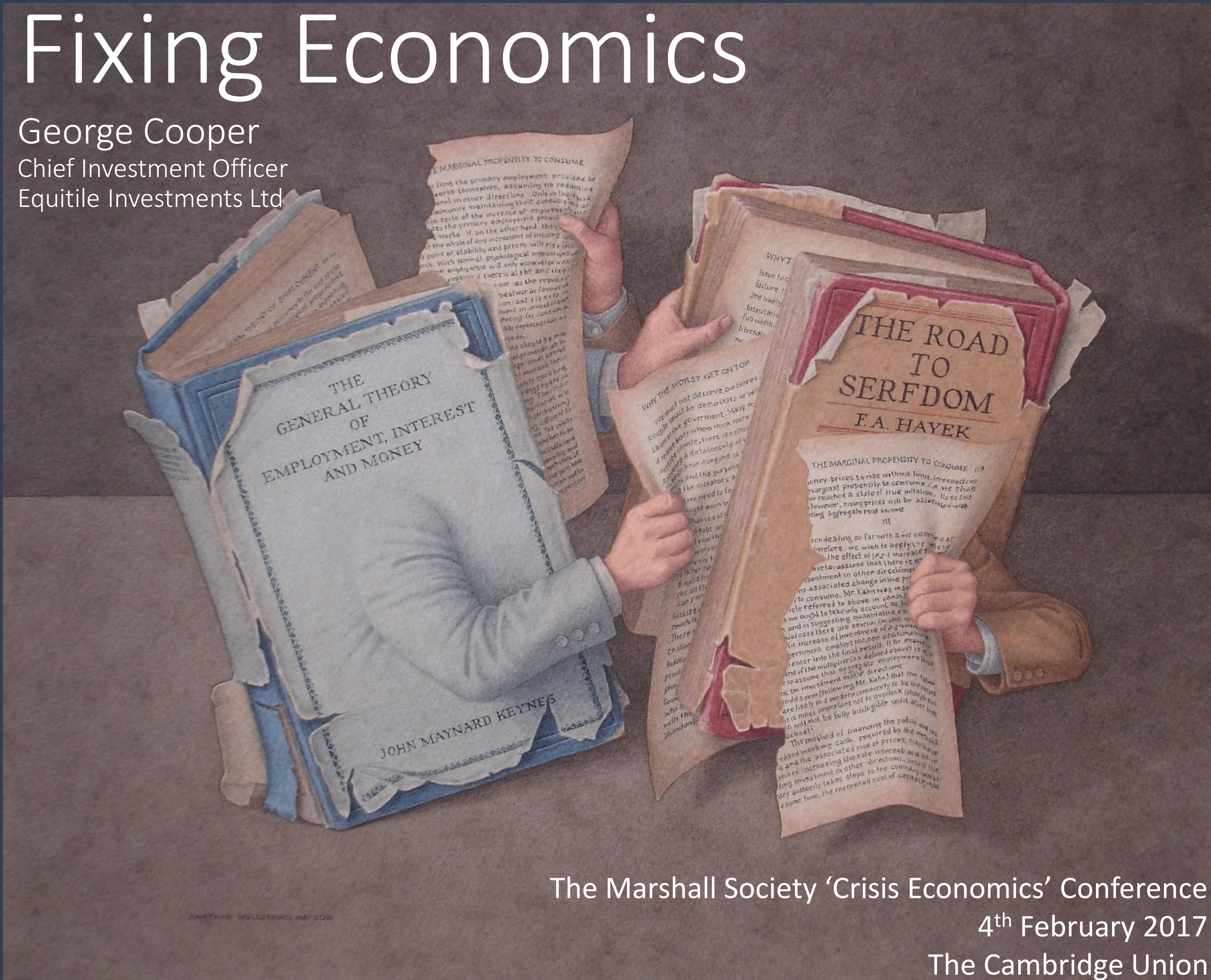
Fixing Economics

George Cooper
Chief Investment Officer
Equitile Investments Ltd



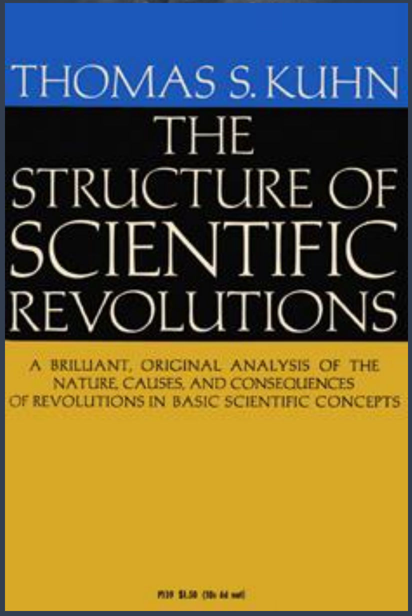
The Marshall Society 'Crisis Economics' Conference
4th February 2017
The Cambridge Union

Scientific Crises & Scientific Revolutions

- We understand the world through stories (paradigms)
- The stories control what we observe, what we ignore and how interpret our observations
- Our stories (paradigms) dominate the data… up to a point

- If the data doesn't fit the story we:
  1. ignore the data
  2. complicate paradigm to save it (build in special exclusions)
  3. If the paradigm is wrong the complications multiply and contradict one another
  4. The field splits into competing schools of thought
  5. Progress stalls, acrimony sets in and the field loses status

- The crisis is resolved when:
  1. A simplifying story (paradigm) emerges to reconcile the conflicts & contradictions
  2. Established experts reject the new story while, laymen & students adopt it
  3. Old observations are reinterpreted and new ones made to support the new story



The Mainstream Economic Paradigm (Story)

Humans act independently to maximise their own welfare
These independent maximising decisions automatically drive the economy to an optimal equilibrium

The whole system works as if guided by an invisible hand

It follows:

If ‘optimal’ happens naturally then any interference can only do harm: laissez-faire is best

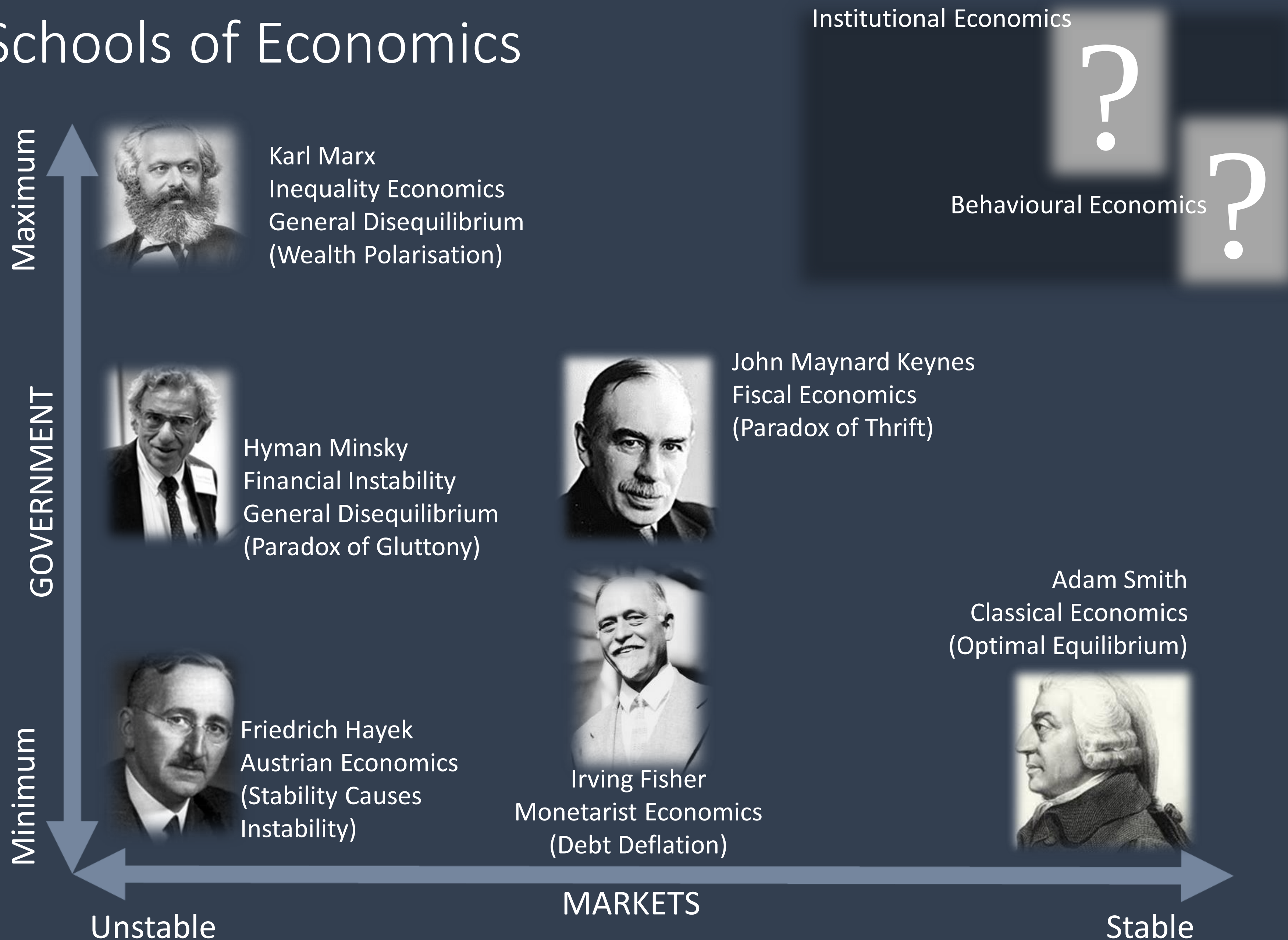
Small government is better than big government but no government is better still

Minimizing tax will maximize growth

Since people act independently, we can ignore interaction terms and study only an ‘average’ representative agent

Adam Smith

Schools of Economics



Each school has a different paradigm (story) of the economy. Each story has some validity, but the stories contradict one another and clash with reality. This is the crisis in economics.

Kuhn’s Scientific Crisis Resolution Technique

A scientific crisis emerges when competing ideas appear to be both valid and contradictory at the same time

A scientific crisis is resolved when those competing ideas are reconciled with a new simplifying theory (story)

Karl Marx
(Antithesis)

?

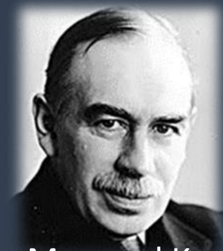
(Synthesis)

Adam Smith
(Thesis)

The paradigm shifts occur by finding a simplifying synthesis of a thesis and its antithesis

Fixing economics requires synthesising the ideas of:

Hyman Minsky



John Maynard Keynes

?

Behavioural Economics

Karl Marx

?

Synthesis

Adam Smith

Friedrich Hayek

Irving Fisher

?

Institutional Economics

Thomas Kuhn’s recipe for a scientific revolution

1. Identify and correct the core axioms of the paradigm (these are the assumptions you have forgotten about, which are probably causing the problems)
2. Identify the key ideas from the various competing schools which must be preserved
3. Invent a new paradigm (story) using different axioms which agrees with these key ideas (this is usually inspired by an entirely different field)
4. Go back and reinterpret old observations using the new paradigm
5. If the new story appears to work test it with new observations

Mr Spock
If the axioms are wrong deductive reasoning from those false premises will not fix the problem

Captain Kirk
Break the rules, be imaginative, dream up a new way of looking at the problem

The Mainstream Economic Paradigm (Story)

Humans act independently to maximise their own welfare
These independent maximising decisions automatically drive the economy to an optimal equilibrium

The whole system works as if guided by an invisible hand

The basic axioms:

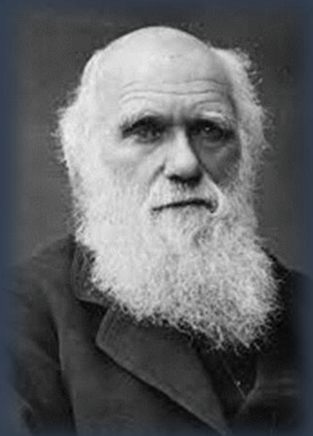
1. We act independently
2. We try to maximise our own welfare (wealth)
3. Our actions drive the economy to an optimal equilibrium

Adam Smith

The crisis in economics almost certainly stems from errors in these three assumptions

Evolution emerged from synthesising Smith & Malthus

Thomas Malthus
Humans produce more offspring than can be sustained by the environment



Adam Smith
Efficiency is improved through specialisation

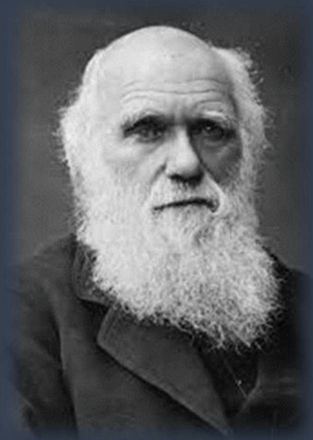
Charles Darwin synthesised the ideas of Thomas Malthus and Adam Smith to produce his theory of evolution

Darwinian evolution requires competition both between and within species

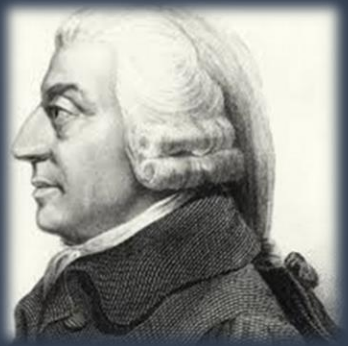
Cooperative competition emerges from synthesising Smith & Darwin

Darwin's survival of the fittest suggests we have evolved to become competitors not maximisers

Smith's efficiency through specialisation suggests we can compete better by working in teams of specialists



Humans are Darwinian competitors
who cooperate in order to compete more efficiently



The synthesis of Darwin & Smith clashes with at least two of the axioms of mainstream economics:

If we are competitors we are not trying to get as rich as possible, rather we are trying to get richer than each other

We do not act independently because Smith's efficiency through specialisation requires cooperation within teams of specialists

Reinterpreting Veblen the Ultimatum Game

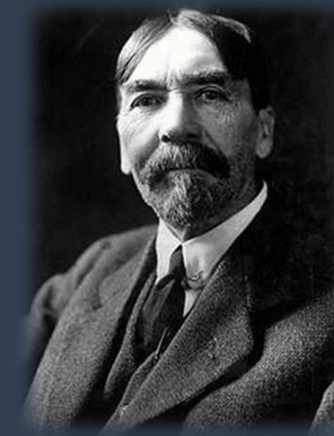
Veblen's 'Conspicuous Consumption' arises from Darwinian competition: we are motivated by our rank in the social pyramid and use Veblen goods to signal that rank

The puzzling behaviour of the 'Ultimatum Game' becomes quite logical from a Darwinian competitive paradigm: we seek to maximise relative position

Voting for Brexit & Trump are quite logical from a Darwinian competitive paradigm. They were an ultimatum game played out on the global stage

We are willing to sacrifice absolute wealth to avoid losing social position

Darwinian competitive behaviour is incompatible with the third 'optimising equilibrium' axiom of economics



Thorstein Veblen
The Economist of Bling

"It is not enough to succeed. Others must fail."
"Whenever a friend succeeds, a little something in me dies."
Gore Vidal

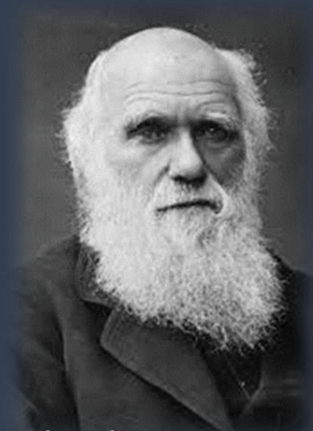
Rethinking human behaviour

Replace

Wealth maximising behaviour

with

Darwinian competitive behaviour
(including cooperation, where cooperation is for the purpose of competition)



Charles Darwin
Behavioural Economics

Replace

The representative agent

with

The social pyramid

Who turned the lights on?

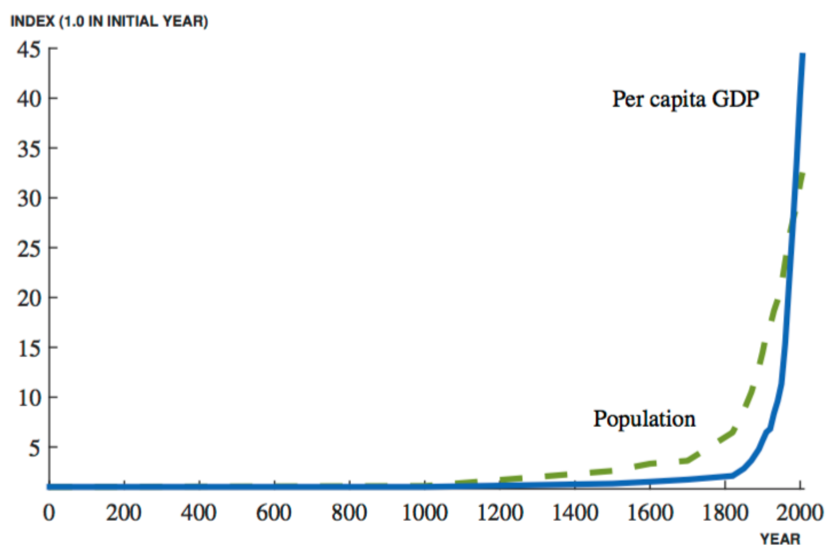
The history and geography of economic growth

The history and geography of economic growth is a Voldemort problem for economics – so important and so obviously unexplained by the theory it simply cannot be discussed

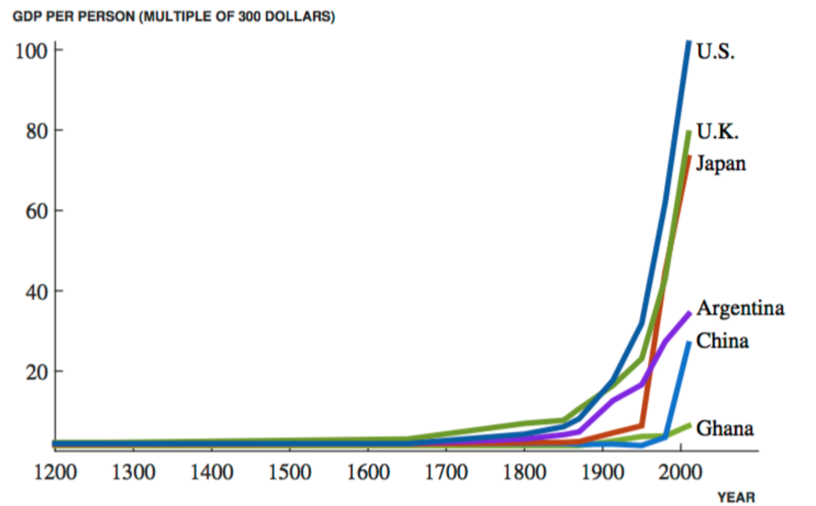
Before Alfred Wegner's Continental Drift the jigsaw puzzle of the continents was a Voldemort problem for geology

Ideally a new paradigm should help resolve the inability of economics to discuss the history and geography of growth

A Voldemort problem, too terrible to discuss



Note: Data are from Maddison (2008) for the "West," i.e. Western Europe plus the United States. A similar pattern holds using the "world" numbers from Maddison.



Note: The graph shows GDP per person for various countries. The units are in multiples of 300 dollars and therefore correspond roughly to the ratio between a country's per capita income and the income in the poorest country in the world. Source: The Maddison Project, Bolt and van Zanden (2014).

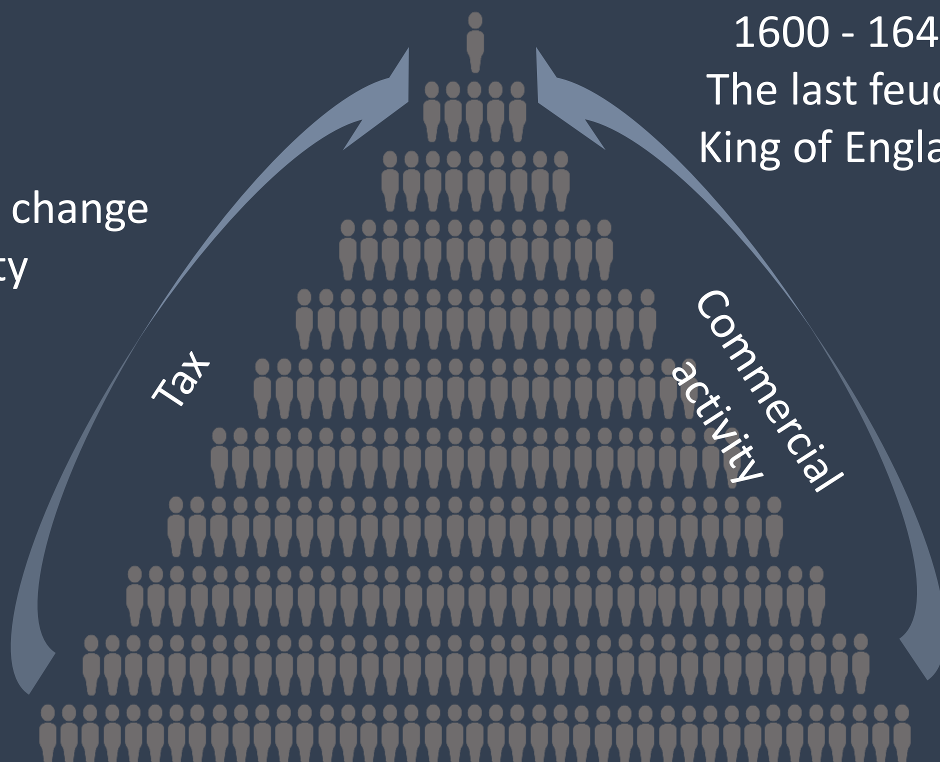
A normal feudal economy

The stagnation of the first 99% of human history is easily understood from a Darwinian competitive paradigm

As Darwinian competitors, the principal motivation of those at the top of the social pyramid is to maintain the status quo

Social conventions, laws and financial structures will be arranged to prevent change and above all to prevent social mobility

King Charles I
1600 - 1649
The last feudal
King of England



Feudal Economy

Darwinian behaviour leads to feudalism and feudalism to stagnation,
in direct conflict with mainstream economics but full agreement with the history geography of economic growth

From feudalism to democracy

On 30 January 1649 Oliver Cromwell removed the feudal head of the social pyramid

That began a process of social change which evolved into the modern democracies we have today

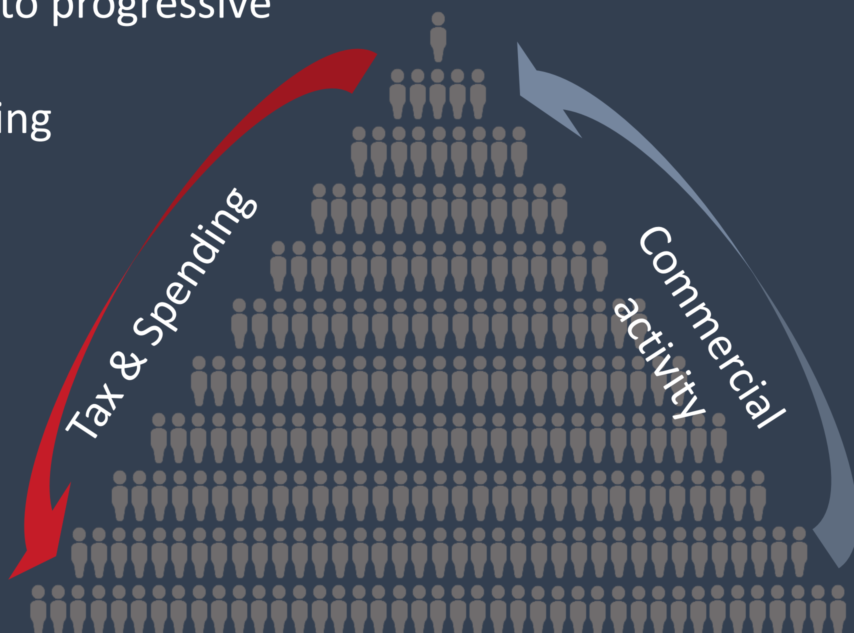
Social mobility was encouraged rather than discouraged

Taxation & regulation moved from regressive to progressive

The size of the state grew, becoming a balancing counterforce to the private sector

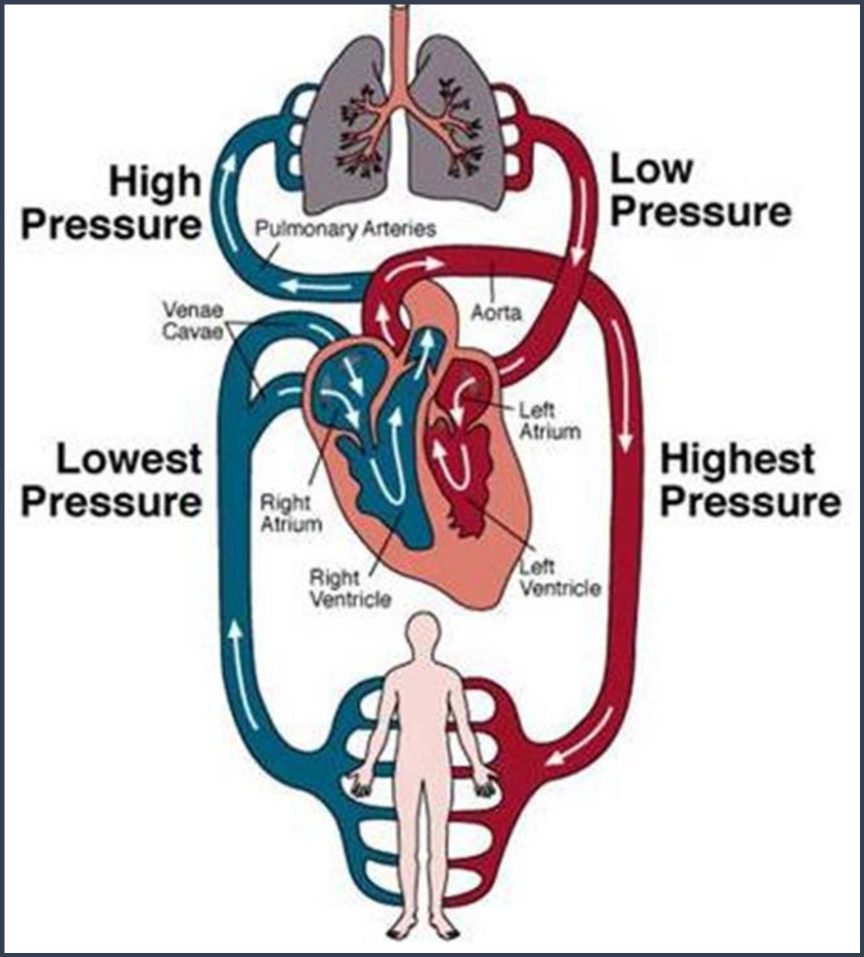
Oliver Cromwell
1599-1658
The start of modern democracy

The private sector continued sending money up the social pyramid, just as Karl Marx claimed.
But the state sector sent it back down again, as Keynes required.
A circulatory flow was established, powering the hedonic treadmill & the engine of growth was started



Democratic Economy

William Harvey's Circulatory Blood Flow



William Harvey
1578-1657

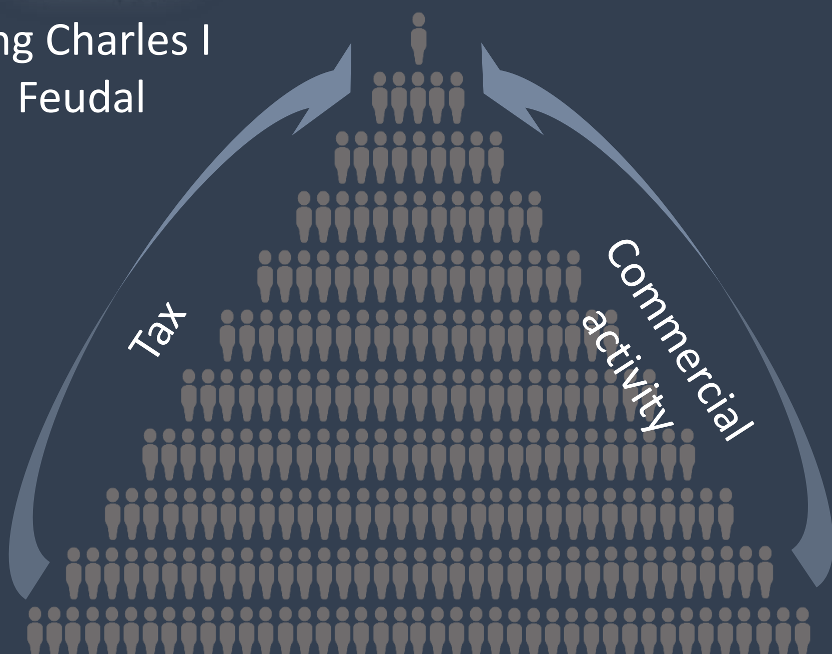
Prior to Harvey the dominant medical paradigm was the **equilibrium** of the humours

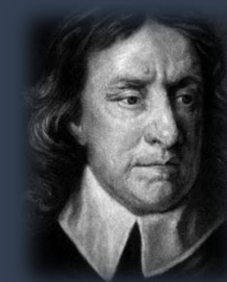
Harvey explained that the left and right ventricles of the heart operate as a pair of pumps on a single **circulatory** system. The left ventricle pumps blood from the lungs to the body and the right ventricle from the body to the lungs.

Scientific paradigm shifts frequently involve moving from static to dynamic theories

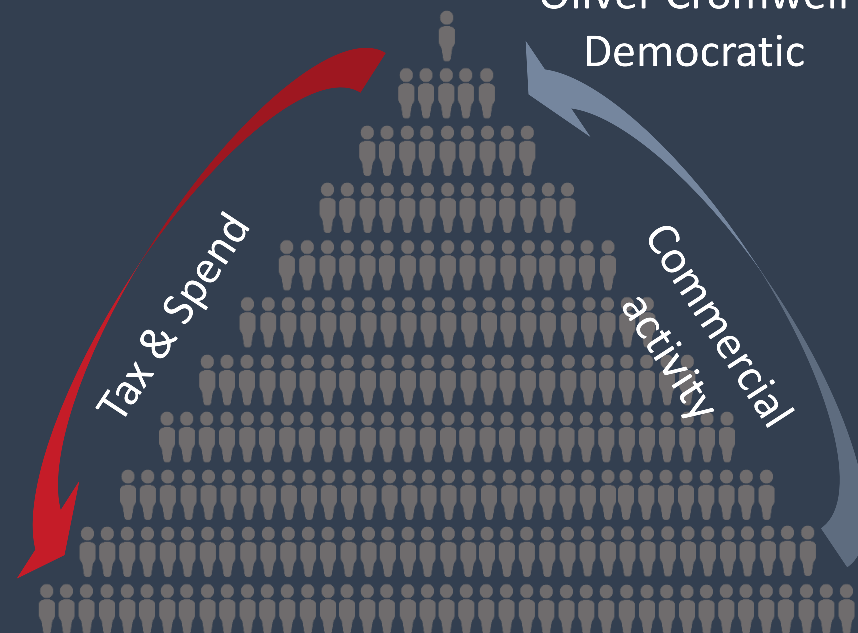
From an stagnant feudal equilibrium economy to a growing democratic circulatory economy

King Charles I
Feudal

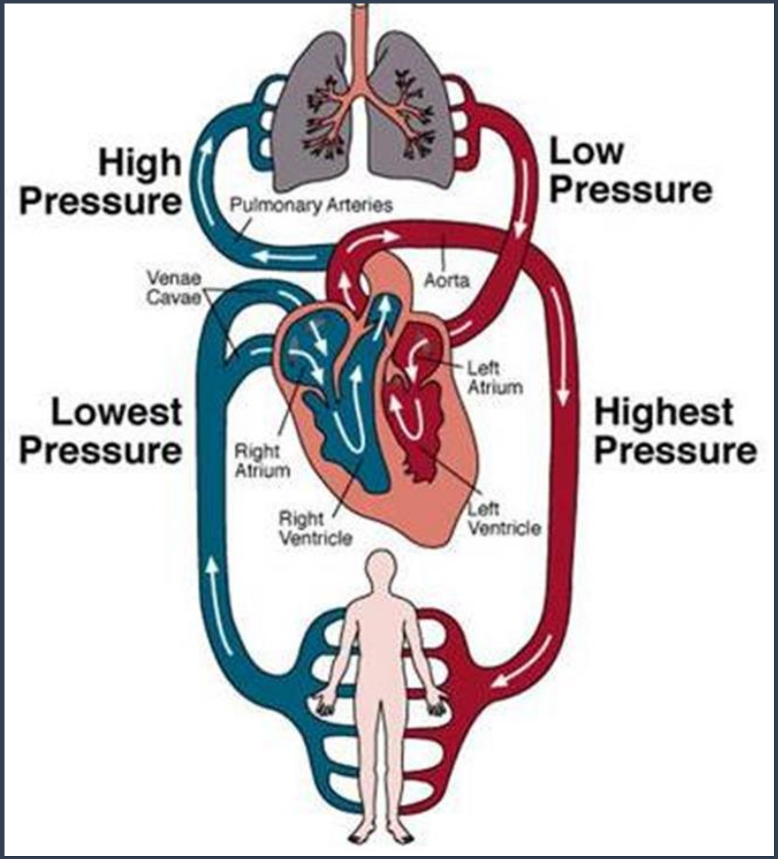


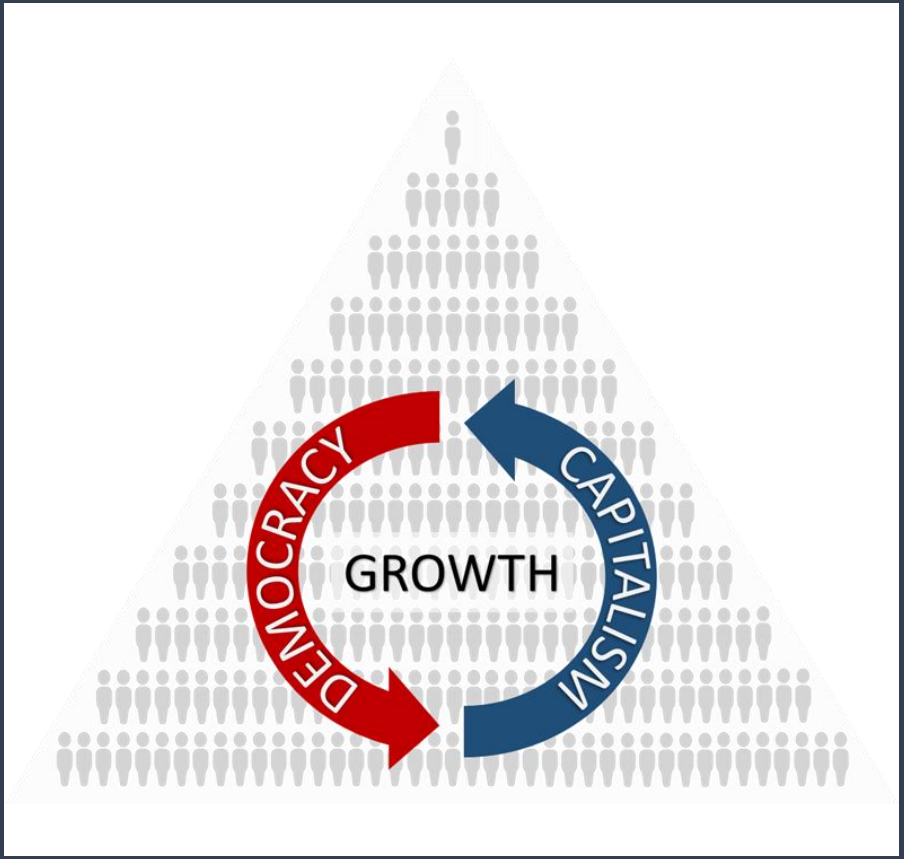


Oliver Cromwell
Democratic



Both the body and the economy are powered by a pair of antagonistic pumps





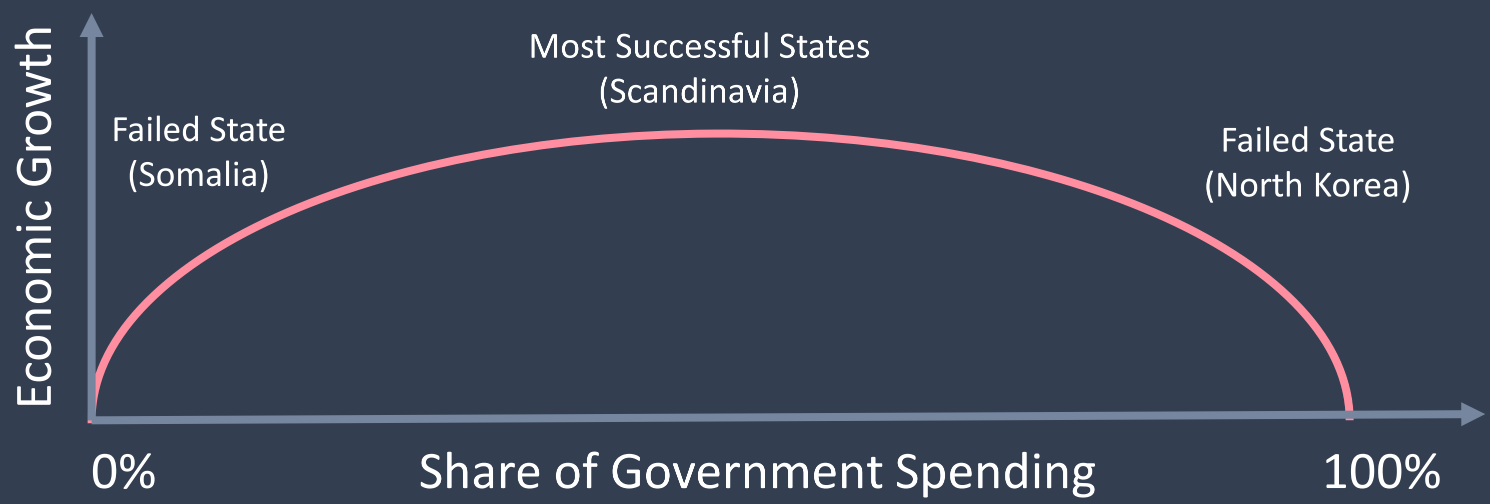
Economic growth, inequality & the circulatory growth model

Neoclassical economics suggests growth will always be enhanced by reducing taxation a circulatory growth model is more nuanced.

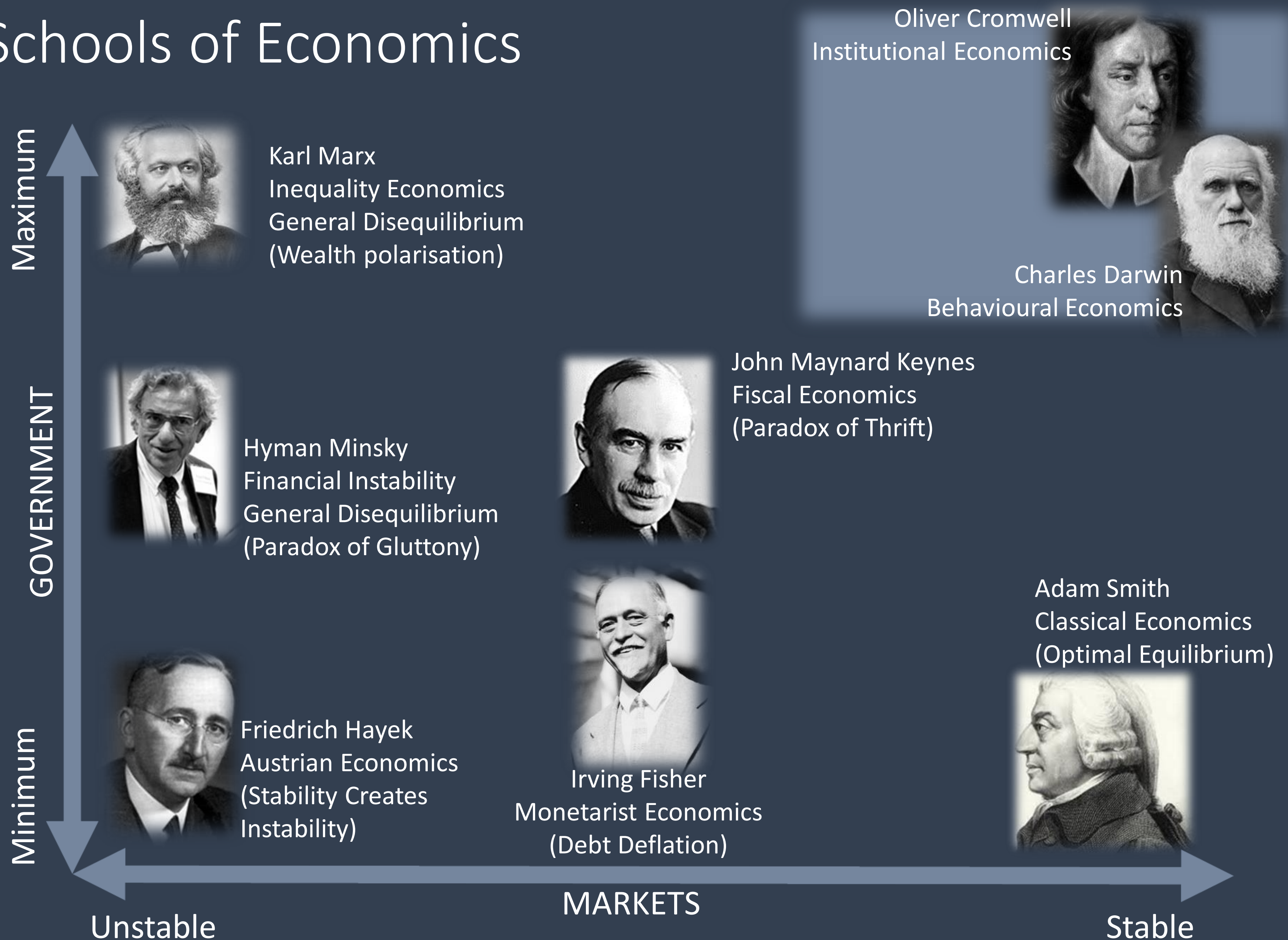
Too much taxation hampers the Darwinian incentive to get ahead (consistent with the mainstream, Adam Smith, paradigm)

Too little taxation will allow wealth polarisation, causing stagnation (consistent with Marx and Keynes)

Optimal growth via a balance between state and private sectors fits the data, mainstream economics does not

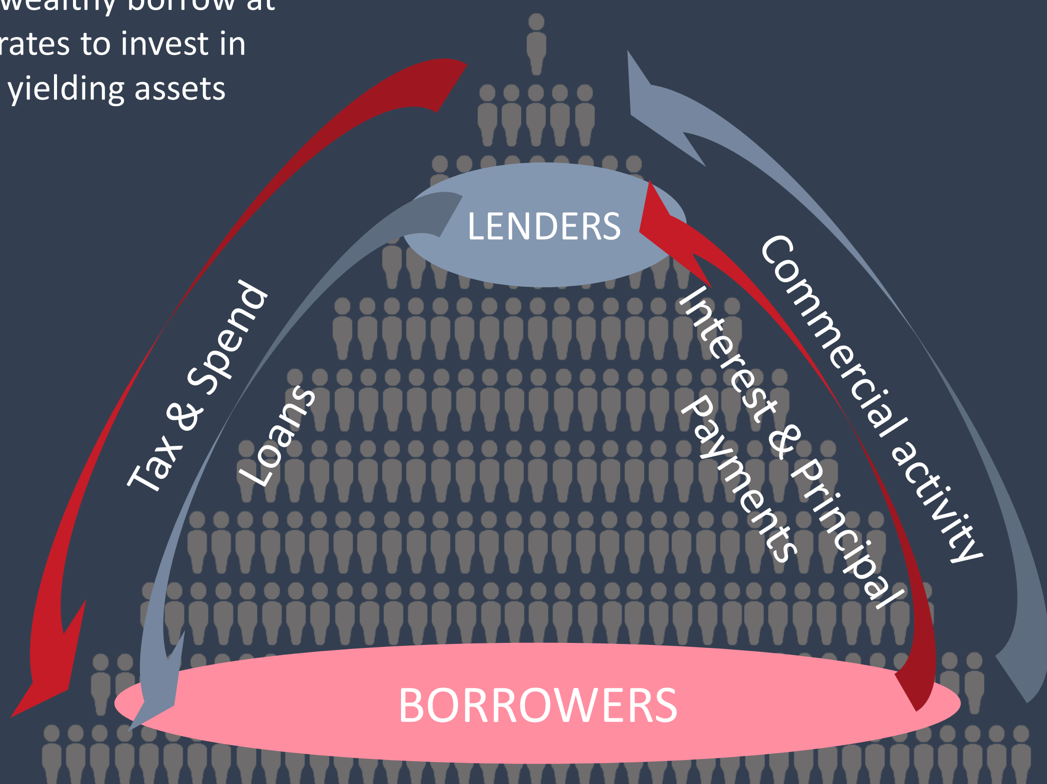


Schools of Economics



Financial economics & the circulatory growth model

The wealthy borrow at low rates to invest in high yielding assets



The poor borrow at high rates to consume

Shifting from a single representative agent to a social pyramid allows the origin and consequences of endogenous money creation (credit) to be easily understood

It helps explain how debt polarises wealth (Marxism) and destabilises the economy (Minsky, Fisher, and Austrian economics)

The circulatory growth model adds valuable nuance to the monetary policy debate:
Monetary policy can generate a short term boost to activity but only at the cost of a long term drag.

Monetary policy is like medicine: helpful in the correct dose, toxic if overused.

A circulatory growth paradigm (story)

Humans are Darwinian competitors, motivated by the desire to improve their position within the social pyramid.

Economic growth is generated by an antagonistic partnership between the state and private sectors.

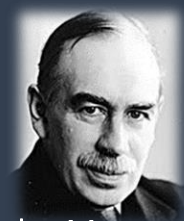
The private sector moves wealth up the social pyramid providing the mechanism for social mobility.

The state sector circulates wealth back down the pyramid, ensuring those at the bottom can compete and those at the top have to compete.

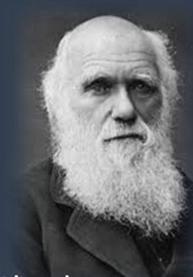
The resulting circulatory flow of wealth places the whole of society on an hedonic treadmill, thereby generating economic growth.

A circulatory growth story could unify and simplify economics

Hyman Minsky

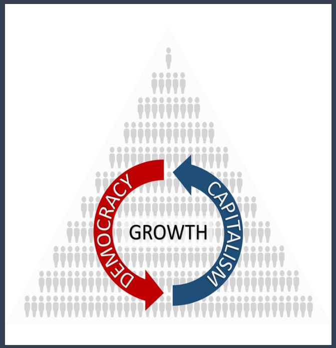


John Maynard Keynes



Charles Darwin

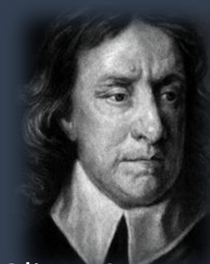
Karl Marx



Adam Smith

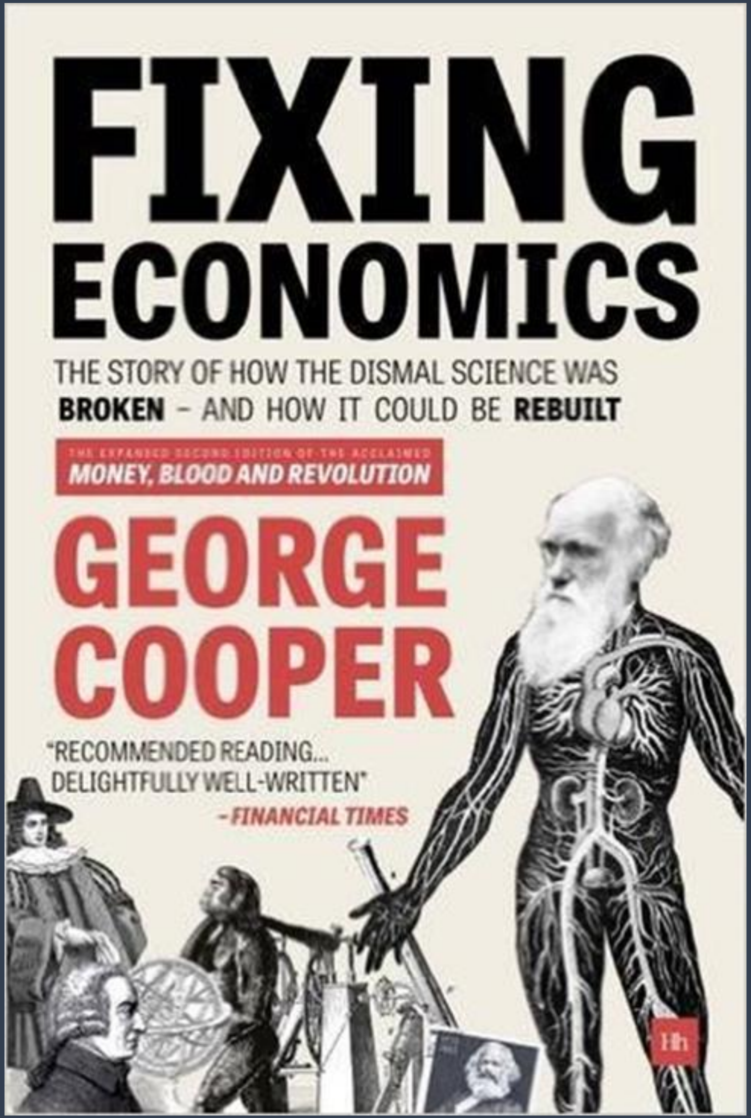
Friedrich Hayek

Irving Fisher



Oliver Cromwell

The circulatory growth model suggests many of today's economic policies may be achieving the opposite of the desired effect



Fixing Economics is available from Amazon and the slides of this talk will be available on Twitter

@FixingEconomics

Fixing Economics

George Cooper
Chief Investment Officer
Equitile Investments Ltd

@FixingEconomics

The Marshall Society 'Crisis Economics' Conference
4th February 2017
The Cambridge Union