

Heterogeneous Agents at Norges Bank

COMMENTS BY THOMAS VON BRASCH



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Your model vs. Nemo?

Monetary Policy According to HANK[†]

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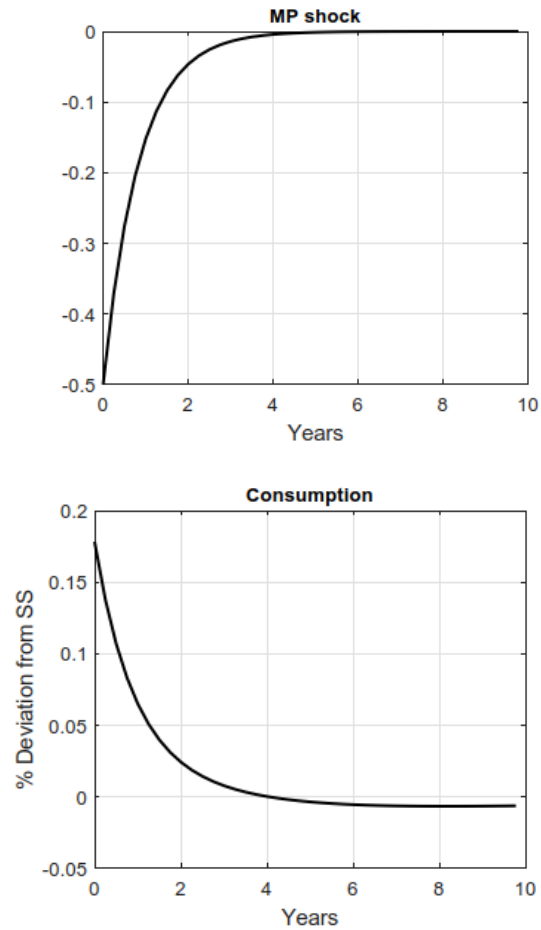
We revisit the transmission mechanism from monetary policy to household consumption in a Heterogeneous Agent New Keynesian (HANK) model. The model yields empirically realistic distributions of wealth and marginal propensities to consume because of two features: uninsurable income shocks and multiple assets with different degrees of liquidity and different returns. In this environment, the indirect effects of an unexpected cut in interest rates, which operate through a general equilibrium increase in labor demand, far outweigh direct effects such as intertemporal substitution. This finding is in stark contrast to small- and medium-scale Representative Agent New Keynesian (RANK) economies, where the substitution channel drives virtually all of the transmission from interest rates to consumption. Failure of Ricardian equivalence implies that, in HANK models, the fiscal reaction to the monetary expansion is a key determinant of the overall size of the macroeconomic response. (JEL D31, E12, E21, E24, E43, E52, E62)

American Economic Review 2018, 108(3): 697–743
<https://doi.org/10.1257/aer.20160042>

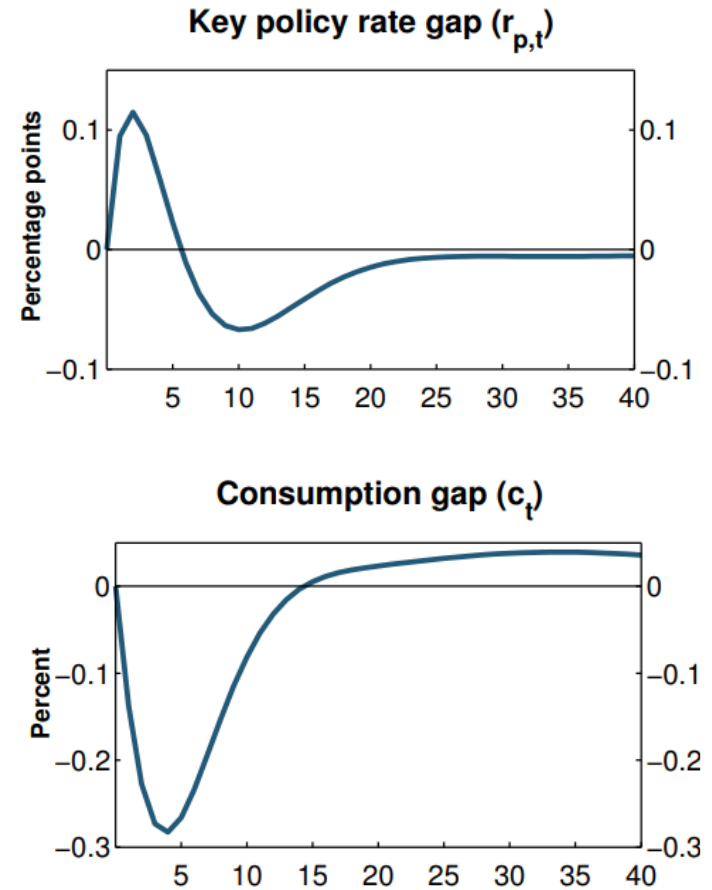


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Your model



Nemo



Gerdrup et al. (2017)

Is your model calibrated to Norwegian data?

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Your model =

Monetary policy

ϕ_{π}	1.25	Taylor coefficient on inflation	Kaplan et al. (2018)
ϕ_{y}	0	Taylor coefficient on output	Kaplan et al. (2018)

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Norges Bank \approx

$$i = \pi^* + r^* + 1,5 \cdot (\pi - \pi^*) + 0,5 \cdot y$$

Norges Bank Memo. Erfaringer med pengepolitikken i Norge siden 2001. Nr 1. 2017.

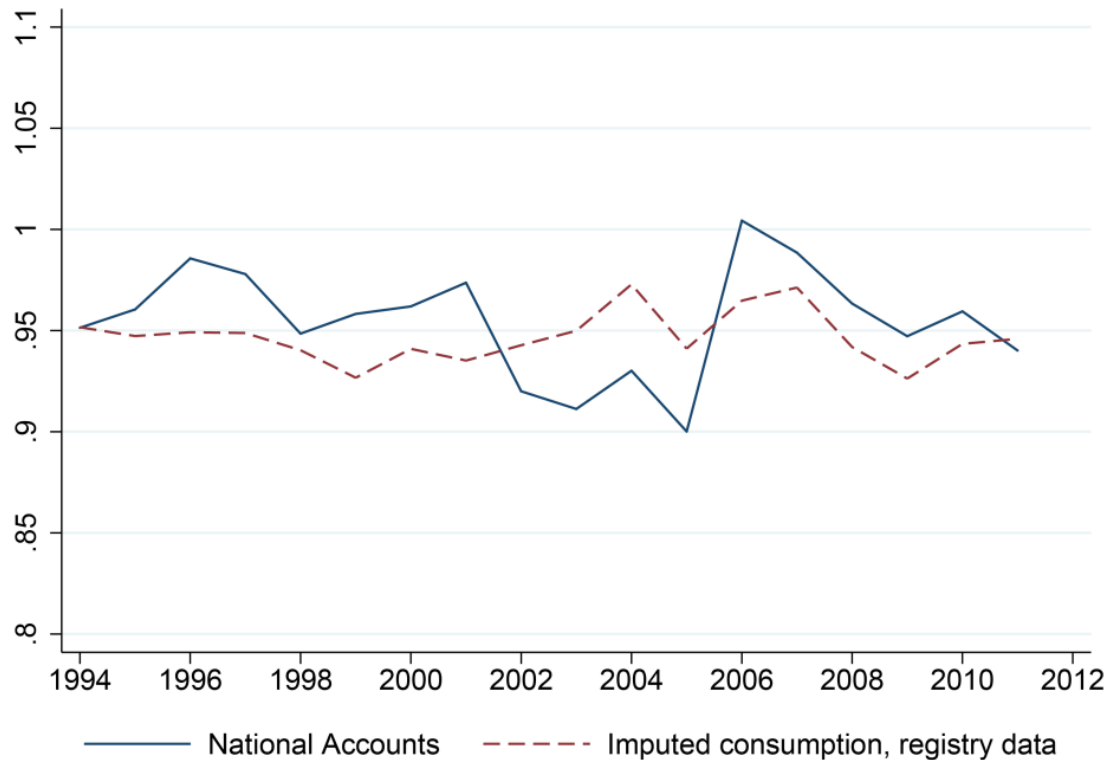
Register data and imputed consumption

- Imputed nominal consumption
 - What definition of income do you use?
 - How do you deal with real estate investments?
 - What do you do about the value of owner-occupied housing services ?
 - How do you deal with capital gains on financial assets?
 - How do you treat valuables (antiques, art objects etc.)?
 - Have you compared your data with data from the national accounts?
- Imputed real consumption? Have you also made price indices, and if so, how?



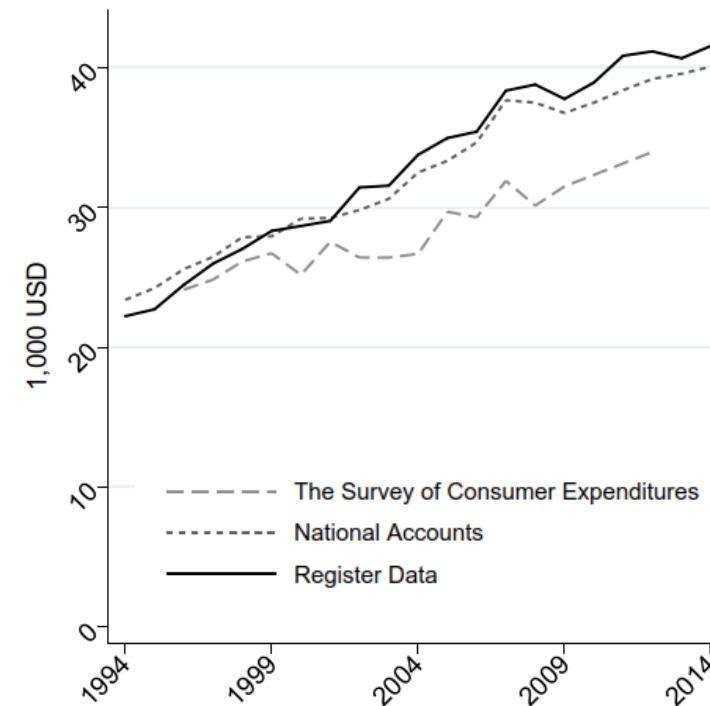
Register data and imputed consumption

Consumption as a fraction of disposable income



Source: Fagereng and Halvorsen (2017)

Consumption, USD

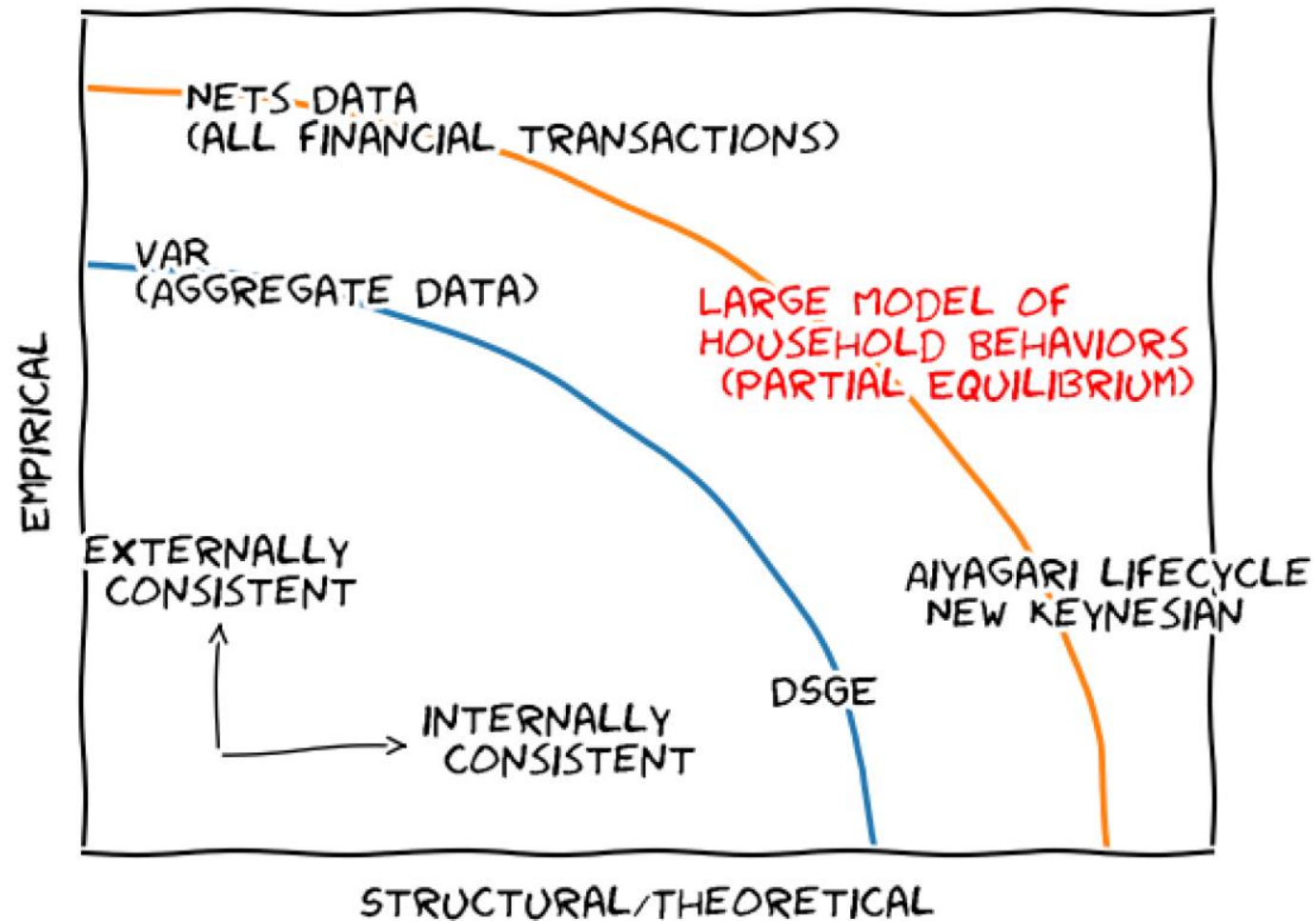


Source: Eika, Mogstad and Vestad (2019)

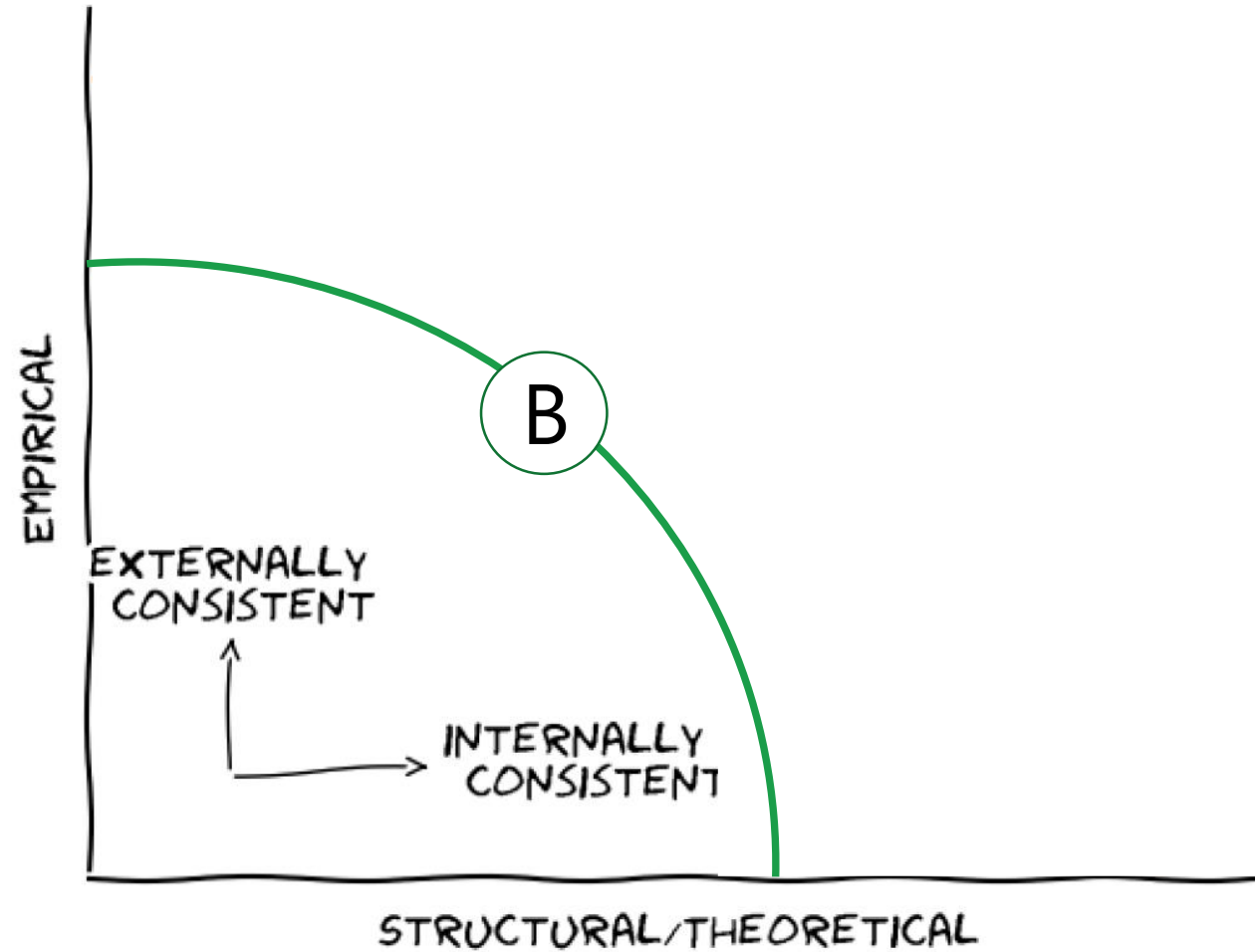


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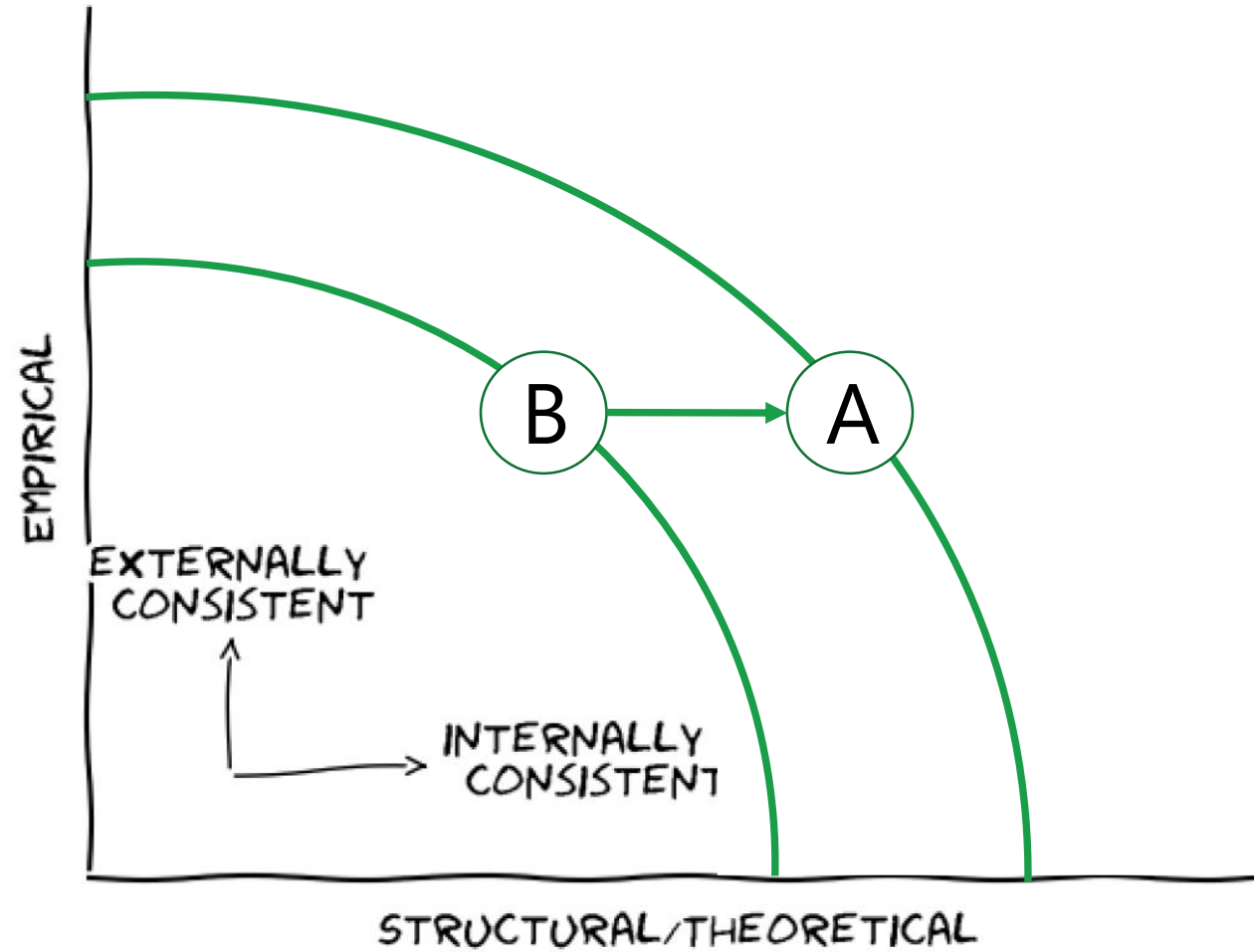
MODEL POSSIBILITY FRONTIER



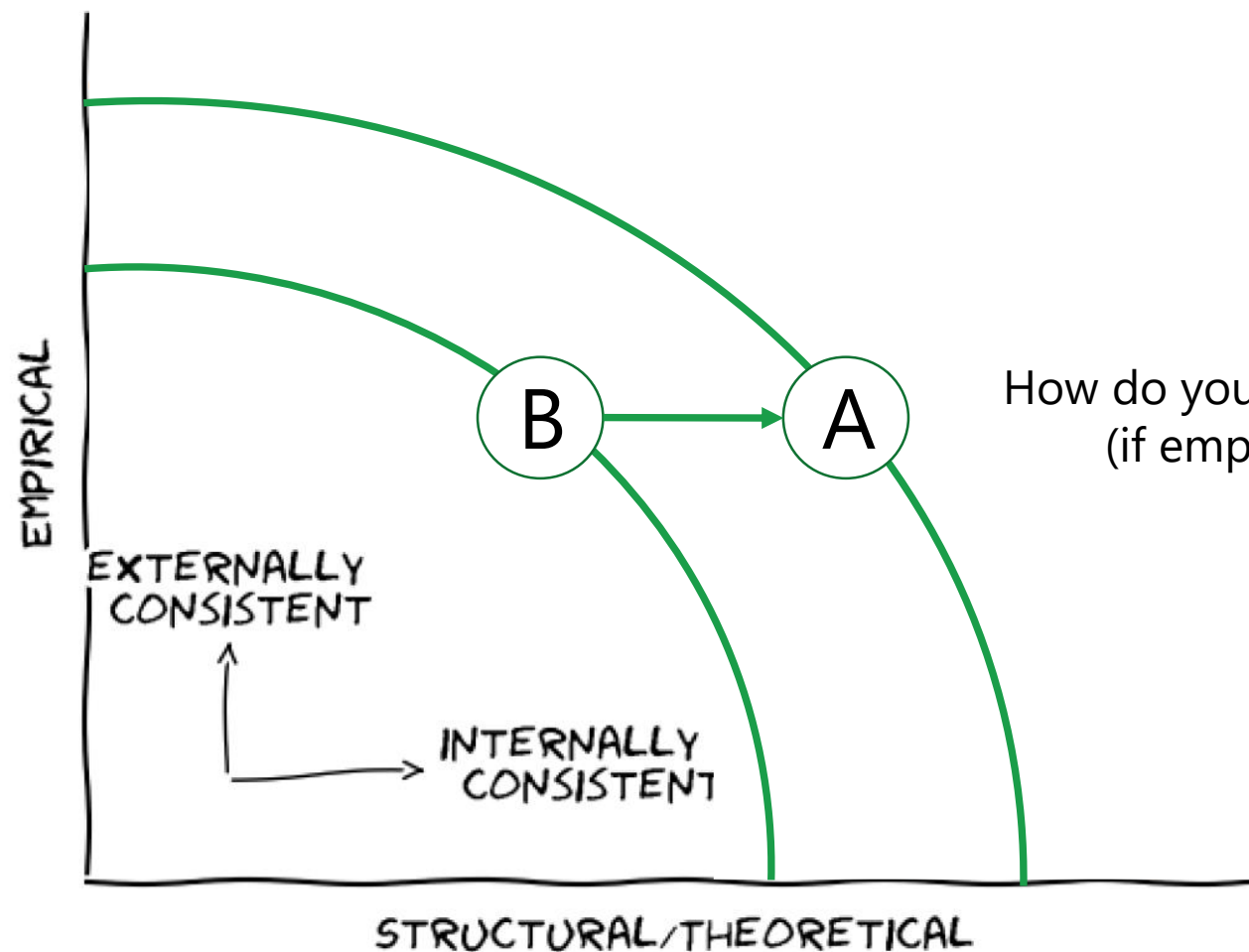
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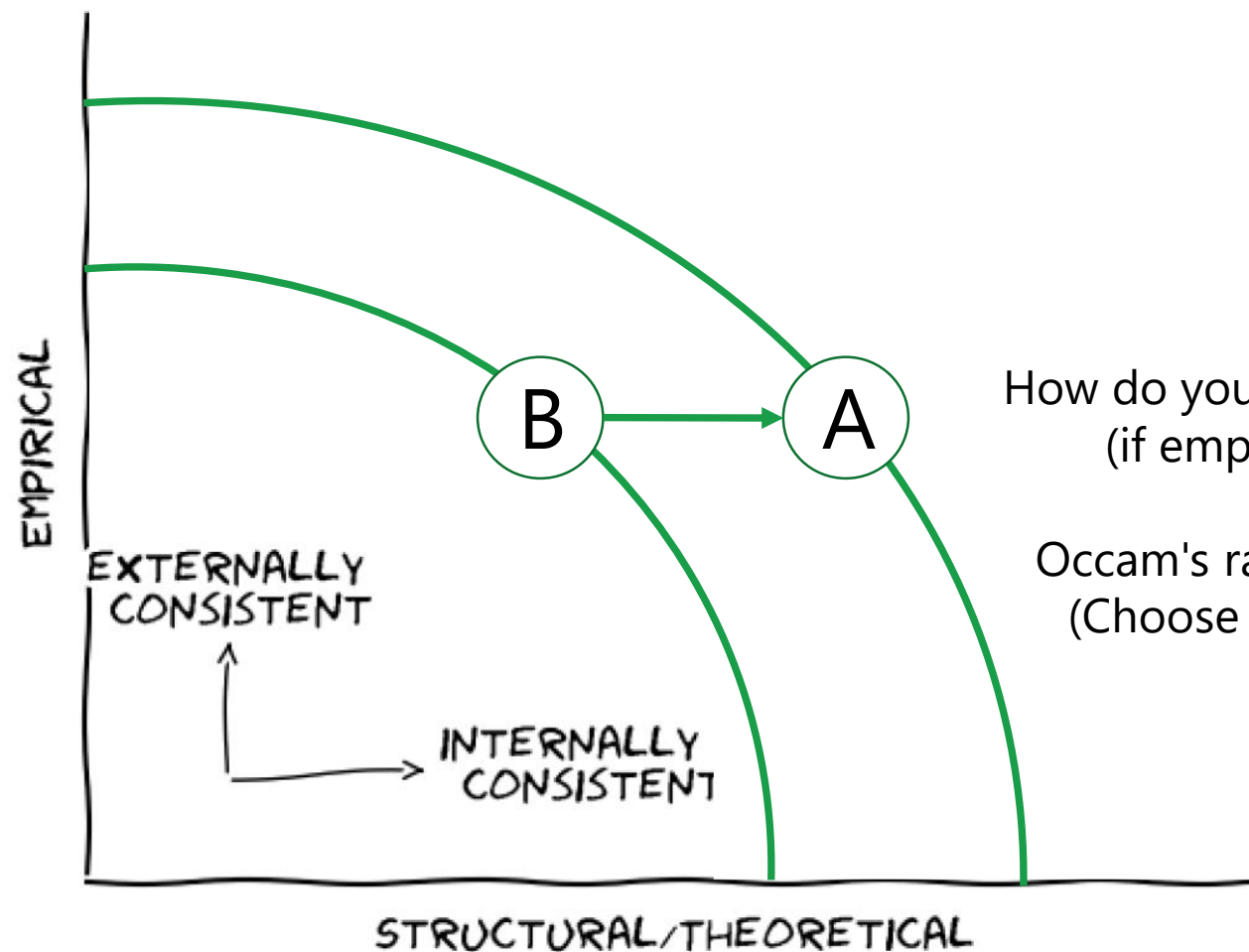


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How do you evaluate structural models?
(if empirical fit is not a criteria)

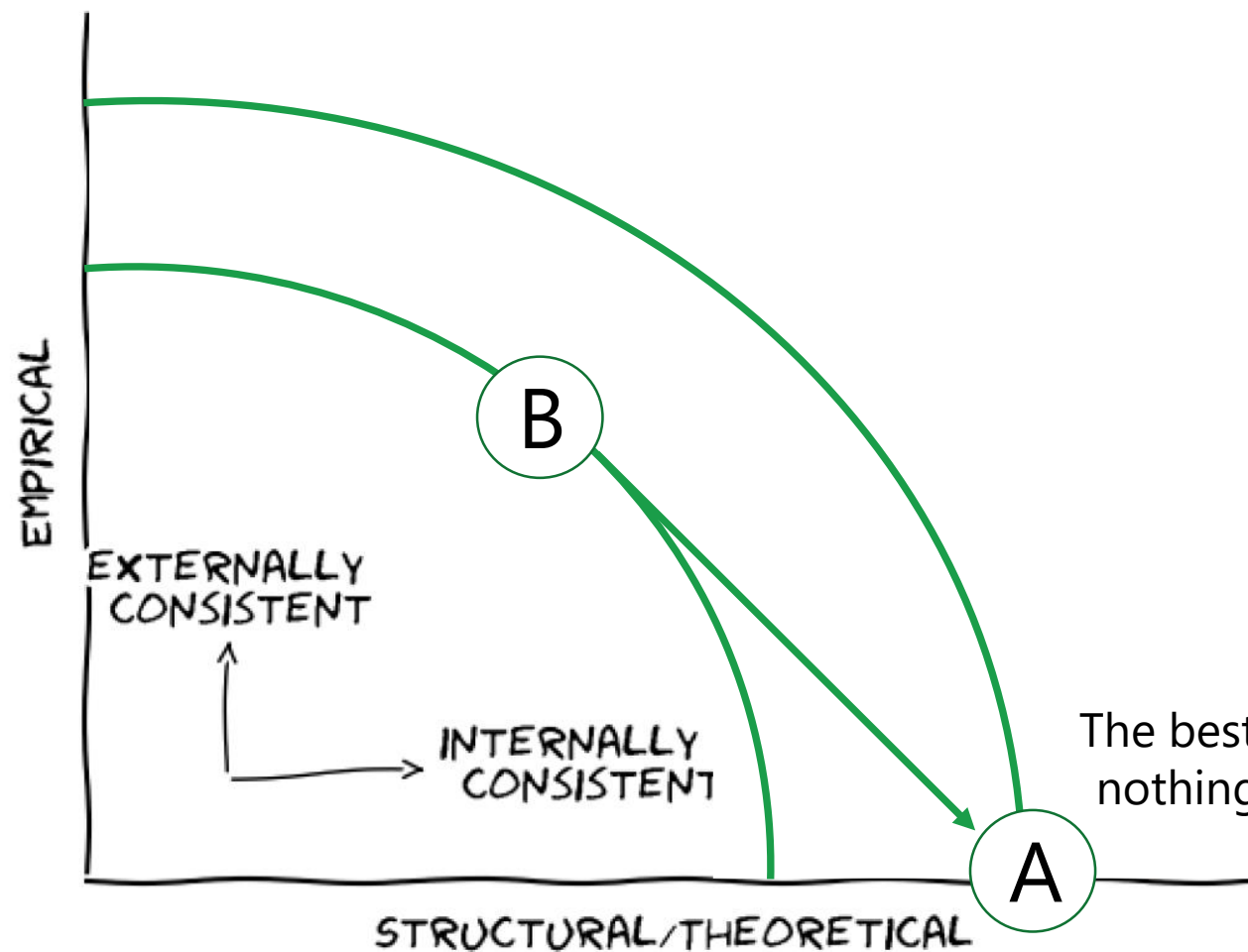
MODEL POSSIBILITY FRONTIER



How do you evaluate structural models?
(if empirical fit is not a criteria)

Occam's razor/principle of parsimony?
(Choose the models with the least assumptions)

MODEL POSSIBILITY FRONTIER



The best theory in the world says nothing about the real world ...

Most fundamentally, the diagram suggests theory consistency is bound to reduce, rather than improve, empirical coherence and suggests non-evidential preferences could legitimize falsified theory, making macroeconomics in danger of being unscientific, when the 'microfoundations' aim was precisely the opposite. In other words, the trade-off precludes achieving both theory consistency and empirical relevance

Hendry and Muellbauer (2018, p. 304)



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Which of FIN's models may learn from this project?

Sigrid

Demec

Lotte

Kvarts

Mosart

Snow



Takk!

ssb.no

