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The Impact of the Economic Crisis on Innovation and Long- Term Growth – Evidence, Implications and Policy Responses

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OECD work on the crisis and innovation

– Two strategic initiatives

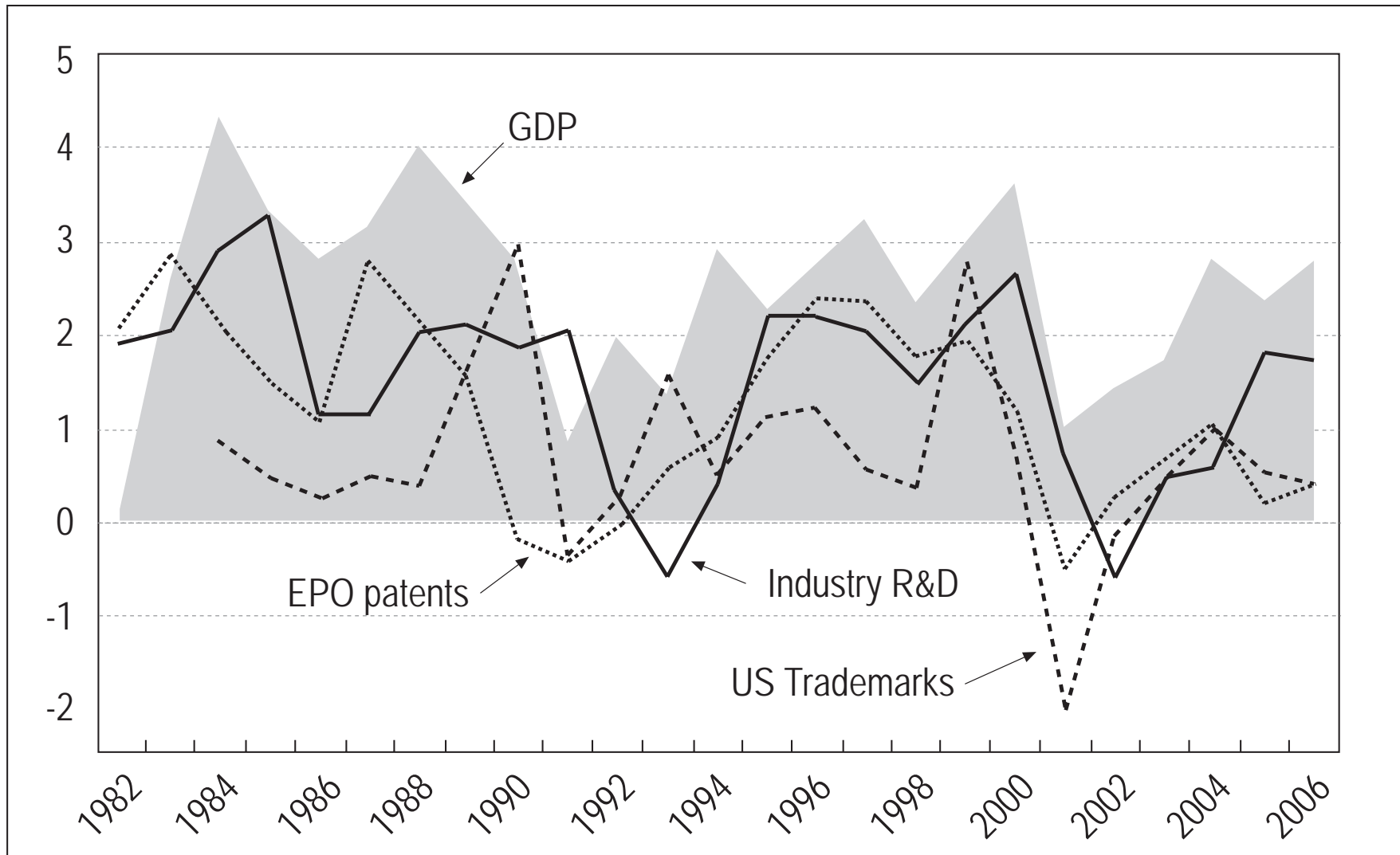
1. Strategic Response to the Crisis, combining:

- Policies to resolve the crisis in the financial system
- Policies to foster sustainable, long-term growth

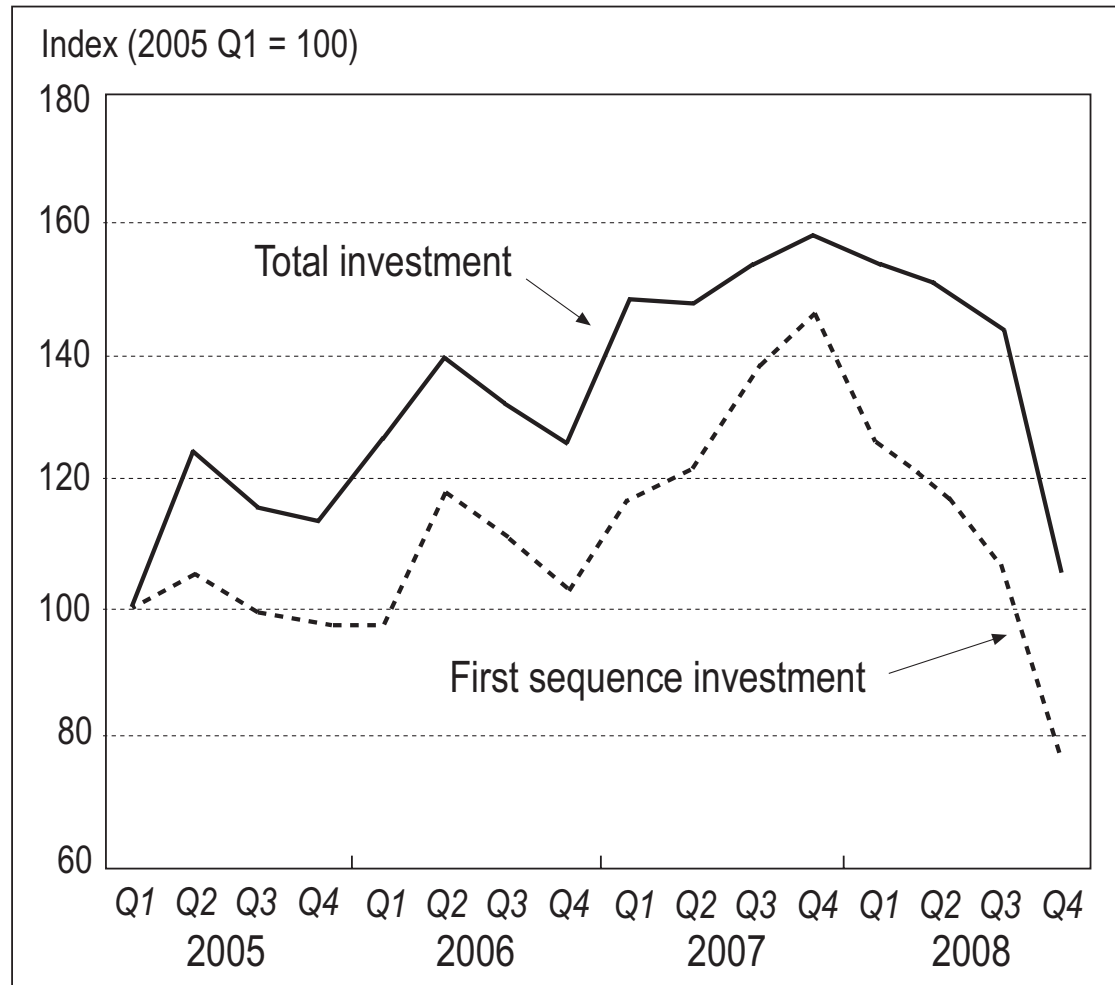
2. OECD Innovation Strategy:

- Developing a coherent strategy for innovation to strengthen growth and help address social challenges
- Going beyond science, technology and R&D and adjusting to the changing nature of innovation

We know that innovation will suffer in the downturn



Investment in venture capital is already declining ...

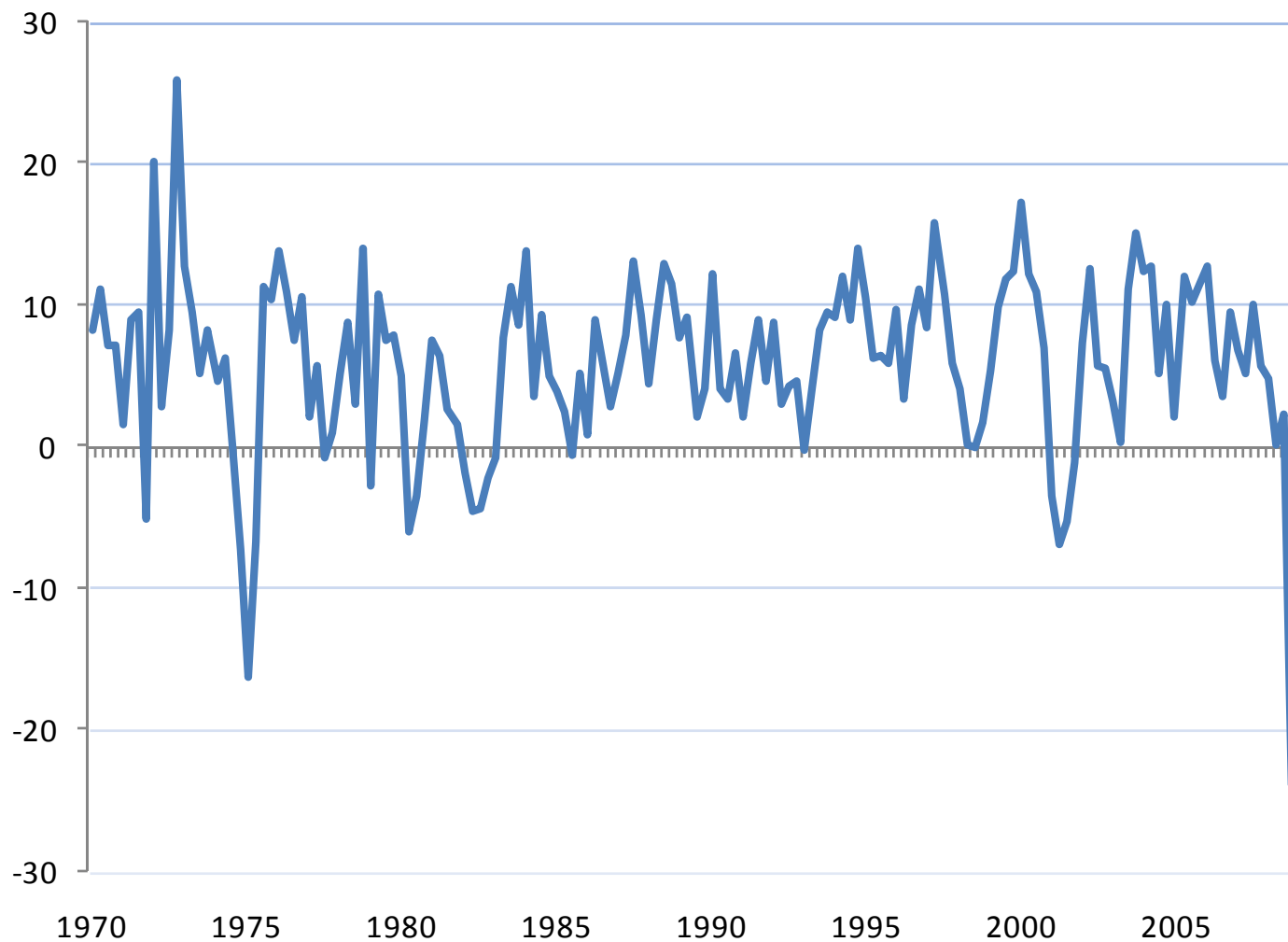




.. as is investment in R&D and innovation

- Investment in R&D is falling in many firms:
 - A sharp drop in R&D expenditure of certain large, public companies reported in the fourth quarter of 2008.
 - A growing focus on development, instead of research.
 - Though some firms are increasing investment.
- Small firms are even more affected:
 - Financial constraints are more pressing
 - Sharp increase in bankruptcies and insolvencies
 - New innovative firms have difficulties in entering and exiting (e.g. through IPOs).

World trade has fallen rapidly ... (annualised quarter to quarter growth, %)





... which also risks affecting innovation and long-term growth

- The decline in trade affects global innovation networks.
- It also increases the risks of protectionism.
- With more firms having a global business model and growing interactions between firms, this risks affecting growth and innovation more widely.



The crisis has other impacts on innovation and long-term growth

- Reduced incentives for environmental innovation:
 - Consumers buy less expensive goods; firms find it more difficult to reap a price premium for new innovations
 - Price conditions for environmental innovation (e.g. price of oil) have worsened
- The crisis has made underlying structural problems more apparent, e.g. in the car market
- It has spread beyond countries with weakened financial sectors – mainly to manufacturing.

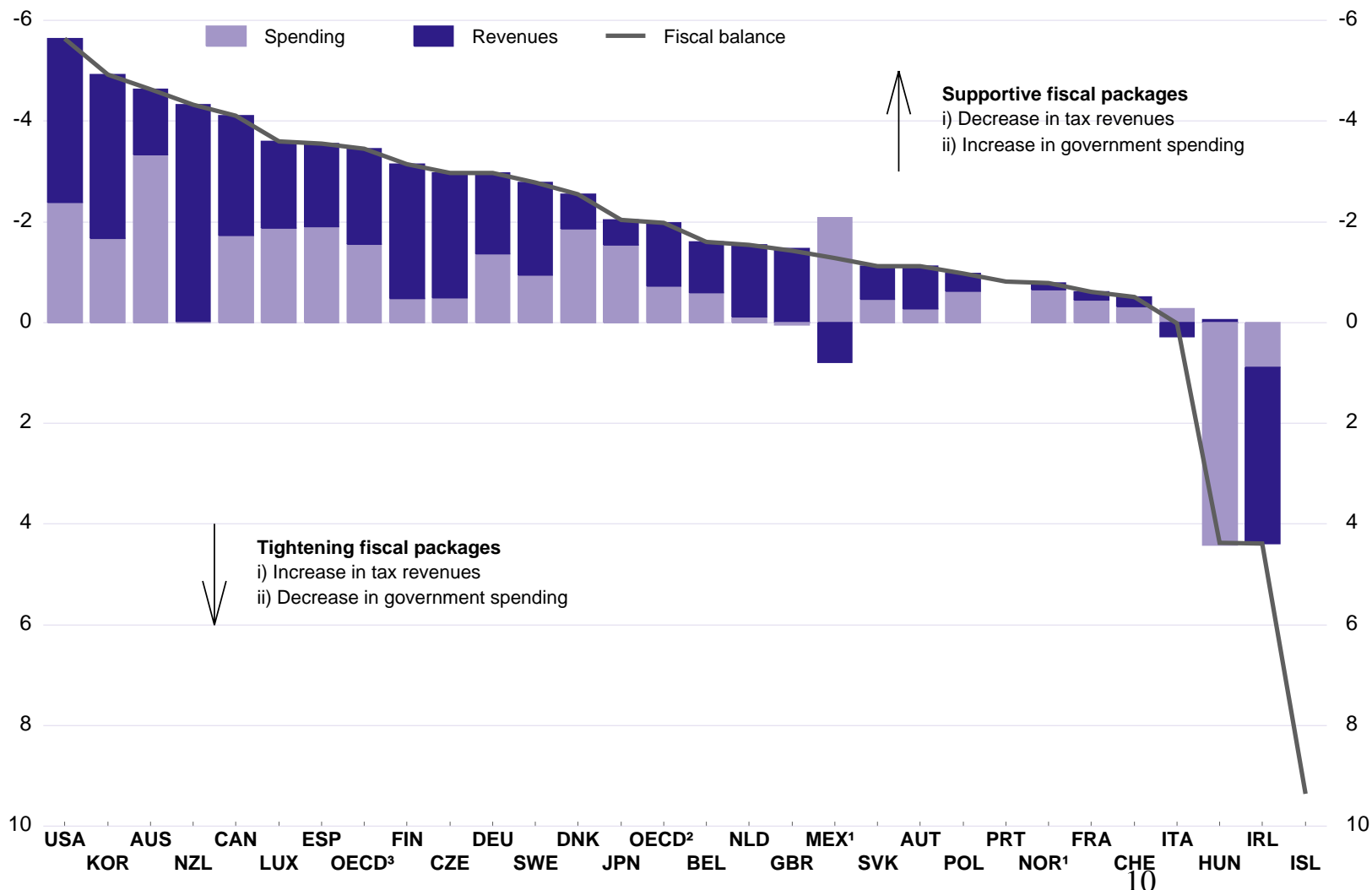


Government responses: Economic stimulus packages

- Unprecedented fiscal stimulus: mixtures of financial bail-outs, tax cuts and extra-budgetary spending
- Virtually all OECD countries have packages, some several, ranging from (2009/10):
 - **USD 500 million to 790 billion**
 - as share of GDP: **0.3% to 8%**
 - total of **USD 1.5 trillion**
- Non member economies:
 - China USD 580 billion (13% of GDP)

The size and composition of fiscal packages

Cumulative impact of fiscal packages over the period 2008-2010 on fiscal balances as % of 2008 GDP



Source: OECD Interim Economic Outlook 2009, 31 March 2009

Innovation and growth measures in the stimulus packages

Improving infrastructure (e.g. roads, transit, broadband)

Support for R&D and innovation

Investment in human capital, education/training

Green technologies and energy-efficiency

Support for innovation and entrepreneurship (incl. support for SMEs, venture capital)



As well as non-financial measures

- Simplification and speeding up of administrative procedures
- Making the public administration more efficient
- Industry-specific agreements or regulations to accompany additional spending & targets of stimulus plans, e.g. investment in next-generation networks, smart grids



Long-term goals and short-term actions

- Looking for **double-dividend actions** that can strengthen demand and support growth, e.g.:
 - Well-designed investments in infrastructure
 - Spending on training and active labour market policies
 - Easing of entry restrictions to create new markets.
- Long term actions can:
 - Increase the long-term **credibility** of government actions.
 - Serve as an **opportunity** to accelerate structural changes and move to a more sustainable growth path



Some policy considerations

Supporting R&D and innovation

- Investments in innovation can be of strategic importance for long-term growth:
 - governments can cushion the impact of the crisis on private innovation expenditure (through support for R&D, public/private partnerships, etc.).
 - Investment in research infrastructure may strengthen short-term demand and long-term growth
- Innovation (and policies) should be closer linked to economic and social needs (e.g. ageing, climate change, etc); this is where future opportunities and markets will be.



Financing for small and innovative firms

- Firms that are willing to take risks are essential for innovation - support for risk takers and small innovative firms remains important.
- The scope for government action includes:
 - Policies to enhance cash flows, e.g. by shortening payment delays for public procurement (or changes to tax payments and export credits).
 - Policies to enhance access to liquidity, e.g. by extension of loans and loan guarantees (or by mediation with banks).
 - Strengthening the provision of private risk capital.
 - Broader initiatives to strengthen the financial system.

Industrial renewal and business dynamics

- Governments are providing considerable support to firms and industries in need, sometimes indirectly:
 - In assisting existing firms or industries, policy needs to avoid locking-in old economic structures and business models – give room to new firms and business models.
 - Make support conditional on restructuring and rationalisation.
 - Industrial support also risks fuelling protectionism.
 - Clear exit strategies are needed: outlining the maximum duration of support and how it will be scaled back.

Environmental innovation

- The crisis has reduced incentives for environmental innovation, but delaying action may be costly.
- Crisis provides an opportunity to improve efficiency, some win-win options include:
 - Removing subsidies on fossil-fuel based energy production and consumption.
 - Cutting trade barriers on environment-friendly products.
- But most important is to establish a clear long-term signal to investors and the public about climate change.
- Environmental innovation offers new business opportunities and can generate new tax revenues.

Implementation

- Achieving a balance between the necessary speed of translating measures into action, ensuring accountability and avoiding waste of resources
- International coordination of stimulus packages
- With a growing role of government, the quality of government intervention is key:
 - Evaluation of measures to ensure their impact and enhance accountability
 - Coherency of the overall strategy to address the crisis



In sum

The crisis offers new opportunities to undertake structural change and help shape the future of OECD economies

The long run starts now.



For further information

- OECD Strategic Response:

<http://www.oecd.org/dataoecd/33/57/42061463.pdf>

- OECD Innovation Strategy:

www.oecd.org/innovation/strategy

- Directorate for Science, Technology and Industry:

www.oecd.org/sti