

The driving forces of Income inequality: Factor productivities during business cycles

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1 Introduction

The intent of this paper is to analyse yearly changes in income inequality within a country during business cycles and ultimately, derive a relationship between the variation in factor productivities and the level of income inequality within that country.

World income inequality has shown a steady increasing trend over time. However, when we observe income inequality within a country, it appears to be a randomly fluctuating process with no discernible trend. We aim to explain these fluctuations of income inequality by fluctuating components of the business cycle.

Large variations of income distribution can have negative socioeconomic effects. An understanding of such changes in income inequality can offer policy makers with insight in how to minimise increases in income inequality. Through an empirical analysis we hope to deliver policy makers such insight.

1.1 Arriving at a theoretical model

Based on the solow model and real business cycle theory, fluctuations in output can occur through changes in technological progress or decline in an economy, which have resultant effects on labour and capital productivities. In order to investigate this empirically, we will use a simplified model of an economies output, based on a solow model with variables A_t , K_t and L_t , representing the technology state of an economy, the level of capital stock and labour input respectively.

$$Y_t = A_t K_t^{\alpha_0} L_t^{\alpha_1}$$
$$\ln Y_t = \ln A_t + \alpha_0 \ln K_t + \alpha_1 \ln L_t$$

Moreover, it can be shown that;

$$\Delta Y_t = \Delta A_t + \alpha \Delta K_t + \beta \Delta L_t$$

We will hypothesise that changes in income inequality (i_t) can also be described by a similar equation;

$$\Delta i_t = \eta_t = \Delta A_t + \beta_0 \Delta K_t + \beta_1 \Delta L_t$$

We will investigate changes in the variables A_t , K_t and L_t through observing fluctuations in the productivities of these variables. It will also be necessary to control for certain trends in an economy such as globalisation, capital deepening and governments attempts to alter the level of income inequality within the economy.

2 Literary Review

The existence of income inequality is indisputable (Milanovic, 2006; World bank, 2007) and there is sufficient evidence that there is a strong trend overtime (Philip Arestis, Ron Martin and Peter Tyler, 2011) representing a strong persistence in this variable. When trying to understand why Income inequality across the world is rising whilst incomes are on the rise (Why income inequality keeps rising, OECD 2011; OECD Growing unequal 2008), it is important to ask *who* is getting rich. Robert J. Gordon Ian Dew-Becker posed this question and found that incomes of a specific group of 3 earners 'Superstars' 'Professional' and 'Corporate Executives' have all seen significant increase since the early 1980's. Steven N. Kaplan and Josua Rauh conducted a similar study in which they asked what contributes to the rise in such incomes (Wall street and Main Street, Josua Rauh 2009) and they found that increase in alternative asset transfer in the form of stock and dividends explained a considerable part of this increase in high incomes.

Sanjeev Gupta, Hamid Davoodi, and Rosa Alonso-Terme questioned corruption's effect on income inequality (Economics of Governance, 2002) and found that an increase in corruption by 1 standard deviation would increase the gini coefficient by approximately 11 percentage points. They intuitively explained that this was due to the incorrect people benefiting of government transfer payments and inefficient public expenditure. However, this relationship they concluded can only hold with the definition of corruption they provided. Thus this study provided insight in potential institutional measurements in which to find a relationship with inequity with.

Much of the research into income inequality has been over long term trends. Little attention has been given to how income inequality fluctuates over the business cycles. Mastafa Shahee posed this curiosity when he investigated how the degree of responsiveness of consumption and investment varies with varying levels of the gini coefficient (Income Inequality and the business cycle, 2015). He concluded that there was a greater responsiveness of GDP to investment for countries with greater income inequality.

Study of income inequality has raised many conflicting results. The conflictions in certain results can lead to major policy implications. In the 1950s, Extensions on Simon Kuznets theory of inequality has lead to the inverted U shape describing the relationship of inequality and GDP per capita, coined Kuznet's curve. This had implications that sugested attempts by a government to help reduce income inequality were useless. Despite this, minimum wages, taxes on high income and unemployment benefits are continually being used to help reduce income inequality.

Globalisation, is a phrase that cannot go unmentioned when discussing income inequality. Many suggest that globalisation is the leading cause of international income inequality between countries. However, there are many arguments that if a country participates in international trade and contribute to globalisation that they will see reductions in income inequality within their country (Ron Duncan, 2000).

This outlines the underlying themes of income inequality. Global income inequality is a trend increasing variable and within country seems to fluctuate randomly in time.

3 Empirical approach

3.1 Measuring income inequality

There are many ways to measure income inequality, the gini index is commonly regarded as the best indicator for such measurement and is most commonly used. It is the OECD's main indicator for income inequality. It is equal to the ratio of the area underneath the Lorenz curve (See figure ??) divided by the total area under the straight line $x = y$, a gini index of 0 represents total equality and 1, total inequality. We will represent a country i 's gini index in period t by η_{it} . This will be our dependent variable.

3.2 Relating business cycles to the gini index

Our interest lies in relating the gini index to factor productivities. We will do this with the following regression;

$$\eta_{it} = \beta_0 + \beta_1 a_{it} + \beta_2 k_{it} + \beta_3 l_{it} + (\beta_4 capdeep_{it} + \beta_5 state_{it} + \beta_6 ulc_{it} + \beta_7 unemp_{it} + \beta_8 edu_{it} + \beta_9 FDI_{out_{it}} + \beta_{10} FDI_{in_{it}} + \beta_{11} taxrev_{it} + \beta_{12} cpi_{it}) + \alpha_i$$

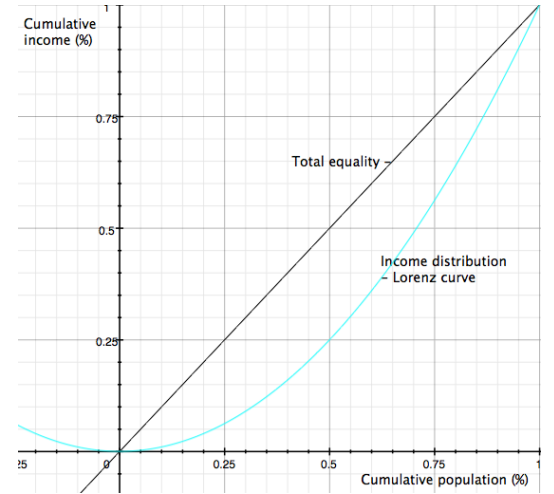
We expect to see a positive relationship between capital productivity and the gini index as, owners of capital will receive larger returns on their investment. As they already hold a certain level of capital, their income increases by the increase in their returns to capital as a result of an increased productivity. (The intuition from this is motivated by Joshua Ruah's study of alternative asset transfers and capital, 2009) Where as those who do not hold any capital will not see an increase in their income, increasing the level of income inequality in that country. Where as an increase in labour productivity will cause an increase in the returns to labourers, who represent a larger proportion of individuals than capital owners. Implying that increasing labour productivities are more likely to reduce η_{it} than capital productivities.

3.2.1 Variables of interest

Our variables of interest reflecting business cycle fluctuation components are expressed as percentages changes from previous year. η representing income inequality, shows the percentage change in the level of income inequality of that year.

- a_t , Multifactor productivity (MFP) reflects the overall efficiency with which labour and capital inputs are used together in the production process. Changes in MFP reflect the effects of changes in management practices, brand names, organizational change, general knowledge, network effects, spillovers from production factors, adjustment costs, economies of scale, the effects of imperfect competition and measurement errors. Growth in MFP is measured as a residual.
- k_t , Capital productivity shows the overall effectiveness of capital's utilisation in the production process. Simply, this capital productivity is given by total output per unit of capital stock representing percentage change for that year.

Figure 1: Gini index illustration



- l_t , Labour productivity shows the percentage change in output per hour worked for that year.

3.2.2 Control variables

It is necessary to control for other variables which may have an effect on income inequality. These variables represent changes in government policy and global trends effecting individual economies.

- *capdeep*, represents the increase in capital per worker. As manufacturing becomes more and more automated, labour productivity will increase for lower skill levels. This increase in labour productivity is controlled for by including the level of capital deepening in our regression. We expect to see a positive coefficient for capital deepening as it represents loss of unskilled labour. This trend is a leading concern for policy makers as it is likely to increase the level of income inequality within an economy.
- *state*, represents the state of the economy in that time period. $state = 1$ if the level of gdp growth is above trend growth and 0 otherwise. This variable was generated by applying the Hodrick-Prescott filter² to the GDP of each panel. As a result, a deviation from trend variable was made, gdp_{hp} . If $gdp_{hp} > 0$, $state = 1$.
- *ulc*, represents the cost per unit of labour. The inclusion of this variable is that despite the Solow growth model assumption of perfect labour markets, labour productivity is not always the best representation of labour costs as governments often impose a minimum wage rate and that labour markets are imperfect in our sample.
- *unemp*, represents the level of unemployment in an economy. This was thought to be necessary as it is expected that gini index is estimated through income tax returns. This would imply, if unemployment is high, income inequality is likely to also be high.
- *edu*, it is necessary to include an education indicator into our regression. Numerous studies have been made into the effect education has on earnings aswell as the level of income inequality. Increased standards of education throughout an economy, tends to decrease the level of income inequality. To control for the increase in labourers who have third level education, the proportion of the labour force who have a third level education was included.
- *FDI_{in/out}*, represents the trend of increased globalisation and its effect on income inequality. We will investigate how different types of participation of globalisation can effect the level of income inequality within an economy.
- *taxrev* Government fiscal policy can have effect on income inequality, higher levels of taxation on high earners will decrease the level of income inequality and increase the tax revenue. Thus the inclusion of tax revenue as a percent of GDP was included in our regression to control for changes in government fiscal policy.
- *cpi*, represents the level of inflation in an economy.

3.2.3 Fixed or random effects

For this analysis, fixed effects will be used. In order to use random effects, it is assumed that the unobservable characteristics unique to each country are uncorrelated with our independent variables. In reality, characteristics we do not observe such as political structures or institutional factors may be correlated with government indicators and education.

²Formula

4 Description of dataset

Indicator	Format	Source
η	% YoY	World income inequality database
l_t	% YoY	OECD
a_t	% YoY	OECD
k_t	% YoY	OECD
$capdeep$	% YoY	OECD
$FDI_{in/out}$	% GDP	World Data bank
gdp_{growth}	% YoY	OECD.org
gdp_{hp}	% deviation from trend	
$state$	1 if $gdp_{hp} > 0$ 0 otherwise	
$unemp$	% labour force	World databank
$taxrev$	% GDP	World data bank
cpi	% change YoY	World databank
edu	% Workforce with 3 rd level	OECD.org

Table 1: Data sources and format

The sample population used in our analysis consists of the 32 OECD countries. The reason for this was because data for these countries is readily available and accurate. Observations consisted over yearly periods between 1960 and 2015. Only including OECD member states meant that only functioning economies meeting the following criteria were selected:

- Political: stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities;
- Economic: a functioning market economy and the capacity to cope with competition and market forces;
- Administrative and Institutional Capacity: effectively implement the acquis* and ability to take on the obligations of membership.

This implies that our sample is not random and the conclusions presented in this report will apply only to functioning economies. A panel data set was used in order to increase the number of observations used in our analysis.

A panel data set was used as it enabled us to increase the number of observations in our study.

4.1 Data summaries

4.2 Gini index

Gini index was reported by its source countries and estimated using income tax information. When we plot the distribution of the gini index in figure 3, it appears to be positively skewed. By transforming this variable to indicate changes in the level of income inequality, we get a much more centered distribution which should yield better results.

Table 2: Descriptive statistics summary

Variable		Mean	Std. Dev.	Min	Max	Observations
η	overall	-.004	.206	-.859	.688	N = 1058
	between		.008	-.0179	.0123	n = 32
	within		.206	-.853	.6826979	\bar{T} = 33.063
gdp growth	overall	0.029	0.033	-0.147	0.136	N = 993
	between		0.011	0.014	0.056	n = 32
	within		0.031	-0.160	0.118	T-bar = 31.0313
k	overall	-0.014	0.021	-0.104	0.050	N = 439
	between		0.006	-0.026	-0.005	n = 17
	within		0.020	-0.111	0.052	T-bar = 25.8235
l	overall	0.015	0.018	-0.048	0.101	N = 356
	between		0.006	0.007	0.029	n = 18
	within		0.017	-0.054	0.096	T-bar = 19.7778
a	overall	0.006	0.015	-0.062	0.050	N = 374
	between		0.004	-0.001	0.015	n = 18
	within		0.015	-0.071	0.049	T-bar = 20.7778
cap deep	overall	3.143	2.533	-1.588	16.284	N = 438
	between		1.295	2.081	7.666	n = 17
	within		2.140	-5.542	13.845	T-bar = 25.7647
state	overall	0.529	0.499	0.000	1.000	N = 1092
	between		0.113	0.294	0.795	n = 32
	within		0.487	-0.266	1.235	T-bar = 34.125
ulc	overall	1.827	2.435	-9.387	17.050	N = 374
	between		0.926	-1.205	2.907	n = 18
	within		2.323	-9.067	15.970	T-bar = 20.7778
unemp	overall	7.909	4.139	0.600	27.300	N = 773
	between		3.146	3.290	17.164	n = 32
	within		2.794	-1.055	23.239	T-bar = 24.1563
edu	overall	31.686	11.044	6.575	58.369	N = 521
	between		9.559	14.768	55.793	n = 32
	within		6.966	12.563	48.153	T-bar = 16.2813
FDI_{out}	overall	3.836	10.598	-37.445	160.406	N = 894
	between		8.554	0.233	47.382	n = 32
	within		8.519	-41.581	116.860	T-bar = 27.9375
FDI_{in}	overall	3.958	11.542	-58.978	255.423	N = 885
	between		7.744	0.079	42.962	n = 32
	within		10.012	-97.982	216.419	T-bar = 27.6563
tax rev	overall	20.059	6.926	0.204	45.628	N = 816
	between		6.716	1.068	31.061	n = 32
	within		2.928	9.267	35.953	T-bar = 25.5
cpi	overall	11.371	61.705	-4.478	1281.444	N = 1027
	between		19.729	1.369	87.338	n = 32
	within		58.889	-76.492	1205.477	T-bar = 32.0938

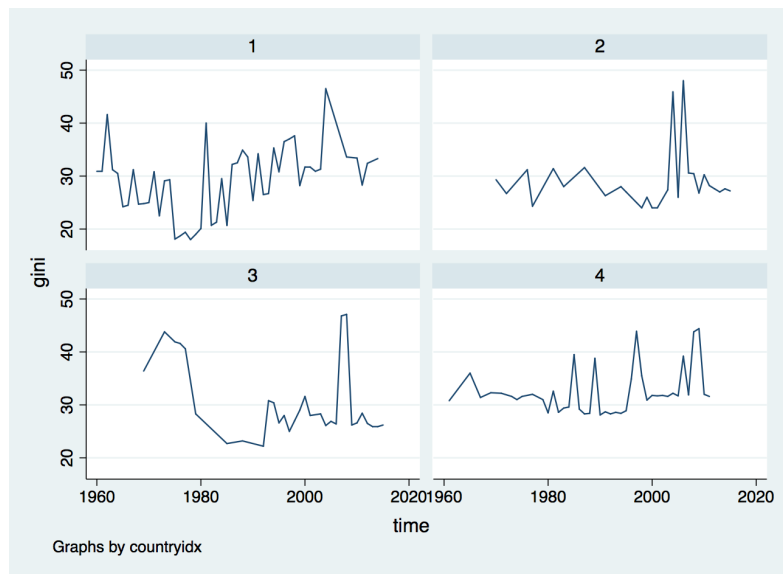


Figure 2: Gini index over time

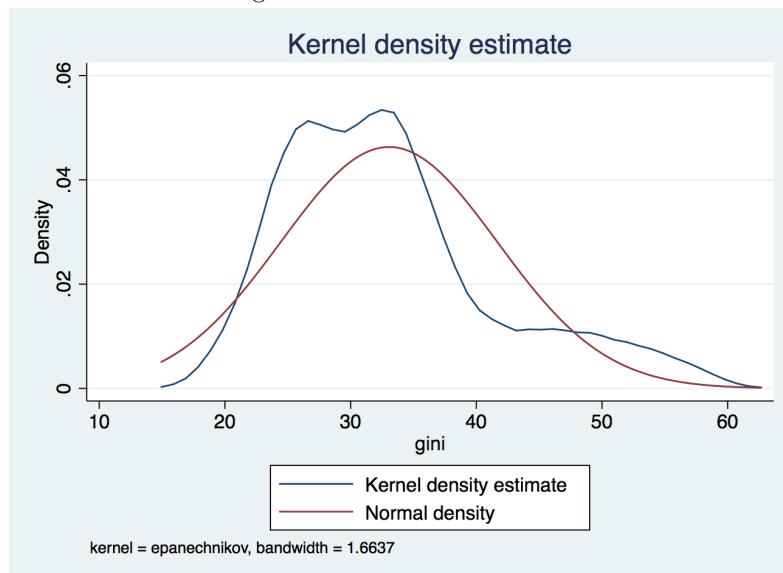


Figure 3: Gini distribution

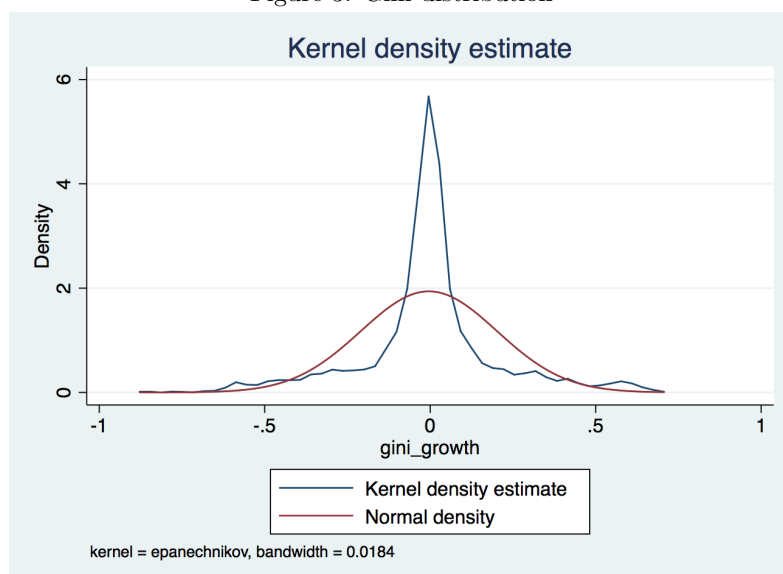


Figure 4: Gini growth distribution

5 Empirical results

Analysing our results for our fixed effects regression of our model outline in 3.2 it seems that our model fails to yield statistically significant estimates for our parameters. Our hypothesised relationships are also incorrect, increasing labour productivities increase income inequality and capital productivity decreases income inequality. However, the p-values are much too high so not much thought can be given to these relationships. At a 25% level of significance, we can say that when output growth is above 0 (State=1), income inequality is 3.8% higher.

The most interesting result drawn from this regression is that, when net inflows of FDI increases, the level of income inequality reduces by -.07% at a 95% level of confidence. Interestingly although insignificant, an increase in FDI net outflows has the opposite effect on income inequality. This is perhaps because the payments as a result of these outflows does not repatriate to each individual but only to the individuals who are responsible. Where as, increasing FDI inflows benefits everyone in the economy.

In order to try and increase the significance of our results and attempt to draw some conclusions to our research question. We generate a dummy variable for when labour and capital productivities are increasing. These variables are given by the following equation;

$$\begin{aligned} lab_bin &= \begin{cases} 1, & \text{if } lab_prod > 0 \\ 0, & \text{otherwise} \end{cases} \\ cap_bin &= \begin{cases} 1, & \text{if } cap_prod > 0 \\ 0, & \text{otherwise} \end{cases} \end{aligned}$$

When we apply this transformation, our results become more interesting. When labour productivity is increasing (lab_bin=1), income inequality reduces by 13% at a 95% confidence level. When capital productivity is increasing, income inequality reduces at a slower rate when compared to labour's effect. This conclusion can be drawn at a 12.2% level of significance. Our conclusions drawn about foreign direct investment made in the previous regression still hold with our transformed variable. This provides evidence that economies who participate with globalisation can experience lower levels of income inequality as outlined in section 2. Our results for MFP in our second regression bears greater significance than in our first regression. At a 17% level of significance, we can conclude that technology increases has a positive effect on income inequality growth. This is contrary to our hypothesis that technological advances can have a reducing effect on income inequality. This is perhaps because technological advances take time to become readily available for each individual. When we apply a lag to MFP, we see a decreasing coefficient. Our third regression shows the same regression with a 5 period lag. This resulted in mfp having a negative coefficient on its 5th lag. This would imply that once new technologies have had time to filter down to lower income brackets, it has a decreasing effect on income inequality. We can conclude this at a 17% level of significance. Interestingly, when we apply lags of technology, the significance of labour and capital productivity increases. We can now draw the same conclusions from the second regression at 5 percent level of significance.

Table 3: Regression output - Constant omitted

	(1)	(2)	(3)	(4)
	gini_growth	gini_growth	gini_growth	gini_growth
cap_prod_dec	-0.236 (0.876)			
lab_prod	0.536 (0.814)			
mfp_dec	-0.721 (0.847)	2.416 (0.169)	1.02 (0.309)	2.203 (0.277)
cap_deep	0.00116 (0.881)	-0.0000308 (0.997)	0.004762 (0.544)	0.00339 (0.728)
state	0.0384 (0.232)	0.0405 (0.198)	.00999 (0.29)	0.00325 (0.934)
ulc	-0.00109 (0.922)	-0.00112 (0.919)	-0.0128 (0.770)	-0.0148 (0.271)
unemp	0.00473 (0.533)	0.00399 (0.589)	-0.0128 (0.289)	-0.000112 (0.989)
edu	-0.00221 (0.390)	-0.00154 (0.536)	-.001 (.528)	
fdi_netout_gdp	0.00350 (0.309)	0.00315 (0.349)	0.00529 (0.138)	0.00658 (0.166)
fdi_netin_gdp	-0.00701* (0.049)	-0.00725* (0.038)	-0.00808 (0.041)	-0.00778 (0.078)
tax_rev	0.000112 (0.993)	-0.000947 (0.939)	-0.0001763 (0.946)	0.00257 (0.866)
cpi	-0.0122 (0.371)	-0.00929 (0.484)	-0.00334 (0.804)	-0.00947 (0.538)
cap_bin		-0.0639 (0.122)	-0.0952* (0.027)	-0.0939* (0.047)
lab_bin		-0.128* (0.011)	-0.151** (0.009)	-0.194** (0.003)
L.mfp_dec			1.917 (0.309)	0.626 (0.601)
L2.mfp_dec			.7644 (0.615)	0.477 (0.690)
L3.mfp_dec			-0.298 (0.787)	-0.239 (0.838)
L4.mfp_dec			1.478 (0.168)	1.566 (0.165)
L5.mfp_dec			-1.597 (0.154)	-1.812 (0.130)
r2_b	0.00134	0.352	0.064	0.120
N	266	266	215	215

p-values in parentheses* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6 Diagnostics and testing

6.1 Multicollinearity

Our first test of our model is to check for multicollinear variables. This is variables which are highly correlated with other independent variables. Inclusion of multicollinear variables can often times give incorrect results and lead to large variance of estimated coefficients. This was determined by finding the variance inflation factor (VIF). VIFs of greater than 10 were discluded from the model and the regression was run again. From table 4, we can see that edu was highly correlated with other variables. Regression 4 in table 3, we can see that excluding edu from our model yielded higher significance in our variables of interest, productivity of capital, labour and technological progress.

6.2 Fixed effects or random effects

Earlier on, we implied the use of fixed effects regression by assuming that government policy was correlated with unobservable institutional time invariant factors. We will test this assumption using a Hausman specification test. In our test of our final model, we got a p-value of approximately equal 1, so the fixed effects model is appropriate for our analysis.

6.3 Unit root test

In order to check for nonstationarity of variables used in the model, a unit root test was run for each variable in the model. All results were statistically significant, leading us to reject the null hypothesis of the test that, variables were non stationary. Thus we concluded that we have stationary variables in our regression.

6.4 Autocorrelation

When checking for serial autocorrelation, we could not reject the null hypothesis that autocorrelation was not present. Our p-value obtained a value of .4717, concluding that there is no serial correlation. Furthermore using the robust function and allowing for autocorrelation in our regression, yielded very similar results and the same conclusions were drawn. Thus We failed to find autocorrelation present in our dataset.

6.5 Heteroskedasticity

By plotting our residuals and fitted valuse of our model in figure 5, we can deduce no discernible pattern from our residuals and can conclude that they appear random, this would imply that heteroskedasticity is not present in our data.

Table 4: VIF table

Variable	VIF
edu	12.77
lab_bin	9.82
fdi_netout p	9.55
tax_rev	9.16
fdi_netin	9.15
unemp	6.21
ulc	5.08
mfp	4.16
cpi	4.05
cap_deep	3.27
state	2.26
cap_bin	1.77
mfp_dec	
L2.	1.54
L3.	1.52
L5.	1.5
L1.	1.48
L4.	1.46
Mean VIF	4.99

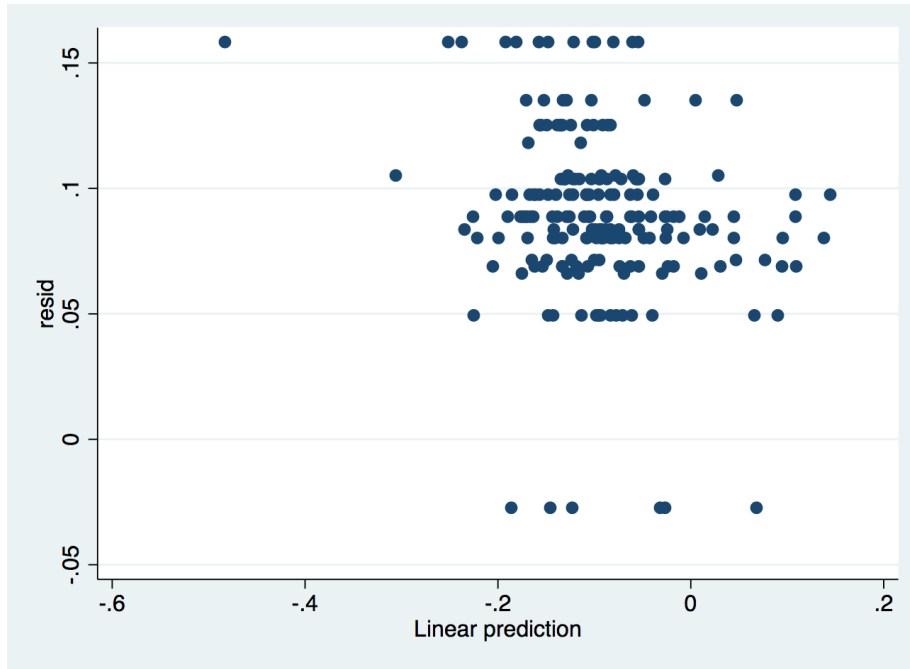


Figure 5: rResidual Plot

7 Conclusions

From our analysis of income inequality, we can conclude that factors which cause business cycle fluctuations do indeed effect income inequality. There is evidence to suggest that labour productivity driven increases in output can cause a reduction in the level of income inequality in a country greater than that of capital productivity. Suggesting that economies who experience labour driven growth

There is some evidence to suggest that increases in technological progress of an economy initially increases the level of income inequality, due to the limited availability of that technology, however over time, this technology trickles down resulting in a decrease in the level of income inequality.

There is evidence that suggest that economies which participate in globalisation, can experience a reduction in the level of income inequality.

7.1 Policy implications

Our analysis suggests that in order to reduce income inequality, a government must pursue to increase labour productivity. This gives evidence that if an economy invests in its human capital in the form of education to improve the productivity of workers, that the level of income inequality may be reduced. A government should encourage free trade in order to reduce the income inequality within a country. If a country does not participate, it will be left behind all other nations who are benefiting from free trade. A government should promote the avilability and innovation of new technologies in order to benefit from the effects of technological progress and reduce income inequality. This analysis found little evidence to suggest that increasing taxation or minimum wage, can reduce income inequality.

8 Discussion of possible extensions

In order to assess the equality of standard of living, as opposed to equality of income within a country. It would be interesting to study how consumption inequality changes during business cycles. There are many possible theoretical conclusions to investigate, such as perhaps it would be less volatile than income inequality as people choose their level of consumption and during periods of low income perhaps they choose to consume out of their savings. This would provide evidence for or against the presence of consumption smoothing in a consumers decision making.

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2 . generate cap_bin = cap_prod > 0 if cap_prod < .
   (577 missing values generated)

3 . generate lab_bin = lab_prod > 0 if lab_prod < .
   (660 missing values generated)

4 .
   end of do-file

5 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

6 . mfp_dec=mfp/100
   unrecognized command: mfp_dec
   r(199);

   end of do-file

   r(199);

7 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

8 . gen mfp_dec=mfp/100
   (642 missing values generated)

9 .
   end of do-file

10 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

11 . xtreg gdp_cap_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L
    > state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable gdp_cap_growth not found
    r(111);

    end of do-file

    r(111);

12 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

13 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable state not found
    r(111);

    end of do-file

    r(111);

14 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

```

```

15 . gen state =gdp_hp>0 if gdp_hp<.
    gdp_hp not found
    r(111).;

    end of do-file

    r(111).;

16 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

17 . import delimited "/Users/rorymcstay/Google Drive/College 2016:17/Econometrics/W
    > /data5.csv"
    no; data in memory would be lost
    r(4).;

    end of do-file

    r(4).;

18 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

19 . clear

20 .
    end of do-file

21 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

22 . import delimited "/Users/rorymcstay/Google Drive/College 2016:17/Econometrics/W
    > /data5.csv"
    (154 vars, 1092 obs)
23 . cd "/Users/rorymcstay/Google Drive/College 2016:17/Econometrics/World income in
    /Users/rorymcstay/Google Drive/College 2016:17/Econometrics/World income inequali
24 .
    end of do-file

25 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

26 . gen state =gdp_hp>0 if gdp_hp<.
    state already defined
    r(110).;

    end of do-file

    r(110).;

27 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

28 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable cap_bin not found
    r(111).;

    end of do-file

    r(111).;

```

```

29 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

30 .
31 . generate cap_bin = cap_prod > 0 if cap_prod < .
    (653 missing values generated)

32 . generate lab_bin = lab_prod > 0 if lab_prod < .
    (736 missing values generated)

33 .
    end of do-file

34 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

35 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable mfp_dec not found
    r(111).;

    end of do-file

    r(111).;

36 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

37 . gen mfp_dec=mfp/100
    (718 missing values generated)

38 .
    end of do-file

39 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

40 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    time variable not set
    r(111).;

    end of do-file

    r(111).;

41 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

42 . xtset countryidx time
      panel variable: countryidx (unbalanced)
      time variable: time, 1960 to 2015, but with gaps
      delta: 1 unit

43 .
    end of do-file

44 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

45 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )

```

Random-effects GLS regression
Group variable: **countryidx**

Number of obs = 201
Number of groups = 16

R-sq: within = 0.0940
between = 0.0640
overall = 0.0937

Obs per group: min = 3
avg = 12.6
max = 22

corr(u_i, X) = 0 (assumed)

Wald chi2(17) = 18.91
Prob > chi2 = 0.3338

gini_growth	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cap_bin	-.0952015	.043031	-2.21	0.027	-.1795408	-.0108623
lab_bin	-.1511078	.058239	-2.59	0.009	-.2652541	-.0369616
mfp_dec						
--.	1.917224	1.885839	1.02	0.309	-1.778952	5.6134
L1.	.5515444	1.095688	0.50	0.615	-1.595965	2.699054
L2.	.7644363	1.137644	0.67	0.502	-1.465305	2.994177
L3.	-.298307	1.101377	-0.27	0.787	-2.456967	1.860353
L4.	1.477615	1.072826	1.38	0.168	-.6250858	3.580315
L5.	-1.597046	1.119622	-1.43	0.154	-3.791465	.5973718
cap_deep	.0047602	.0078443	0.61	0.544	-.0106143	.0201348
state	.009996	.0342509	0.29	0.770	-.0571347	.0771266
ulc	-.0128096	.0120826	-1.06	0.289	-.036491	.0108719
unemp	.0011151	.0050716	0.22	0.826	-.0088251	.0110554
edu	-.0010417	.0016506	-0.63	0.528	-.0042769	.0021935
fdi_netout_gdp	.005291	.003817	1.39	0.166	-.0021902	.0127723
fdi_netin_gdp	-.0080833	.0039491	-2.05	0.041	-.0158235	-.0003431
tax_rev	-.0001763	.0025879	-0.07	0.946	-.0052485	.0048959
cpi	-.0033436	.0134871	-0.25	0.804	-.0297778	.0230906
_cons	.1869087	.1290248	1.45	0.147	-.0659752	.4397926
sigma_u	0					
sigma_e	.21774708					
rho	0	(fraction of variance due to u_i)				

46 .

end of do-file

47 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

48 . vif, uncentered

Variable	VIF	1/VIF
edu	12.77	0.078281
lab_bin	9.82	0.101846
fdi_netout~p	9.55	0.104672
tax_rev	9.16	0.109196
fdi_netin~p	9.15	0.109288
unemp	6.21	0.161077
ulc	5.08	0.196690
mfp_dec	4.16	0.240144
cpi	4.05	0.247098

cap_deep	3.27	0.305510
state	2.26	0.442217
cap_bin	1.77	0.563982
mfp_dec		
L2.	1.54	0.651017
L3.	1.52	0.658890
L5.	1.50	0.667984
L1.	1.48	0.676026
L4.	1.46	0.686835
<hr/>		
Mean VIF	4.99	

```

49 .
    end of do-file

50 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

51 . xtserial gini_growth cap_bin lab_bin ( cap_deep state ulc unemp edu fdi_netout.
    > )

    Wooldridge test for autocorrelation in panel data
    H0: no first-order autocorrelation
        F( 1, 15) = 0.545
        Prob > F = 0.4717

52 .
    end of do-file

```

```

1 {smcl}
2 {com}{sf}{ul off}{txt}{.-}
3     name: {res}<unnamed>
4     {txt}log: {res}/Users/rorymcstay/Desktop/finalog.smcl
5     {txt}log type: {res}smcl
6     {txt}opened on: {res} 7 Apr 2017, 01:23:22
7
8 {com}. do
9 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
10 {txt}
11 {com}. eststo xtregcont: xtreg gini_growth cap_prod_dec lab_prod
12 mfp_dec ( cap_deep state ulc unemp edu fdi_netout_gdp
13 fdi_netin_gdp tax_rev cpi ),fe
14 {err}variable cap_prod_dec not found
15 {txt}{search r(111):r(111);}
16
17 end of do-file
18
19 {search r(111):r(111);}
20
21 {com}. do
22 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
23 {txt}
24 {com}. gen ulc_dec=ulc/100
25 {txt}(718 missing values generated)
26
27 {com}.
28 {txt}end of do-file
29
30 {com}. do
31 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
32 {txt}
33 {com}.
34 . gen lgini=ln(gini)
35 {txt}(2 missing values generated)
36
37 {com}.
38 . gen gini_dec=gini/100
39 {txt}(2 missing values generated)
40
41 {com}.
42 {txt}end of do-file
43
44 {com}. do
45 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
46 {txt}
47 {com}.
48 . *labour productivity
49 . gen lab_prod_change
50 {err}=exp required
51 {txt}{search r(100):r(100);}
52
53

```

```

47 end of do-file
48
49 {search r(100):r(100);}
50
51 {com}. do
52 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
53 {txt}
54 {com}.
55 . xtfisher gini, lags(1)
56 {err}unrecognized command: xtfisher
57 {txt}{search r(199):r(199);}
58
59 end of do-file
60
61 {search r(199):r(199);}
62
63 {com}. do
64 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
65 {txt}
66 {com}. ***technology
67 . foreach var in gini_growth cap_prod_dec lab_prod mfp_dec (state
68   ulc unemp_dec edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi_dec
69   depositinterestrate_dec),{c -{
70 {txt} 2{com}. xtunitroot fisher `var' , dfuller trend lags(1)
71 {txt} 3{com}. {c }-}
72 {txt}(34 missing values generated)
73
74 Fisher-type unit-root test for {res}gini_growth
75 {txt}Based on augmented Dickey-Fuller tests
76 {hline 42}
77 Ho: All panels contain unit roots{col 45}Number of panels{col 68
78 }={col 69}{res} 32
79 {txt}Ha: At least one panel is stationary{col 45}Avg. number of
80 periods{col 68}={col 69}{res} 33.06
81
82 {txt}AR parameter:{res}{col 15}Panel-specific{txt}{col 45}
83 Asymptotics: {res}T -> Infinity
84 {txt}Panel means:{res}{col 15}Included
85 {txt}Time trend:{res}{col 15}Included
86 {txt}Drift term:{res}{col 15}Not included{txt}{col 45}ADF
87 regressions: {res}1{txt} lag
88 {hline 78}
89 {col 35}Statistic{col 50}p-value
90 {hline 78}
91 {col 2}Inverse chi-squared({res}64{txt}){col 28}P{res}{col 35}
92 806.5902{col 51}0.0000
93 {txt}{col 2}Inverse normal{col 28}Z{res}{col 35} -22.3938{col 51}
94 0.0000
95 {txt}{col 2}Inverse logit t({res}159{txt}){col 28}L*{res}{col 35}
96 -39.4629{col 51}0.0000
97 {txt}{col 2}Modified inv. chi-squared{col 28}Pm{res}{col 35}
98 65.6363{col 51}0.0000

```

```

87 {txt}{hline 78}
88 {col 2}P statistic requires number of panels to be finite.
89 {col 2}Other statistics are suitable for finite or infinite
    number of panels.
90 {hline 78}
91 {err}variable cap_prod_dec not found
92 {txt}{search r(111):r(111);}
93
94 end of do-file
95
96 {search r(111):r(111);}
97
98 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
99 {txt}
100 {com}.
101 . *-Population change
102 . gen logpop=log(population)
103 {err}logpop already defined
104 {txt}{search r(110):r(110);}
105
106 end of do-file
107
108 {search r(110):r(110);}
109
110 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
111 {txt}
112 {com}. by countryidx: gen pop_change= logpop-logpop[_n-1]
113 {err}pop_change already defined
114 {txt}{search r(110):r(110);}
115
116 end of do-file
117
118 {search r(110):r(110);}
119
120 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
121 {txt}
122 {com}. gen state=0
123 {err}state already defined
124 {txt}{search r(110):r(110);}
125
126 end of do-file
127
128 {search r(110):r(110);}
129
130 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
131 {txt}
132 {com}. xtreg gini_dec lab_prod cap_prod ulc unemp state cpi
    tax_rev pop_change fdi_netin_gdp cap_deep depositinterestrate

```

```

    edu, re
133 {res}
134 {txt}Random-effects GLS regression              Number of
    obs      = {res}      139
135 {txt}Group variable: {res}countryidx          {txt}
    Number of groups   = {res}      16
136
137 {txt}R-sq:  within = {res}0.0926              {txt}
    Obs per group: min = {res}      1
138 {txt}      between = {res}0.0598
                                {txt}avg = {res}      8.7
139 {txt}      overall = {res}0.1120
                                {txt}max = {res}      22
140
141                                {txt}Wald chi2({
    res}12{txt})      = {res}      15.89
142 {txt}corr(u_i, X)   = {res}0{txt} (assumed)
    Prob > chi2       =      {res}0.1962
143
144 {txt}{hline 20}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
    13}{hline 12}
145 {col 1}          gini_dec{col 21}{c |}      Coef.{col 33}  Std.
    Err.{col 45}      z{col 53}  P>|z|{col 61}      [95% Con{col 74}
    f. Interval]
146 {hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
    hline 12}
147 {space 11}lab_prod {c |}{col 21}{res}{space 2}-.2440312{col 33}{
    space 2} .3851262{col 44}{space 1}  -0.63{col 53}{space 3}0.526{
    col 61}{space 4}-.9988648{col 74}{space 3} .5108023
148 {txt}{space 11}cap_prod {c |}{col 21}{res}{space 2} .0022983{col
    33}{space 2} .004292{col 44}{space 1}    0.54{col 53}{space 3}
    0.592{col 61}{space 4}-.0061138{col 74}{space 3} .0107104
149 {txt}{space 16}ulc {c |}{col 21}{res}{space 2} .007567{col 33}{
    space 2} .0041885{col 44}{space 1}    1.81{col 53}{space 3}0.071{
    col 61}{space 4}-.0006423{col 74}{space 3} .0157763
150 {txt}{space 14}unemp {c |}{col 21}{res}{space 2} .0019581{col 33}
    {space 2} .0018731{col 44}{space 1}    1.05{col 53}{space 3}
    0.296{col 61}{space 4}-.0017132{col 74}{space 3} .0056293
151 {txt}{space 14}state {c |}{col 21}{res}{space 2}-.0044794{col 33}
    {space 2} .0114205{col 44}{space 1}   -0.39{col 53}{space 3}
    0.695{col 61}{space 4}-.0268631{col 74}{space 3} .0179043
152 {txt}{space 16}cpi {c |}{col 21}{res}{space 2}-.0034581{col 33}{
    space 2} .0057001{col 44}{space 1}   -0.61{col 53}{space 3}0.544{
    col 61}{space 4} -.01463{col 74}{space 3} .0077138
153 {txt}{space 12}tax_rev {c |}{col 21}{res}{space 2}-.0004587{col
    33}{space 2} .0009147{col 44}{space 1}   -0.50{col 53}{space 3}
    0.616{col 61}{space 4}-.0022515{col 74}{space 3} .001334
154 {txt}{space 9}pop_change {c |}{col 21}{res}{space 2} .8130868{col
    33}{space 2} .7999818{col 44}{space 1}    1.02{col 53}{space 3}
    0.309{col 61}{space 4}-.7548488{col 74}{space 3} 2.381022
155 {txt}{space 6}fdi_netin_gdp {c |}{col 21}{res}{space 2} .000085{
    col 33}{space 2} .0005569{col 44}{space 1}    0.15{col 53}{space

```

```

3}0.879{col 61}{space 4}-.0010064{col 74}{space 3} .0011764
156 {txt}{space 11}cap_deep {c |}{col 21}{res}{space 2} .0025827{col
33}{space 2} .0025611{col 44}{space 1} 1.01{col 53}{space 3}
0.313{col 61}{space 4}-.0024369{col 74}{space 3} .0076023
157 {txt}depositinterestrate {c |}{col 21}{res}{space 2}-.0038412{col
33}{space 2} .0033159{col 44}{space 1} -1.16{col 53}{space 3}
0.247{col 61}{space 4}-.0103402{col 74}{space 3} .0026577
158 {txt}{space 16}edu {c |}{col 21}{res}{space 2} .0005167{col 33}{
space 2} .0005865{col 44}{space 1} 0.88{col 53}{space 3}0.378{
col 61}{space 4}-.0006329{col 74}{space 3} .0016663
159 {txt}{space 14}_cons {c |}{col 21}{res}{space 2} .2891674{col 33
}{space 2} .0357615{col 44}{space 1} 8.09{col 53}{space 3}
0.000{col 61}{space 4} .2190762{col 74}{space 3} .3592586
160 {txt}{hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
161 sigma_u {c |} {res} 0
162 {txt}sigma_e {c |} {res} .05508642
163 {txt}rho {c |} {res} 0{txt} (fraction
of variance due to u_i)
164 {hline 20}{c BT}{hline 64}
165
166 {com}. esttab est63 using xtregfinal2.tex, compress stats(r2_o N)
167 {txt}(output written to {browse `"xtregfinal2.tex"})
168
169 {com}.
170 {txt}end of do-file
171
172 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
173 {txt}
174 {com}. xtreg gini_dec lab_prod cap_prod ulc unemp state cpi
tax_rev pop_change fdi_netin_gdp cap_deep natural_resources
depositinterestrate edu, re
175 {res}
176 {txt}Random-effects GLS regression Number of
obs = {res} 139
177 {txt}Group variable: {res}countryidx {txt}
Number of groups = {res} 16
178
179 {txt}R-sq: within = {res}0.0889 {txt}
Obs per group: min = {res} 1
180 {txt} between = {res}0.0773
{txt}avg = {res} 8.7
181 {txt} overall = {res}0.1143
{txt}max = {res} 22
182
183 {txt}Wald chi2({
res}13{txt}) = {res} 16.14
184 {txt}corr(u_i, X) = {res}0{txt} (assumed)
Prob > chi2 = {res}0.2418
185
186 {txt}{hline 22}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline

```

```

13}{hline 12}
187 {col 1}          gini_dec{col 23}{c |}          Coef.{col 35}
Std. Err.{col 47}          z{col 55}    P>|z|{col 63}          [95% Con{col
76}f. Interval]
188 {hline 22}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
189 {space 13}lab_prod {c |}{col 23}{res}{space 2}-.2120873{col 35}{
space 2} .3901355{col 46}{space 1}    -0.54{col 55}{space 3}0.587{
col 63}{space 4}-.9767388{col 76}{space 3} .5525642
190 {txt}{space 13}cap_prod {c |}{col 23}{res}{space 2} .002105{col
35}{space 2} .0043165{col 46}{space 1}    0.49{col 55}{space 3}
0.626{col 63}{space 4}-.0063552{col 76}{space 3} .0105653
191 {txt}{space 18}ulc {c |}{col 23}{res}{space 2} .0076588{col 35}{
space 2} .0042027{col 46}{space 1}    1.82{col 55}{space 3}0.068{
col 63}{space 4}-.0005784{col 76}{space 3} .0158959
192 {txt}{space 16}unemp {c |}{col 23}{res}{space 2} .0020478{col 35
}{space 2} .0018846{col 46}{space 1}    1.09{col 55}{space 3}
0.277{col 63}{space 4}-.0016459{col 76}{space 3} .0057416
193 {txt}{space 16}state {c |}{col 23}{res}{space 2}-.0048782{col 35
}{space 2} .011472{col 46}{space 1}    -0.43{col 55}{space 3}
0.671{col 63}{space 4}-.0273628{col 76}{space 3} .0176064
194 {txt}{space 18}cpi {c |}{col 23}{res}{space 2}-.0040318{col 35}{
space 2} .0058018{col 46}{space 1}    -0.69{col 55}{space 3}0.487{
col 63}{space 4}-.0154032{col 76}{space 3} .0073396
195 {txt}{space 14}tax_rev {c |}{col 23}{res}{space 2}-.0004396{col
35}{space 2} .0009177{col 46}{space 1}    -0.48{col 55}{space 3}
0.632{col 63}{space 4}-.0022383{col 76}{space 3} .0013591
196 {txt}{space 11}pop_change {c |}{col 23}{res}{space 2} .581713{
col 35}{space 2} .897519{col 46}{space 1}    0.65{col 55}{space
3}0.517{col 63}{space 4}-1.177392{col 76}{space 3} 2.340818
197 {txt}{space 8}fdi_netin_gdp {c |}{col 23}{res}{space 2} .0001241{
col 35}{space 2} .0005625{col 46}{space 1}    0.22{col 55}{space
3}0.825{col 63}{space 4}-.0009783{col 76}{space 3} .0012265
198 {txt}{space 13}cap_deep {c |}{col 23}{res}{space 2} .0025634{col
35}{space 2} .0025681{col 46}{space 1}    1.00{col 55}{space 3}
0.318{col 63}{space 4} -.00247{col 76}{space 3} .0075968
199 {txt}natural_resources_gdp {c |}{col 23}{res}{space 2} .0023289{
col 35}{space 2} .0040532{col 46}{space 1}    0.57{col 55}{space
3}0.566{col 63}{space 4}-.0056153{col 76}{space 3} .0102732
200 {txt}{space 2}depositinterestrate {c |}{col 23}{res}{space 2} -
.004577{col 35}{space 2} .0035628{col 46}{space 1}    -1.28{col 55
}{space 3}0.199{col 63}{space 4}-.0115598{col 76}{space 3}
.0024059
201 {txt}{space 18}edu {c |}{col 23}{res}{space 2} .0003361{col 35}{
space 2} .0006668{col 46}{space 1}    0.50{col 55}{space 3}0.614{
col 63}{space 4}-.0009709{col 76}{space 3} .001643
202 {txt}{space 16}_cons {c |}{col 23}{res}{space 2} .2956715{col 35
}{space 2} .0376012{col 46}{space 1}    7.86{col 55}{space 3}
0.000{col 63}{space 4} .2219744{col 76}{space 3} .3693686
203 {txt}{hline 22}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
204          sigma_u {c |} {res}          0

```

```

205             {txt}sigma_e {c |} {res} .05509666
206             {txt}rho {c |} {res}          0{txt}    (fraction
    of variance due to u_i)
207 {hline 22}{c BT}{hline 64}
208
209 {com}. rvfplot , yline(0)
210 {err}last estimates not found
211 {txt}{search r(301):r(301);}
212
213 end of do-file
214
215 {search r(301):r(301);}
216
217 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
218 {txt}
219 {com}. rvfplot , yline(0)
220 {err}last estimates not found
221 {txt}{search r(301):r(301);}
222
223 end of do-file
224
225 {search r(301):r(301);}
226
227 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
228 {txt}
229 {com}. eststo: xtreg gini_dec lab_prod cap_prod ulc  unemp state
    cpi tax_rev pop_change  fdi_netin_gdp cap_deep
    natural_resources depositinterestrate edu, re
230 {res}
231 {txt}Random-effects GLS regression                Number of
    obs      = {res}      139
232 {txt}Group variable: {res}countryidx              {txt}
    Number of groups   = {res}      16
233
234 {txt}R-sq:  within  = {res}0.0889                  {txt}
    Obs per group: min = {res}      1
235 {txt}          between = {res}0.0773
                                {txt}avg = {res}      8.7
236 {txt}          overall = {res}0.1143
                                {txt}max = {res}      22
237
238                                {txt}Wald chi2({
    res}13{txt})      = {res}      16.14
239 {txt}corr(u_i, X)    = {res}0{txt} (assumed)
    Prob > chi2        =      {res}0.2418
240
241 {txt}{hline 22}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
    13}{hline 12}
242 {col 1}              gini_dec{col 23}{c |}      Coef.{col 35}
    Std. Err.{col 47}    z{col 55}    P>|z|{col 63}    [95% Con{col

```



```

76}f. Interval]
243 {hline 22}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
244 {space 13}lab_prod {c |}{col 23}{res}{space 2}-.2120873{col 35}{
space 2} .3901355{col 46}{space 1} -0.54{col 55}{space 3}0.587{
col 63}{space 4}-.9767388{col 76}{space 3} .5525642
245 {txt}{space 13}cap_prod {c |}{col 23}{res}{space 2} .002105{col
35}{space 2} .0043165{col 46}{space 1} 0.49{col 55}{space 3}
0.626{col 63}{space 4}-.0063552{col 76}{space 3} .0105653
246 {txt}{space 18}ulc {c |}{col 23}{res}{space 2} .0076588{col 35}{
space 2} .0042027{col 46}{space 1} 1.82{col 55}{space 3}0.068{
col 63}{space 4}-.0005784{col 76}{space 3} .0158959
247 {txt}{space 16}unemp {c |}{col 23}{res}{space 2} .0020478{col 35
}{space 2} .0018846{col 46}{space 1} 1.09{col 55}{space 3}
0.277{col 63}{space 4}-.0016459{col 76}{space 3} .0057416
248 {txt}{space 16}state {c |}{col 23}{res}{space 2}-.0048782{col 35
}{space 2} .011472{col 46}{space 1} -0.43{col 55}{space 3}
0.671{col 63}{space 4}-.0273628{col 76}{space 3} .0176064
249 {txt}{space 18}cpi {c |}{col 23}{res}{space 2}-.0040318{col 35}{
space 2} .0058018{col 46}{space 1} -0.69{col 55}{space 3}0.487{
col 63}{space 4}-.0154032{col 76}{space 3} .0073396
250 {txt}{space 14}tax_rev {c |}{col 23}{res}{space 2}-.0004396{col
35}{space 2} .0009177{col 46}{space 1} -0.48{col 55}{space 3}
0.632{col 63}{space 4}-.0022383{col 76}{space 3} .0013591
251 {txt}{space 11}pop_change {c |}{col 23}{res}{space 2} .581713{
col 35}{space 2} .897519{col 46}{space 1} 0.65{col 55}{space
3}0.517{col 63}{space 4}-1.177392{col 76}{space 3} 2.340818
252 {txt}{space 8}fdi_netin_gdp {c |}{col 23}{res}{space 2} .0001241{
col 35}{space 2} .0005625{col 46}{space 1} 0.22{col 55}{space
3}0.825{col 63}{space 4}-.0009783{col 76}{space 3} .0012265
253 {txt}{space 13}cap_deep {c |}{col 23}{res}{space 2} .0025634{col
35}{space 2} .0025681{col 46}{space 1} 1.00{col 55}{space 3}
0.318{col 63}{space 4} -.00247{col 76}{space 3} .0075968
254 {txt}natural_resources_gdp {c |}{col 23}{res}{space 2} .0023289{
col 35}{space 2} .0040532{col 46}{space 1} 0.57{col 55}{space
3}0.566{col 63}{space 4}-.0056153{col 76}{space 3} .0102732
255 {txt}{space 2}depositinterestrate {c |}{col 23}{res}{space 2} -
.004577{col 35}{space 2} .0035628{col 46}{space 1} -1.28{col 55
}{space 3}0.199{col 63}{space 4}-.0115598{col 76}{space 3}
.0024059
256 {txt}{space 18}edu {c |}{col 23}{res}{space 2} .0003361{col 35}{
space 2} .0006668{col 46}{space 1} 0.50{col 55}{space 3}0.614{
col 63}{space 4}-.0009709{col 76}{space 3} .001643
257 {txt}{space 16}_cons {c |}{col 23}{res}{space 2} .2956715{col 35
}{space 2} .0376012{col 46}{space 1} 7.86{col 55}{space 3}
0.000{col 63}{space 4} .2219744{col 76}{space 3} .3693686
258 {txt}{hline 22}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
259 sigma_u {c |} {res} 0
260 {txt}sigma_e {c |} {res} .05509666
261 {txt}rho {c |} {res} 0{txt} (fraction
of variance due to u_i)

```

```

262 {hline 22}{c BT}{hline 64}
263 ({res}est83{txt} stored)
264
265 {com}. esttab est55 using regression_12.tex, compress replace
stats(r2_b N)
266 {txt}(note: file regression_12.tex not found)
267 (output written to {browse `"regression_12.tex"'})
268
269 {com}.
270 {txt}end of do-file
271
272 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
273 {txt}
274 {com}. eststo: xtreg gini_growth mfp_dec cap_prod_dec lab_prod (
state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate)
275 {err}variable mfp_dec not found
276 {txt}{search r(111):r(111);}
277
278 end of do-file
279
280 {search r(111):r(111);}
281
282 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
283 {txt}
284 {com}. eststo: xtreg gini_growth mfp cap_prod_dec lab_prod (
state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate)
285 {err}variable cap_prod_dec not found
286 {txt}{search r(111):r(111);}
287
288 end of do-file
289
290 {search r(111):r(111);}
291
292 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
293 {txt}
294 {com}. eststo: xtreg gini_growth mfp cap_prod lab_prod (state
ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate)
295 {res}
296 {txt}Random-effects GLS regression Number of
obs = {res} 139
297 {txt}Group variable: {res}countryidx {txt}
Number of groups = {res} 16
298
299 {txt}R-sq: within = {res}0.0617 {txt}
Obs per group: min = {res} 1
300 {txt} between = {res}0.0305

```

```

                                {txt}avg = {res}      8.7
301 {txt}      overall = {res}0.0491
                                {txt}max = {res}      22
302
303                                {txt}Wald chi2({
res}12{txt})      = {res}      6.50
304 {txt}corr(u_i, X)      = {res}0{txt} (assumed)
Prob > chi2      =      {res}0.8886
305
306 {txt}{hline 20}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
307 {col 1}      gini_growth{col 21}{c |}      Coef.{col 33}      Std.
Err.{col 45}      z{col 53}      P>|z|{col 61}      [95% Con{col 74}
f. Interval]
308 {hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
309 {space 16}mfp {c |}{col 21}{res}{space 2} .0096261{col 33}{space
2} .0386481{col 44}{space 1}      0.25{col 53}{space 3}0.803{col 61
}{space 4}-.0661229{col 74}{space 3} .0853751
310 {txt}{space 11}cap_prod {c |}{col 21}{res}{space 2}-.0182698{col
33}{space 2} .0206247{col 44}{space 1}      -0.89{col 53}{space 3}
0.376{col 61}{space 4}-.0586933{col 74}{space 3} .0221538
311 {txt}{space 11}lab_prod {c |}{col 21}{res}{space 2} .866734{col
33}{space 2} 2.215239{col 44}{space 1}      0.39{col 53}{space 3}
0.696{col 61}{space 4}-3.475055{col 74}{space 3} 5.208523
312 {txt}{space 14}state {c |}{col 21}{res}{space 2}-.0051953{col 33
}{space 2} .0410499{col 44}{space 1}      -0.13{col 53}{space 3}
0.899{col 61}{space 4}-.0856516{col 74}{space 3} .075261
313 {txt}{space 16}ulc {c |}{col 21}{res}{space 2} .0086852{col 33}{
space 2} .0150746{col 44}{space 1}      0.58{col 53}{space 3}0.565{
col 61}{space 4}-.0208604{col 74}{space 3} .0382308
314 {txt}{space 14}unemp {c |}{col 21}{res}{space 2} .002177{col 33
}{space 2} .0067879{col 44}{space 1}      0.32{col 53}{space 3}
0.748{col 61}{space 4} -.011127{col 74}{space 3} .015481
315 {txt}{space 16}edu {c |}{col 21}{res}{space 2}-.0010161{col 33}{
space 2} .0019431{col 44}{space 1}      -0.52{col 53}{space 3}0.601{
col 61}{space 4}-.0048245{col 74}{space 3} .0027923
316 {txt}{space 5}fdi_netout_gdp {c |}{col 21}{res}{space 2} .0013651
{col 33}{space 2} .0039487{col 44}{space 1}      0.35{col 53}{space
3}0.730{col 61}{space 4}-.0063743{col 74}{space 3} .0091045
317 {txt}{space 6}fdi_netin_gdp {c |}{col 21}{res}{space 2} -.002422{
col 33}{space 2} .0041522{col 44}{space 1}      -0.58{col 53}{space
3}0.560{col 61}{space 4}-.0105602{col 74}{space 3} .0057162
318 {txt}{space 12}tax_rev {c |}{col 21}{res}{space 2} .0006898{col
33}{space 2} .0032563{col 44}{space 1}      0.21{col 53}{space 3}
0.832{col 61}{space 4}-.0056924{col 74}{space 3} .0070721
319 {txt}{space 16}cpi {c |}{col 21}{res}{space 2}-.0376936{col 33}{
space 2} .020692{col 44}{space 1}      -1.82{col 53}{space 3}0.069{
col 61}{space 4}-.0782491{col 74}{space 3} .0028618
320 {txt}depositinterestrate {c |}{col 21}{res}{space 2} .0072015{col
33}{space 2} .0120387{col 44}{space 1}      0.60{col 53}{space 3}
0.550{col 61}{space 4} -.016394{col 74}{space 3} .0307969

```

```

321 {txt}{space 14}_cons {c |}{col 21}{res}{space 2} .014494{col 33
}{space 2} .1315342{col 44}{space 1} 0.11{col 53}{space 3}
0.912{col 61}{space 4}-.2433082{col 74}{space 3} .2722962
322 {txt}{hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
323 sigma_u {c |} {res} 0
324 {txt}sigma_e {c |} {res} .22312786
325 {txt}rho {c |} {res} 0{txt} (fraction
of variance due to u_i)
326 {hline 20}{c BT}{hline 64}
327 ({res}est84{txt} stored)
328
329 {com}. esttab est67 using xtregnonbin2.tex
330 {txt}(output written to {browse `"xtregnonbin2.tex"})
331
332 {com}.
333 {txt}end of do-file
334
335 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
336 {txt}
337 {com}. xtreg gini_growth cap_bin lab_bin (state ulc unemp edu
fdi_netout_gdp fdi_netin_gdp tax_rev cpi depositinterestrate), fe
338 {err}variable cap_bin not found
339 {txt}{search r(111):r(111);}
340
341 end of do-file
342
343 {search r(111):r(111);}
344
345 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
346 {txt}
347 {com}.
348 . generate cap_bin = cap_prod > 0 if cap_prod < .
349 {txt}(653 missing values generated)
350
351 {com}. generate lab_bin = lab_prod > 0 if lab_prod < .
352 {txt}(736 missing values generated)
353
354 {com}.
355 .
356 . *Regression on gini_growth
357 .
358 {txt}end of do-file
359
360 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
361 {txt}
362 {com}. eststo: xtreg gini_growth mfp_dec cap_prod_dec lab_prod (
state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate), re

```

```

363 {err}variable mfp_dec not found
364 {txt}{search r(111):r(111);}
365
366 end of do-file
367
368 {search r(111):r(111);}
369
370 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
371 {txt}
372 {com}. eststo: xtreg gini_growth mfp cap_prod lab_prod (state
ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate), re
373 {res}
374 {txt}Random-effects GLS regression                Number of
obs          = {res}          139
375 {txt}Group variable: {res}countryidx              {txt}
Number of groups   = {res}          16
376
377 {txt}R-sq:  within = {res}0.0617                  {txt}
Obs per group: min = {res}          1
378 {txt}          between = {res}0.0305
                                     {txt}avg = {res}          8.7
379 {txt}          overall = {res}0.0491
                                     {txt}max = {res}          22
380
381                                     {txt}Wald chi2({
res}12{txt})          = {res}          6.50
382 {txt}corr(u_i, X)    = {res}0{txt} (assumed)
Prob > chi2           = {res}0.8886
383
384 {txt}{hline 20}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
385 {col 1}          gini_growth{col 21}{c |}          Coef.{col 33} Std.
Err.{col 45}          z{col 53} P>|z|{col 61}          [95% Con{col 74}
f. Interval]
386 {hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
387 {space 16}mfp {c |}{col 21}{res}{space 2} .0096261{col 33}{space
2} .0386481{col 44}{space 1} 0.25{col 53}{space 3}0.803{col 61
}{space 4}-.0661229{col 74}{space 3} .0853751
388 {txt}{space 11}cap_prod {c |}{col 21}{res}{space 2}-.0182698{col
33}{space 2} .0206247{col 44}{space 1} -0.89{col 53}{space 3}
0.376{col 61}{space 4}-.0586933{col 74}{space 3} .0221538
389 {txt}{space 11}lab_prod {c |}{col 21}{res}{space 2} .866734{col
33}{space 2} 2.215239{col 44}{space 1} 0.39{col 53}{space 3}
0.696{col 61}{space 4}-3.475055{col 74}{space 3} 5.208523
390 {txt}{space 14}state {c |}{col 21}{res}{space 2}-.0051953{col 33
}{space 2} .0410499{col 44}{space 1} -0.13{col 53}{space 3}
0.899{col 61}{space 4}-.0856516{col 74}{space 3} .075261
391 {txt}{space 16}ulc {c |}{col 21}{res}{space 2} .0086852{col 33}{
space 2} .0150746{col 44}{space 1} 0.58{col 53}{space 3}0.565{

```

```

col 61}{space 4}-.0208604{col 74}{space 3} .0382308
392 {txt}{space 14}unemp {c |}{col 21}{res}{space 2} .002177{col 33
}{space 2} .0067879{col 44}{space 1} 0.32{col 53}{space 3}
0.748{col 61}{space 4} -.011127{col 74}{space 3} .015481
393 {txt}{space 16}edu {c |}{col 21}{res}{space 2}-.0010161{col 33}{
space 2} .0019431{col 44}{space 1} -0.52{col 53}{space 3}0.601{
col 61}{space 4}-.0048245{col 74}{space 3} .0027923
394 {txt}{space 5}fdi_netout_gdp {c |}{col 21}{res}{space 2} .0013651
{col 33}{space 2} .0039487{col 44}{space 1} 0.35{col 53}{space
3}0.730{col 61}{space 4}-.0063743{col 74}{space 3} .0091045
395 {txt}{space 6}fdi_netin_gdp {c |}{col 21}{res}{space 2} -.002422{
col 33}{space 2} .0041522{col 44}{space 1} -0.58{col 53}{space
3}0.560{col 61}{space 4}-.0105602{col 74}{space 3} .0057162
396 {txt}{space 12}tax_rev {c |}{col 21}{res}{space 2} .0006898{col
33}{space 2} .0032563{col 44}{space 1} 0.21{col 53}{space 3}
0.832{col 61}{space 4}-.0056924{col 74}{space 3} .0070721
397 {txt}{space 16}cpi {c |}{col 21}{res}{space 2}-.0376936{col 33}{
space 2} .020692{col 44}{space 1} -1.82{col 53}{space 3}0.069{
col 61}{space 4}-.0782491{col 74}{space 3} .0028618
398 {txt}depositinterestrate {c |}{col 21}{res}{space 2} .0072015{col
33}{space 2} .0120387{col 44}{space 1} 0.60{col 53}{space 3}
0.550{col 61}{space 4} -.016394{col 74}{space 3} .0307969
399 {txt}{space 14}_cons {c |}{col 21}{res}{space 2} .014494{col 33
}{space 2} .1315342{col 44}{space 1} 0.11{col 53}{space 3}
0.912{col 61}{space 4}-.2433082{col 74}{space 3} .2722962
400 {txt}{hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
401 sigma_u {c |} {res} 0
402 {txt}sigma_e {c |} {res} .22312786
403 {txt}rho {c |} {res} 0{txt} (fraction
of variance due to u_i)
404 {hline 20}{c BT}{hline 64}
405 ({res}est85{txt} stored)
406
407 {com}. esttab est68 using xtreg1growth2.tex, compress stats(r2_b
N)
408 {txt}(output written to {browse `"xtreg1growth2.tex"})
409
410 {com}. eststo: xtreg gini_growth mfp_dec cap_bin lab_bin (state
ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate), re
411 {err}variable mfp_dec not found
412 {txt}{search r(111):r(111);}
413
414 end of do-file
415
416 {search r(111):r(111);}
417
418 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
419 {txt}
420 {com}. eststo: xtreg gini_growth mfp cap_prod lab_prod (state

```

```

ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
depositinterestrate), re
421 {res}
422 {txt}Random-effects GLS regression          Number of
obs      = {res}      139
423 {txt}Group variable: {res}countryidx      {txt}
Number of groups  = {res}      16
424
425 {txt}R-sq:  within  = {res}0.0617          {txt}
Obs per group: min = {res}      1
426 {txt}      between = {res}0.0305
                                {txt}avg = {res}      8.7
427 {txt}      overall = {res}0.0491
                                {txt}max = {res}      22
428
429                                {txt}Wald chi2({
res}12{txt})      = {res}      6.50
430 {txt}corr(u_i, X)  = {res}0{txt} (assumed)
Prob > chi2        =      {res}0.8886
431
432 {txt}{hline 20}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
433 {col 1}      gini_growth{col 21}{c |}      Coef.{col 33}  Std.
Err.{col 45}      z{col 53}  P>|z|{col 61}      [95% Con{col 74}
f. Interval]
434 {hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
435 {space 16}mfp {c |}{col 21}{res}{space 2} .0096261{col 33}{space
2} .0386481{col 44}{space 1}      0.25{col 53}{space 3}0.803{col 61
}{space 4}-.0661229{col 74}{space 3} .0853751
436 {txt}{space 11}cap_prod {c |}{col 21}{res}{space 2}-.0182698{col
33}{space 2} .0206247{col 44}{space 1}      -0.89{col 53}{space 3}
0.376{col 61}{space 4}-.0586933{col 74}{space 3} .0221538
437 {txt}{space 11}lab_prod {c |}{col 21}{res}{space 2} .866734{col
33}{space 2} 2.215239{col 44}{space 1}      0.39{col 53}{space 3}
0.696{col 61}{space 4}-3.475055{col 74}{space 3} 5.208523
438 {txt}{space 14}state {c |}{col 21}{res}{space 2}-.0051953{col 33
}{space 2} .0410499{col 44}{space 1}      -0.13{col 53}{space 3}
0.899{col 61}{space 4}-.0856516{col 74}{space 3} .075261
439 {txt}{space 16}ulc {c |}{col 21}{res}{space 2} .0086852{col 33}{
space 2} .0150746{col 44}{space 1}      0.58{col 53}{space 3}0.565{
col 61}{space 4}-.0208604{col 74}{space 3} .0382308
440 {txt}{space 14}unemp {c |}{col 21}{res}{space 2} .002177{col 33
}{space 2} .0067879{col 44}{space 1}      0.32{col 53}{space 3}
0.748{col 61}{space 4} -.011127{col 74}{space 3} .015481
441 {txt}{space 16}edu {c |}{col 21}{res}{space 2}-.0010161{col 33}{
space 2} .0019431{col 44}{space 1}      -0.52{col 53}{space 3}0.601{
col 61}{space 4}-.0048245{col 74}{space 3} .0027923
442 {txt}{space 5}fdi_netout_gdp {c |}{col 21}{res}{space 2} .0013651
{col 33}{space 2} .0039487{col 44}{space 1}      0.35{col 53}{space
3}0.730{col 61}{space 4}-.0063743{col 74}{space 3} .0091045
443 {txt}{space 6}fdi_netin_gdp {c |}{col 21}{res}{space 2} -.002422{

```

```

col 33}{space 2} .0041522{col 44}{space 1} -0.58{col 53}{space
3}0.560{col 61}{space 4}-.0105602{col 74}{space 3} .0057162
444 {txt}{space 12}tax_rev {c |}{col 21}{res}{space 2} .0006898{col
33}{space 2} .0032563{col 44}{space 1} 0.21{col 53}{space 3}
0.832{col 61}{space 4}-.0056924{col 74}{space 3} .0070721
445 {txt}{space 16}cpi {c |}{col 21}{res}{space 2}-.0376936{col 33}{
space 2} .020692{col 44}{space 1} -1.82{col 53}{space 3}0.069{
col 61}{space 4}-.0782491{col 74}{space 3} .0028618
446 {txt}depositinterestrate {c |}{col 21}{res}{space 2} .0072015{col
33}{space 2} .0120387{col 44}{space 1} 0.60{col 53}{space 3}
0.550{col 61}{space 4} -.016394{col 74}{space 3} .0307969
447 {txt}{space 14}_cons {c |}{col 21}{res}{space 2} .014494{col 33
}{space 2} .1315342{col 44}{space 1} 0.11{col 53}{space 3}
0.912{col 61}{space 4}-.2433082{col 74}{space 3} .2722962
448 {txt}{hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
449 sigma_u {c |} {res} 0
450 {txt}sigma_e {c |} {res} .22312786
451 {txt}rho {c |} {res} 0{txt} (fraction
of variance due to u_i)
452 {hline 20}{c BT}{hline 64}
453 ({res}est86{txt} stored)
454
455 {com}. esttab est68 using xtreg1growth2.tex, compress stats(r2_b
N)
456 {err}{p 0 4 2}
457 file xtreg1growth2.tex
458 already exists
459 {p_end}
460 {txt}{search r(602):r(602);}
461
462 end of do-file
463
464 {search r(602):r(602);}
465
466 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
467 {txt}
468 {com}.
469 . xtreg gini_growth cap_bin lab_bin (state ulc unemp edu
fdi_netout_gdp fdi_netin_gdp tax_rev cpi depositinterestrate), fe
470
471 {txt}Fixed-effects (within) regression Number of
obs = {res} 139
472 {txt}Group variable: {res}countryidx {txt}
Number of groups = {res} 16
473
474 {txt}R-sq: within = {res}0.1033 {txt}
Obs per group: min = {res} 1
475 {txt} between = {res}0.2497
{txt}avg = {res} 8.7
476 {txt} overall = {res}0.0408

```



```
477
478 {txt}F({res}11{
txt},{res}112{txt}) = {res} 1.17
479 {txt}corr(u_i, Xb) = {res}-0.6178 {txt}
Prob > F = {res}0.3142
480
481 {txt}{hline 20}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
482 {col 1} gini_growth{col 21}{c |} Coef.{col 33} Std.
Err.{col 45} t{col 53} P>|t|{col 61} [95% Con{col 74}
f. Interval]
483 {hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
484 {space 12}cap_bin {c |}{col 21}{res}{space 2}-.0013921{col 33}{
space 2} .0583321{col 44}{space 1} -0.02{col 53}{space 3}0.981{
col 61}{space 4}-.1169697{col 74}{space 3} .1141855
485 {txt}{space 12}lab_bin {c |}{col 21}{res}{space 2}-.1393797{col
33}{space 2} .0631118{col 44}{space 1} -2.21{col 53}{space 3}
0.029{col 61}{space 4}-.2644277{col 74}{space 3}-.0143317
486 {txt}{space 14}state {c |}{col 21}{res}{space 2}-.0085402{col 33
}{space 2} .0460444{col 44}{space 1} -0.19{col 53}{space 3}
0.853{col 61}{space 4}-.0997713{col 74}{space 3} .0826909
487 {txt}{space 16}ulc {c |}{col 21}{res}{space 2} .0011981{col 33}{
space 2} .014412{col 44}{space 1} 0.08{col 53}{space 3}0.934{
col 61}{space 4}-.0273573{col 74}{space 3} .0297536
488 {txt}{space 14}unemp {c |}{col 21}{res}{space 2}-.0126266{col 33
}{space 2} .0180993{col 44}{space 1} -0.70{col 53}{space 3}
0.487{col 61}{space 4}-.0484881{col 74}{space 3} .0232349
489 {txt}{space 16}edu {c |}{col 21}{res}{space 2}-.0028224{col 33}{
space 2} .0046567{col 44}{space 1} -0.61{col 53}{space 3}0.546{
col 61}{space 4}-.0120491{col 74}{space 3} .0064043
490 {txt}{space 5}fdi_netout_gdp {c |}{col 21}{res}{space 2} .0008251
{col 33}{space 2} .0044462{col 44}{space 1} 0.19{col 53}{space
3}0.853{col 61}{space 4}-.0079845{col 74}{space 3} .0096346
491 {txt}{space 6}fdi_netin_gdp {c |}{col 21}{res}{space 2}-.0032747{
col 33}{space 2} .0043107{col 44}{space 1} -0.76{col 53}{space
3}0.449{col 61}{space 4}-.0118158{col 74}{space 3} .0052665
492 {txt}{space 12}tax_rev {c |}{col 21}{res}{space 2}-.0053049{col
33}{space 2} .0196279{col 44}{space 1} -0.27{col 53}{space 3}
0.787{col 61}{space 4}-.0441949{col 74}{space 3} .0335852
493 {txt}{space 16}cpi {c |}{col 21}{res}{space 2}-.0492666{col 33}{
space 2} .0276721{col 44}{space 1} -1.78{col 53}{space 3}0.078{
col 61}{space 4}-.1040953{col 74}{space 3} .0055622
494 {txt}depositinterestrate {c |}{col 21}{res}{space 2} .0103072{col
33}{space 2} .0179754{col 44}{space 1} 0.57{col 53}{space 3}
0.568{col 61}{space 4}-.0253087{col 74}{space 3} .0459231
495 {txt}{space 14}_cons {c |}{col 21}{res}{space 2} .5140031{col 33
}{space 2} .5213279{col 44}{space 1} 0.99{col 53}{space 3}
0.326{col 61}{space 4}-.5189413{col 74}{space 3} 1.546948
496 {txt}{hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
```

```

497         sigma_u {c |} {res} .12662674
498         {txt}sigma_e {c |} {res} .21881318
499         {txt}rho {c |} {res} .25087533{txt}    (fraction
of variance due to u_i)
500 {hline 20}{c BT}{hline 64}
501 F test that all u_i=0:      F({res}15{txt}, {res}112{txt}) = {res}
      0.51          {txt}Prob > F = {res}0.9317
502 {txt}
503 {com}. estimate store fe_final
504 {txt}
505 {com}.
506 {txt}end of do-file
507
508 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
509 {txt}
510 {com}. xtreg gini_growth    cap_bin lab_bin (state ulc unemp edu
fdi_netout_gdp fdi_netin_gdp tax_rev  cpi depositinterestrate), re
511 {res}
512 {txt}Random-effects GLS regression                      Number of
obs      = {res}      139
513 {txt}Group variable: {res}countryidx                      {txt}
Number of groups   = {res}      16
514
515 {txt}R-sq:  within  = {res}0.0950                      {txt}
Obs per group: min = {res}      1
516 {txt}          between = {res}0.4288
                                {txt}avg = {res}      8.7
517 {txt}          overall = {res}0.0715
                                {txt}max = {res}      22
518
519                                {txt}Wald chi2({
res}11{txt})      = {res}      9.78
520 {txt}corr(u_i, X)   = {res}0{txt} (assumed)
Prob > chi2         =      {res}0.5501
521
522 {txt}{hline 20}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
523 {col 1}          gini_growth{col 21}{c |}      Coef.{col 33} Std.
Err.{col 45}      z{col 53}    P>|z|{col 61}      [95% Con{col 74}
f. Interval]
524 {hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
525 {space 12}cap_bin {c |}{col 21}{res}{space 2} -.002788{col 33}{
space 2} .0523492{col 44}{space 1}  -0.05{col 53}{space 3}0.958{
col 61}{space 4}-.1053905{col 74}{space 3} .0998146
526 {txt}{space 12}lab_bin {c |}{col 21}{res}{space 2}-.1218604{col
33}{space 2} .0561664{col 44}{space 1}  -2.17{col 53}{space 3}
0.030{col 61}{space 4}-.2319446{col 74}{space 3}-.0117762
527 {txt}{space 14}state {c |}{col 21}{res}{space 2}-.0118009{col 33}
}{space 2} .0393927{col 44}{space 1}  -0.30{col 53}{space 3}
0.765{col 61}{space 4}-.0890091{col 74}{space 3} .0654073

```

```

528 {txt}{space 16}ulc {c |}{col 21}{res}{space 2} .0022339{col 33}{
space 2} .0131135{col 44}{space 1} 0.17{col 53}{space 3}0.865{
col 61}{space 4}-.0234681{col 74}{space 3} .0279359
529 {txt}{space 14}unemp {c |}{col 21}{res}{space 2}-.0029232{col 33
}{space 2} .0065004{col 44}{space 1} -0.45{col 53}{space 3}
0.653{col 61}{space 4}-.0156636{col 74}{space 3} .0098173
530 {txt}{space 16}edu {c |}{col 21}{res}{space 2}-.0014065{col 33}{
space 2} .0019094{col 44}{space 1} -0.74{col 53}{space 3}0.461{
col 61}{space 4}-.0051489{col 74}{space 3} .0023359
531 {txt}{space 5}fdi_netout_gdp {c |}{col 21}{res}{space 2} .0009959
{col 33}{space 2} .0038936{col 44}{space 1} 0.26{col 53}{space
3}0.798{col 61}{space 4}-.0066355{col 74}{space 3} .0086273
532 {txt}{space 6}fdi_netin_gdp {c |}{col 21}{res}{space 2}-.0024924{
col 33}{space 2} .0040812{col 44}{space 1} -0.61{col 53}{space
3}0.541{col 61}{space 4}-.0104915{col 74}{space 3} .0055066
533 {txt}{space 12}tax_rev {c |}{col 21}{res}{space 2} .0017987{col
33}{space 2} .003088{col 44}{space 1} 0.58{col 53}{space 3}
0.560{col 61}{space 4}-.0042537{col 74}{space 3} .0078511
534 {txt}{space 16}cpi {c |}{col 21}{res}{space 2}-.0227238{col 33}{
space 2} .0200509{col 44}{space 1} -1.13{col 53}{space 3}0.257{
col 61}{space 4}-.0620228{col 74}{space 3} .0165753
535 {txt}depositinterestrate {c |}{col 21}{res}{space 2} .005869{col
33}{space 2} .0116488{col 44}{space 1} 0.50{col 53}{space 3}
0.614{col 61}{space 4}-.0169623{col 74}{space 3} .0287003
536 {txt}{space 14}_cons {c |}{col 21}{res}{space 2} .1871491{col 33
}{space 2} .136526{col 44}{space 1} 1.37{col 53}{space 3}
0.170{col 61}{space 4}-.0804369{col 74}{space 3} .4547352
537 {txt}{hline 20}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
538 sigma_u {c |} {res} 0
539 {txt}sigma_e {c |} {res} .21881318
540 {txt}rho {c |} {res} 0{txt} (fraction
of variance due to u_i)
541 {hline 20}{c BT}{hline 64}
542
543 {com}. estimate store re_final
544 {txt}
545 {com}.
546 {txt}end of do-file
547
548 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
549 {txt}
550 {com}. estimate store re_final
551 {txt}
552 {com}. hausman re_final, fe_final
553 {err}option {bf:fe_final} not allowed
554 {txt}{search r(198):r(198);}
555
556 end of do-file
557
558 {search r(198):r(198);}

```

```

559 {com}. do
560 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
561 {txt}
562 {com}. hausman re_final fe_final
563
564 {txt}{col 18}{hline 4} Coefficients {hline 4}
565 {col 14}{c |}{col 21}(b){col 34}(B){col 49}(b-B){col 59}sqrt(diag
(V_b-V_B))
566 {col 14}{c |}{col 17} re_final {col 30} fe_final {col 46}
Difference{col 66}S.E.
567 {hline 13}{c +}{hline 64}
568 cap_bin {c |} {res}{col 18} -.002788{col 31}-.0013921{col
47}-.0013959{col 63} .
569 {txt}lab_bin {c |} {res}{col 18}-.1218604{col 31}-.1393797{
col 47} .0175192{col 63} .
570 {txt}state {c |} {res}{col 18}-.0118009{col 31}-.0085402{
col 47}-.0032607{col 63} .
571 {txt}ulc {c |} {res}{col 18} .0022339{col 31} .0011981{
col 47} .0010358{col 63} .
572 {txt}unemp {c |} {res}{col 18}-.0029232{col 31}-.0126266{
col 47} .0097034{col 63} .
573 {txt}edu {c |} {res}{col 18}-.0014065{col 31}-.0028224{
col 47} .001416{col 63} .
574 {txt}fdi_netout~p {c |} {res}{col 18} .0009959{col 31} .0008251{
col 47} .0001709{col 63} .
575 {txt}fdi_netin~p {c |} {res}{col 18}-.0024924{col 31}-.0032747{
col 47} .0007822{col 63} .
576 {txt}tax_rev {c |} {res}{col 18} .0017987{col 31}-.0053049{
col 47} .0071036{col 63} .
577 {txt}cpi {c |} {res}{col 18}-.0227238{col 31}-.0492666{
col 47} .0265428{col 63} .
578 {txt}depositint~e {c |} {res}{col 18} .005869{col 31} .0103072{
col 47}-.0044382{col 63} .
579 {txt}{hline 13}{c BT}{hline 64}
580 {ralign 78:b = consistent under Ho and Ha; obtained from xtreg}
581 {ralign 78:B = inconsistent under Ha, efficient under Ho;
obtained from xtreg}
582
583 Test: Ho: difference in coefficients not systematic
584
585 {ralign 25:chi2({res:11})} = (b-B)'[(V_b-V_B)^(-1)](b-B)
586 {col 27}={res} -4.48{txt}{col 41}chi2<0 ==> model fitted on
these
587 {col 41}data fails to meet the asymptotic
588 {col 41}assumptions of the Hausman test;
589 {col 41}see {help suest##|_new:suest} for a generalized test
590
591 {com}. predict ybar3, xb
592 {txt}(953 missing values generated)
593
594 {com}.

```

```

595 {txt}end of do-file
596
597 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
598 {txt}
599 {com}. kdensity r3, normal
600 {err}variable r3 not found
601 {txt}{search r(111):r(111);}
602
603 end of do-file
604
605 {search r(111):r(111);}
606
607 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
608 {txt}
609 {com}. xtregar gini_growth mfp_dec cap_bin lab_bin (state ulc
    unemp fdi_netout_gdp fdi_netin_gdp tax_rev cpi
    depositinterestrate)
610 {err}variable mfp_dec not found
611 {txt}{search r(111):r(111);}
612
613 end of do-file
614
615 {search r(111):r(111);}
616
617 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
618 {txt}
619 {com}. foreach var in gini_growth cap_prod lab_prod mfp (state
    ulc unemp_dec edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi_dec
    depositinterestrate_dec),{c -({
620 {txt} 2{com}. xtunitroot fisher `var' , dfuller trend lags(1)
621 {txt} 3{com}.
622 {err}unexpected end of file
623 {txt}{search r(612):r(612);}
624
625 end of do-file
626
627 {search r(612):r(612);}
628 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
629 {txt}
630 {com}.
631 . foreach var in gini_growth cap_prod lab_prod mfp (state ulc
    unemp_dec edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi_dec
    depositinterestrate_dec),{c -({
632 {txt} 2{com}. xtunitroot fisher `var' , dfuller trend lags(1)
633 {txt} 3{com}. {c )-}
634 {txt}(34 missing values generated)
635
636 Fisher-type unit-root test for {res}gini_growth

```

```

637 {txt}Based on augmented Dickey-Fuller tests
638 {hline 42}
639 Ho: All panels contain unit roots{col 45}Number of panels{col 68
}={col 69}{res} 32
640 {txt}Ha: At least one panel is stationary{col 45}Avg. number of
periods{col 68}={col 69}{res} 33.06
641
642 {txt}AR parameter:{res}{col 15}Panel-specific{txt}{col 45}
Asymptotics: {res}T -> Infinity
643 {txt}Panel means:{res}{col 15}Included
644 {txt}Time trend:{res}{col 15}Included
645 {txt}Drift term:{res}{col 15}Not included{txt}{col 45}ADF
regressions: {res}1{txt} lag
646 {hline 78}
647 {col 35}Statistic{col 50}p-value
648 {hline 78}
649 {col 2}Inverse chi-squared({res}64{txt}){col 28}P{res}{col 35}
806.5902{col 51}0.0000
650 {txt}{col 2}Inverse normal{col 28}Z{res}{col 35} -22.3938{col 51}
0.0000
651 {txt}{col 2}Inverse logit t({res}159{txt}){col 28}L*{res}{col 35}
-39.4629{col 51}0.0000
652 {txt}{col 2}Modified inv. chi-squared{col 28}Pm{res}{col 35}
65.6363{col 51}0.0000
653 {txt}{hline 78}
654 {col 2}P statistic requires number of panels to be finite.
655 {col 2}Other statistics are suitable for finite or infinite
number of panels.
656 {hline 78}
657 (653 missing values generated)
658
659 Fisher-type unit-root test for {res}cap_prod
660 {txt}Based on augmented Dickey-Fuller tests
661 {hline 39}
662 Ho: All panels contain unit roots{col 45}Number of panels{col 68
}={col 69}{res} 17
663 {txt}Ha: At least one panel is stationary{col 45}Avg. number of
periods{col 68}={col 69}{res} 25.82
664
665 {txt}AR parameter:{res}{col 15}Panel-specific{txt}{col 45}
Asymptotics: {res}T -> Infinity
666 {txt}Panel means:{res}{col 15}Included
667 {txt}Time trend:{res}{col 15}Included
668 {txt}Drift term:{res}{col 15}Not included{txt}{col 45}ADF
regressions: {res}1{txt} lag
669 {hline 78}
670 {col 35}Statistic{col 50}p-value
671 {hline 78}
672 {col 2}Inverse chi-squared({res}34{txt}){col 28}P{res}{col 35}
124.3910{col 51}0.0000
673 {txt}{col 2}Inverse normal{col 28}Z{res}{col 35} -6.1247{col 51}
0.0000

```

```

674 {txt}{col 2}Inverse logit t({res}89{txt}){col 28}L*{res}{col 35}
    -7.2596{col 51}0.0000
675 {txt}{col 2}Modified inv. chi-squared{col 28}Pm{res}{col 35}
    10.9615{col 51}0.0000
676 {txt}{hline 78}
677 {col 2}P statistic requires number of panels to be finite.
678 {col 2}Other statistics are suitable for finite or infinite
    number of panels.
679 {hline 78}
680 (736 missing values generated)
681 {err}could not compute test for panel 11
682
683 {txt}Fisher-type unit-root test for {res}lab_prod
684 {txt}Based on augmented Dickey-Fuller tests
685 {hline 39}
686 Ho: All panels contain unit roots{col 45}Number of panels{col 68}
    ={col 69}{res} 18
687 {txt}Ha: At least one panel is stationary{col 45}Avg. number of
    periods{col 68}={col 69}{res} 19.78
688
689 {txt}AR parameter:{res}{col 15}Panel-specific{txt}{col 45}
    Asymptotics: {res}T -> Infinity
690 {txt}Panel means:{res}{col 15}Included
691 {txt}Time trend:{res}{col 15}Included
692 {txt}Drift term:{res}{col 15}Not included{txt}{col 45}ADF
    regressions: {res}1{txt} lag
693 {hline 78}
694 {col 35}Statistic{col 50}p-value
695 {hline 78}
696 {col 2}Inverse chi-squared({res}34{txt}){col 28}P{res}{col 35}
    159.3080{col 51}0.0000
697 {txt}{col 2}Inverse normal{col 28}Z{res}{col 35} -7.5179{col 51}
    0.0000
698 {txt}{col 2}Inverse logit t({res}89{txt}){col 28}L*{res}{col 35}
    -10.1438{col 51}0.0000
699 {txt}{col 2}Modified inv. chi-squared{col 28}Pm{res}{col 35}
    15.1958{col 51}0.0000
700 {txt}{hline 78}
701 {col 2}P statistic requires number of panels to be finite.
702 {col 2}Other statistics are suitable for finite or infinite
    number of panels.
703 {hline 78}
704 (718 missing values generated)
705 {err}could not compute test for panel 11
706
707 {txt}Fisher-type unit-root test for {res}mfp
708 {txt}Based on augmented Dickey-Fuller tests
709 {hline 38}
710 Ho: All panels contain unit roots{col 45}Number of panels{col 68}
    ={col 69}{res} 18
711 {txt}Ha: At least one panel is stationary{col 45}Avg. number of
    periods{col 68}={col 69}{res} 20.78

```

```

712 {txt}AR parameter:{res}{col 15}Panel-specific{txt}{col 45}
713 Asymptotics: {res}T -> Infinity
714 {txt}Panel means:{res}{col 15}Included
715 {txt}Time trend:{res}{col 15}Included
716 {txt}Drift term:{res}{col 15}Not included{txt}{col 45}ADF
    regressions: {res}1{txt} lag
717 {hline 78}
718 {col 35}Statistic{col 50}p-value
719 {hline 78}
720 {col 2}Inverse chi-squared({res}34{txt}){col 28}P{res}{col 35}
    141.0559{col 51}0.0000
721 {txt}{col 2}Inverse normal{col 28}Z{res}{col 35} -7.9485{col 51}
    0.0000
722 {txt}{col 2}Inverse logit t({res}89{txt}){col 28}L*{res}{col 35}
    -9.2892{col 51}0.0000
723 {txt}{col 2}Modified inv. chi-squared{col 28}Pm{res}{col 35}
    12.9824{col 51}0.0000
724 {txt}{hline 78}
725 {col 2}P statistic requires number of panels to be finite.
726 {col 2}Other statistics are suitable for finite or infinite
    number of panels.
727 {hline 78}
728 {err}invalid syntax
729 {txt}{search r(198):r(198);}
730
731 end of do-file
732
733 {search r(198):r(198);}
734
735 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
736 {txt}
737 {com}. xtline gini if countryidx<5
738 {res}{txt}
739 {com}.
740 {txt}end of do-file
741
742 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
743 {txt}
744 {com}. xtreg gini_growth cap_bin lab_bin mfp_dec ( cap_deep state
    ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi ),re
745 {err}variable mfp_dec not found
746 {txt}{search r(111):r(111);}
747
748 end of do-file
749
750 {search r(111):r(111);}
751
752 {com}. do
    "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"

```



```

753 {txt}
754 {com}. eststo xtregcont: xtreg gini_growth cap_prod_dec lab_prod
mfp_dec ( cap_deep state ulc unemp edu fdi_netout_gdp
fdi_netin_gdp tax_rev cpi ),fe
755 {err}variable cap_prod_dec not found
756 {txt}{search r(111):r(111);}
757
758 end of do-file
759
760 {search r(111):r(111);}
761
762 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
763 {txt}
764 {com}. eststo xtregcont: xtreg gini_growth cap_prod lab_prod mfp
( cap_deep state ulc unemp edu fdi_netout_gdp fdi_netin_gdp
tax_rev cpi ),fe
765
766 {txt}Fixed-effects (within) regression                Number of
obs          = {res}          266
767 {txt}Group variable: {res}countryidx                  {txt}
Number of groups   = {res}          17
768
769 {txt}R-sq:  within  = {res}0.0343                      {txt}
Obs per group: min = {res}          1
770 {txt}          between = {res}0.0013
{txt}avg = {res}          15.6
771 {txt}          overall = {res}0.0191
{txt}max = {res}          22
772
773 {txt}F({res}12{
txt},{res}237{txt})          = {res}          0.70
774 {txt}corr(u_i, Xb) = {res}-0.5648                      {txt}
Prob > F          = {res}0.7493
775
776 {txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
777 {col 1}  gini_growth{col 16}{c |}          Coef.{col 28}  Std. Err
.{col 40}          t{col 48}  P>|t|{col 56}          [95% Con{col 69}f.
Interval]
778 {hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
779 {space 6}cap_prod {c |}{col 16}{res}{space 2}-.0023566{col 28}{
space 2} .0151261{col 39}{space 1}  -0.16{col 48}{space 3}0.876{
col 56}{space 4}-.0321554{col 69}{space 3} .0274422
780 {txt}{space 6}lab_prod {c |}{col 16}{res}{space 2} .5361464{col
28}{space 2} 2.272393{col 39}{space 1}    0.24{col 48}{space 3}
0.814{col 56}{space 4}-3.940522{col 69}{space 3} 5.012815
781 {txt}{space 11}mfp {c |}{col 16}{res}{space 2} -.007214{col 28}{
space 2} .0374141{col 39}{space 1}  -0.19{col 48}{space 3}0.847{
col 56}{space 4}-.0809207{col 69}{space 3} .0664927
782 {txt}{space 6}cap_deep {c |}{col 16}{res}{space 2} .001157{col

```

```

28}{space 2} .0077344{col 39}{space 1}    0.15{col 48}{space 3}
0.881{col 56}{space 4}  -.01408{col 69}{space 3}  .016394
783 {txt}{space 9}state {c |}{col 16}{res}{space 2} .0384376{col 28}{
space 2} .0321044{col 39}{space 1}    1.20{col 48}{space 3}0.232{
col 56}{space 4}-.0248088{col 69}{space 3}  .101684
784 {txt}{space 11}ulc {c |}{col 16}{res}{space 2}-.0010915{col 28}{
space 2} .0111381{col 39}{space 1}    -0.10{col 48}{space 3}0.922{
col 56}{space 4}-.0230339{col 69}{space 3} .0208508
785 {txt}{space 9}unemp {c |}{col 16}{res}{space 2} .004727{col 28}{
space 2} .0075738{col 39}{space 1}    0.62{col 48}{space 3}0.533{
col 56}{space 4}-.0101936{col 69}{space 3} .0196477
786 {txt}{space 11}edu {c |}{col 16}{res}{space 2}-.0022066{col 28}{
space 2} .0025602{col 39}{space 1}    -0.86{col 48}{space 3}0.390{
col 56}{space 4}-.0072504{col 69}{space 3} .0028371
787 {txt}fdi_netout_gdp {c |}{col 16}{res}{space 2} .0035008{col 28}{
space 2} .003431{col 39}{space 1}    1.02{col 48}{space 3}0.309{
col 56}{space 4}-.0032584{col 69}{space 3}  .01026
788 {txt}{space 1}fdi_netin_gdp {c |}{col 16}{res}{space 2}-.0070104{
col 28}{space 2} .0035391{col 39}{space 1}    -1.98{col 48}{space
3}0.049{col 56}{space 4}-.0139826{col 69}{space 3}-.0000383
789 {txt}{space 7}tax_rev {c |}{col 16}{res}{space 2} .0001118{col 28
}{space 2} .0125729{col 39}{space 1}    0.01{col 48}{space 3}
0.993{col 56}{space 4}-.0246571{col 69}{space 3} .0248807
790 {txt}{space 11}cpi {c |}{col 16}{res}{space 2}-.0121688{col 28}{
space 2} .0135656{col 39}{space 1}    -0.90{col 48}{space 3}0.371{
col 56}{space 4}-.0388934{col 69}{space 3} .0145559
791 {txt}{space 9}_cons {c |}{col 16}{res}{space 2} .0513245{col 28}{
space 2} .3132961{col 39}{space 1}    0.16{col 48}{space 3}0.870{
col 56}{space 4}-.5658763{col 69}{space 3} .6685253
792 {txt}{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
793     sigma_u {c |} {res} .07127011
794     {txt}sigma_e {c |} {res} .22100872
795     {txt}rho {c |} {res} .09419556{txt}    (fraction of
variance due to u_i)
796 {hline 15}{c BT}{hline 64}
797 F test that all u_i=0:      F({res}16{txt}, {res}237{txt}) = {res}
0.31      {txt}Prob > F = {res}0.9952
798 {txt}
799 {com}. eststo xtregbin: xtreg gini_growth cap_bin lab_bin mfp_dec
( cap_deep state ulc unemp edu fdi_netout_gdp fdi_netin_gdp
tax_rev cpi ),fe
800 {err}variable mfp_dec not found
801 {txt}{search r(111):r(111);}
802
803 end of do-file
804
805 {search r(111):r(111);}
806
807 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
808 {txt}

```

```

809 {com}.
```

```

810 . eststo lessedu: xtreg gini_growth cap_bin lab_bin mfp_dec L1.
mfp_dec L2.mfp_dec L3.mfp_dec L4.mfp_dec L5.mfp_dec ( cap_deep
state ulc unemp fdi_netout_gdp fdi_netin_gdp tax_rev cpi ),fe
811 {err}variable mfp_dec not found
812 {txt}{search r(111):r(111);}
813
814 end of do-file
815
816 {search r(111):r(111);}
817
818 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
819 {txt}
820 {com}. gen mfp_Dec=mfp/100
821 {txt}(718 missing values generated)
822
823 {com}.
```

```

824 {txt}end of do-file
825
826 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
827 {txt}
828 {com}. gen mfp_dec=mfp/100
829 {txt}(718 missing values generated)
830
831 {com}.
```

```

832 {txt}end of do-file
833
834 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
835 {txt}
836 {com}. eststo lessedu: xtreg gini_growth cap_bin lab_bin mfp_dec
L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.mfp_dec L5.mfp_dec ( cap_deep
state ulc unemp fdi_netout_gdp fdi_netin_gdp tax_rev cpi ),fe
837
838 {txt}Fixed-effects (within) regression
```

		Number of
obs	= {res} 215	
{txt}Group variable: {res}countryidx		{txt}
Number of groups	= {res} 16	

```

840
841 {txt}R-sq: within = {res}0.0977 {txt}
Obs per group: min = {res} 3
842 {txt} between = {res}0.1199
{txt}avg = {res} 13.4
843 {txt} overall = {res}0.0745
{txt}max = {res} 25
844
845 {txt}F({res}16{
txt},{res}183{txt}) = {res} 1.24
846 {txt}corr(u_i, Xb) = {res}-0.3513 {txt}
Prob > F = {res}0.2423
```

```

847
848 {txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
    13}{hline 12}
849 {col 1} gini_growth{col 16}{c |} Coef.{col 28} Std. Err
    .{col 40} t{col 48} P>|t|{col 56} [95% Con{col 69}f.
    Interval]
850 {hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
    hline 12}
851 {space 7}cap_bin {c |}{col 16}{res}{space 2}-.0939169{col 28}{
    space 2} .0469313{col 39}{space 1} -2.00{col 48}{space 3}0.047{
    col 56}{space 4}-.1865129{col 69}{space 3}-.0013209
852 {txt}{space 7}lab_bin {c |}{col 16}{res}{space 2}-.1940402{col 28}
    {space 2} .0654144{col 39}{space 1} -2.97{col 48}{space 3}
    0.003{col 56}{space 4}-.3231036{col 69}{space 3}-.0649769
853 {txt}{space 14} {c |}
854 {space 7}mfp_dec {c |}
855 {space 11}--. {c |}{col 16}{res}{space 2} 2.203464{col 28}{space
    2} 2.018848{col 39}{space 1} 1.09{col 48}{space 3}0.277{col 56}
    {space 4}-1.779747{col 69}{space 3} 6.186675
856 {txt}{space 11}L1. {c |}{col 16}{res}{space 2} .626102{col 28}{
    space 2} 1.195808{col 39}{space 1} 0.52{col 48}{space 3}0.601{
    col 56}{space 4}-1.733241{col 69}{space 3} 2.985445
857 {txt}{space 11}L2. {c |}{col 16}{res}{space 2} .4768081{col 28}{
    space 2} 1.194839{col 39}{space 1} 0.40{col 48}{space 3}0.690{
    col 56}{space 4}-1.880624{col 69}{space 3} 2.834241
858 {txt}{space 11}L3. {c |}{col 16}{res}{space 2}-.2390774{col 28}{
    space 2} 1.167447{col 39}{space 1} -0.20{col 48}{space 3}0.838{
    col 56}{space 4}-2.542464{col 69}{space 3} 2.064309
859 {txt}{space 11}L4. {c |}{col 16}{res}{space 2} 1.566398{col 28}{
    space 2} 1.123461{col 39}{space 1} 1.39{col 48}{space 3}0.165{
    col 56}{space 4}-.6502033{col 69}{space 3} 3.782999
860 {txt}{space 11}L5. {c |}{col 16}{res}{space 2}-1.812175{col 28}{
    space 2} 1.191636{col 39}{space 1} -1.52{col 48}{space 3}0.130{
    col 56}{space 4}-4.163286{col 69}{space 3} .538936
861 {txt}{space 14} {c |}
862 {space 6}cap_deep {c |}{col 16}{res}{space 2} .003394{col 28}{
    space 2} .0097546{col 39}{space 1} 0.35{col 48}{space 3}0.728{
    col 56}{space 4}-.015852{col 69}{space 3} .0226399
863 {txt}{space 9}state {c |}{col 16}{res}{space 2} .0032537{col 28}{
    space 2} .03927{col 39}{space 1} 0.08{col 48}{space 3}0.934{
    col 56}{space 4}-.0742266{col 69}{space 3} .0807339
864 {txt}{space 11}ulc {c |}{col 16}{res}{space 2}-.0147967{col 28}{
    space 2} .0134{col 39}{space 1} -1.10{col 48}{space 3}0.271{
    col 56}{space 4}-.041235{col 69}{space 3} .0116416
865 {txt}{space 9}unemp {c |}{col 16}{res}{space 2}-.0001125{col 28}{
    space 2} .0083302{col 39}{space 1} -0.01{col 48}{space 3}0.989{
    col 56}{space 4}-.0165481{col 69}{space 3} .0163232
866 {txt}fdi_netout_gdp {c |}{col 16}{res}{space 2} .0065798{col 28}{
    space 2} .0044121{col 39}{space 1} 1.49{col 48}{space 3}0.138{
    col 56}{space 4}-.0021253{col 69}{space 3} .015285
867 {txt}{space 1}fdi_netin_gdp {c |}{col 16}{res}{space 2}-.0077795{
    col 28}{space 2} .0043923{col 39}{space 1} -1.77{col 48}{space

```

```

3}0.078{col 56}{space 4}-.0164456{col 69}{space 3} .0008866
868 {txt}{space 7}tax_rev {c |}{col 16}{res}{space 2} .002571{col 28}
    {space 2} .0152049{col 39}{space 1}    0.17{col 48}{space 3}
    0.866{col 56}{space 4}-.0274285{col 69}{space 3} .0325704
869 {txt}{space 11}cpi {c |}{col 16}{res}{space 2} -.009471{col 28}{
    space 2} .0153623{col 39}{space 1}    -0.62{col 48}{space 3}0.538{
    col 56}{space 4} -.039781{col 69}{space 3} .020839
870 {txt}{space 9}_cons {c |}{col 16}{res}{space 2} .1404469{col 28}{
    space 2} .3512491{col 39}{space 1}    0.40{col 48}{space 3}0.690{
    col 56}{space 4}-.5525718{col 69}{space 3} .8334656
871 {txt}{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
    13}{hline 12}
872         sigma_u {c |} {res} .05137081
873         {txt}sigma_e {c |} {res} .22393983
874         {txt}rho {c |} {res} .04999166{txt}    (fraction of
variance due to u_i)
875 {hline 15}{c BT}{hline 64}
876 F test that all u_i=0:      F({res}15{txt}, {res}183{txt}) = {res}
    0.23          {txt}Prob > F = {res}0.9988
877 {txt}
878 {com}.
879 . eststo lessedu2: xtreg gini_growth cap_bin lab_bin mfp_dec L1.
mfp_dec L2.mfp_dec L3.mfp_dec L4.mfp_dec L5.mfp_dec ( cap_deep
state ulc unemp fdi_netout_gdp fdi_netin_gdp tax_rev cpi ),re
880 {res}
881 {txt}Random-effects GLS regression                Number of
obs          = {res}      215
882 {txt}Group variable: {res}countryidx              {txt}
Number of groups = {res}      16
883
884 {txt}R-sq:  within = {res}0.0949                  {txt}
Obs per group: min = {res}      3
885 {txt}          between = {res}0.0010
                                {txt}avg = {res}      13.4
886 {txt}          overall = {res}0.0903
                                {txt}max = {res}      25
887
888                                {txt}Wald chi2({
res}16{txt})      = {res}      19.66
889 {txt}corr(u_i, X)    = {res}0{txt} (assumed)
Prob > chi2          =      {res}0.2360
890
891 {txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
    13}{hline 12}
892 {col 1}    gini_growth{col 16}{c |}      Coef.{col 28}    Std. Err
    .{col 40}      z{col 48}    P>|z|{col 56}      [95% Con{col 69}f.
    Interval]
893 {hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
    hline 12}
894 {space 7}cap_bin {c |}{col 16}{res}{space 2}-.0892247{col 28}{
    space 2} .0424858{col 39}{space 1}    -2.10{col 48}{space 3}0.036{
    col 56}{space 4}-.1724953{col 69}{space 3}-.0059542

```

```

895 {txt}{space 7}lab_bin {c |}{col 16}{res}{space 2} -.171494{col 28}
    {space 2} .0588523{col 39}{space 1} -2.91{col 48}{space 3}
    0.004{col 56}{space 4}-.2868424{col 69}{space 3}-.0561456
896 {txt}{space 14} {c |}
897 {space 7}mfp_dec {c |}
898 {space 11}--. {c |}{col 16}{res}{space 2} 2.173871{col 28}{space
    2} 1.840506{col 39}{space 1} 1.18{col 48}{space 3}0.238{col 56}
    {space 4}-1.433453{col 69}{space 3} 5.781196
899 {txt}{space 11}L1. {c |}{col 16}{res}{space 2} .6620194{col 28}{
    space 2} 1.084687{col 39}{space 1} 0.61{col 48}{space 3}0.542{
    col 56}{space 4}-1.463928{col 69}{space 3} 2.787966
900 {txt}{space 11}L2. {c |}{col 16}{res}{space 2} .6478612{col 28}{
    space 2} 1.098947{col 39}{space 1} 0.59{col 48}{space 3}0.556{
    col 56}{space 4}-1.506035{col 69}{space 3} 2.801758
901 {txt}{space 11}L3. {c |}{col 16}{res}{space 2}-.1584503{col 28}{
    space 2} 1.072861{col 39}{space 1} -0.15{col 48}{space 3}0.883{
    col 56}{space 4} -2.26122{col 69}{space 3} 1.944319
902 {txt}{space 11}L4. {c |}{col 16}{res}{space 2} 1.547529{col 28}{
    space 2} 1.06497{col 39}{space 1} 1.45{col 48}{space 3}0.146{
    col 56}{space 4}-.5397734{col 69}{space 3} 3.634832
903 {txt}{space 11}L5. {c |}{col 16}{res}{space 2}-1.738642{col 28}{
    space 2} 1.122475{col 39}{space 1} -1.55{col 48}{space 3}0.121{
    col 56}{space 4}-3.938652{col 69}{space 3} .4613685
904 {txt}{space 14} {c |}
905 {space 6}cap_deep {c |}{col 16}{res}{space 2} .0023608{col 28}{
    space 2} .0078691{col 39}{space 1} 0.30{col 48}{space 3}0.764{
    col 56}{space 4}-.0130622{col 69}{space 3} .0177839
906 {txt}{space 9}state {c |}{col 16}{res}{space 2} .0044214{col 28}{
    space 2} .034012{col 39}{space 1} 0.13{col 48}{space 3}0.897{
    col 56}{space 4}-.0622409{col 69}{space 3} .0710837
907 {txt}{space 11}ulc {c |}{col 16}{res}{space 2}-.0127256{col 28}{
    space 2} .0115547{col 39}{space 1} -1.10{col 48}{space 3}0.271{
    col 56}{space 4}-.0353724{col 69}{space 3} .0099212
908 {txt}{space 9}unemp {c |}{col 16}{res}{space 2} .0003639{col 28}{
    space 2} .0049049{col 39}{space 1} 0.07{col 48}{space 3}0.941{
    col 56}{space 4}-.0092495{col 69}{space 3} .0099772
909 {txt}fdi_netout_gdp {c |}{col 16}{res}{space 2} .0063412{col 28}{
    space 2} .0038819{col 39}{space 1} 1.63{col 48}{space 3}0.102{
    col 56}{space 4}-.0012673{col 69}{space 3} .0139497
910 {txt}{space 1}fdi_netin_gdp {c |}{col 16}{res}{space 2}-.0086708{
    col 28}{space 2} .0040238{col 39}{space 1} -2.15{col 48}{space
    3}0.031{col 56}{space 4}-.0165573{col 69}{space 3}-.0007842
911 {txt}{space 7}tax_rev {c |}{col 16}{res}{space 2}-.0014774{col 28}
    {space 2} .0025881{col 39}{space 1} -0.57{col 48}{space 3}
    0.568{col 56}{space 4} -.00655{col 69}{space 3} .0035952
912 {txt}{space 11}cpi {c |}{col 16}{res}{space 2}-.0056485{col 28}{
    space 2} .0134986{col 39}{space 1} -0.42{col 48}{space 3}0.676{
    col 56}{space 4}-.0321053{col 69}{space 3} .0208084
913 {txt}{space 9}_cons {c |}{col 16}{res}{space 2} .1998814{col 28}{
    space 2} .1105449{col 39}{space 1} 1.81{col 48}{space 3}0.071{
    col 56}{space 4}-.0167827{col 69}{space 3} .4165454
914 {txt}{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline

```

```

13}{hline 12}
915      sigma_u {c |} {res}      0
916      {txt}sigma_e {c |} {res} .22393983
917      {txt}rho {c |} {res}      0{txt}      (fraction of
variance due to u_i)
918 {hline 15}{c BT}{hline 64}
919
920 {com}.
921 . hausman lessedu lessedu2
922
923 {txt}{col 18}{hline 4} Coefficients {hline 4}
924 {col 14}{c |}{col 21}(b){col 34}(B){col 49}(b-B){col 59}sqrt(diag
(V_b-V_B))
925 {col 14}{c |}{col 17} lessedu {col 30} lessedu2 {col 46}
Difference{col 66}S.E.
926 {hline 13}{c +}{hline 64}
927      cap_bin {c |} {res}{col 18}-.0939169{col 31}-.0892247{col
47}-.0046921{col 63} .0199376
928      {txt}lab_bin {c |} {res}{col 18}-.1940402{col 31} -.171494{
col 47}-.0225462{col 63} .028556
929      {txt}mfp_dec {c |} {res}{col 18} 2.203464{col 31} 2.173871{
col 47} .0295927{col 63} .8296304
930      {txt}L.mfp_dec {c |} {res}{col 18} .626102{col 31} .6620194{
col 47}-.0359173{col 63} .5033988
931      {txt}L2.mfp_dec {c |} {res}{col 18} .4768081{col 31} .6478612{
col 47} -.171053{col 63} .4689957
932      {txt}L3.mfp_dec {c |} {res}{col 18}-.2390774{col 31}-.1584503{
col 47}-.0806271{col 63} .4603267
933      {txt}L4.mfp_dec {c |} {res}{col 18} 1.566398{col 31} 1.547529{
col 47} .0188683{col 63} .3577744
934      {txt}L5.mfp_dec {c |} {res}{col 18}-1.812175{col 31}-1.738642{
col 47}-.0735334{col 63} .4000569
935      {txt}cap_deep {c |} {res}{col 18} .003394{col 31} .0023608{
col 47} .0010331{col 63} .0057646
936      {txt}state {c |} {res}{col 18} .0032537{col 31} .0044214{
col 47}-.0011677{col 63} .0196296
937      {txt}ulc {c |} {res}{col 18}-.0147967{col 31}-.0127256{
col 47}-.0020711{col 63} .0067859
938      {txt}unemp {c |} {res}{col 18}-.0001125{col 31} .0003639{
col 47}-.0004763{col 63} .0067331
939      {txt}fdi_netout~p {c |} {res}{col 18} .0065798{col 31} .0063412{
col 47} .0002386{col 63} .0020969
940      {txt}fdi_netin~p {c |} {res}{col 18}-.0077795{col 31}-.0086708{
col 47} .0008913{col 63} .0017611
941      {txt}tax_rev {c |} {res}{col 18} .002571{col 31}-.0014774{
col 47} .0040484{col 63} .014983
942      {txt}cpi {c |} {res}{col 18} -.009471{col 31}-.0056485{
col 47}-.0038225{col 63} .007334
943 {txt}{hline 13}{c BT}{hline 64}
944 {ralign 78:b = consistent under Ho and Ha; obtained from xtreg}
945 {ralign 78:B = inconsistent under Ha, efficient under Ho;
obtained from xtreg}

```

```

946
947     Test: Ho: difference in coefficients not systematic
948
949 {ralign 25:chi2({res:16})} = (b-B)'[(V_b-V_B)^(-1)](b-B)
950 {col 27}= {res}          1.71
951 {txt}{col 17}Prob>chi2 = {res}      1.0000
952 {txt}
953 {com}.
954 {txt}end of do-file
955
956 {com}. do
957 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
958 {txt}
959 {com}.
960
961 . eststo robustreggini: xtregar gini_growth cap_bin lab_bin
962 mfp_dec ( cap_deep state ulc unemp edu fdi_netout_gdp
963 fdi_netin_gdp tax_rev cpi )
964
965 {txt}RE GLS regression with AR(1) disturbances{col 49}Number of
966 obs{col 68}={col 70}{res}      266
967 {txt}Group variable: {res}countryidx{txt}{col 49}Number of groups
968 {col 68}={col 70}{res}      17
969
970 {txt}R-sq: within = {res}0.0618{col 49}{txt}Obs per group: min{
971 col 68}={col 70}{res}      1
972 {txt}      between = {res}0.5619{col 64}{txt}avg{col 68}={col 70
973 }{res}      15.6
974 {txt}      overall = {res}0.0485{col 64}{txt}max{col 68}={col 70
975 }{res}      22
976
977 {txt}{col 49}Wald chi2({res}13{txt}){col 68}={col 70}{res}
978 14.74
979 {txt}corr(u_i, Xb){col 20}= {res}0{txt} (assumed){col 49}Prob >
980 chi2{col 68}={col 73}{res}0.3242
981
982 {txt}{hline 19} theta {hline 20}
983 min      5%      median      95%      max
984 {res}0.0000  0.0000  0.0000  0.0000  0.0000
985
986 {txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
987 13}{hline 12}
988 {col 1} gini_growth{col 16}{c |}      Coef.{col 28} Std. Err
989 .{col 40}      z{col 48} P>|z|{col 56}      [95% Con{col 69}f.
990 Interval]
991 {hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
992 hline 12}
993 {space 7}cap_bin {c |}{col 16}{res}{space 2}-.0665702{col 28}{
994 space 2} .0407874{col 39}{space 1} -1.63{col 48}{space 3}0.103{
995 col 56}{space 4}-.1465121{col 69}{space 3} .0133716
996 {txt}{space 7}lab_bin {c |}{col 16}{res}{space 2}-.1258449{col 28
997 }{space 2} .0499488{col 39}{space 1} -2.52{col 48}{space 3}
998 0.012{col 56}{space 4}-.2237427{col 69}{space 3}-.0279471

```



```

980 {txt}{space 7}mfp_dec {c |}{col 16}{res}{space 2} 2.276776{col 28}
    {space 2} 1.626116{col 39}{space 1} 1.40{col 48}{space 3}
    0.161{col 56}{space 4}-.9103532{col 69}{space 3} 5.463905
981 {txt}{space 6}cap_deep {c |}{col 16}{res}{space 2}-.0000416{col
    28}{space 2} .0069027{col 39}{space 1} -0.01{col 48}{space 3}
    0.995{col 56}{space 4}-.0135706{col 69}{space 3} .0134873
982 {txt}{space 9}state {c |}{col 16}{res}{space 2} .0364935{col 28}{
    space 2} .0323282{col 39}{space 1} 1.13{col 48}{space 3}0.259{
    col 56}{space 4}-.0268687{col 69}{space 3} .0998556
983 {txt}{space 11}ulc {c |}{col 16}{res}{space 2}-.0037488{col 28}{
    space 2} .0100424{col 39}{space 1} -0.37{col 48}{space 3}0.709{
    col 56}{space 4}-.0234316{col 69}{space 3} .0159339
984 {txt}{space 9}unemp {c |}{col 16}{res}{space 2} .0000993{col 28}{
    space 2} .0050398{col 39}{space 1} 0.02{col 48}{space 3}0.984{
    col 56}{space 4}-.0097785{col 69}{space 3} .0099772
985 {txt}{space 11}edu {c |}{col 16}{res}{space 2}-.0007176{col 28}{
    space 2} .0016173{col 39}{space 1} -0.44{col 48}{space 3}0.657{
    col 56}{space 4}-.0038874{col 69}{space 3} .0024522
986 {txt}fdi_netout_gdp {c |}{col 16}{res}{space 2} .002713{col 28}{
    space 2} .003297{col 39}{space 1} 0.82{col 48}{space 3}0.411{
    col 56}{space 4} -.003749{col 69}{space 3} .009175
987 {txt}{space 1}fdi_netin_gdp {c |}{col 16}{res}{space 2}-.0062064{
    col 28}{space 2} .0034035{col 39}{space 1} -1.82{col 48}{space
    3}0.068{col 56}{space 4}-.0128771{col 69}{space 3} .0004644
988 {txt}{space 7}tax_rev {c |}{col 16}{res}{space 2} .0007302{col 28}
    {space 2} .002731{col 39}{space 1} 0.27{col 48}{space 3}
    0.789{col 56}{space 4}-.0046226{col 69}{space 3} .0060829
989 {txt}{space 11}cpi {c |}{col 16}{res}{space 2}-.0067586{col 28}{
    space 2} .0126953{col 39}{space 1} -0.53{col 48}{space 3}0.594{
    col 56}{space 4}-.0316409{col 69}{space 3} .0181238
990 {txt}{space 9}_cons {c |}{col 16}{res}{space 2} .1369274{col 28}{
    space 2} .1172734{col 39}{space 1} 1.17{col 48}{space 3}0.243{
    col 56}{space 4}-.0929243{col 69}{space 3} .366779
991 {txt}{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
    13}{hline 12}
992 rho_ar {c |} {res}-.16774007{txt} (estimated
autocorrelation coefficient)
993 sigma_u {c |} {res} 0
994 {txt}sigma_e {c |} {res} .22511072
995 {txt}rho_fov {c |} {res} 0{txt} (fraction of
variance due to u_i)
996 {hline 15}{c BT}{hline 64}
997
998 {com}. esttab robustreggini using robustginibusr2eg.tex, compress
999 {txt}(output written to {browse `"robustginibusr2eg.tex"})
1000
1001 {com}.
1002 {txt}end of do-file
1003
1004 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1005 {txt}

```

```

1006 {com}. xtregar gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.
mfp_dec L3.mfp_dec L4.mfp_dec L5.mfp_dec ( cap_deep state ulc
unemp fdi_netout_gdp fdi_netin_gdp tax_rev cpi ),fe
1007
1008 {txt}FE (within) regression with AR(1) disturbances{col 49}Number
of obs{col 68}={col 70}{res} 199
1009 {txt}Group variable: {res}countryidx{txt}{col 49}Number of groups
{col 68}={col 70}{res} 16
1010
1011 {txt}R-sq: within = {res}0.1096{col 49}{txt}Obs per group: min{
col 68}={col 70}{res} 2
1012 {txt} between = {res}0.0168{col 64}{txt}avg{col 68}={col 70
}{res} 12.4
1013 {txt} overall = {res}0.0941{col 64}{txt}max{col 68}={col 70
}{res} 24
1014
1015 {txt}{col 49}F({res}16{txt},{res}167{txt}){col 68}={col 70}{res}
1.28
1016 {txt}corr(u_i, Xb){col 16}= {res}-0.2418{txt}{col 49}Prob > F{col
68}={col 73}{res}0.2120
1017
1018 {txt}{hline 15}{c TT}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
1019 {col 1} gini_growth{col 16}{c |} Coef.{col 28} Std. Err
.{col 40} t{col 48} P>|t|{col 56} [95% Con{col 69}f.
Interval]
1020 {hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline 13}{
hline 12}
1021 {space 7}cap_bin {c |}{col 16}{res}{space 2}-.0814623{col 28}{
space 2} .0541638{col 39}{space 1} -1.50{col 48}{space 3}0.134{
col 56}{space 4}-.1883962{col 69}{space 3} .0254717
1022 {txt}{space 7}lab_bin {c |}{col 16}{res}{space 2}-.2399328{col 28
}{space 2} .0722861{col 39}{space 1} -3.32{col 48}{space 3}
0.001{col 56}{space 4}-.3826453{col 69}{space 3}-.0972204
1023 {txt}{space 14} {c |}
1024 {space 7}mfp_dec {c |}
1025 {space 11}--. {c |}{col 16}{res}{space 2} 3.134135{col 28}{space
2} 2.258839{col 39}{space 1} 1.39{col 48}{space 3}0.167{col 56
}{space 4}-1.325424{col 69}{space 3} 7.593695
1026 {txt}{space 11}L1. {c |}{col 16}{res}{space 2} .2771792{col 28}{
space 2} 1.382273{col 39}{space 1} 0.20{col 48}{space 3}0.841{
col 56}{space 4}-2.451802{col 69}{space 3} 3.00616
1027 {txt}{space 11}L2. {c |}{col 16}{res}{space 2} .3785118{col 28}{
space 2} 1.337642{col 39}{space 1} 0.28{col 48}{space 3}0.778{
col 56}{space 4}-2.262357{col 69}{space 3} 3.01938
1028 {txt}{space 11}L3. {c |}{col 16}{res}{space 2} .5282381{col 28}{
space 2} 1.354523{col 39}{space 1} 0.39{col 48}{space 3}0.697{
col 56}{space 4}-2.145957{col 69}{space 3} 3.202434
1029 {txt}{space 11}L4. {c |}{col 16}{res}{space 2} 1.449728{col 28}{
space 2} 1.277341{col 39}{space 1} 1.13{col 48}{space 3}0.258{
col 56}{space 4}-1.072089{col 69}{space 3} 3.971545
1030 {txt}{space 11}L5. {c |}{col 16}{res}{space 2}-1.816595{col 28}{

```

```

space 2} 1.401602{col 39}{space 1} -1.30{col 48}{space 3}0.197{
col 56}{space 4}-4.583738{col 69}{space 3} .950548
1031 {txt}{space 14} {c |}
1032 {space 6}cap_deep {c |}{col 16}{res}{space 2}-.0022163{col 28}{
space 2} .0113002{col 39}{space 1} -0.20{col 48}{space 3}0.845{
col 56}{space 4}-.0245259{col 69}{space 3} .0200932
1033 {txt}{space 9}state {c |}{col 16}{res}{space 2} .0126172{col 28}{
space 2} .0486325{col 39}{space 1} 0.26{col 48}{space 3}0.796{
col 56}{space 4}-.0833966{col 69}{space 3} .108631
1034 {txt}{space 11}ulc {c |}{col 16}{res}{space 2}-.0089658{col 28}{
space 2} .0151145{col 39}{space 1} -0.59{col 48}{space 3}0.554{
col 56}{space 4}-.038806{col 69}{space 3} .0208744
1035 {txt}{space 9}unemp {c |}{col 16}{res}{space 2}-.0011743{col 28}{
space 2} .011711{col 39}{space 1} -0.10{col 48}{space 3}0.920{
col 56}{space 4}-.0242949{col 69}{space 3} .0219464
1036 {txt}fdi_netout_gdp {c |}{col 16}{res}{space 2} .0038042{col 28}{
space 2} .0054632{col 39}{space 1} 0.70{col 48}{space 3}0.487{
col 56}{space 4}-.0069817{col 69}{space 3} .01459
1037 {txt}{space 1}fdi_netin_gdp {c |}{col 16}{res}{space 2}-.0077423{
col 28}{space 2} .0051841{col 39}{space 1} -1.49{col 48}{space
3}0.137{col 56}{space 4}-.0179771{col 69}{space 3} .0024925
1038 {txt}{space 7}tax_rev {c |}{col 16}{res}{space 2}-.0003971{col 28
}{space 2} .0172778{col 39}{space 1} -0.02{col 48}{space 3}
0.982{col 56}{space 4}-.0345081{col 69}{space 3} .0337138
1039 {txt}{space 11}cpi {c |}{col 16}{res}{space 2} .0157241{col 28}{
space 2} .0190231{col 39}{space 1} 0.83{col 48}{space 3}0.410{
col 56}{space 4}-.0218327{col 69}{space 3} .0532808
1040 {txt}{space 9}_cons {c |}{col 16}{res}{space 2} .1271586{col 28}{
space 2} .2901756{col 39}{space 1} 0.44{col 48}{space 3}0.662{
col 56}{space 4}-.4457265{col 69}{space 3} .7000438
1041 {txt}{hline 15}{c +}{hline 11}{hline 11}{hline 9}{hline 8}{hline
13}{hline 12}
1042 rho_ar {c |} {res}-.27039636
1043 {txt}sigma_u {c |} {res} .0415754
1044 {txt}sigma_e {c |} {res} .24896859
1045 {txt}rho_fov {c |} {res} .02712932{txt} (fraction of
variance because of u_i)
1046 {hline 15}{c BT}{hline 64}
1047 F test that all u_i=0: F({res}15{txt},{res}167{txt}) = {res}
0.15{col 62}{txt}Prob > F = {res}0.9999
1048 {txt}
1049 {com}.
1050 {txt}end of do-file
1051
1052 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1053 {txt}
1054 {com}. predict resid, u
1055 {txt}(877 missing values generated)
1056 (884 missing values generated)
1057 (897 missing values generated)
1058

```

```

1059 {com}.
```

1060 . predict fitted, xb

1061 {txt}(877 missing values generated)

1062

```

1063 {com}.
```

1064 . twoway(scatter resid fitted)

```

1065 {res}{txt}
1066 {com}.
```

1067 {txt}end of do-file

1068

```

1069 {com}. graph save Graph "/Users/rorymcstay/Google Drive/College
2016:17/Econometrics/World income inequality database/hetero.gph"
1070 {res}{txt}(file /Users/rorymcstay/Google Drive/College 2016:17/
Econometrics/World income inequality database/hetero.gph saved)
1071
```

```

1072 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1073 {txt}
1074 {com}. by countryidx: esttab sum gini using ginisum2.tex,replace
1075 {err}esttab may not be combined with by
1076 {txt}{search r(190):r(190);}
1077
```

1078 end of do-file

1079

```

1080 {search r(190):r(190);}
1081
```

```

1082 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1083 {txt}
1084 {com}. xtserial gini_growth cap_bin lab_bin ( cap_deep state ulc
unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
1085
```

1086 {txt}Wooldridge test for autocorrelation in panel data

1087 H0: no first-order autocorrelation

```

1088 {col 5}F( 1, 15) = {res} 0.545
1089 {txt}{col 12}Prob > F = {res} 0.4717
1090 {txt}
1091 {com}.
```

1092 {txt}end of do-file

1093

```

1094 {com}. do
"/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1095 {txt}
1096 {com}. estpost xtsum gdp_cap_growth cap_prod_dec lab_prod
mfp_dec cap_deep state ulc unemp edu fdi_netout_gdp fdi_netin_gdp
tax_rev cpi
1097 {err}unrecognized command: estpost
1098 {txt}{search r(199):r(199);}
1099
```

1100 end of do-file

1101

```

1102 {search r(199):r(199);}

```

```

1103 {com}. do
1104 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1105 {txt}
1106 {com}. xtsum gdp_cap_growth cap_prod_dec lab_prod mfp_dec
1107 cap_deep state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev
1108 cpi
1109 {err}variable cap_prod_dec not found
1110 {txt}{search r(111):r(111);}
1111
1112 end of do-file
1113
1114 {search r(111):r(111);}
1115
1116 {com}. do
1117 "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1118 {txt}
1119 {com}. xtsum gdp_cap_growth cap_prod lab_prod mfp_dec cap_deep
1120 state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi
1121
1122 {txt}Variable          {c |}      Mean   Std. Dev.      Min
1123           Max {c |}      Observations
1124 {hline 17}{c +}{hline 44}{c +}{hline 16}
1125 gdp_ca..{col 10}overall {c |} {res}  .028961    .0325446  -
1126 .1472438    .135657{txt} {c |}{col 69}N =    993
1127 {col 10}between {c |}{col 31}{res}  .010828    .0143292  .0564933
1128 {txt} {c |}{col 69}n =    32
1129 {col 10}within {c |}{col 31}{res}  .0310574  -.1603645  .1184289
1130 {txt} {c |} T-bar = 31.0313
1131 {col 18}{c |}{col 63}{c |}
1132 cap_prod{col 10}overall {c |} {res}-1.393564    2.076398  -
1133 10.44335    5.016712{txt} {c |}{col 69}N =    439
1134 {col 10}between {c |}{col 31}{res}  .5760276  -2.610758  -.5140447
1135 {txt} {c |}{col 69}n =    17
1136 {col 10}within {c |}{col 31}{res}  1.999866  -11.08819    5.17242
1137 {txt} {c |} T-bar = 25.8235
1138 {col 18}{c |}{col 63}{c |}
1139 lab_prod{col 10}overall {c |} {res}  .0153961    .0181158  -
1140 .0476758    .1009266{txt} {c |}{col 69}N =    356
1141 {col 10}between {c |}{col 31}{res}  .0058893    .006996    .0289085
1142 {txt} {c |}{col 69}n =    18
1143 {col 10}within {c |}{col 31}{res}  .0173997  -.0535485  .0957254
1144 {txt} {c |} T-bar = 19.7778
1145 {col 18}{c |}{col 63}{c |}
1146 mfp_dec{col 10}overall {c |} {res}  .0062538    .0151583  -.0622622
1147 .0501387{txt} {c |}{col 69}N =    374
1148 {col 10}between {c |}{col 31}{res}  .0043556  -.001103    .0146402
1149 {txt} {c |}{col 69}n =    18
1150 {col 10}within {c |}{col 31}{res}  .0145403  -.0706486  .0491446
1151 {txt} {c |} T-bar = 20.7778
1152 {col 18}{c |}{col 63}{c |}
1153 cap_deep{col 10}overall {c |} {res}  3.143297    2.533179  -

```

	1.587701	16.28363	{txt} {c }{col 69}N =	438		
1137	{col 10}between {c }{col 31}{res}	1.295034	2.080903	7.666449		
	{txt} {c }{col 69}n =	17				
1138	{col 10}within {c }{col 31}{res}	2.139823	-5.541866	13.8454		
	{txt} {c } T-bar =	25.7647				
1139	{col 18}{c }{col 63}{c }					
1140	state{col 10}overall {c } {res}	.529304	.4993692	0		
	1{txt} {c }{col 69}N =	1092				
1141	{col 10}between {c }{col 31}{res}	.1134801	.2941176	.7954545		
	{txt} {c }{col 69}n =	32				
1142	{col 10}within {c }{col 31}{res}	.4874665	-.2661505	1.235186		
	{txt} {c } T-bar =	34.125				
1143	{col 18}{c }{col 63}{c }					
1144	ulc{col 10}overall {c } {res}	1.826569	2.435156	-9.387389		
	17.05011{txt} {c }{col 69}N =	374				
1145	{col 10}between {c }{col 31}{res}	.9258378	-1.205141	2.906807		
	{txt} {c }{col 69}n =	18				
1146	{col 10}within {c }{col 31}{res}	2.323237	-9.066532	15.96987		
	{txt} {c } T-bar =	20.7778				
1147	{col 18}{c }{col 63}{c }					
1148	unemp{col 10}overall {c } {res}	7.909056	4.138549	.6		
	27.3{txt} {c }{col 69}N =	773				
1149	{col 10}between {c }{col 31}{res}	3.146135	3.290476	17.16429		
	{txt} {c }{col 69}n =	32				
1150	{col 10}within {c }{col 31}{res}	2.794396	-1.05523	23.23949		
	{txt} {c } T-bar =	24.1563				
1151	{col 18}{c }{col 63}{c }					
1152	edu{col 10}overall {c } {res}	31.68568	11.04414	6.575119		
	58.3685{txt} {c }{col 69}N =	521				
1153	{col 10}between {c }{col 31}{res}	9.558862	14.76815	55.79276		
	{txt} {c }{col 69}n =	32				
1154	{col 10}within {c }{col 31}{res}	6.965997	12.56282	48.15324		
	{txt} {c } T-bar =	16.2813				
1155	{col 18}{c }{col 63}{c }					
1156	fd~t_gdp{col 10}overall {c } {res}	3.836387	10.59825	-		
	37.44513 160.4055{txt} {c }{col 69}N =	894				
1157	{col 10}between {c }{col 31}{res}	8.554448	.2326889	47.38236		
	{txt} {c }{col 69}n =	32				
1158	{col 10}within {c }{col 31}{res}	8.518564	-41.5811	116.8595		
	{txt} {c } T-bar =	27.9375				
1159	{col 18}{c }{col 63}{c }					
1160	fd~n_gdp{col 10}overall {c } {res}	3.957504	11.54204	-		
	58.97767 255.4233{txt} {c }{col 69}N =	885				
1161	{col 10}between {c }{col 31}{res}	7.743535	.079075	42.9616		
	{txt} {c }{col 69}n =	32				
1162	{col 10}within {c }{col 31}{res}	10.01163	-97.98177	216.4192		
	{txt} {c } T-bar =	27.6563				
1163	{col 18}{c }{col 63}{c }					
1164	tax_rev{col 10}overall {c } {res}	20.05878	6.92577	.2041615		
	45.62823{txt} {c }{col 69}N =	816				
1165	{col 10}between {c }{col 31}{res}	6.716361	1.06829	31.06058		
	{txt} {c }{col 69}n =	32				

```

1166 {col 10}within {c |}{col 31}{res} 2.928378    9.266614    35.95337
      {txt} {c |} T-bar =    25.5
1167 {col 18}{c |}{col 63}{c |}
1168 cpi{col 10}overall {c |} {res} 11.37139    61.70529   -4.478103
      1281.444{txt} {c |}{col 69}N =    1027
1169 {col 10}between {c |}{col 31}{res} 19.72901    1.368586    87.33796
      {txt} {c |}{col 69}n =    32
1170 {col 10}within {c |}{col 31}{res} 58.88917   -76.49212    1205.477
      {txt} {c |} T-bar = 32.0938
1171
1172 {com}. est store sumry using xtsum.tex
1173 {err}using not allowed
1174 {txt}{search r(101):r(101);}
1175
1176 end of do-file
1177
1178 {search r(101):r(101);}
1179
1180 {com}. do
      "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD00753.000000"
1181 {txt}
1182 {com}. kdensity r4, normal
1183 {err}variable r4 not found
1184 {txt}{search r(111):r(111);}
1185
1186 end of do-file
1187
1188 {search r(111):r(111);}
1189
1190 {com}. log close
1191     {txt}name: {res}<unnamed>
1192     {txt}log: {res}/Users/rorymcstay/Desktop/finalog.smcl
1193     {txt}log type: {res}smcl
1194     {txt}closed on: {res} 7 Apr 2017, 01:38:31
1195 {txt}{.-}
1196 {smcl}
1197 {txt}{sf}{ul off}

```

```

    name: <unnamed>
    log: /Users/rorymcstay/Desktop/final2.smcl
    log type: smcl
    opened on: 7 Apr 2017, 12:50:56

1 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

2 . generate cap_bin = cap_prod > 0 if cap_prod < .
   (577 missing values generated)

3 . generate lab_bin = lab_prod > 0 if lab_prod < .
   (660 missing values generated)

4 .
   end of do-file

5 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

6 . mfp_dec=mfp/100
   unrecognized command: mfp_dec
   r(199);

   end of do-file

   r(199);

7 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

8 . gen mfp_dec=mfp/100
   (642 missing values generated)

9 .
   end of do-file

10 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

11 . xtreg gdp_cap_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L
    > state ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable gdp_cap_growth not found
    r(111);

    end of do-file

    r(111);

12 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

13 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable state not found
    r(111);

    end of do-file

    r(111);

14 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

```



```

15 . gen state =gdp_hp>0 if gdp_hp<.
    gdp_hp not found
    r(111).;

    end of do-file

    r(111).;

16 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

17 . import delimited "/Users/rorymcstay/Google Drive/College 2016:17/Econometrics/W
    > /data5.csv"
    no; data in memory would be lost
    r(4).;

    end of do-file

    r(4).;

18 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

19 . clear

20 .
    end of do-file

21 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

22 . import delimited "/Users/rorymcstay/Google Drive/College 2016:17/Econometrics/W
    > /data5.csv"
    (154 vars, 1092 obs)
23 . cd "/Users/rorymcstay/Google Drive/College 2016:17/Econometrics/World income in
    /Users/rorymcstay/Google Drive/College 2016:17/Econometrics/World income inequali
24 .
    end of do-file

25 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

26 . gen state =gdp_hp>0 if gdp_hp<.
    state already defined
    r(110).;

    end of do-file

    r(110).;

27 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

28 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable cap_bin not found
    r(111).;

    end of do-file

    r(111).;

```

```

29 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

30 .
31 . generate cap_bin = cap_prod > 0 if cap_prod < .
    (653 missing values generated)

32 . generate lab_bin = lab_prod > 0 if lab_prod < .
    (736 missing values generated)

33 .
    end of do-file

34 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

35 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    variable mfp_dec not found
    r(111).;

    end of do-file

    r(111).;

36 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

37 . gen mfp_dec=mfp/100
    (718 missing values generated)

38 .
    end of do-file

39 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

40 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )
    time variable not set
    r(111).;

    end of do-file

    r(111).;

41 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

42 . xtset countryidx time
    panel variable: countryidx (unbalanced)
    time variable: time, 1960 to 2015, but with gaps
    delta: 1 unit

43 .
    end of do-file

44 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

45 . xtreg gini_growth cap_bin lab_bin mfp_dec L1.mfp_dec L2.mfp_dec L3.mfp_dec L4.m
    > ate ulc unemp edu fdi_netout_gdp fdi_netin_gdp tax_rev cpi )

```

Random-effects GLS regression
Group variable: **countryidx**

Number of obs = 201
Number of groups = 16

R-sq: within = 0.0940
between = 0.0640
overall = 0.0937

Obs per group: min = 3
avg = 12.6
max = 22

corr(u_i, X) = 0 (assumed)

Wald chi2(17) = 18.91
Prob > chi2 = 0.3338

gini_growth	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cap_bin	-.0952015	.043031	-2.21	0.027	-.1795408	-.0108623
lab_bin	-.1511078	.058239	-2.59	0.009	-.2652541	-.0369616
mfp_dec						
--.	1.917224	1.885839	1.02	0.309	-1.778952	5.6134
L1.	.5515444	1.095688	0.50	0.615	-1.595965	2.699054
L2.	.7644363	1.137644	0.67	0.502	-1.465305	2.994177
L3.	-.298307	1.101377	-0.27	0.787	-2.456967	1.860353
L4.	1.477615	1.072826	1.38	0.168	-.6250858	3.580315
L5.	-1.597046	1.119622	-1.43	0.154	-3.791465	.5973718
cap_deep	.0047602	.0078443	0.61	0.544	-.0106143	.0201348
state	.009996	.0342509	0.29	0.770	-.0571347	.0771266
ulc	-.0128096	.0120826	-1.06	0.289	-.036491	.0108719
unemp	.0011151	.0050716	0.22	0.826	-.0088251	.0110554
edu	-.0010417	.0016506	-0.63	0.528	-.0042769	.0021935
fdi_netout_gdp	.005291	.003817	1.39	0.166	-.0021902	.0127723
fdi_netin_gdp	-.0080833	.0039491	-2.05	0.041	-.0158235	-.0003431
tax_rev	-.0001763	.0025879	-0.07	0.946	-.0052485	.0048959
cpi	-.0033436	.0134871	-0.25	0.804	-.0297778	.0230906
_cons	.1869087	.1290248	1.45	0.147	-.0659752	.4397926
sigma_u	0					
sigma_e	.21774708					
rho	0	(fraction of variance due to u_i)				

46 .

end of do-file

47 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

48 . vif, uncentered

Variable	VIF	1/VIF
edu	12.77	0.078281
lab_bin	9.82	0.101846
fdi_netout~p	9.55	0.104672
tax_rev	9.16	0.109196
fdi_netin~p	9.15	0.109288
unemp	6.21	0.161077
ulc	5.08	0.196690
mfp_dec	4.16	0.240144
cpi	4.05	0.247098

cap_deep	3.27	0.305510
state	2.26	0.442217
cap_bin	1.77	0.563982
mfp_dec		
L2.	1.54	0.651017
L3.	1.52	0.658890
L5.	1.50	0.667984
L1.	1.48	0.676026
L4.	1.46	0.686835
<hr/>		
Mean VIF	4.99	

```

49 .
    end of do-file

50 . do "/var/folders/mf/7p4rjjq53zg5_3bdqznb9p2h0000gn/T//SD24893.000000"

51 . xtserial gini_growth cap_bin lab_bin ( cap_deep state ulc unemp edu fdi_netout.
    > )

    Wooldridge test for autocorrelation in panel data
    H0: no first-order autocorrelation
        F( 1, 15) = 0.545
        Prob > F = 0.4717

52 .
    end of do-file

```