

From Democracy to Growth



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What it takes to grow

I. Saving and investment

Physical capital

II. Education, health care

Human capital

III. Exports and imports

Foreign capital

IV. Democracy and freedom

Social capital

V. Stability

Financial capital

VI. Diversification away from

Natural capital

Undisputed

Controversial

What it takes to diversify

I. Saving and investment

Physical capital (Infrastructure, tourism, etc.)

II. Education, health care

Human capital (India, Ireland)

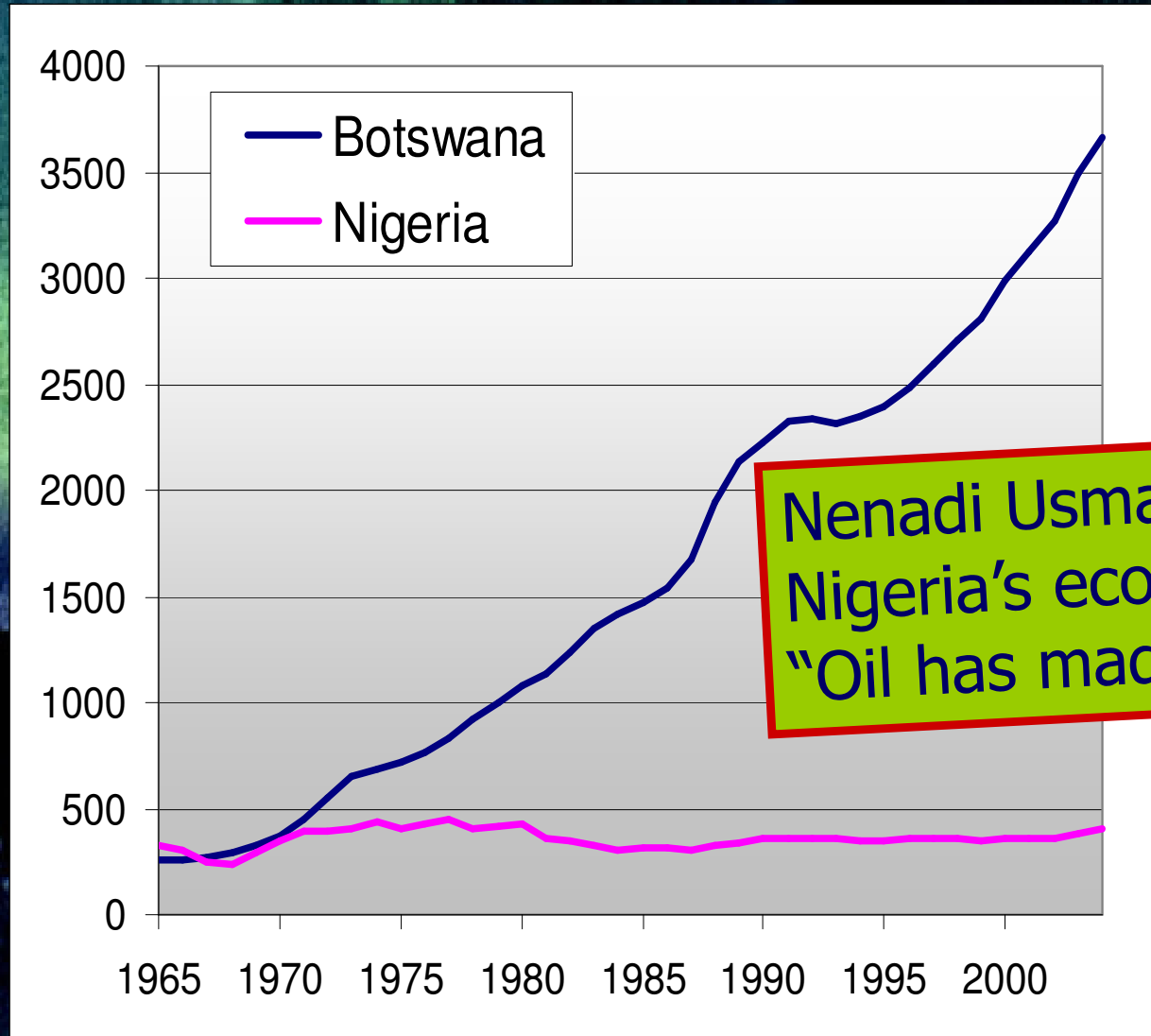
III. Exports and imports

Foreign capital (Botswana, China, Estonia, Ireland, Korea)

IV. Democracy and freedom

Social capital (Botswana)

Botswana and Nigeria: GDP per capita 1965-2004 (2000 USD)



Botswana
7.1%

Nenadi Usman,
Nigeria's economy minister:
"Oil has made us lazy"

Nigeria
0.6%

Natural resources: A mixed blessing

Listen to **King Faisal** of Saudi Arabia (1964-1975):

“In one generation we went from riding camels to riding Cadillacs. The way we are wasting money, I fear the next generation will be riding camels again.”



Natural resources: A mixed blessing

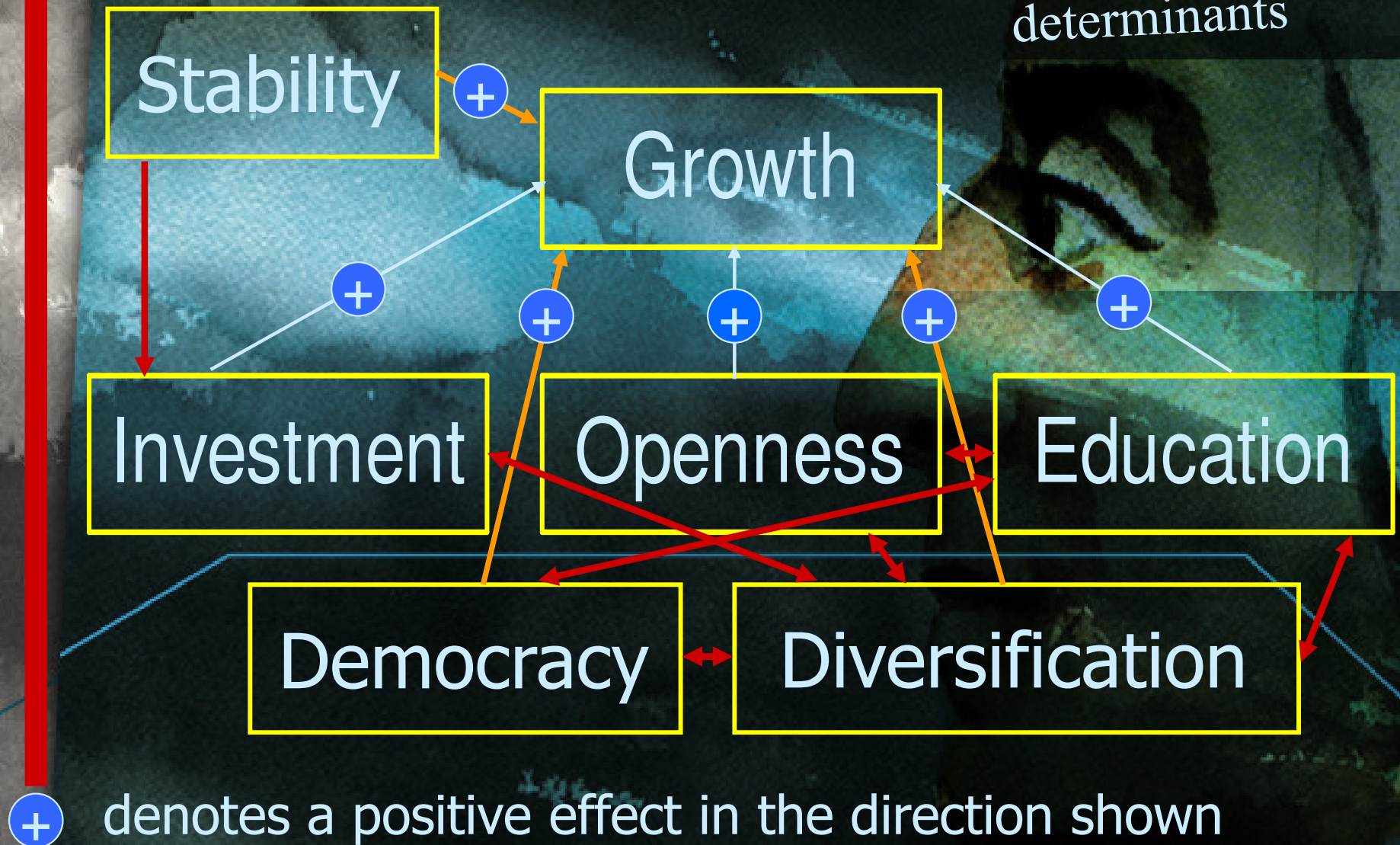
Lee Kwan Yew, founding father of Singapore (1959-1991), would not have been surprised either:

“I thought then that wealth depended mainly on the possession of territory and **natural resources**, whether fertile land ..., or valuable minerals, or oil and gas. It was only after I had been in office for some years that I recognized ... that the decisive factors were the **people**, their natural abilities, **education** and training.”



Six determinants of economic growth

Several other linkages among determinants



Empirical question

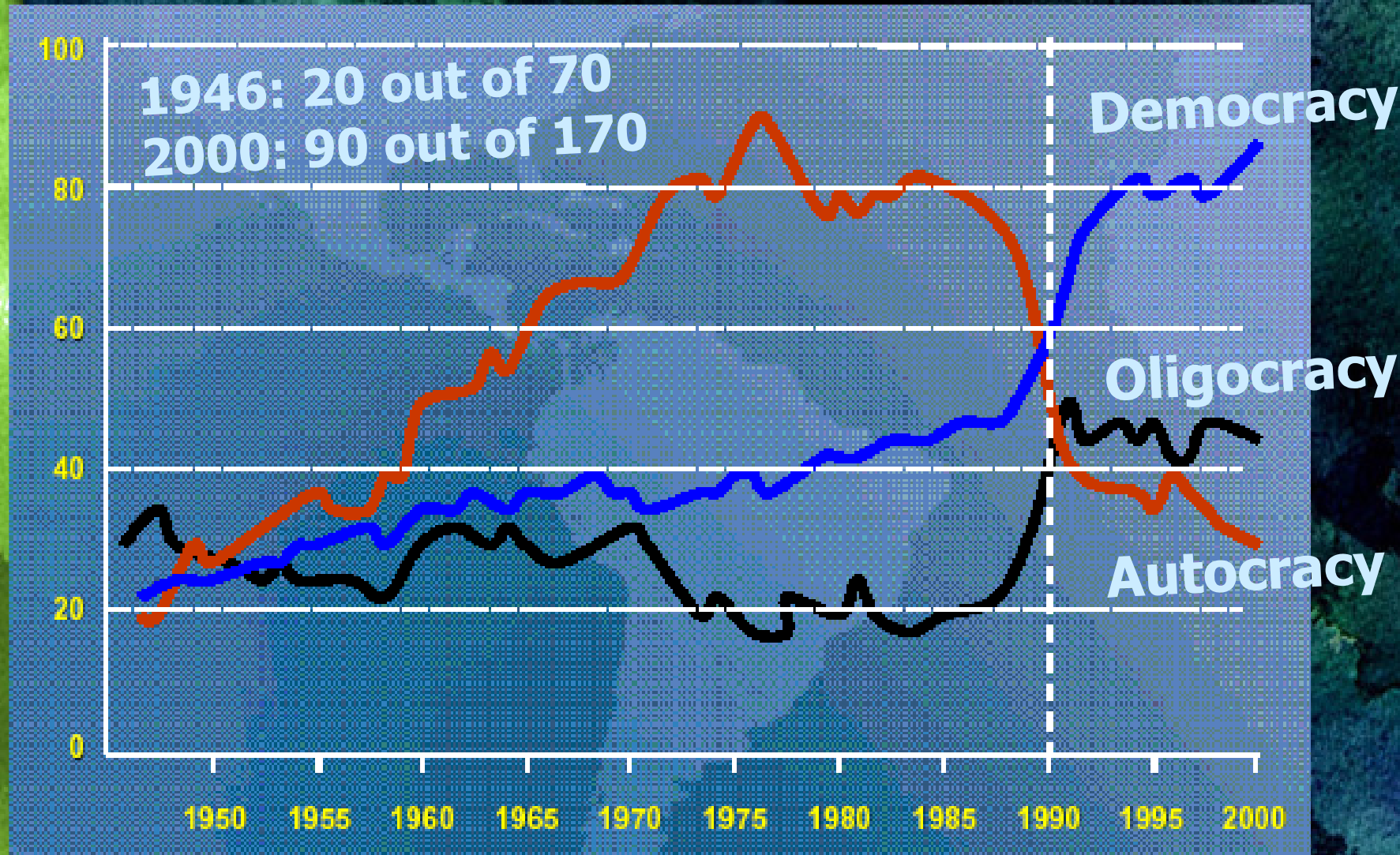
Two hypotheses

Democracy makes it easier to replace bad governments by better ones and for ideas to compete, thus fostering **efficiency** and **diversification**, which is **good for growth**

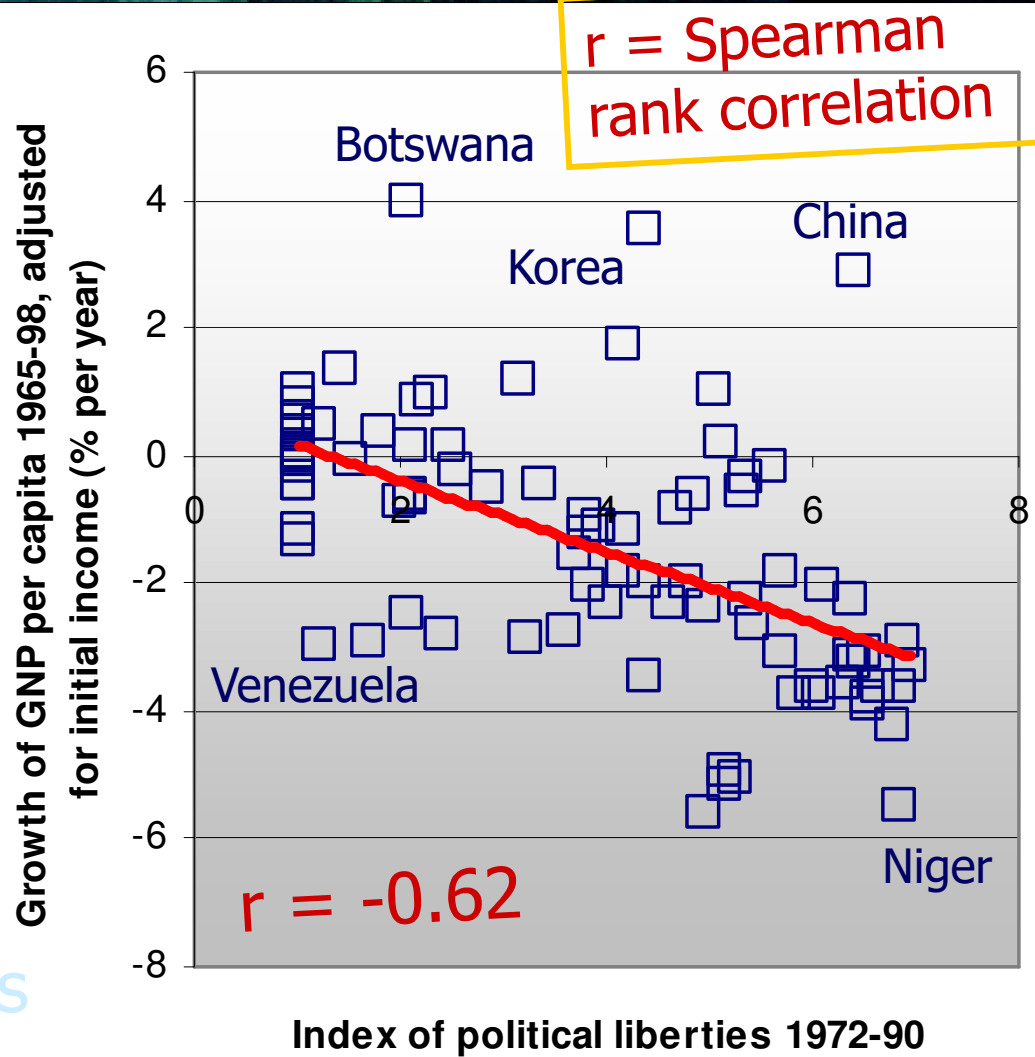
Democracy plays into the hands of **pressure groups** that abuse their power by swaying public policies and institutions in their favor, which is **bad for growth**

Democracy 1946-2000

Number of countries



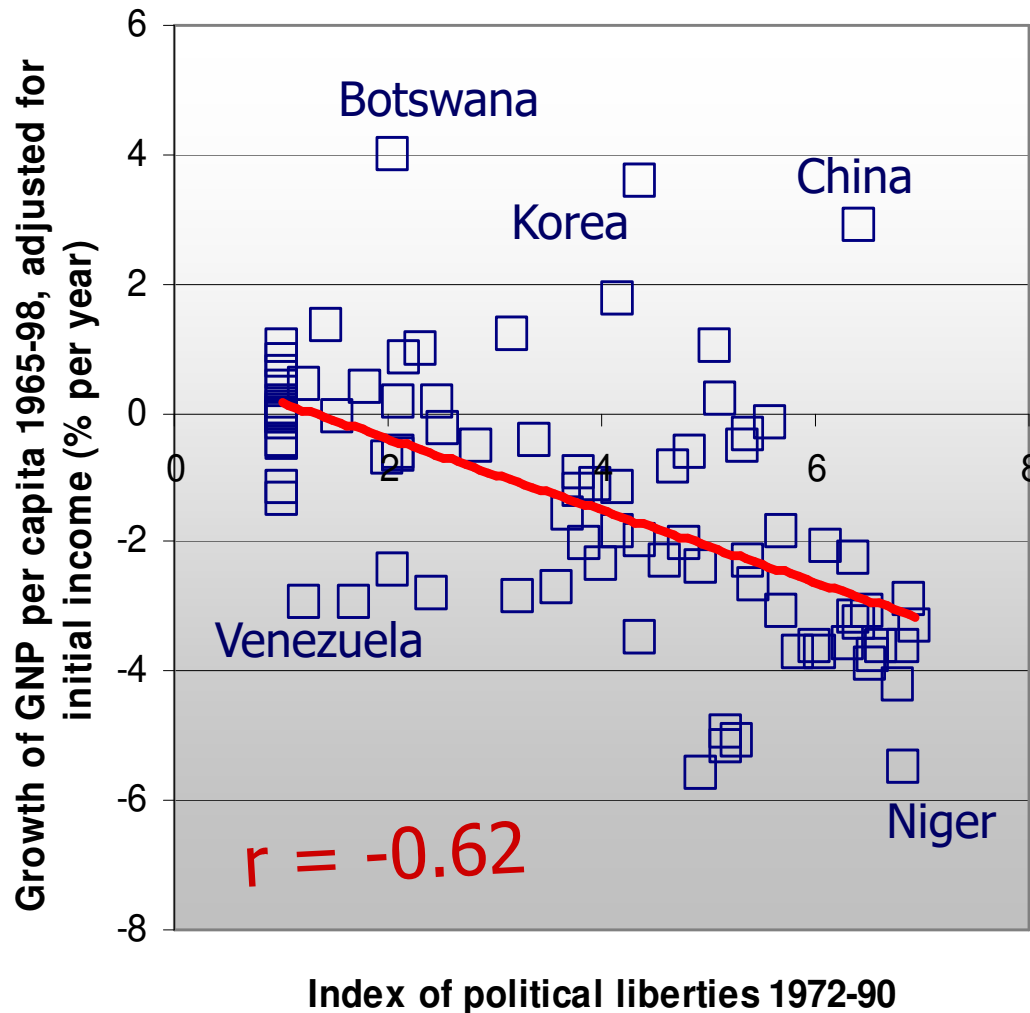
Growth and political liberties, 1965-98



Democracy is good for growth:
No visible sign that democracy stands in the way of economic growth

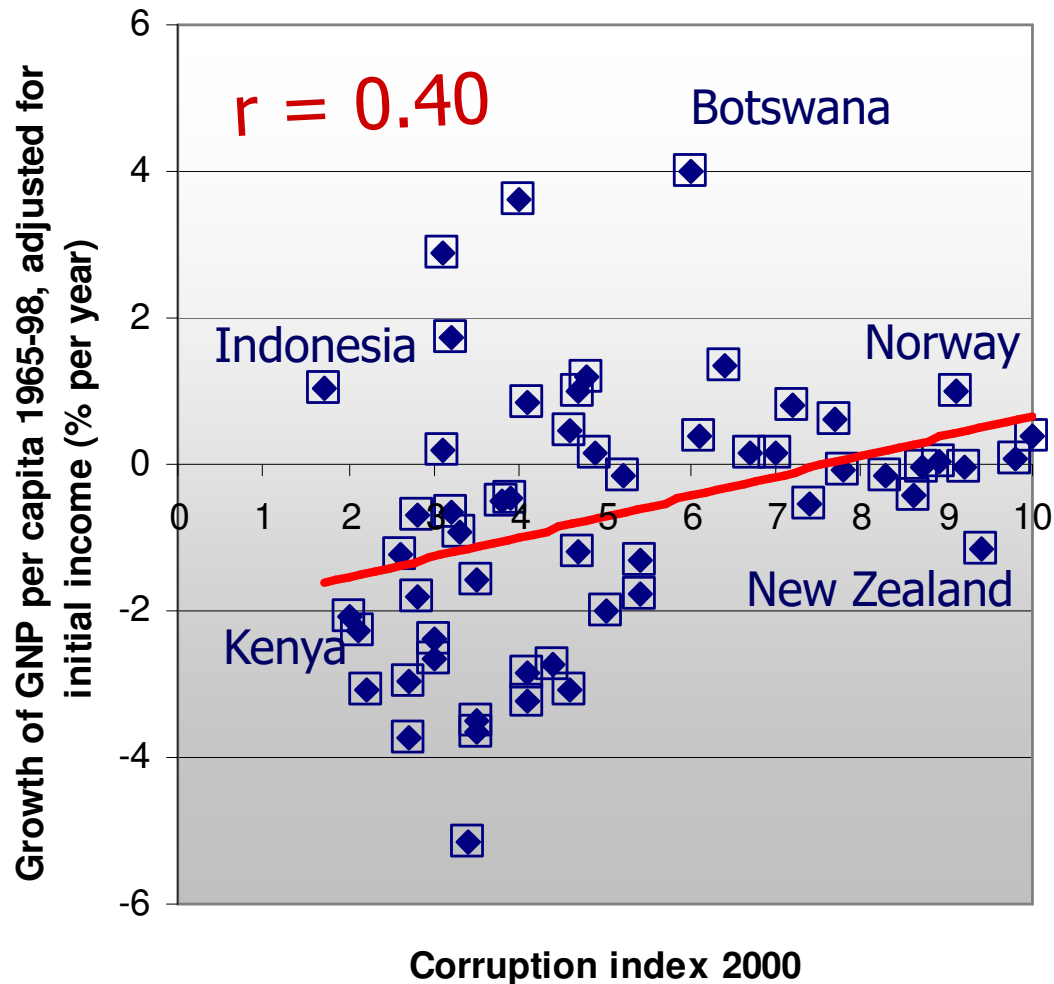
85 countries

Growth and **political liberties**, 1965-98



Political liberty is good for growth because **oppression breeds inefficiency**, as does corruption

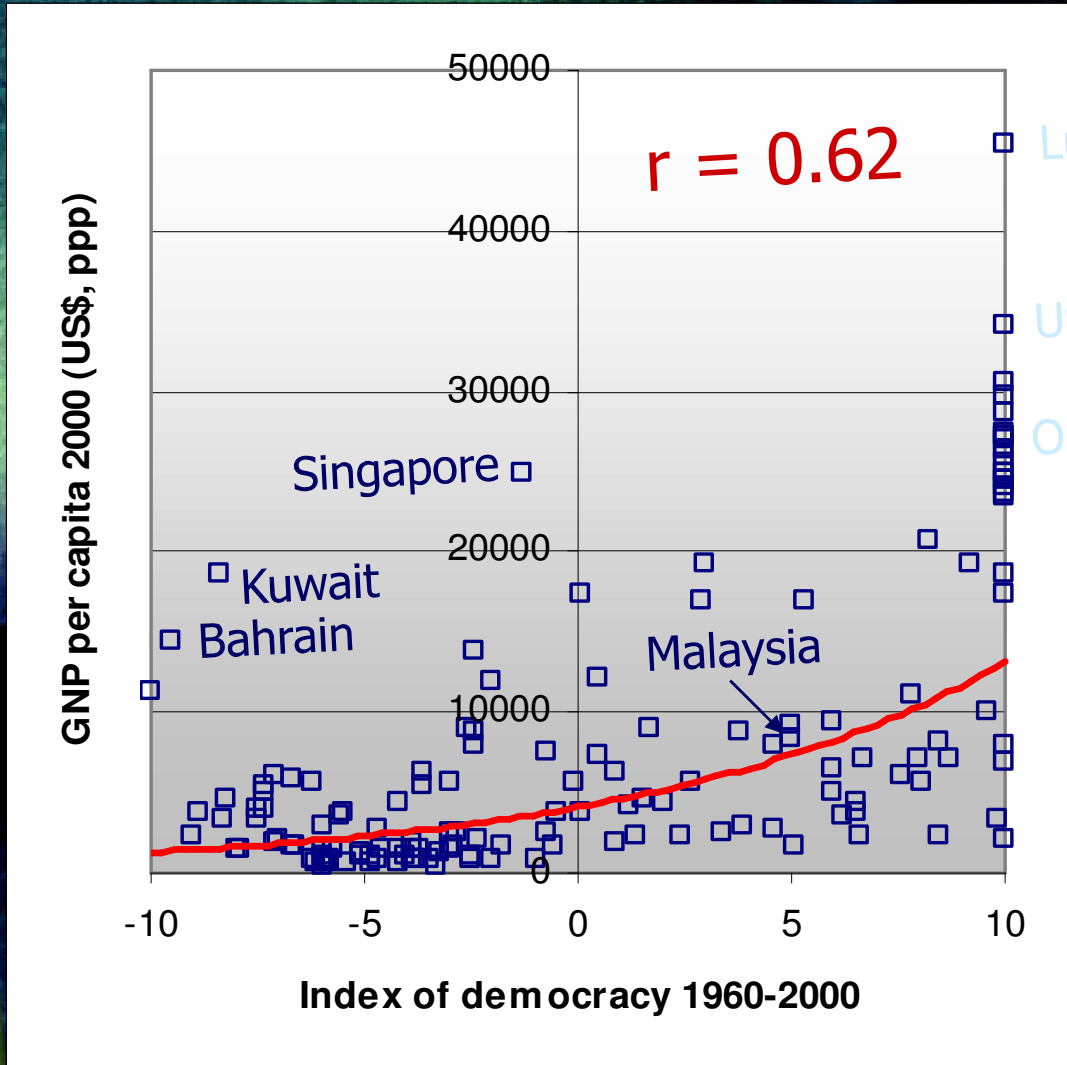
Growth and corruption, 1965-98



Honesty is good for growth because corruption creates inefficiency

Income per head and democracy

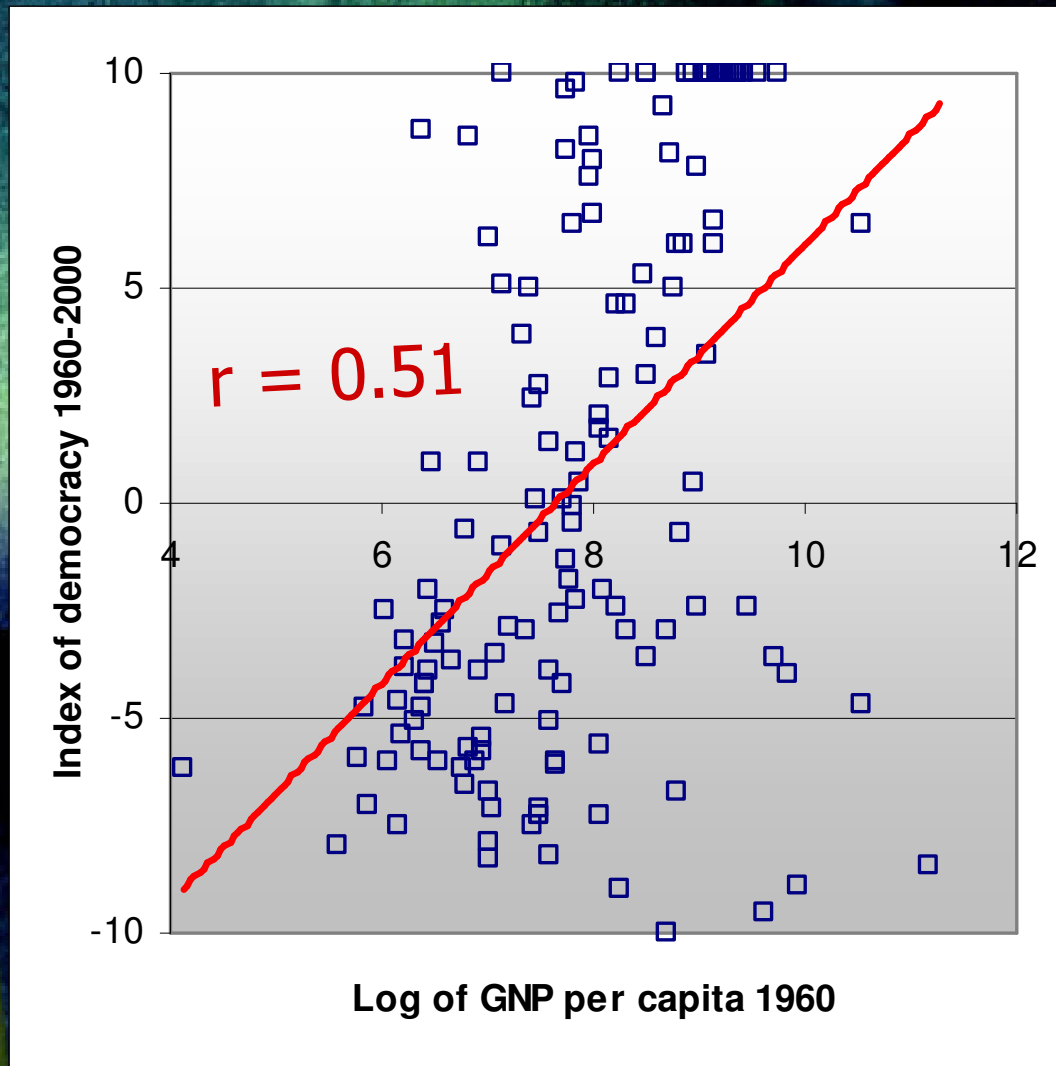
Singapore is an outlier



Lipset's Law:
Income per capita increases with democracy

144 countries

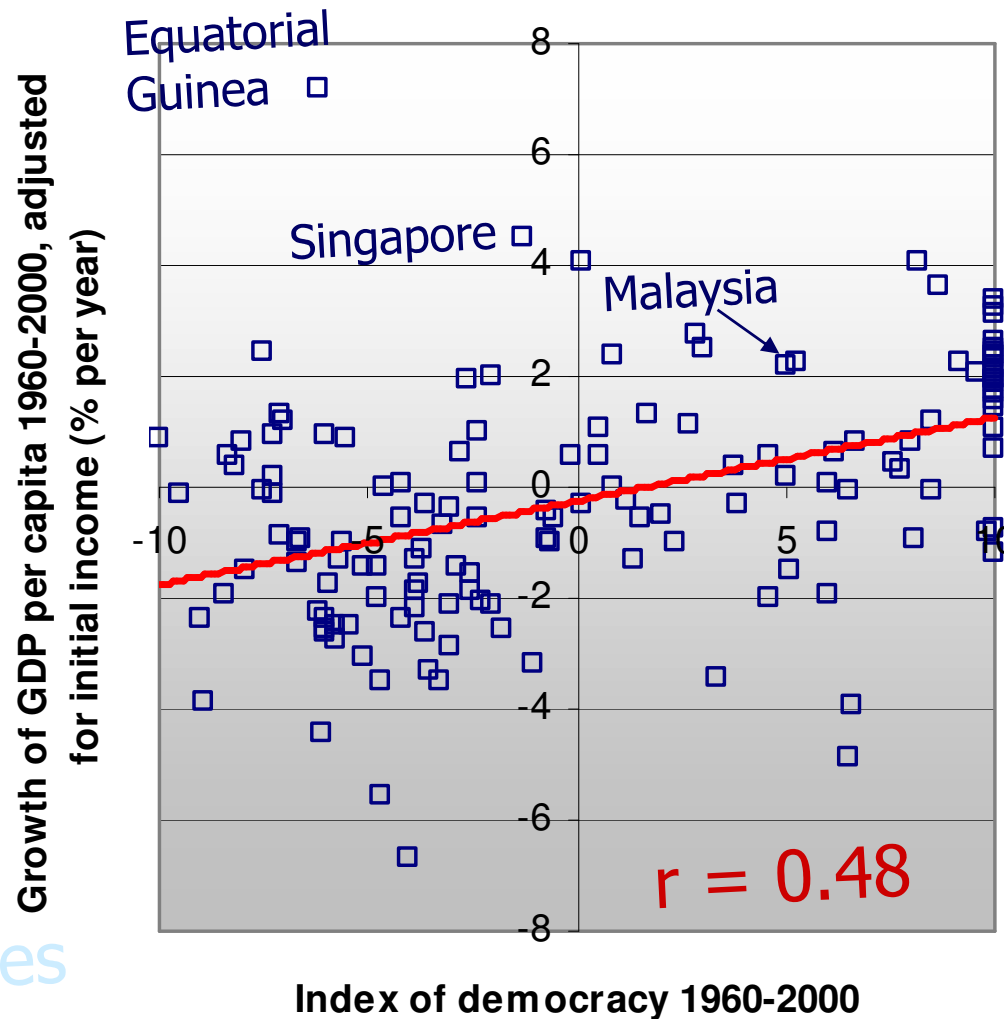
Democracy and **initial income** per head



Lipset in reverse:
Democracy
increases with
initial income
per capita

144 countries

Growth and **democracy**, 1960-2000

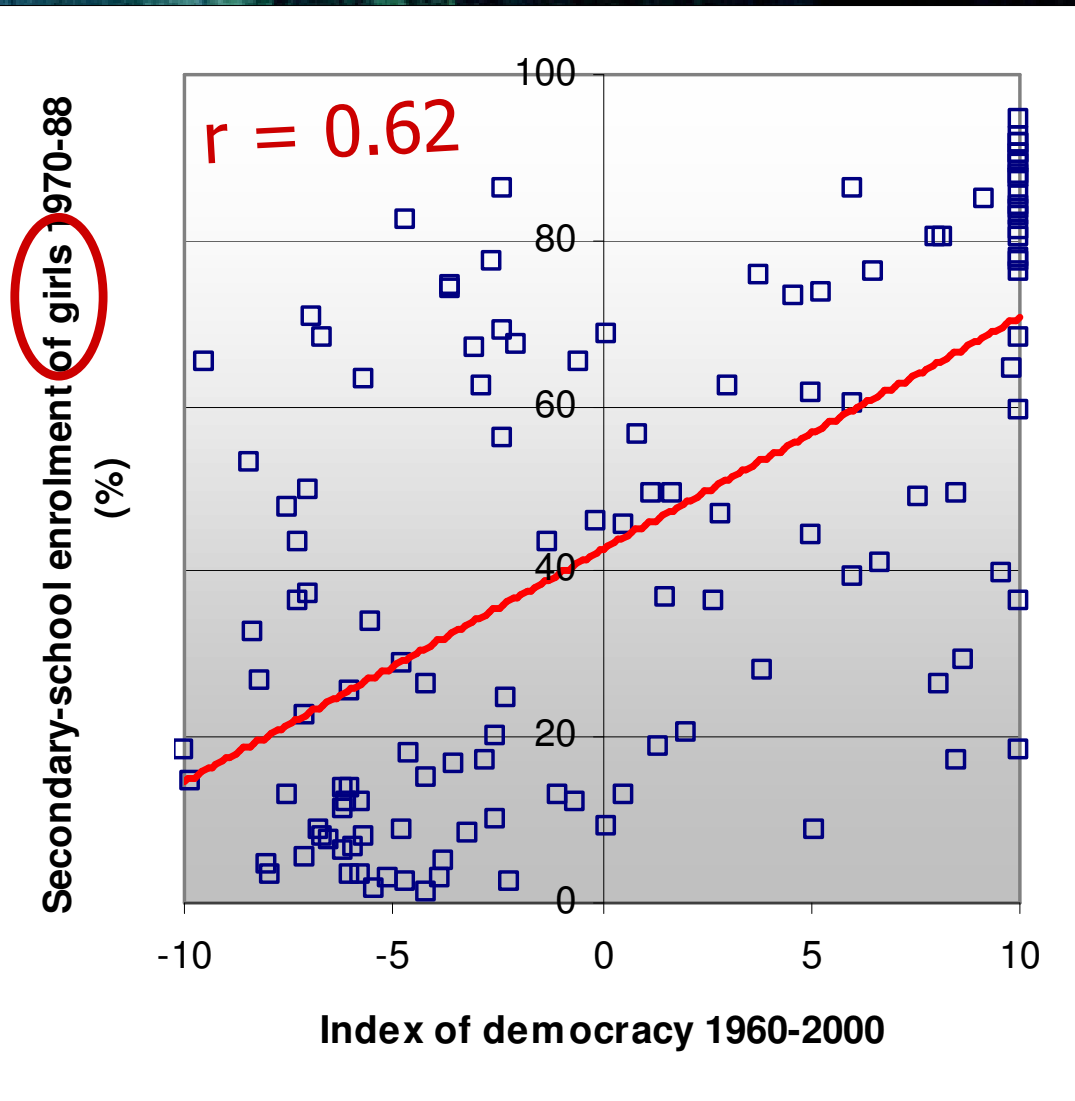


Larger sample

Democracy
and growth
seem to go
together

144 countries

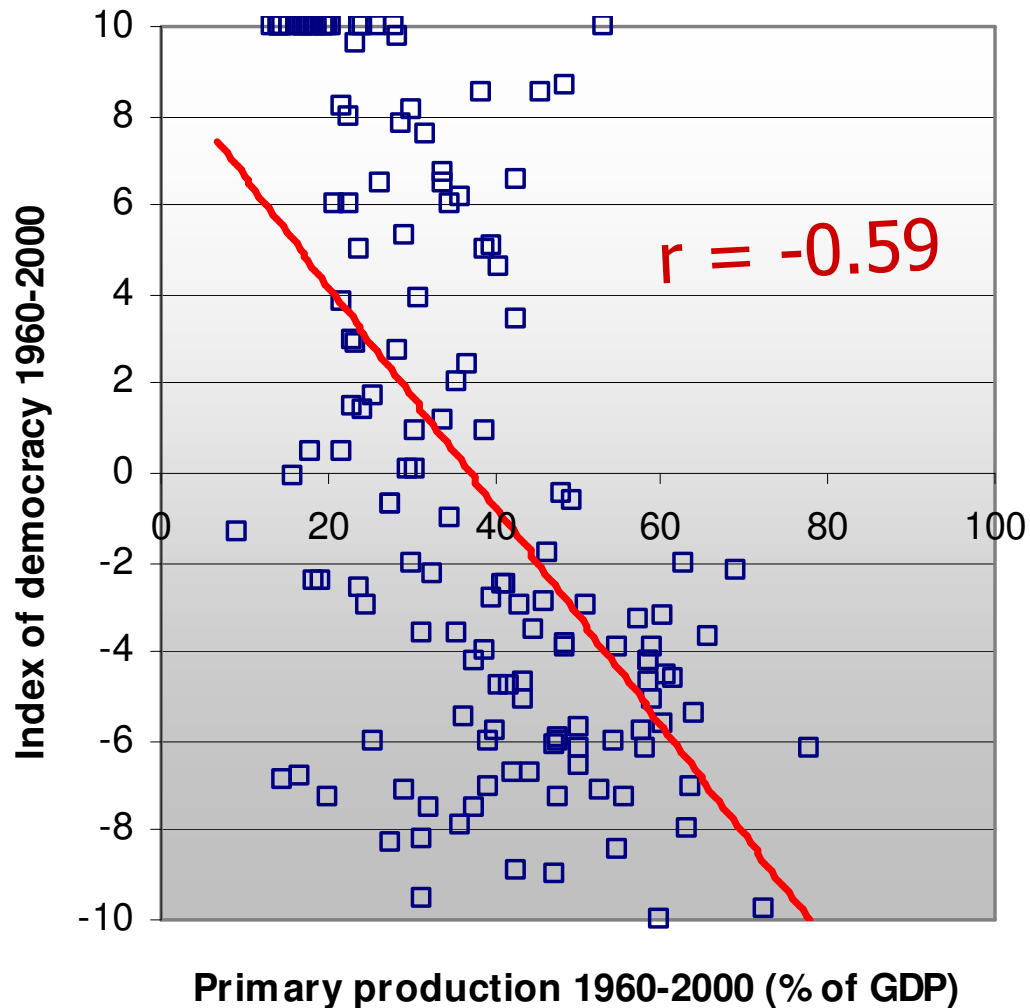
Education and democracy, 1960-2000



Democracy
and
education
also go hand
in hand

126 countries

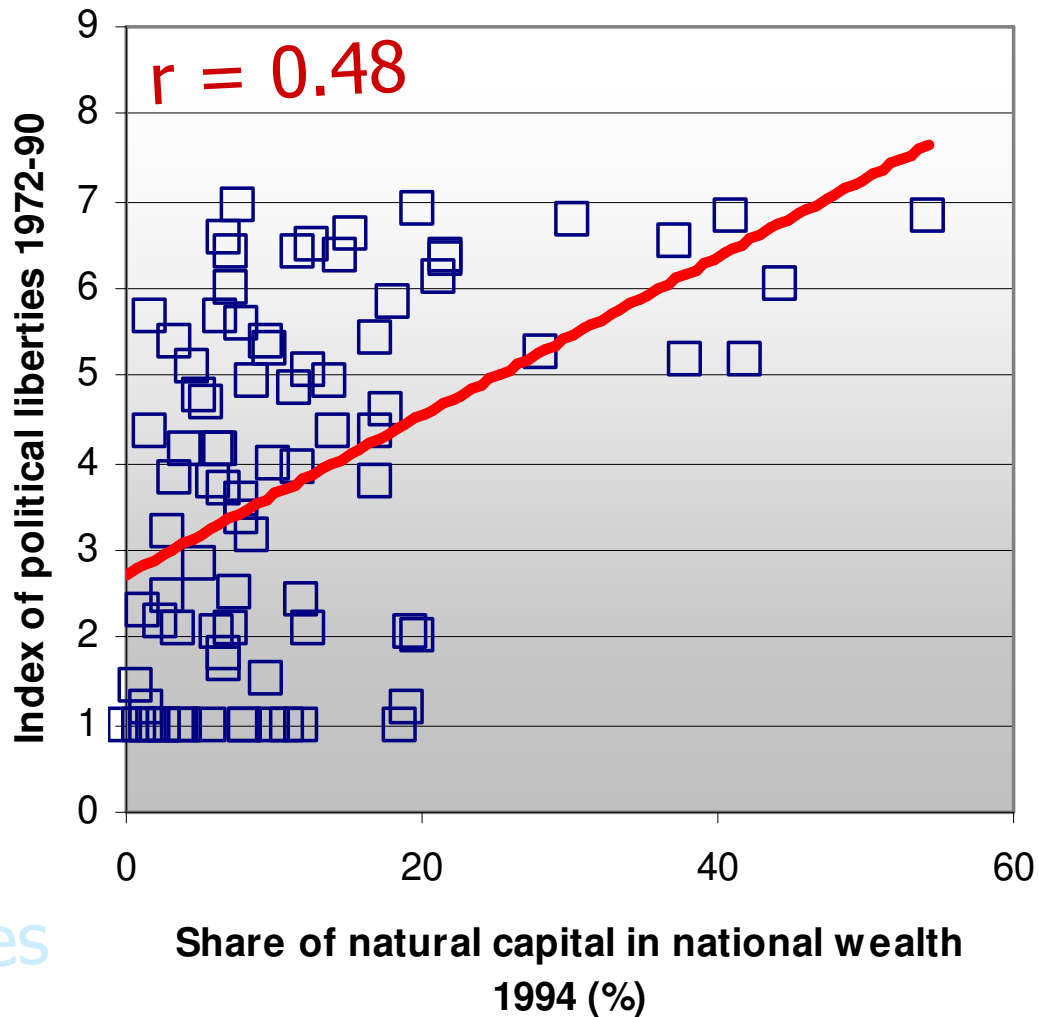
Primary production and democracy, 1960-2000



Democracy
varies
inversely
with
primary
production

146 countries

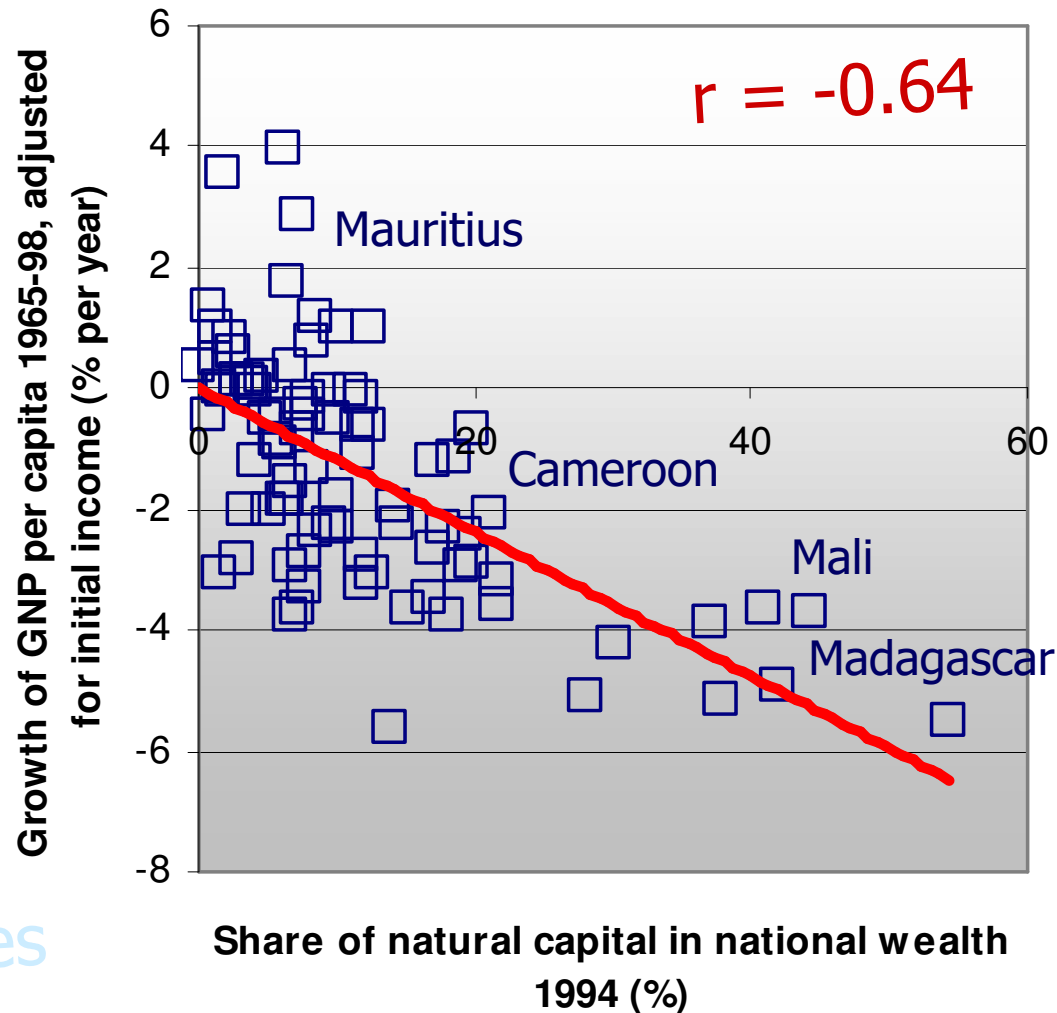
Political liberties and natural resources



85 countries

Back to smaller sample, same story: Natural capital tends to crowd out social capital

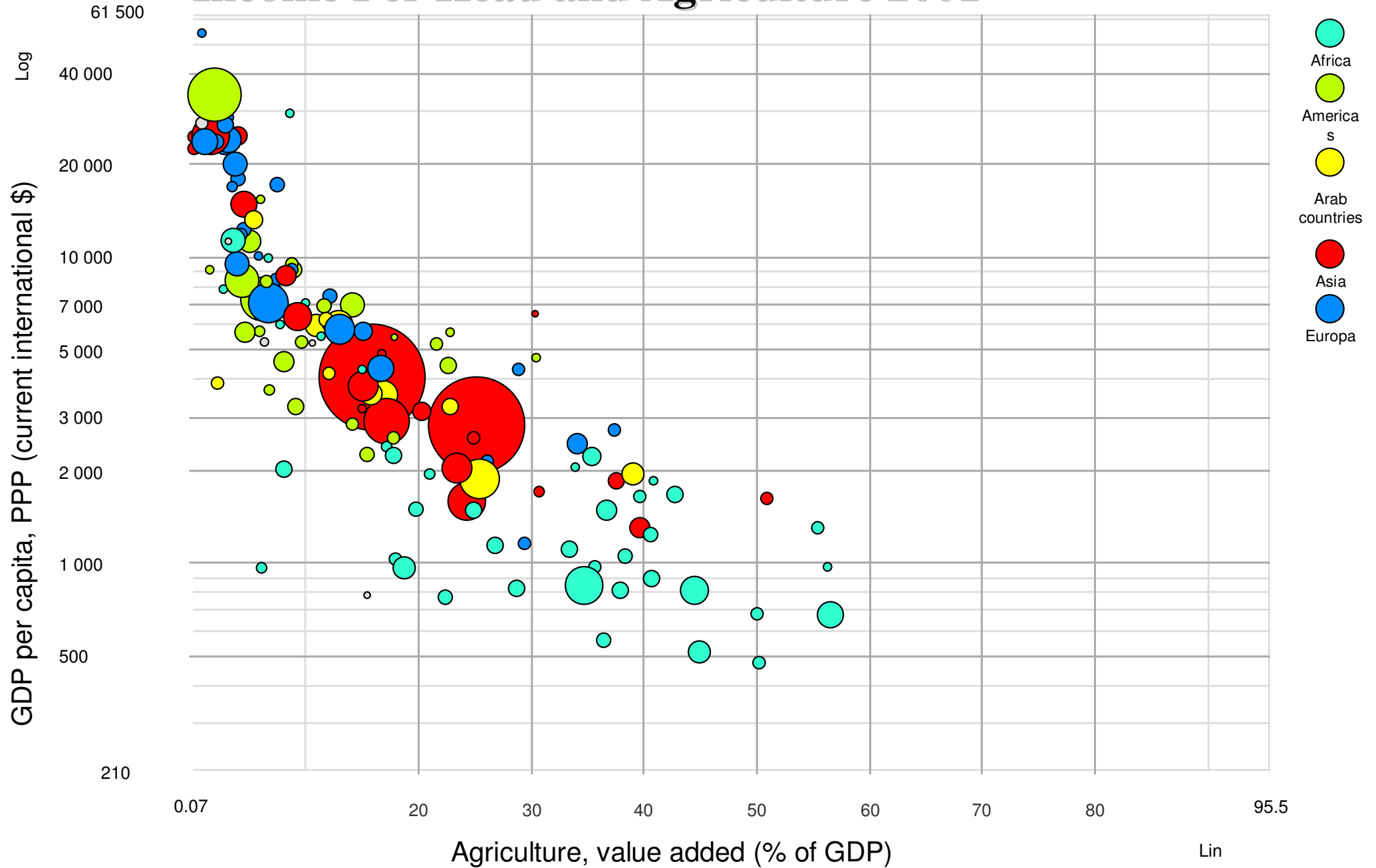
Growth and **natural resources**, 1965-98



Natural resource dependence tends to hurt growth through rent seeking and by creating a false sense of security

85 countries

Income Per Head and Agriculture 2001



Regression results on growth and democracy

	Model 1					
Political liberties	0.34 (3.44)					
Initial income						
Natural capital						
Investment						
Secondary education						
Fertility						
Adj. R ²	0.11					

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Regression results on growth and democracy

	Model 1	Model 2				
Political liberties	0.34 (3.44)	0.77 (6.01)				
Initial income		-1.14 (4.64)				
Natural capital						
Investment						
Secondary education						
Fertility						
Adj. R ²	0.11	0.29				

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Regression results on growth and democracy

	Model 1	Model 2	Model 3			
Political liberties	0.34 (3.44)	0.77 (6.01)	0.59 (5.32)			
Initial income		-1.14 (4.64)	-1.31 (6.33)			
Natural capital			-0.10 (6.17)			
Investment						
Secondary education						
Fertility						
Adj. R ²	0.11	0.29	0.51			

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Regression results on growth and democracy

	Model 1	Model 2	Model 3	Model 4		
Political liberties	0.34 (3.44)	0.77 (6.01)	0.59 (5.32)	0.49 (4.76)		
Initial income		-1.14 (4.64)	-1.31 (6.33)	-1.15 (6.10)		
Natural capital			-0.10 (6.17)	-0.07 (4.93)		
Investment				0.12 (4.62)		
Secondary education						
Fertility						
Adj. R ²	0.11	0.29	0.51	0.61		

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Regression results on growth and democracy

	Model 1	Model 2	Model 3	Model 4	Model 5	
Political liberties	0.34 (3.44)	0.77 (6.01)	0.59 (5.32)	0.49 (4.76)	0.36 (3.90)	
Initial income		-1.14 (4.64)	-1.31 (6.33)	-1.15 (6.10)	-1.85 (8.65)	
Natural capital			-0.10 (6.17)	-0.07 (4.93)	-0.65 (4.45)	
Investment				0.12 (4.62)	0.07 (3.05)	
Secondary education					0.04 (5.12)	
Fertility						
Adj. R ²	0.11	0.29	0.51	0.61	0.70	

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Regression results on growth and democracy

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Political liberties	0.34 (3.44)	0.77 (6.01)	0.59 (5.32)	0.49 (4.76)	0.36 (3.90)	0.19 (2.40)
Initial income		-1.14 (4.64)	-1.31 (6.33)	-1.15 (6.10)	-1.85 (8.65)	-2.03 (11.61)
Natural capital			-0.10 (6.17)	-0.07 (4.93)	-0.65 (4.45)	-0.04 (3.35)
Investment				0.12 (4.62)	0.07 (3.05)	0.06 (2.87)
Secondary education					0.04 (5.12)	0.01 (1.21)
Fertility						-0.94 (6.58)
Adj. R ²	0.11	0.29	0.51	0.61	0.70	0.81

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Regression results on growth and democracy

Repeat for bigger sample, switch to EViews

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Political liberties	0.34 (3.44)	0.77 (6.01)	0.59 (5.32)	0.49 (4.76)	0.36 (3.90)	0.19 (2.40)
Initial income		-1.14 (4.64)	-1.31 (6.33)	-1.15 (6.10)	-1.85 (8.65)	-2.03 (11.61)
Natural capital			-0.10 (6.17)	-0.07 (4.93)	-0.65 (4.45)	-0.04 (3.35)
Investment				0.12 (4.62)	0.07 (3.05)	0.06 (2.87)
Secondary education					0.04 (5.12)	0.01 (1.21)
Fertility						-0.94 (6.58)
Adj. R ²	0.11	0.29	0.51	0.61	0.70	0.81

Note: t-values are shown within parentheses. 85 observations. No outliers were excluded. Method of estimation is Ordinary Least Squares.

Sir Arthur Lewis got it right

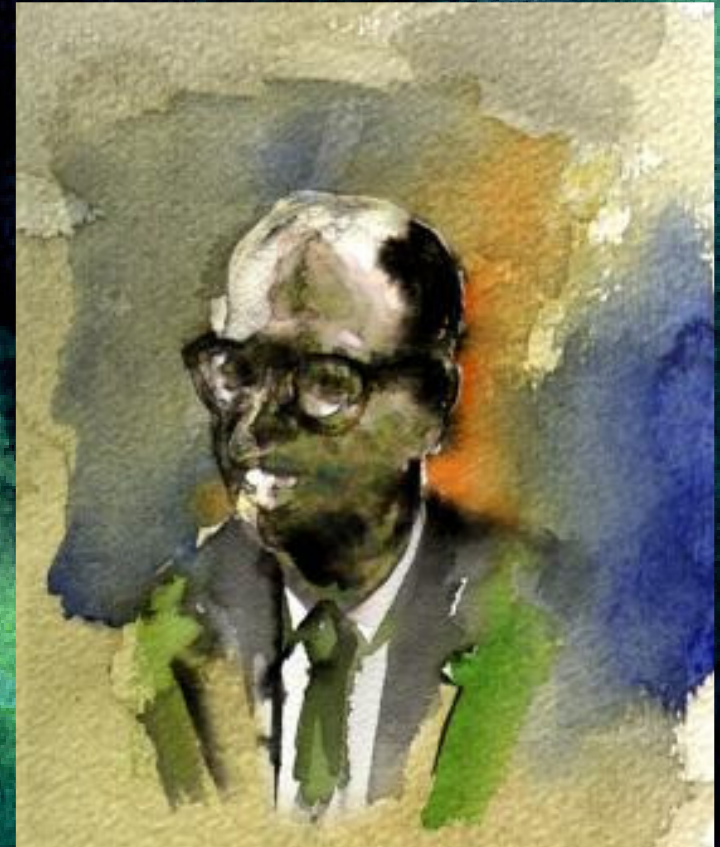
Since the second world war it has become quite clear that rapid economic growth is available to those countries with adequate natural resources which **make the effort to achieve it.**



W. Arthur Lewis
(Accra, 1968)

Sir Arthur Lewis got it right

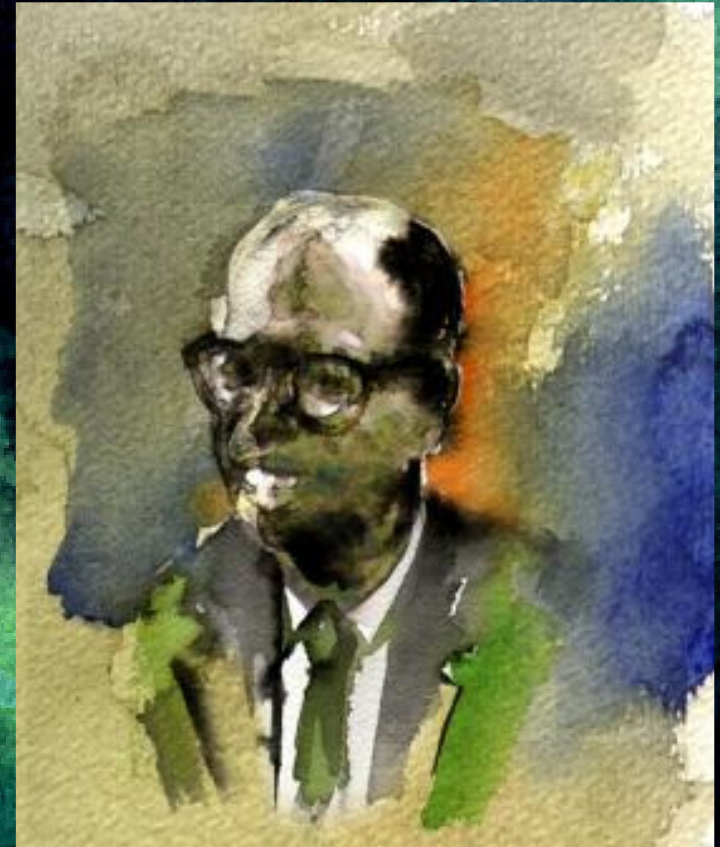
Since the second world war it has become quite clear that rapid economic growth is available to those countries **with adequate natural resources** which make the effort to achieve it.



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Sir Arthur Lewis got it right

Since the second world war it has become quite clear that rapid economic growth is available to those countries **with sound democratic institutions** which make the effort to achieve it.



W. Arthur Lewis
(Accra, 1968)

Conclusion: **It can be done**

Also, political diversification – democracy! – is almost surely worthwhile in its own right

- ❑ The effort that is required includes **diversification** away from agriculture and other natural-resource intensive activity into manufacturing (as in China) and services (as in India)
- ❑ Economic diversification entails **political diversification** from dictatorship to democracy (as in Korea and Taiwan)

Conclusion: **It can be done**

These slides – and more! – can be viewed
on my website: www.hi.is/~gylfason

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The End