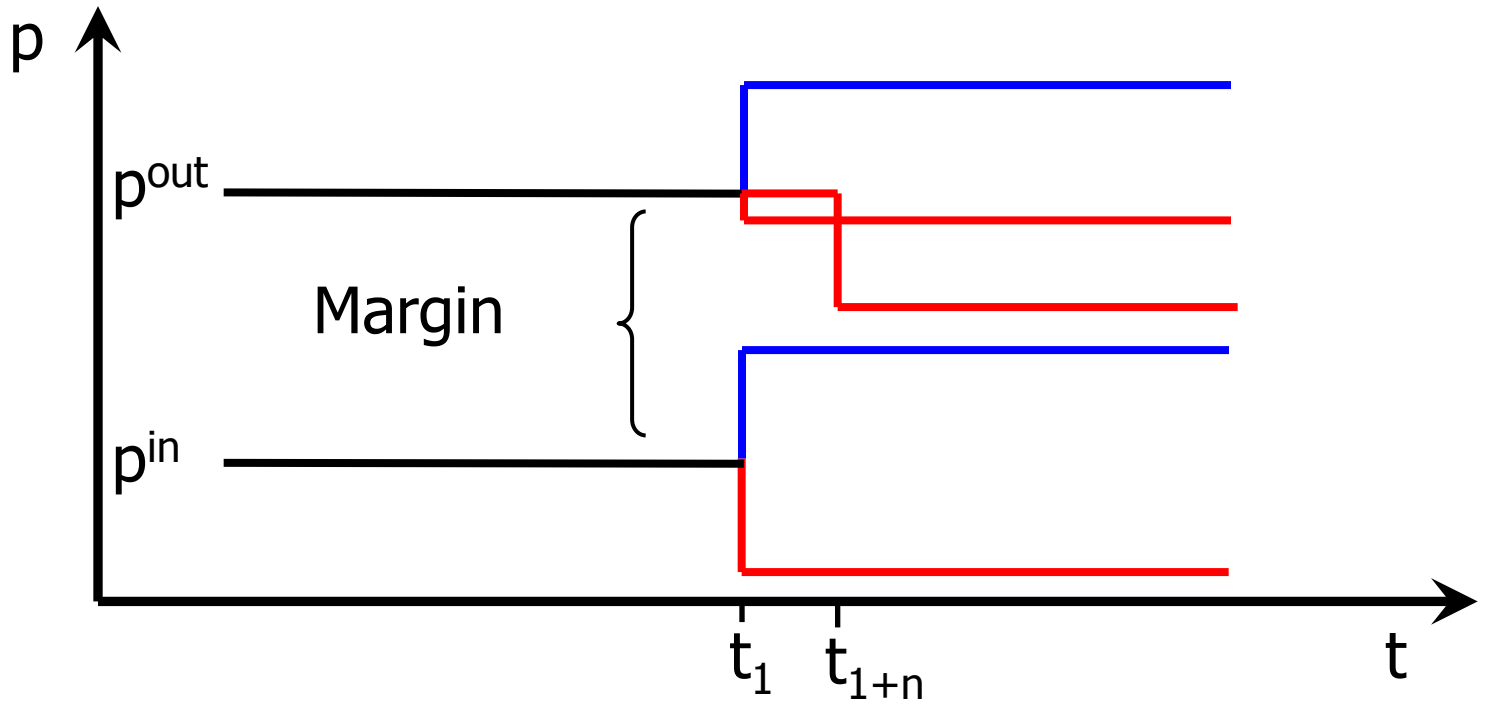
Asymmetric price transmission in the chain?



Why is asymmetry important?

- Policy:
  - Welfare impacts of liberalisation (e.g. sugar)
  - Consequences of concentration / market power (e.g. pork)
- Theory:
  - Peltzman (2000) finds evidence of asymmetric price transmission in over two-thirds of the 282 markets he studies
  - Concludes that since asymmetry appears to be the rule rather than the exception, standard economic theory, which does not account for asymmetry, is *„…wrong…"*

What are the possible causes of asymmetry?

- The abuse of market power
  - (not always rockets and feathers!)
- Adjustment costs / menu costs
- Inventories / perishability
- Fact or artefact?
  - measurement problems
  - promotional prices

Testing for the presence of asymmetry?

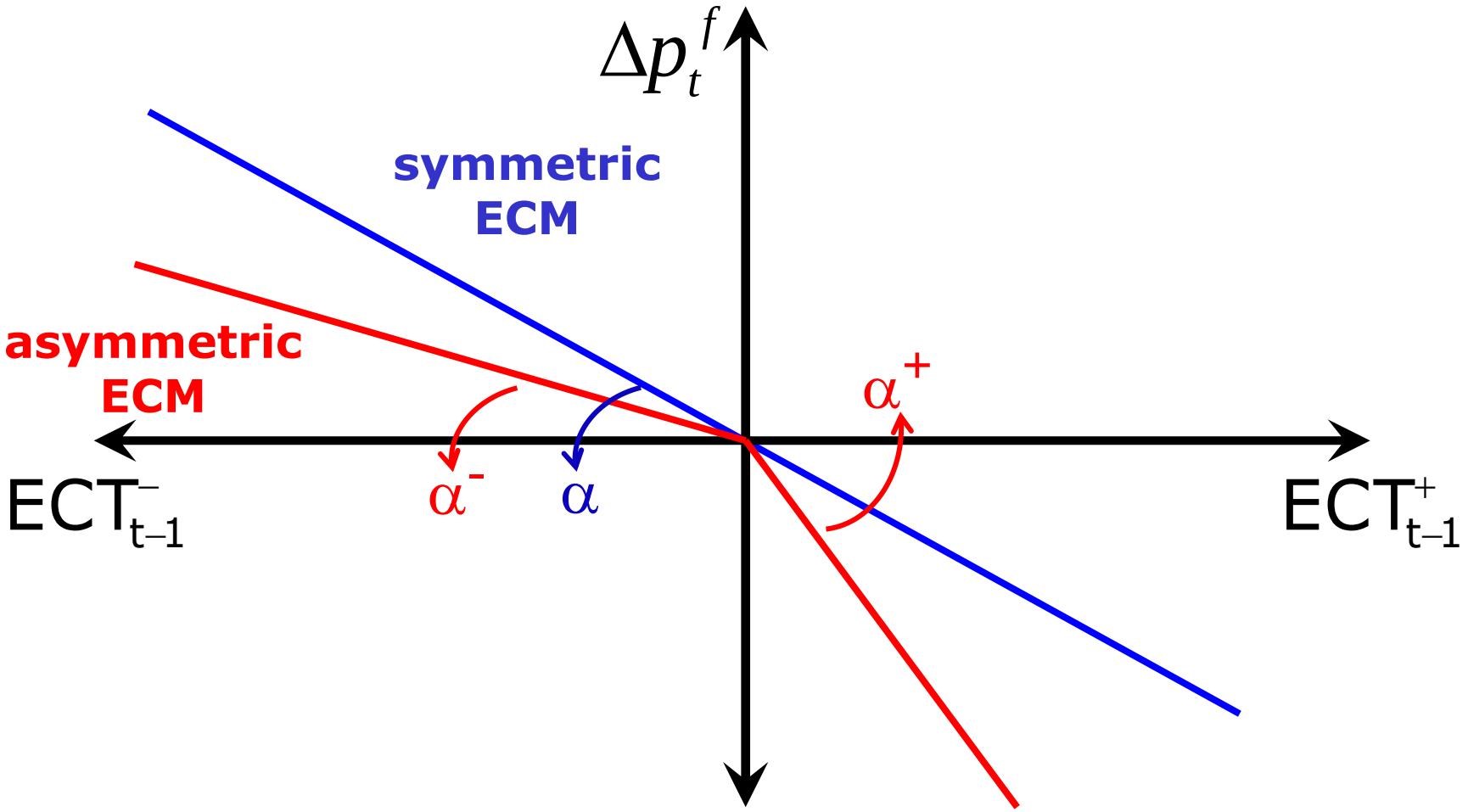
$$p_t^{out} = \beta_0 + \beta_1 p_t^{in} + \varepsilon_t$$

$$\Delta p_t^{out} = \gamma_0 + \gamma_1 \Delta p_{t-1}^{in} + \alpha_1 ECT_{t-1} + \mu_t$$

$$\Delta p_t^{out} = \gamma_0 + \gamma_1 \Delta p_{t-1}^{in} + \alpha_1^{+} ECT_{t-1}^{+} + \alpha_1^{-} ECT_{t-1}^{-} + \mu_t$$

Variable splitting technique to test for asymmetry

t	ect_t	ect_t^+	ect_t^-
0	-3	0	-3
1	1	1	0
2	-2	0	-2
3	5	5	0
4	3	3	0

Since $ect_t^+ + ect_t^- = ect_t$, the symmetric model is nested in the asymmetric model and a simple F-test can be used to test for asymmetry

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