```
> Power=gam(Power~s(Month,k=10)+Covid,data=co2)
> summary(Power)

Family: gaussian
Link function: identity

Formula:
Power ~ s(Month, k = 10) + Covid

Parametric coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  38.1159     0.1023  372.47   <2e-16 ***
Covidyes     -2.1086     0.1942  -10.86   <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Approximate significance of smooth terms:
           edf Ref.df     F p-value
s(Month) 8.792  8.987 122.9  <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

R-sq.(adj) =  0.727   Deviance explained = 73.2%
GCV = 3.5141  Scale est. = 3.4448    n = 547
> (-2.1086/38.1159)*100
[1] -5.532075
```

```
> Industry=gam(Industry~s(Month,k=10)+Covid,data=co2)
> summary(Industry)

Family: gaussian
Link function: identity

Formula:
Industry ~ s(Month, k = 10) + Covid

Parametric coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 27.01362    0.07308  369.64   <2e-16 ***
Covidyes    -1.59407    0.13871  -11.49   <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Approximate significance of smooth terms:
           edf Ref.df     F p-value
s(Month) 8.946  8.999 113.2  <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

R-sq.(adj) =  0.717   Deviance explained = 72.2%
GCV = 1.7923  Scale est. = 1.7564    n = 547
> (-1.59407/27.01362)*100
[1] -5.900986
```

```
> Ground.Transport=gam(Ground.Transport~s(Month,k=10)+Covid,data=co2)
> summary(Ground.Transport)

Family: gaussian
Link function: identity

Formula:
Ground.Transport ~ s(Month, k = 10) + Covid

Parametric coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  18.2715     0.1182  154.57   <2e-16 ***
Covidyes     -3.4574     0.2238  -15.45   <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Approximate significance of smooth terms:
           edf Ref.df     F  p-value
s(Month) 7.163  8.194 11.72 8.13e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

R-sq.(adj) =  0.437   Deviance explained = 44.6%
GCV = 4.6891  Scale est. = 4.6105    n = 547
> (-3.4574 /18.2715)*100
[1] -18.92237
```

```
> Residential=gam(Residential~s(Month,k=10)+Covid,data=co2)
> summary(Residential)

Family: gaussian
Link function: identity

Formula:
Residential ~ s(Month, k = 10) + Covid

Parametric coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 10.03972    0.04693 213.949  < 2e-16 ***
Covidyes    -0.30942    0.08898  -3.478 0.000547 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Approximate significance of smooth terms:
           edf Ref.df    F p-value
s(Month) 8.217   8.83 1603  <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

R-sq.(adj) =  0.963   Deviance explained = 96.4%
GCV = 0.73891  Scale est. = 0.72511   n = 547
> -0.30942/10.03972
[1] -0.03081958
```

```
> Aviation=gam(Aviation~s(Month,k=10)+Covid,data=co2)
> summary(Aviation)

Family: gaussian
Link function: identity

Formula:
Aviation ~ s(Month, k = 10) + Covid

Parametric coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.57395    0.02163  119.00   <2e-16 ***
Covidyes    -1.13264    0.04093  -27.67   <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Approximate significance of smooth terms:
           edf Ref.df     F p-value
s(Month) 6.943  8.019 35.07  <2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

R-sq.(adj) =  0.717   Deviance explained = 72.1%
GCV = 0.15701  Scale est. = 0.15444   n = 547
> -1.13264/2.57395
[1] -0.4400396
```