SENSITIVE INTERVENTION POINTS IN THE POST-CARBON TRANSITION

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What are Sensitive Intervention Points (SIPs)?

“A focus on research and policies in which an intervention kicks or shifts the system so that the initial change is amplified by feedback effects that deliver outsized impact”.

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**SIPs**

The focus of this section is on the concept of Sensitive Intervention Points (SIPs), which are points in the system where a small initial change can amplify into a larger effect.

**Policy Forum**

Sensitive intervention points in the post-carbon transition

We must exploit socioeconomic tipping points and amplifiers

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**Figure 1A: “kick”**

**Figure 1B: “shift”**

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Examples of Sensitive Intervention Points (SIPs)

**Political mobilisation:** the existence of a “silent” pro-climate majority creates the possibility of a SIP, provided that political entrepreneurs can activate it.

**UK Climate Change Act:** shifted the institutional conditions by creating a long-term goal, an independent review body, and a regular ratcheting cycle, making it more difficult for future governments to backslide and creating additional pressure for ambitious steps in the future.

**Financial disclosure:** relatively modest changes to financial accounting rules or disclosure guidelines regarding climate change risks could have outsized effects.

**Choosing technology investments:** a kick to clean energy technologies could trigger feedbacks that make the energy transition cheaper and faster.
Choosing technology investments

Figure 2.2. Influences on the Learning System from Public Policy

Public R&D policies

Deployment policies

Industry R&D
Technology Stock of R&D
Production
Total cost

Experience curve

Factors influencing the total cost are taken from Watanabe (1999).

Fig. 10. Forecast for the cost of photovoltaic modules in 2013 $/Wp. The point forecasts and the error bars are produced using Eq. (19) and the parameters discussed in the text. Shading indicates the quantiles of the distribution corresponding to 1, 1.5 and 2 standard deviations.
Choosing technology investments

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**Figure 4.4. Additional Annual Cost for Technology Portfolio**

Additional annual costs for a technology portfolio with three technologies which are deployed with equal weights to reduce CO₂ emissions.
“More realistic models may increase trust and interest in their results. ... This might itself constitute an intervention in a sensitive area of the socio-political system.”

IAM estimated carbon price for $2^\circ >$1000/t

Likely “learning” carbon price for $2^\circ <$100/t

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THANK YOU!

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References