

# Problem Set 1

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## 1 Average pass-through

### 1.1 Bank and firm fixed effects

Below I estimate the fixed effects regression:

```
library(lfe)
dep_vars <- c("lncredit", "intrate")
index_vars <- c("firmid", "bankid") # for entity fixed-effects
indep_vars <- colnames(dt)[!colnames(dt) %in% c(dep_vars, "date_q")]
output <- lapply(
  1:length(dep_vars),
  function(i) {
    col_names <- c(dep_vars[i], indep_vars)
    mod_data <- dt[,.SD,.SDcols=col_names]
    setnames(mod_data, dep_vars[i], "y")
    col_names <- colnames(mod_data)
    f <- paste("y ~", paste(col_names[!col_names %in% c("y", index_vars)], collapse = " + "))
    f <- as.formula(paste(f, paste(index_vars, collapse = " + "), sep = " | "))
    t0 <- Sys.time()
    message(sprintf("Fitting model for: %s", dep_vars[i]))
    mod <- feLM(f, data = mod_data)
    message(sprintf("Converged after %0.2f seconds.", as.numeric(Sys.time()-t0)))
    return(mod)
  }
)
names(output) <- dep_vars
```

The table below

### 1.2 Firm and time fixed effects

### 1.3 Controlling for scales

## 2 Discussion

Table 1:

	<i>Dependent variable:</i>	
	y	
	(1)	(2)
mpshock_l	−0.140*** (0.006)	5.446*** (0.005)
gdp_l	0.0001 (0.001)	0.056*** (0.001)
infl_l	−0.00003 (0.001)	0.005*** (0.001)
bdepo_l	−0.0001 (0.001)	0.013*** (0.001)
bcet1_l	−0.003 (0.003)	−0.012*** (0.003)
bsize_l	0.002 (0.001)	−0.020*** (0.001)
blar_l	−0.001 (0.001)	−0.024*** (0.001)
Observations	2,893,870	2,385,286
R <sup>2</sup>	0.339	0.359
Adjusted R <sup>2</sup>	0.333	0.352
Residual Std. Error	2.429 (df = 2868814)	1.806 (df = 2360230)
<i>Note:</i> *p<0.1; **p<0.05; ***p<0.01		

Table 2:

	<i>Dependent variable:</i>	
	y	
	(1)	(2)
mpshock_l	−0.136 (0.110)	−0.241*** (0.088)
gdp_l	−0.0001 (0.001)	0.058*** (0.001)
infl_l	−0.00001 (0.001)	0.005*** (0.001)
bdepo_l	−0.001*** (0.0002)	0.007*** (0.0001)
bcet1_l	−0.008*** (0.001)	−0.007*** (0.001)
bsize_l	0.002* (0.001)	−0.008*** (0.001)
blar_l	−0.003*** (0.0003)	−0.004*** (0.0002)
mp_x_bdepo_l	−0.014*** (0.001)	0.153*** (0.0005)
mp_x_bcet1_l	0.097*** (0.002)	−0.270*** (0.002)
mp_x_bsize_l	−0.001 (0.006)	0.037*** (0.005)
mp_x_blar_l	0.010*** (0.001)	−0.089*** (0.001)
Observations	2,893,870	2,385,286
R <sup>2</sup>	0.339	0.390
Adjusted R <sup>2</sup>	0.333	0.383
Residual Std. Error	2.429 (df = 2868859)	1.762 (df = 2360275)

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 3:

	<i>Dependent variable:</i>	
	y	
	(1)	(2)
mpshock_l	−0.031*** (0.001)	1.245*** (0.001)
gdp_l	−0.0001 (0.001)	0.058*** (0.001)
infl_l	−0.00001 (0.001)	0.005*** (0.001)
bdepo_l	−0.012*** (0.002)	0.043*** (0.001)
bcet1_l	−0.025*** (0.002)	−0.005*** (0.001)
bsize_l	0.003* (0.001)	−0.010*** (0.001)
blar_l	−0.018*** (0.002)	−0.017*** (0.001)
mp_x_bdepo_l	−0.035*** (0.001)	0.371*** (0.001)
mp_x_bcet1_l	0.057*** (0.001)	−0.158*** (0.001)
mp_x_bsize_l	−0.0003 (0.001)	0.009*** (0.001)
mp_x_blar_l	0.013*** (0.001)	−0.120*** (0.001)
Observations	2,893,870	2,385,286
R <sup>2</sup>	0.339	0.390
Adjusted R <sup>2</sup>	0.333	0.383
Residual Std. Error	2.429 (df = 2868859)	1.762 (df = 2360275)
<i>Note:</i> *p<0.1; **p<0.05; ***p<0.01		