

Where do we go from here?

Principles for the 2020s economy

A Playbook

Dr Tom McDonnell
17th November 2021
SJI Conference

Twitter: @NERI_research

WEBSITE: www.nerinstitute.net

Why should we look at economics?

- Can help us evaluate the merits of various strategies for sustainably improving living standards and quality-of-life.
- Remarkably, the standard of material wellbeing for most people living in developed economies today is superior in almost every respect to the living standards of even the wealthiest people just one hundred years ago.
 - Consider developments in health, nutrition, education, communication, transport and entertainment.
 - But with significant environmental costs....
 - Why did this happen and can it be sustained?
- Enormous variation in cross-country living standards reflects long-term differences in economic growth and development.
- Fundamental assumption of mainstream economic analysis is that growth is central to improving living standards.
 - Of course, there are some pretty major caveats to this claim....

Not all forms of growth are desirable

- Take an economic system that generates highly unequal growth.
- Such a system won't necessarily benefit much of society. It will also be inefficient at reducing poverty, will gradually erode social capital and trust, and is likely to prove politically unstable over the long-run.
- Other forms of economic growth are also undesirable. Growth from environmentally damaging practices entails costs for current and future generations.
- These costs are rarely if ever captured in growth statistics and they may well outweigh the economic benefits.
 - This is particularly so when we factor in long-term consequences.
- Many additional examples of undesirable growth, for example, using tax cuts or monetary policy to temporarily and procyclically accelerate growth at a time when the economy is already performing strongly.
 - E.g. the Irish property boom of the mid-2000s.
- Also, many valuable activities are not captured by the national accounts
 - E.g. caring, voluntarism, activism)
- So, what should be our primary economic goal?

So what should be our primary economic goal?

- I propose that we should strive for 'sustainable' and 'inclusive' improvements in living standards for everybody over the long-term.
- If this is considered reasonable we next must consider the policies that might achieve this goal.
- What should our playbook look like?
- Let's break down that playbook into three parts, namely,
 1. growth in the economy's productive capacity,
 2. income adequacy and closer economic equality, and
 3. long-run sustainability (across all dimensions).

Extensive growth vs Intensive growth

- Growth in productive capacity (potential economic development) can come from a number of different sources.
- One such source is the raw accumulation and deployment of inputs such as people, land, materials, infrastructure, machinery, and other capital goods. Demographic and resource limitations mean that this type of 'extensive' growth is constrained in the long-run.
- Growth can also come from productivity gains. This is known as 'intensive' growth and is the only form of growth compatible with environmental sustainability.
- Productivity gains could arise from new knowledge embodied as technological change and innovation, from scale economies, or simply from more efficient use of resources.
- Crucially, productivity-based growth allows us to obtain higher levels of output from the same volume of inputs or the same level of output using less inputs.
- In other words, productivity-based growth does not rely on an ever-increasing use of resources and is potentially unconstrained in the long-run.
 - *Paul Krugman* makes the point that, "Productivity isn't everything, but in the long-run it is almost everything."

Knowledge is power.... but the market will under-produce it

- Ultimately, the determinant of average living standards is output per worker for a given effort
- An economy can only grow ad infinitum if it is able to continuously generate productivity gains year-on-year.
- Learning, new knowledge, and the economic application of that knowledge are the ultimate sources of sustainable growth.
 - Joel Mokyr describes the generation and application of new knowledge or **new ideas** as the “**wellspring or lever of riches that propels economies forward**”.
- What do we mean by a new idea?
 - In economics, **a new idea is simply a ‘new instruction or set of instructions’** for transforming inputs into outputs, or more evocatively, for transforming nature to better suit human needs.
- Economics also has the related concept of innovations.
 - Innovation is **a catch-all-term for new ideas, or combinations of existing ideas**, that manifest as a new product or service, a new production process, a new market, a new source of supply, or even a new organisation.
- But the characteristics of knowledge (uncertainty in production, inability to fully internalise the benefits) mean that the private market will under-produce the socially optimal amount

The innovation system and its innovative capacity

- Misleading to think of innovation as being solely about the invention of new cutting-edge technologies.
 - Instead, we should think of **innovation as something that happens dynamically in a complex economic system** in both low-tech and high-tech ways.
- What is an economic system?
 - We can think of it as a multitude of interacting individuals and organisations, each with their own abilities and incentives and operating under their own set of evolving rules and constraints.
- The specific economic system relevant to the production and diffusion of innovation is the innovation system.
- An economy's **innovative capacity** refers to the ability to generate original ideas and to communicate and assimilate existing innovations.
- This capacity is a function of types and levels of education and skills, of the density and flows within networks, of the cost of accessing knowledge, of R&D policies, and of the quality of capital markets, among other things.
- All of the above form part of the innovation ecosystem.

Innovative capacity drives long-run productive capacity

- In practice, the driver of most productivity will be the spread or diffusion of technology
 - Fundamental to diffusion is communication
 - How can we facilitate 'knowledge flows' between individuals and organisations?
- The government will always be the most significant actor within the innovation system
 - Direct inputs – spending on science and education, on R&D, and on knowledge infrastructure
 - Sets the legislative and regulatory rules of the game
 - Also provide fiscal and other incentives for other actors
 - In this way, governments can counteract the structural market failures leading to slow diffusion and underproduction of knowledge and innovation
- Key policy levers:
 - Investment in education and life-long re-skilling (human capital)
 - Investment in child poverty reduction and social environment (human potential)
 - Investment in machinery, equipment and infrastructure (physical capital)
 - Investment in the production and diffusion of new ideas (e.g. through public R&D)
 - Appropriate 'rules of the game' (e.g. legal system, levels of corruption, regulatory environment, fiscal policy)

Education

- Human capital development, which is a life-long process, not only enhances labour productivity but is also a necessary input for and complement to innovation and technology adoption
- Spending on education generates positive externalities and strong education systems are empirically associated with faster long-run growth
 - The OECD contends that half of the growth achieved by OECD countries in the 2nd half of the 20th century, was driven by progress in education
- **Skill levels for the population as a whole**, as well as for the top of the achievement distribution, exert positive and independent effects on growth
- Population-wide improvements in human capital enable more inclusive growth. Crucially, **the earlier the investment** in human capital (i.e. in people) **the larger the returns**
- The early years are the most important for development
 - Poverty can have extremely damaging and lasting effects
 - Increasing the skills and learning ability of disadvantaged children may provide the largest potential dividend to society (Heckman)
- Ireland's per pupil spending on education is well-below that of the average for high-income Europe (€3 billion gap) and Ireland chronically under-spends on public R&D (€900 million gap)

Investment and Regulation

- Meta-analyses conclude that efficient investment in infrastructure is strongly related to long-run increases in the economy's productive capacity
- Machinery and equipment represent embodied knowledge that either improves the efficiency of transforming inputs into outputs or enables the production of new types of outputs
- Certain types of investment contribute to knowledge-based growth
 - E.g. school buildings, broadband infrastructure and research institutes such as universities
- Private investment:
 - Tax based incentives can distort investment decisions
 - Better to ensure that potential investors have access to finance and that barriers to investment are low
 - Reduce barriers to firm exit and entry – monopolies as double edged sword
 - Importance of independent regulation
- Not just productivity – barriers to employment/hours worked matter
 - E.g. reducing childcare costs, using countercyclical policies, moving away from means tested benefits, refundable tax credits (negative income tax)

Inequality – fiscal policy

- Lower levels of inequality are associated with a range of quality of life and well-being benefits across the economy and society
 - Excessive inequality can lead to slower and more fragile growth (IMF)
- Fiscal policy is important as a corrective to market inequality (tax, welfare benefits, social insurance de-commodification through provision of universal basic services, – a 'social' wage)
 - Are there trade-offs between efficiency and equity?
 - Not necessarily (e.g. taxes on wealth/land, eliminating tax expenditures)
 - Efficiency costs of taxation vs. the benefits gained from public spending (e.g. education) – consider the high tax/spend Nordics
- What about more radical proposals?
 - E.g. free and widely available public transport for all (also assists with climate goals), universal basic income, guaranteed minimum income
- What about social insurance and replacement incomes?

Inequality – labour share

- Policies that increase the labour share of income will generally improve distributional equity – this is due to the fact that wealth is more concentrated than income
- Ireland has very high level of market inequality relative to other EU countries
 - Wage floors
 - Enhance bargaining power of labour – collective bargaining and agreements, strong labour market institutions (decline in trade union density is correlated with declining labour shares)
- Can still be significant market inequality even within the labour share
 - Importance of valuing care work
 - Importance of sectoral wage compression (role of trade unions)

Growth is of mere temporary value if it is unsustainable

- Unsustainability can come in many forms – e.g. an asset boom or loose macro policy
 - Importance of long-run planning (macro-prudential rules)
- The current [environmentally damaging economic model is manifestly unsustainable](#) on a finite and fragile planet
- Future industrial strategy and growth policy will therefore need to focus on the just transition to a decarbonised economy
- Entire sectors ranging from agriculture to transport will be affected by this transition (lock-in problem)
- But a new growth model will be politically unsustainable if it leaves behind certain groups and regions
 - [Sequencing is crucial](#): There must be alternatives and supports (opportunities as well as threats)
 - Investment needs in clean and renewable energy production, in retrofitting buildings, in affordable and available public transport, in sustainable food production, in re-wilding, in broadband and remote working etc etc.
 - Managing the demographic and climate challenges and making sufficient investments will require a much stronger revenue base
- The political economy of all this will be very challenging – but the Covid crisis has shown that radical policies are possible where there is a clear need

Conclusion

- 21st century high-level economic policy should take a multi-pronged approach across three main dimensions
 - Enhance innovative capacity and remove employment barriers (growth)
 - Ensure income adequacy and adequacy of services and pursue greater economic equality (equality)
 - Engage in foresight to identify sustainability shocks and make strategic adjustments to policy to respond to those shocks in good time (sustainability)
- Its the overall system that matters
 - A particular policy might fail on some dimension, but this does not mean it should inherently be excluded from consideration (e.g. carbon tax)
- Important decisions ahead on tax policy



Questions?