



Can the crisis pave the way for a sustainable global golden age?

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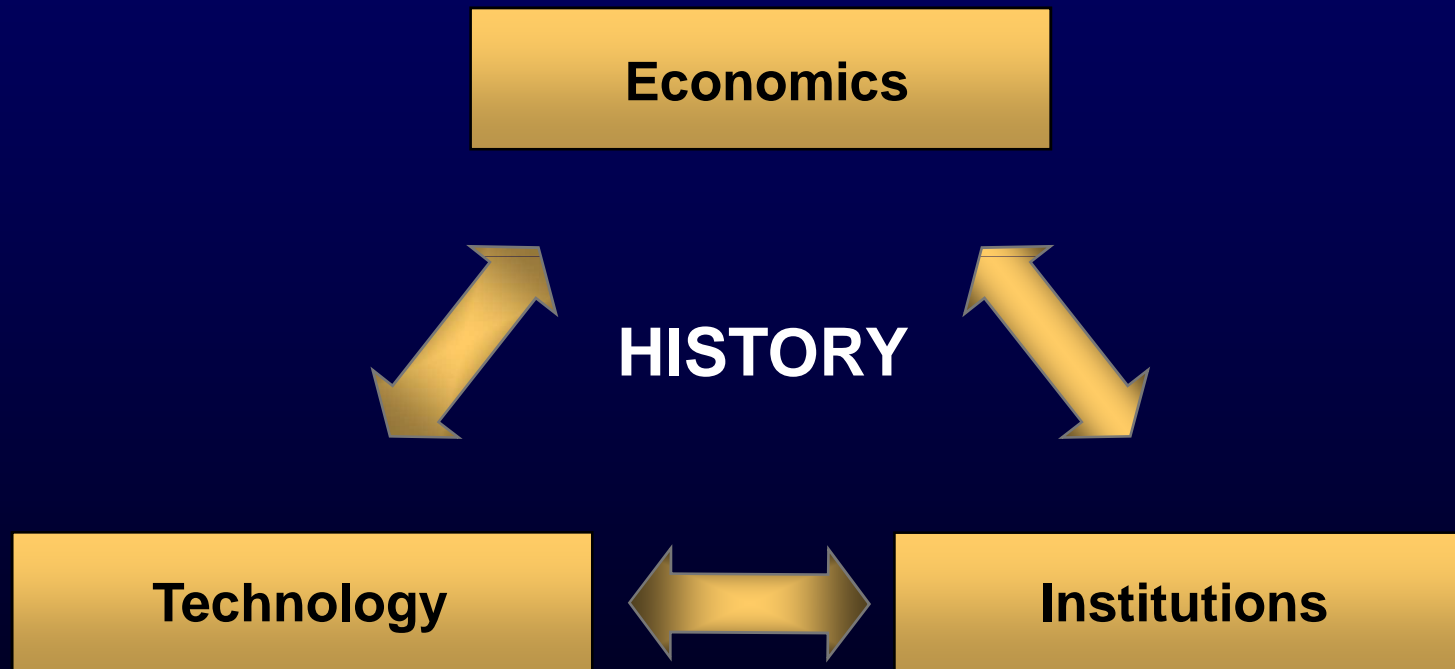
**Presentation at the LCF Symposium
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**The adequacy of the solution
to the financial crisis**

**DEPENDS ON THE ADEQUACY
OF THE EXPLANATION**

Whatever you think of standard economic theory,
it is designed to function in “normal” circumstances

**WHEN WE NEED TO UNDERSTAND EXTRAORDINARY TIMES
WE CANNOT DO WITHOUT INTERDISCIPLINARITY**



That wider framework helps us identify long-term regularities

TWO LEVELS OF UNDERSTANDING OF THE CRISIS

IMMEDIATE CAUSES

Global imbalances?
Too-big-to-fail?
Pro-risk incentives?
Inappropriate
regulation?
Excess liquidity?
Others?

Important for how to design
effective regulation
and financial architecture

UNDERLYING CAUSES

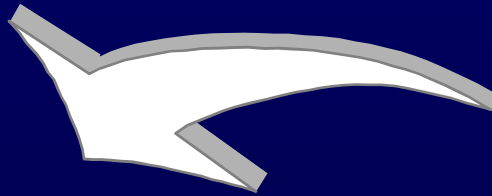
Are such major
once-in-a half-century
collapses
accidental?
Or are they endogenous
to the market system?

Essential for how to revive
the economy and
unleash a new prosperity

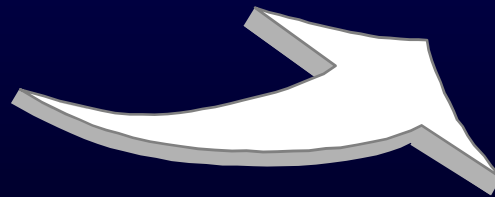
Because in market economies
technical change occurs by revolutions

**CAPITALISM EXPERIENCES PENDULAR SWINGS
EVERY TWO OR THREE DECADES**

From a period of
FINANCIAL CAPITALISM
to install
a technological revolution
with unfettered
free markets
and income polarization



To a period of
PRODUCTION CAPITALISM
aided by government
to fully deploy
the new potential
across the economy
and society



**A MAJOR FINANCIAL COLLAPSE
MARKS THE SWING OF THE PENDULUM**

What had been working for growth and innovation before
is unlikely to work from now on

FIVE TECHNOLOGICAL REVOLUTIONS IN 240 YEARS

Each begins in a core country and spreads across the world

Britain

1771

The 'Industrial Revolution' (machines, factories and canals)

Britain

1829

Age of Steam, Coal, Iron and Railways

Germany
USA
vs. Britain

1875

Age of Steel and Heavy Engineering (electrical, chemical, civil, naval)

USA

1908

Age of the Automobile, Oil, Petrochemicals and Mass Production

USA

1971

Age of Information Technology and Telecommunications

???

20??

Age of Biotech, Nanotech, Bioelectronics and New Materials?

And each drives a **GREAT SURGE OF DEVELOPMENT**
and shapes innovation for half a century or more

Why call them revolutions?

Because they transform the whole economy!

NEW INDUSTRIES

and

NEW PARADIGM FOR ALL

A powerful cluster
of new dynamic industries
and infrastructures
with increasing productivity
and decreasing costs



New generic technologies,
infrastructures and
organisational principles
for modernising
the existing industries too

Explosive
growth
and structural
change



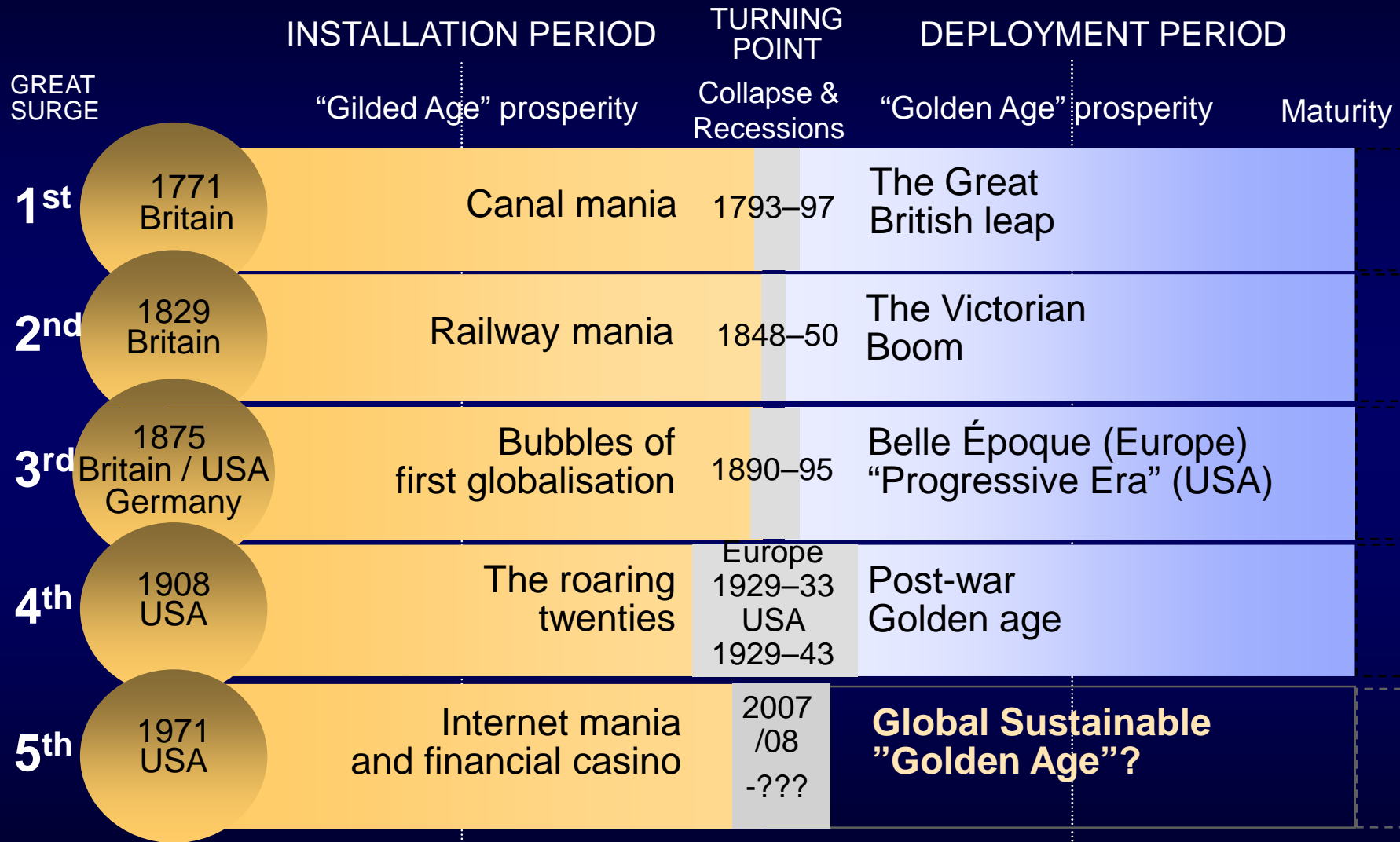
A quantum
jump in
innovation and
productivity
for all

A massive change in the direction of innovation

THE INERTIAL FORCES RESISTING SUCH A TRANSFORMATION
ARE AT THE ROOT OF THE PENDULAR SWINGS

THE HISTORICAL RECORD

Bubble prosperities, recessions and golden ages



The shift from financial mania and collapse to Golden Ages is enabled by regulation and policies to shape and widen markets

WHY THIS PATTERN?

Two functionally distinct agents looking for profit in the market system:
PRODUCTION CAPITAL for wealth creation
AND FINANCIAL CAPITAL for re-allocation

AT MATURITY
of each surge

Incumbent
PRODUCTION CAPITAL
becomes conservative:

- Tied to fixed capital
- Bound to specific knowledge
- Complacent



FINANCIAL CAPITAL is:

- Mobile, flexible and
- Impatient for opportunities



**Tacit alliance with the
NEW ENTREPRENEURS**

**Battle against the old paradigm and
to remove the established institutional framework**

**Massive displacement of funds
towards the new industries**

**UNLEASHING THE PROCESS
THAT LEADS TO THE BUBBLE
and to the replacement of the engines of growth**

**And the new and renewed production capital
will be better to lead the economy once the new paradigm is installed**

A SHIFT IN THE DRIVERS OF INNOVATION

INSTALLATION = supply- push

DEPLOYMENT = demand- pull

THE STATE
in a
facilitating
service
role

FINANCE
and
THE NEW
ENTREPRENEURS
as drivers
and innovators

FINANCE
in a
facilitating
service
role

PRODUCTION
and
THE STATE
as drivers
and innovators

A vast free market experiment

**The full flourishing
of the installed potential**

**During deployment innovation in production depends on
EFFECTIVE INSTITUTIONAL AND POLICY INNOVATION**

BOTH SHIFTS ARE TIMES OF POLITICAL AND IDEOLOGICAL CONFRONTATIONS

**At the end
of Deployment**

**Stagnation has to be
deep and long enough
to bring back the dynamics of the market
and eliminate the institutional obstacles
to the diffusion of the new paradigm**

**At the end
of Installation**

**The financial collapse and its
consequences
have to be big enough
to weaken the power of finance
and bring back
the regulatory power of the State
and the welfare interests of the public**

**A unique feature of our time
is that the major mid-surge panic
happened in two episodes**

FIRST

**Technological innovation
IN ICT**

**The INTERNET MANIA
in the 1990s**

NASDAQ collapse

SECOND

**Financial innovation
WITH ICT**

**The EASY CREDIT bubbles
with high-risk shadow banking**

2007-08 MELTDOWN

**Understanding this is crucial
for identifying the nature, the consequences
and the solution of the current crisis**

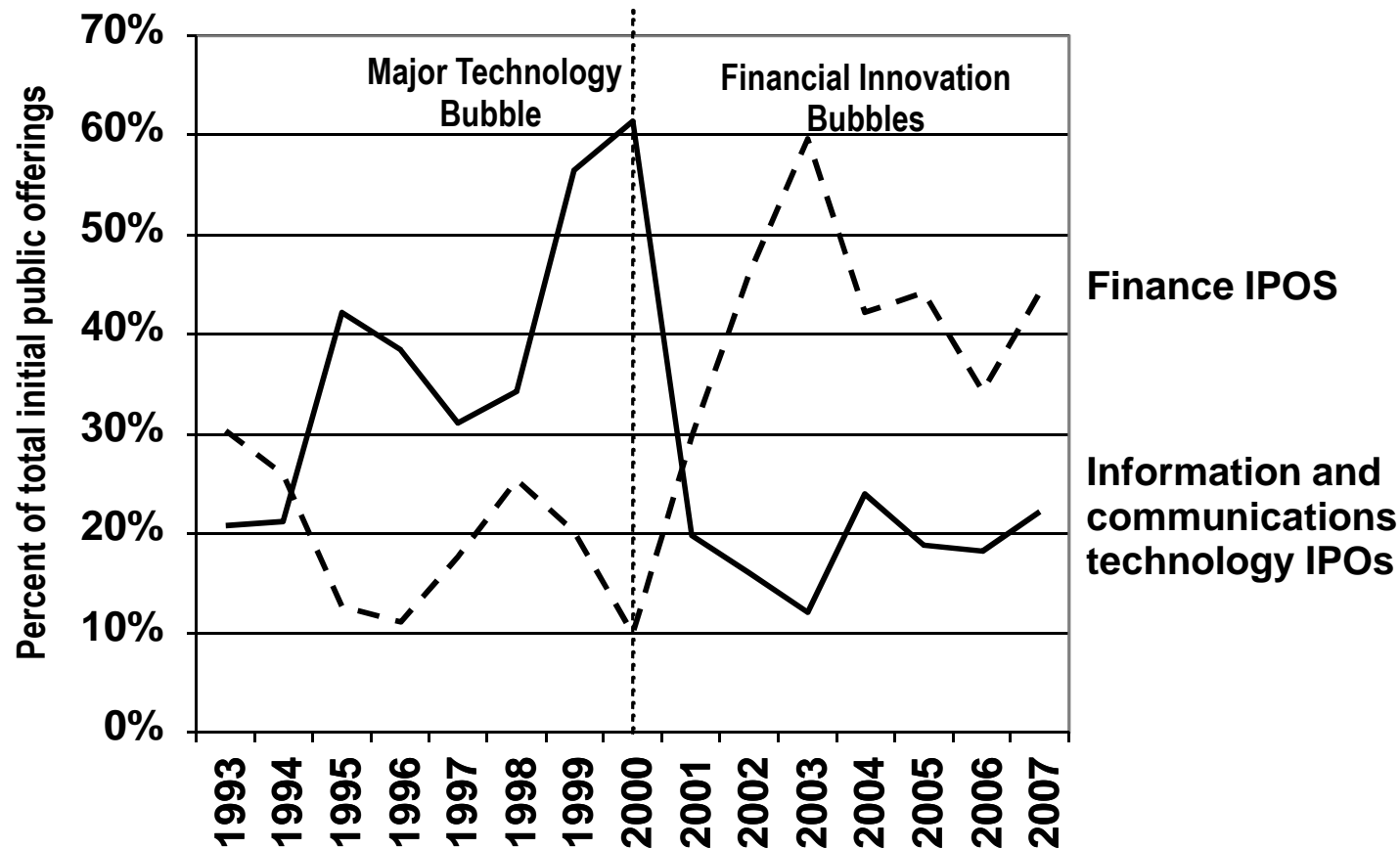
**TWO LINKED
BUT DIFFERENT BUBBLES**

**They both concentrated
innovation and asset inflation
in technology and finance
but in opposite proportions**

The 1990s and the 2000s:

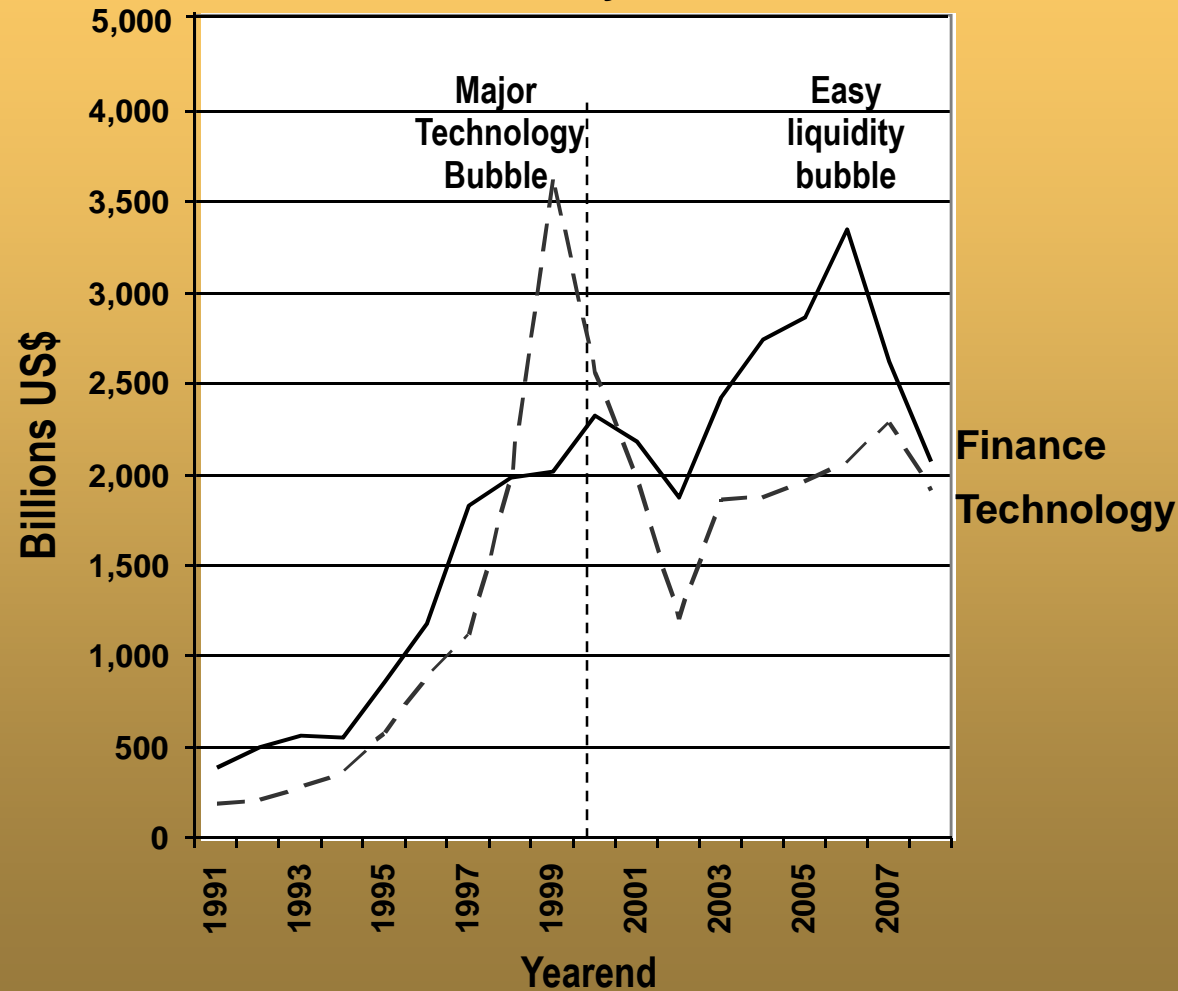
Together, technological and financial innovation represented more than half of IPO activity in US stock markets

ICT and finance IPOs as percent of total in US stock markets 1993-2007



The 1990s and the 2000s: A SWITCH IN DIFFERENTIAL ASSET INFLATION

Market capitalisation of financial and technology stocks
US 1991-July 2008



Source: Thomson

At the peaks they jointly represented as much as 35% of total market cap

AND ICT AND FINANCE WERE INTERDEPENDENT

**Global internet
would not have been possible
without capital gains in the stock market
to foster full coverage without profits**

**The housing bubbles
could not have been so intense
without securitisation
(which depended on information
technology)**

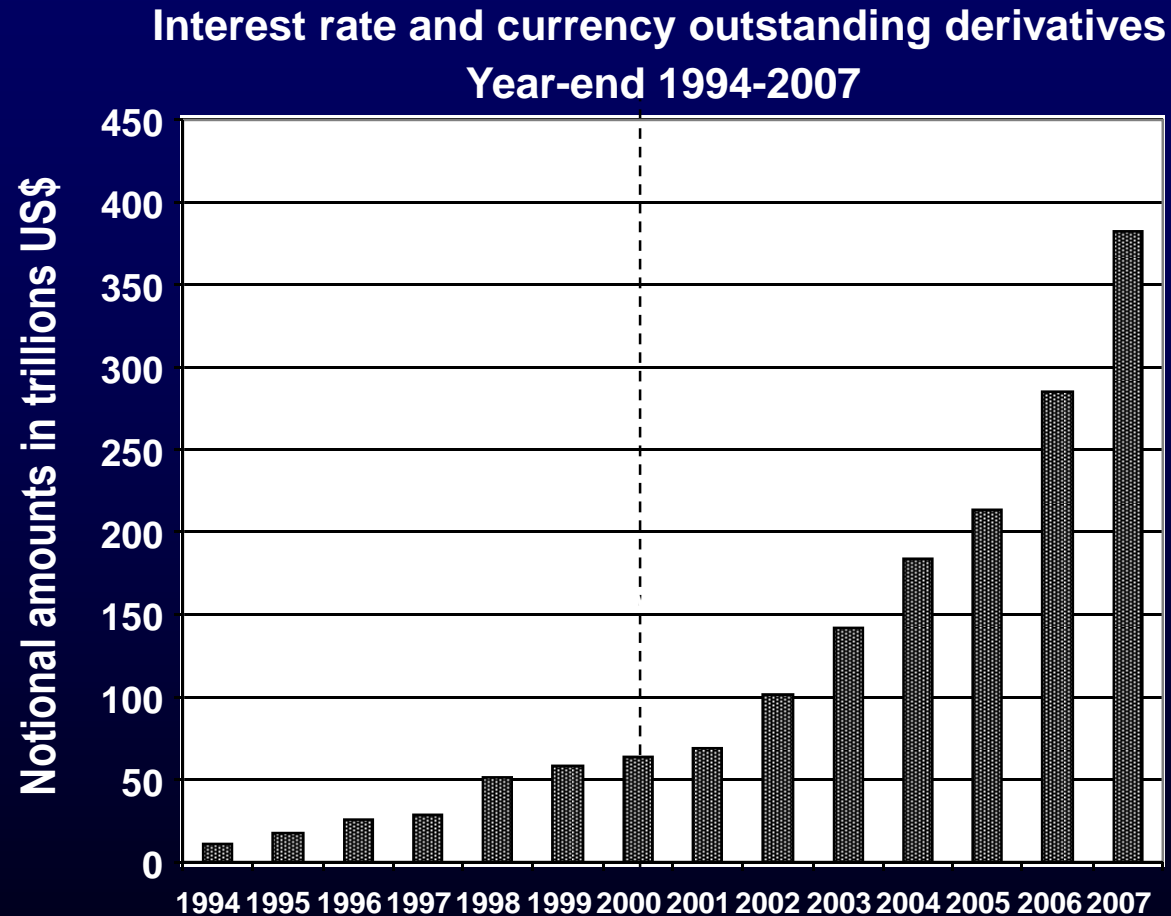
**and without
the possibility of trading them globally
(which depended on Internet)**

**YET THE TWO BUBBLES
WERE FUNDAMENTALLY
CONTINUOUS**

**Several of the practices of the 2000s
were an intensified continuation
of those of the 1990s**

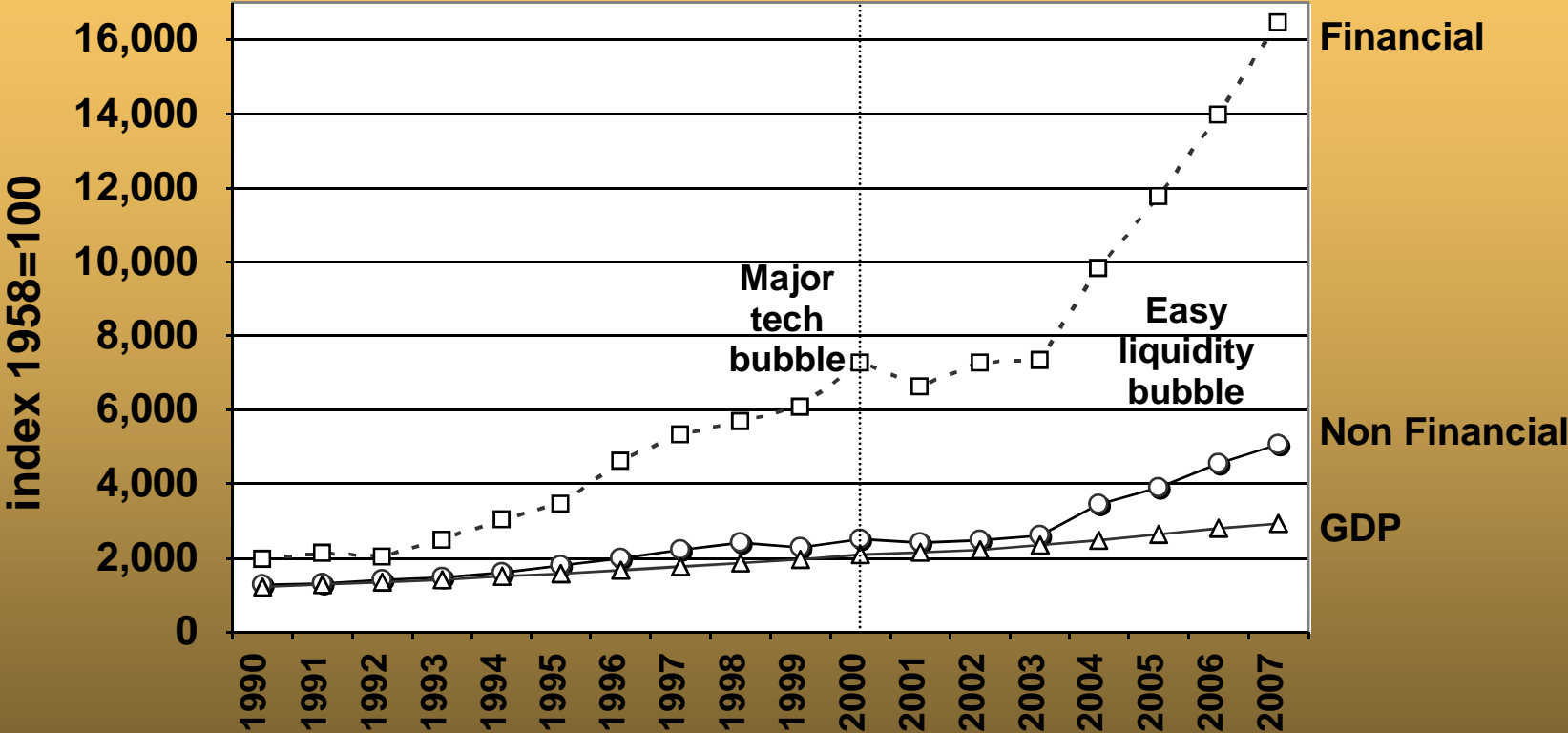
The 1990s and the 2000s: CONTINUITY IN THE INSTRUMENTS OF CASINO-TYPE SPECULATION

Source: International Swaps and Derivatives Association, Inc



Increasing at the same rhythm in both bubbles
and reaching seven times global GDP in 2007

THE INTENSIFIED BIAS TOWARDS FINANCIAL PROFITS



And much of the profits of the “non-financial” companies were made by their financial arms

Source: Bureau of Economic Analysis

**A WORLD IN DEPLOYMENT
IS VERY DIFFERENT
FROM A WORLD IN INSTALLATION**

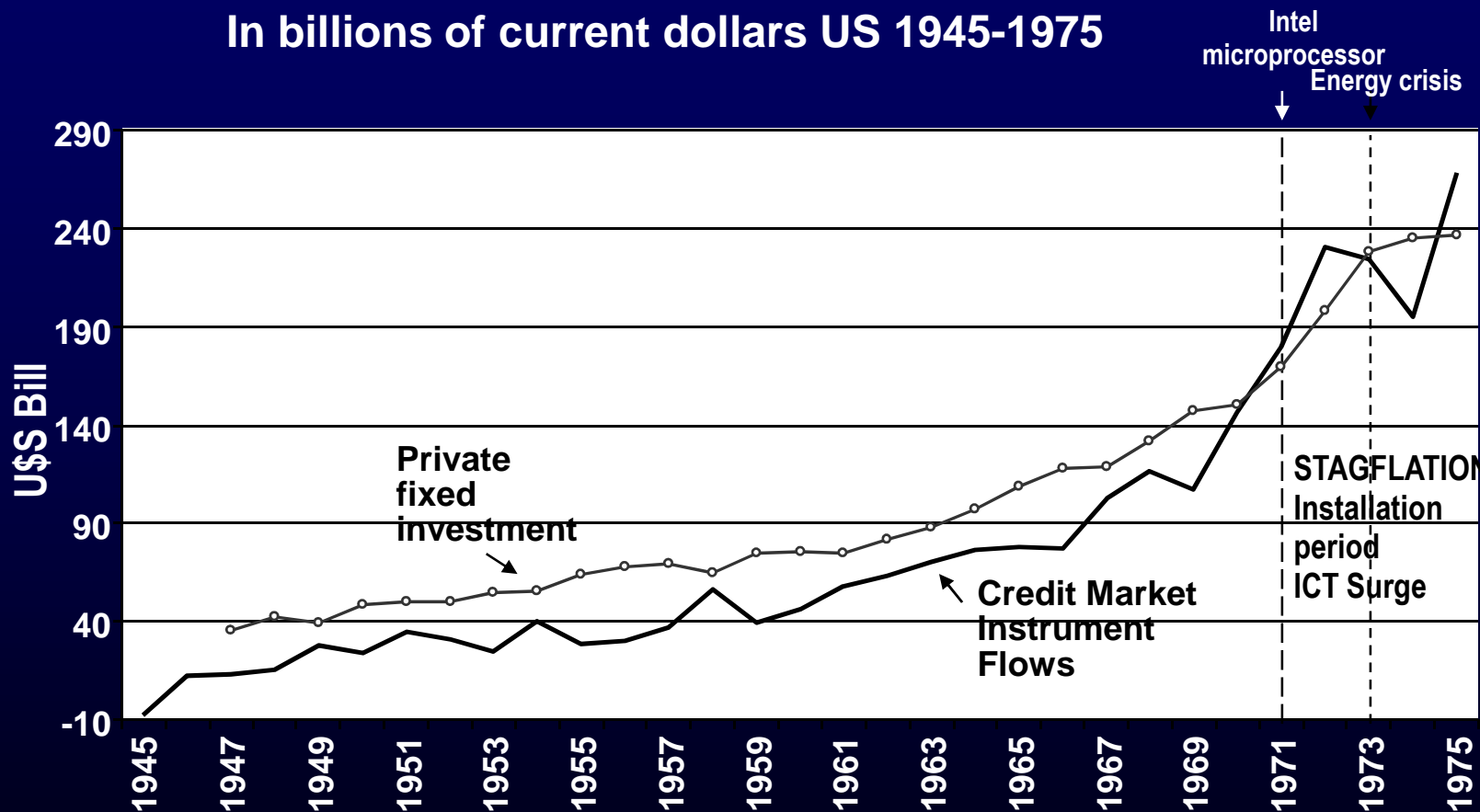
An illustration:

**The shift in relative behaviour
of direct investment
and financial flows**

In the deployment period of the previous surge: 1947-1974

Fixed investment outpaced financial credit flows

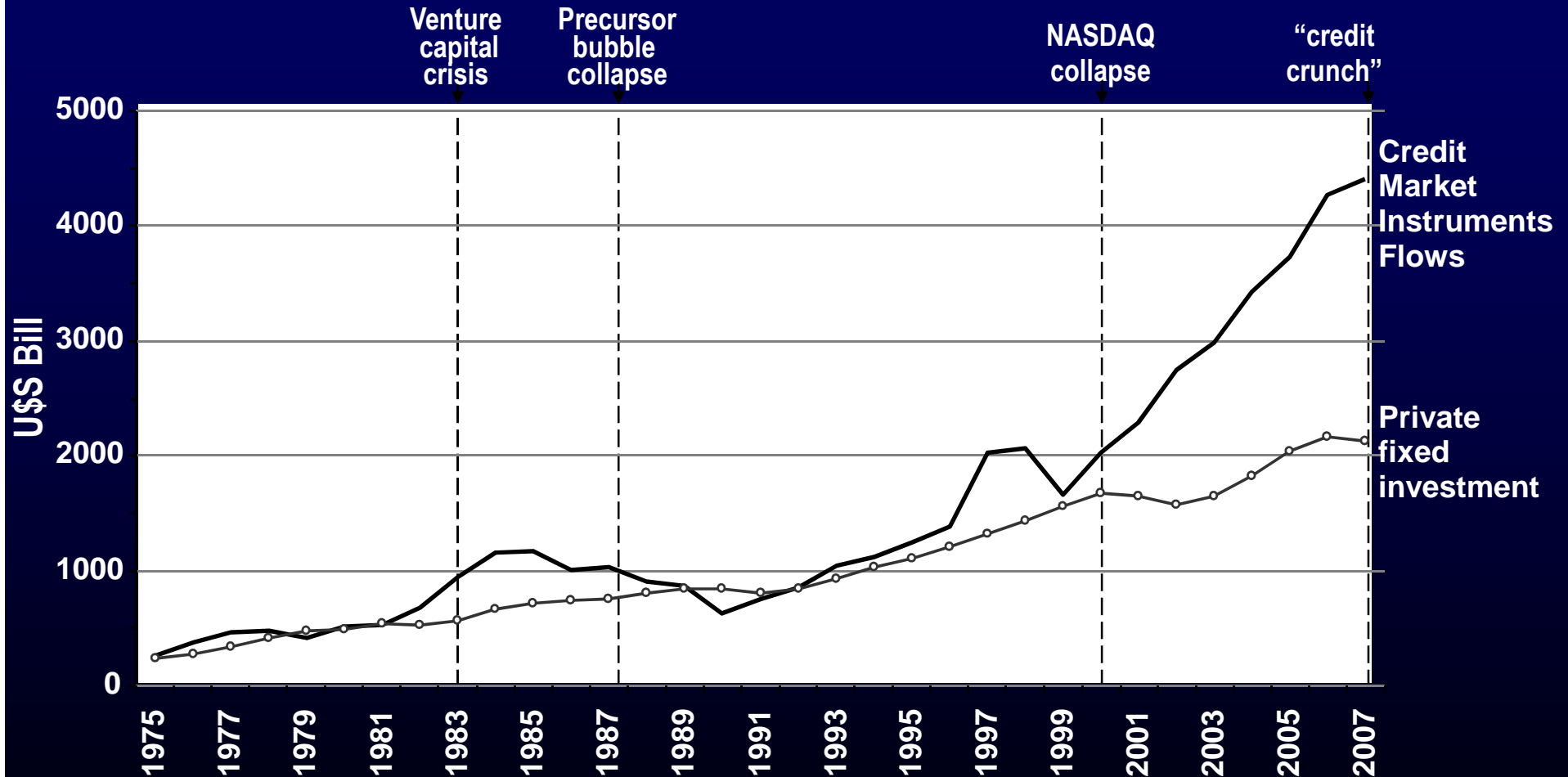
Private fixed investment and financial instruments flows
In billions of current dollars US 1945-1975



Source: Data from BEA and Fed, period indications by the author
Excel filename: Real & financial Investment US 1947-2007 CPM 150209.xls

Whereas during the Installation of the current fifth surge 1970s to 2000s finance increasingly decoupled from investment in the real economy

Private fixed investment and financial instruments flows In billions of current dollars US 1975-2007



Source: Data from BEA and Fed, period indications by the author

Excel filename: Real & financial Investment US 1947-2007 CPM 150209.xls

**Yet these major bubbles
play an important role in the market economy**

**THE INSTALLATION
OF THE BASES FOR THE FUTURE**

Enough infrastructure for a decade or more

New production and consumption models established

The new paradigm accepted by all as common sense

New entrepreneurial giants

New engines of growth

**THEY PREPARE THE ECONOMY
FOR FULL EXPANSION WITH THE NEW PARADIGM
AND PRODUCTION CAPITAL AT THE HELM**

**But unleashing a healthy deployment
demands institutional creativity**

Three tasks for governments at the turning point, after the major crash:

1 Intensive therapy
for finance

DONE... even overdone

2 Redesign of regulation
and financial architecture

**This time global finance needs
both national redesign and
a global regulatory “floor”**

STILL ON THE DRAWING BOARD

3 Enable a
STRUCTURAL SHIFT
in the real economy

**RARELY BEING CONSIDERED
AS SUCH**

**But recovery will be very difficult
without it**

**The length of the process depends on the social and political forces
The last time around it took over a decade and a major war**

THE POST-WAR GOLDEN AGE

was unleashed

by leaving behind the free market policies

of the roaring 1920s

and the recessions of the 1930s

Finance was regulated

favoring real investment

and income was redistributed

to improve demand profiles

for suburban living and mass consumption

IT WAS THE ACHIEVEMENT

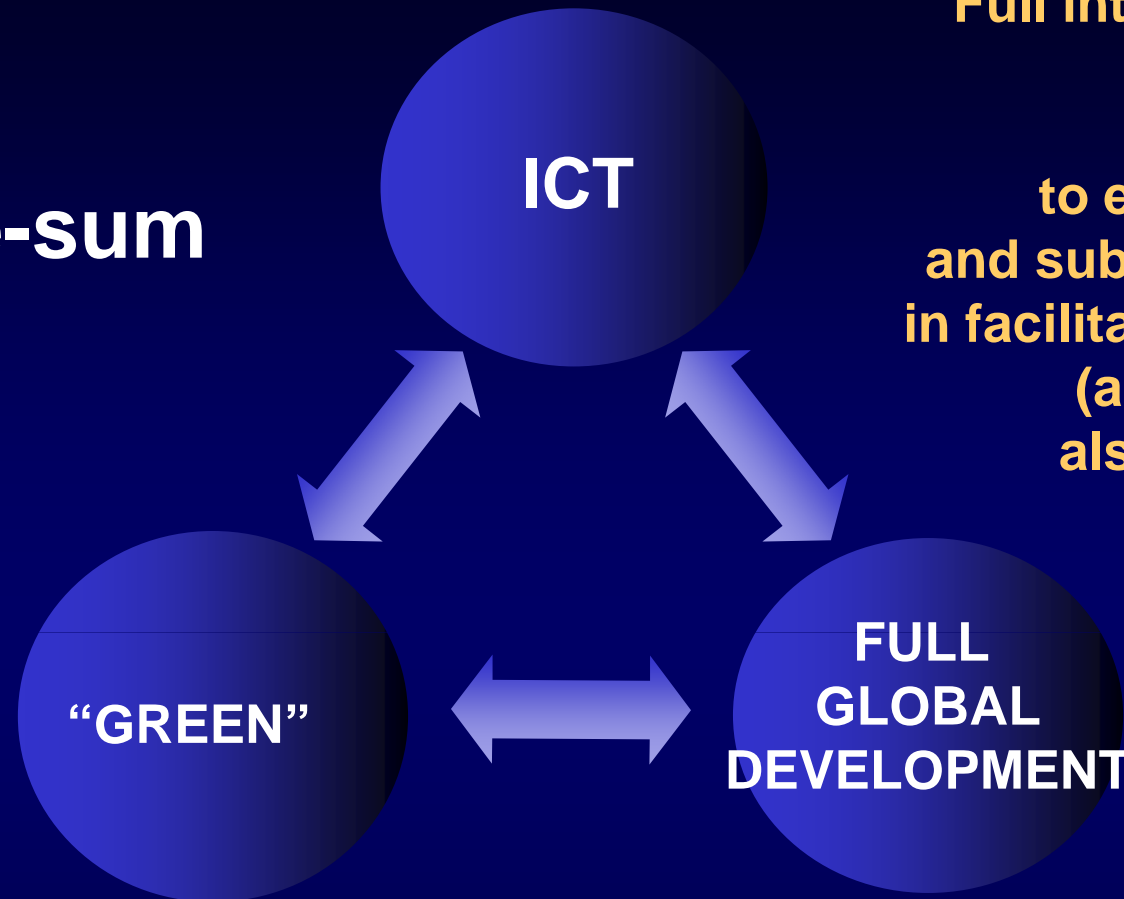
OF WESTERN DEMOCRACIES

to set up a positive-sum game

between business and the great majorities

(as workers and consumers)

**A new
global
positive-sum
game?**



**Full internet access
at low cost
is equivalent
to electrification
and suburbanisation
in facilitating demand
(and, this time,
also education)**

**Revamping
transport, energy,
products and production systems
to make them sustainable
is equivalent to
post-war reconstruction
and suburbanisation**

**Incorporating
successive new millions
into sustainable
consumption patterns
is equivalent to the Welfare State
and government procurement
in terms of demand creation**

**The technological revolution and the global boom
have provided the wealth creating potential
FOR A SUSTAINABLE GLOBAL GOLDEN AGE**

**The challenge is to collectively build
positive sum games**

**BETWEEN BUSINESS AND SOCIETY
BETWEEN THE ADVANCED AND THE ADVANCING COUNTRIES
AND BETWEEN HUMANITY AND THE PLANET**

But the goals of policy need to be clear for all the agents

THE GOAL OF NEW REGULATION?

Not to constrain finance but to reorient it:

**It should become more profitable
to fund expansion and innovation
in the real economy
than to “play” in the casino
of synthetic instruments and derivatives**

THE GOAL OF STIMULUS?

Not just to put money into the economy

**But to shape the demand opportunity space
making it profitable to innovate
in agreed convergent directions**

**WE NEED MODERN INDUSTRIAL POLICY
IN A GLOBAL CONTEXT**

**Market fundamentalism
is one of the main obstacles
for unleashing a healthy deployment**

BUT KEYNES IS NOT ENOUGH

We also need Schumpeter...

**And a disposition to make
bold institutional innovation
on national and global spaces**