

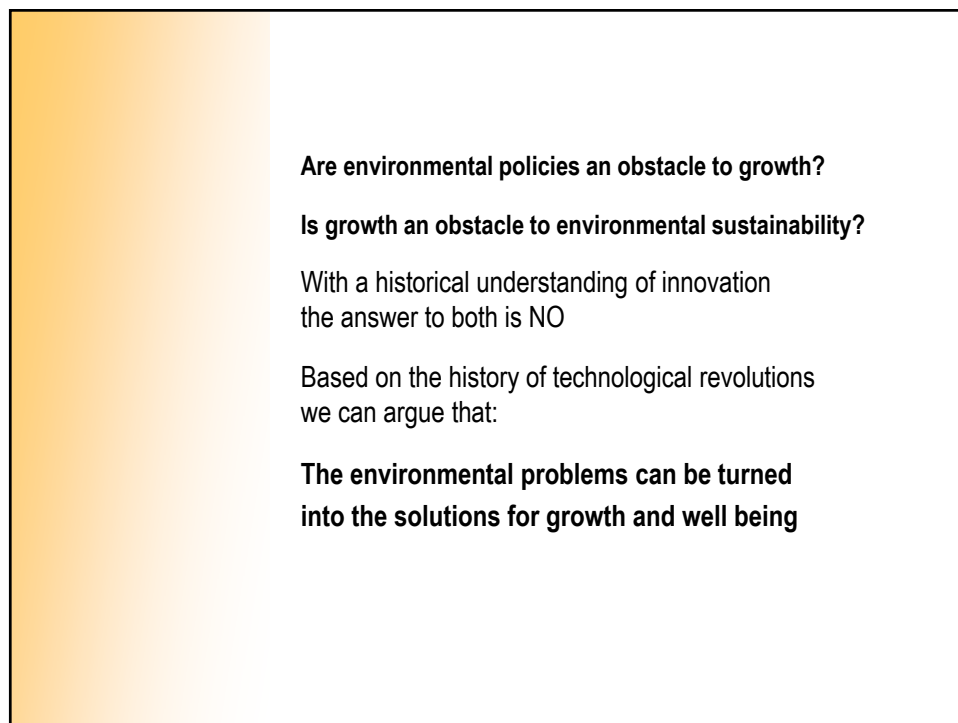


**CAPITALISM, TECHNOLOGY AND
A GREEN GLOBAL GOLDEN AGE:
The Role of History
in Helping to Shape the Future**

Carlota Perez
Honorary Professor, SPRU, University of Sussex, UK
Centennial Professor, London School of Economics, UK
Professor of Technology and Development, Nirkse Institute, Tallinn, Estonia

Launch of Jacobs & Mazzucato (eds.) *Rethinking Capitalism*
SPRU-IDS October 2016

1



Are environmental policies an obstacle to growth?

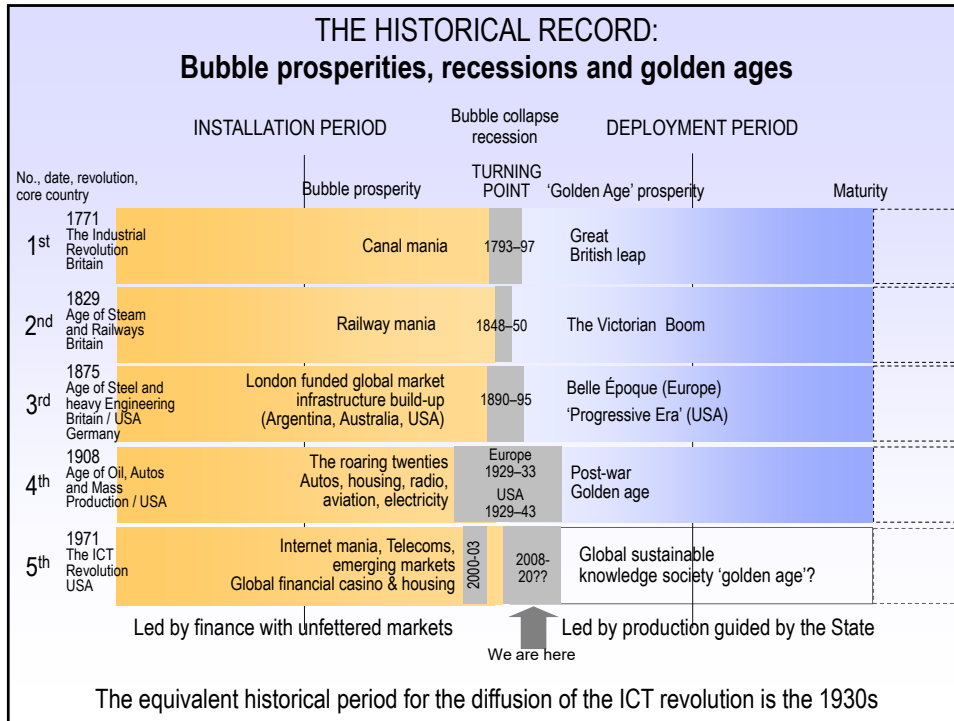
Is growth an obstacle to environmental sustainability?

With a historical understanding of innovation
the answer to both is NO

Based on the history of technological revolutions
we can argue that:

**The environmental problems can be turned
into the solutions for growth and well being**

2



3

WHAT IS THE NATURE OF THE TURNING POINT?

Once the bubble collapses
the underlying state of the economy is revealed

- Finance has become a casino, decoupled from production
- All investment looks uncertain
- No clear market signals
- Deflation, unemployment
- Income is polarised, inequality is stubborn
- Social unrest, xenophobia, messianic leaders
- Economic migrations
- Talk of secular stagnation and structural unemployment
- Recessions, or feeble growth (even depression)

YET THERE IS A HUGE TECHNOLOGICAL POTENTIAL
INSTALLED BY THE BUBBLES

WHAT IT LACKS IS A STABLE SYNERGISTIC DIRECTION

4

HOW DID POLICY IN THE POST WAR BOOM OVERCOME THE 1930s?

Apart from the Keynesian management of fiscal and monetary policy

THERE WAS MASSIVE SHAPING OF DYNAMIC DEMAND FOR MASS PRODUCTION:

- Infrastructure for low-cost suburban housing
- Government guarantees for mortgages
- Unemployment insurance and pensions
- Official labour unions (to maintain salary increases)
- Free education for the majorities (and sometimes also health)
- Farm subsidies (prices low for consumers and profits high for equipment)
- Military procurement
- Massive government employment and high taxes to pay for it
- And the Breton Woods institutions for international finance and trade

**All that provided demand with two clear directions for innovation:
THE NEW SUBURBAN LIFESTYLE AND THE COLD WAR
with an adequate and effective role for the state**

5

The best precondition for successful policy is understanding the context being faced

WHY DID KEYNES WORK THEN?	WHAT ARE WE FACING NOW?
National economies with mass production and consumption of identical products (made and used with cheap oil and materials) mainly for the domestic market with stable incomes from life-time jobs	Globalised economies (WTO watching) with flexible production geared to diversified (global) markets, with potentially expensive energy and materials in a context of rapid innovation and unstable changing jobs

We need to keep the aims of Keynes while adding a Schumpeterian understanding and design a new policy framework for dynamic innovation and markets in the information age

6

What could the new directions be?
GREEN GROWTH AND FULL GLOBAL DEVELOPMENT

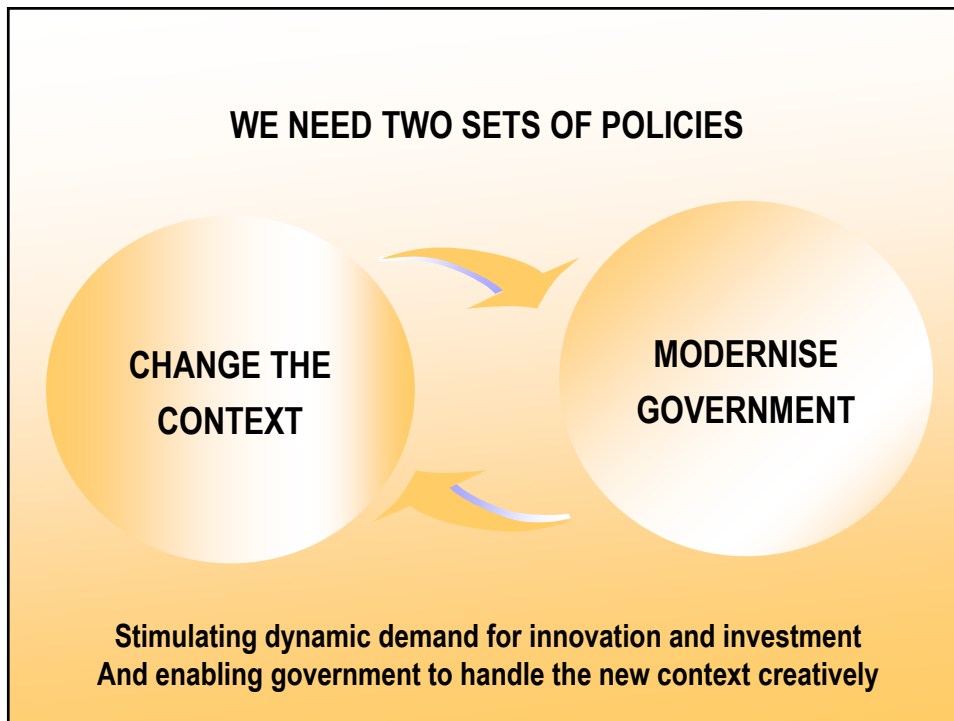
'Green growth' = A constant increase in the proportion of intangibles in GDP and lifestyles (while improving the life of the great majorities)

- Favouring renewable energy vs. fossil fuel
- Favouring services rather than products
- Drastic reduction of waste, massive increase in reuse and recycling
- Making durable products truly durable and shifting to a rental model
- Seriously reintroducing maintenance (with 3D printing of parts)
- Accent on preventive health, exercise, creativity and experiences
- And so on...

Why is 'full global development' in the interest of the advanced world?

- It would provide demand for advanced country specialisation:
- It would multiply trade flows (less concentrated in China and Asia)
- It would reduce poverty, violence and, therefore, migrations
- And so on...

7



8

SOME IDEAS TO CONSIDER FOR CHANGING THE CONTEXT:

- Change tax on capital gains to favour long-term investment
- Tilt the playing field in favour of energy and materials saving
- Tax energy, materials and transport (not labour)
- Regulate for durability and maintenance
- Tax products and purchasing, not services and rental
- Facilitate the sharing and collaborative economy
- Set up flexicurity and/or basic income
- Set up a 'new-new deal' about education, skilling and reskilling
- Invest in the new infrastructures (charging for electric cars, smart grids, FTTH, etc.)
- New 'Marshall Plan' for the lagging countries
- Supranational arrangements for global taxes
- And so on...

THE CHANGES NEED TO BE AS BOLD AND IMAGINATIVE AS BRETTON WOODS AND THE WELFARE STATE

9

SOME ASPECTS OF THE MODERNISATION OF GOVERNMENT:

- New institutional arrangements for consensus design of strategy and policy
- Put the general direction of innovation at the centre of growth policy
- Strengthen capabilities and organisations towards creative, flexible, agile and knowledgeable government
- Maximise devolution to empower local and city governments and encourage local strategies
- Digitise and make simple citizen participation and public services
- Participate in shaping (and accepting) supra-national institutions with enforcing power
- And so on...

10



11