

Tomorrow's Capitalism:

**GROWTH  
AFTER  
THE FINANCIAL  
CRISIS**

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# THE CURRENT CRISIS IS NOT AN ACCIDENTAL EVENT IN THE FINANCIAL SYSTEM

- It is a historically recurrent phenomenon
- It is endogenous to the market system
- It results from the way  
technical change is assimilated

THE COLLAPSE MARKS A STRUCTURAL SHIFT  
IN THE ALIGNMENT OF FORCES  
GUIDING GROWTH AND INNOVATION

If history is a guide...  
A GLOBAL GOLDEN AGE MAY LIE AHEAD

WHAT IS THE BASIS  
FOR MAKING  
THOSE STATEMENTS?

The regular historical patterns  
of diffusion and assimilation  
of technological revolutions  
in the economy and society

# The analysis of how technological revolutions are assimilated shows powerful regularities and identifiable specificities

## HISTORICAL REGULARITIES

- A technological revolution comes together every 40 or 60 years (at maturity of the previous)
- Each drives *a great surge of development* broken in two different periods one led by finance, the other by production
- A major financial collapse marks the beginning of the switch

## EPOCHAL SPECIFICITIES

- Each revolution provides a different potential for growth with different leading industries
- Each brings a paradigm shift in the criteria for innovation and competitiveness
- The institutional context and the policy decisions define what part of the new potential will be deployed and how

Each great surge is unique due to historical, political and other contingent factors  
But the recurring patterns have a fundamental causal explanation

# The Theory of Great Surges of Development

(Schumpeterian up to a point)

Technical change in the market system  
is constant but not continuous

Capitalism is revitalised by successive technological revolutions

- Widening and deepening market reach
- Raising the potential productivity levels
- Incorporating new social groups to social and economic progress (while leaving others out) and
- Encompassing greater and greater parts of the globe

The focus is on the interplay between  
technology, the economy and social institutions

It is a complementary theory  
that describes and explains  
the way technical change drives and shapes long-term growth  
and provides a context for other levels of analysis

# FIVE GREAT SURGES OF DEVELOPMENT IN 240 YEARS

driven by successive technological revolutions

Spreading  
from  
core country

Britain

1771

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

Britain

1829

Age of Steam, Coal, Iron and Railways

Britain

USA

1875

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

Germany

USA

1908

Age of the Automobile, Oil, Petrochemicals and Mass Production

USA

1971

Age of Information Technology and Telecommunications

USA?

Europe?

Both?

Other?

20??

Age of Biotech, Nanotech, Bioelectronics and new materials?

# Why call them revolutions?

Because they transform the whole economy!

NEW INDUSTRIES

and

NEW PARADIGM FOR ALL

A powerful cluster  
of visible interdependent  
new and dynamic industries  
and infrastructures



New multi-purpose technologies,  
infrastructures and organisational  
principles capable of modernising  
the existing industries too



Explosive  
growth  
and  
structural  
change

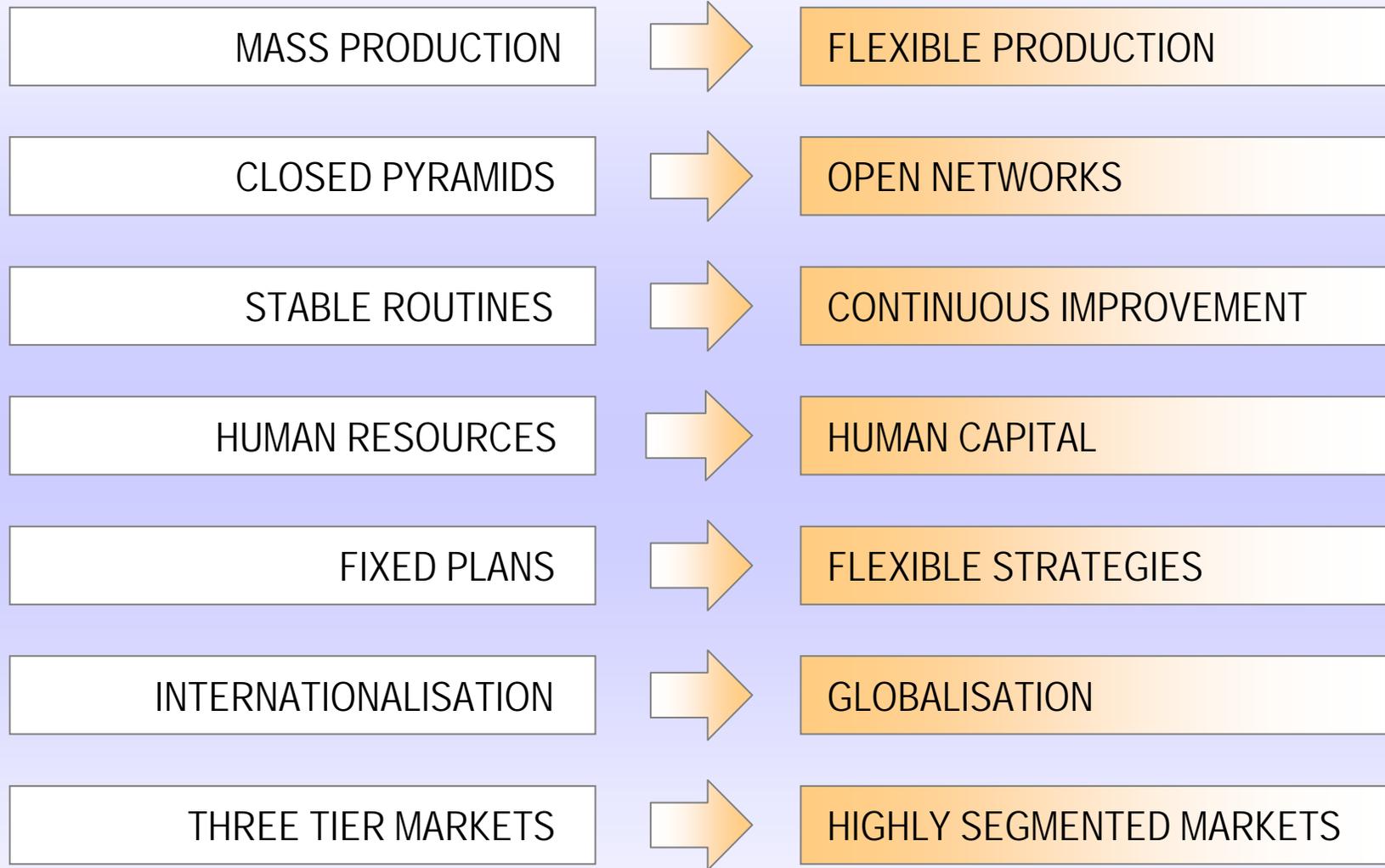


A quantum  
jump in  
innovation and  
productivity  
potential for all

A massive change in the direction of change

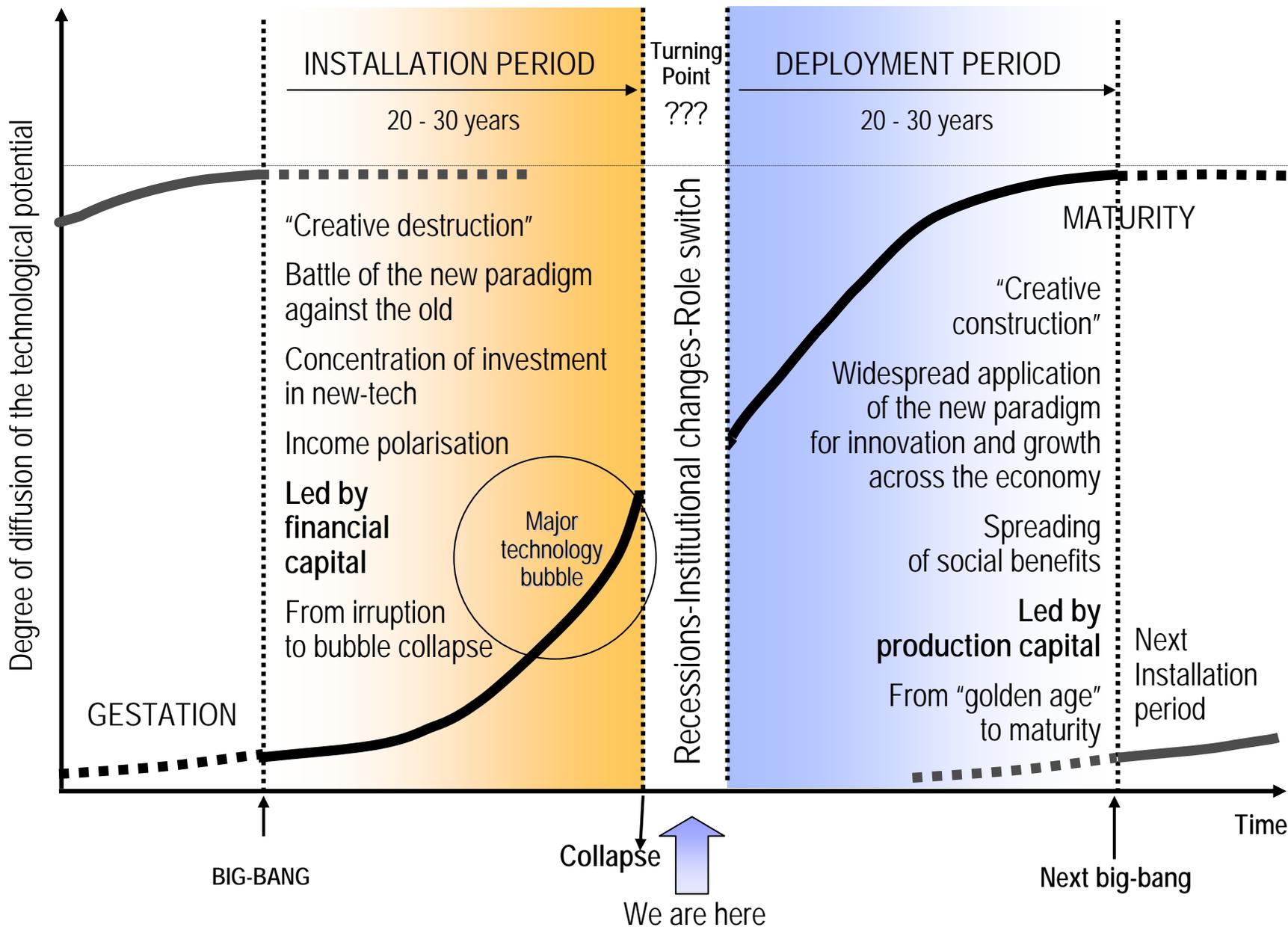
TRANSFORMING THE OPPORTUNITY SPACE AND  
THE WAYS OF LIVING, WORKING AND COMMUNICATING

# Some well-known aspects of the paradigm shift taking place since the 1970s



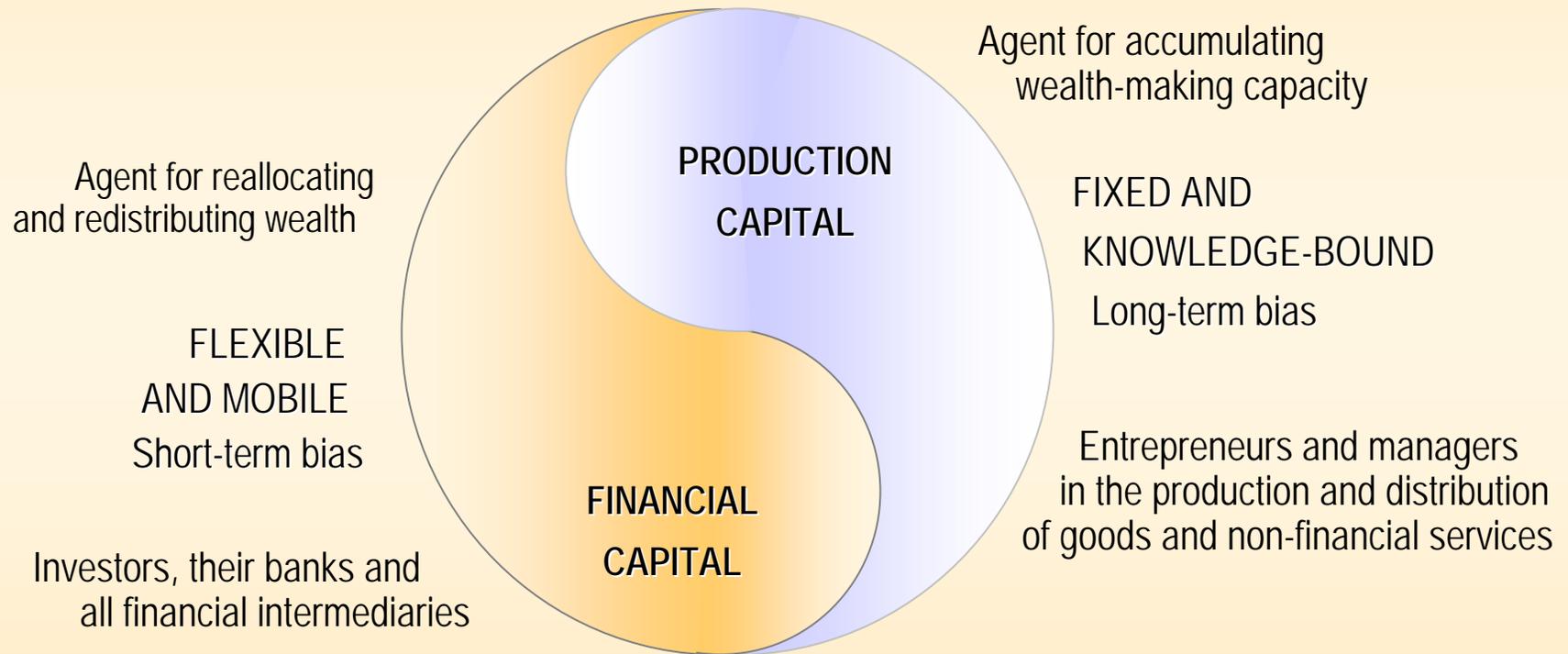
A radical change in best practice 'common sense'

Due to the difficulty of social absorption of revolutions and new paradigms  
EACH GREAT SURGE IS BROKEN INTO TWO DIFFERENT PERIODS



# Why this pattern? Why the role switch?

THE DYNAMICS OF THE CAPITALIST ECONOMY IS SHAPED BY TWO DIFFERENT AND FUNCTIONALLY SEPARATE PROFIT-SEEKING AGENTS



Financial capital can massively redirect resources and "force" new paradigm diffusion

Production capital is better for carrying growth and expansion within an established paradigm

AT MATURITY

PRODUCTION CAPITAL BECOMES CONSERVATIVE

Financial capital breaks loose  
backs the new entrepreneurs  
and uses the new technologies to innovate in finance

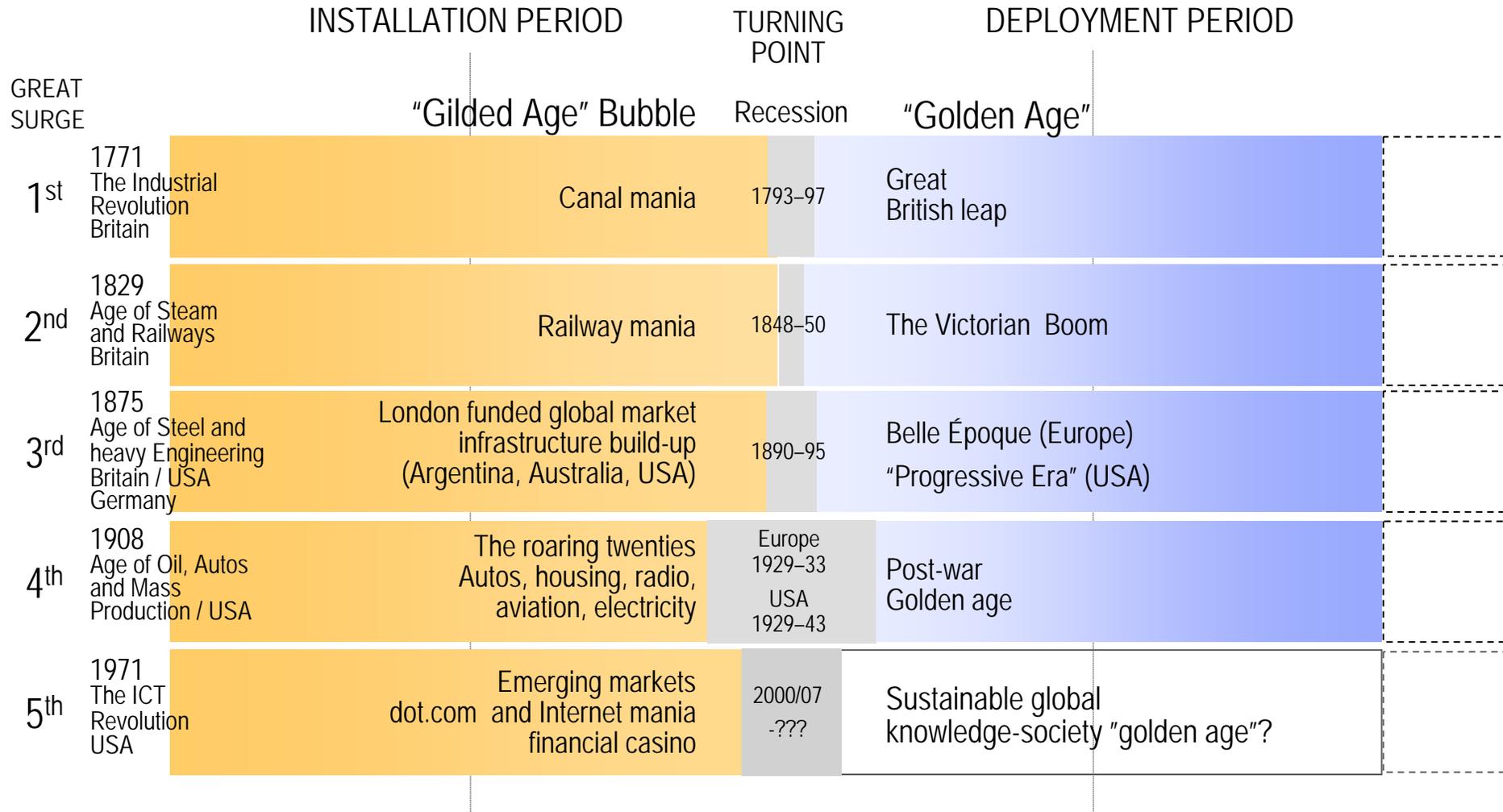
AFTER THE MAJOR BUBBLE COLLAPSE

FINANCIAL CAPITAL BECOMES

AN OBSTACLE TO THE REAL ECONOMY

The new engines of growth are ready to lead the expansion  
The State must come back actively to change the playing field

# The historical record: bubble prosperities, recessions and golden ages



Each Golden Age has been facilitated by enabling regulation and by policies for widening markets and insuring social stability

# THIS TIME THE MID-SURGE BUBBLE HAPPENED IN TWO STAGES

## FIRST

Technological innovation

The INTERNET MANIA  
in the 1990s

NASDAQ collapse  
in 2000

## SECOND

Financial innovation

The EASY CREDIT BOOM  
in the 2000s

FINANCIAL MELTDOWN  
in 2007-08

SO WE ARE NOT FACING A MERE FINANCIAL CRISIS  
BUT A STRUCTURAL SHIFT

Understanding this is crucial  
for finding effective solutions to the current crisis

# TWO VERY DIFFERENT BUT INTERCONNECTED BUBBLES

1990s NASDAQ Boom

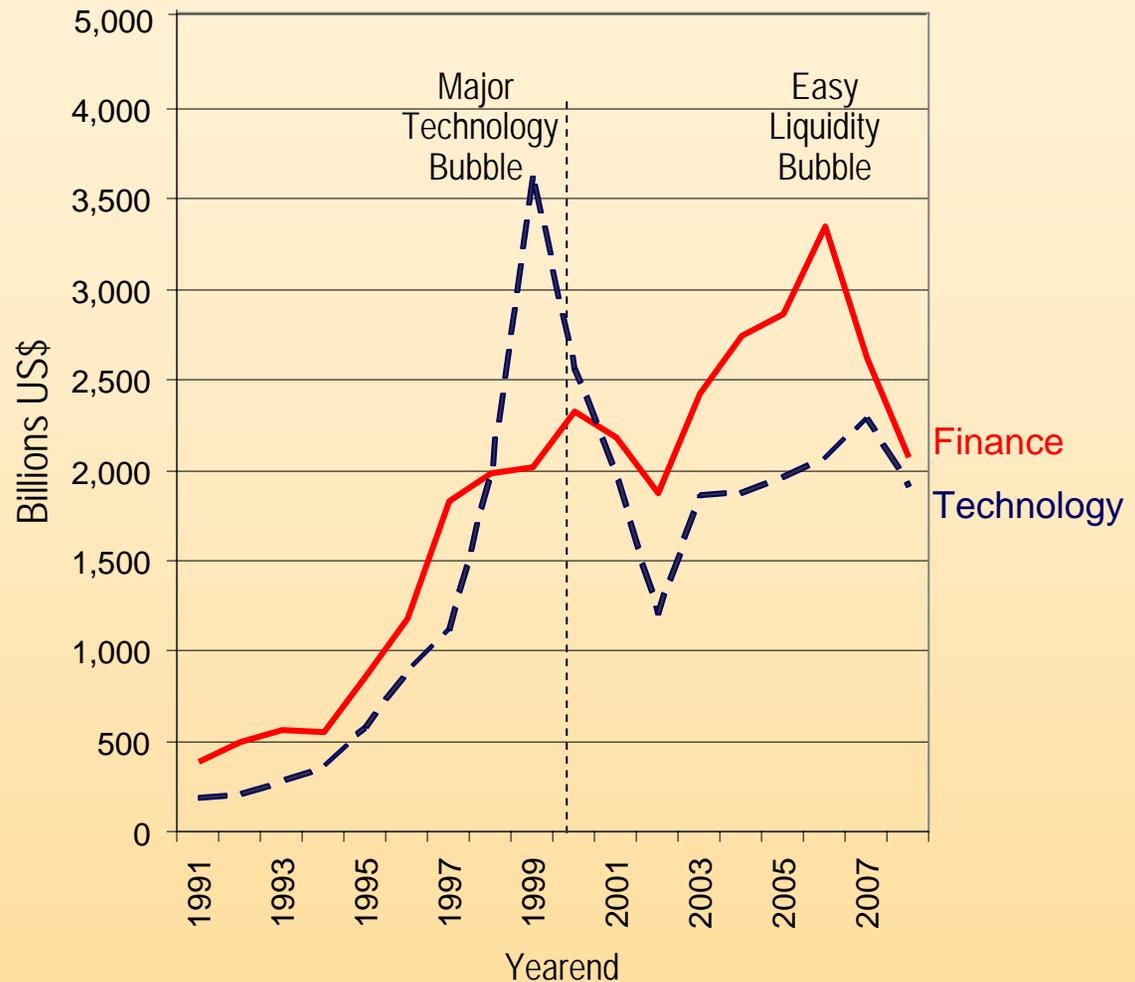
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2000s Easy-Liquidity Boom

Market capitalisation  
of financial  
and technology  
stocks

US 1991-2008

Source: Thomson



The identification of the mechanisms that led to the casino will help regulate against repetition  
**BUT ONLY AN UNDERSTANDING OF THE NATURE OF THE PHENOMENON  
CAN GUIDE POLICY FOR GLOBAL ECONOMIC RECOVERY**

## A SOLUTION IN THREE STEPS

Step one: Intensive therapy

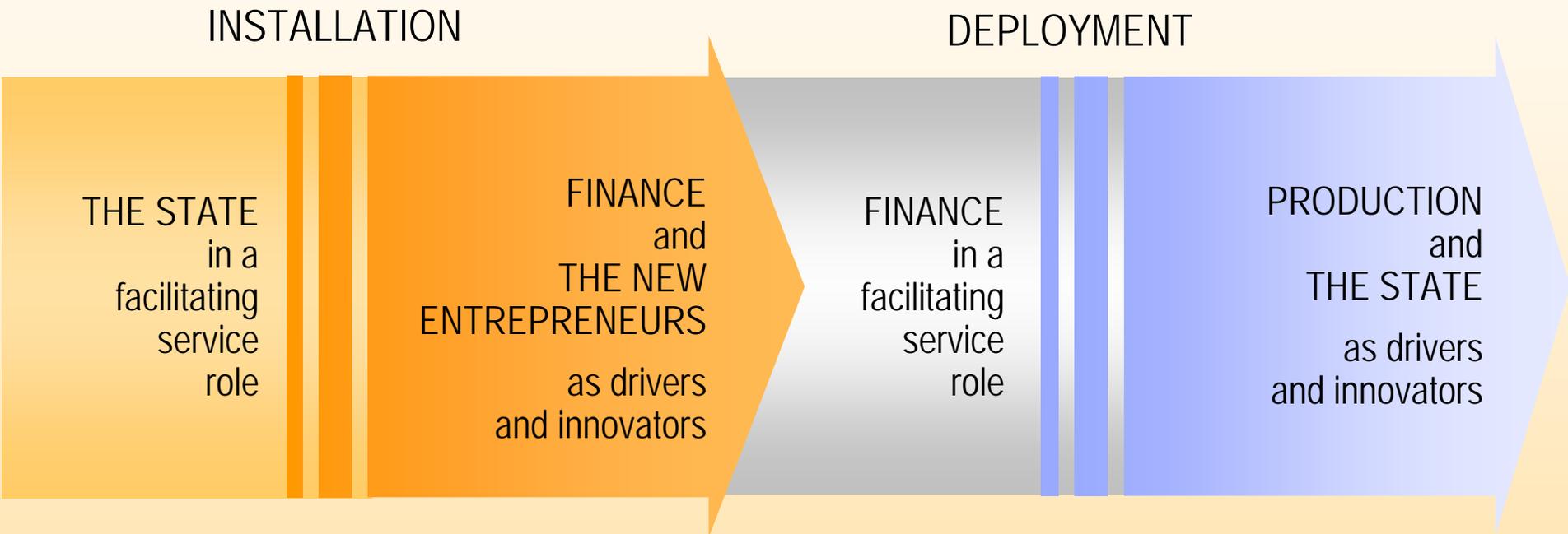
Step two: Redesign financial architecture

Step three: Enable structural shift

They all require institutional innovation

but the first two will only be successful  
if they are geared to facilitating the third

The structural shift involves  
A SHIFT IN THE DRIVERS OF INNOVATION



The conditions for innovation in production  
will depend on the effectiveness of innovation in policies

# Different periods: different role of the State

## Installation THE "GILDED AGE"

The unrestrained market does it all

### THE GOOD:

- Revive wealth creation
- Install the new industries
- Reward the innovators
- Overinvest in infrastructures
- Select the leaders

### THE BAD:

- Skewed growth; polarised incomes
- Primacy of paper values over real ones
- Greed, corruption, short-termism
- Breakdown of collective values

INSTABILITY AND EXCLUSION

Recessions, recomposition and changeover

## Deployment THE "GOLDEN AGE"

Intelligent come-back of the State

- PROMOTE LONG TERM GROWTH
- Regulate to restrain financial excesses
- Avoid monopolies; facilitate oligopolies
- Restore real values over paper ones
- Favour long-term investment in production
- Facilitate dense fabric of SMEs & KIBS
  
- RE-ESTABLISH SOCIAL COHESION
- Income distribution
- Social safety nets
- Expansion and stability of demand
- Restoring collective values

STABILITY AND INCLUSION

# A SHIFT IN THE DYNAMICS OF GROWTH AND INNOVATION

"Gilded Age" Installation  
"SUPPLY PUSH"

## CONTEXT

Mature industries  
are technologically exhausted  
their markets are saturated

**The old economy stagnates**  
**The new technologies are only incipient**

## SOURCE OF DYNAMISM?

**Ample finance**  
for massive investment and innovation  
in new technologies,  
industries and infrastructures  
competing to select  
new engines of growth  
and to rejuvenate the rest

TIMES OF TURBULENT GROWTH  
AND INCOME POLARISATION

Recessions, institutional recomposition and changeover

"Golden Age" Deployment  
"DEMAND PULL"

## CONTEXT

The new engines of growth are ready  
The new infrastructure widens and deepens  
market access

The old industries are rejuvenated  
The new paradigm has been learned

**A huge potential for growth is installed**

## SOURCE OF DYNAMISM?

**Expansion of demand**  
(public and private)  
and reshaping of its profile  
(direct or indirect income redistribution)  
to enable production growth  
and constant innovation

TIMES OF BUILD-OUT, STABLE GROWTH  
AND INCREASING SOCIAL WELL BEING

FOUR CRUCIAL OUTCOMES  
WILL DEPEND ON ADEQUATE  
INSTITUTIONAL INNOVATION:

1. Whether finance abandons the casino and concentrates on financing production
2. Whether the context is clearly favourable to production innovation and expansion
3. Whether society fully benefits from the potential of the new technologies (full employment and well being)
4. Whether widespread production globalisation replaces trade and finance globalisation

CRITERIA FOR "ADEQUATE"?

Consistent with the paradigm

Positive sum-game between business and society

AN ENORMOUS TECHNOLOGICAL POTENTIAL  
FOR HIGHLY PROFITABLE INNOVATION AND EXPANSION  
IS ALREADY INSTALLED

It stems from the power of the technologies and infrastructure  
of the information revolution  
and its techno-economic paradigm

It is enough for healthy growth in the OECD countries  
and extensive growth across the whole developing world  
(guaranteeing increasing markets for each other)

It is equivalent to the potential  
that drove the Post-War Golden Age  
but on a global scale

BUT IT HAS TO BE GUIDED  
BY GOVERNMENTS, BUSINESS AND SOCIETY

Technology and profitability set the space of the possible

## SOCIO- AND GEO-POLITICAL FORCES SHAPE THE DIRECTION

Cheap energy,  
materials and transport

**Mass  
production**

Suburbanisation

Electrification

Recent World War/Cold War

Abundant energy and materials

Cheap information  
processing and transmission

**Flexible  
production  
(ICT)**

Globalisation/Emerging countries

Informatisation

Climate change/ "New wars"

Limits to energy and materials

HOMOGENISATION

The American Way of Life

Welfare State: workers as "middle class"

International core and periphery

VARIETY ON A COMMON BASE

Sustainable "glocal" lifestyles

"Equivalent satisfaction"

Increasingly global growth and well being

# UTOPIAN OR REALISTIC?

It sounded utopian to say  
in mid-1930s DEPRESSION:

Blue collar workers will have  
lifetime jobs and  
fully equipped suburban houses  
with a car at the door

Most colonies  
will gain independence

...or in the late 1960s:

Some of the values  
of the hippie movement  
[back to natural materials,  
organic food, etc.]  
will become the luxury norms

But it was realistic:

Increasing wages created  
many more millions of consumers  
for mass production and sustained growth

Rising middle classes in the developing world  
adopted the "American Way of Life"  
widening world markets for mass production

Innovations in natural textile fibres  
have transformed the world of fashion

Innovation in distribution logistics  
have made organic foods the premium segment  
in supermarkets

Shifts in consumption patterns shift profit-making opportunities

In terms of options for the distribution of wealth creation and of its fruits  
EACH PARADIGM DEFINES THE WIDE RANGE OF THE VIABLE

More inclusive

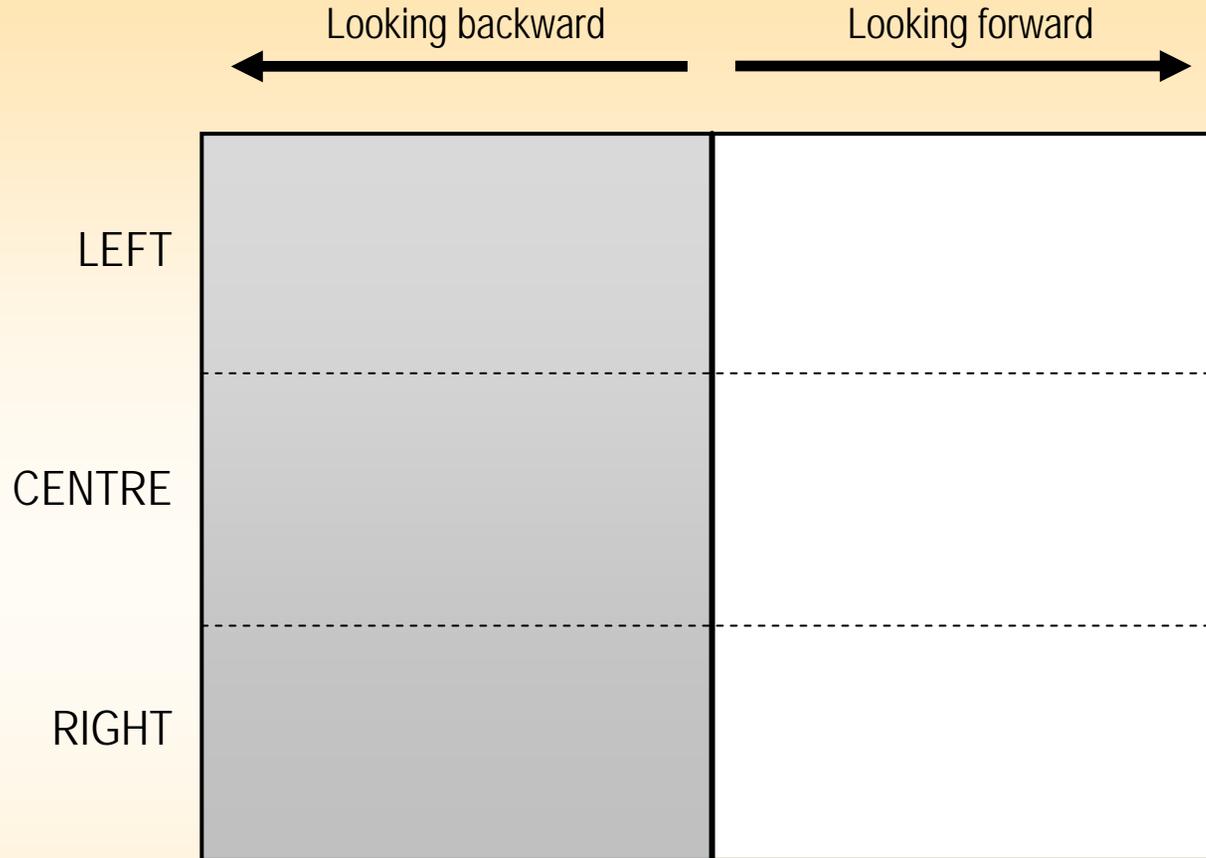


More exclusive

The space  
for social confrontations  
and negotiations

New  
Paradigm

# Each paradigm shift transforms the political spectrum



Different essential values and goals remain  
but the effective methods for attaining them  
vary with paradigm shifts

**SUCCESS IN THE NEW POLITICAL ARENA  
IS MORE LIKELY WHEN LOOKING FORWARD**

Aiming for the best of possible outcomes  
will require  
an understanding of the opportunity space  
and massive doses of imagination

Thank you!