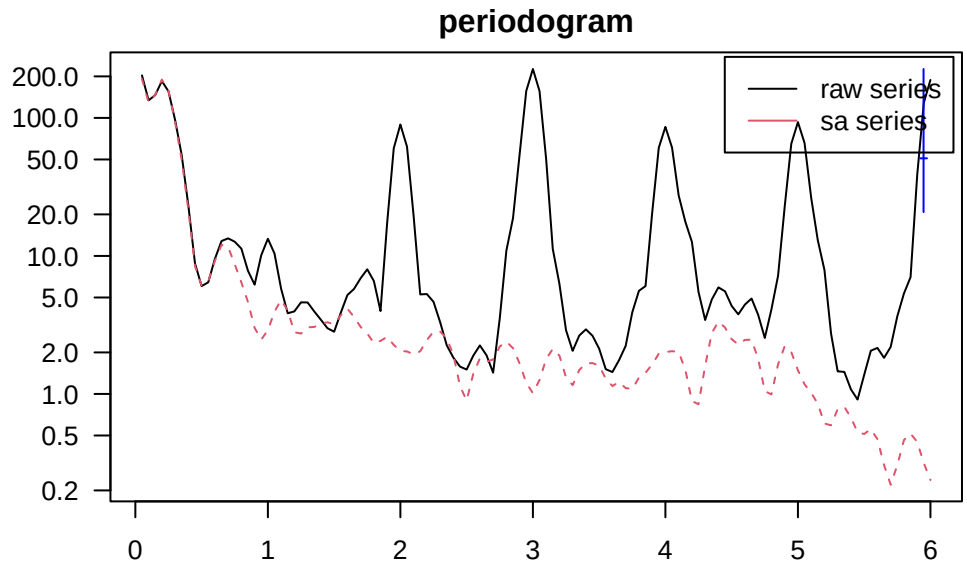
A
S
O
N
D


periodogram
raw series
sa series
200.0
100.0
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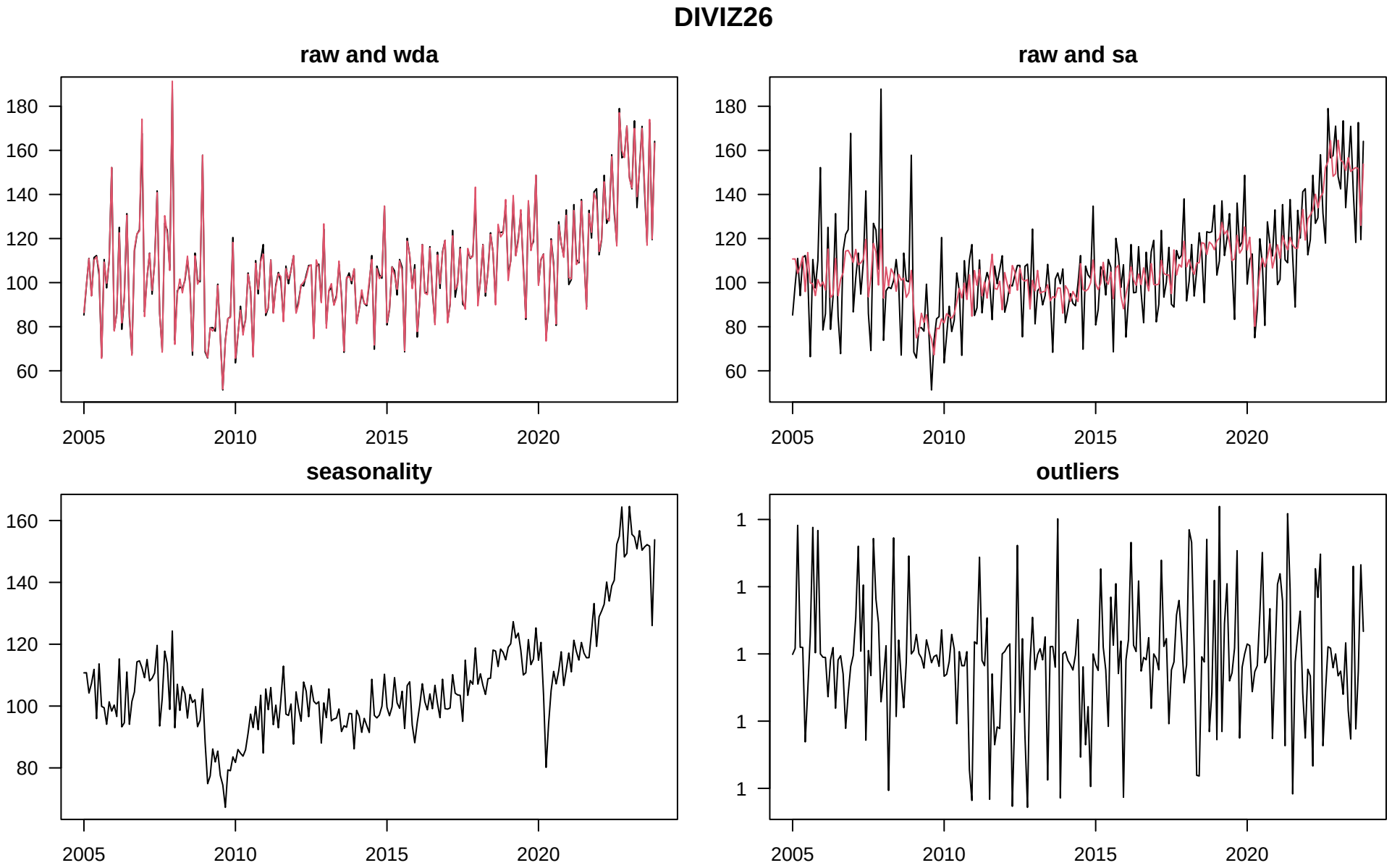
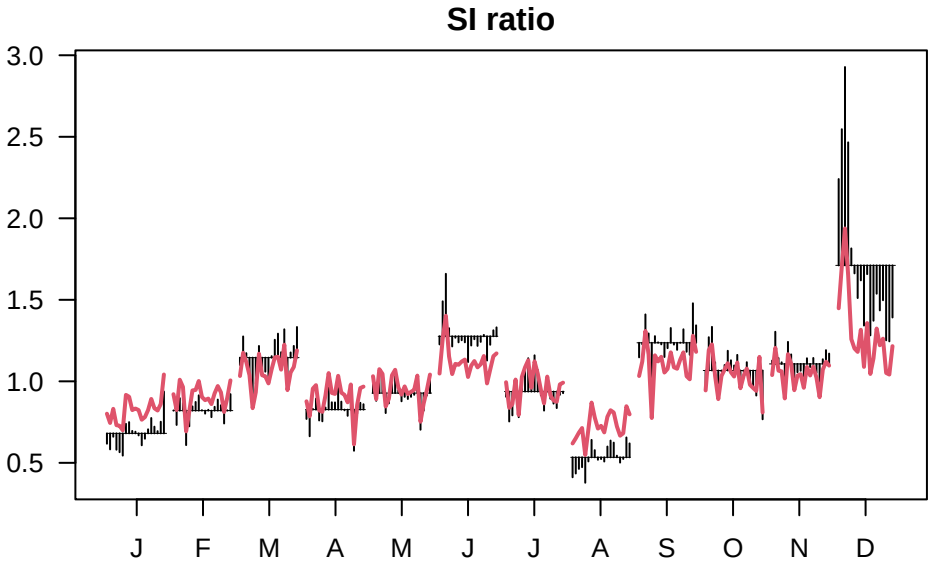

DIVIZ26
raw and wda
raw and sa
seasonality
outliers
180
160
140
120
100
80
60
2005
2010
2015
2020
1

DIVIZ26


SI ratio
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S
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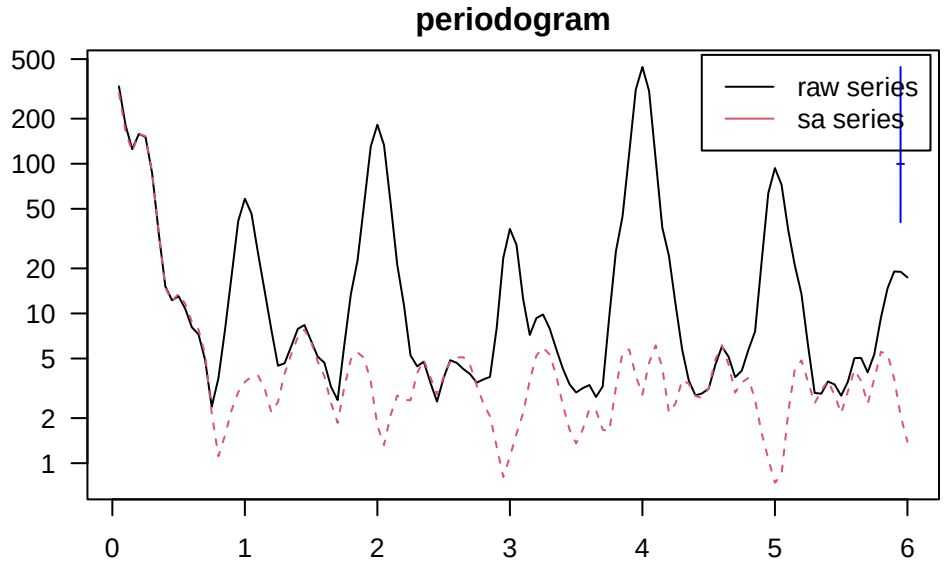
N
D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500
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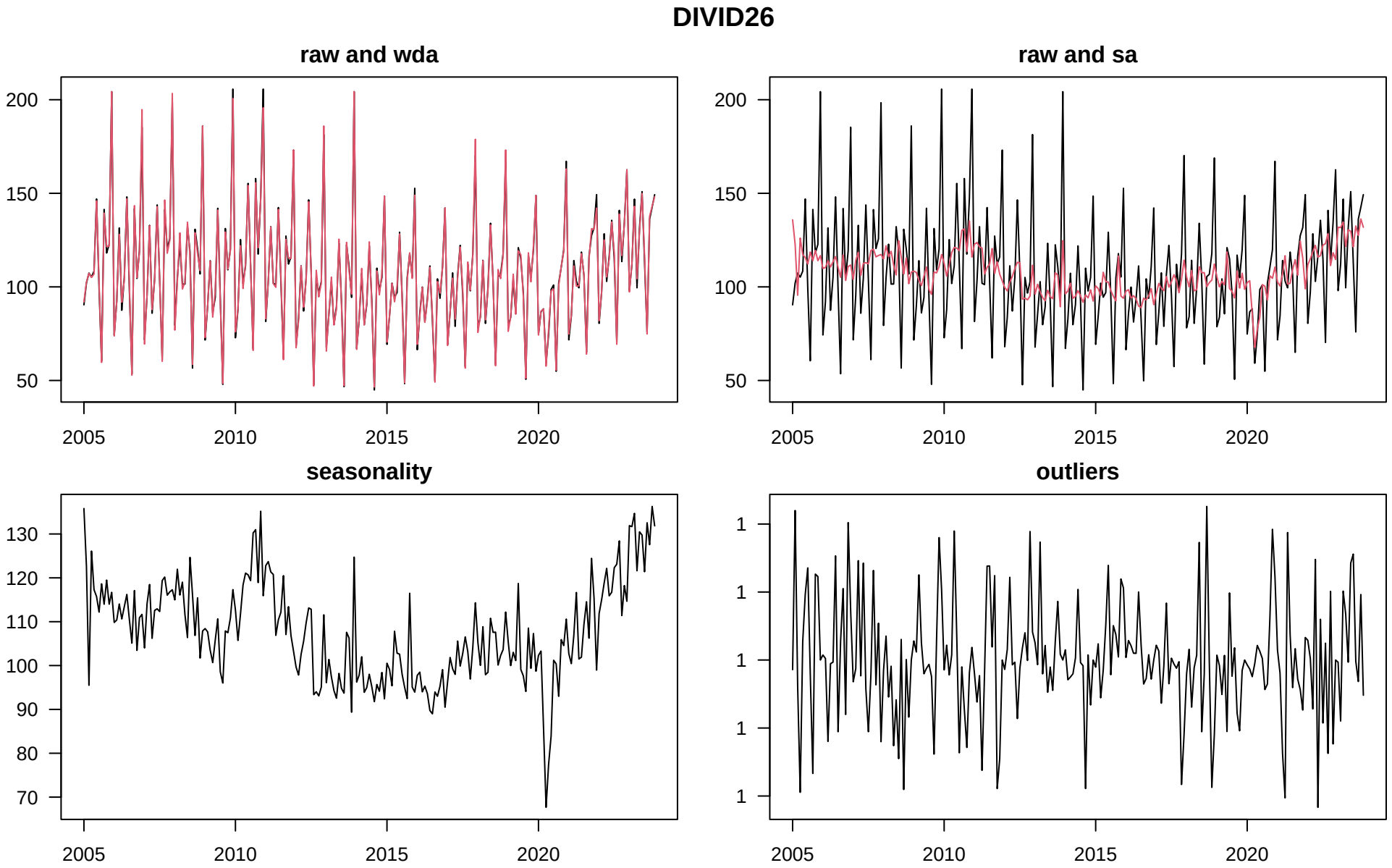
2
1
0
1
2
3
4
5
6
raw series
sa series


DIVID26
raw and wda
raw and sa
seasonality
outliers
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100
90
80
70
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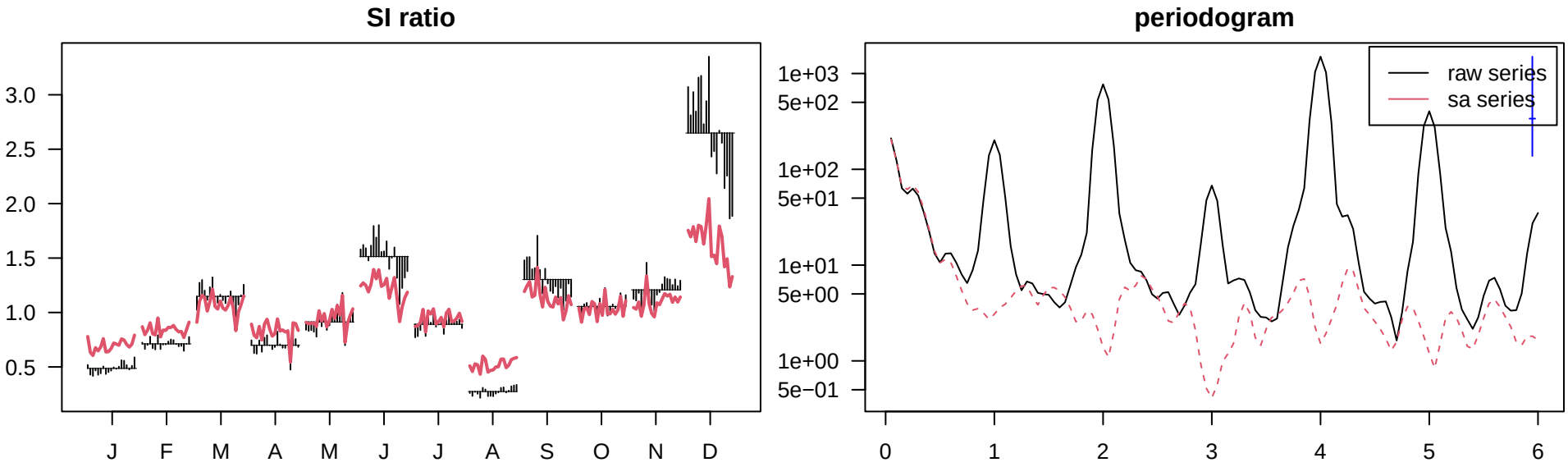
2005
2010
2015
2020

DIVID26


SI ratio
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2.0
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1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
1e+03
5e+02
1e+02
5e+01
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5e+00
1e+00
5e−01
raw series
sa series
0
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5
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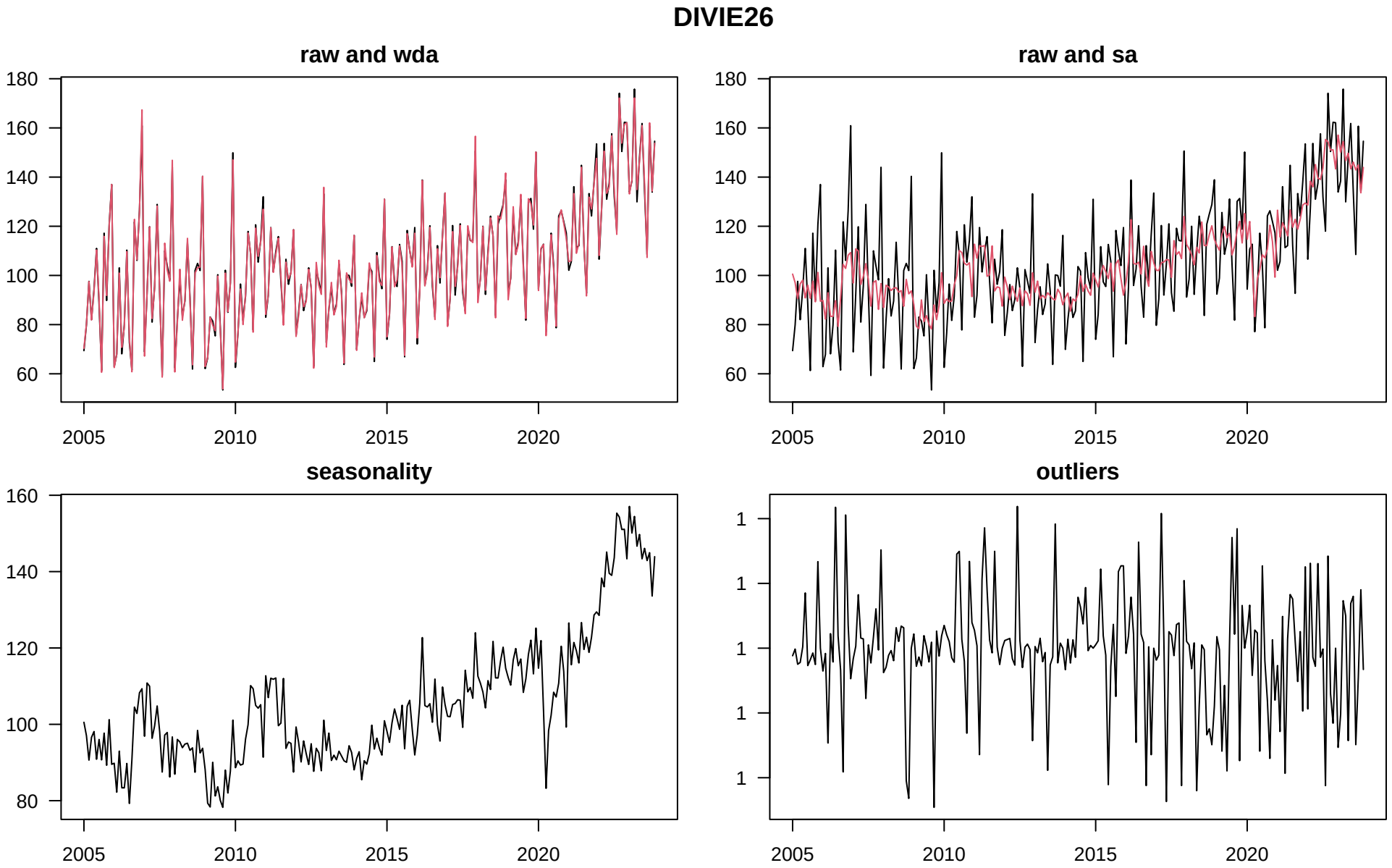
DIVIE26
raw and wda
raw and sa
seasonality
outliers
180
160
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120
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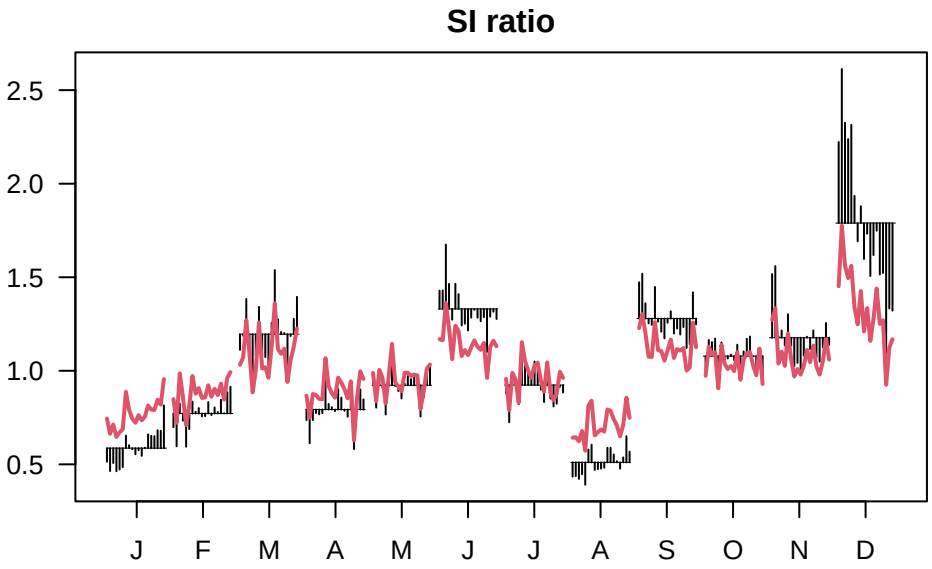
80
60
2005
2010
2015
2020
1

DIVIE26


SI ratio
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1.0
0.5
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M
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M
J
J
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S
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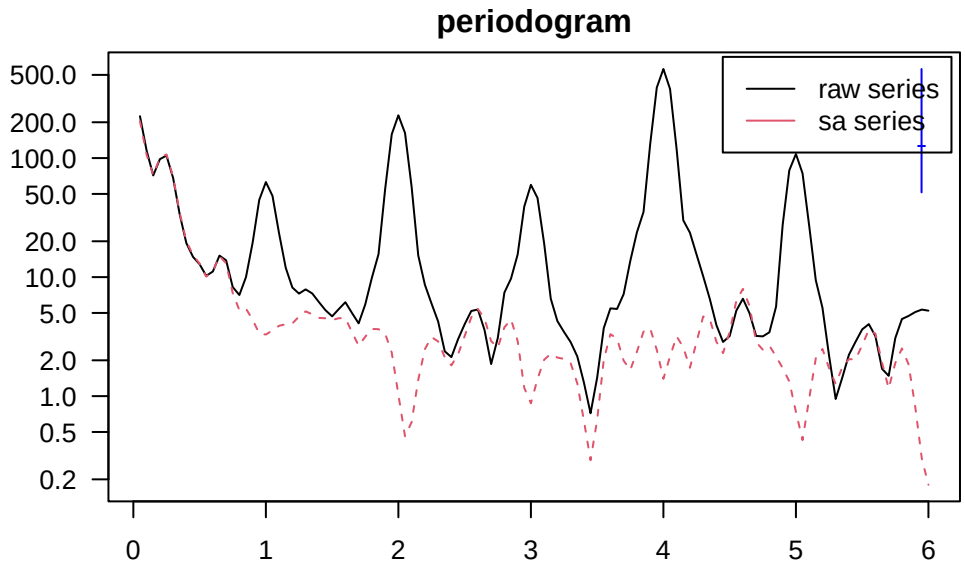
N
D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raw series
sa series
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200.0
100.0
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20.0
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5.0
2.0
1.0
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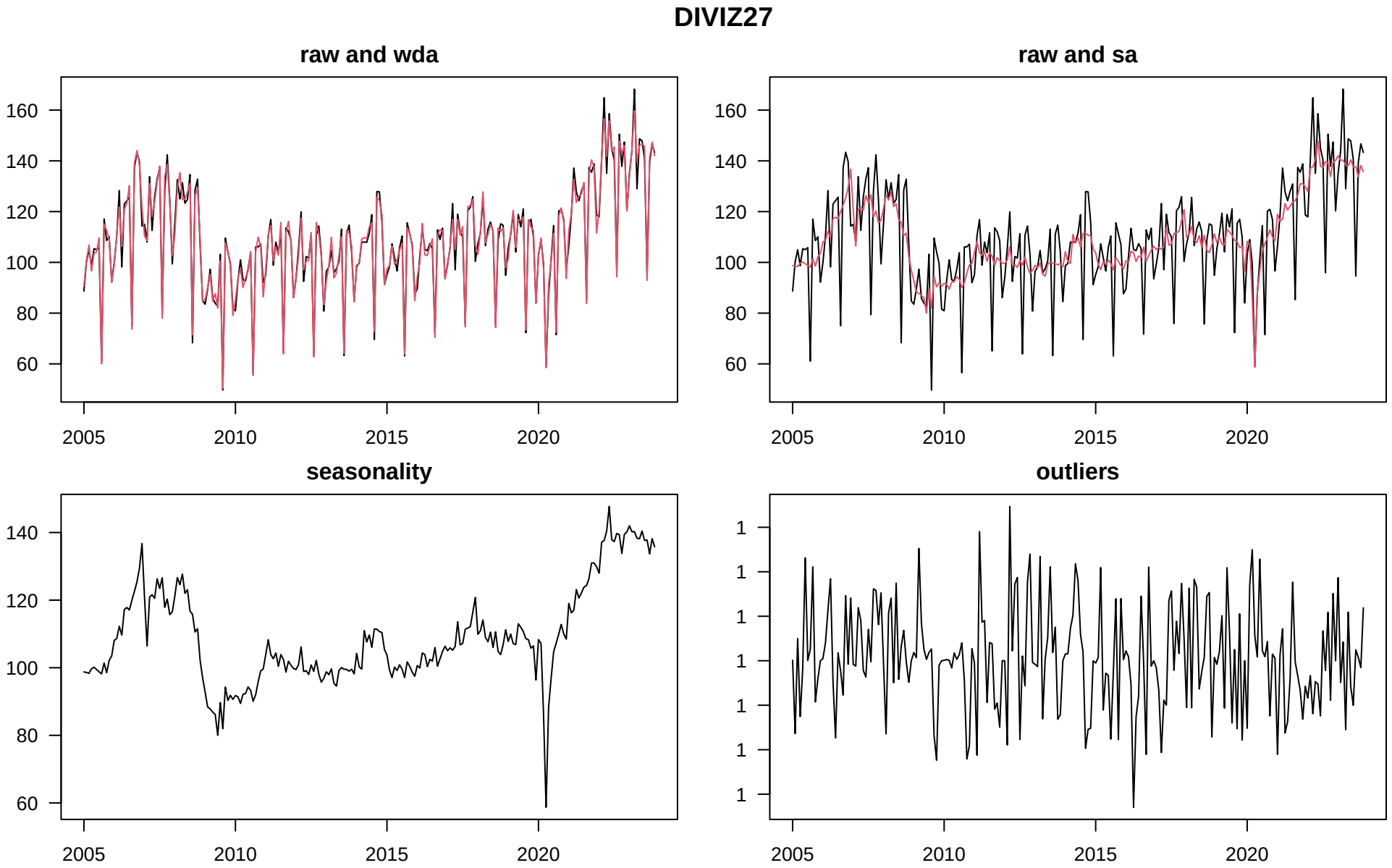
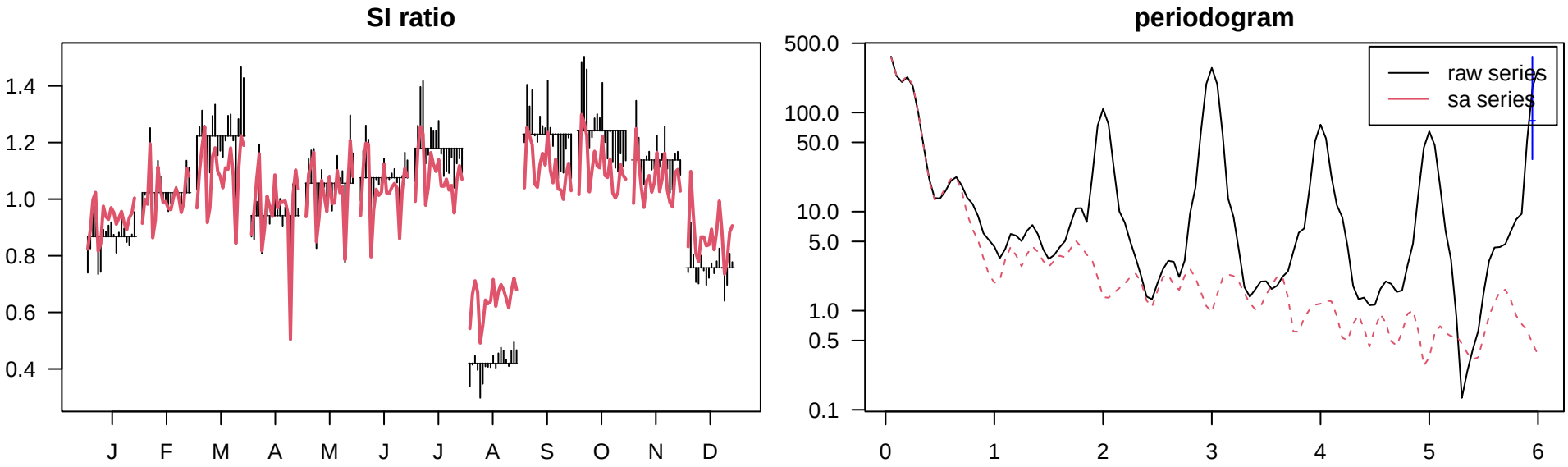

DIVIZ27
raw and wda
raw and sa
seasonality
outliers
160
140
120
100
80
60
2005
2010
2015
2020
1

DIVIZ27


SI ratio
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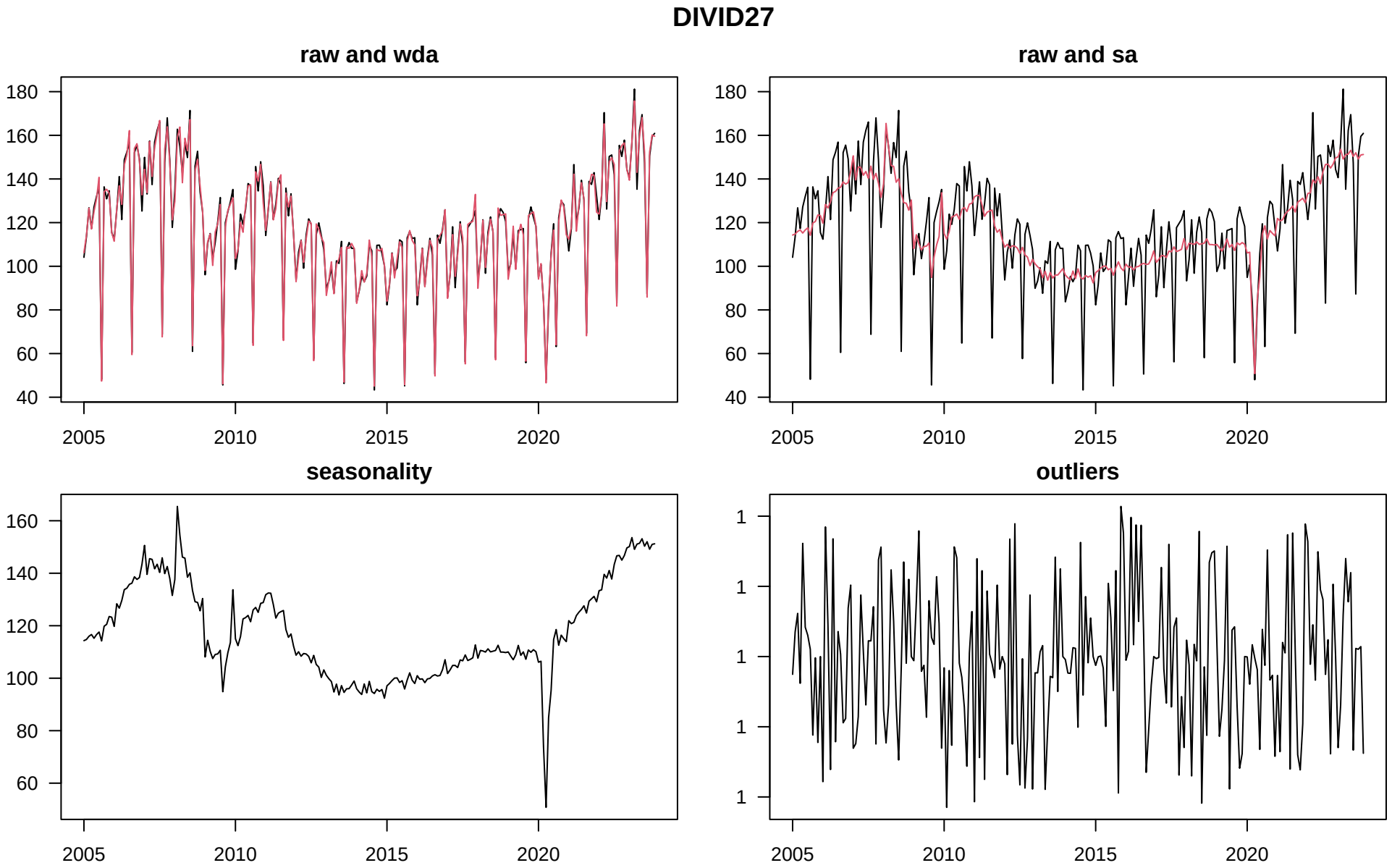
1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
500.0
100.0
50.0
10.0
5.0
1.0
0.5
0.1
0
1
2
3
4
5
6
raw series
sa series


DIVID27
raw and wda
raw and sa
seasonality
outliers
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160
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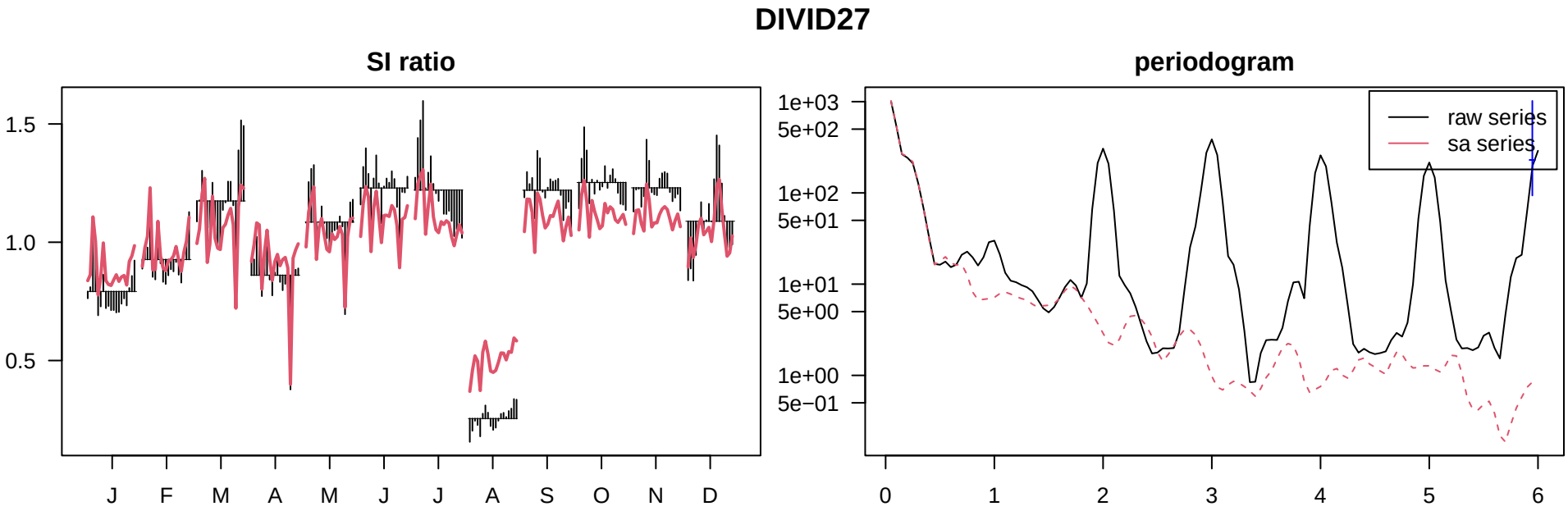
120
100
80
60
40
2005
2010
2015
2020
1


DIVID27
SI ratio
1.5
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
1e+03
5e+02
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
raw series
sa series
0
1
2
3
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5
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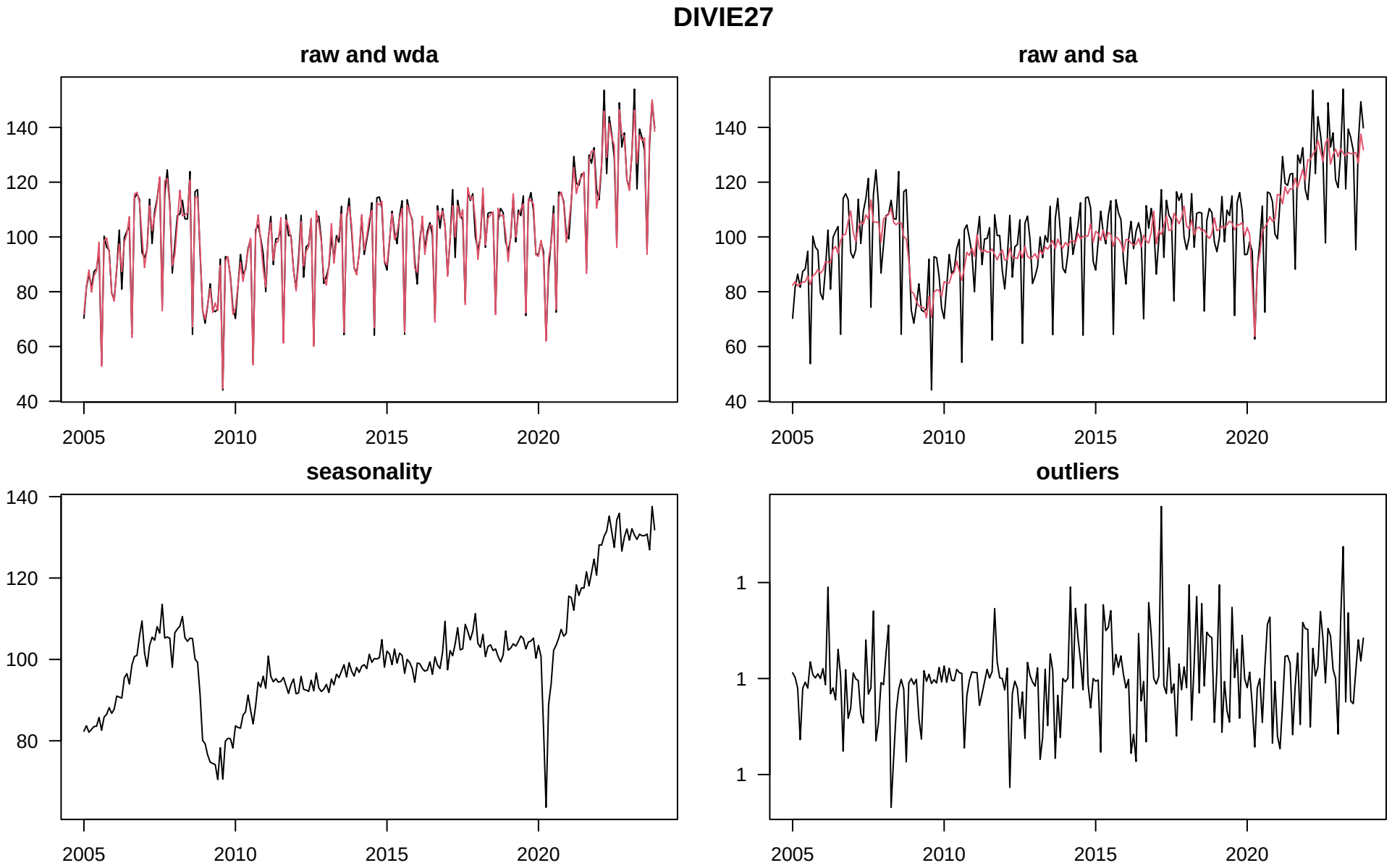
DIVIE27
raw and wda
raw and sa
seasonality
outliers
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120
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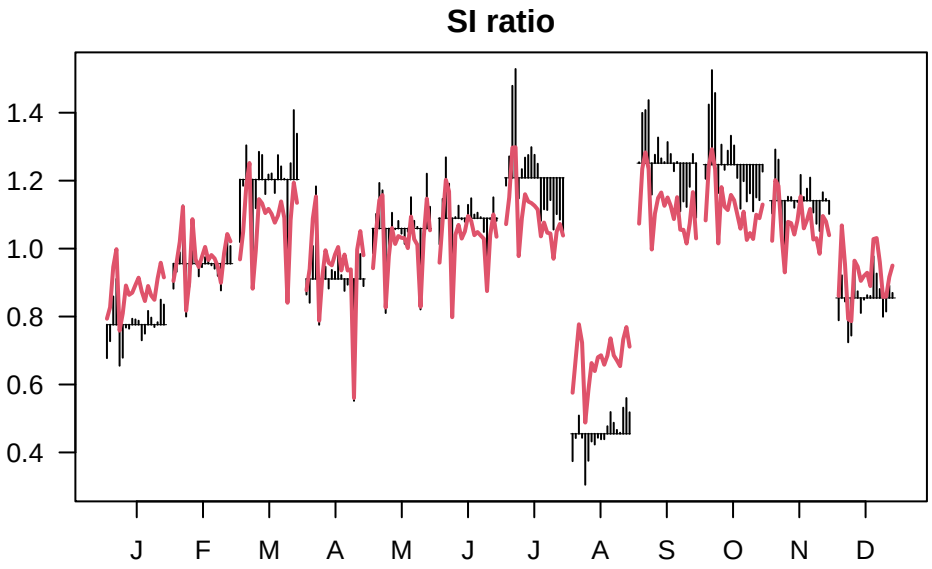
2005
2010
2015
2020
1

DIVIE27


SI ratio
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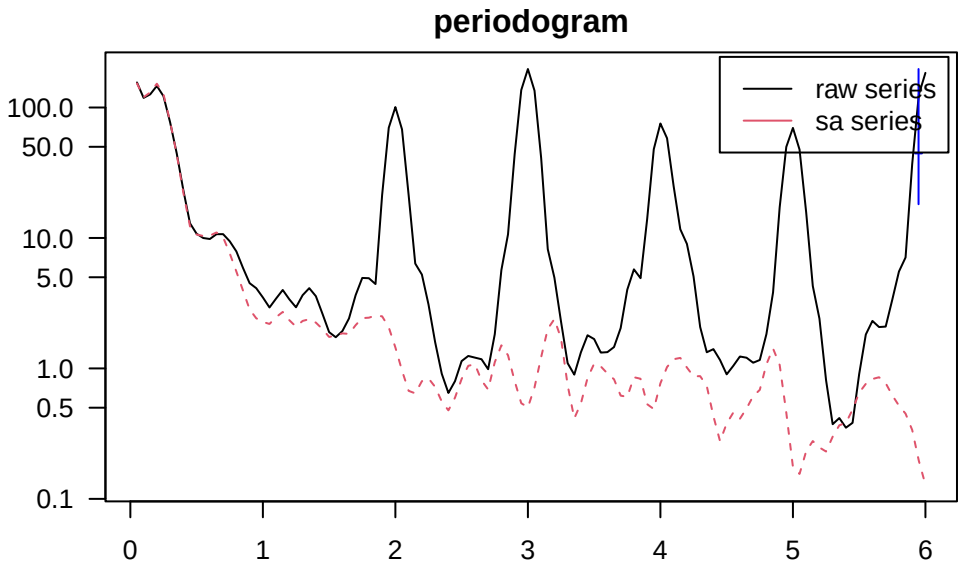
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
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10.0
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1.0
0.5
0.1
0
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3
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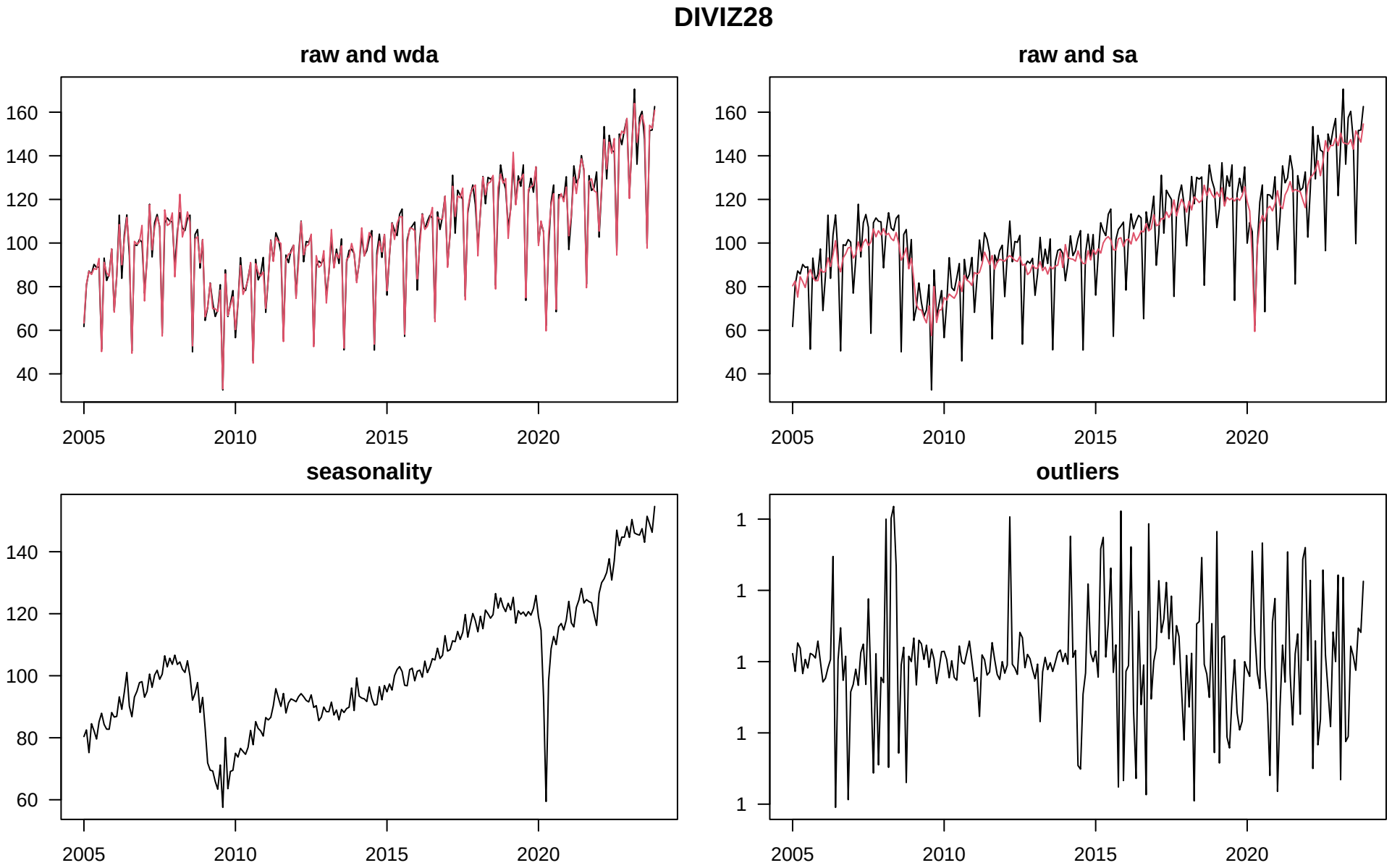
5
6


DIVIZ28
raw and wda
raw and sa
seasonality
outliers
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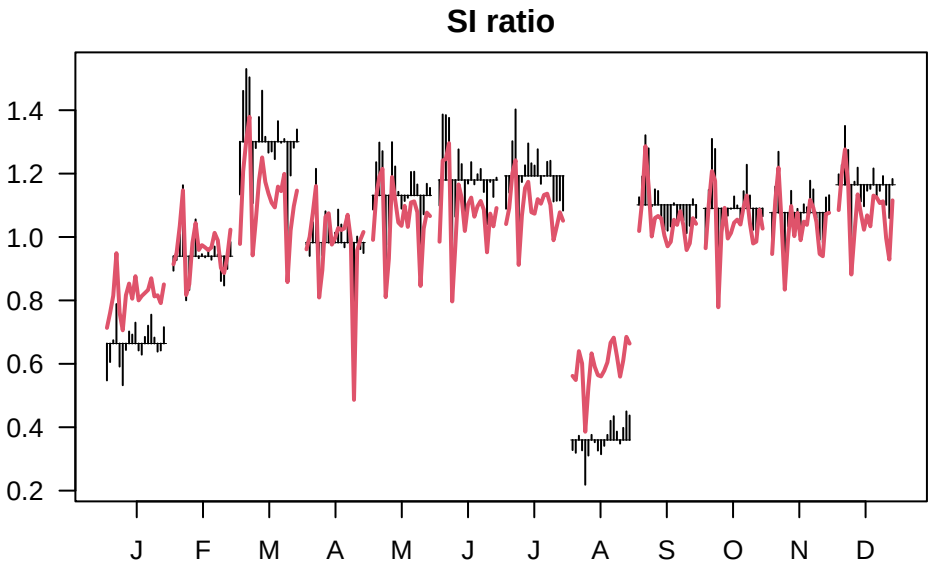
2005
2010
2015
2020
1

DIVIZ28


SI ratio
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1.2
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0.8
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0.2
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M
J
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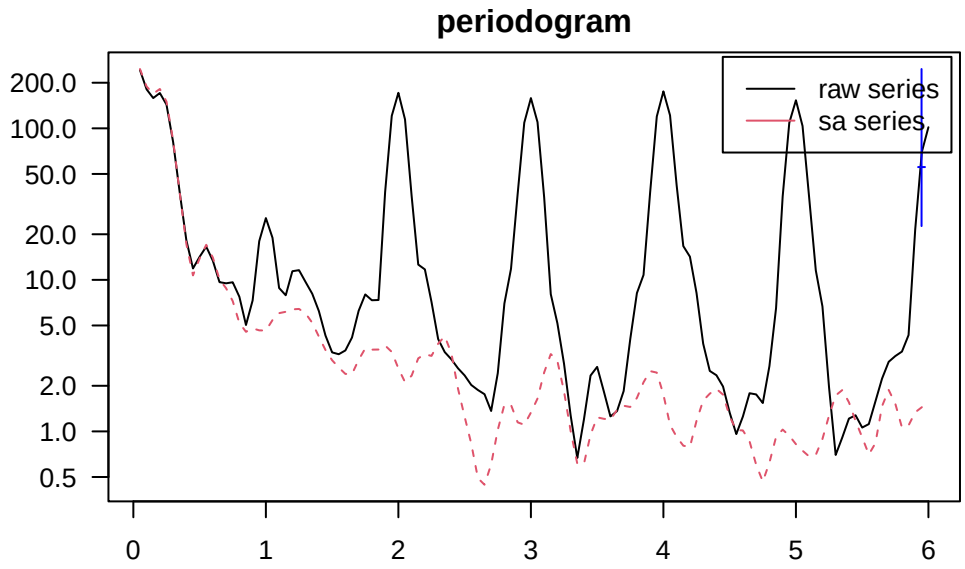
S
O
N
D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sa series
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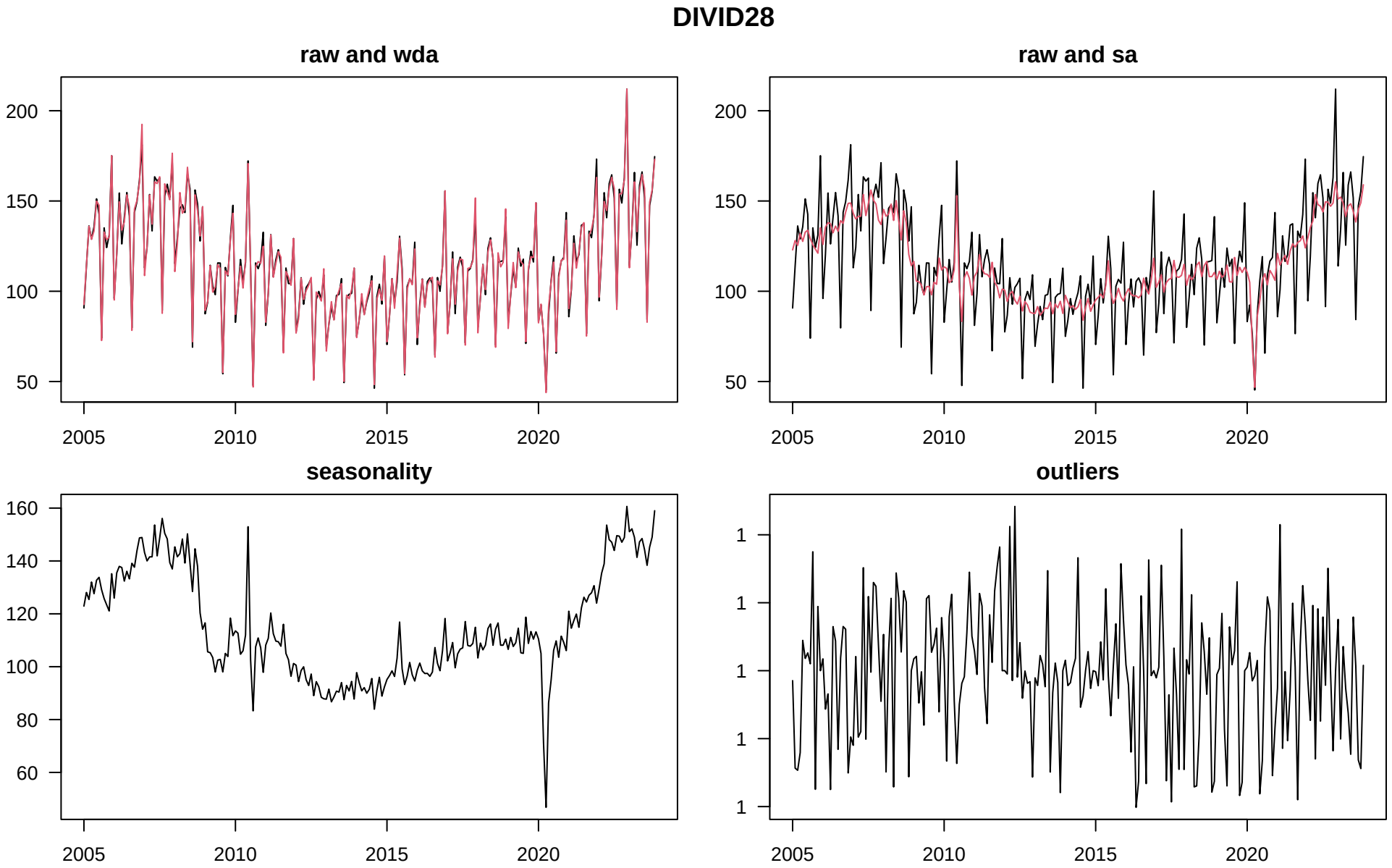
DIVID28
raw and wda
raw and sa
seasonality
outliers
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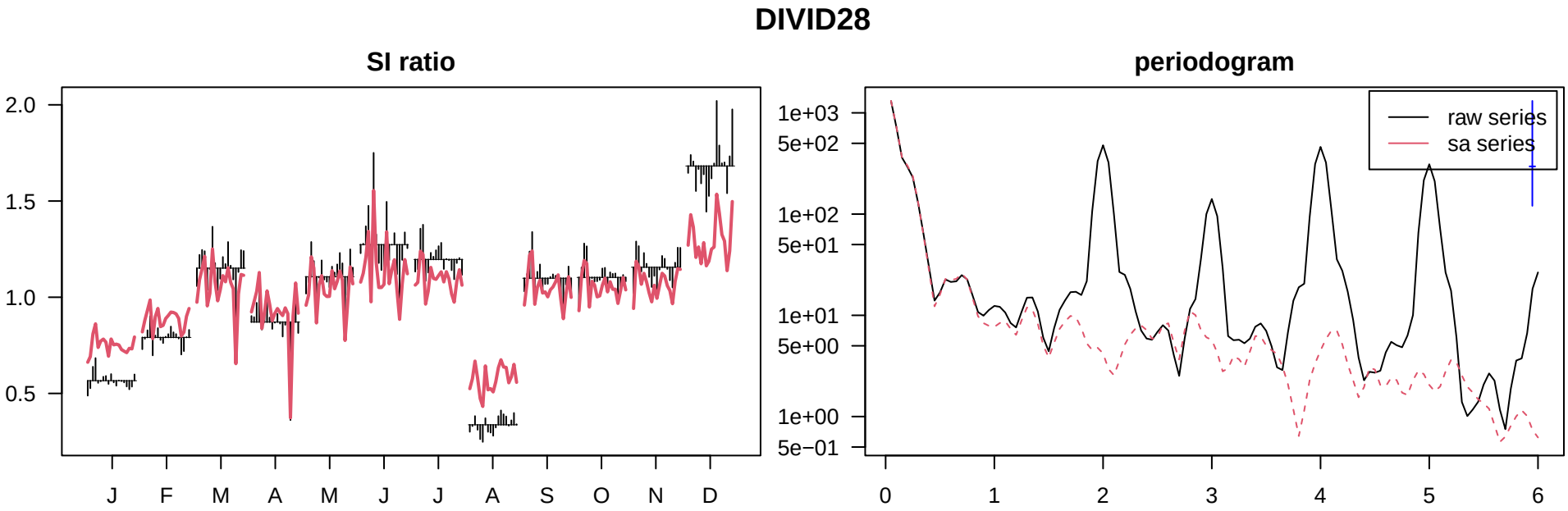
1
2005
2010
2015
2020


DIVID28
SI ratio
periodogram
2.0
1.5
1.0
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J
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A
M
J
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A
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D
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5e+02
1e+02
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5e−01
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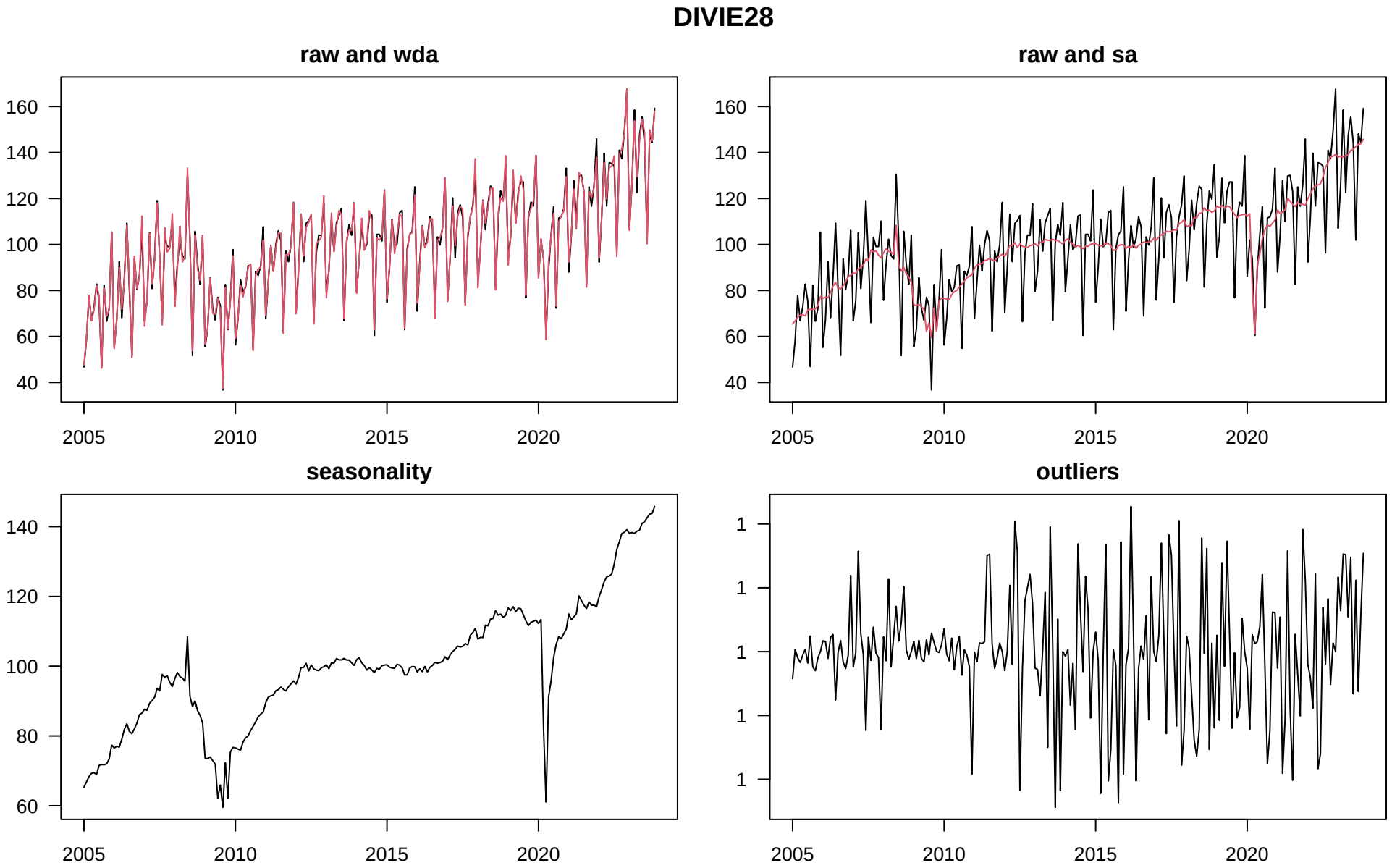
2
3
4
5
6
raw series
sa series


DIVIE28
raw and wda
raw and sa
seasonality
outliers
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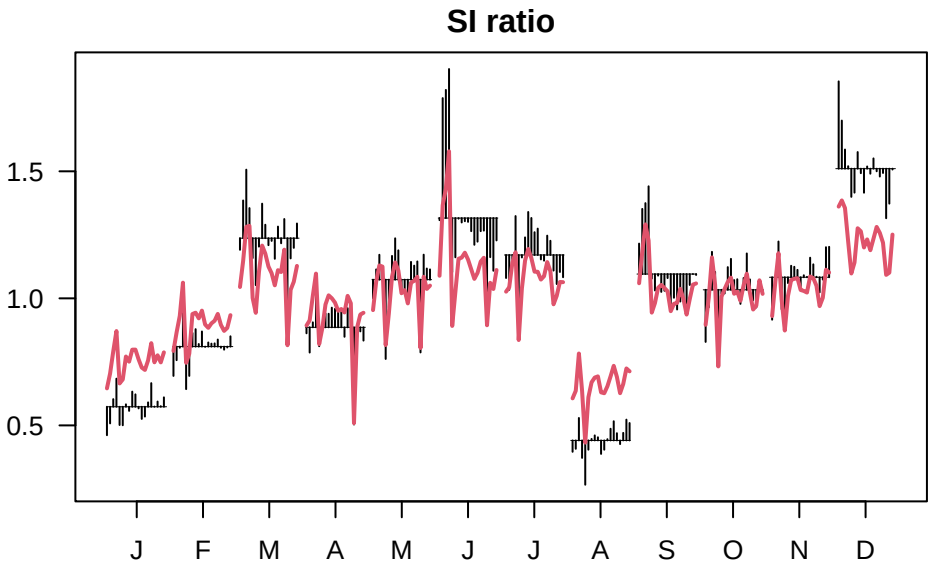
2005
2010
2015
2020
1

DIVIE28


SI ratio
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1.0
0.5
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F
M
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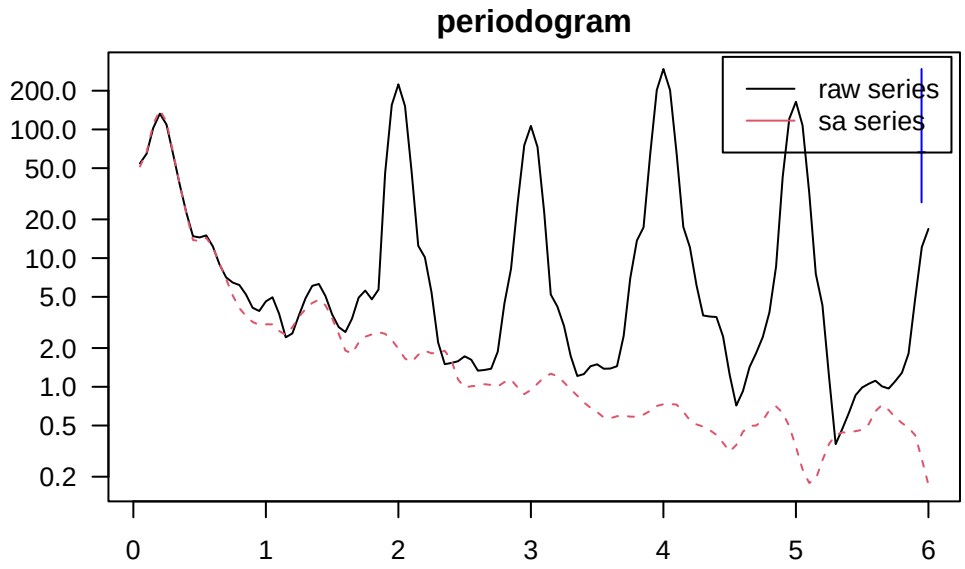
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
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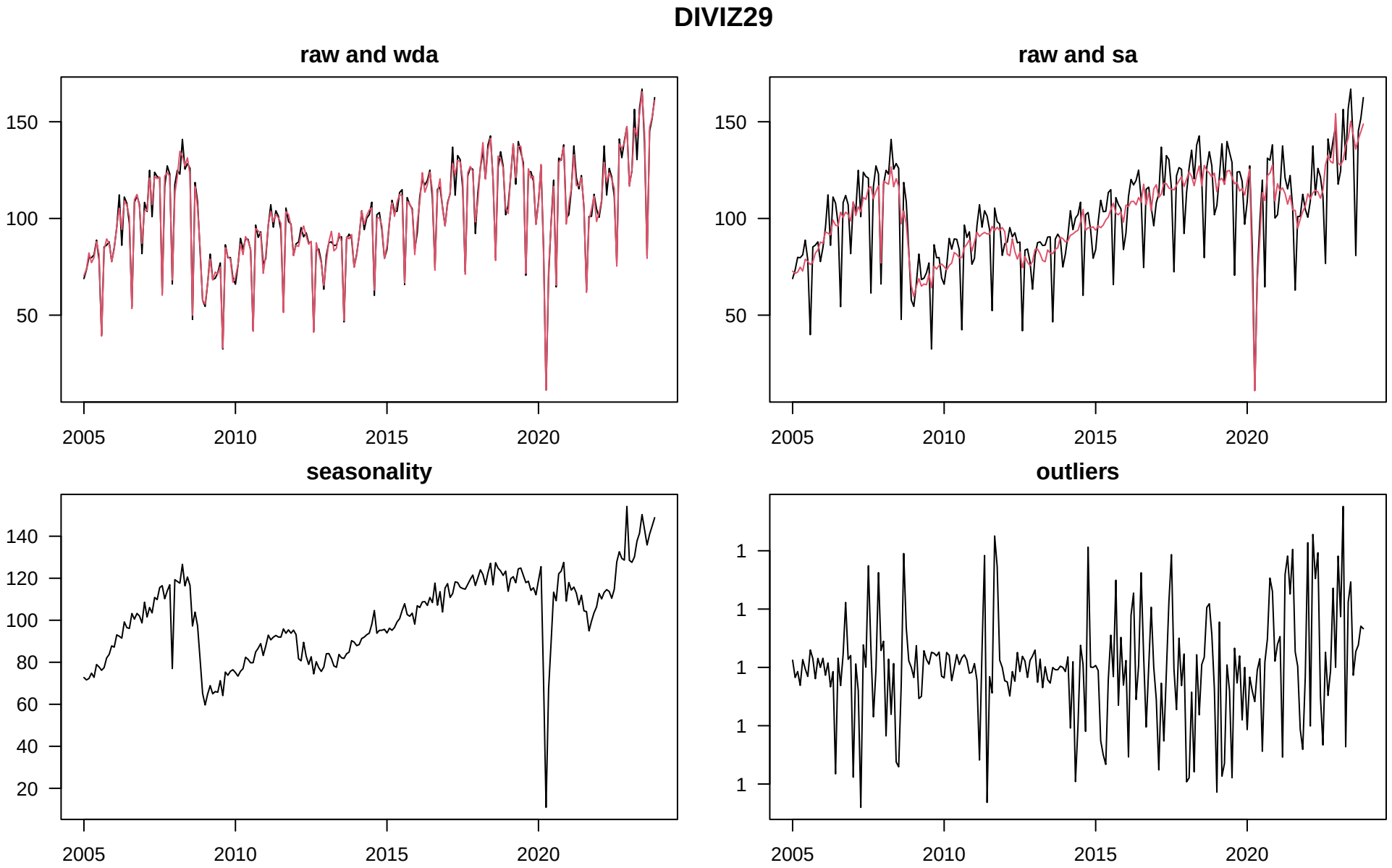
DIVIZ29
raw and wda
raw and sa
seasonality
outliers
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100
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120
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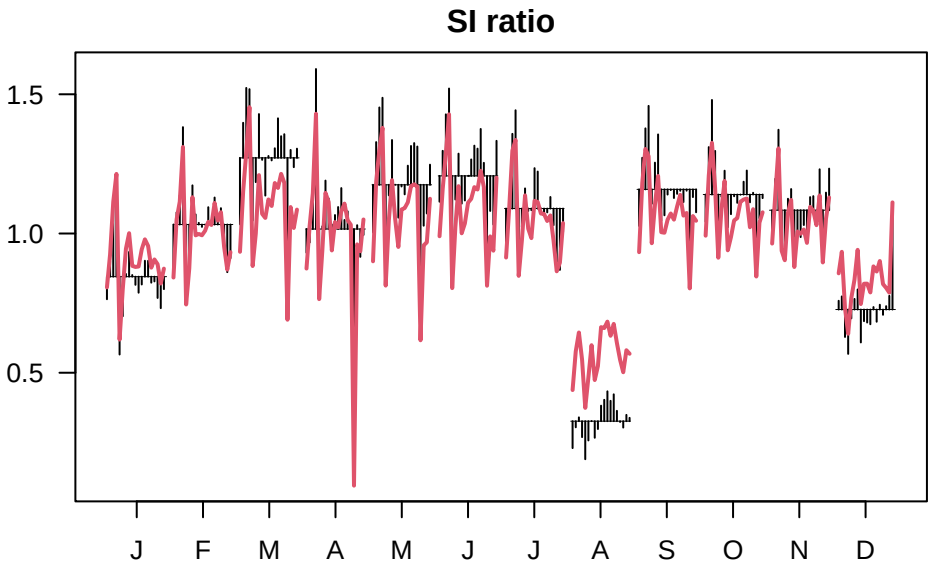
20
1
2005
2010
2015
2020

DIVIZ29


SI ratio
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1.0
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J
F
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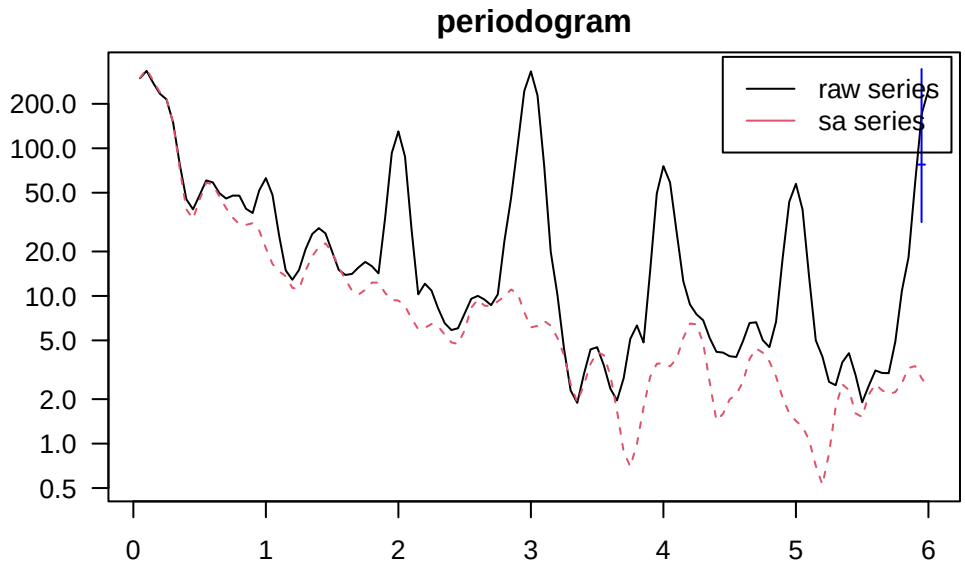
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
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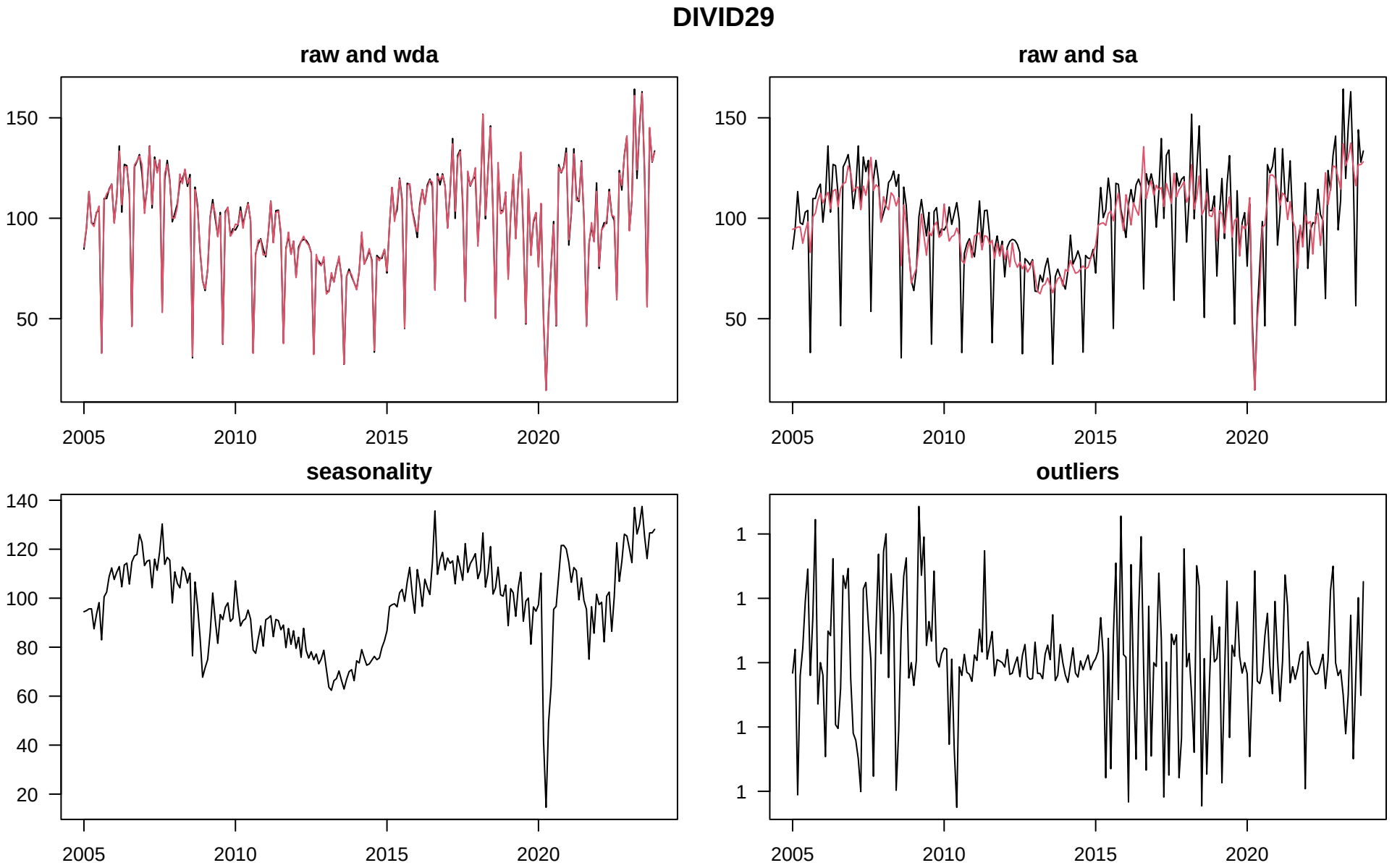
DIVID29
raw and wda
raw and sa
seasonality
outliers
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100
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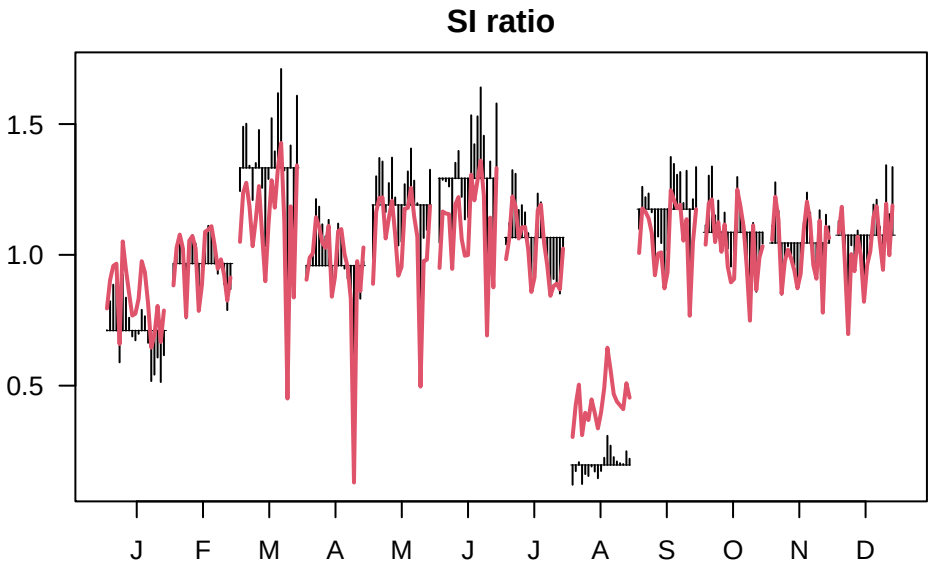
40
20
1
2005
2010
2015
2020

DIVID29


SI ratio
1.5
1.0
0.5
J
F
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J
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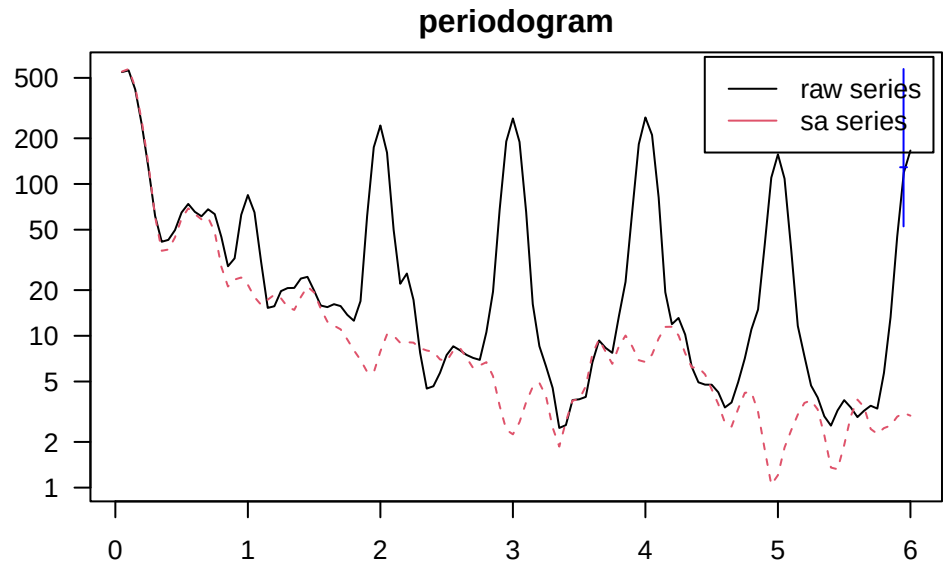
A
S
O
N
D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sa series
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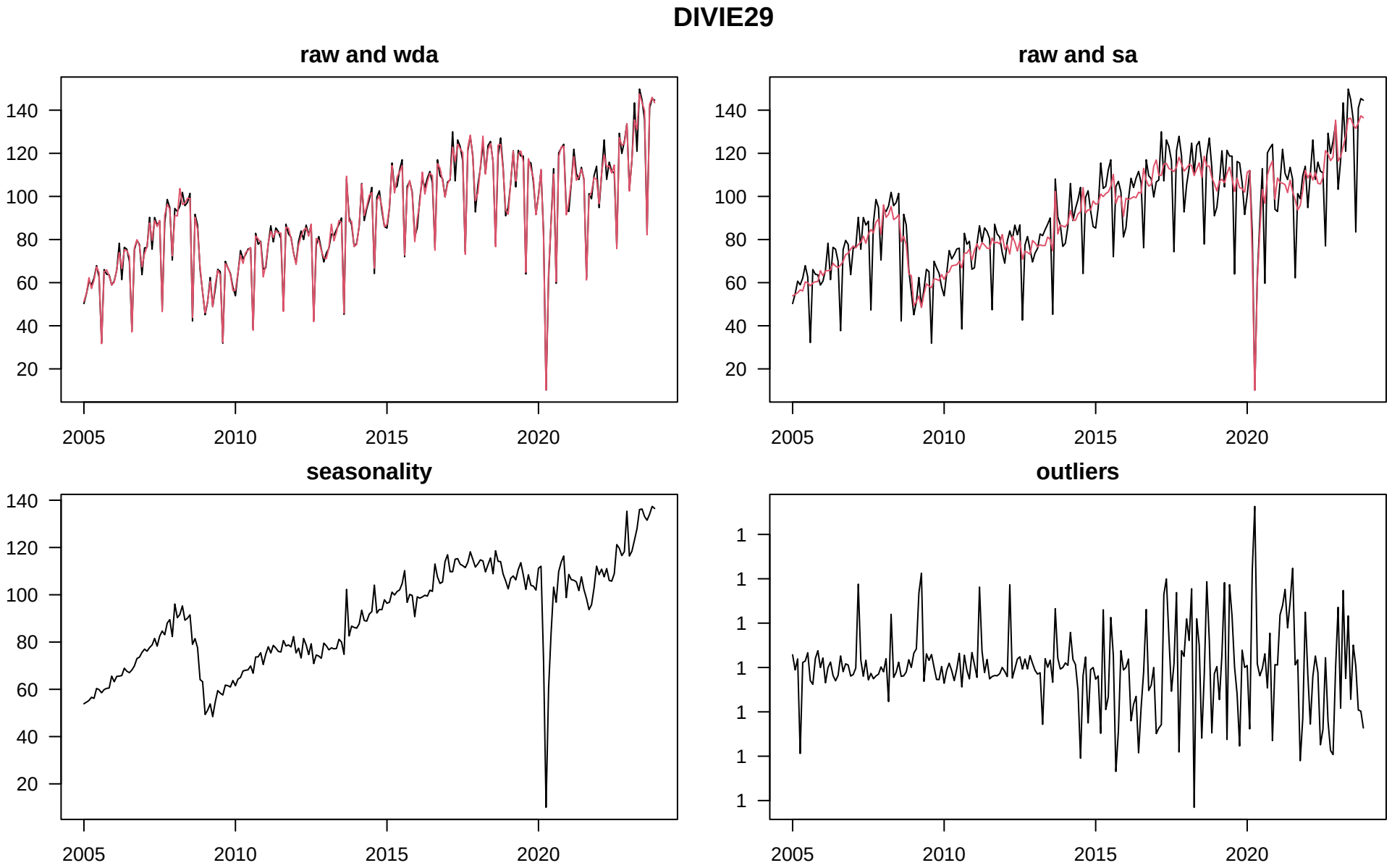
6


DIVIE29
raw and wda
raw and sa
seasonality
outliers
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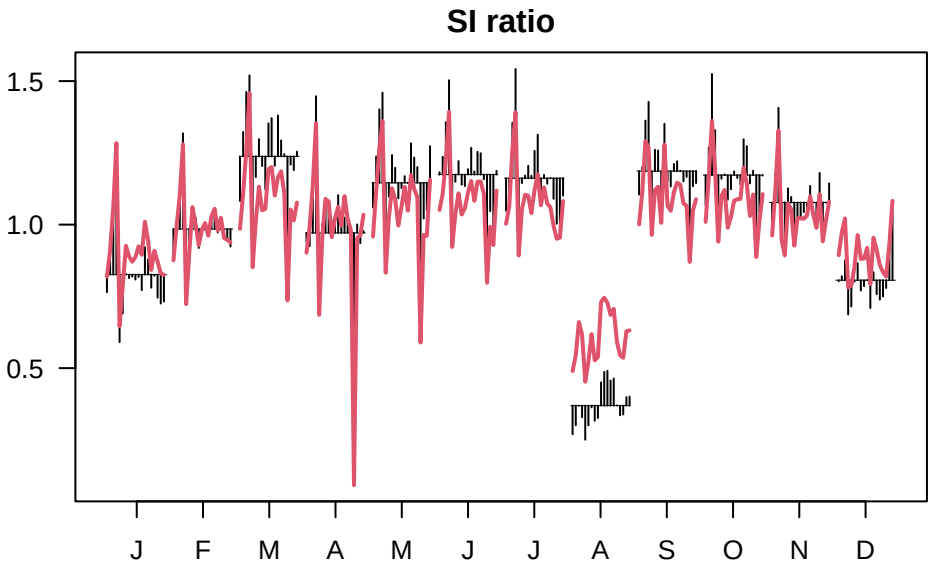
60
40
20
1
2005
2010
2015
2020

DIVIE29


SI ratio
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0.5
J
F
M
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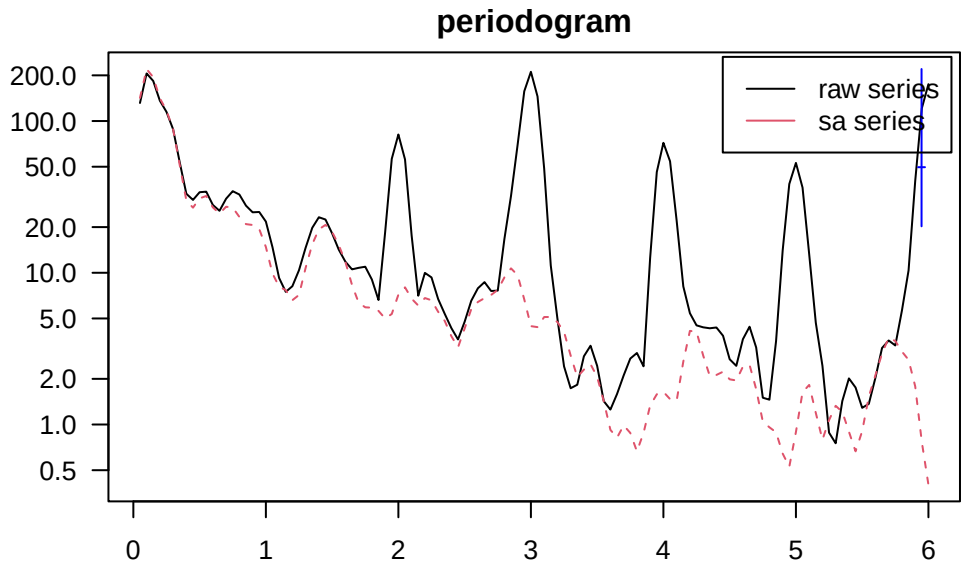
A
S
O
N
D


periodogram
200.0
100.0
50.0
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0.5
raw series
sa series
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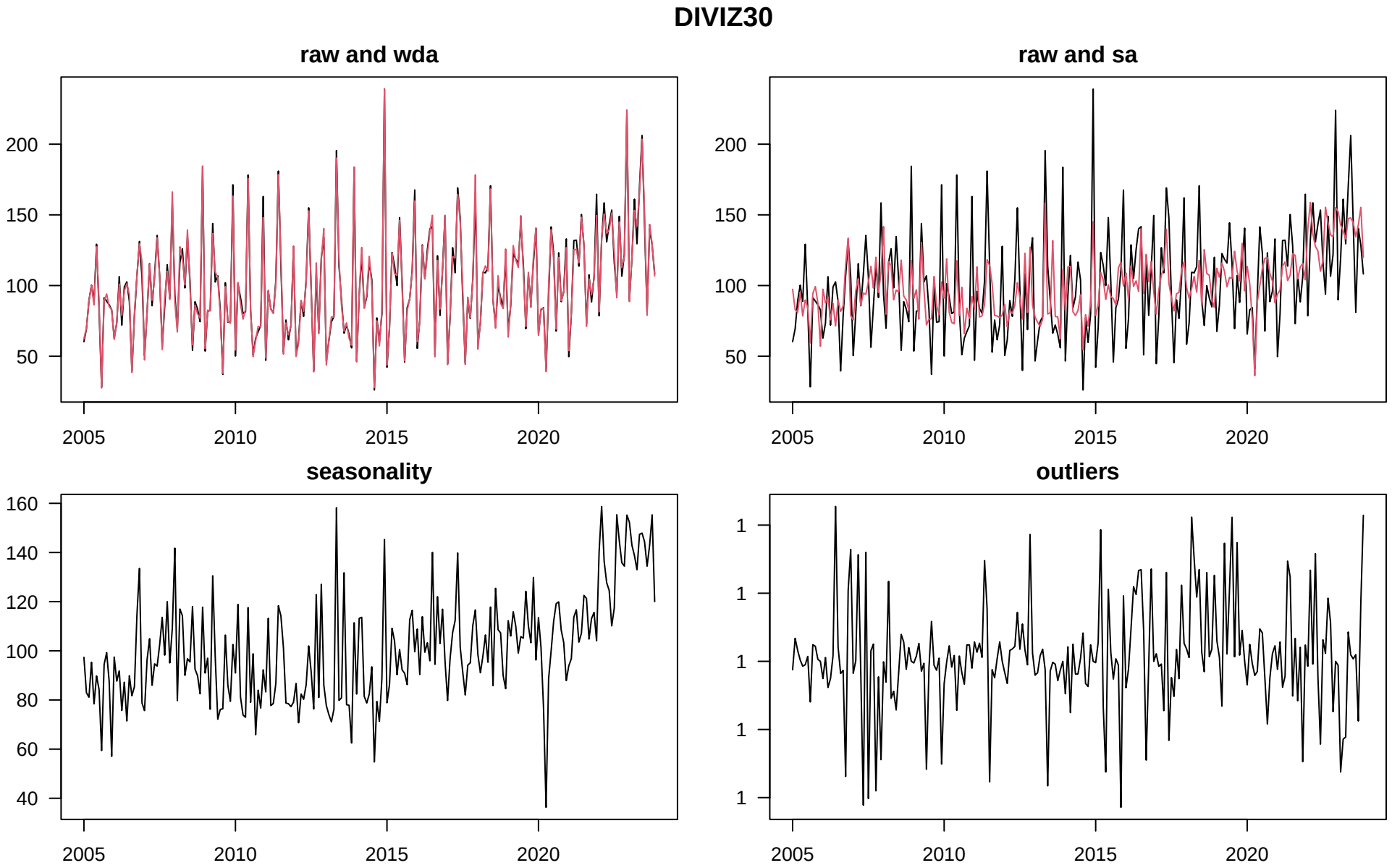
6


DIVIZ30
raw and wda
raw and sa
seasonality
outliers
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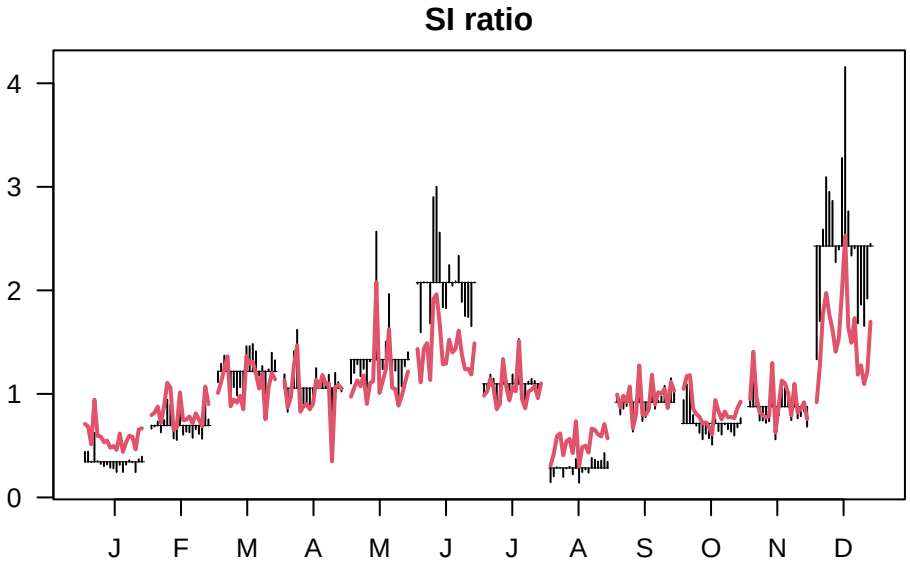
150
100
50
160
140
120
100
80
60
40
1
2005
2010
2015
2020

DIVIZ30


SI ratio
4
3
2
1
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J
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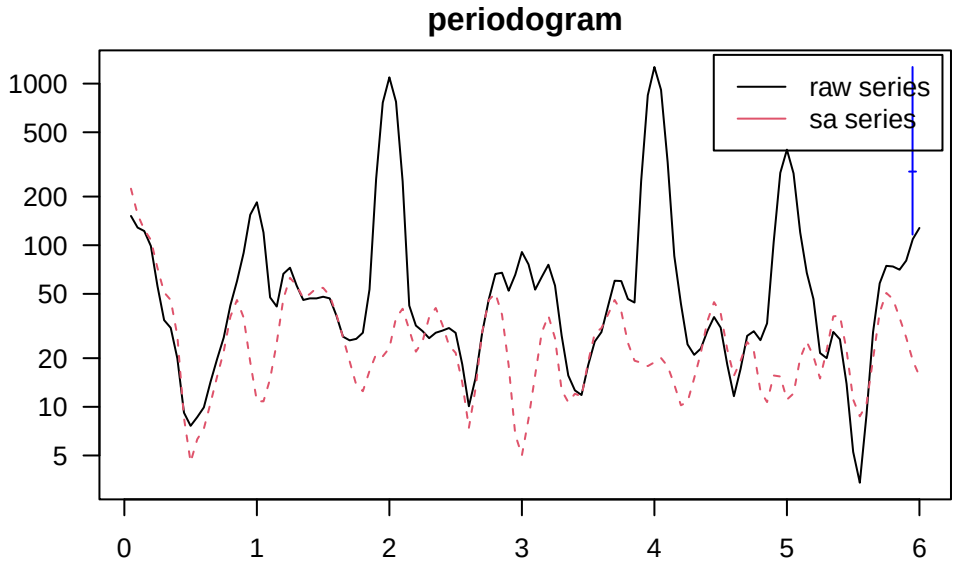
M
A
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
1000
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200
100
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10
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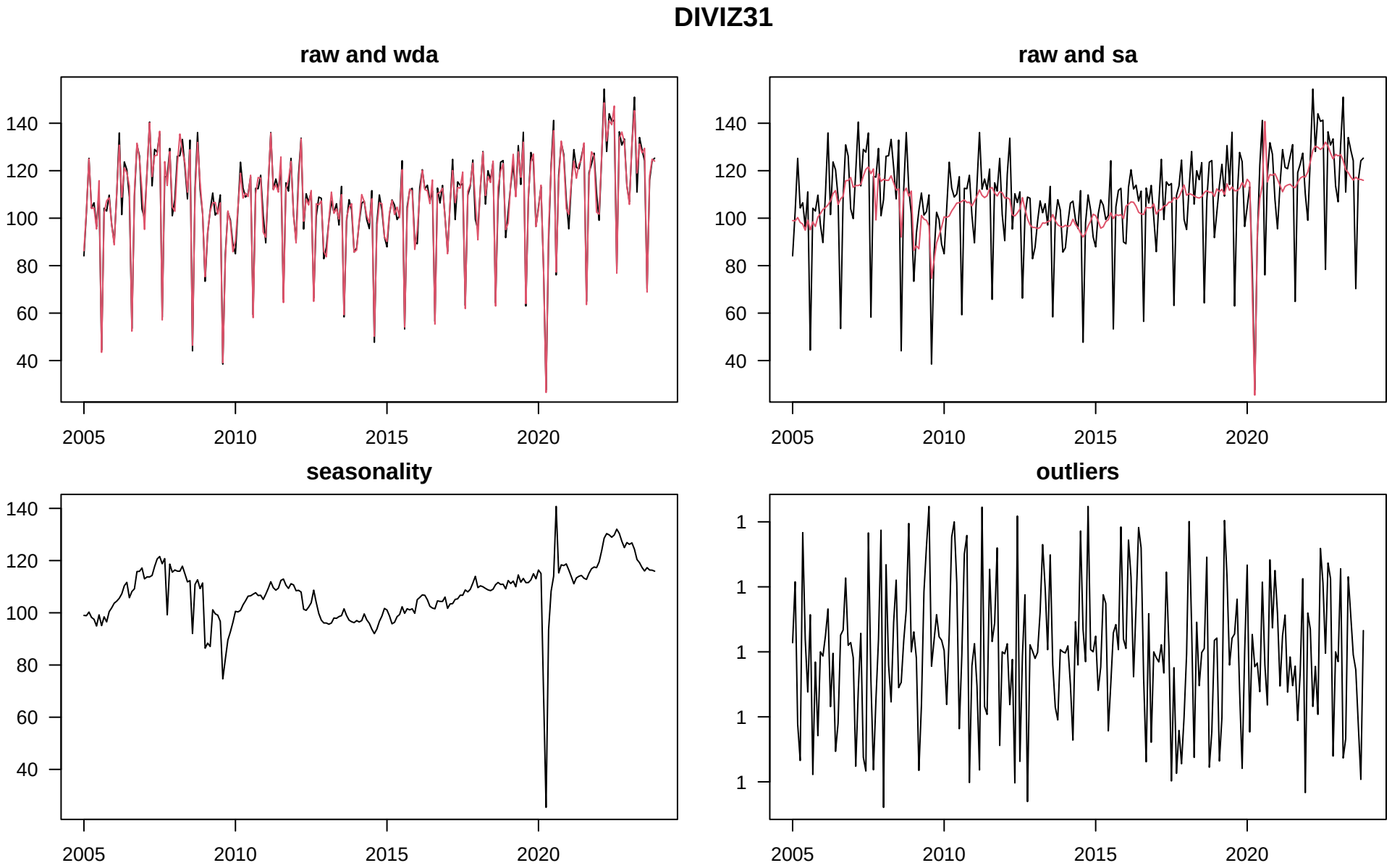
0
1
2
3
4
5
6


DIVIZ31
raw and wda
raw and sa
seasonality
outliers
140
120
100
80
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2005
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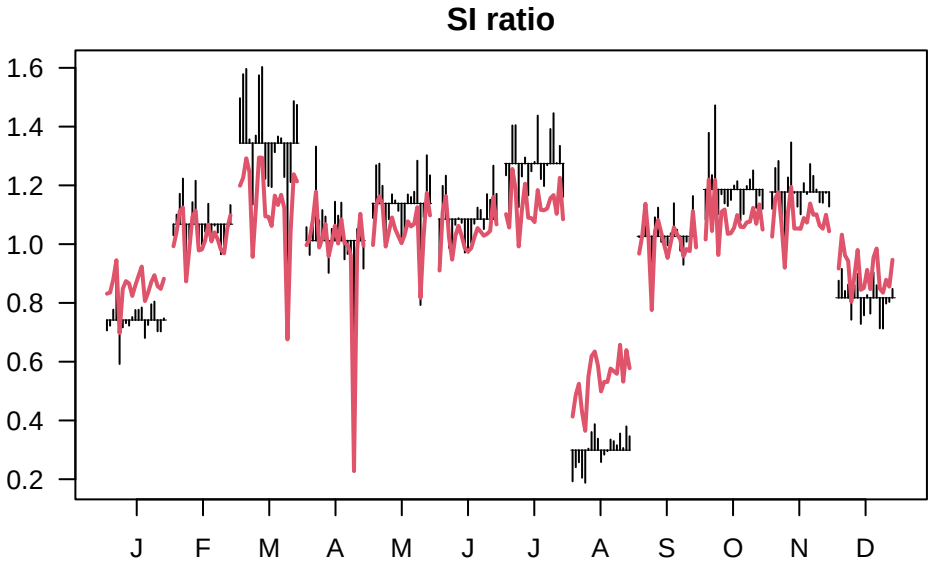
2015
2020

DIVIZ31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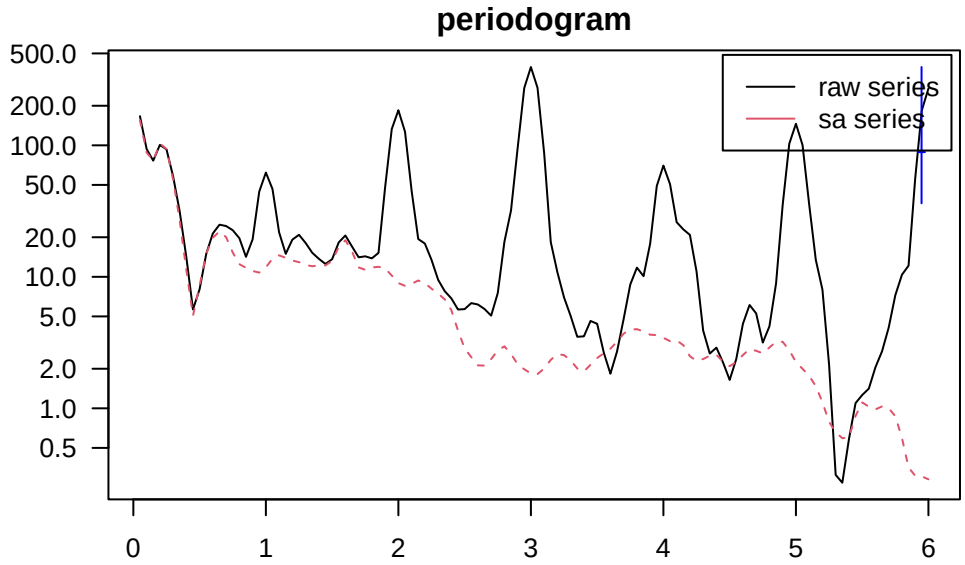
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sa series
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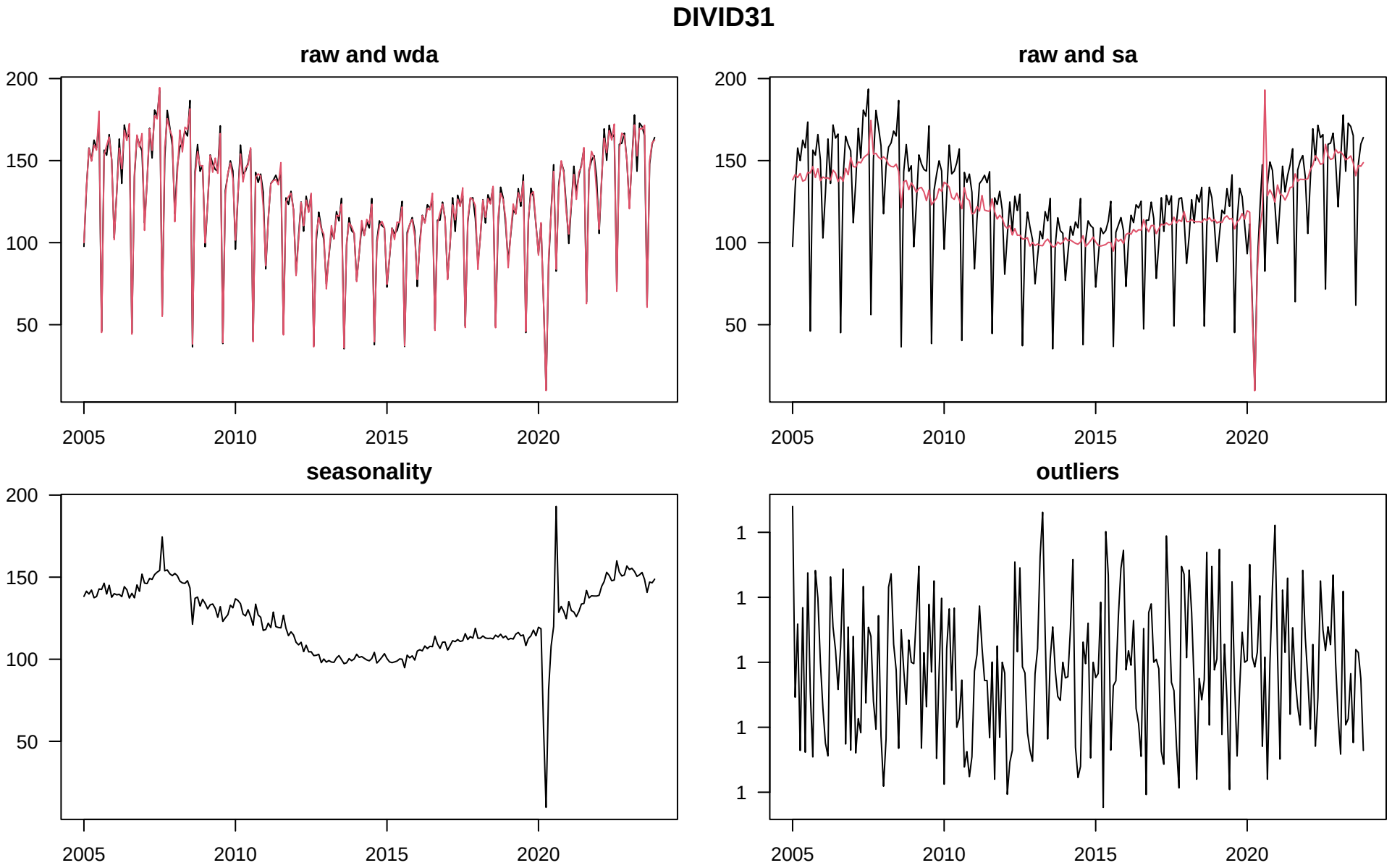
DIVID31
raw and wda
raw and sa
seasonality
outliers
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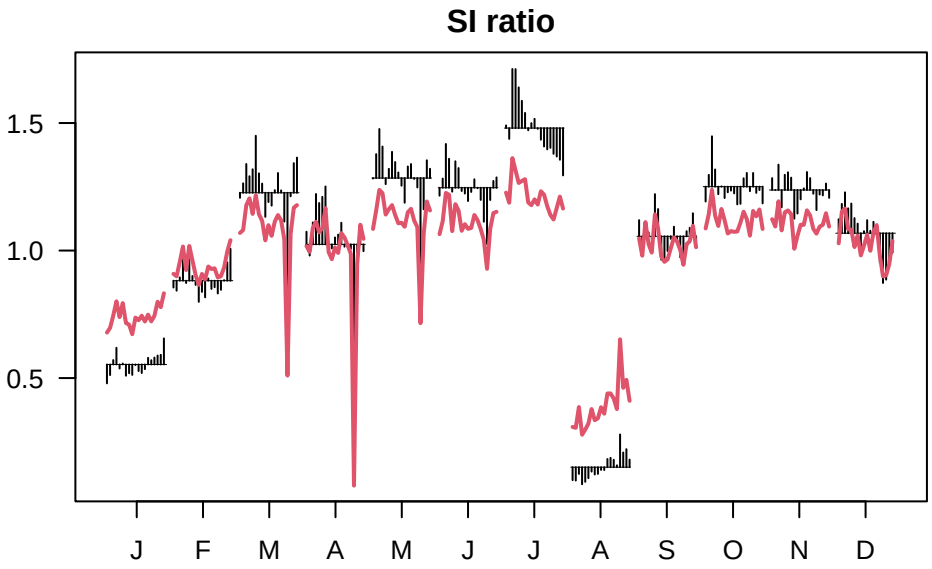
2005
2010
2015
2020

DIVID31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N
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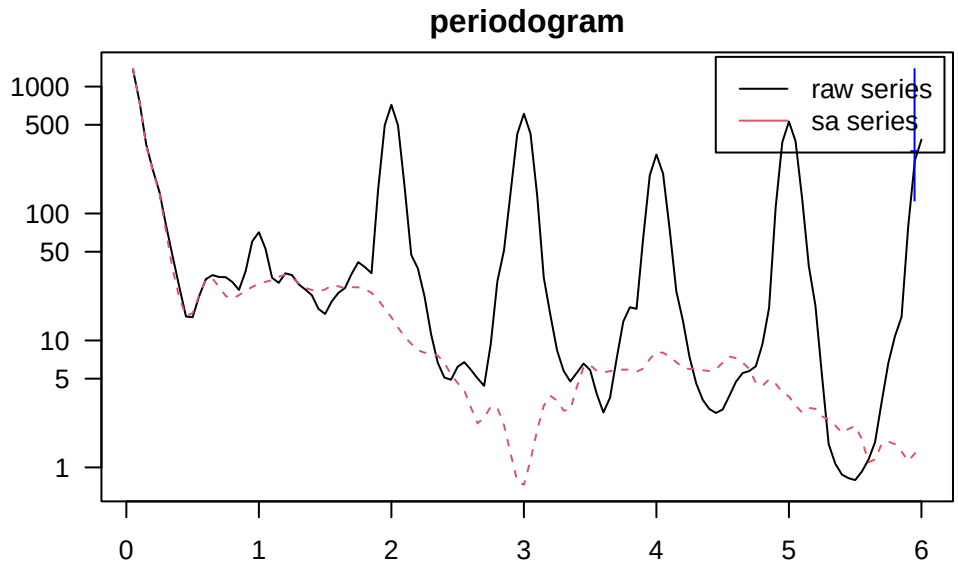
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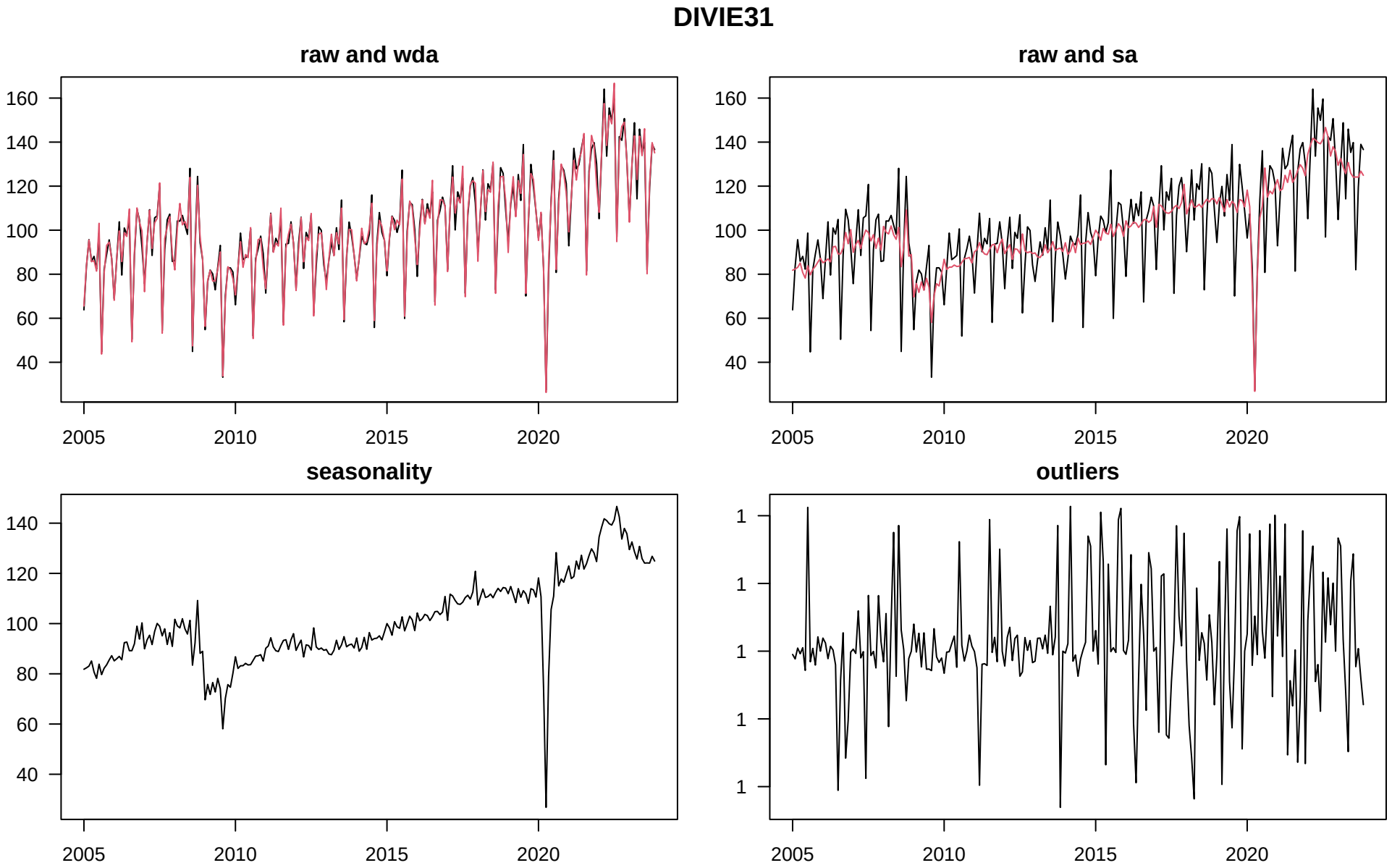
DIVIE31
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raw and sa
seasonality
outliers
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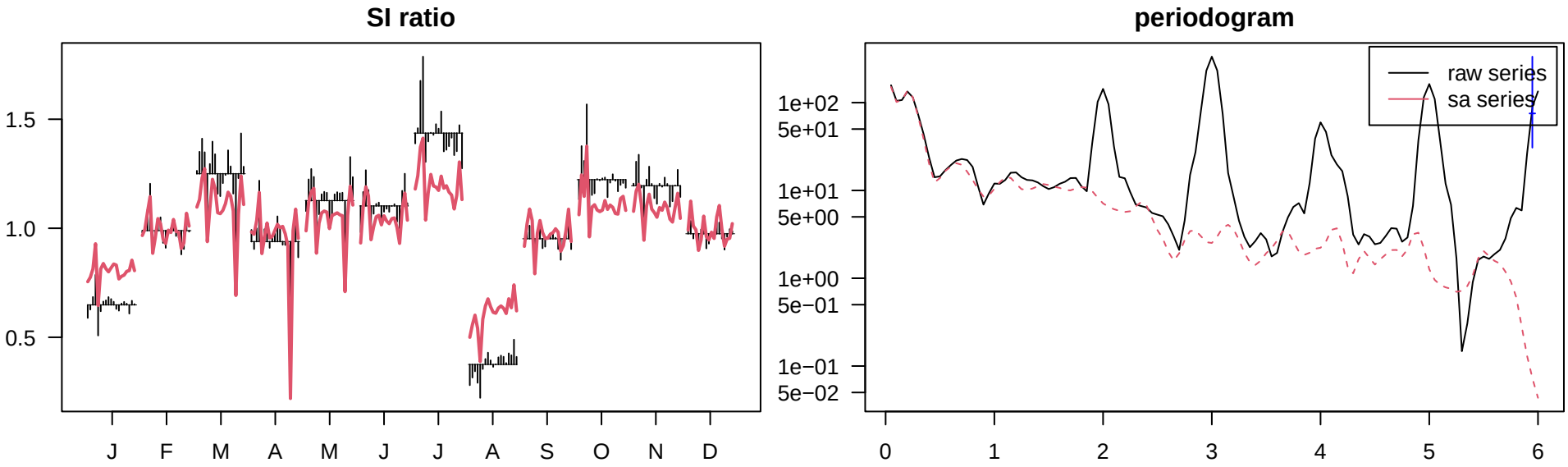
2010
2015
2020
1

DIVIE31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1.5
1.0
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J
F
M
A
M
J
J
A
S
O
N
D
periodogram
raw series
sa series
1e+02
5e+01
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1e+00
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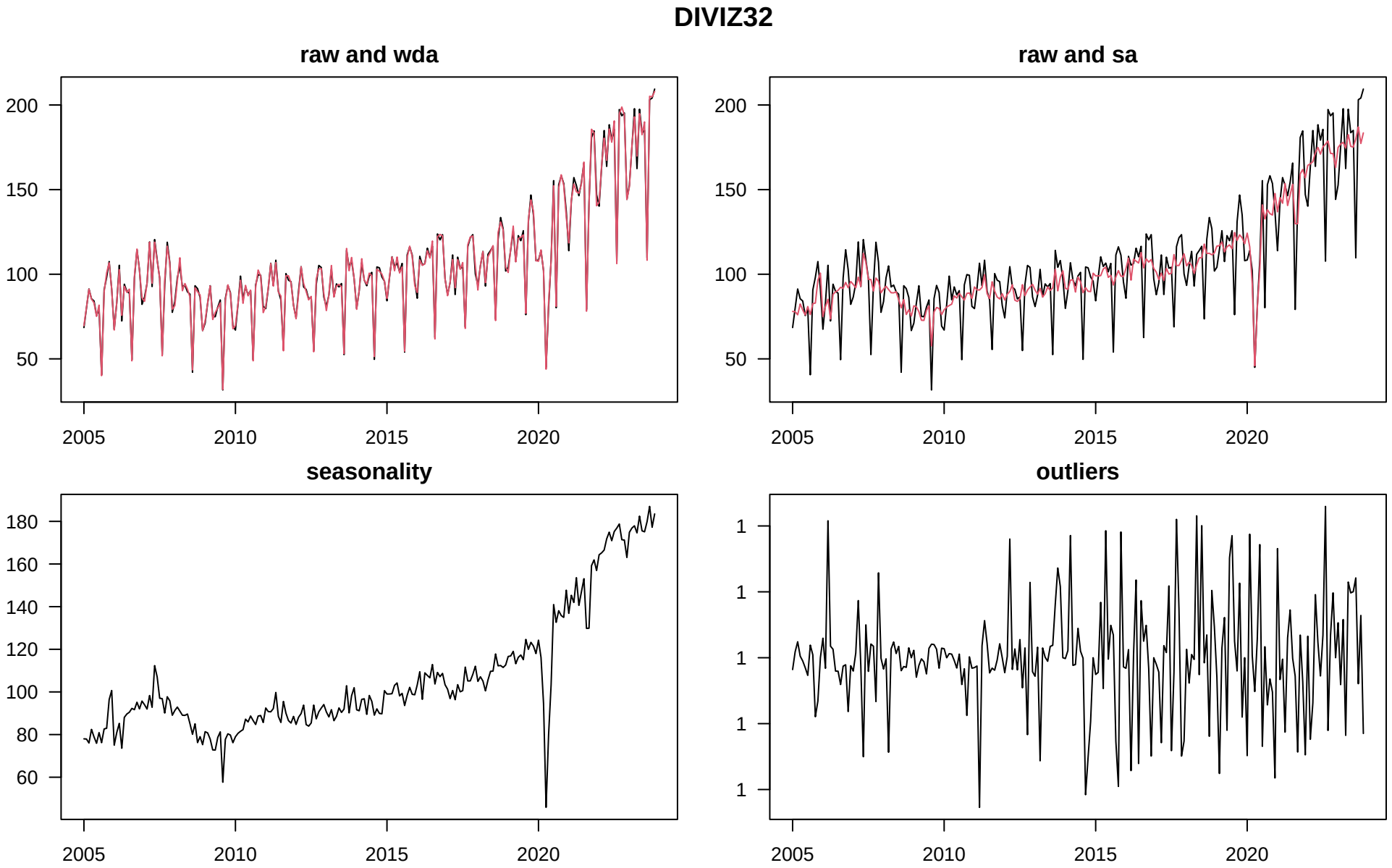
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raw and wda
raw and sa
seasonality
outliers
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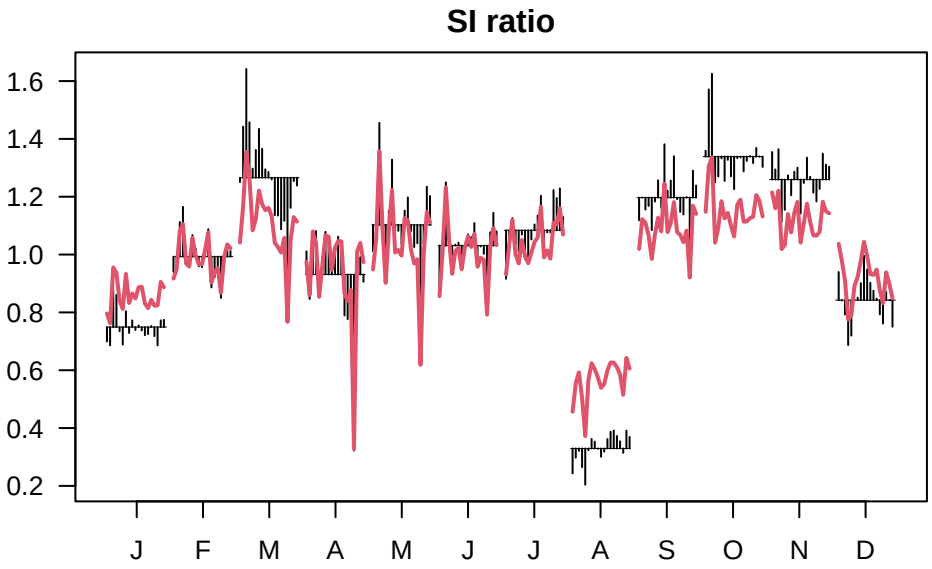
2015
2020

DIVIZ32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1.2
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0.2
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M
A
M
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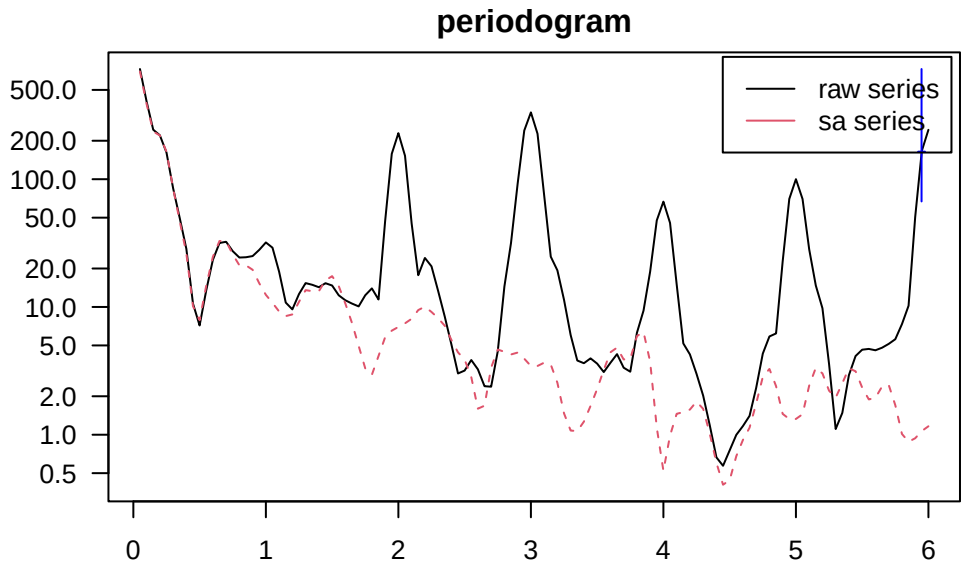
S
O
N
D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sa series
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10.0
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2.0
1.0
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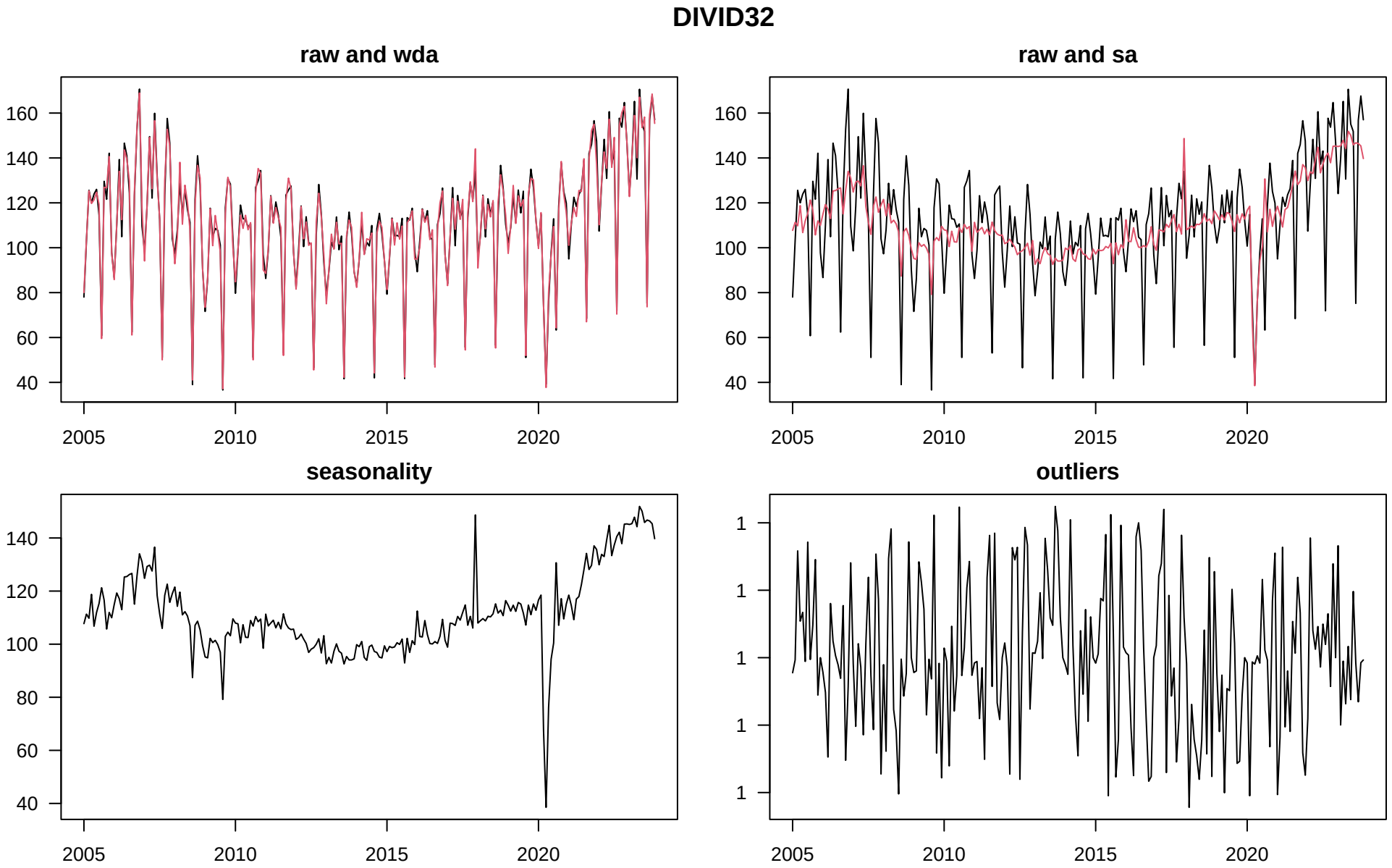
DIVID32
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raw and sa
seasonality
outliers
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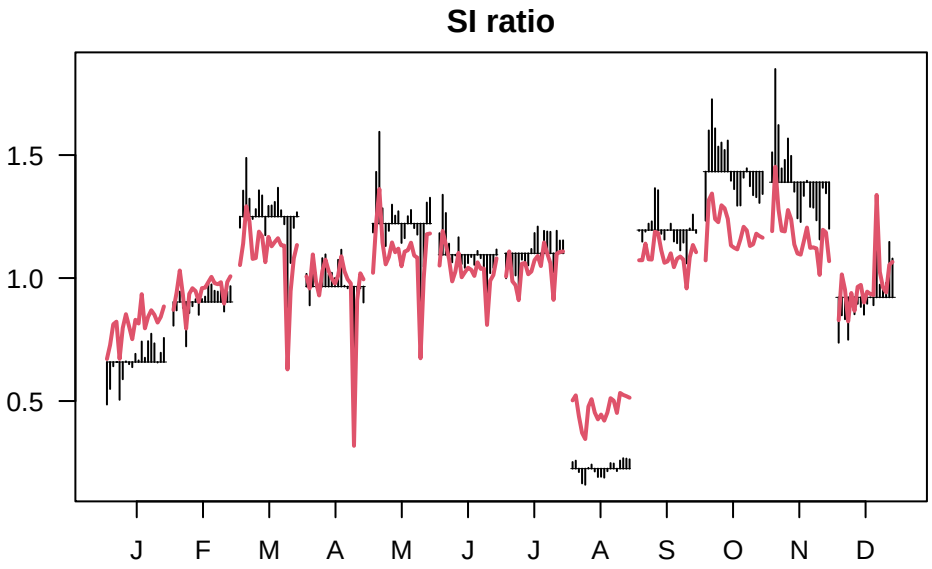
2005
2010
2015
2020
1

DIVID32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A
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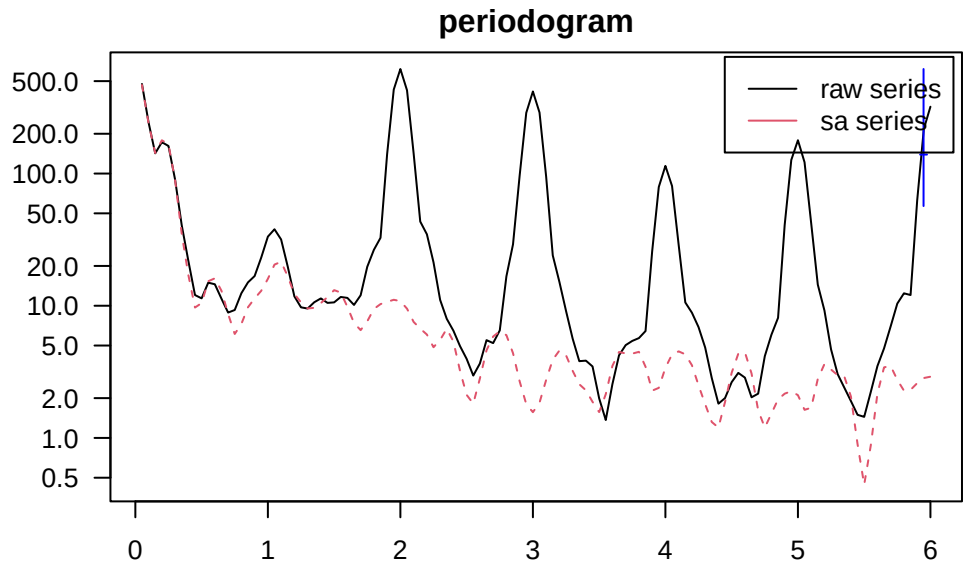
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raw series
sa series
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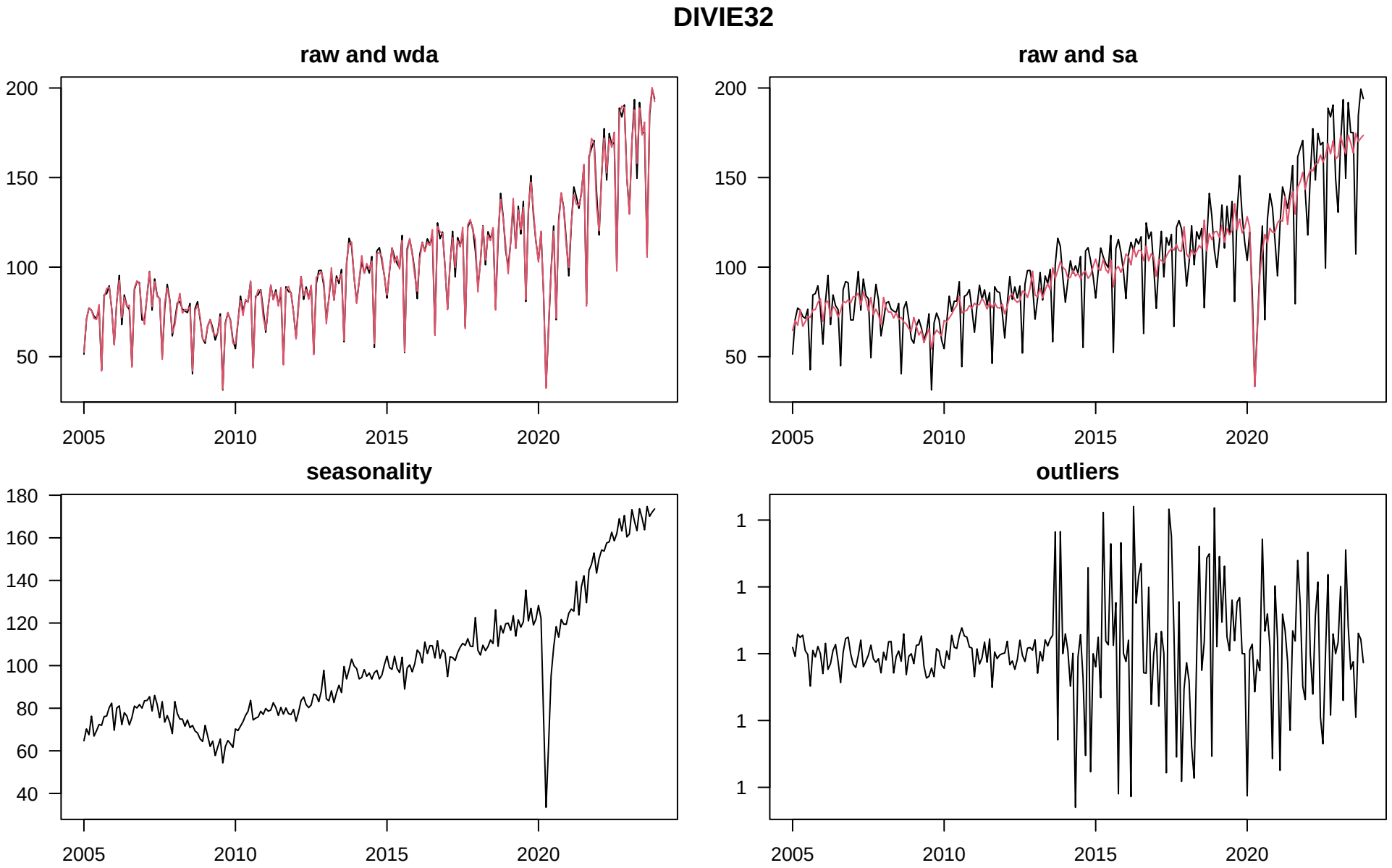
DIVIE32
raw and wda
raw and sa
seasonality
outliers
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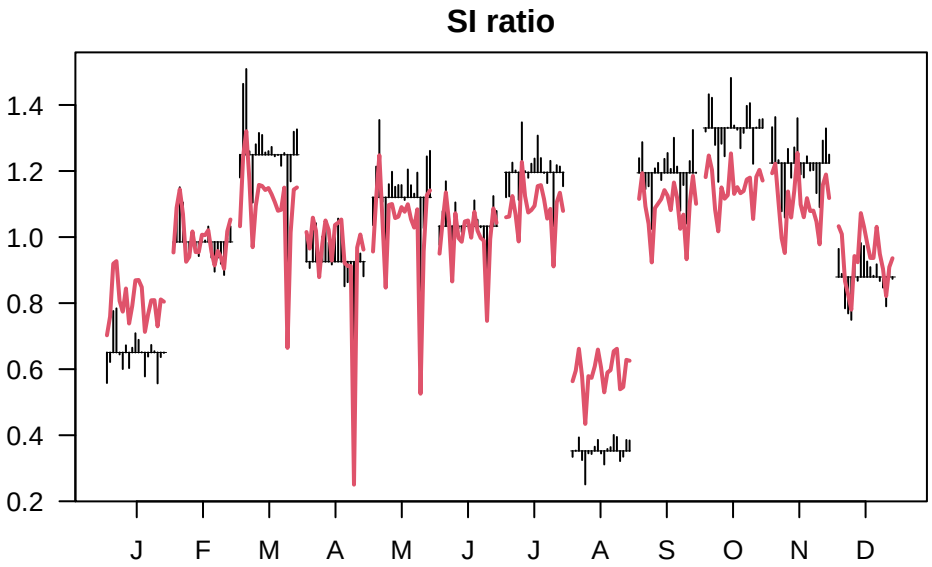
1
2005
2010
2015
2020

DIVIE32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1.2
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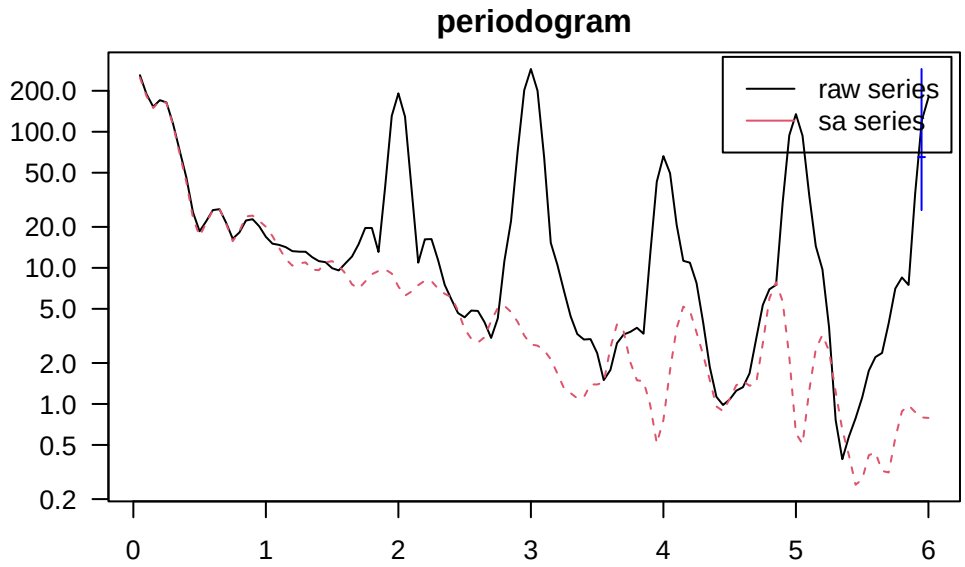
periodogram
raw series
sa series
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100.0
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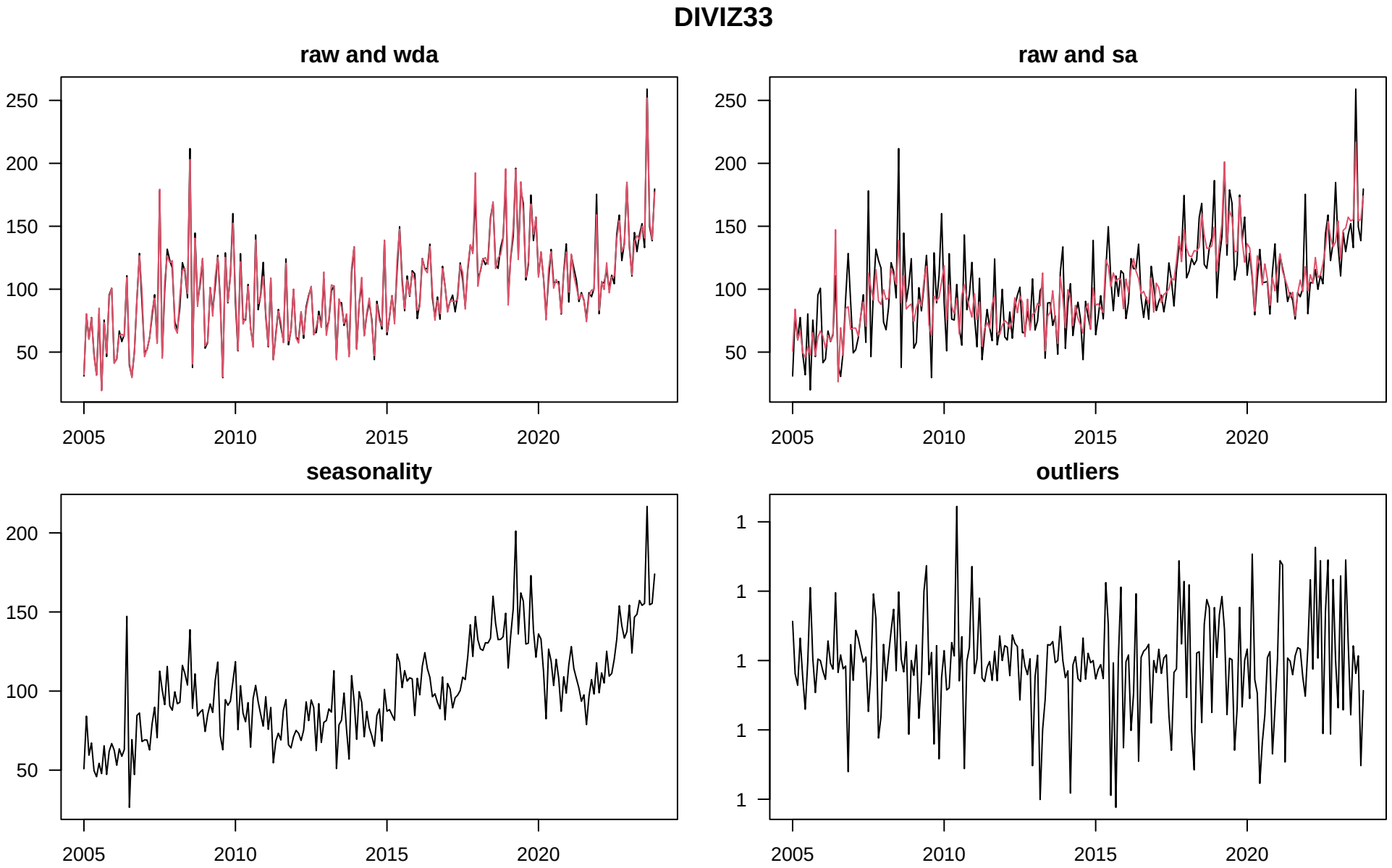
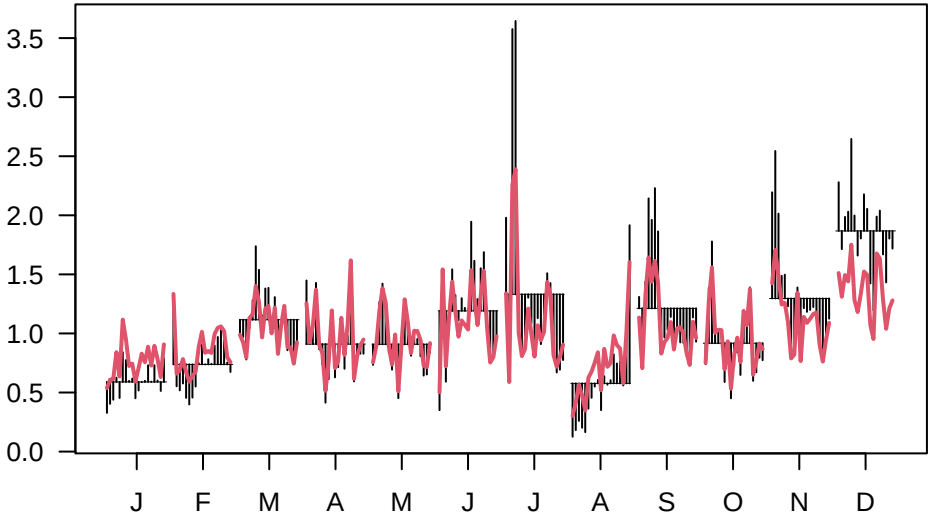

DIVIZ33
raw and wda
raw and sa
seasonality
outliers
250
200
150
100
50
1
2005
2010
2015
2020

DIVIZ33

SI ratio



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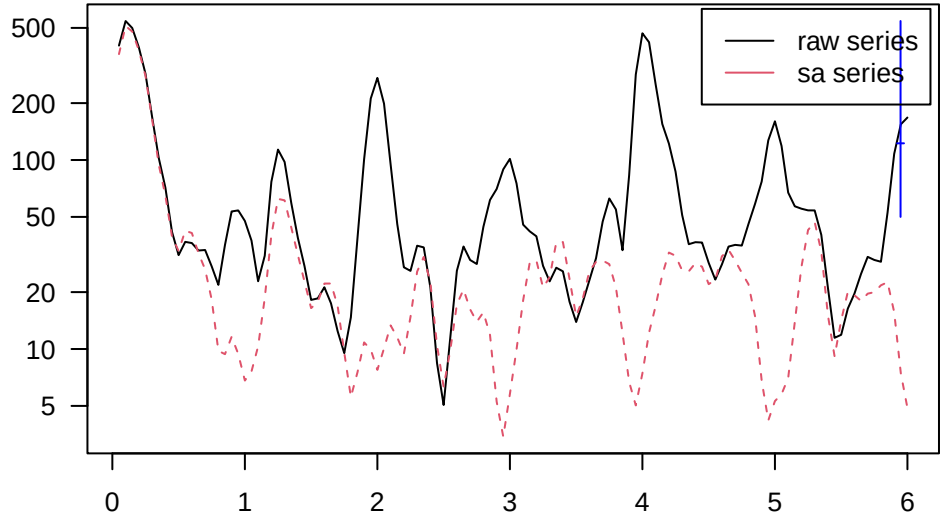

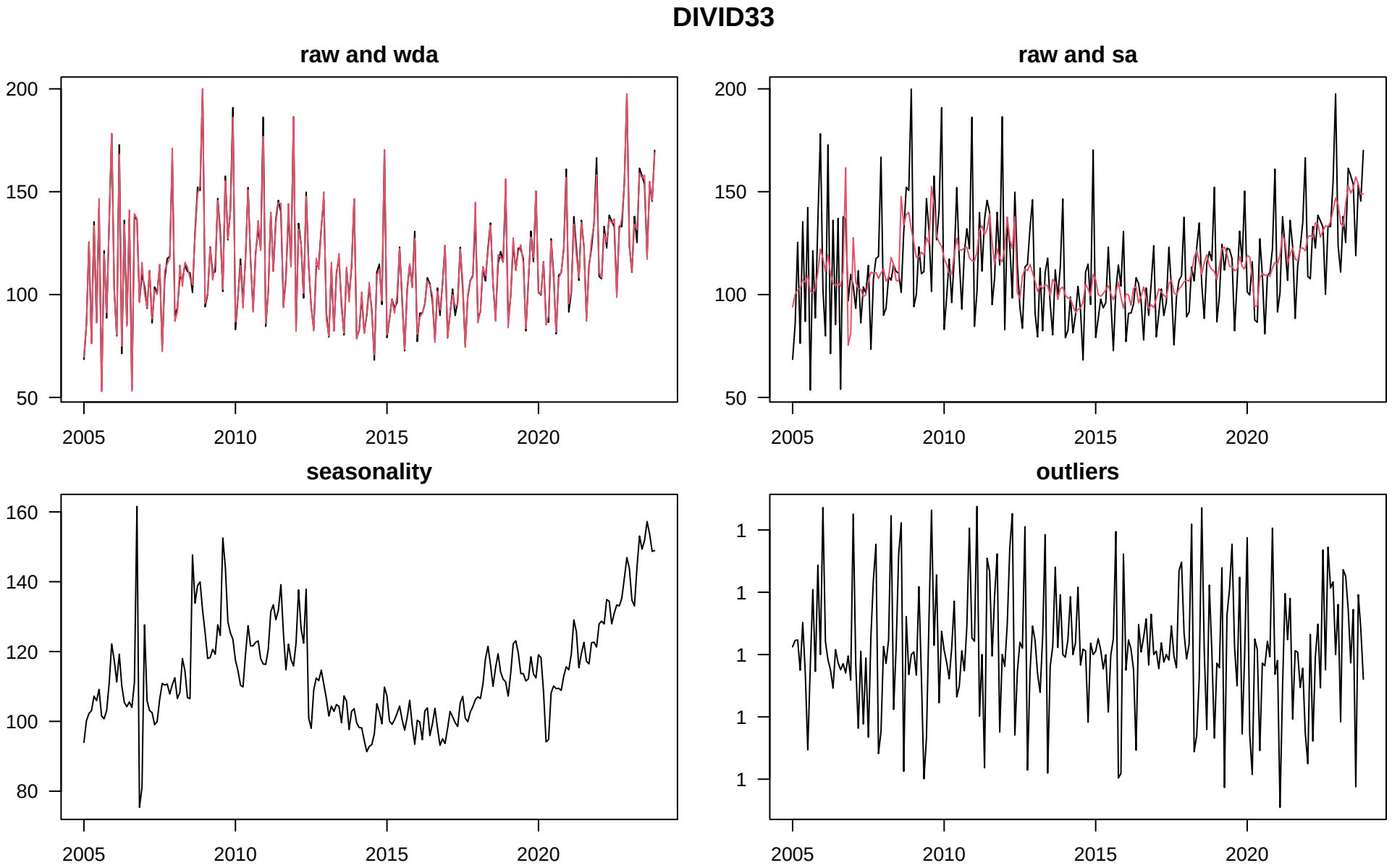
DIVID33
raw and wda
raw and sa
seasonality
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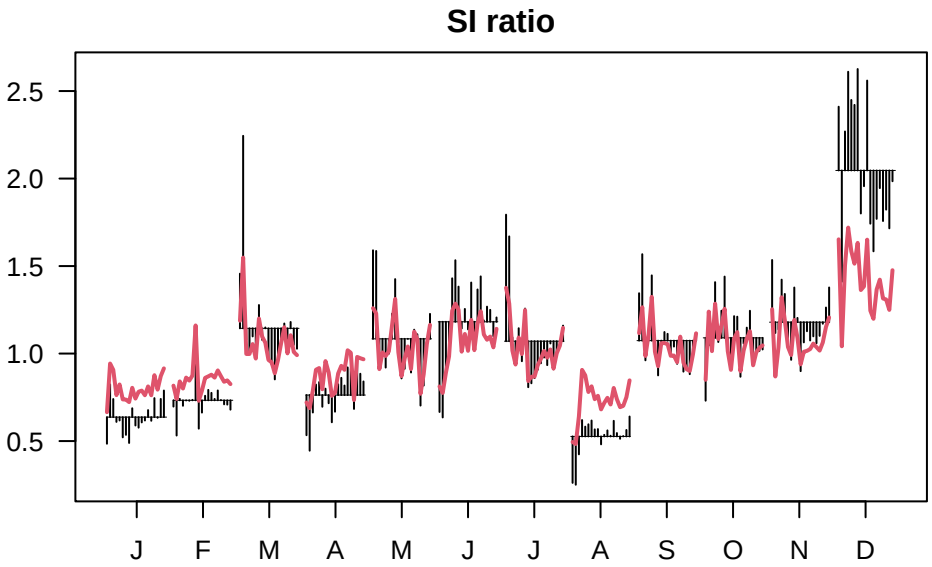
2010
2015
2020

DIVID33


SI ratio
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M
J
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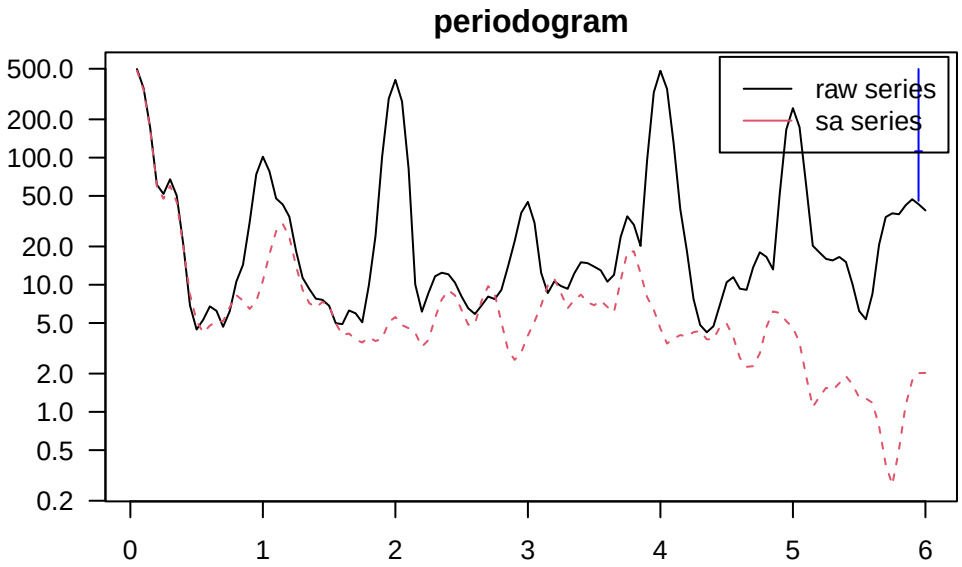
S
O
N
D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1.0
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1
2
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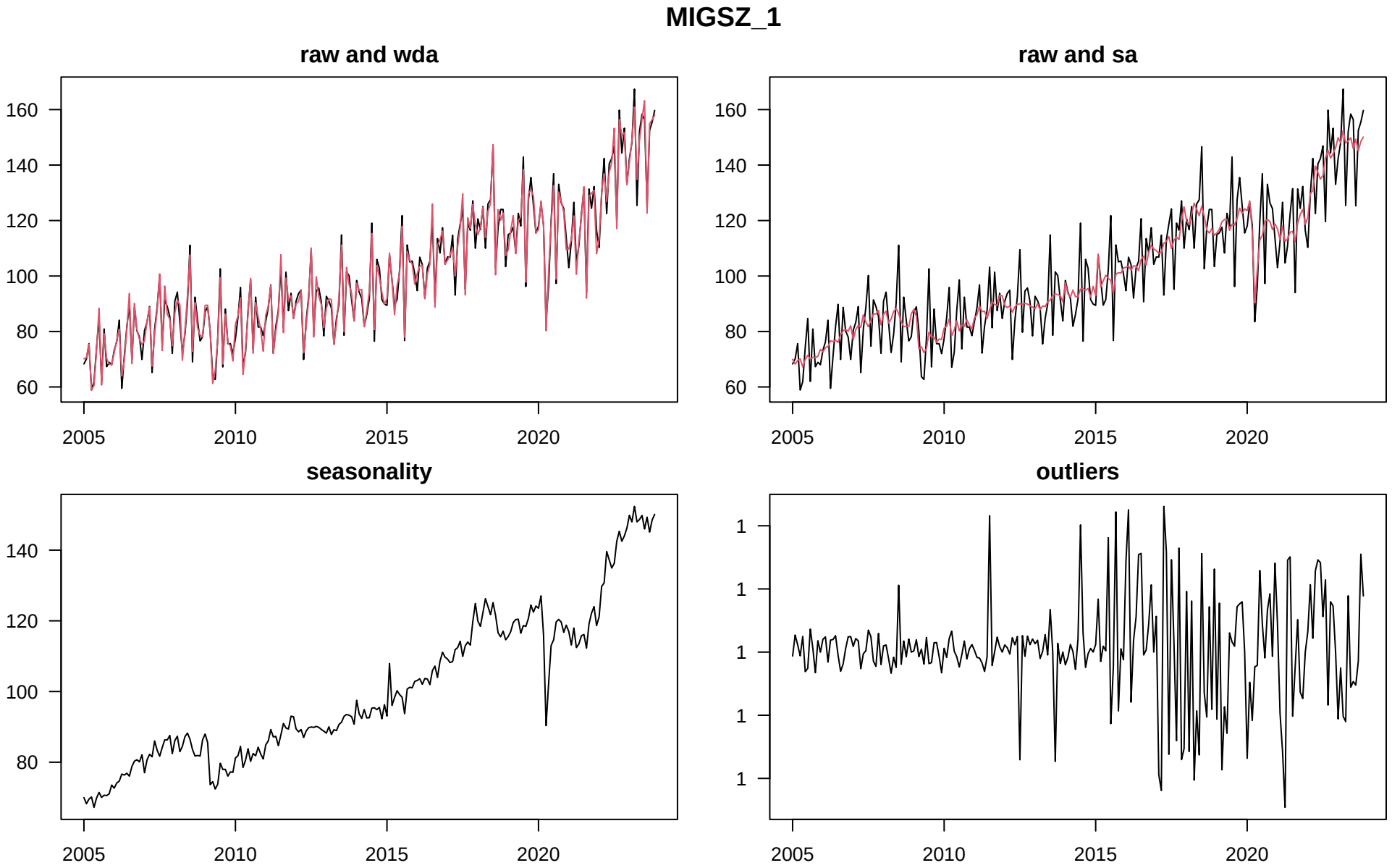
5
6
raw series
sa series


MIGSZ_1
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raw and sa
seasonality
outliers
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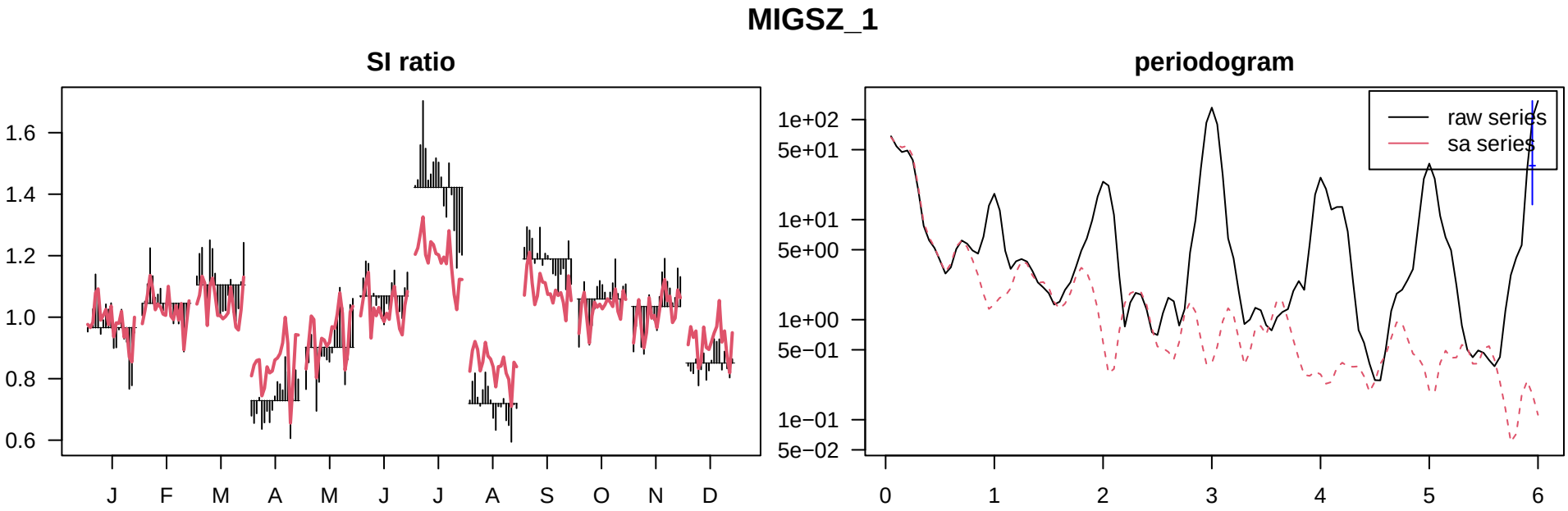
2005
2010
2015
2020
1


MIGSZ_1
SI ratio
periodogram
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0.8
0.6
J
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M
A
M
J
J
A
S
O
N
D
1e+02
5e+01
1e+01
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1e−01
5e−02
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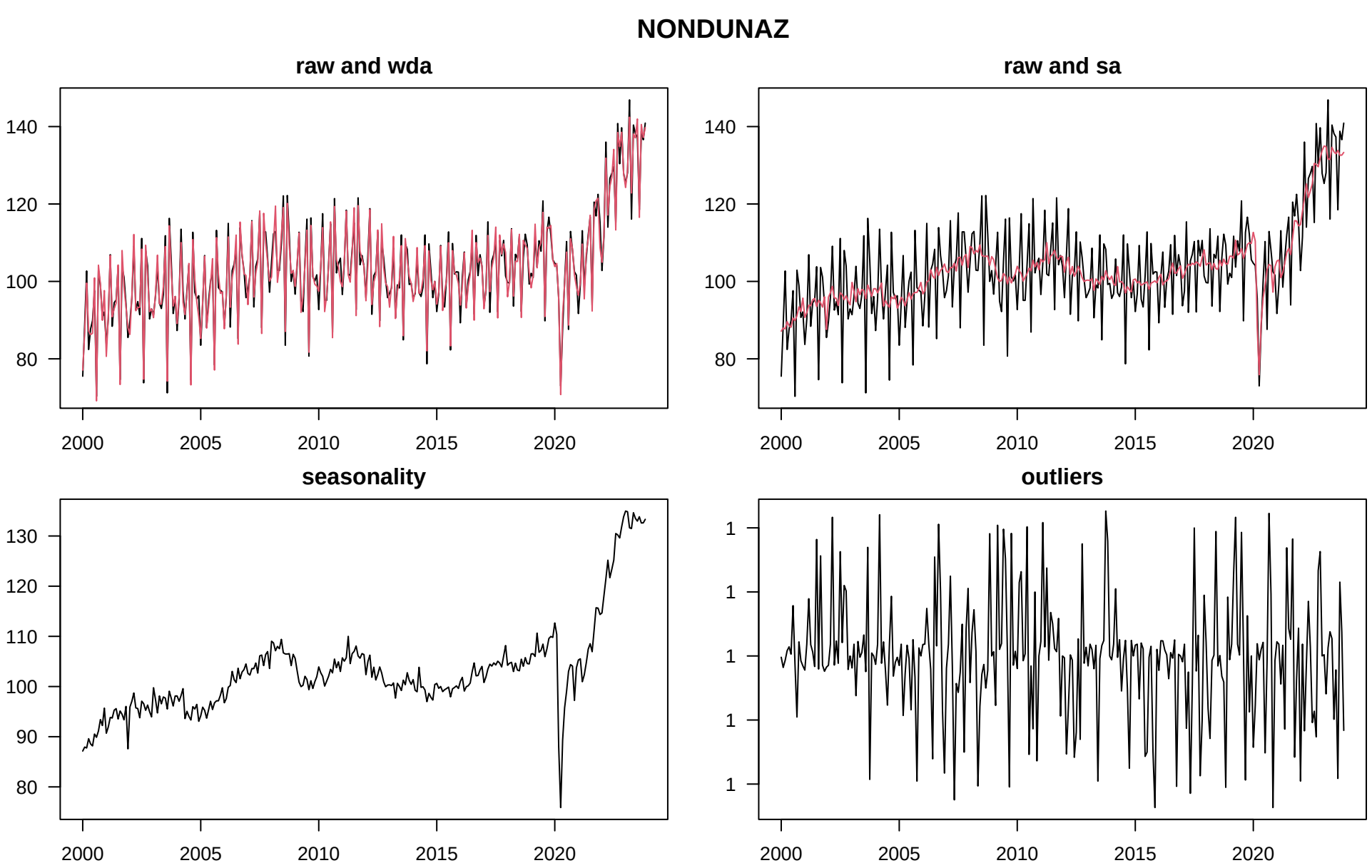
2
3
4
5
6
raw series
sa series


NONDUNAZ
raw and wda
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outliers
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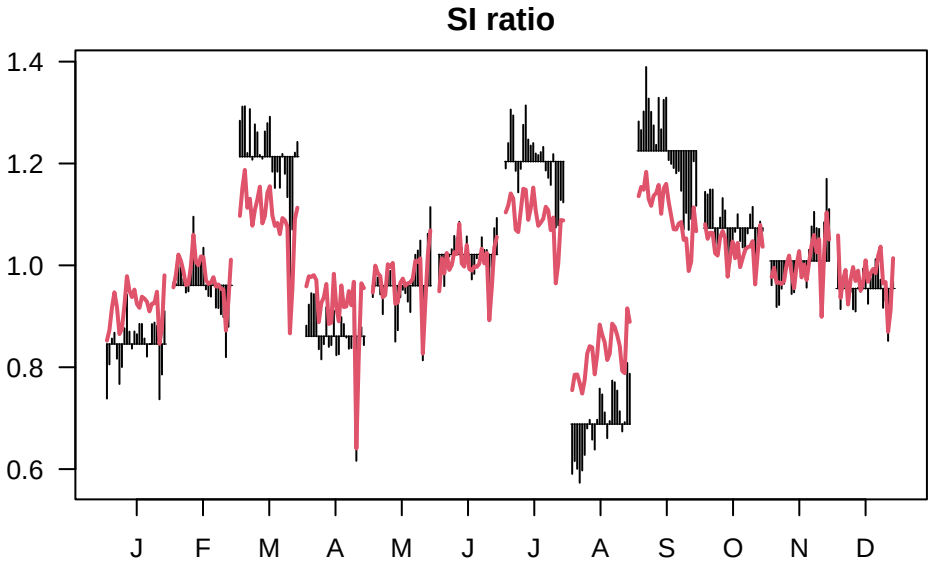
2015
2020

NONDUNAZ


SI ratio
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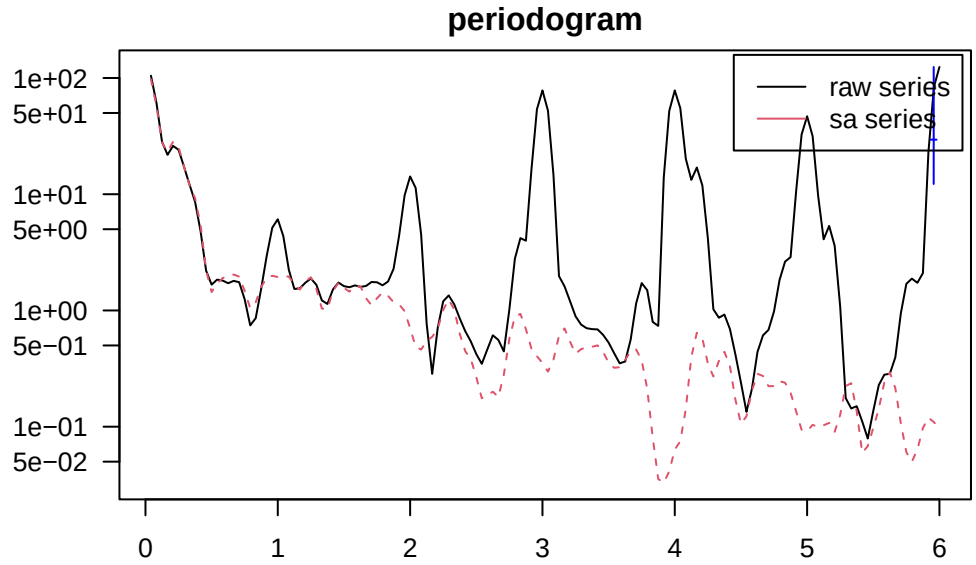
D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5e+01
1e+01
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5e−01
1e−01
5e−02
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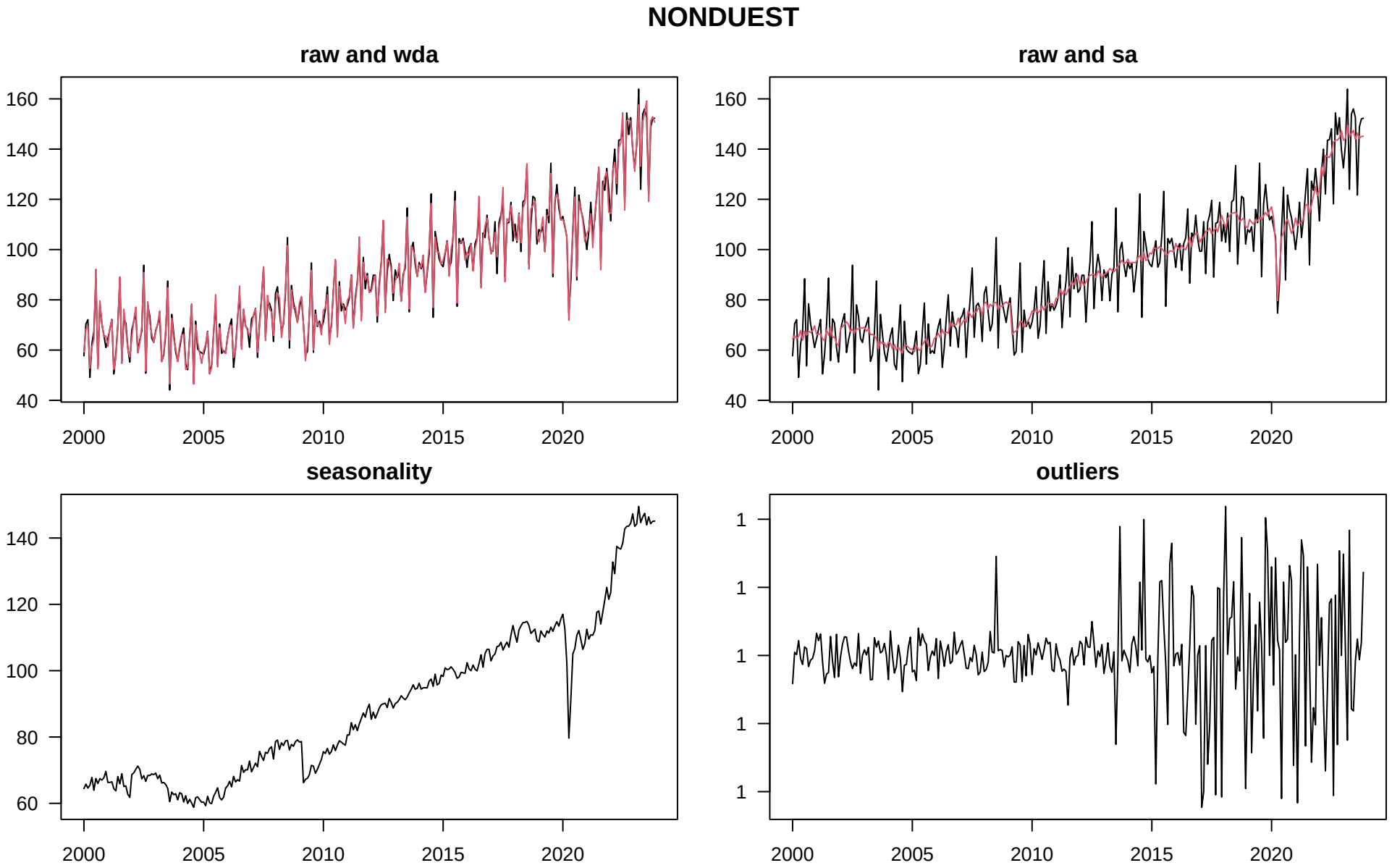
1
2
3
4
5
6
raw series
sa series


NONDUEST
raw and wda
raw and sa
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outliers
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2000
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2010
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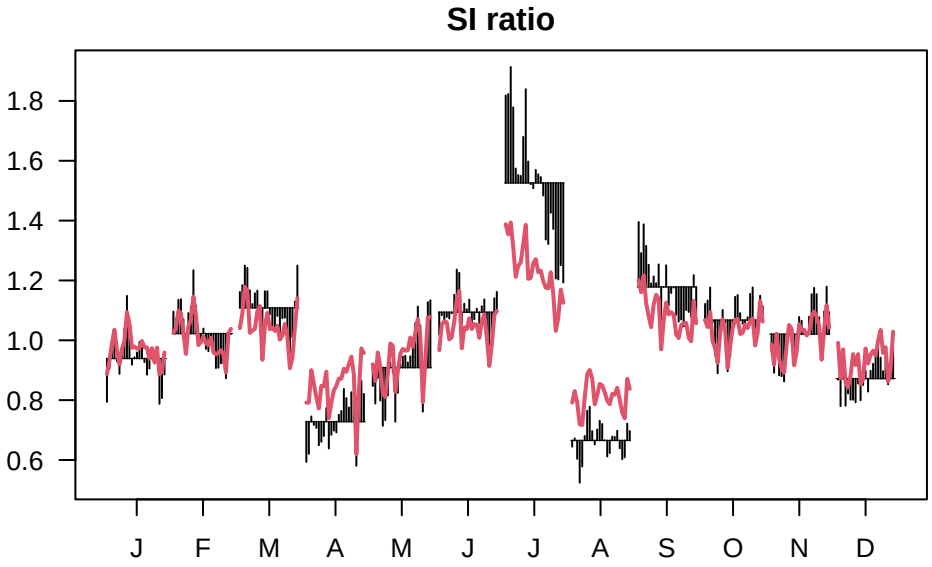
2020
1

NONDUEST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S
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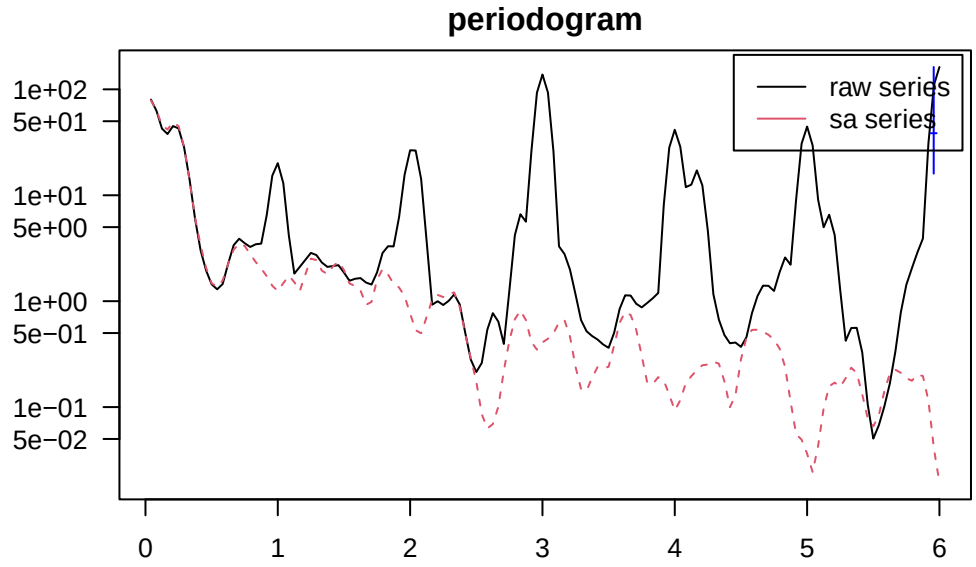
N
D


periodogram
raw series
sa series
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5
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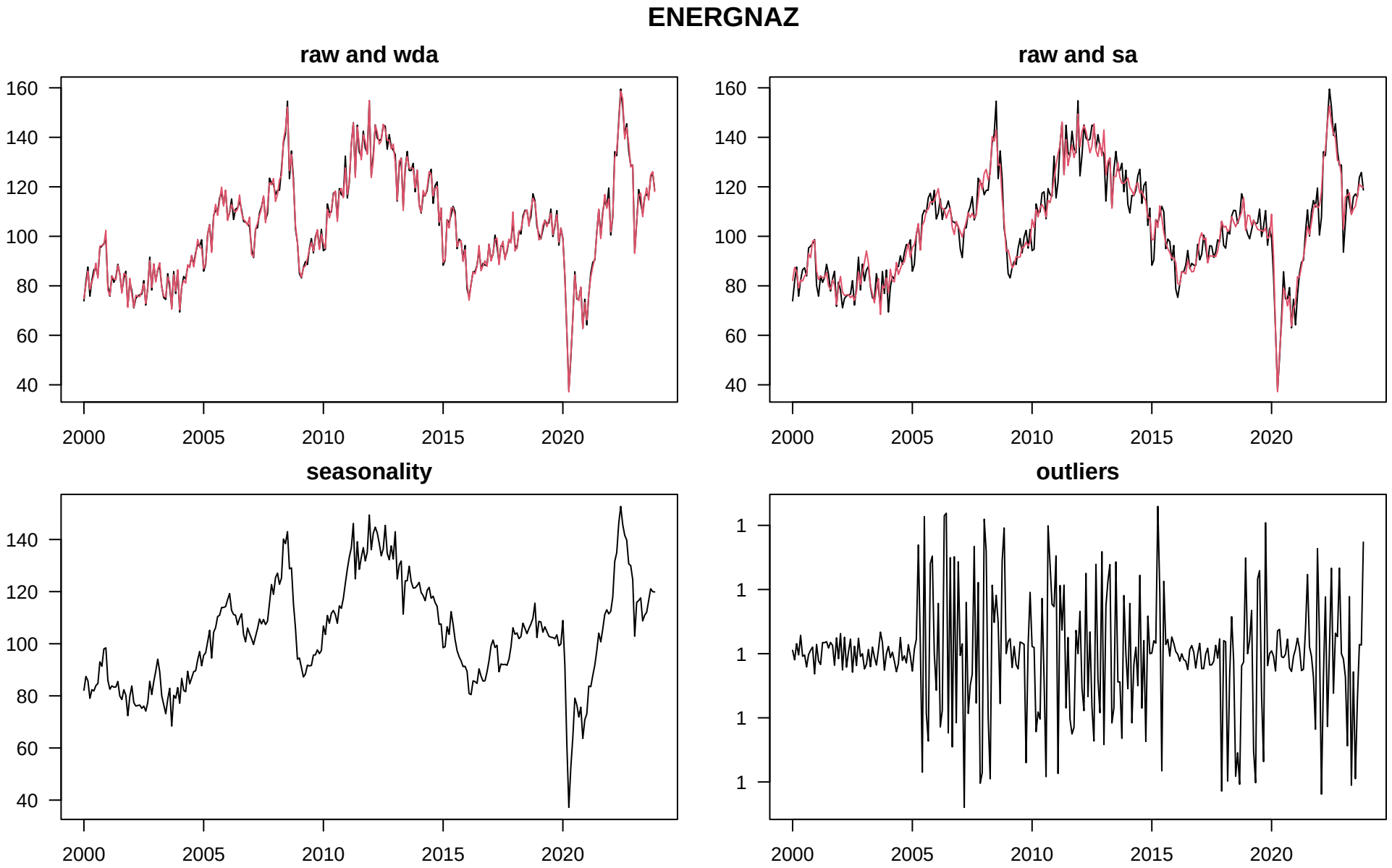
ENERGNAZ
raw and wda
raw and sa
seasonality
outliers
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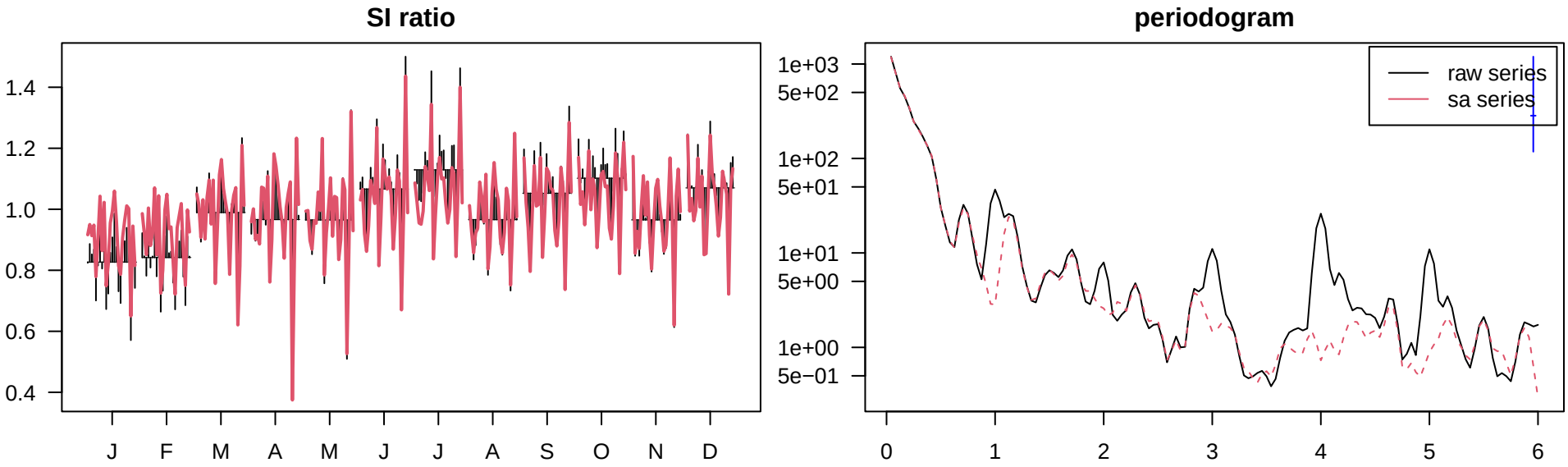
1
2000
2005
2010
2015
2020

ENERGNAZ


SI ratio
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1.2
1.0
0.8
0.6
0.4
J
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M
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J
A
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N
D
periodogram
1e+03
5e+02
1e+02
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5e−01
raw series
sa series
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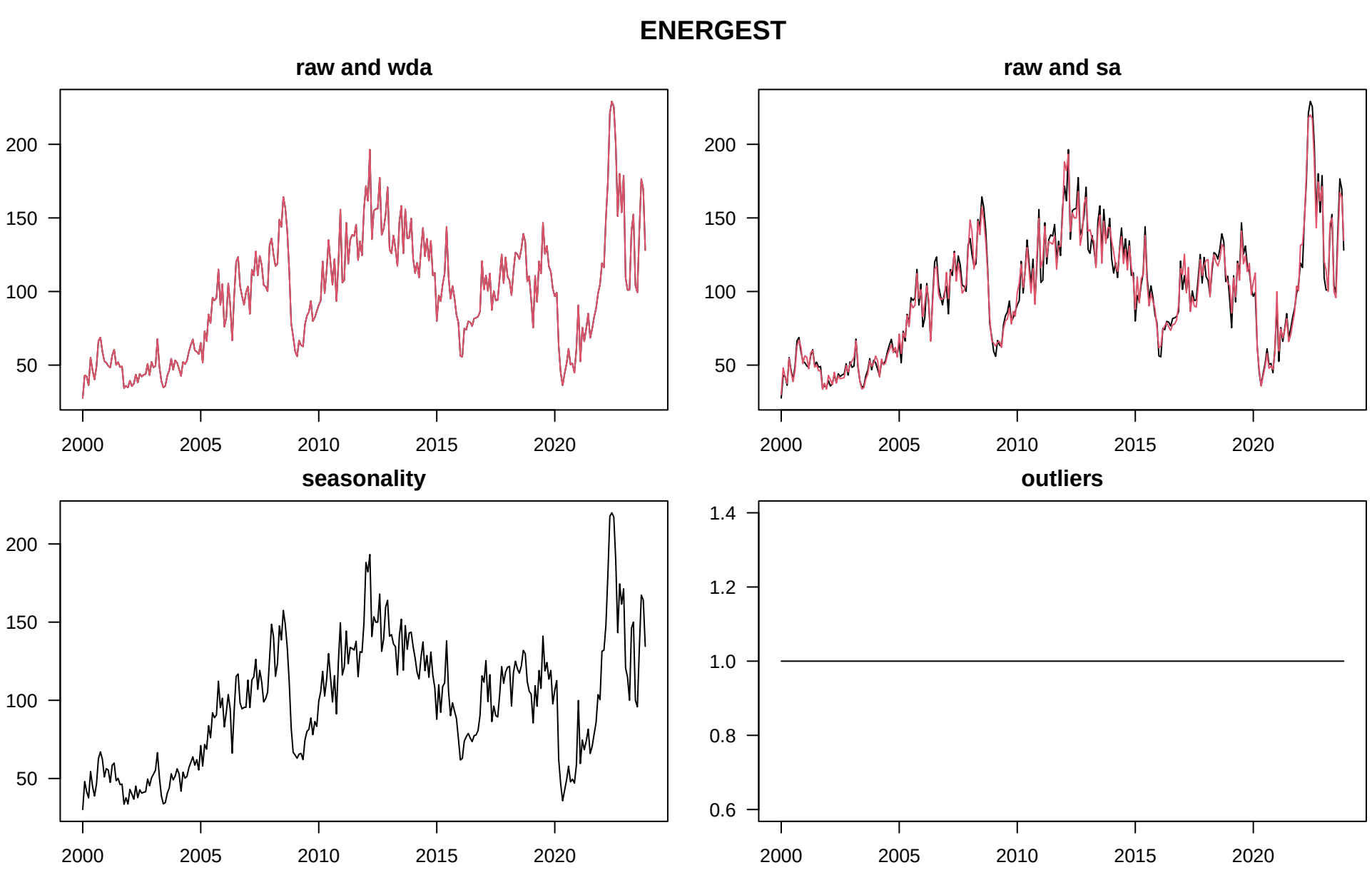
ENERGEST
raw and wda
raw and sa
seasonality
outliers
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1.4
1.2
1.0
0.8
0.6
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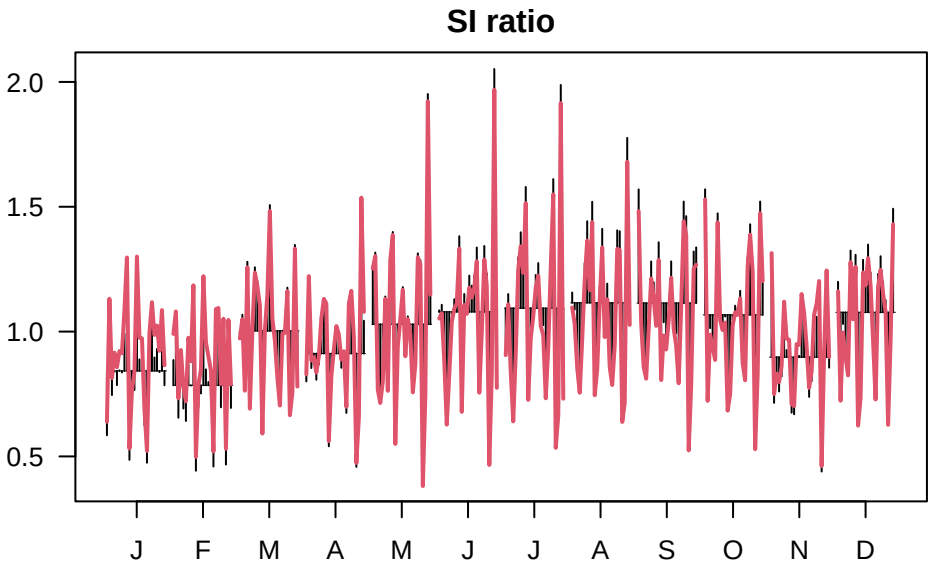
2005
2010
2015
2020

ENERGEST


SI ratio
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1.0
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M
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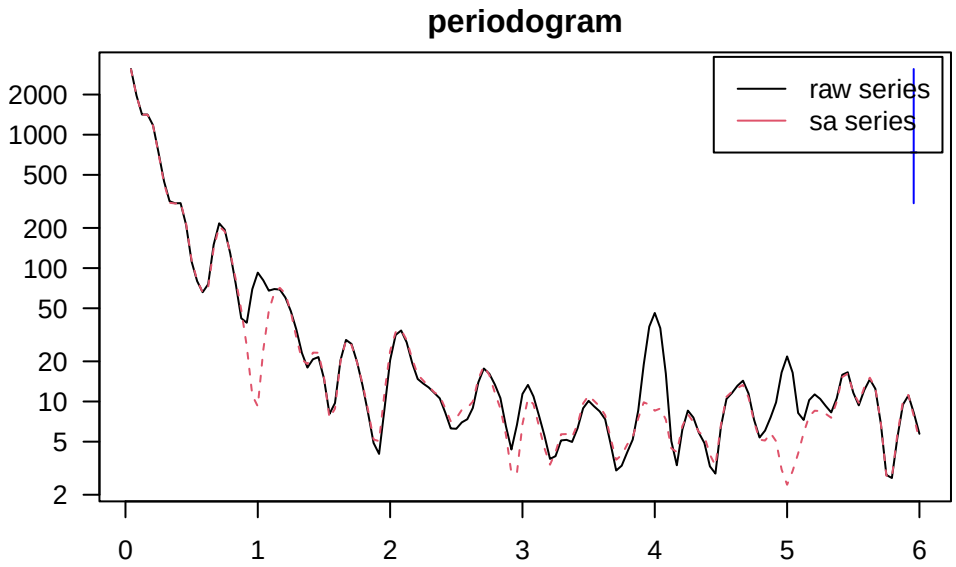
S
O
N
D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sa series
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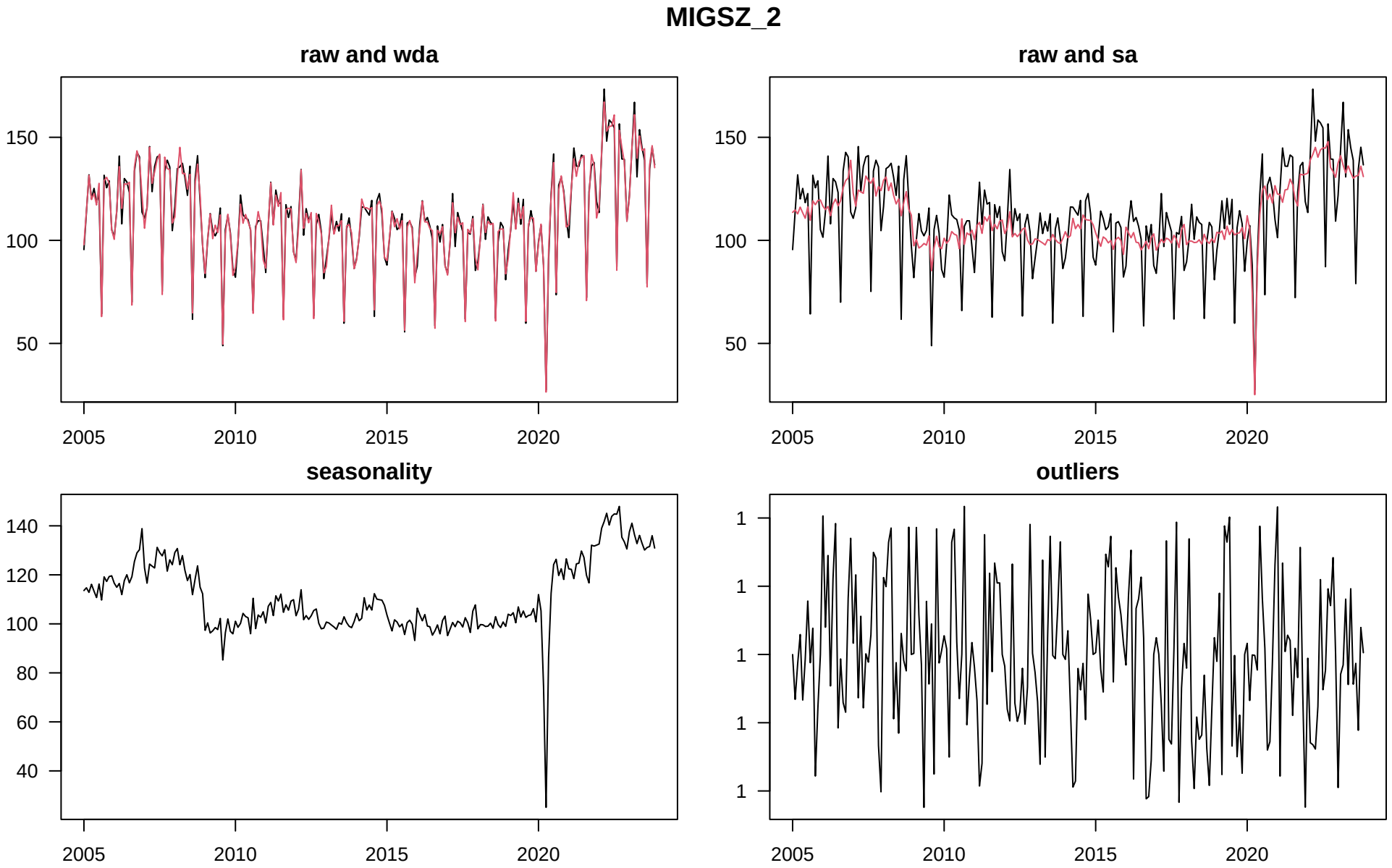
MIGSZ_2
raw and wda
raw and sa
seasonality
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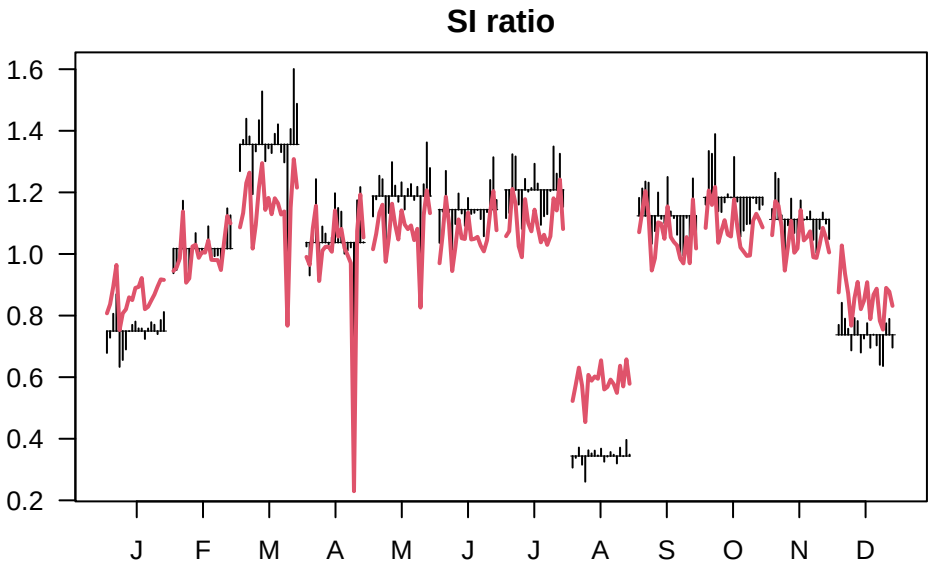
1
2005
2010
2015
2020

MIGSZ_2


SI ratio
1.6
1.4
1.2
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0.4
0.2
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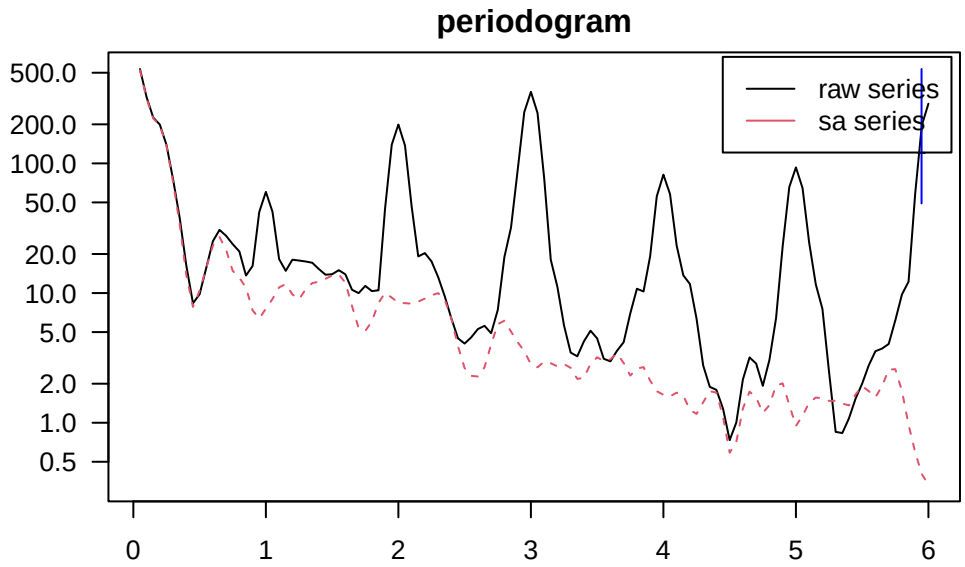
S
O
N
D


periodogram
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sa series
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5.0
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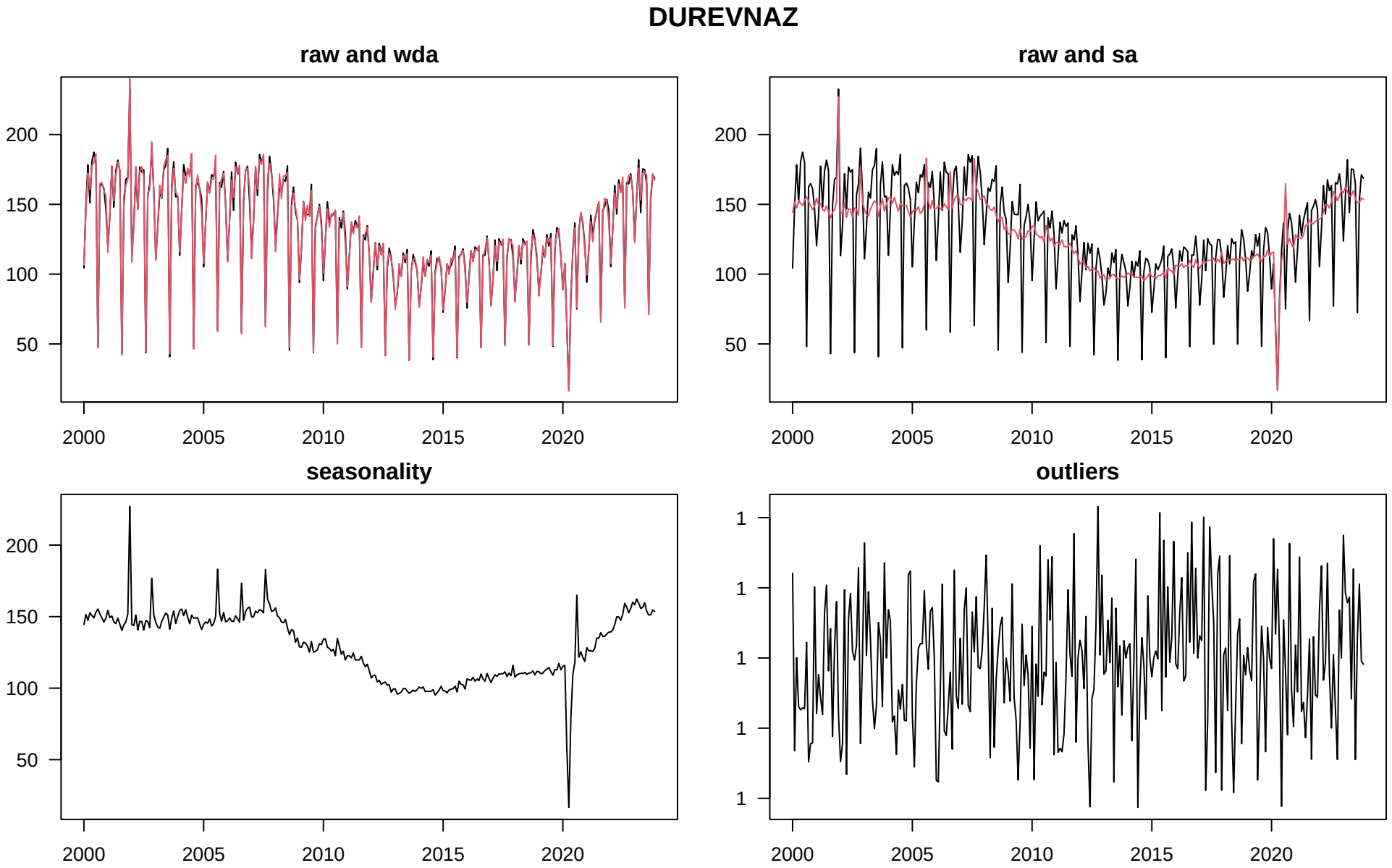
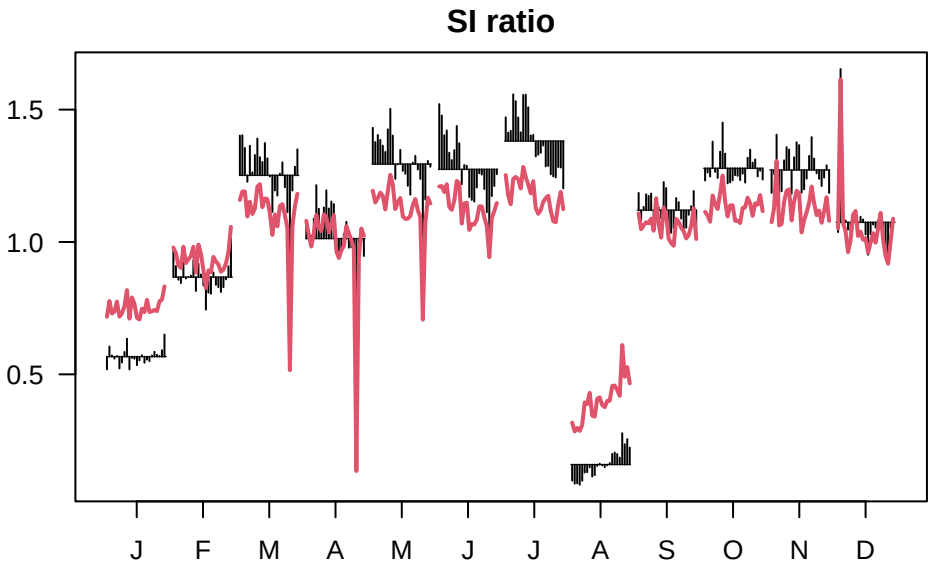
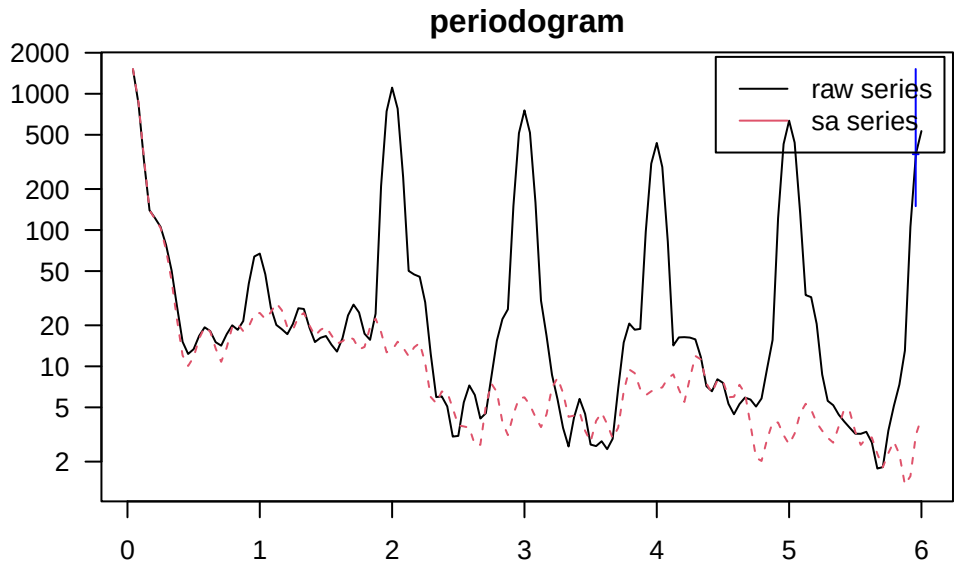
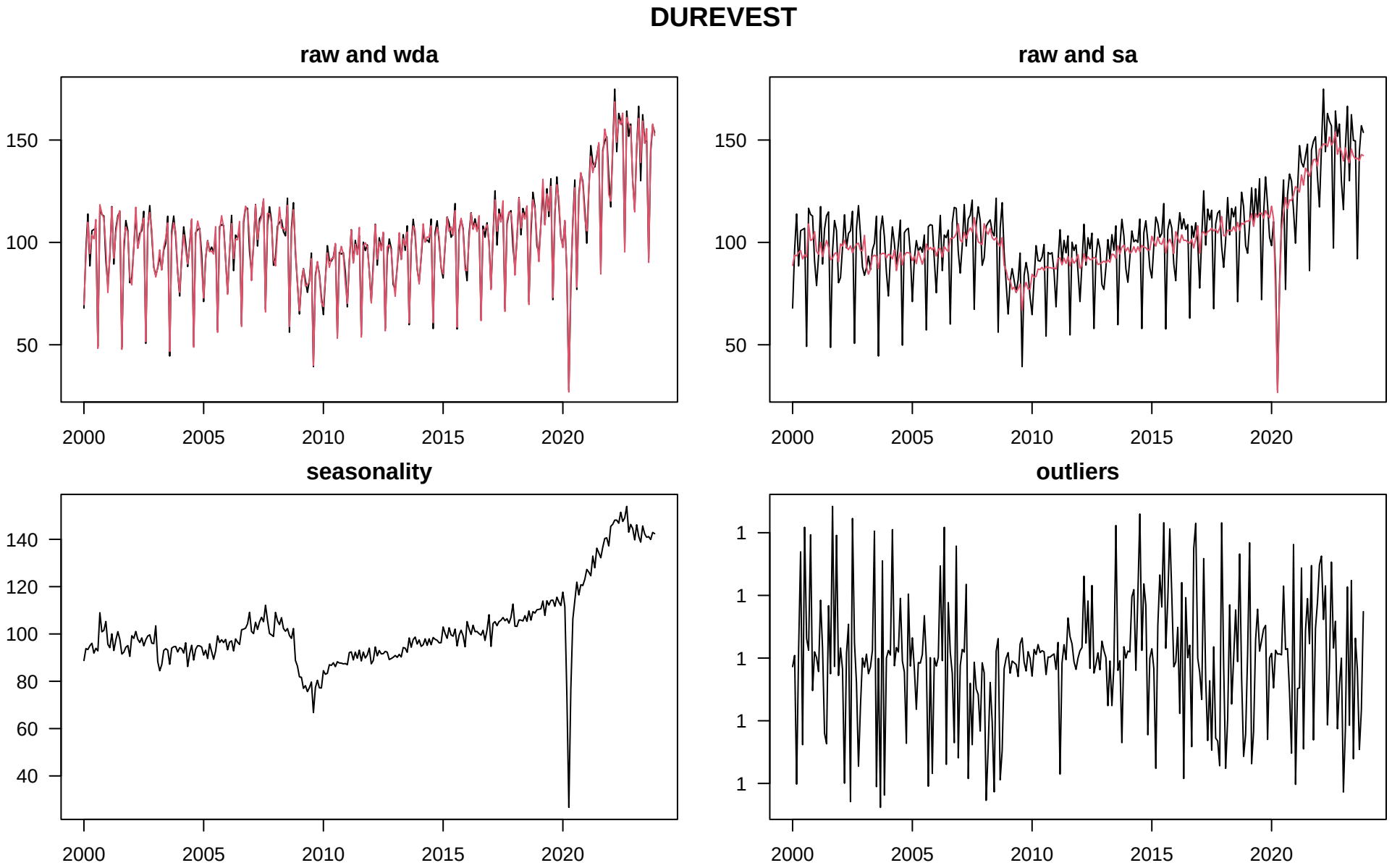
5
6


DUREVNAZ
raw and wda
raw and sa
seasonality
outliers
200
150
100
50
1
2000
2005
2010
2015
2020

DUREVNAZ


SI ratio
1.5
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
2000
1000
500
200
100
50
20
10
5
2
0
1
2
3
4
5
6
raw series
sa series


DUREVEST
raw and wda
raw and sa
seasonality
outliers
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100
50
140
120
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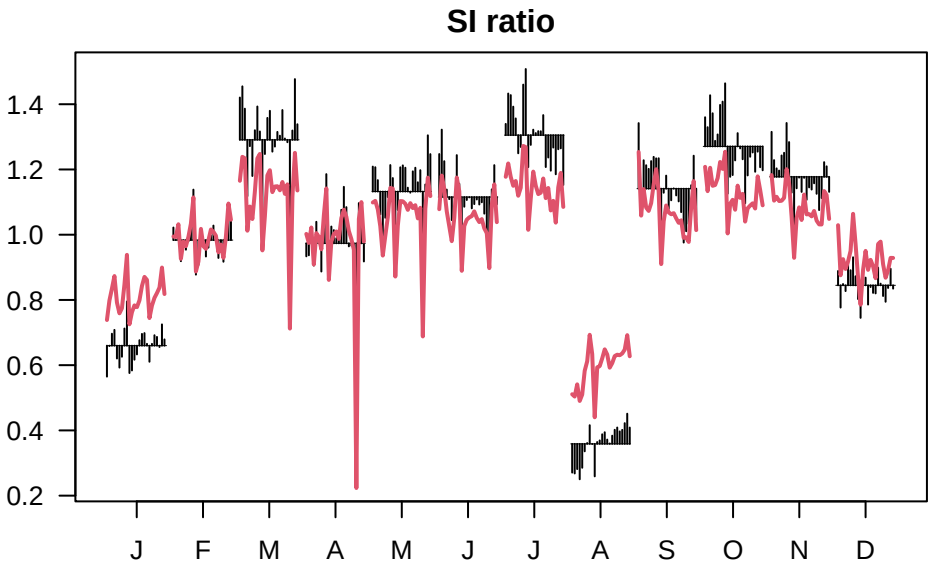
80
60
40
1
2000
2005
2010
2015
2020

DUREVEST


SI ratio
1.4
1.2
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0.8
0.6
0.4
0.2
J
F
M
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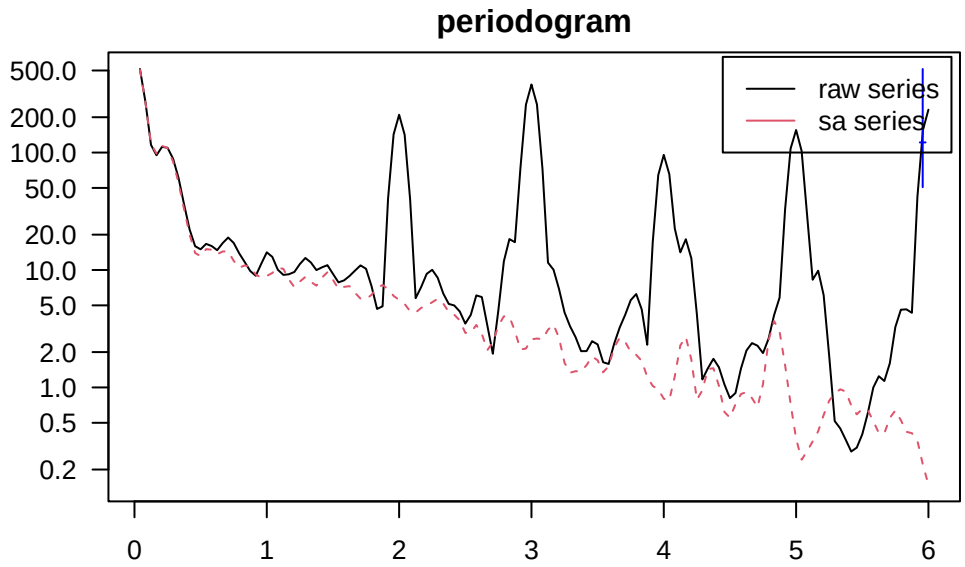
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
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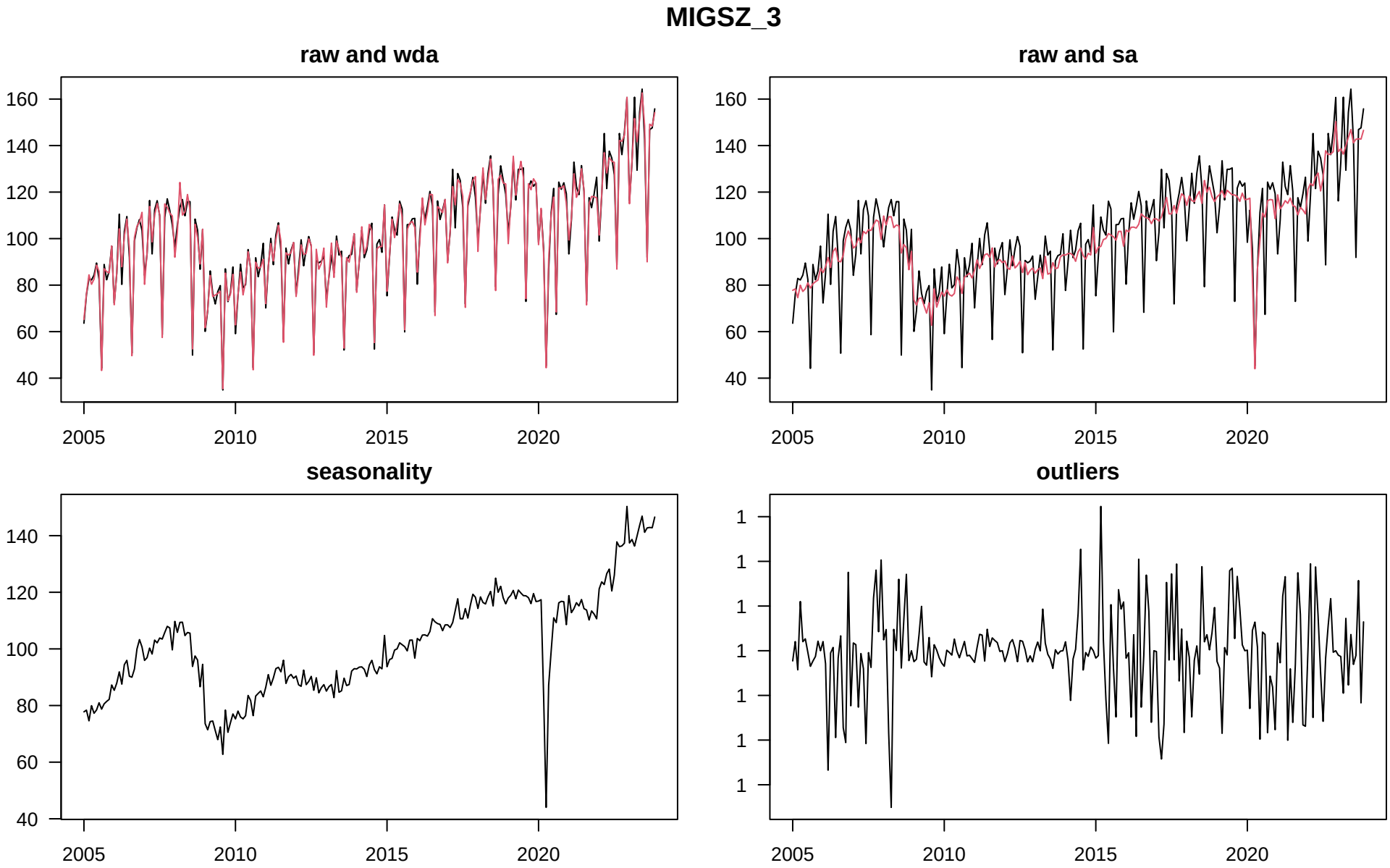
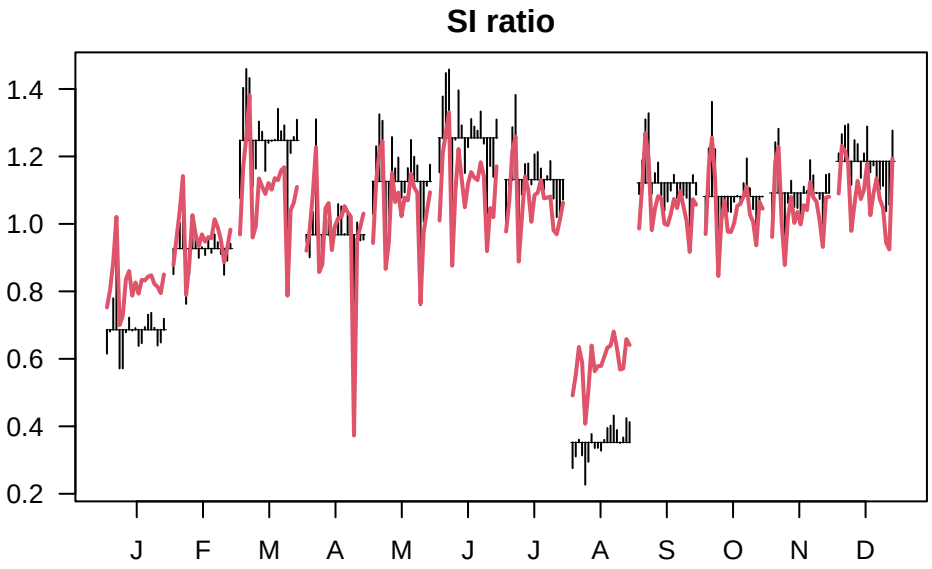
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.5
0.2
0
1
2
3
4
5
6


MIGSZ_3
raw and wda
raw and sa
seasonality
outliers
160
140
120
100
80
60
40
2005
2010
2015
2020
1

MIGSZ_3


SI ratio
1.4
1.2
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0.8
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0.4
0.2
J
F
M
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M
J
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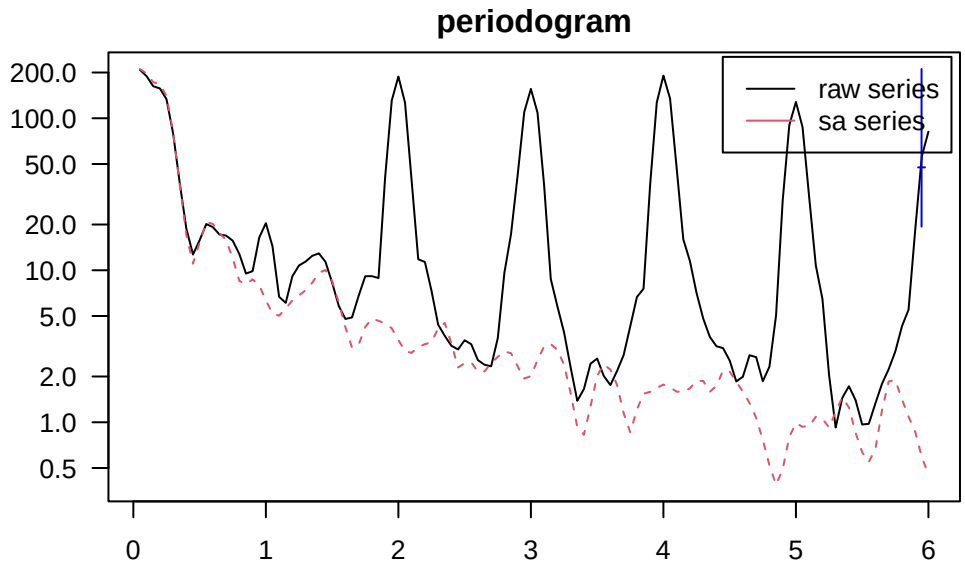
S
O
N
D


periodogram
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2.0
1.0
0.5
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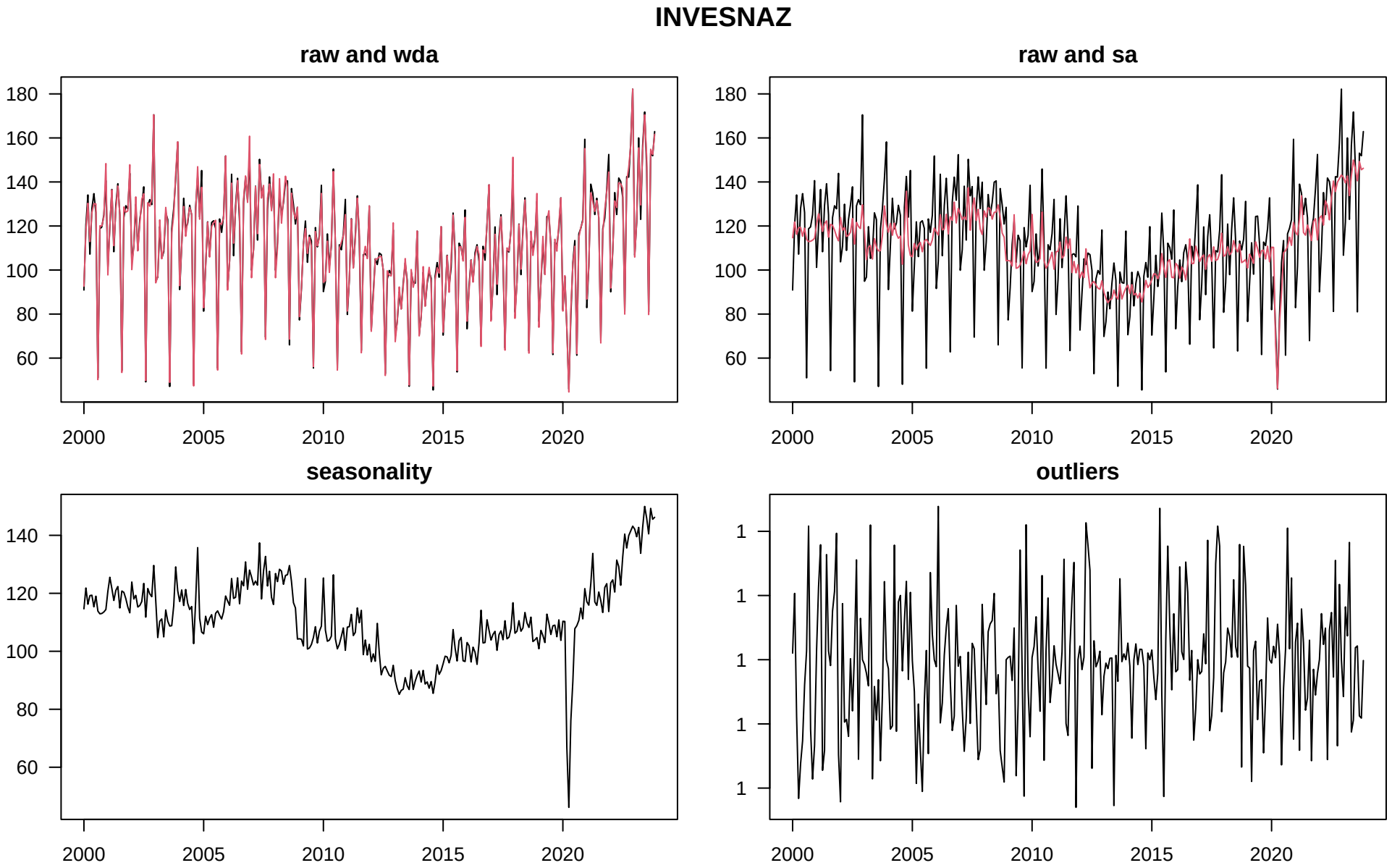
2
3
4
5
6
raw series
sa series


INVESNAZ
raw and wda
raw and sa
seasonality
outliers
180
160
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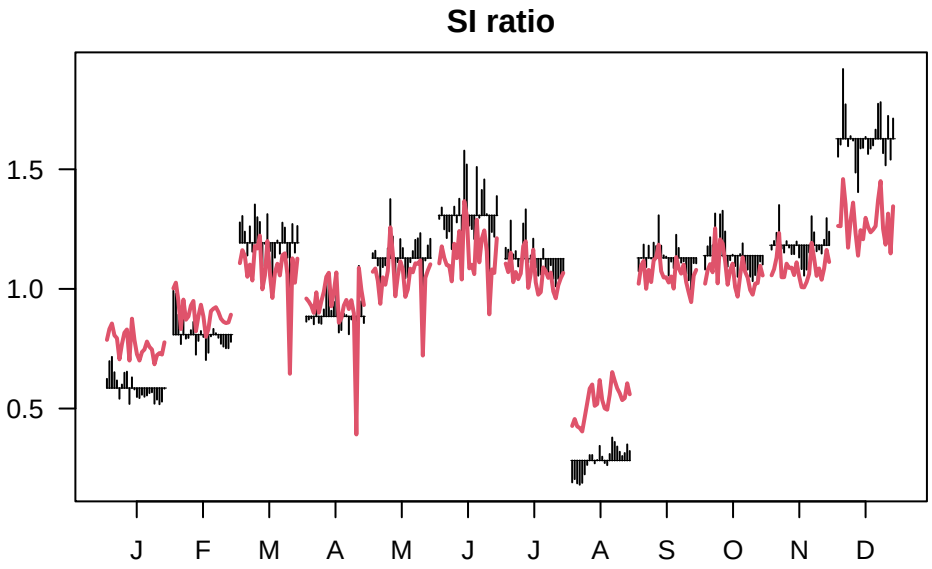
120
100
80
60
2000
2005
2010
2015
2020
1

INVESNAZ


SI ratio
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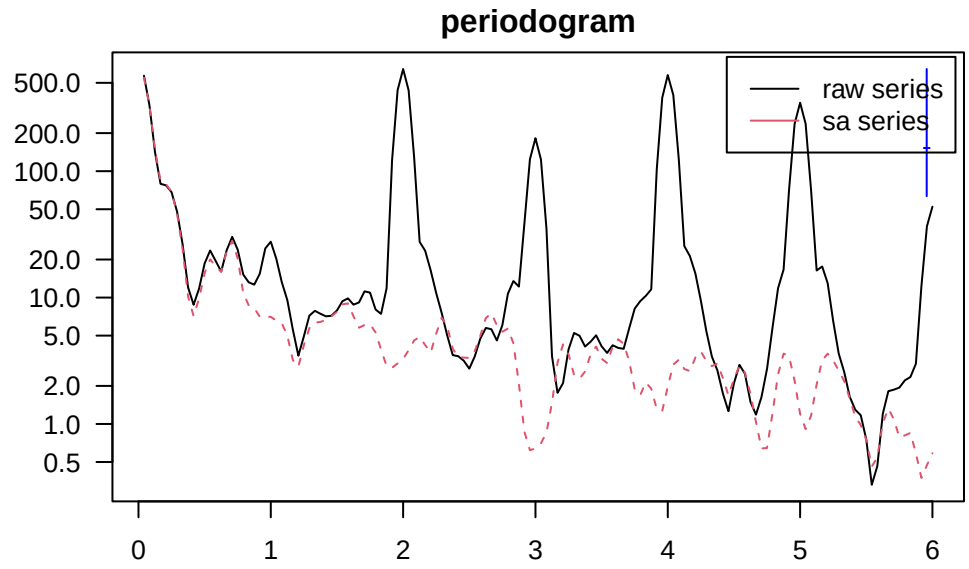
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
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200.0
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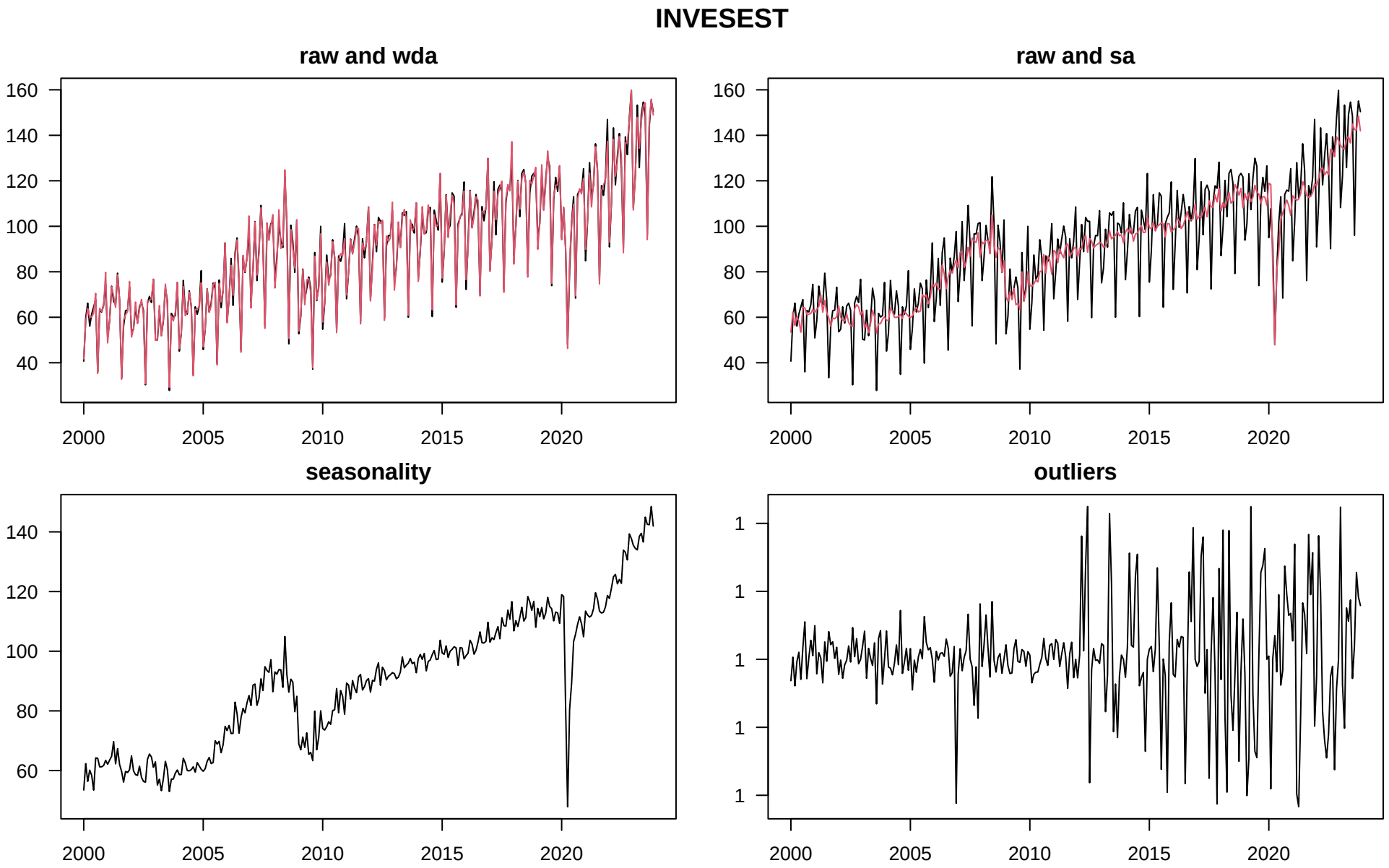
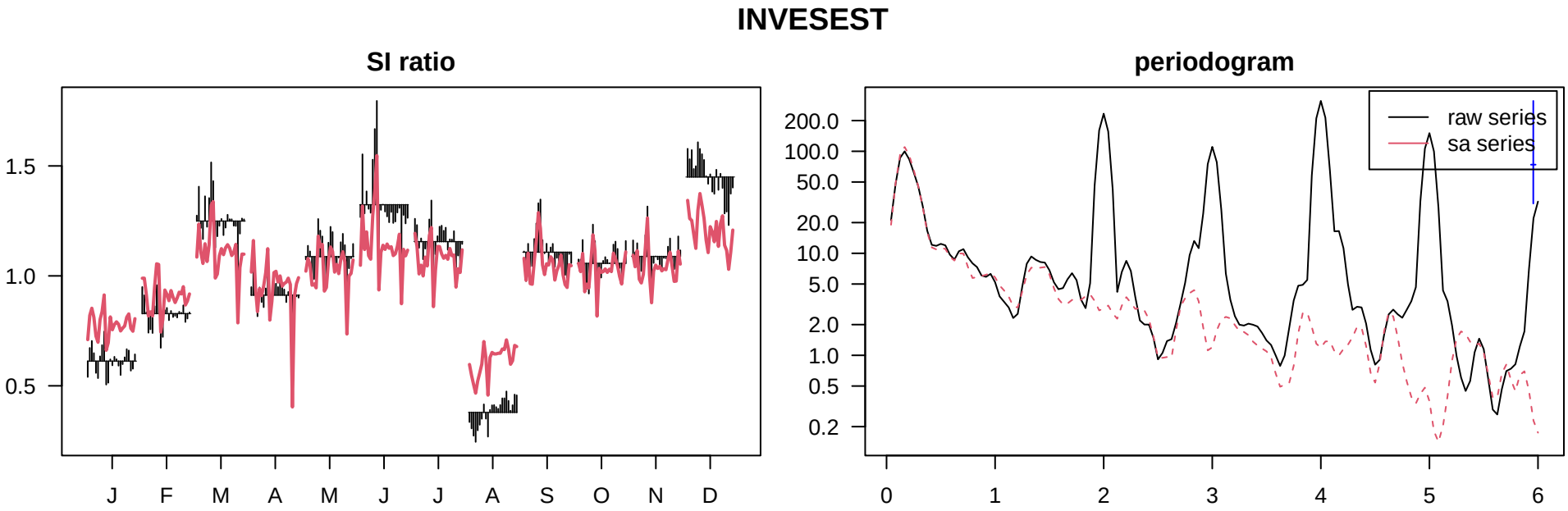
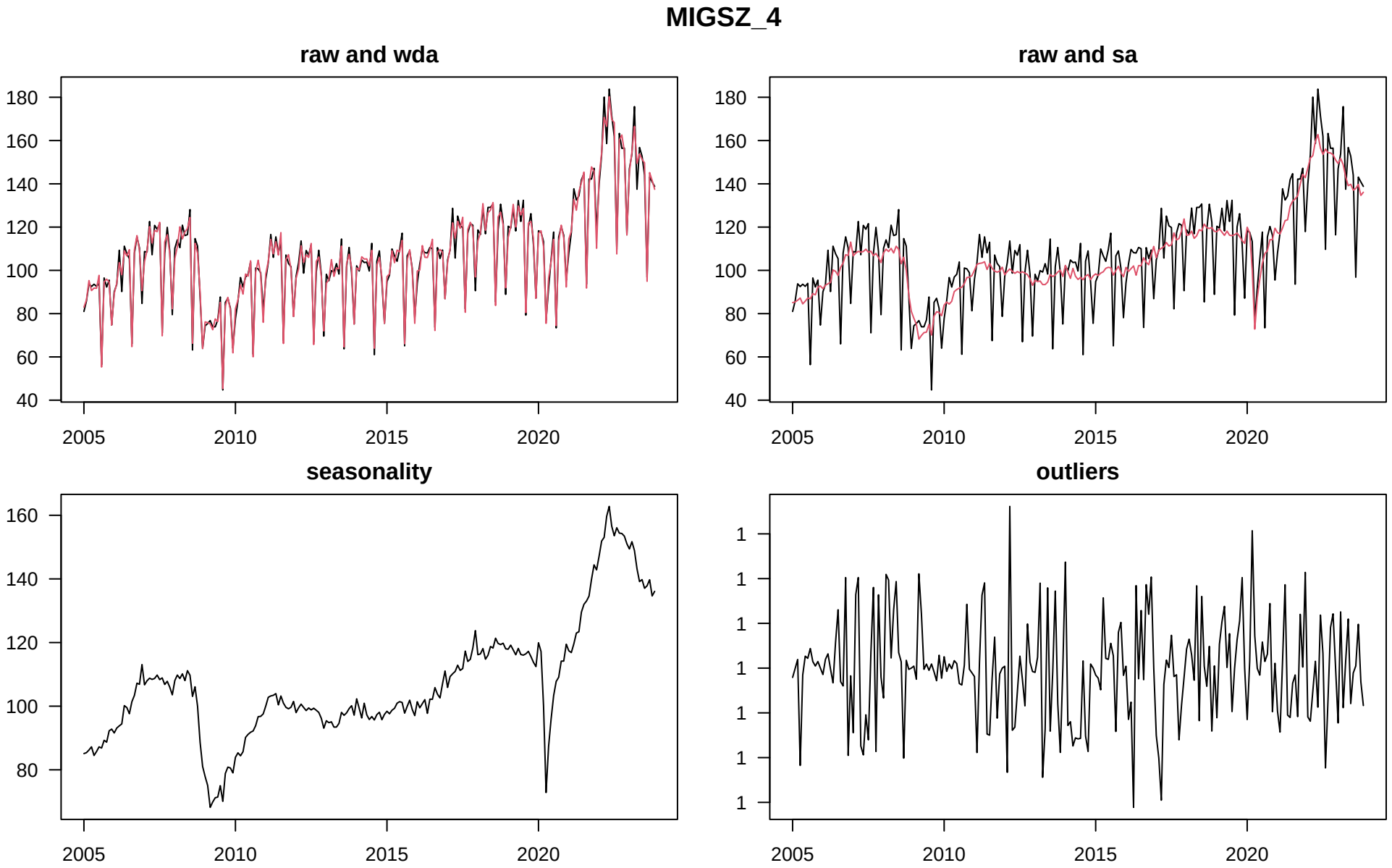
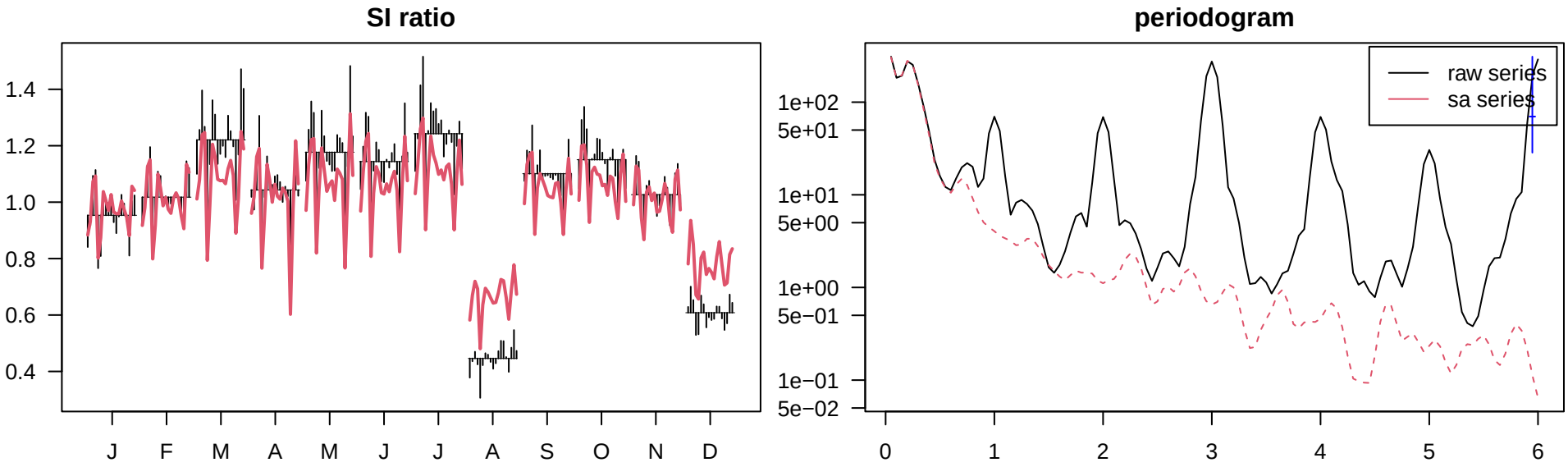
50.0
20.0
10.0
5.0
2.0
1.0
0.5
0
1
2
3
4
5
6

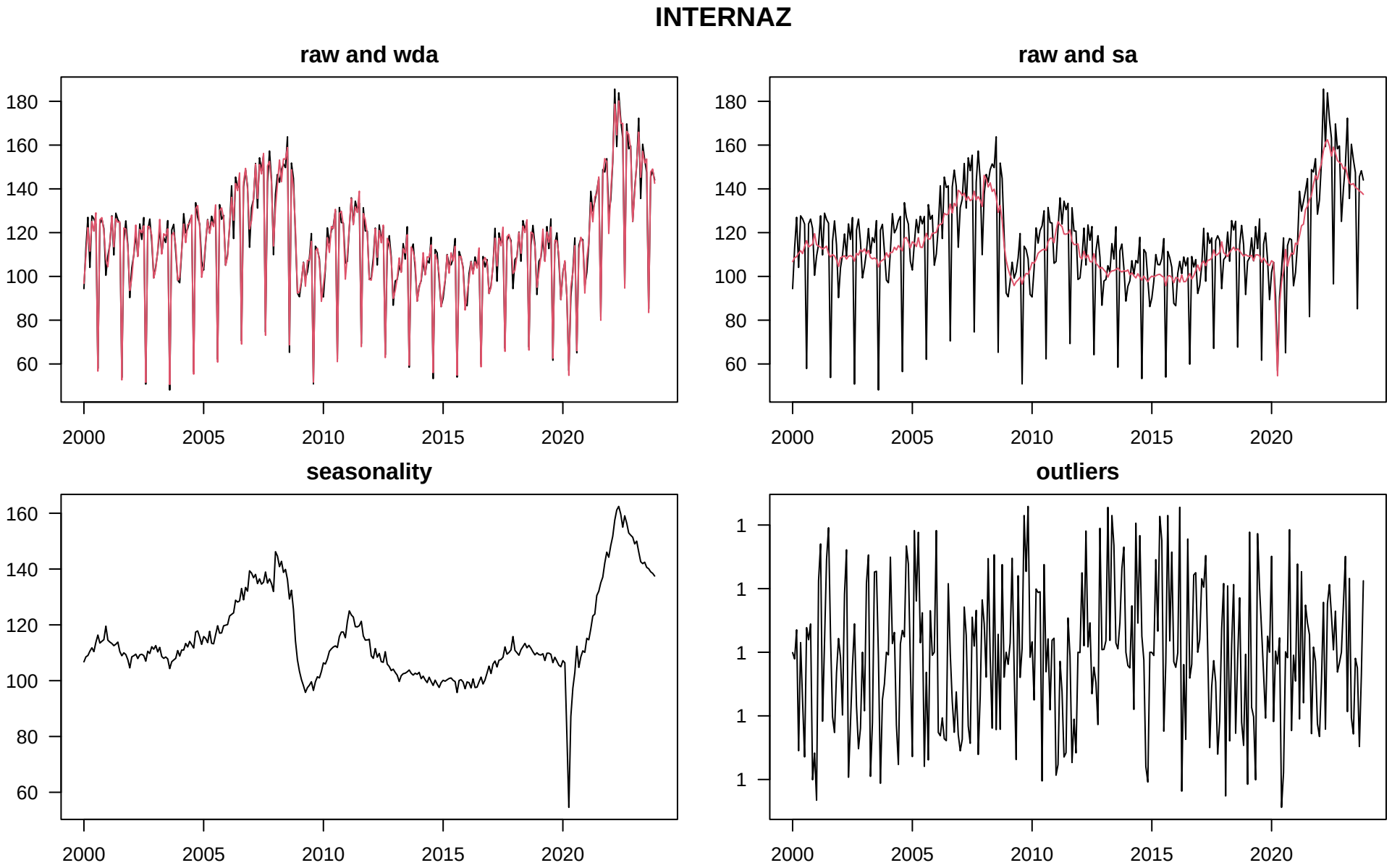

INVESEST
raw and wda
raw and sa
seasonality
outliers
160
140
120
100
80
60
40
2000
2005
2010
2015
2020
1


INVESEST
SI ratio
1.5
1.0
0.5
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
200.0
100.0
50.0
20.0
10.0
5.0
2.0
1.0
0.5
0.2
raw series
sa series
0
1
2
3
4
5
6

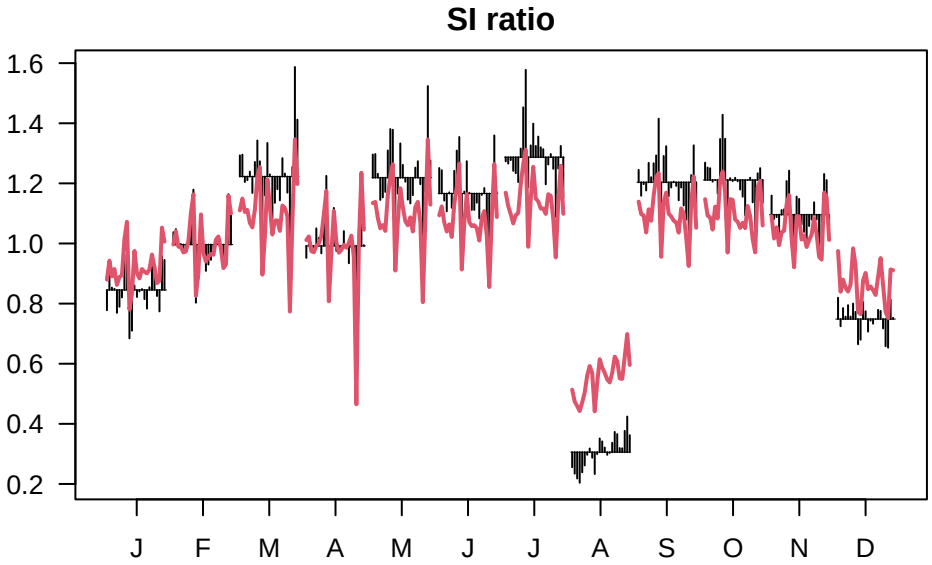

MIGSZ_4
raw and wda
raw and sa
seasonality
outliers
180
160
140
120
100
80
60
40
2005
2010
2015
2020
1

MIGSZ_4


SI ratio
1.4
1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
raw series
sa series
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
0
1
2
3
4
5
6


INTERNAZ
raw and wda
raw and sa
seasonality
outliers
180
160
140
120
100
80
60
2000
2005
2010
2015
2020
1

INTERNAZ


SI ratio
1.6
1.4
1.2
1.0
0.8
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0.4
0.2
J
F
M
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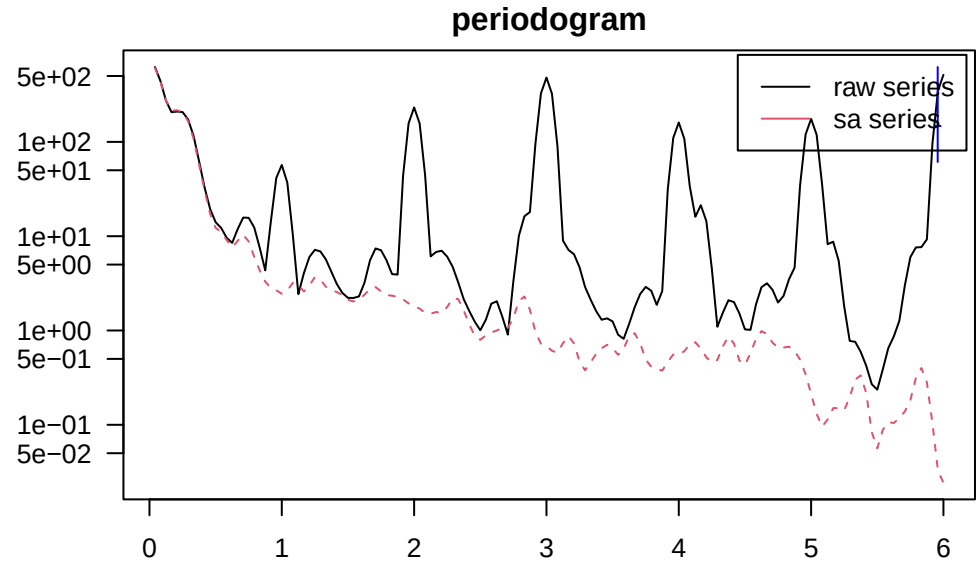
M
J
J
A
S
O
N
D


periodogram
raw series
sa series
5e+02
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
0
1
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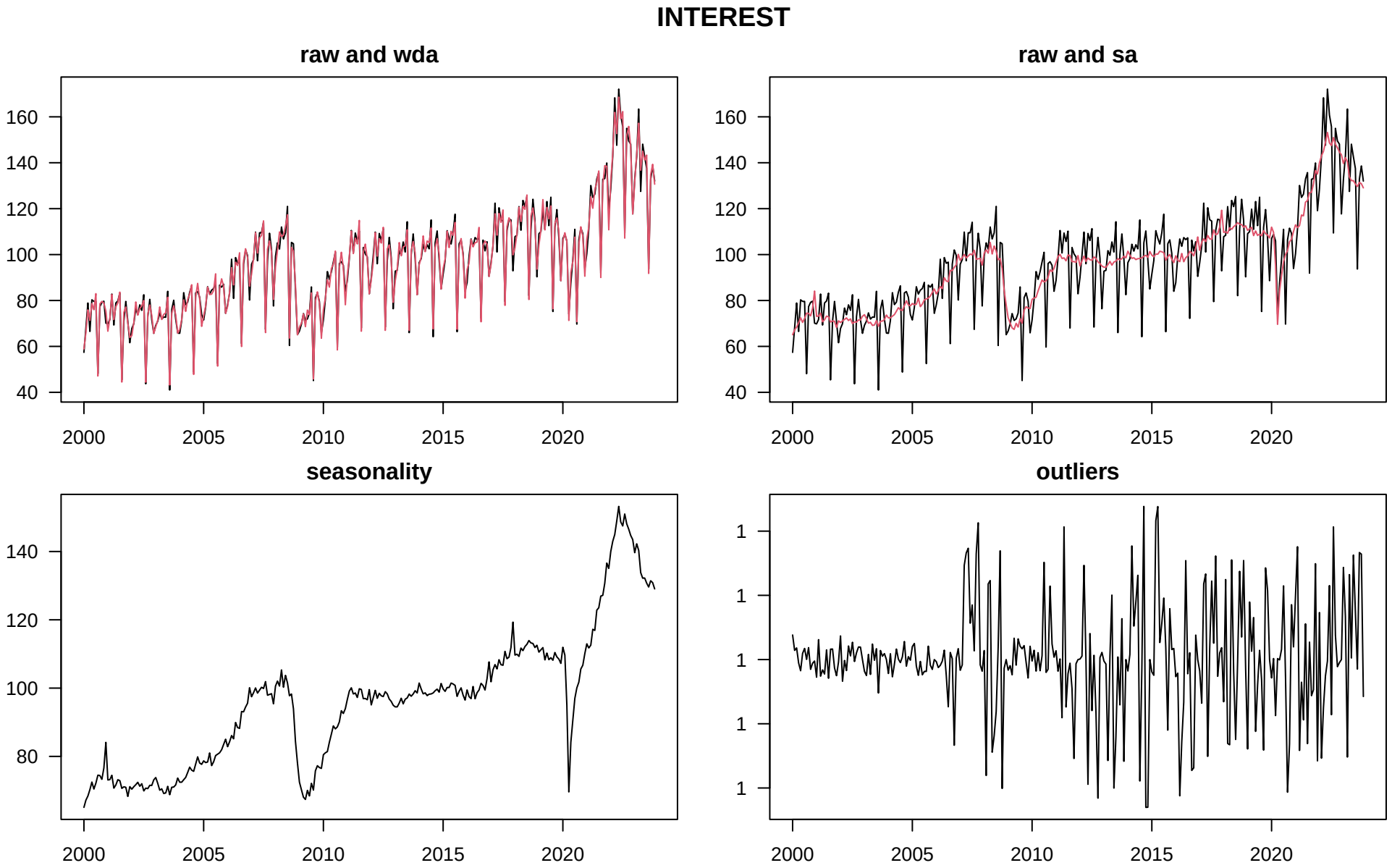
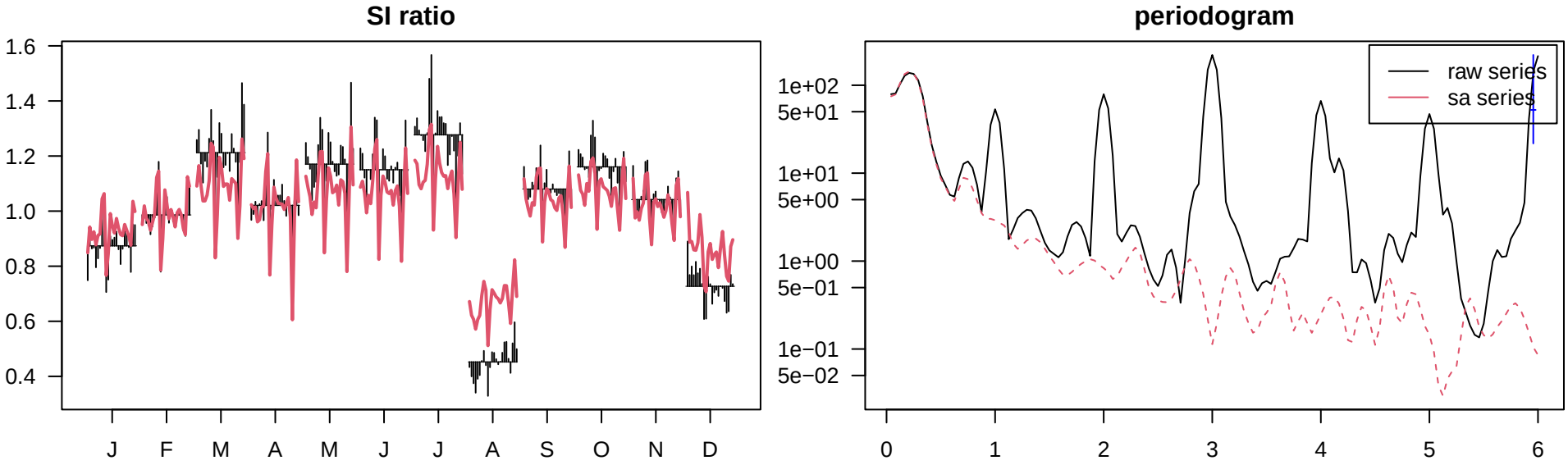
3
4
5
6


INTEREST
raw and wda
raw and sa
seasonality
outliers
160
140
120
100
80
60
40
2000
2005
2010
2015
2020
1

INTEREST


SI ratio
1.6
1.4
1.2
1.0
0.8
0.6
0.4
J
F
M
A
M
J
J
A
S
O
N
D
periodogram
raw series
sa series
1e+02
5e+01
1e+01
5e+00
1e+00
5e−01
1e−01
5e−02
0
1
2
3
4
5
6