Industrial Policy for the Green Transition

5. Green Industrial Policy Instruments

C. Benoît & E. Massoc

Outline

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- Green industrial policy: historical context and instruments

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- An Industrial Revolution on the Horizon?

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- Integrating Industrial and Environmental Logics: tensions and challenges

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- Integrating Industrial and Environmental Logics: tensions and challenges
- The fundamental differences between old and new industrial policy

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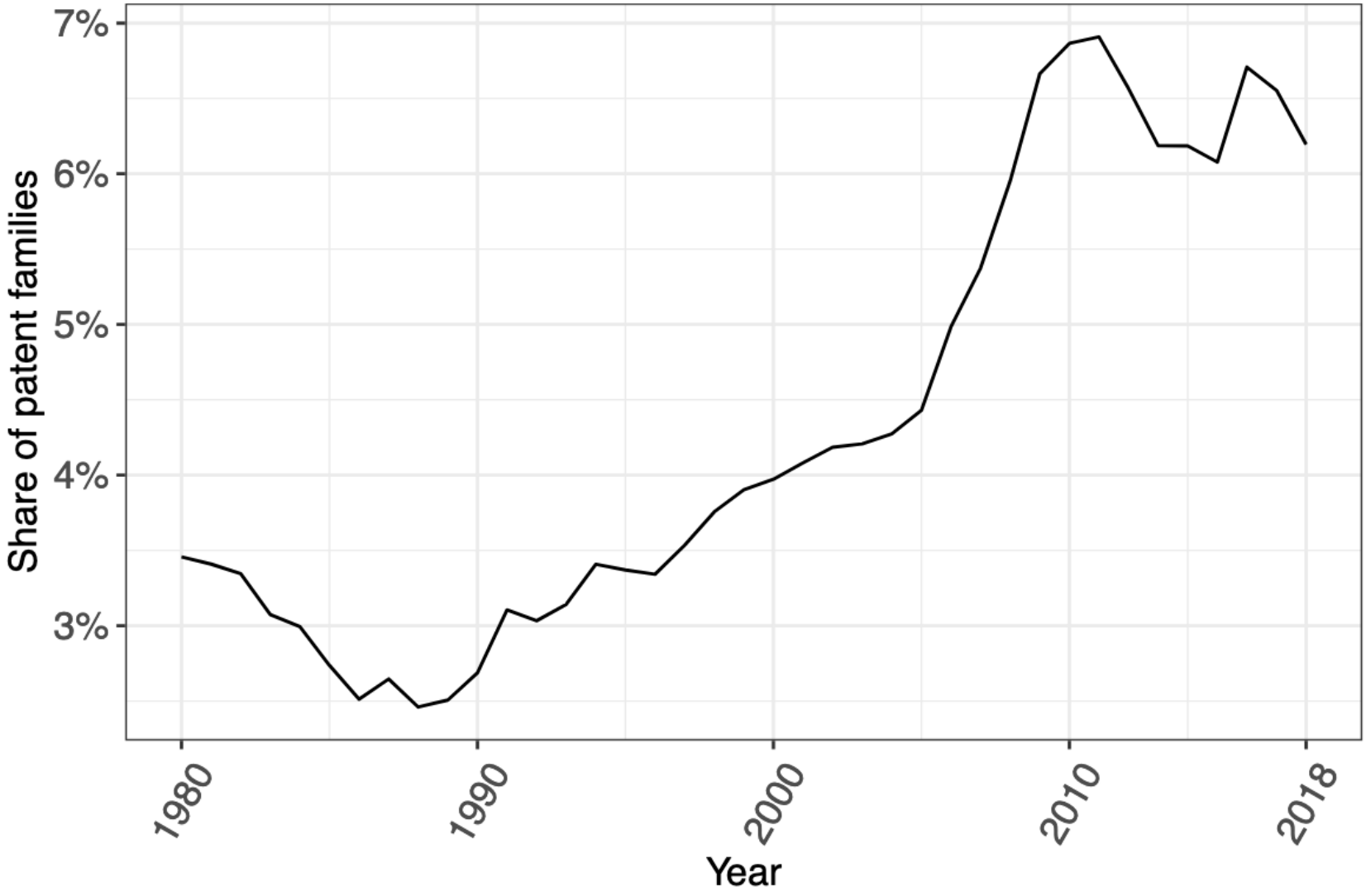
- Overall, green industrial policy is very similar to standard industrial policy in terms of its instruments, but it differs significantly in its various costs



Green Patents as a Percentage of Total Patents, reprinted from (Aghion et al. 2024)
Note: "% patents in environmental management, water-related adaption technologies, biodiversity and ecosystem health, climate-change mitigation (OECD classification — Hascic and Migotto 2015) — PATSTAT data".

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Aspect	1st Industrial Revolution	2nd Industrial Revolution	3rd Industrial Revolution
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Core Countries	UK, Belgium, Germany, France	USA, Japan, Germany	EU, USA?, China?, Japan?

Reprinted and adapted from (Jänicke & Jacob 2009)

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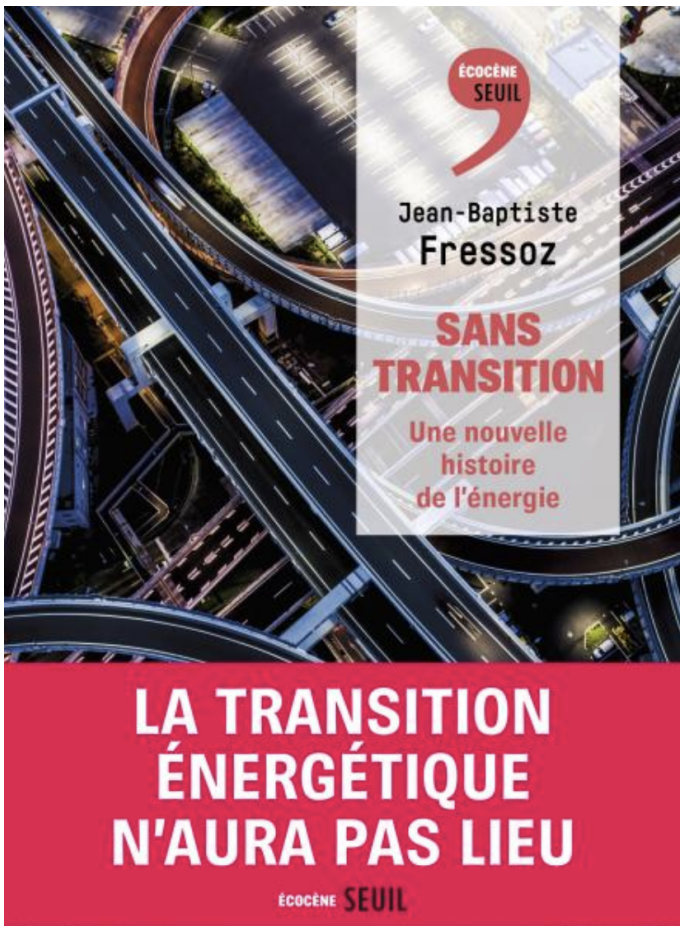

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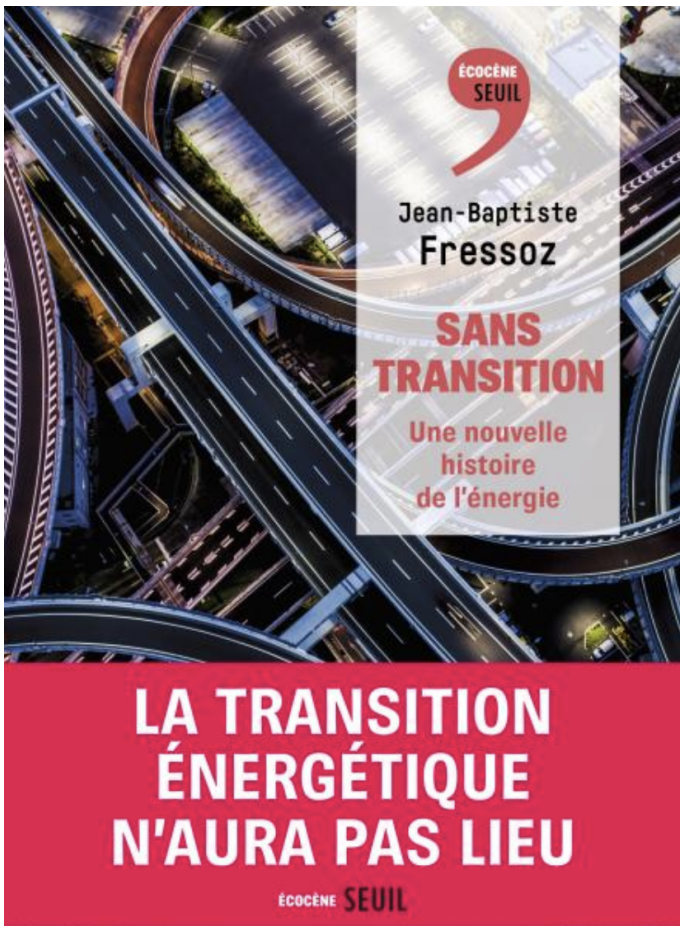

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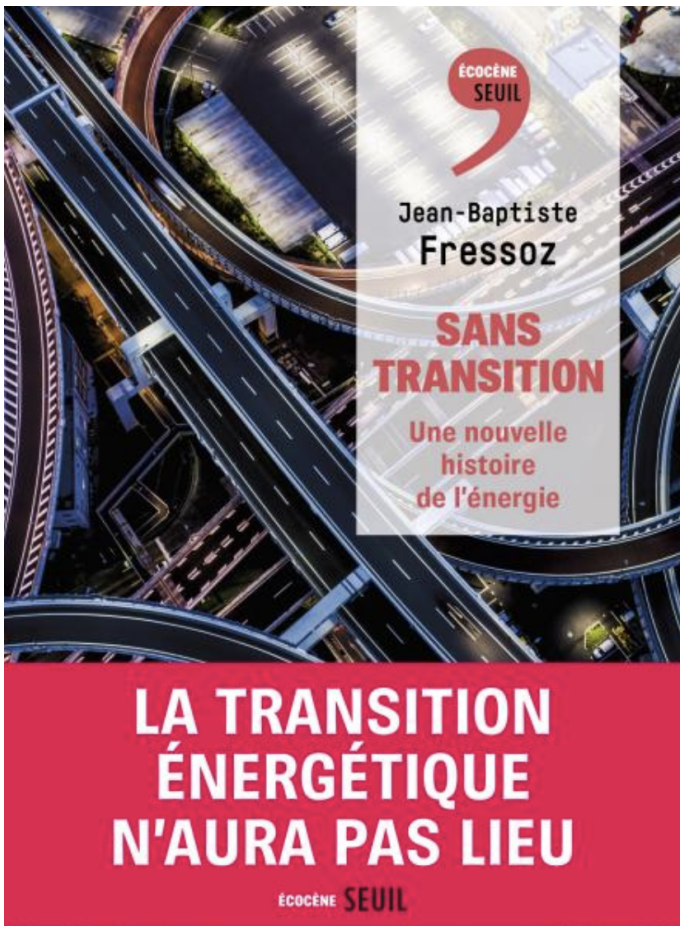

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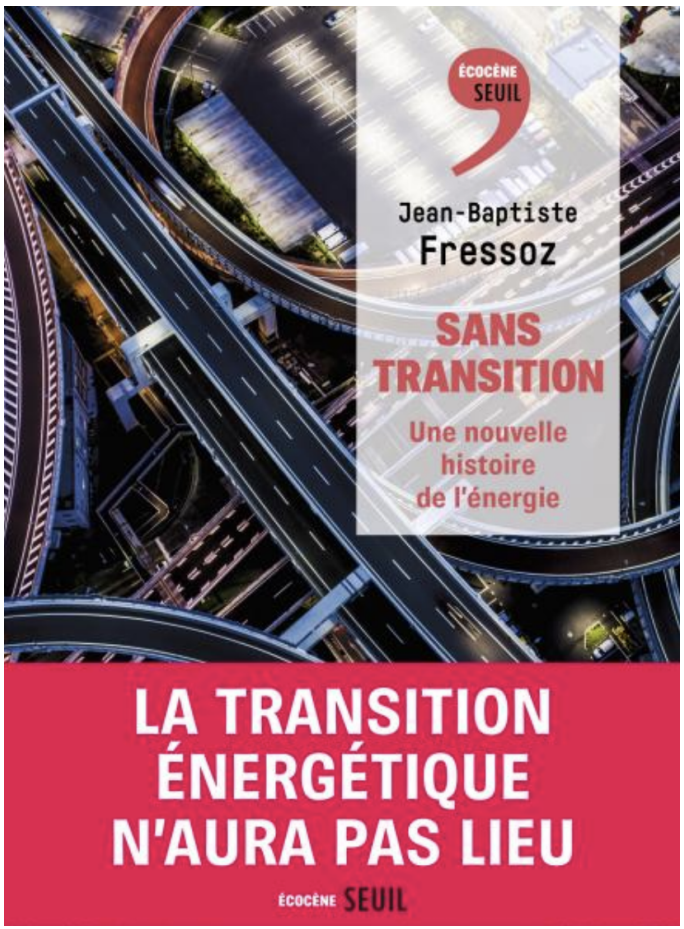

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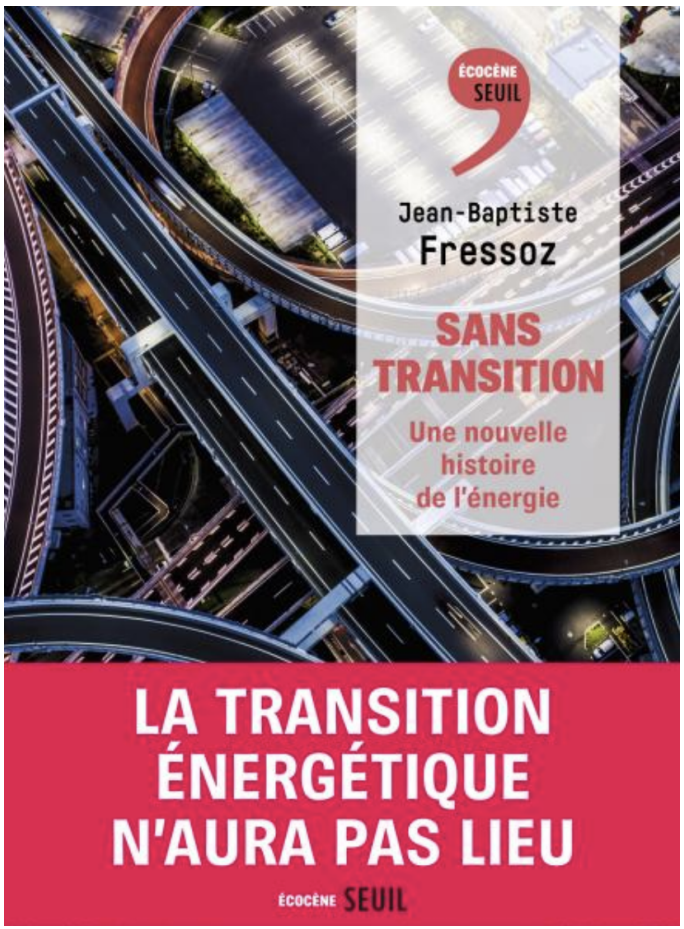

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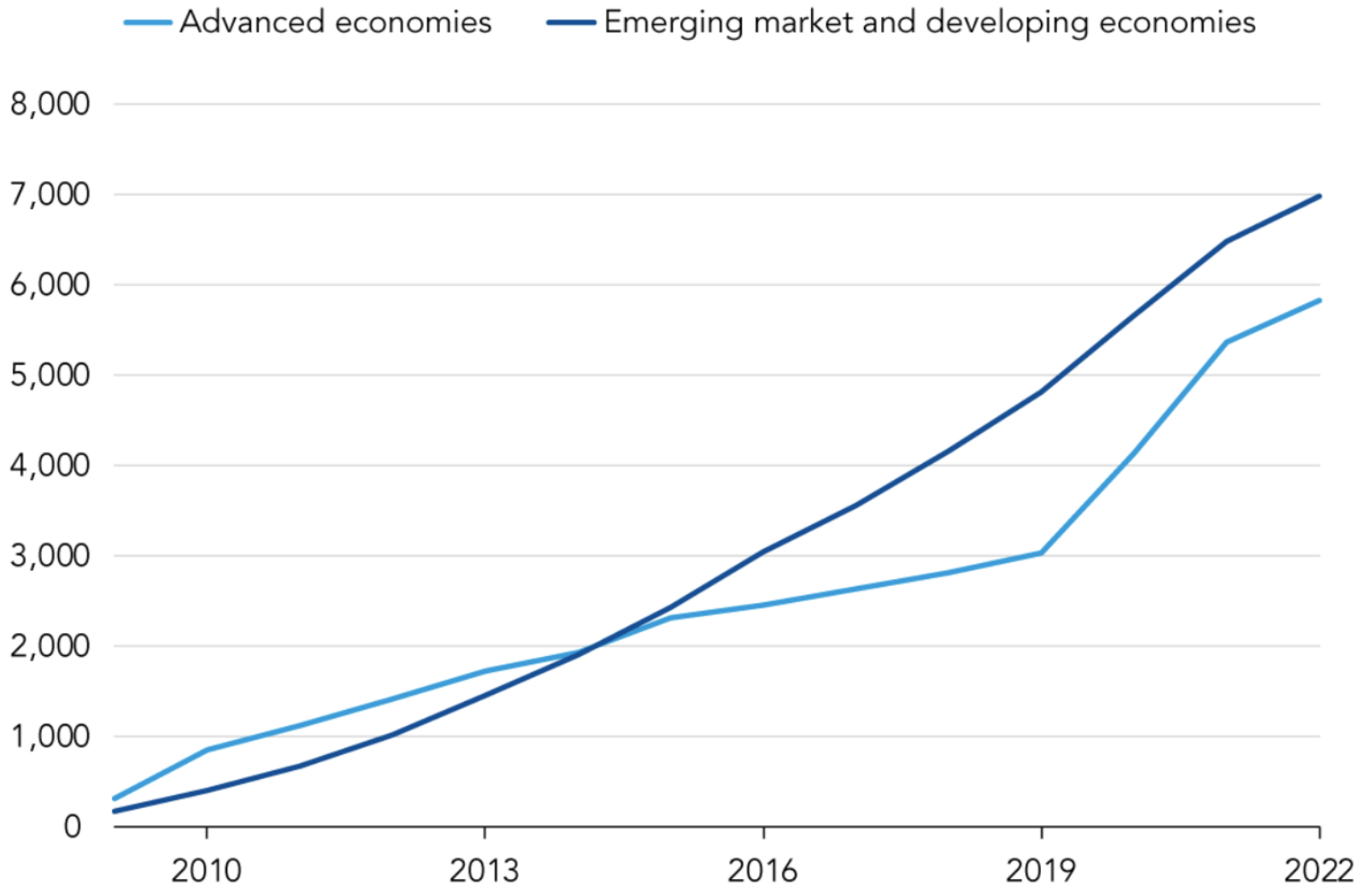
- Need to move away from a 'materialist phasic' conception of energy transition



Number of subsidy policies in force, reprinted from (IMF 2024)
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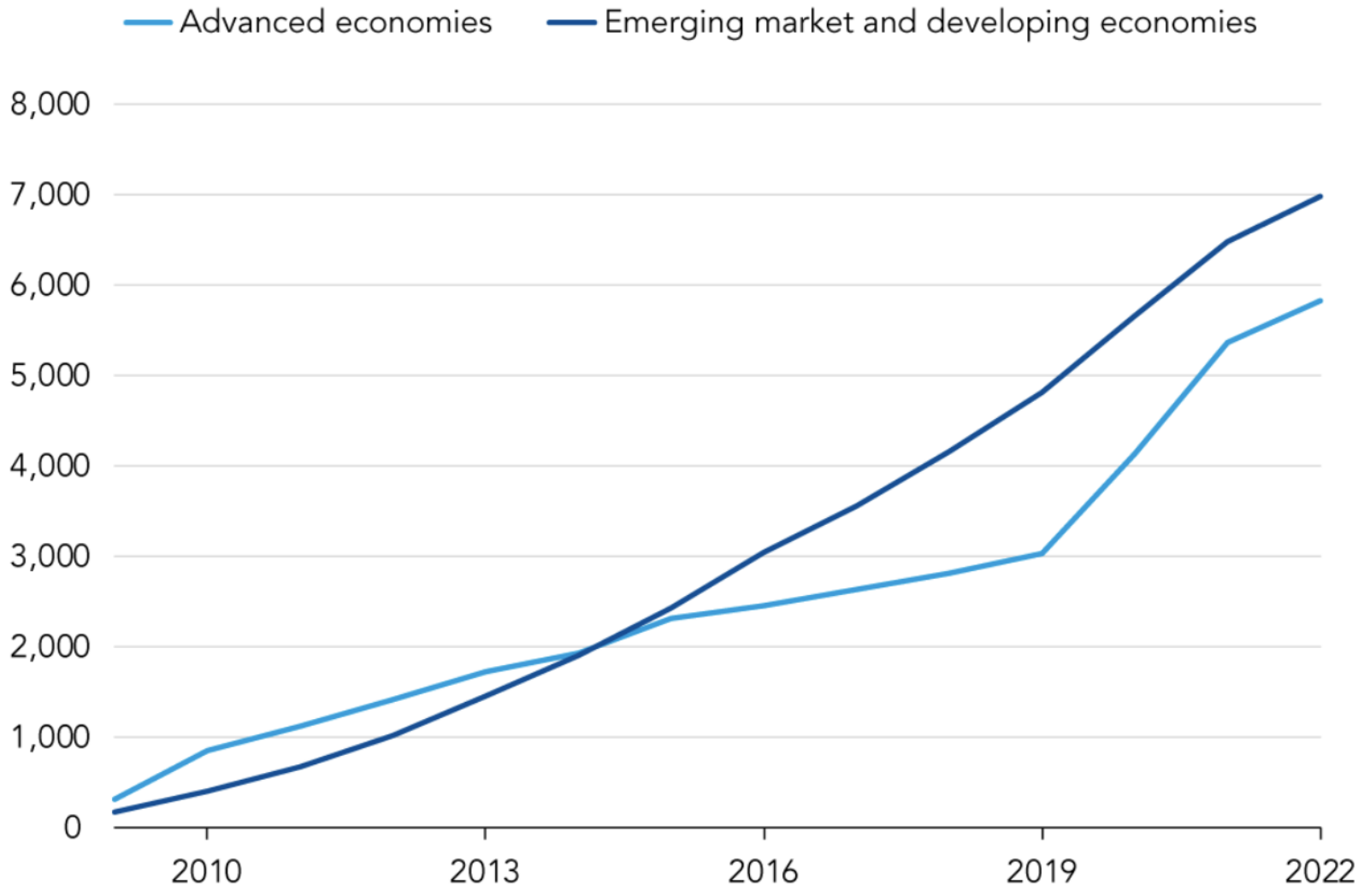

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→ Subsidies are one of the many [green] industrial **policy instruments** available

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Information-based instruments	Innovation-radar	Obligatory risk assessment for products	Environmental label	Market studies

Reprinted from (Hochfeld et al. 2010)

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- This, in turn, generate a series of important **practical differences**

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  - **Solution**: Altenburg & Rodrik 2017 suggest to base green industrial policy on policy mixes combining "market-based instruments, regulations, capacity building, subsidies and other components"

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  - **Solution**: Evidence that "green industrial policy in one large country can help facilitate global environmental cooperation, primarily by reducing the adjustment cost for other countries". Kim and Urpeainen (2013) argue that industrial policies by countries such as Germany and Denmark helped reduce the cost of renewable energy technologies, which facilitated European climate cooperation

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Main references

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