RMD practice - again

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all.UK.rates <- read\_xlsx("Conception rates by age and country.xlsx", sheet = "Under 18")  
  
all.UK.rates %>% filter(Country=="Scotland"|  
 Country=="England"|  
 Country=="Wales") %>%   
 gather("Year", "Value", -1) %>%   
 mutate(Category = ifelse(Year<1999, 0,  
 ifelse(Year<2007, 1, 2)),  
 Year=as.numeric(Year)) %>%   
 group\_by(Country, Category) %T>%   
 {print(group\_map(., ~tidy(lm(Value ~ Year, data=.))) %>%   
 arrange(Category, term, Country))} %>%   
 {ggplot(., aes(x=Year, y=Value, group=interaction(Category, Country), col=Country)) +  
 geom\_point() +  
 geom\_smooth(method="lm")}

## # A tibble: 18 x 7  
## # Groups: Country, Category [9]  
## Country Category term estimate std.error statistic p.value  
## <chr> <dbl> <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 England 0 (Intercept) -1.45e+3 589. -2.47 5.69e-2  
## 2 Scotland 0 (Intercept) -1.85e+3 807. -2.30 1.05e-1  
## 3 Wales 0 (Intercept) -2.62e+3 735. -3.56 1.61e-2  
## 4 England 0 Year 7.50e-1 0.295 2.54 5.19e-2  
## 5 Scotland 0 Year 9.50e-1 0.404 2.35 1.00e-1  
## 6 Wales 0 Year 1.34e+0 0.369 3.63 1.50e-2  
## 7 England 1 (Intercept) 1.09e+3 121. 9.00 1.05e-4  
## 8 Scotland 1 (Intercept) 6.23e+1 398. 0.157 8.81e-1  
## 9 Wales 1 (Intercept) 1.53e+3 416. 3.67 1.05e-2  
## 10 England 1 Year -5.21e-1 0.0603 -8.65 1.32e-4  
## 11 Scotland 1 Year -1.07e-2 0.199 -0.0539 9.59e-1  
## 12 Wales 1 Year -7.39e-1 0.208 -3.56 1.20e-2  
## 13 England 2 (Intercept) 5.39e+3 180. 30.0 1.65e-9  
## 14 Scotland 2 (Intercept) 5.53e+3 216. 25.6 5.86e-9  
## 15 Wales 2 (Intercept) 5.54e+3 192. 28.9 2.24e-9  
## 16 England 2 Year -2.67e+0 0.0893 -29.8 1.72e-9  
## 17 Scotland 2 Year -2.73e+0 0.107 -25.4 6.12e-9  
## 18 Wales 2 Year -2.74e+0 0.0954 -28.7 2.35e-9

