

# Economic Development and Prosperity: Part 2 - Emerging Debates (a shorter version)



# Seminar Objectives

- On what does future growth depend?
  - R&D and Innovation (new products/services?)
  - AI and computers-lead growth (ie, enabling technology?)
  - Increased labor skills
  - Access to cheap energy? (Cf. Robert Ayers)
  - Going green?
- Is continued (exponential) growth possible? (Cf. Robert Ayres)
- Is the distribution of growth of greater concern?
- Alternative economic approaches:
  - Binary economics
  - Democratize ownership
  - Microfinance
- Emergence of New Economics
- De[-constructing] Growth

What is Robert Ayres's (2006) view of continued growth?

# Ayres (2006) – The End of Exponential Growth?

**Seven historical drivers of growth that are now showing signs of saturation:**

1. Division of labor (job specialization)
2. International trade (globalization)
3. Monetization of formerly unpaid domestic and agricultural labor as a consequence of urbanization
4. Saving and investing
5. Borrowing from the future, which also tends to increase consumption in the present without added value
6. Extraction of high-quality and irreplaceable natural resources and destruction of the waste-assimilation capacity of nature
7. Increasing technological efficiency of converting resource (especially fossil fuel) inputs to useful work and power
8. You could also add: increased destruction of infrastructures (bridges, highways, ports etc.)

# Ayres (2006) – The End of Exponential Growth? cont.

- 1 - 5 ... have largely completed their full effect in the industrial world ... but, have just started making their impact in the developing world
  - 6 - 7 ... Technological efficiency of converting resource inputs into useful work and power, along with unrealized technological progress from newer technologies, remain as the major determinants of economic growth
  - But, sources of primary energy are likely to become expensive
  - 2006 Trends continue to this day
- 1) Division (specialization) of labor
  - 2) International trade
  - 3) Monetization of (previously unmonetized) work
  - 4) Saving and investment
  - 5) Borrowing from the future
  - 6) Extraction of high-quality and irreplaceable resources, and consequences for pollution
  - 7) Increasing efficiency of doing work with energy
  - 8) Add increased destruction of infrastructure

Six years after the emergence of the 2008 financial crisis, **Robert Ayres** (2014) stays true to his 2006 analysis, but brings a new emphasis on **financial stability and energy security**

Future economic growth *requires* **cheap, reliable, non-polluting sources of energy**



Image source: [https://www.researchgate.net/profile/Robert\\_Ayres](https://www.researchgate.net/profile/Robert_Ayres)



**Jay Forrester** ... need to be open to a **no-growth, no-population rise, no increase-in-industrialization areas future**

Image source: MIT Sloan, Jay Forrester's Shock to the System,  
<https://sloanreview.mit.edu/article/jay-forrester-shock-to-the-system/>

Requires a **fundamental change in our culture**, which assumes that *“technology can solve all problems,”* that *“growth is good and can go on forever,”* and that controlling population is *“too treacherous a debating area”*

Source: Hopkins, M. S. (2009). “The Loop You Can’t Get Out Of: An Interview With Jay Forrester.” *Sloan Management Review* 50(2): 9–12.

(Value of) Work Done by  
All Factors of Production

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One Factor (Usually Labor)

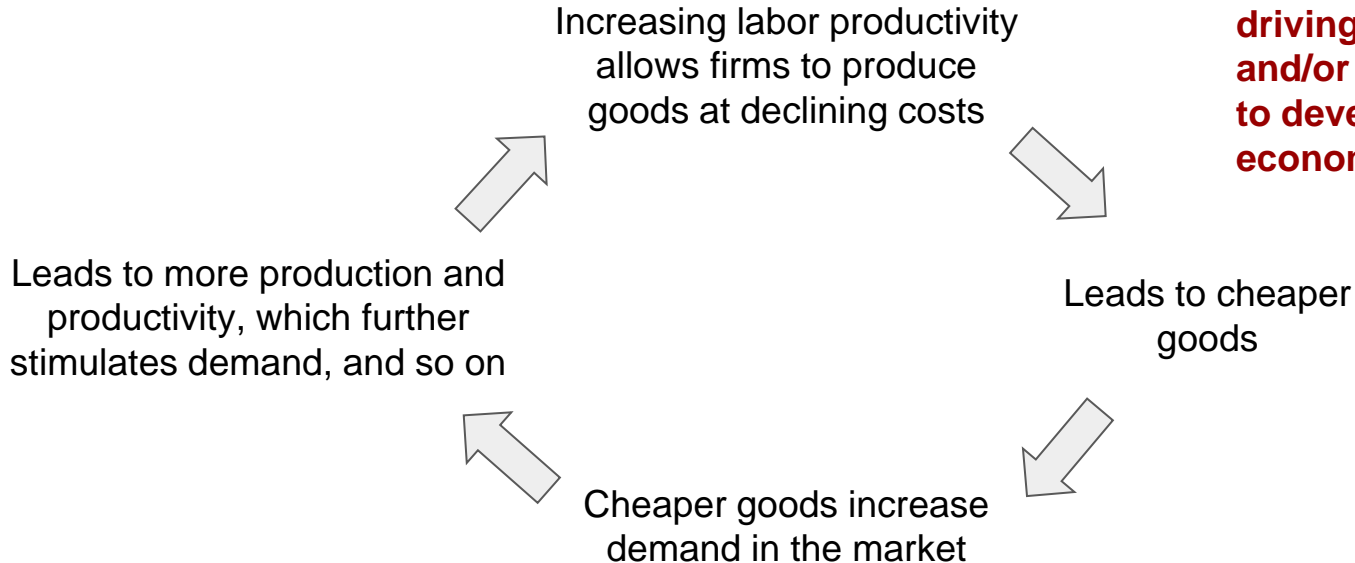
**= Labor Productivity**  
(by increasing labor productiveness)

## Contrast with Binary Economics View

**Labor** *Productiveness*

**Capital** *Productiveness*

**Need to understand what is  
driving productivity (labor  
and/or capital productiveness)  
to develop appropriate  
economic development policies**





## van Ark (2014, p. 9) on Labor Productivity

“To be sure, **productivity gains can sometimes destroy jobs** – sweeping away the old as they make way for the new, and allowing many industries to do more with less.

But the point is that **policymakers must aim for a virtuous circle in which productivity gains are combined with job creation through new business and innovation**, engendering a balanced path between jobs, investment and productivity gains.

This virtuous circle is what creates long-term prosperity. Job growth and increased labor income generate the purchasing power which consumers need to buy the products and services companies produce every day.

**Productivity is the only sustainable way to produce the new products and services on a continuous basis at affordable prices.** This then drives the demand which helps the economy to grow and ultimately creates more growths than it destroys.”

But, are the environmental consequences tolerable?

## But .... (*the productivity dilemma*)

- Will the number of jobs created by new business and innovation exceed the number of jobs destroyed?
- Will these new jobs generate increasing labor income and sufficient purchasing power?

# Jackson and Victor (2016) on the Productivity Dilemma

“as each hour of working time becomes more “productive,” fewer and fewer people are needed to deliver any given level of economic output. Put simply, ever-increasing labor productivity means that if our economies do not also continue to expand, we risk putting people out of work [. . .].

There are, broadly speaking, two avenues of intervention through which to escape from this “productivity trap”. One is to accept productivity growth in the economy and reap the rewards in terms of reduced hours worked per employee [. . .]. The second strategy is to ease up on the gas pedal of ever-increasing productivity – to shift economic activity to more labor-intensive sectors.”

**Binary economics** presents a third avenue

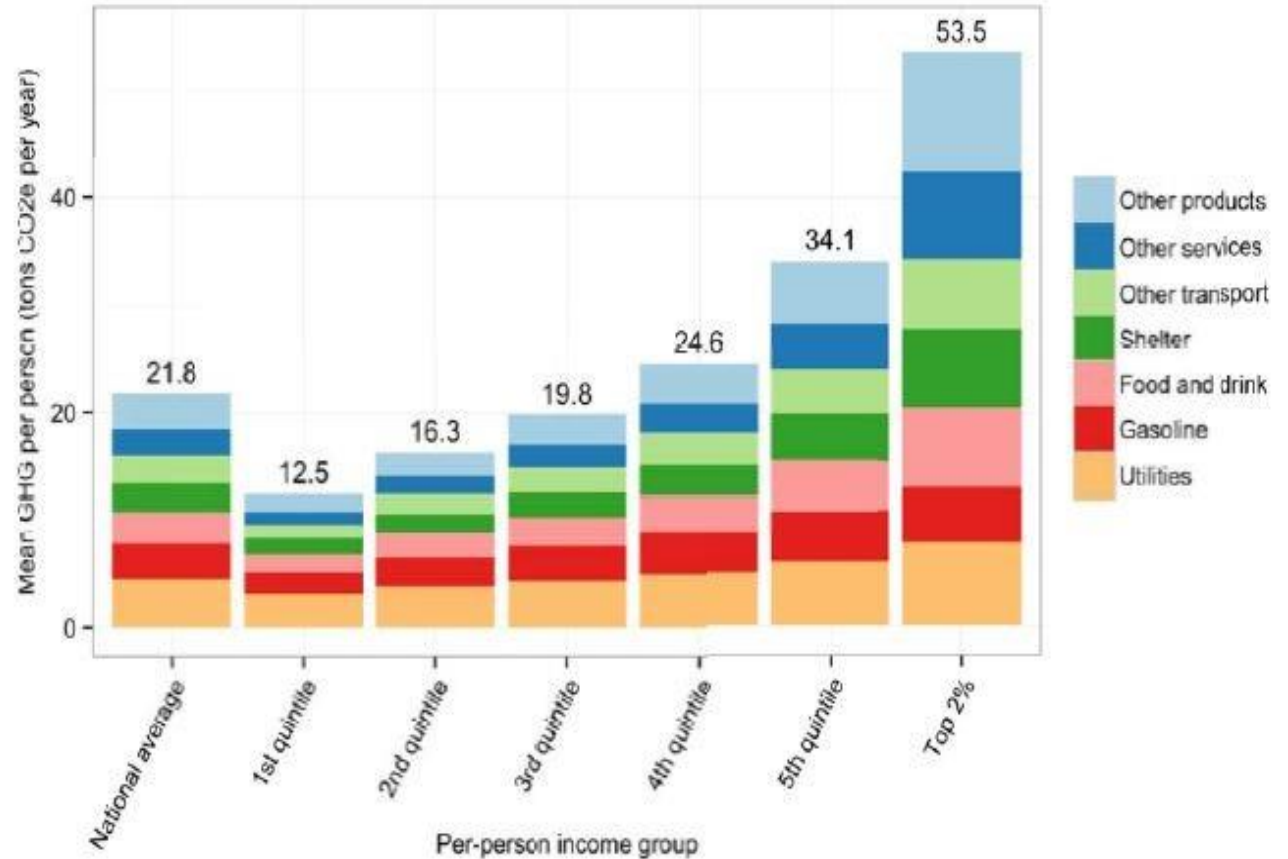
How might reducing inequality by  
increasing income impact the  
**environment?**

Can a redistribution of high consumption  
do the job?

# Average GHG footprint and income per person

Source: Adapted from Ummel, K. (2014). Who Pollutes? A Household-Level Database of America's Greenhouse Gas Footprint. Center for Global Development Working Paper No. 381.

Figure 1: Average GHG footprint and income per person<sup>15</sup>



Is inequality an inevitable by-product of economic growth?

Will growing inequalities eventually hinder growth?

Inequality is not inevitable, it is a consequence of the way growth is taking place. Three solutions are offered:

- **Piketty (2014)** – the main driver of inequality is the tendency of capital return in developed countries to exceed the rate of economic growth, which will cause wealth inequality to increase
  - Solution: Redistribution through a progressive tax on wealth
- **Stiglitz (2015)** – misaligned laws, regulations, and institutions have determined unequal shares in the benefits of prosperity; inequality actually hinders growth
  - Solution: Strengthen workers' rights, raise taxes on capital gains and dividends, and increase transparency in all financial markets
- **Eurofound (2017)** – unemployment has been the main driver of growing inequalities during the Great Recession
  - Solution: The welfare state can prevent a greater increase in inequalities by cushioning growing market income inequalities

# Why is growth taking place in its current form?

**Gilens (2005)** “[Inequality and Democratic Responsiveness.](#)” *Public Opinion Quarterly* 69(5): 778–796.

- Actual policy outcomes strongly reflect the preferences of the most affluent - there is “virtually no relationship” between policy outcomes and the preferences of poor or middle-income citizens
- Put differently, there is a vast discrepancy in government responsiveness to citizens with different levels of income
- The research revealed the negative effects of inequality on democracy and governance
- This suggests political intervention.



**Stiglitz** ... what creates growth is **demand** (*not the wealthy*)

... which aligns with the **principle of binary growth** that focuses on increasing effective demand (via capital income)

# Inclusive Capitalism: The Ownership-Broadening Road to Shared-Prosperity and Sustainable Growth

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Article

# Universal Basic Income and Inclusive Capitalism: Consequences for Sustainability

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# Five General Ways to Increase Income

1. **Labor** (wages)
  2. **Capital** (dividends, interest, and rent)
  3. **Government redistribution of income and capital from both the private sector and defense**
  4. **Private charity**
  5. **Consumer debt**
- Growing consumer debt is unsustainable
  - Private charity is systematically inadequate
  - Capital ownership based on current market principles has concentrated rather than broadened income/wealth
  - Most approaches to increasing income tend to center on **increasing wages** and/or **government redistribution of income or capital**

# Recommendations from Brynjolfsson and McAfee (2014)

- Reorient education away from its industrial-era focus (on math and reading) to a broader set of personal and intellectual skills necessary for working alongside the new smart machines
- Reduce the regulatory/burden on startups (as job generators)
- Tax economic rents and negative externalities (e.g., deploy a *Pigovian taxation*)
- Implementation of a negative income tax (to finance a *UBI*)
- Launch a “made by humans” labeling movement, grant credits to companies that employ humans, launch infrastructure and other public programs (i.e., a keynesian spending program), and remunerate people for “socially beneficial” tasks

# Democratizing Ownership

Purpose: To develop “sustainability-oriented” models of business ownership and public investment

Kelly (2012), advocates for a broad and radical transition from the current extractive ownership system to a **generative ownership system** characterized by:

1. a living purpose
2. a (locally) rooted membership
3. a mission-controlled governance
4. stakeholder finance, and
5. ethical networks

# Generative Ownership + Rooted Membership

According to Kelly (2012, p. 150), businesses and other entities based on a **generative ownership structure** seek **not to maximize profits, but rather to accomplish a greater social- or environmental-mission or “create the conditions for life.”** This is their “living purpose.” Profits are set back in their rightful place: they are the means, not the end.

Kelly sets the requirement for a “**rooted membership**,” i.e., “ownership in the hands of stakeholders intimately involved with the tangible workings of the enterprise” (Kelly 2012, p. 167). Such rooted members can be **members of the founding family** (e.g., S.C. Johnson), **employees** (e.g., businesses founded as partnerships), **members of the community** (e.g., municipal ownership of the town’s electric facility), or “**others connected to the real economy of jobs and homes and human life**” (ibid., p. x).

**This is the heart of Kelly’s argument: generative rather than extractive ownership, and rooted rather than absentee membership, are more prone to sustainability.**

# Marjorie Kelly's Insights

**Generative ownership** (rather than extractive ownership)

**Rooted membership** (rather than absentee membership)

... are more likely to advance **sustainability**



# Barriers to Sustainability-oriented Local Economic Models

1. The lack of financing
2. The lack of understanding, expertise, and thus support for the creation of shared-ownership enterprises
3. The aversion to collective action (“fear of socialism”)
4. The uneasy fit of these shared-ownership structures with the existing legal and financial frameworks
5. The lack of management capability

Source: Kelly and Ratner (2009)

# New Economics

- 2008 financial crisis has created an opportunity to rethink models of economic development
- Emerging ideas under the ‘new economics’:
  - Selective growth
  - Conditioned growth
  - Sustainable de-growth
  - GDP de-growth
  - Post growth
  - A-growth
  - Provision of a basic income
  - Greening the Economy
  - Sustainable Consumption

Focus on promoting environmentally and socially sustainable development through differing combinations of:

- technological progress in dematerialization and energy efficiency
- decreased overall consumption of products and services that are environmentally destructive
- reduction of the workweek
- redistribution of wealth or income through a basic income guarantee and/or the reduction of individual working time accompanied by *no decrease* in purchasing power, thereby retaining existing wages for current employees while adding others to the employment

# The New Economics, cont'd

- Approaches focus on promoting environmentally and socially sustainable development through:
  - Dematerialization and energy efficiency
  - Decreased consumption of environmentally destructive products and services
  - Reductions in the workweek – i.e., redistribution of work hours – without a decline in income
  - Redistribution of wealth through income guarantees
  - Community-based, people-led services (rather than product-based services) – i.e., ‘people serving people’
- CRITICAL POINT: Need to ensure that labor is not shed or deskilled through the (green) innovation process

# Universal Basic Income (UBI)

- The concept of UBI is gaining traction, but there is pushback
- Pilot studies active in Kenya, Oakland (CA), Utrecht (the Netherlands), Ontario (Canada), Madhya Pradesh (India), Livorno (Italy), Uganda, etc.
- **Basic Income/Core Support (BICS) System** - Goodwin (2014, p. 17)
  - System removes the requirement that everyone needs to take paid work
  - Rewards (i.e., pays) traditionally unpaid work (childcare, caring for elderly family members, etc.) on which every society depends
  - System financed by taxes and supported by subsidies

# Thomas Piketty (2016) on a UBI

- Discussions of a basic income and its specific level are not radical enough

*“leave the real issues unexplored and in reality express a concept of social justice on the cheap” (Piketty 2016)*

- Calls for progressive taxation, fairer approaches to education, a more prominent role for trade unions, fair pay, and control within corporations

*“our ambition must be that of a society based on a fair return to labor, in other words, a fair wage and not simply a basic income” (ibid.)*

Source: Piketty, T. (2016). “Piketty: What Unequal Societies Need Is Not a ‘Basic Income’ But a Fair Wage.” The Wire.

- **Sustainable Employment ... but, how to create demand for labor-intensive goods and services?** [think social innovation]

# New Economics Needs: A Broader View

Five areas that require major reforms/efforts:

1. Finance
2. Trade
3. Energy
4. Population control
5. Developing countries



“By “degrowth“, we understand a form of society and economy which aims at the well-being of all and sustains the natural basis of life. To achieve degrowth, we need a fundamental transformation of our lives and an extensive cultural change.”

“The current economic and social paradigm is “faster, higher, further“. It is built on and stimulates competition between all humans. This causes acceleration, stress and exclusion. Our economy destroys the natural basis of life. We are convinced that the common values of a degrowth society should be care, solidarity and cooperation. Humanity has to understand itself as part of the planetary ecological system. Only this way, a self-determined life in dignity for all can be made possible.”

Source: <https://www.degrowth.info/en/what-is-degrowth/>

# Growth Means Different Things

- Aggregate growth in products and services that consume energy and materials
- Growth in profits (tied to subsidies, tax treatment of investment, profit, and the provision of producer and consumer credit)
- Growth in trade (externalizing commerce)
- Growth in disparity in consumption, wealth and income
- Growth in under- and un-employment
- De-emphasize GDP and Productivity; Decouple physical growth from profit
- Change the nature of subsidies, tax incentives, and credit practices; anti-monopoly
- Changes in the trade rules: border adjustments and local investment
- Embody sufficiency in law; tax and inheritance reform; guaranteed income
- Shorter workweek with maintenance of wage parity; incentivize employment; design work back into the production and service system



# De[constructing] Growth

- While cultural changes [i.e., demand] are needed, fundamental changes in law are indispensable to achieving degrowth and growth where it is needed
  - These changes include reforms to the financial system (credit, wealth and income) as well as control of monopoly (in products, energy, and media); environmental, health and safety regulation; the economic treatment of investment, profit, and labor; and **trade rules**
  - **Change the reward structure for profit and investment**

# Interesting Questions

- If the system does not change, how large is growth likely to be in industrialized economies? In industrializing economies?
- Is **degrowth** as a deliberate strategy likely to be accepted?
- Is **inclusive green growth** the answer? A partial answer?
- How can we reconcile growth policies with energy policies, trade and finance reform, population and immigration strategies, and cultural changes?

# Additional Slides

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# What is unlikely to work in the long-term to increase employment and wages?

- Lowering taxes on the rich
- Continuing to increase productivity by displacing labor
- Greening manufacturing and energy → green jobs? (a triple dividend?)
- Spreading work out through adoption of a shorter work week (the 21 hour week?) – more leisure without retaining income parity
- Implementing Keynesian spending (to jump start the economy) which would take time to implement: good for the short-term, not a permanent solution
- Adopting austerity measures like those imposed on Greece – which can choke-off growth and especially impact those at the socio-economic bottom

# What are additional systemic contributions to unemployment and under-employment?

- Technological displacement and attendant deskilling of labor, leading to decreases in wages and purchasing power
- Tendency to shift from utilizing labor to utilizing physical capital and energy, driven by both costs associated with labor benefits and by volatility of the economy
- Location of production and service facilities abroad (offshoring slowing or reversing now = “re-shoring”)
  - But ... economic activity is returning with less jobs
- Reluctance to expand employment in volatile times
- Not a mismatch of skills supplied and demanded

## What is involved in “greening the **economy**”?

- Dematerializing, de-toxifying, and de-energizing production, products, and services (moderate supply-side changes)
- Moving to less environmentally-damaging energy sources (moderate supply-side changes)
- If either is less expensive → less environmental damage initially, but may be offset by the rebound effect increasing total consumption (net effect unclear)
- If either is more expensive → lower production and consumption, offset by shift to more labor-intensive production, more employment, and more consumption (net effect unclear)

## What is involved in “greening the **economy**”? ... cont.

- Greening manufacturing and energy → green jobs? A triple dividend? (more radical supply-side changes are possible, but jobs are likely to be redistributed between sectors with no net gain in employment; a lowering of skills may be demanded, depressing wages)
- Consuming less (serious demand-side changes)
- Travelling less (serious demand-side changes)
- Working less? (with lower wages ~ lowering demand)

## Alternative ways of increasing **earning capacity** and improving the **environment**

- Income and wealth transfers to the poor
  - changes in the taxing of income
  - tax excess profits
- Provide incentives for hiring labor and remove those for increasing capital acquisition and energy use
- Collect employer-based labor benefits as a percentage of sales, rather than on a per-worker basis
- Tax pollution and energy (i.e., tax the ‘bads,’ not the ‘goods’)
- Limit the elimination of jobs (Germany’s ‘Kurzarbeit’)
- Increase labor’s claim on profits from production/services
  - By **designing work back into production and services**



## Alternative ways of increasing **earning capacity** and improving the **environment**, cont.

- Meet *essential* needs of consumers in a different way (**shift to product services**) – lowering consumption, environmental impacts, and costs to consumers; and increasing wages
- Encourage the production of **essential goods and services** and discourage others – regulate advertising; tax the “non-essentials”
- Invest in **labor-intensive production and services**
- **Change workers into owners** – thru changes in business ownership and corporate structures
  - By allowing them to acquire capital with the (future) earnings of capital (two-factor economics – R. Ashford)
- **Tax Corporations which shift production/services abroad**
- Educate workers/consumers for the economy of the future