

Appendices

Table 4:

Correlation matrix	GDP pc	log GDP pc	GCF	log GCF	Labor	FDI	log FDI
GDP pc	1						
log GDP pc	0.9004273	1					
GCF	0.7273363	0.729346	1				
log GCF	0.0705784	0.231001	0.0392131	1			
labor	-0.170199	-0.144931	0.3496493	0.0576380	1		
FDI	0.2326271	0.3541628	0.6821794	0.0907662	0.46601387	1	
Log FDI	0.2880064	0.4358821	0.4833367	0.1021151	0.17393014	0.6403335	1
Urban population	0.0503352	0.2196531	-0.084821	0.2944717	-0.3176868	0.0802479	0.0655683
Schooling	0.7005749	0.7216069	0.5333245	0.2362139	0.00449144	0.2678571	0.2547716
Ethnic FRAC	-0.819790	-0.756434	-0.598428	-0.129241	0.17902856	-0.090188	-0.149148

Correlation matrix	Urban population	Schooling	Ethnic FRAC
GDP pc			
log GDP pc			
GCF			
log GCF			
labor			
FDI			

Log FDI			
Urban population	1		
Schooling	0.3632938	1	
Ethnic FRAC	-0.0576671	-0.72006709	1

Table 5:

Code	Variable and kind of variable
$\log GDP_{pc_{it}}$	Logarithm of GDP per capita (dependent variable)
$\log GCF_{it}$	Gross capital formation (independent variable)
$\log FDI_{it}$	Foreign direct investment (independent variable)

$Urban\ pop_{it}$	Urban population (independent variable)
$Labor\ force_{it}$	Labor force (independent variable)
AYS_i	Average years of schooling (independent variable)
$Diversity_i$	Ethnic index of fractionalization (variable of interest)
ε_{it}	Error
μ_{it}	Unobserved random effect

Regression 1 (Pooled OLS Estimator):

```
## Call:
## lm(formula = log_GDP_pc ~ Labor_force_total + log_FDI + log_Formation + Urban_population + FRAC.MIX,
data = my_data)
##
## Residuals:
##   Min    1Q  Median    3Q   Max
```

```

## -0.61423 -0.20941 0.02263 0.16801 0.66362
##
## Coefficients:
##      Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -1.111e+01 7.928e-01 -14.009 < 2e-16 ***
## Labor_force_total -4.550e-07 2.243e-08 -20.283 < 2e-16 ***
## log_FDI        3.969e-03 1.195e-02  0.332 0.74030
## log_Formation   7.501e-01 3.339e-02 22.467 < 2e-16 ***
## Urban_population 2.324e+00 3.780e-01  6.146 9.8e-09 ***
## FRAC.MIX       4.757e-01 1.797e-01  2.647 0.00916 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2008 on 125 degrees of freedom
##      (6 observations deleted due to missingness)
## Multiple R-squared:  0.9441, Adjusted R-squared:  0.9415
## F-statistic: 352.2 on 6 and 125 DF, p-value: < 2.2e-16

```

Regression 2 (Fixed Effects Model):

```

## Oneway (individual) effect Within Model
##
## Call:
## plm(formula = log_GDP_pc ~ Labor_force_total + log_FDI + log_Formation + Urban_population +
## FRAC.MIX, data = my_data, model = "within", index = NULL)
##
## Unbalanced Panel : n = 6, T = 16-22, N = 111
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.9200 -0.3360  0.0754  0.4600  2.3200
##
## Coefficients:
##      Estimate Std. Error t value Pr(>|t|)
## Labor_force_total 0.70779  0.01824 38.81 <2e-16 ***
## log_FDI          0.20060  0.01984 10.11 <2e-16 ***
## log_Formation    0.20060  0.01984 10.11 <2e-16 ***
## Urban_population 0.20060  0.01984 10.11 <2e-16 ***
## FRAC.MIX        0.20060  0.01984 10.11 <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Total Sum of Squares:    71.548
## Residual Sum of Squares: 56.835
## R-Squared:    0.20563
## Adj. R-Squared: 0.1262
## F-statistic: 5.17728 on 5 and 100 DF, p-value: 0.00028835

```

Regression 3 (Random Effects Model):

```

## Oneway (individual) effect Random Effect Model
(Swamy-Arora's transformation)
## Call:
## plm(formula = log_GDP_pc ~ Labor_force_total + log_FDI + log_Formation + Urban_population +
FRAC.MIX, data = my_data, model = "random", index = NULL)
##
## Unbalanced Panel : n = 6, T = 16-22, N = 111
##
##Effects:
##          var      std. dev  share
##idiosyncratic  0.036615 0.191349 0.894
##individual     0.004343 0.065900 0.106
##theta:
##   Min   1Q  Median   3Q   Max
## 0.4126 0.4821 0.4736 0.4821 0.4821
##
## Residuals:
##   Min   1Q  Median  Mean   3Q   Max
## -0.5960 -0.1289 0.0257 -0.0006 0.1170 0.6420
##
## Coefficients:
##           Estimate Std. Error t value Pr(>|t|)
## (Intercept) 2.141315  0.561496  3.8136 0.000137 ***
## Labor_force_total 0.2141315  0.561496  35.18 0.000731 ***
## log_FDI      0.142057  0.022629  6.1775 3.440e-10 ***
## log_Formation  0.091850  0.040481  2.2689 0.023272 *
## Urban_population  0.24556  0.01894 10.33 <2e-14 ***
## FRAC.MIX     -1.262593  0.310529 -4.0659 4.784e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Total Sum of Squares:    9.8646
## Residual Sum of Squares: 4.6266
## R-Squared:    0.53148
## Adj. R-Squared: 0.52041
## Chisq: 143.783 on 3 DF, p-value: < 2.22e-16

```

Test 1:

Studentized Breusch- Pagan test

Data: log_GDP_pc ~ Labor_force_total + log_FDI + log_Formation + Urban_population +
FRAC.MIX

BP = 56.356, df = 5, p-value = 1.681e-11

Test 2:

Hausman test

Data: $\log_GDP_pc \sim Labor_force_total + \log_FDI + \log_Formation + Urban_population +$
FRAC.MIX

chisq = 0.2962, df = 1, p-value = 0.5863

alternative hypothesis: one model is inconsistent