

The Mystery of Wealth

General theory of economics
CDR supply side scientific growth law unveiled
Why 10% are rich while 90% are poor
High CDR countries are where ideas go to fly
Low CDR countries are where ideas go to die
From confusion to clarity

Wealth & Poverty
Demystified
Econometrically

INNOVATION ECONOMICS
ENTREPRENEURSHIP

A new CDR index implications for entrepreneurship and economic growth

CDRindex.blogspot.com

Poverty is neither desired, required nor necessary.
SBI: Florida A&M University

*I work indefatigably in search of a cure for rent seeking
mindset, the insidious corruption that stifles wealth creation
and siphons what is left into the coffers of its perpetrators.*

What is the cause of poverty?

- Power corrupts, absolute power corrupts absolutely

The way to attain poverty is?

Do nothing!

Adam Smith was silent on this question [\(0-3,8-10\)](#)

No challenge here

Still, the poor waste all their time trying to explain it

Even pseudo intellectual academics often don't get it [\(0-1:15, 2:30-4:30\)](#)

Social scientists appear never to get it

What is the cause of wealth?

This is the challenge!

Adam Smith answered this question in 1776

Adam Smith's invisible hand: the butcher, the baker, and the brewer provide goods and services to each other out of self interest and the unplanned result of this division of labor is a better standard of living for all three.

Simple yet mysterious

The source is imagination and creativity.....

a rare gift given only to the smartest one percent.

Few sui generis people invent..... most implement.

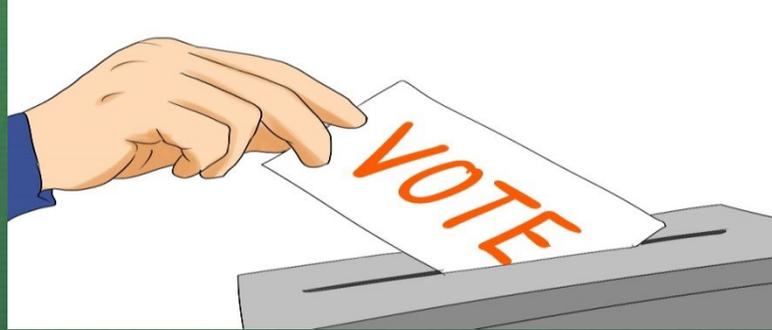
Where does wealth come from?

Adam Smith's invisible hand: Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society that he has in view. But, the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to society... He intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. By pursuing his own interest, he frequently promotes that of the society more effectually than when he really intends to promote it. **Adam Smith.**

THE TRUE SOURCE OF WEALTH

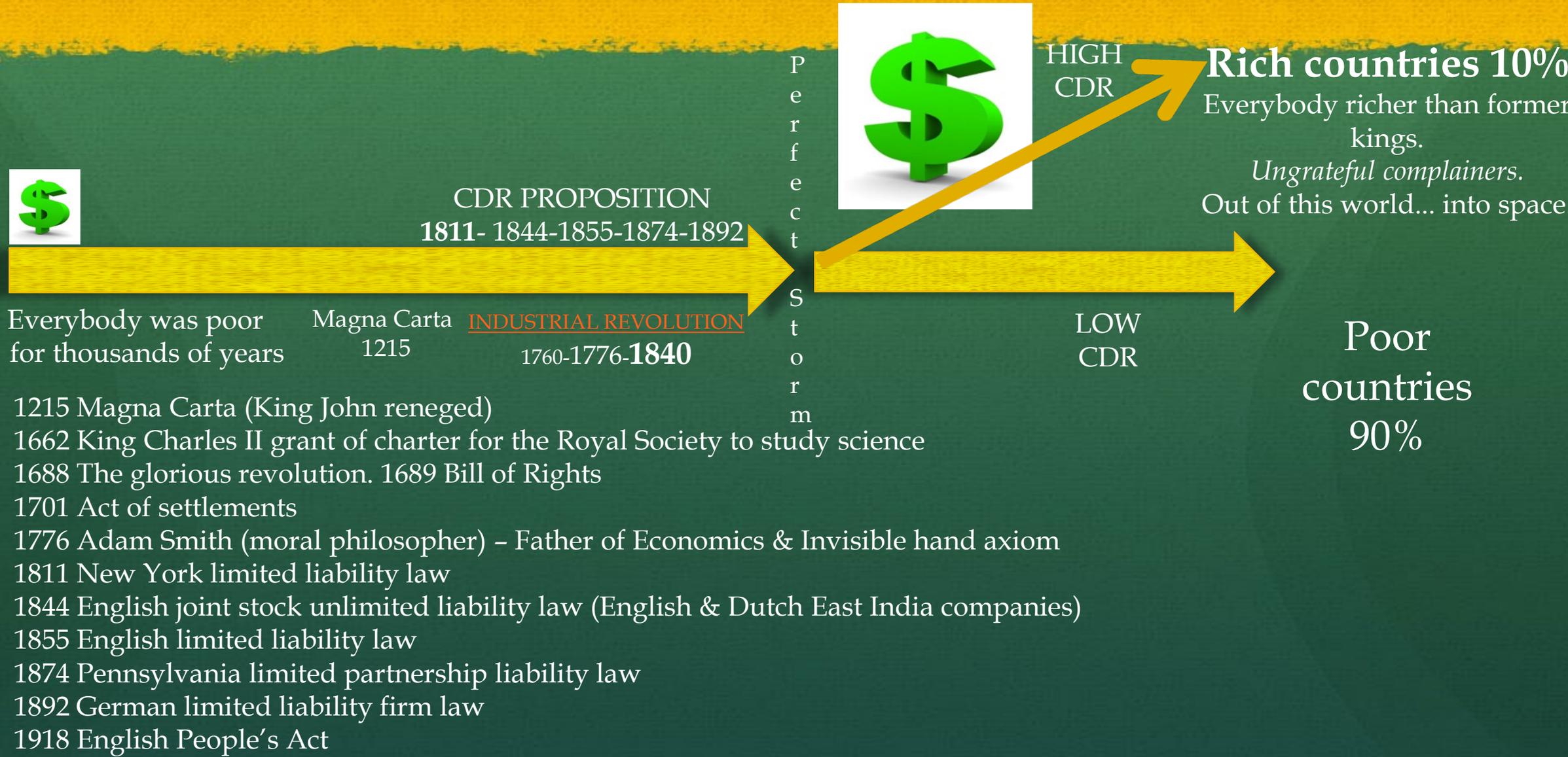
- The true source of wealth is entrepreneurial capital. Capital comprises intangible exogenous human entrepreneurial capital ideas of imagination and creativity, and capital stock of knowledge (skills and memory), and tangible endogenous machinery, recordings, computers, etc. Capitalism is a method of organizing capital for the purpose of profitable investment. Rule of law is an intangible exogenous catalyst that creates stability for attracting capital. Democracy is an intangible exogenous catalyst that creates new pathways for the optimal deployment of capital. Total capital is converted into production of capital stock, goods and services, which after consumption, depreciation and obsolescence, contributes to wealth. Since capital stock is subject to continuing depreciation and obsolescence, entrepreneurship must be the true source of new wealth creation. The CDR index is a weighted average of capitalism (C), democracy (D) and rule of law (R) that jointly with natural resources and geography explain almost all economic growth. High CDR countries are where ideas go to fly. Low CDR countries are where ideas go to die.

Capitalism-Democracy-Rule of Law (CDR)

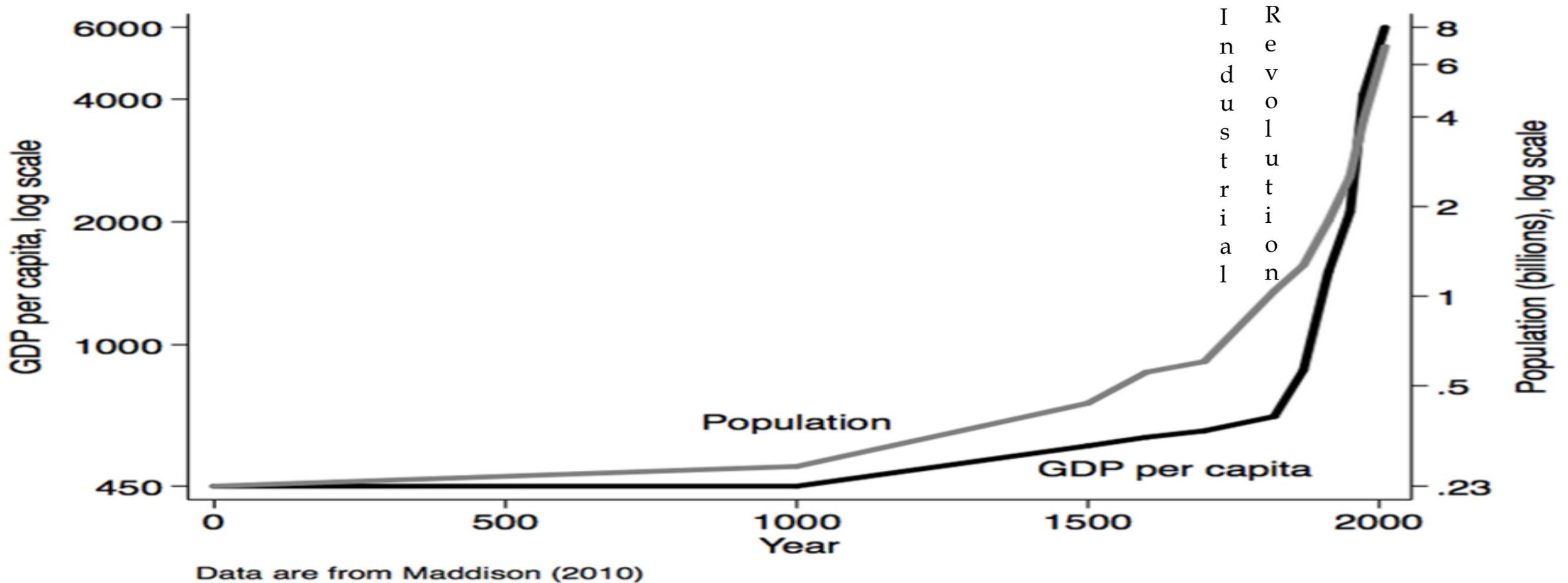


A capitalist is a person seeking maximum benefit to himself. Capitalism is the mechanism for capital formation. The company is the instrument of capitalism and is the greatest invention. This is the story of the New York limited liability law of 1811, English limited liability act of 1855, Pennsylvania limited partnership association law of 1874, German limited liability firm law of 1892. Before the industrial revolution, almost all people were poor. Few exceptions: feudal lords, Amsterdam stock exchange, Dutch East India Company, skilled artisans. The feudal method: grab property at the point of a sword...transfers wealth from the meek and physically weak to the wrong and physically strong. The company + the 1662 King Charles II of England grant of charter for the Royal Society to study science were a force for the industrial revolution. A confluence of events for a perfect storm.

THE WEST HAS NEVER BEEN THE SAME



THE WEST HAS NEVER BEEN THE SAME



Global output per worker and population for 2010 years AD. For the first 1000 years both are nearly flat with no growth in per capita GDP. From 1000 to 1870, per capita GDP grew at about 0.2% annually. From 1870 to 1950, population and per capita GDP grew at about 1%. After 1950 they grew at about 1.6%.

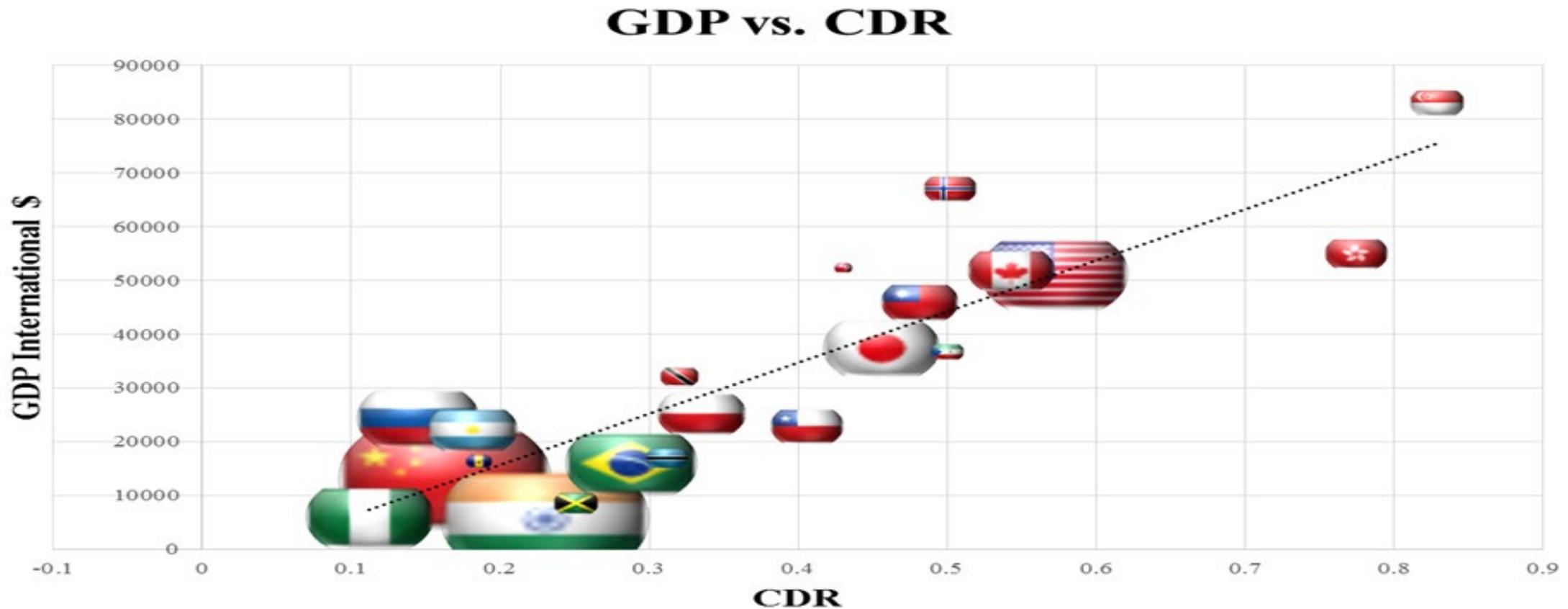
What is Entrepreneurship?

There are trace amounts of entrepreneurship inside everybody

- Process of starting a business, typically a start up company offering an innovative product or service.
- Routine business is just that....routine...existing
- The most important factor in determining whether a region or community achieves its full potential.
- Throughout history, all progress has benefited the lower income people in society the most.

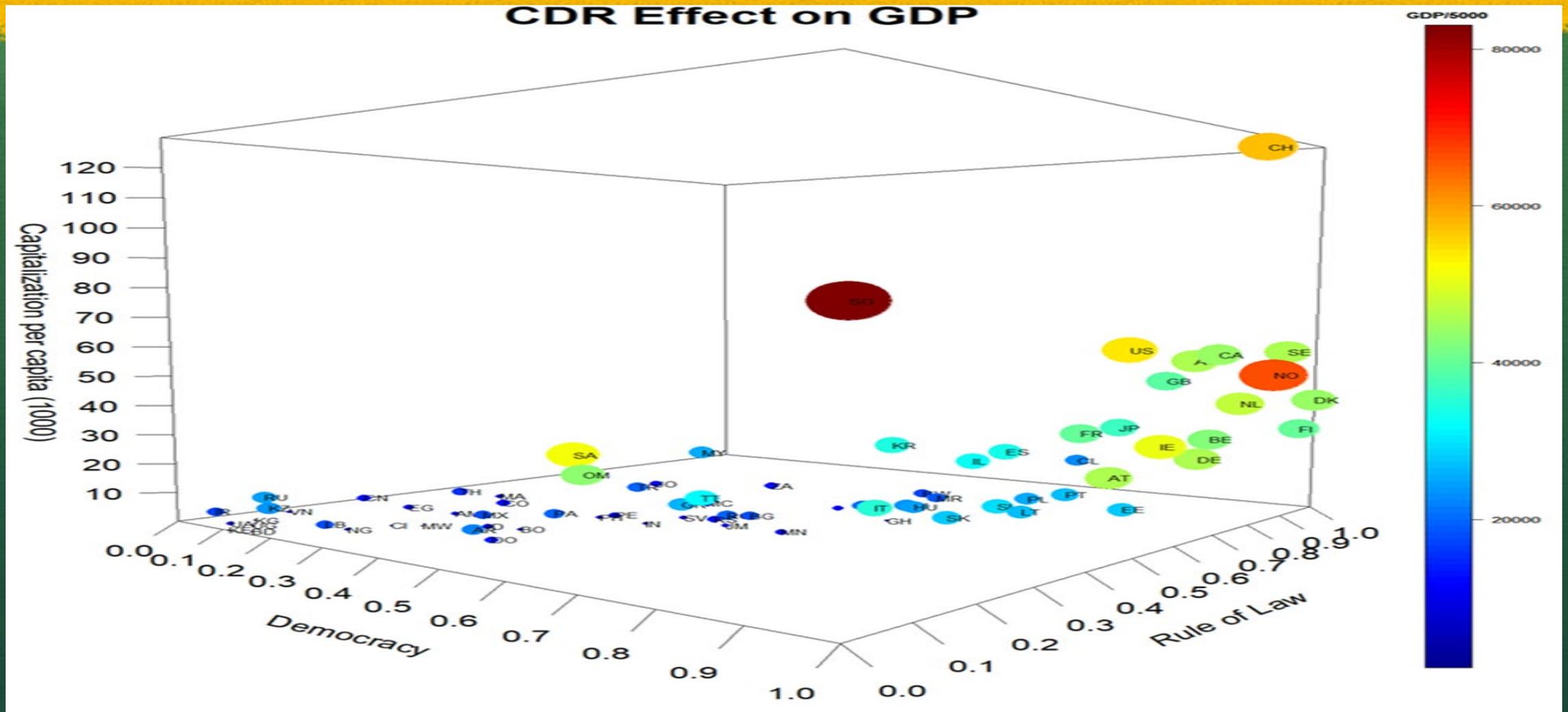
Relationship between GDP and CDR

straight line every year implies global time invariance



GDP vs CDR for 79 countries (line). Bubble size (21 countries) is the square root of population. This regression line was re-estimated for years 1995-2016 and the results were the same.

Generalized Four-Dimensional Scientific CDR Economic Growth Model



GDP=Bubble size

THE DUTCH DISEASE

natural resource curse

When a country discovers a natural resource such as oil, it must almost invariably contract with an international company that has the expertise to extract the oil. When the oil enters the international market, the country's currency is upwards revalued. Its currency is strengthened. The higher currency value reduces the country's other exports. The net impact may be no increase in total exports and no increase in GDP. The net impact on GDP could also be positive and negligible or even negative. There are also numerous social ill effects that can arise with a negative impact on GDP. For example, widespread loss of non-oil related jobs, disruption, dislocation, and social crisis. Therefore, in addition to the direct wealth effect of CDR, we are interested in the extent to which CDR can have the indirect result of offsetting or otherwise fighting the Dutch disease, and root anti C, D and R social diseases.

COMPARISON OF SELECTED COUNTRIES

A country that knows where it is going will not get far. A country willing to create an entrepreneurial environment of risk taking and investment in the unknown may experience unlimited growth

Comparison of selected Countries

High CDR: USA, Canada, Western Europe and {Japan , Bermuda, Cayman Islands (*no resources*)}.

Less well known high CDR: {Hong Kong and Singapore (*no resources*)}, Poland, Chile, Botswana and Equatorial Guinea adopted CDR and got rich almost over night.

Other CDR Trinidad & Tobago and Barbados.

Low CDR: China, Nigeria, Russia, Brazil, India (massive resources).

Legal immigrants who were poor in their old low CDR countries, become middle class Americans in a short period of time. Some become millionaires. The only difference for them is the benefit of high CDR in the new country.

Highest income American citizens: Japanese, Jewish, West Indian.

Most entrepreneurial: Japanese, Jewish, West Indian.

Relationship between GDP and CDR

Low CDR countries are where ideas go to die

$$G = \beta_0 + \beta_C C + \beta_D D + \beta_R R + \beta_{CDR} C \cdot D \cdot R + \beta_N N + \varepsilon_{random}$$

$$\hat{G} = 1.53C + 0.14D + 0.23R - 1.21C \cdot D \cdot R + 0.38N \quad R_{adj}^2 = 83\%$$

|t| = (6.6) (1.69) (2.6) (4.4) (5.59) all significant at $\alpha=10\%$ level.



60% 5% 10% 3% 6%

partial correlations

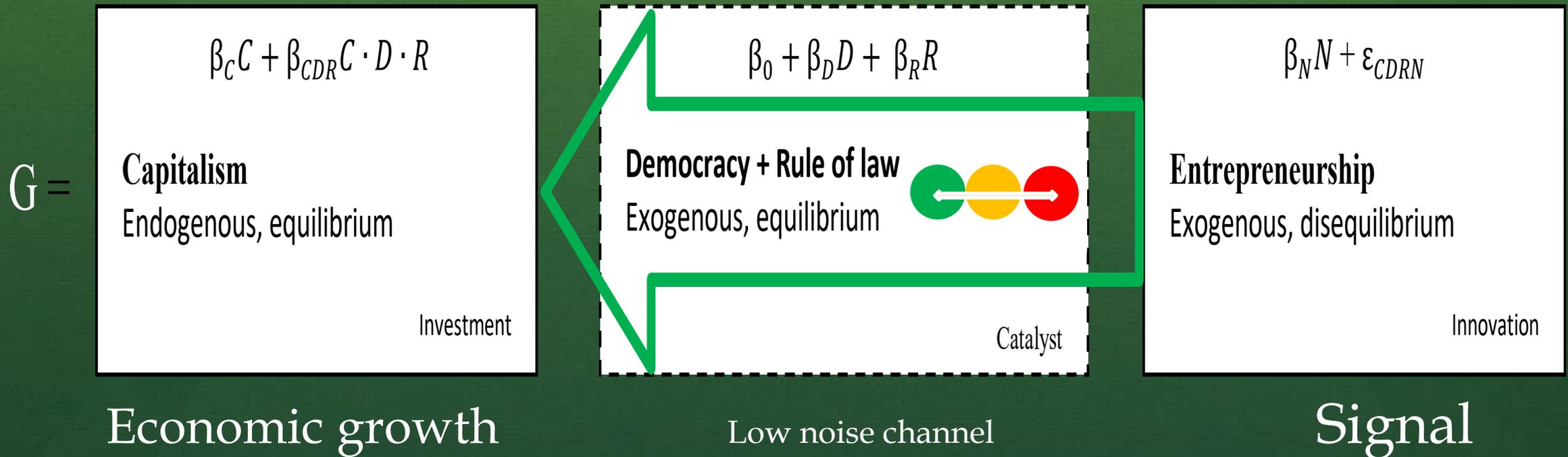
When latitude is included $G = 2.02R + 0.16R + 0.10R - 1.78C \cdot D \cdot R + 0.38N + 0.21L$

$R_{adj}^2 = 90\%$

INFORMATION THEORY OF ECONOMICS

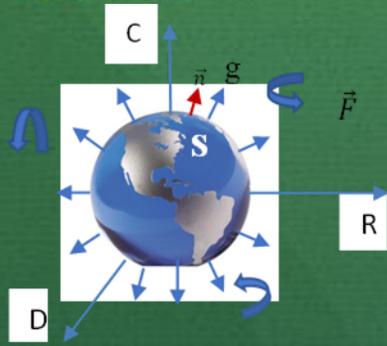
Classical ☐ Neo Classical ☐ Institutional ☐ Fiscal Policy ☐ Monetary Policy ☐ Information Theory of Economics

Knowledge is about the past
Entrepreneurship is about the future



RETURN ON INVESTMENT

Vector field Divergence/Curl



The integral of the purely endogenous contribution to the subset of g corresponding to a simple closed CDR space \mathbb{R}^n (where $n=3$), contained in a piecewise smooth boundary of the unit radius sphere and volume g is given by

$$\oiint_S (\vec{F} \cdot \vec{n}) dS = \oiint_S \vec{F} \cdot d\vec{S} = \iiint_V (\nabla \cdot \vec{F}) dV = \iiint_{CDR} (\nabla \cdot \vec{F}) \partial C \partial D \partial R$$

$$\text{Where } \vec{F} = \hat{g}_i = \hat{\beta}_0 + (\hat{\beta}_C - \hat{\beta}_{\hat{C}})C_i + \hat{\beta}_D D_i + \hat{\beta}_R R_i + \hat{\beta}_{\hat{C}DR} \hat{C}_i \cdot D_i \cdot R_i + \hat{\beta}_N N_i$$

Divergence: The flow rate of g through an infinitesimal point of the surface S is given by

$$\nabla \cdot \vec{F} = \partial \vec{F} / \partial C_i + \partial \vec{F} / \partial D_i + \partial \vec{F} / \partial R_i + \partial \vec{F} / \partial N_i = 0.18511 \text{ per unit of GDPppp} = \$16,282.50 \text{ in year 2014} = 1.8\% \text{ growth.}$$

Curl: The curl of the circulations in the positive D-R, C-R and C-D planes

$$\nabla \times \vec{F} = \begin{vmatrix} \vec{i} & \vec{j} & \vec{k} \\ \partial/\partial C & \partial/\partial D & \partial/\partial R \\ \vec{F}_C & \vec{F}_D & \vec{F}_R \end{vmatrix} = -0.16 \quad -0.80 \quad +0.96.$$

Return on investment = divergence/(absolute curl) = $0.18511 / (|-0.16| + |-0.80| + |0.96|) = 9.6\%$.

Annual expected value of growth = 1.8%. Annual maximum possible growth = 30%.

COLLABORATION

trumps IQ

a companion to *The Mystery of Wealth*
the economic theory of entrepreneurship

Capitalism. Democracy. Rule of law

Why 10% are rich while 90% are poor

High CDR countries are where ideas go to fly

Low CDR countries are where ideas go to die

From confusion to clarity



$$ROI = \nabla \cdot \vec{F} / |\nabla \times \vec{F}|$$

$$GDP_{PPP} = f(CDR)$$

Wealth & Poverty
Demystified
Econometrically

ENTREPRENEURSHIP

Collaboration permits rule *of* law

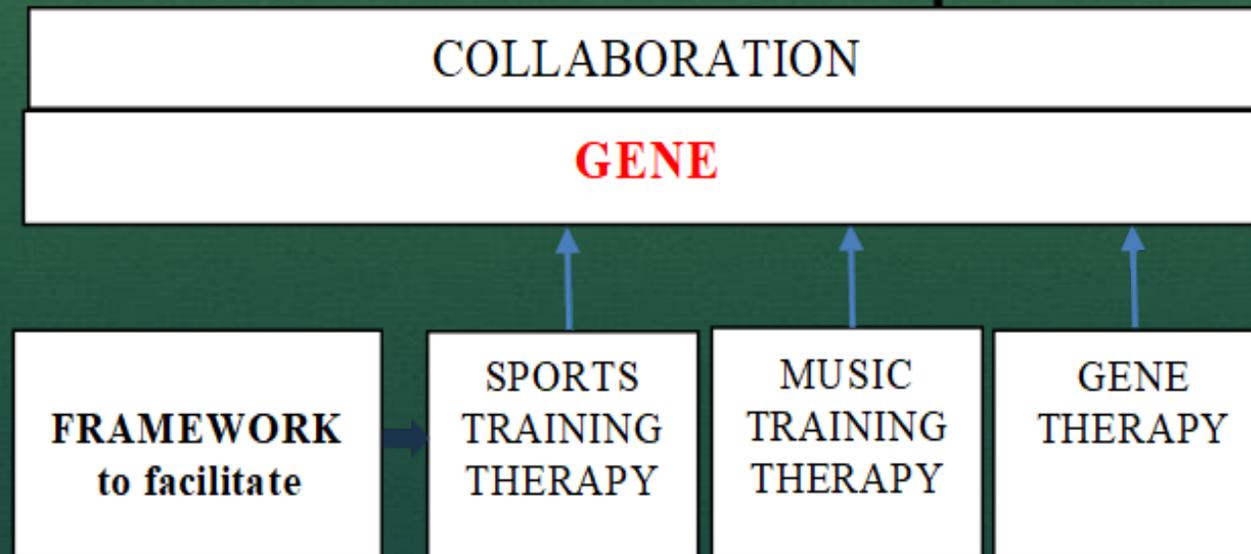
$$\text{CDRindex} = 1.53C + 0.14D + 0.23R - 1.21C \cdot D \cdot R + 0.38N.$$

Partial correlation: 60% 5% 10% 3% 6%

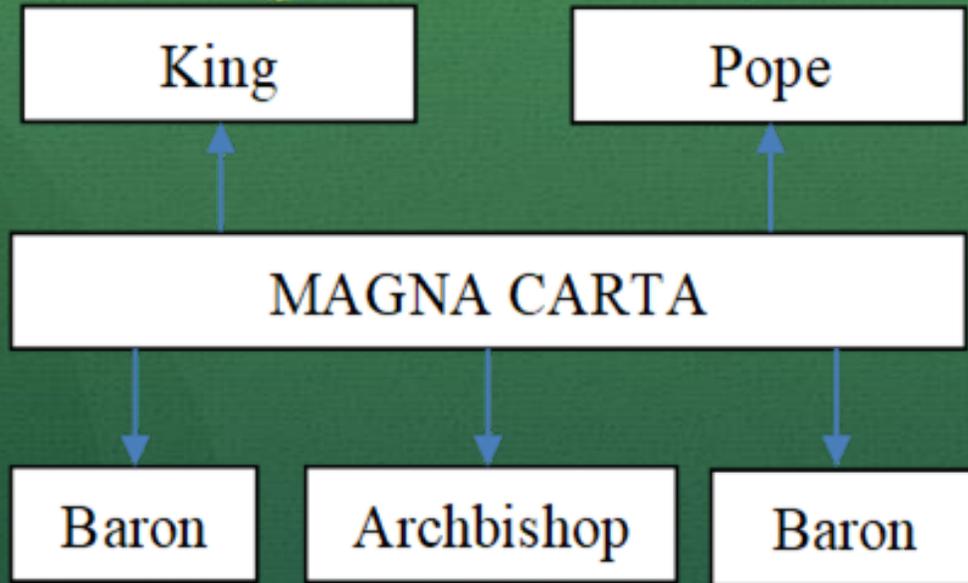
Negative epigenetic generational
psycho-sequela can stifle
collaboration.

Gene therapy & Team sport &
music training may hold the cure.

Positive Epigenetic
generational
psycho-sequela

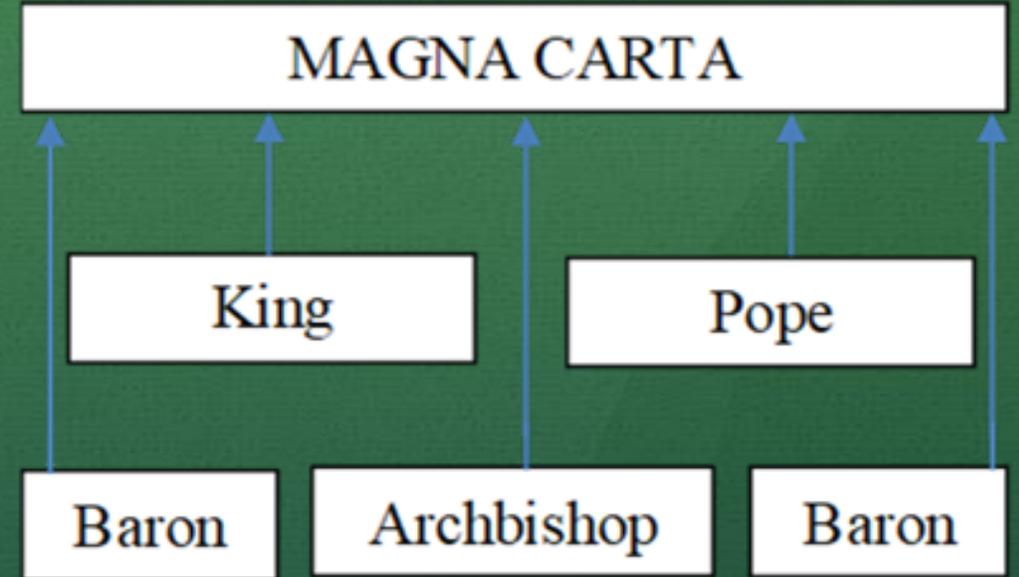


RULE BY LAW



All parties cooperating to get what they can for themselves from Magna Carta.
The king and pope are above the law.
The barons and archbishop are under the law.
Cooperation is an obstacle to rule of law.

RULE OF LAW



All parties collaborating, seeking to contribute to the shared goals of Magna Carta.
No one is above the law.
Collaboration is an asset in rule of law.

COOPERATION vs COLLABORATION



1st & 2nd Realm

Diadic cooperation:
Contractual agreement - what's in it for me?
Obstacle to rule of law.



1st & 2nd Realm

Triadic collaboration:
Trust - what's in it for us? What's in it for society?
Essential for rule of law.



3rd Realm

WEALTH STARTS WITH AN IDEA

grows with CDR and dies with corruption, dictatorship, welfare, committees & bureaucracy

LIMITED LIABILITY COMPANY: instrument of capitalism



Sometimes it is the people who no one imagines anything of, who do the things that no one can imagine! (the imitation game- Turing enigma m/c)

Human capital (C) Democracy (D) Rule of law (R)



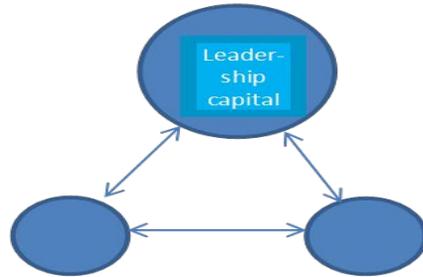
Human capital ideas of imagination and creativity are the only source of wealth.



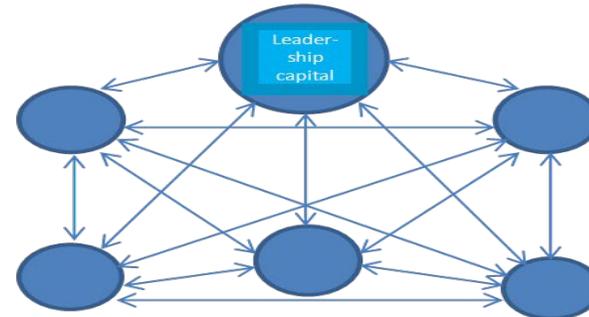
One person yields zero pathways



Two person team yields two pathways



Three person team yields six pathways



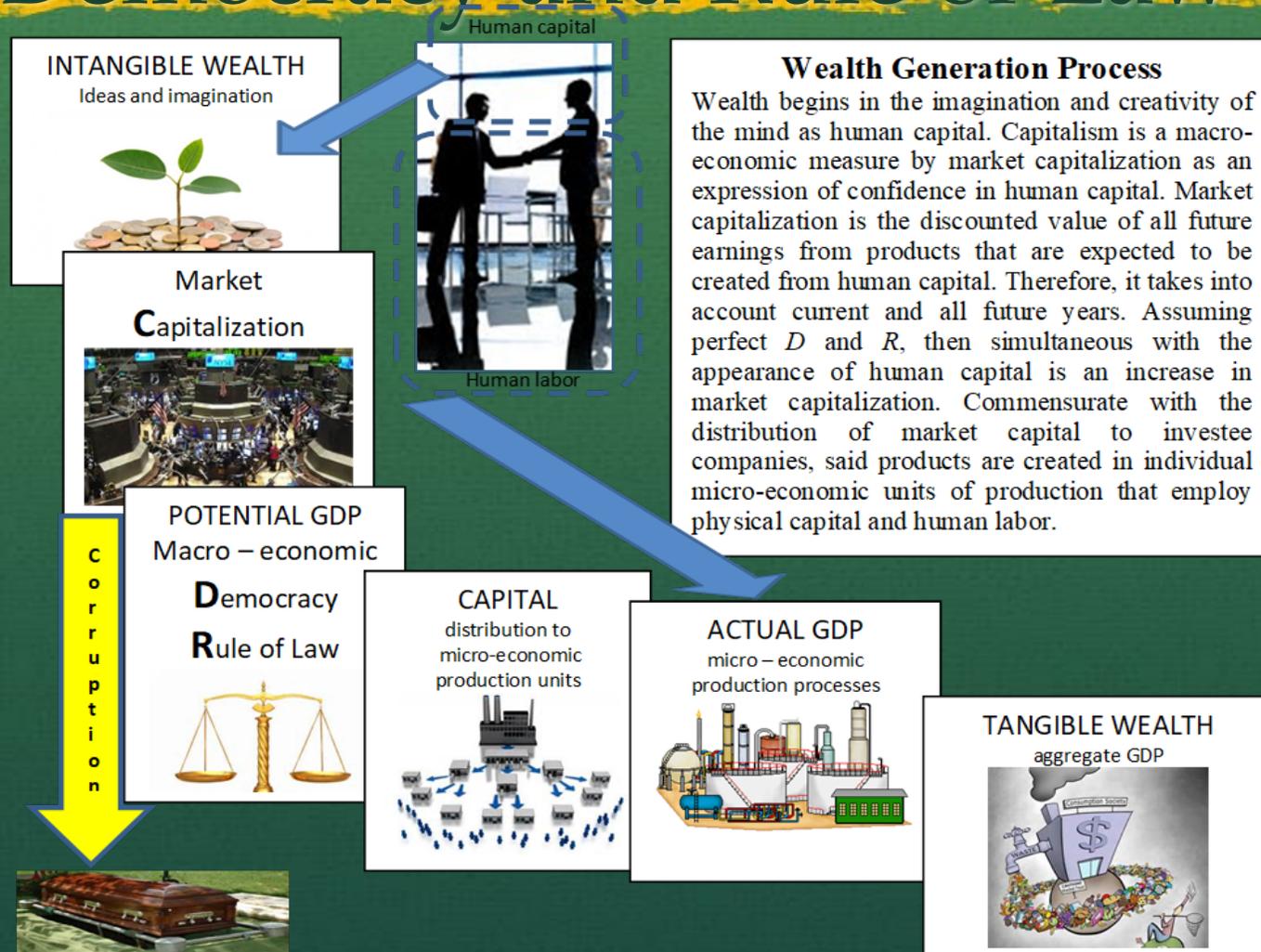
Six person team yields 30 pathways

Democracy is a catalyst that creates additional pathways for the optimal deployment of capital



CDR Wealth Generation Process

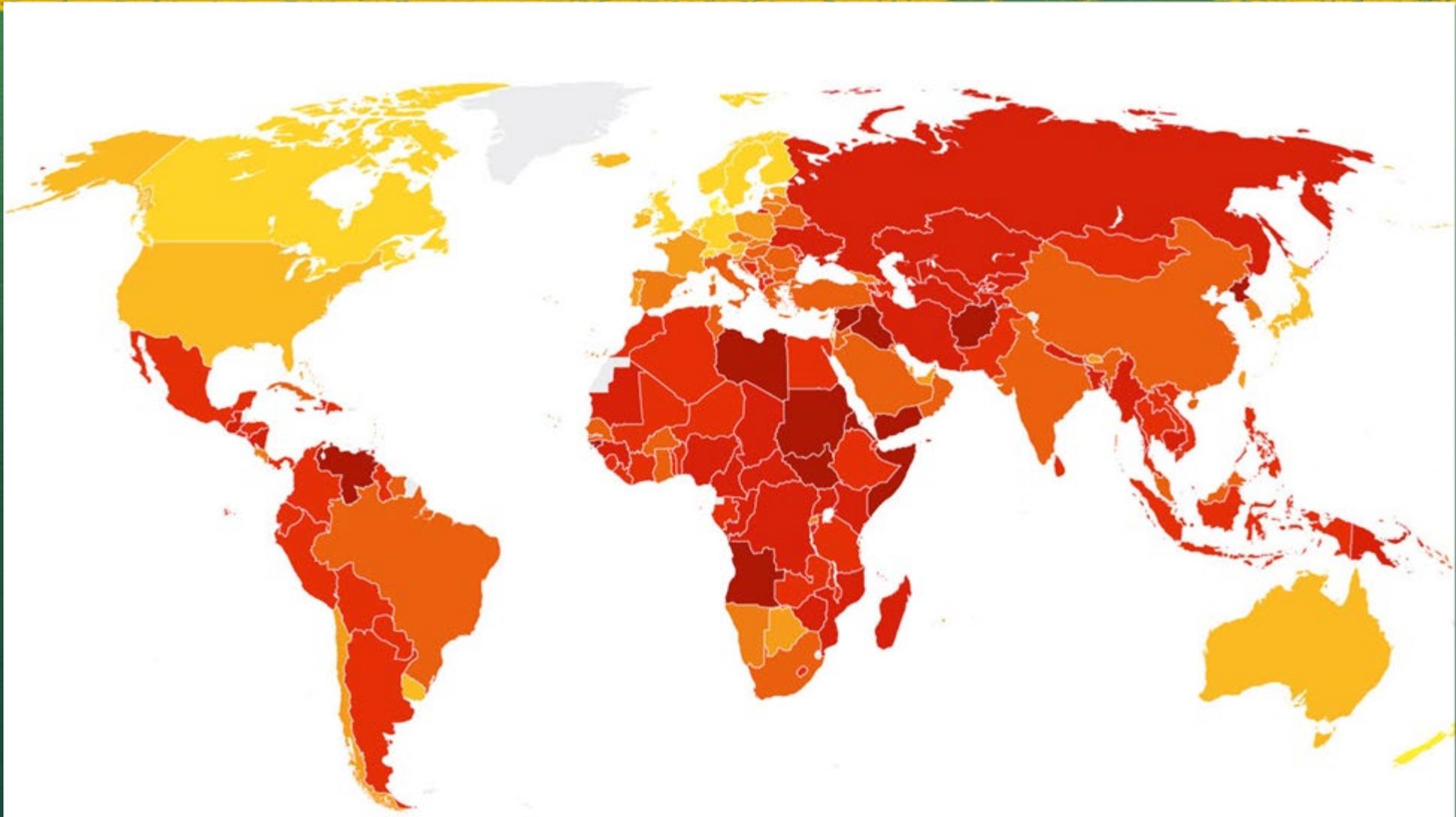
Capital to GDP conversion in the prescence of Democracy and Rule of Law



WORLD CORRUPTION

World Corruption

lighter less darker more corruption





Wealth
&
Poverty
Demystified
Econometrically

Wealth

explained by

Capitalism. Democracy. Rule of law

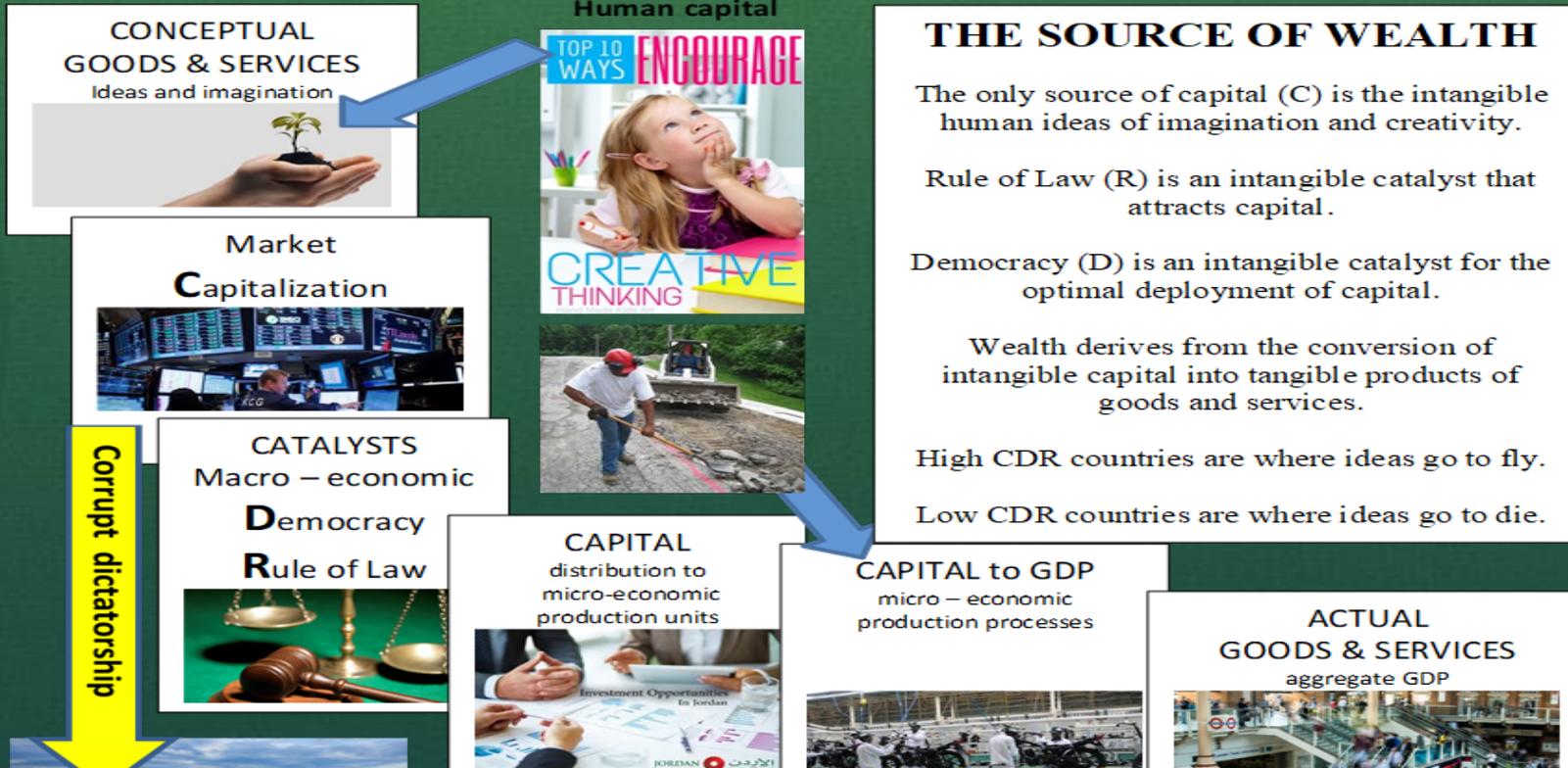
General theory of economics

CDR supply side scientific growth law unveiled

From confusion to clarity



*One source
of wealth
watches
over
another*



CONCEPTUAL
GOODS & SERVICES
Ideas and imagination



Market
Capitalization



CATALYSTS
Macro – economic
Democracy
Rule of Law



Human capital



CAPITAL
distribution to
micro-economic
production units



THE SOURCE OF WEALTH

The only source of capital (C) is the intangible human ideas of imagination and creativity.

Rule of Law (R) is an intangible catalyst that attracts capital.

Democracy (D) is an intangible catalyst for the optimal deployment of capital.

Wealth derives from the conversion of intangible capital into tangible products of goods and services.

High CDR countries are where ideas go to fly.

Low CDR countries are where ideas go to die.

CAPITAL to GDP
micro – economic
production processes



ACTUAL
GOODS & SERVICES
aggregate GDP



Corrupt dictatorship

QUANTUM CDR

- The term quantum has become associated with quantum mechanics in the study of physics. In the CDR economic model, capital (C) is comprised of exogenous human capital ideas of imagination and creativity, and capital stock of knowledge, machines, recordings, etc. that were derived from exogenous human capital ideas in a prior time period. Ideas are different from each other. Nevertheless, ideas are entangled in that one idea can change the way that another idea is perceived, no matter the physical distance between the locations where they were conceived. Each idea is unique and may have a different value. The precise value depends on for what and how the idea is used. All ideas are revolutionary, not evolutionary. Ideas often require that beneficiaries adjust, modify and update their understanding of how things are and how they work. Ideas can have humble beginnings. Ideas often require the prior arrival and existence of other ideas in order to be technologically functional. For that reason, some ideas are said to have arrived before their time. It is quite reasonable to think of ideas as quanta of capital. Here a quantum of capital idea is singular and indivisible. Like a photon of light for example, it cannot be subdivided. It is "take it (as is) or leave it." Not unlike subatomic particle quanta in quantum mechanics, a quantum idea is microscopic. But the aggregation of quanta of ideas in the CDR model is macroscopic. Both phenomena are invisible to the naked eye and depend on their being demonstrated to be believed. These quanta are entirely random in value and time between. Whether or not the quanta materialize depends on rule of law (R) to attract them. Their ultimate value depends on democracy (D) to deploy them optimally. Ideas are subject to obsolescence. Ideas are subject to suppression by corrupt dictators. Ideas are subject to promotion by collaboration. Entanglement occurs at the macroscopic level when C, D and R interact in the CDR economic growth model through coefficients that are global time invariant. High CDR countries are where ideas go to fly. Low CDR countries are where ideas go to die.

EXAMPLES of ENTREPRENEURSHIP

- If wealth is produced in the mind, then if the activity and scope of the mind are unlimited, then wealth can be instant & the amount is unlimited.
- From chickens to ducks. In the time required for gestation, incubation & maturity, a nation is lifted out of poverty.
- Dead capital. Title all assets to create property rights and collateral.
- Vertical & Horizontal drilling, hydraulic fracturing, retorting, pyrolysis. From US dependency on foes to oil & gas exporter.
- Supply side from the bottom up. The rummaging garbage collector becomes clean & neat trash bag disposer.

THE WEALTH GENE

a companion to The Mystery of Wealth
the economic theory of entrepreneurship

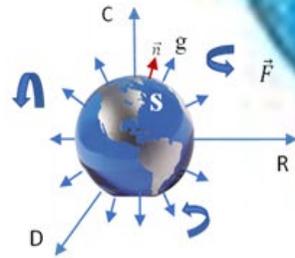
Capitalism.Democracy.Rule of law

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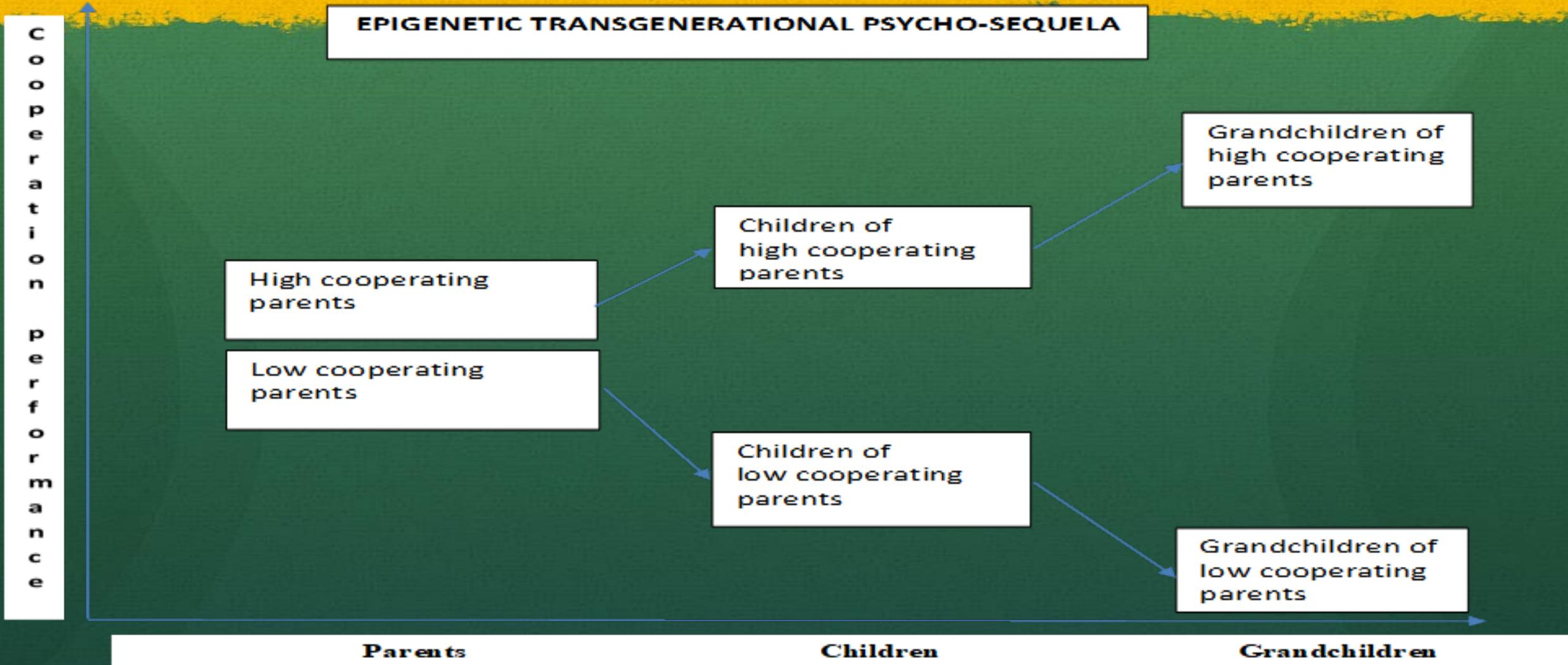


$$ROI = \nabla \cdot \vec{F} / |\nabla \times \vec{F}|$$

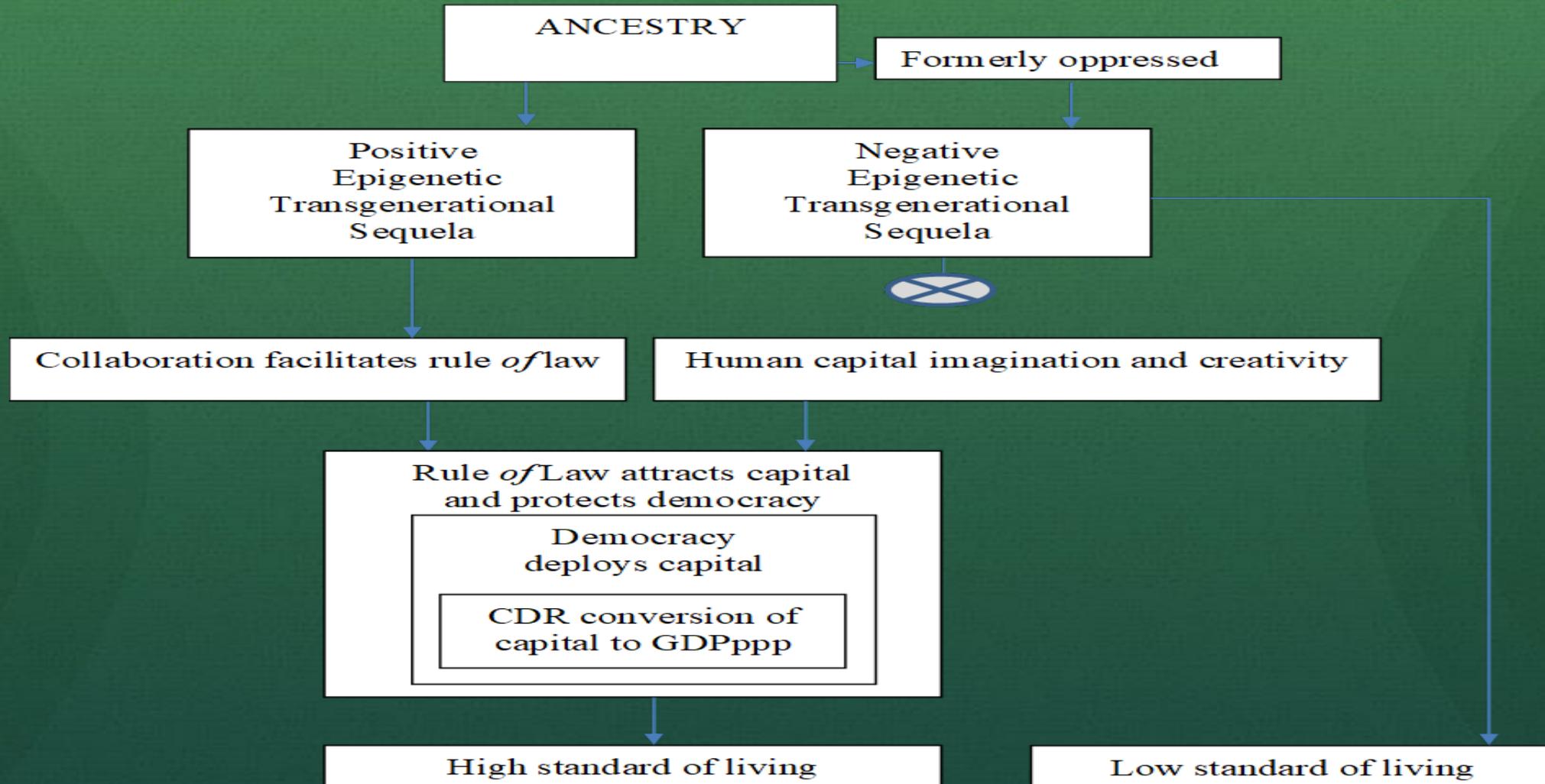
$$GDP_{PPP} = f(CDR)$$

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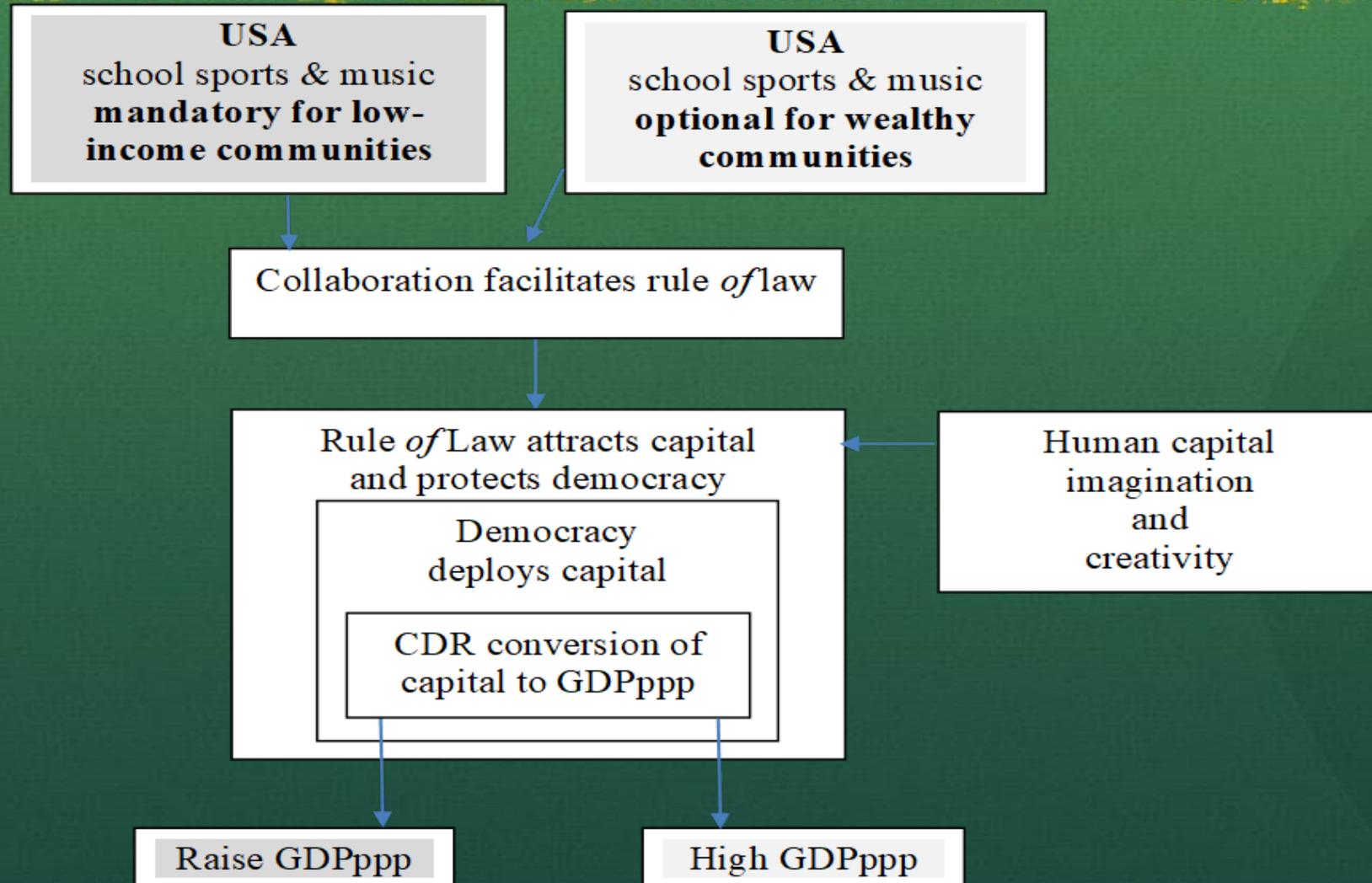
The GENE for collaboration



EPIGENETIC SEQUELA



Mandatory and optional US school sports & music training to promote recovery of collaboration skills



Summary list of new CDR findings

High CDR countries are where ideas go to fly

Low CDR countries are where ideas go to die

- There is a gene for collaboration
- Negative epigenetic transgenerational sequela must be overcome to enable collaboration.
- Collaboration skills can be developed by training via team sports and other similar activities.
- Cooperation is an obstacle to rule of law.
- Collaboration is essential for rule of law.
- Rule of law is not evolutionary it is revolutionary.
- Cooperation is necessary for ordinary economic growth and development.
- Collaboration is necessary for extraordinary economic growth and development.
- Equality of consumption is possible, equality of income is not.
- Collaboration trumps IQ as a predictor of standard of living.
- CDR is necessary for economic growth and development.

Summary list of new CDR findings

High CDR countries are where ideas go to fly

Low CDR countries are where ideas go to die

- The CDR economic growth model is global time invariant.
- The CDR economic growth model places economics on a sound scientific footing.
- 20% of people possess 80% of capital... only a rising rich lifts the tide and the poor with it.
- Human capital ideas of imagination and creativity represents 85% of total capital.
- The theoretical expected value of endogenous economic growth is $\frac{1}{4} e^2 = 1.8\%$.
- The theoretical maximum one-year growth is 30%.
- The theoretical economic reinvestment rate is 21%. Gross fixed capital formation (GFCF).
The tax rate that maximizes gross domestic product is 21%.
- The theoretical expected return on investment is 9.6%.
- Natural resources, geography, population, and government spending are negligible for GDP.
- If collaboration is a maximizing principle, then dissociation is a minimizing principle.
- Wealth is unlimited because imagination is. Even if the number of atoms in the world is finite, the number of ways in which they can be combined through collaboration is beyond
- <https://www.youtube.com/watch?v=12Cd5Or0et4>