### Crises, Co-evolution and Economic Development

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- Two complementary forces/trajectories :
- growing efficiency
- growing diversity
- Hypothesis 1: The growth in diversity is a necessary requirement for long-term economic development.

Hypothesis 2: Diversity growth, leading to new sectors, and efficiency growth in preexisting sectors, are complementary and not independent aspects of economic development.

## Structural change and economic development

- It affects the composition of the economic system. It is a determinant of system performance.
- Economic development is a process of *transformation*, involving both quantitative/efficiency change at constant composition and qualitative change.

#### **Employment implications**

- Do not try to keep the composition of the economic system constant is reduction of efficiency growth reduces the resources required to create new sectors (Violation of complementarity)
- Move jobs out of traditional sectors as fast as possible and create new sectors as fast as possible
- Plus complementary policies (Labour, education, training etc)

### EU identity and nature

- EU created to overcome the failures of European nationalism
  - Introduce democratic decision making/conflict resolution at a level of aggregation above that of the nation state
- Combine economic welfare and social justice (cohesiveness)
- But welfare state/social models require resources/economic performance
- Competitiveness and cohesiveness are not adversarial

# Co-evolution of technologies and institutions

- New technologies may require appropriate complementary institutions to diffuse beyond a limited niche and to acquire economic weight.
- Co-evolution: mutual reinforcement of the growth of complementary institutions and of technologies
- Also different institutions and policies can co-evolve (e.g. Training & labour markets)

Co-evolution of technologies and institutions (2)

#### **D** Can be positive or negative

- Positive: introduction of complementary institutions is growth of technology further development of complementary institutions etc
- Negative: enhanced rigidity of mature socio-economic systems (hysteresis)

Co-evolution of technologies and institutions (3)

- Excessive expectations of financial operators in presence of the co-evolution of technologies and financial institutions can give rise to bubbles (Perez; Saviotti, Pyka)
- Root cause of crises/bubbles: Innovation creates growth and uncertainty
- Impossible to *predict* future of an innovation, to *regulate* it from the outset, to eliminate crises in capitalist development

#### Schumpeter and Keynes

- Entrepreneurial capitalism can create growth but not necessarily (i) equitable income distribution, (ii) stability (absence of crises)
- Redistributive policies and safety nets (Keynes) required
- But, do keynesian policies only limit suffering or do they also contribute to growth? Trade-off Schumpeter-Keynes (Dosi et al; Saviotti, Pyka)

#### Aggregate employment



Economic growth and development

- Innovation mainspring of economic development, but not just by spending money on R&D
- Innovation is new products and services, new activities, new industrial sectors, new competencies, new institutions
- □ Central importance of structural change, change in the composition of the economic system

## Structural change, co-evolution & growth

■ Need to adapt the composition of the labour force (competencies) to the composition of the innovation and production systems (Flexibility)

- Wrong combination: High barriers to hiring & firing + High & lasting unemployment benefits + no retraining
- Labour market as people who work & people who are being retrained (scadinavian model)

#### Job security or flexisecurity?

- Right to work = job security? Not for high rates of structural change
- But job still defended by labour unions.
  Their structure based on defence of jobs
- Job security incompatible with employment security
- See concepts of flexicurity or flexisecurity

#### Coherent policy packages

- The application of Keynesian policies depends from, and needs to be adapted to, the rates of innovation and of structural change of the economy
- Wrong to pay people to do nothing when the root cause of their unemployment is inadequate competencies.
- Dynamic combination of competitiveness and cohesion

#### Learning society

- Lisbon strategy requires higher (3%) R&D intensity, necessary but not sufficient
- It must be accompanied by a coherent package of education, training, labour market etc policies, which provide welfare for the whole of society
- Displace resources from unemployment benefits to resources to learn

#### The present crisis

- □ It would be a mistake to use the present crisis to freeze the system as it is.
- State intervention is obviously and absolutely necessary, but it should not be used to keep people in jobs where they should not be
- Use the crisis as an opportunity to create future performance