



UCL POLICY BRIEFING – FEBRUARY 2014

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KEY MESSAGES

- A green economy strategy will address economic vulnerabilities and long-term weaknesses and drive a robust recovery from recession.
- The UK risks losing its current competitive advantage in key areas of innovation and technology without taking steps to foster green innovation.
- The costs of moving to a green economy are lower than supposed - direct costs are often over-estimated, and the pay-offs are under-estimated.
- The green economy refers to the whole of the economy, not just the environmental sectors. There is a crucial role for Government in steering towards a green economy.
- Key recommendations for moving to a green economy are:
 - A green industrial strategy to drive eco-innovation and secure competitive advantage in green technologies
 - Prioritisation of infrastructure projects which ensures that investments are compatible with long-term green economy objectives
 - A new information infrastructure to provide natural capital and material flow accounts for the economy, together with improved corporate reporting and enhanced consumer information.

Greening the Recovery

The report of the UCL Green Economy Policy Commission

Rationale for a green economy strategy

The UCL Green Economy Policy Commission (GEPC) identifies six key points which underpin the rationale for a green economy:

1. A concern for the environment and a recognition that **in the long term we have to shift to a more sustainable growth path.** Our economy is highly vulnerable to climate change, degraded natural capital and resource constraints, and our wellbeing depends on the quality of the environment and on natural resources.
2. **Many of the structural reforms required for a green economy are necessary even without the green imperative.** It makes sense to make such structural reforms in a way that drives the transition to the long-term goal of a low-carbon, resource-efficient green economy.
3. **There are short-term costs, but these are lower than is often supposed.** Empirical evidence shows that the predicted costs of environmental policy have almost always been overestimated in the past. There are also economic pay-offs to environmental policy that mean the net costs may be less than is typically expected.
4. **Delay is likely to be even more costly.** Failure to act early, and synchronously with cycles of investment and re-investment, is expensive because of lock-in and path dependence. Decisions made today enable or constrain options in the future.
5. The **fragility of the recovery** also provides a reason for pursuing a green economy now. Whilst the economy is operating below full capacity there is a window of opportunity during which resource costs are low and the added benefits of stimulating directed investment (particularly in infrastructure and innovation) are large.
6. **The rest of the world is moving in this direction.** Analysis of patent data and global innovation policy suggests that rest of the world is increasingly oriented towards greener innovation – the UK risks losing its leadership in areas of present comparative advantage.

THE GREEN ECONOMY IS LOW-CARBON

Going low-carbon is not easy. Low-carbon supply technologies are currently more expensive than high-carbon incumbents and although low-carbon efficiency technologies can have negative net costs they are not easy to implement through policy. Nevertheless, going low-carbon will have net short-term benefits if:

- implementation of efficiency technologies balances out the higher costs of supply; and
- carbon pricing allows more distorting taxes to be reduced.

Going low-carbon will have net long-term benefits if:

- it stimulates innovation that reduces low-carbon costs below those of high-carbon incumbents or results in the development of new or more efficient technologies, products and processes;
- Other countries also go low-carbon, providing export markets for technologies, products and processes
- there are further price increases and volatility in fossil fuel prices; and
- it yields substantial secondary benefits in terms of reduced air pollution

Ultimately, the greatest long-term net benefit of going low-carbon will be if it encourages other countries to do so, thereby reducing their emissions and limiting damages from climate change.

The role of Government

Government plays a fundamental and inescapable role in defining and framing the market and in providing long-term strategic policy direction. The UK needs a green economy strategy that inspires confidence in a stable growth pathway and that delivers policy credibility: this requires the UK Government to take a bolder and more proactive approach to delivering a green economy.

By establishing a clear commitment to a long-term strategic vision for greening the economy, the Government can inspire confidence among investors. In particular, it has a key role in fostering green innovation, prioritising green infrastructure investment, and ensuring the provision of adequate information to underpin the greening of the economy.



Delivering a green economy

The green economy is characterised by climate stability, resource security and environmental quality. It is a whole economy, rather than a number of more or less niche sectors concerned with environmental protection.

A green economy strategy aims to move the economy systematically towards increasing its resource productivity, reducing its greenhouse gas emissions, and maintaining its stocks of natural capital in a way that generates satisfying work and high living standards.

The green economy must be founded in a macro-economic policy which delivers long-term policy credibility and drives environmental tax reform; a central feature is resource efficiency. We identify innovation, infrastructure, and information as the three core 'pillars' of the green economy, illustrated below.

For the green economy, the whole is greater than the sum of the parts: our recommendations comprise a package of measures which taken together will green the UK economy

Recommendations

Innovation

Innovation lies at the heart of economic growth. For innovation to promote resource efficiency and environmental protection, it will need a substantial input from public policy. We make three main recommendations:

- develop a **new green industrial strategy** targeted at technologies that can underpin emerging green industries. This should include both horizontal instruments that give the right incentives right across the economy, and targeted sector-specific policies that focus on the skills and supply chains required for greener products and processes;
- **embed green objectives within the governance mechanisms for innovation** to green the orientation of the UK innovation system;
- create **demand-pull for green innovation across all areas of the economy**, including through **regulation** and **public procurement**.

Infrastructure

There are important choices to be made in respect of infrastructures of supply and demand, of energy, water, construction and transport, and of the information and communications infrastructure that will to a large extent determine how they are operated. The UK needs to understand what green infrastructure investments are required and prioritise these accordingly in order to ensure policy clarity and credibility. We recommend:

- the establishment of a **strategic infrastructure plan** that incorporates clear goals and the criteria on which infrastructure proposals will be judged, together with an infrastructure governance institution to deliver the plan;
- the **expansion of the Green Investment Bank** – increasing its capitalisation by £1bn and issuing green bonds to enable it to borrow up to £2bn;
- the creation of a **larger new National Infrastructure Bank** with green criteria embedded within its mandate;
- bolstering **local green infrastructure investment**.

Information

Adequate, timely and relevant information is essential for the understanding of the state of an economy and where it is headed, but we lack the information about material and resource use that enables economic actors and policymakers to understand and manage the resource and environmental basis of the economy and businesses. We recommend:

- the construction of a **system of natural capital accounts** to increase understanding as to how and where natural capital should be maintained and augmented, and to act as an interface between the economy and the environment;
- the construction of much more detailed **material flow accounts** for the UK economy that will track the flow of different materials through the economy;
- an information system for investment and supply chain management through a **Resources and Environment Reporting Council** to develop indicators for resource use and improved corporate accounting, including through confidence accounting;
- **improvements in consumer information**, which should be embedded in policy packages, rather than supplied in isolation.

Enabling policies: macro-economic policy and resource efficiency

The costs of moving towards a green economy are lowest when there are strong signals to investors and to business that the Government is committed to doing so. Macro-economic policy, including environmental tax reform and ensuring that infrastructure and innovation spending is targeted to support a green economic recovery, is crucial to demonstrate policy credibility and stability. We recommend:

- establishing widespread **green fiscal reform** through a Fiscal Commission for a Green Economy
- **reform of carbon pricing**, in partnership with the EU
- increasing **VAT on household energy use**
- issuing **index-linked policy-performance bonds**.

We also make a number of specific recommendations at UK and EU level to **improve resource efficiency**, which encompass: economic instruments; regulations; waste and energy efficiency; product passports; environmental taxes; green public procurement; and eco-design.



Conclusion

Successful policy for a green economy will:

- strengthen the UK economy by renewing infrastructure, stimulating innovation and increasing resource productivity;
- build UK comparative advantage, capability and exports in growing global markets;
- improve the daily environmental experience and quality of life of UK citizens;
- give the UK a leading voice in global political discourse on increasingly important resource and environment issues.

A clear, credible and long-term green strategy can lower risk premiums and galvanise private investment. A national strategy to drive forward investment in resource-efficient, innovative sectors could both restore growth and leave a lasting legacy.

The green economy is moving from a desirability to a necessity. There is a window of opportunity, as the UK emerges from recession, to implement policies which will green the recovery and put the UK economy decisively on a trajectory towards low-carbon prosperity, resource security and environmental quality. The direction the UK economy takes in recovery and the extent to which it addresses its vulnerability to climate instability and resource availability will largely determine whether growth can be sustained for the long-term.

MORE INFORMATION

The report of the UCL Green Economy Policy Commission was launched on 24 February 2014. The full report is available to download from the UCL Public Policy website, www.ucl.ac.uk/public-policy

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