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- Main ideas: if deficits are permanent due to convenience yield…
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- Note: idea relies on tariffs generally **having an effect, but textbook says no…**

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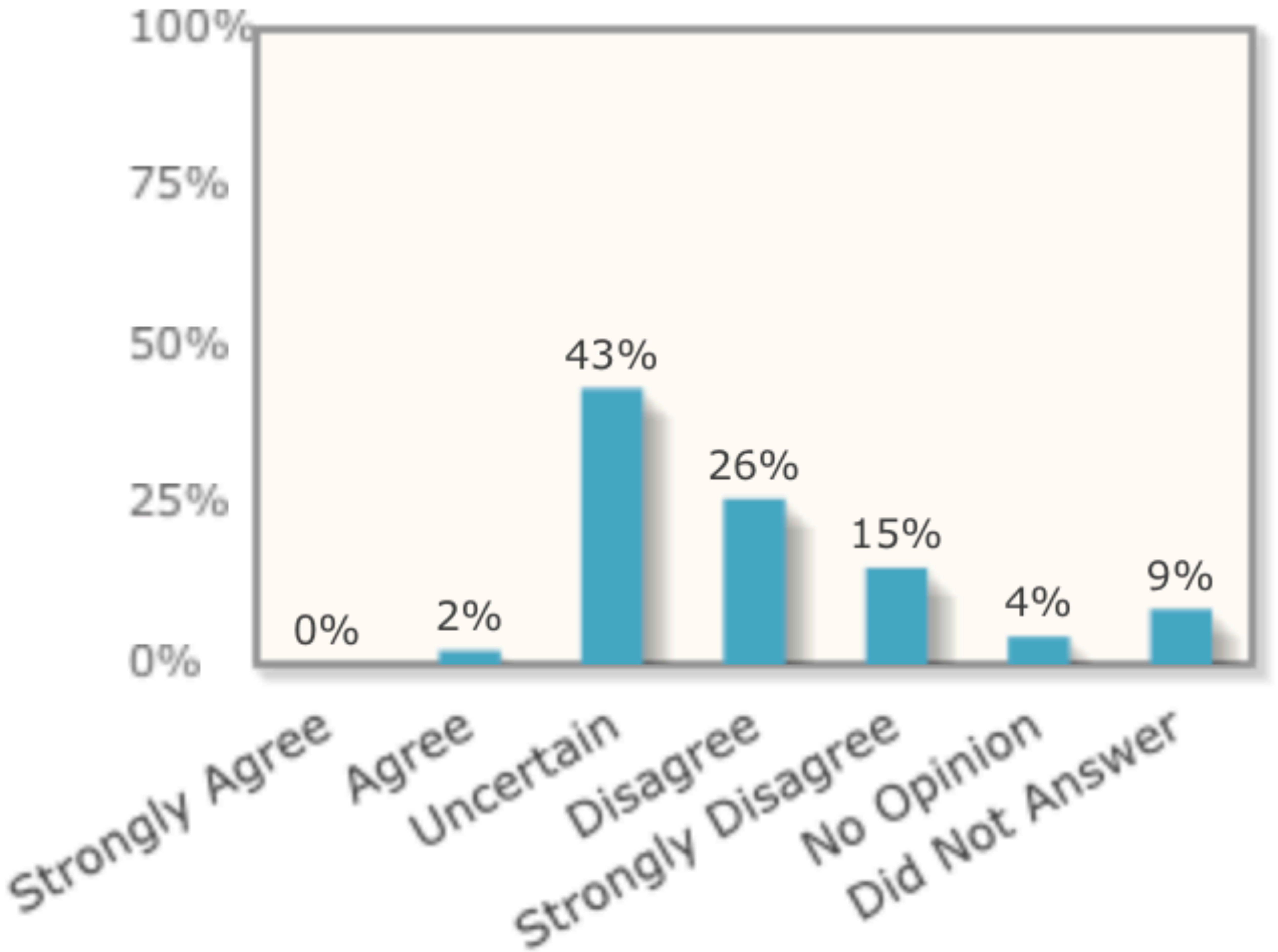

Source: Kent A. Clark Center
for Global Markets

My View and Plan

- My view…
  - main ideas make a lot of sense!
  - in fact: more robust than exposed in paper!
- Scope Limits?
  - Empirical limit to idea?
  - Conceptual limits to idea?
- Stepping back?
  - why care about deficits?
  - what tools?

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#4. Final Thoughts

#1. Causality: Tariffs → Trade

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  - extensive trade margin (smooth in aggregate) + Terms of Trade
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- Findings…
  - **neutrality for small tariffs:** under very special conditions (extend Razin-Svensson)
  - **high enough tariff:** autarky! but deficits possible
  - **non-neutrality for small/medium tariffs:** more typical, reduces deficits

Neutrality Result: Extended Razin-Svensson

Proposition 2. *Starting from free trade* $\tau = 0$

(i) *static preferences are homothetic:* $G_t(c_t)$ *CRS*

(ii) *environment is stationary:* $G_1 = G_2$, $Y_1 = Y_2$, $p_1^* = p_2^*$

(iii) *each good is either imported in both periods (*$m_{it} > 0$*) or exported in both periods (*$x_{it} > 0$*)*

$$\Rightarrow \quad D_t'(\tau) = 0$$

No changes in incentives to borrow or lend!

Autarky Result: New Result

Proposition 3. *Suppose* $\mathscr{C}_t$ *has bounded derivatives and* $C_t, M_t, -X_t$ *are normal goods. Then there exists* $\hat{\tau}$ *such that for* $\tau \geq \hat{\tau}$*:*

1. $NFA = 0 \rightarrow M_t = X_t = 0$ *so* $D_t = 0$*;*
2. $NFA > 0 \rightarrow M_t > X_t = 0$ *so* $D_t > 0$*;*
3. $NFA > 0 \rightarrow X_t > M_t = 0$ *so* $D_t < 0$*.*

Very Intuitive!

Setting the Stage… Neutrality vs Autarky

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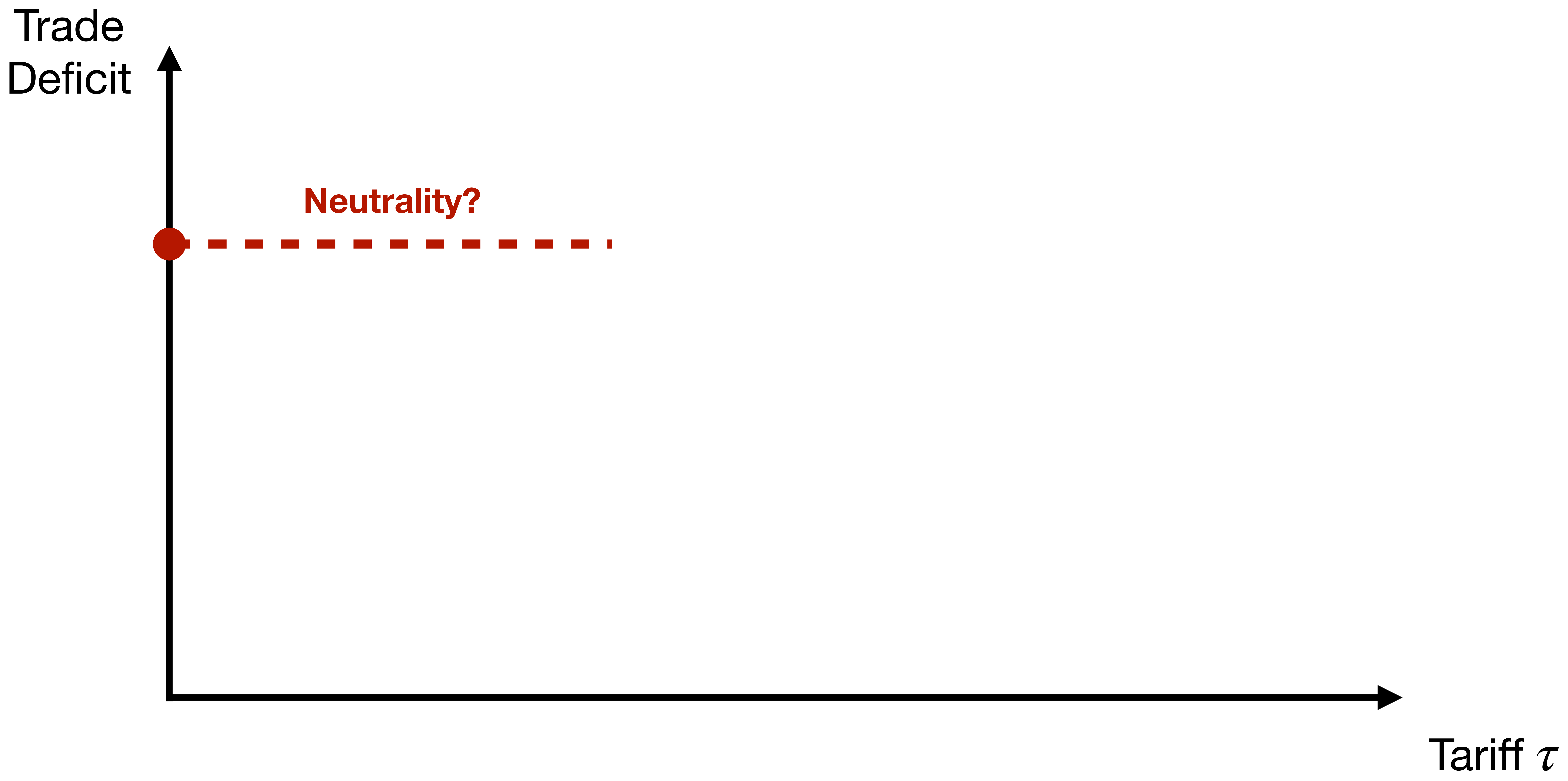

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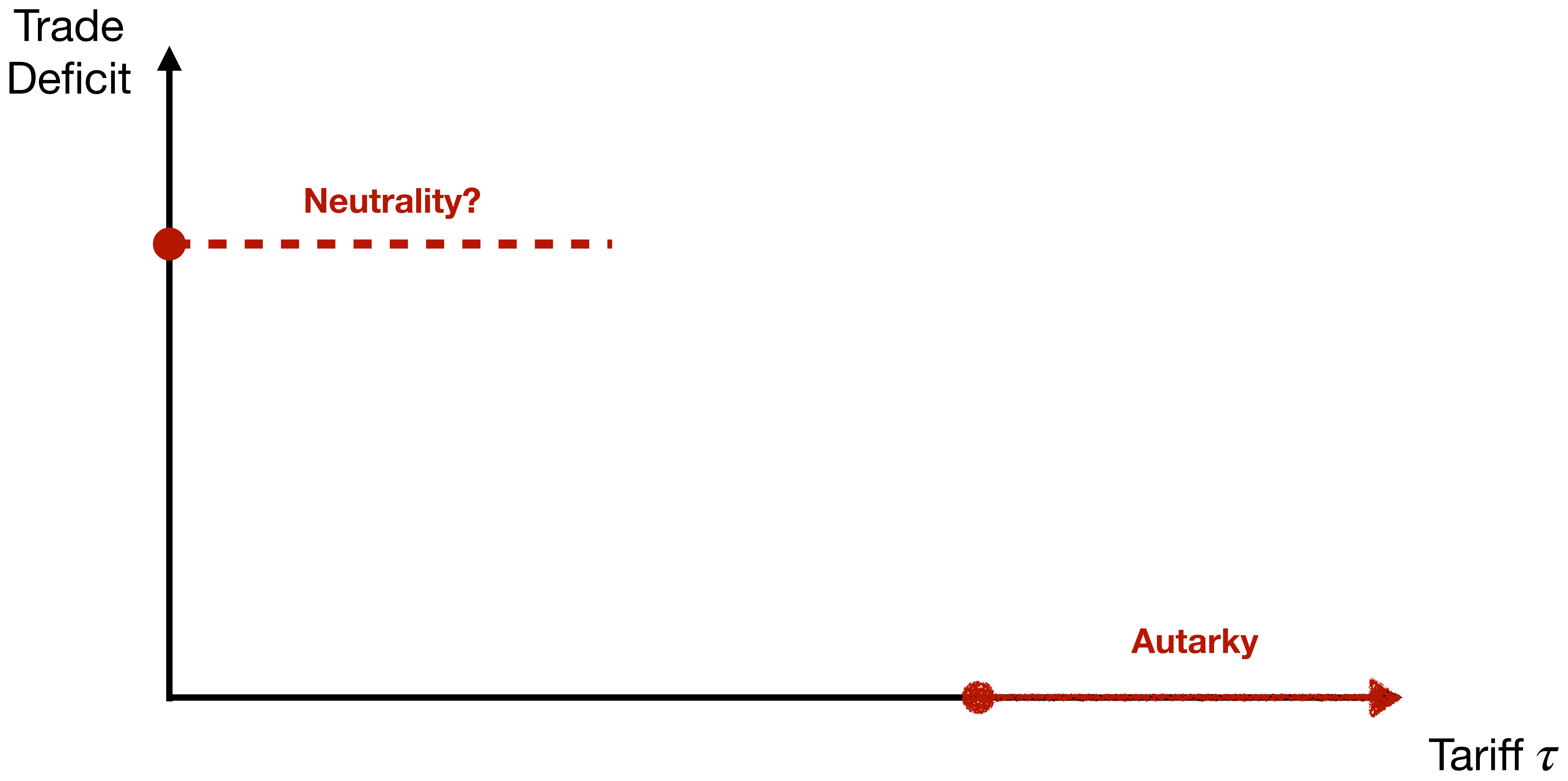

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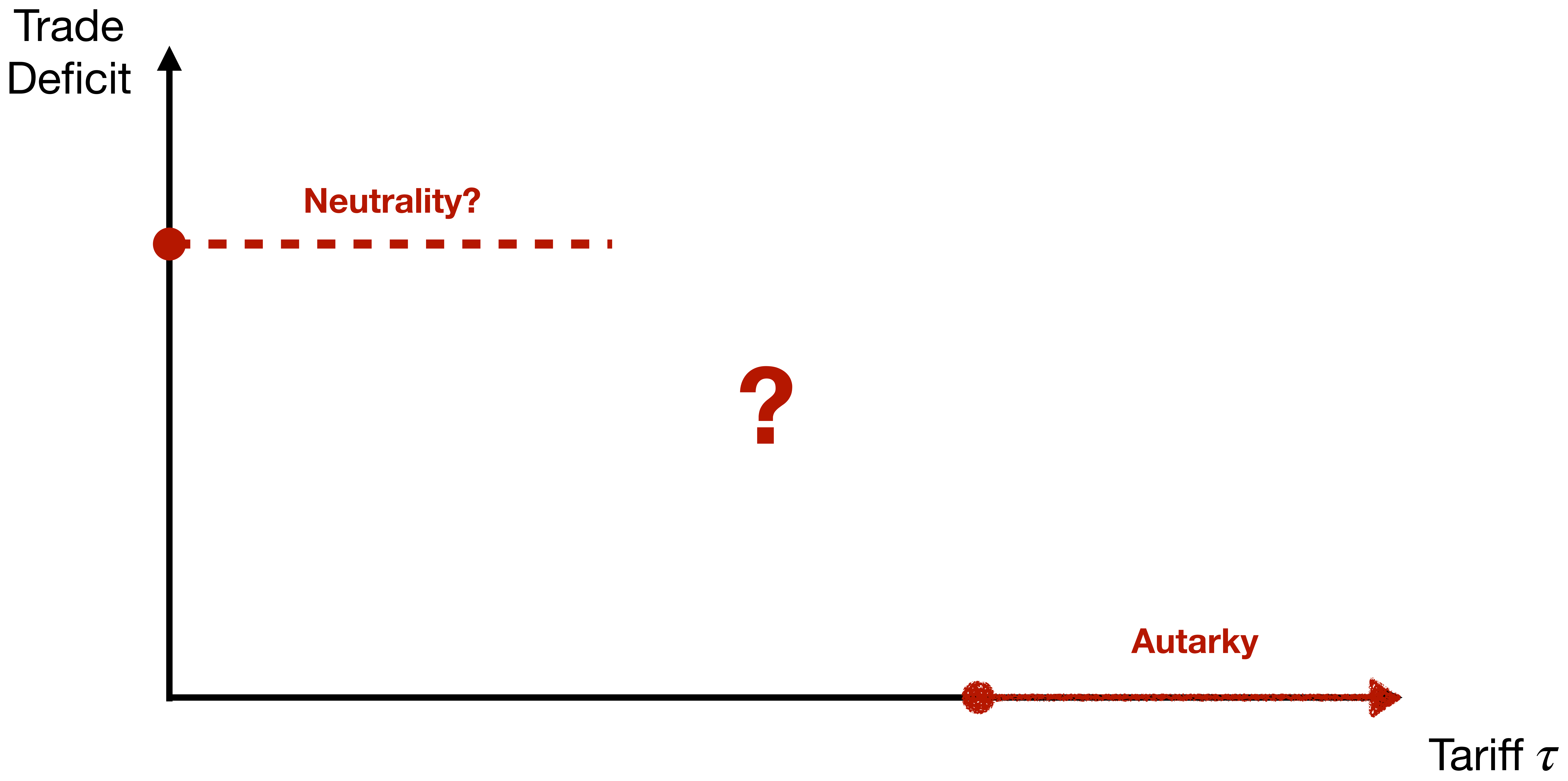

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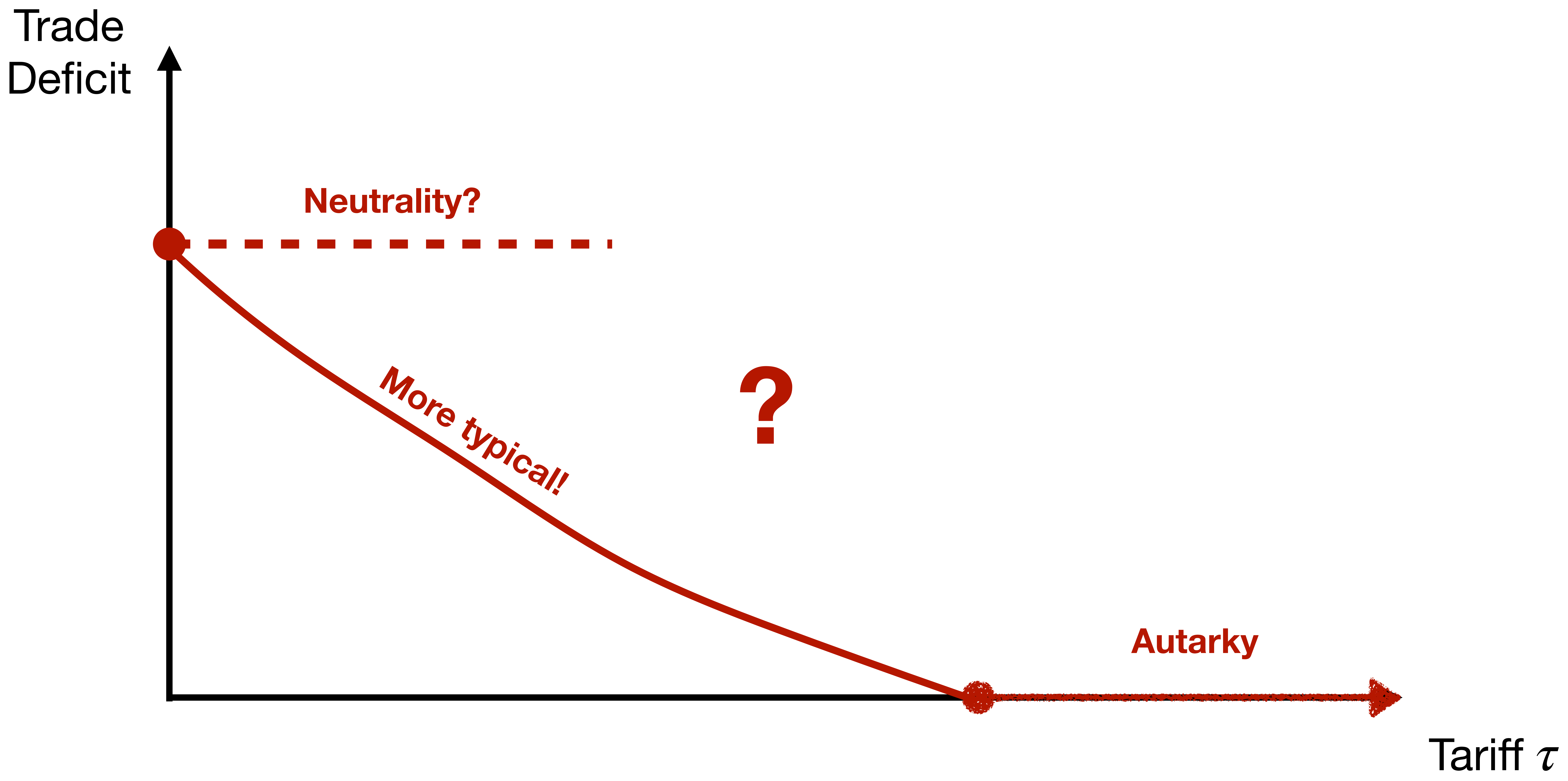

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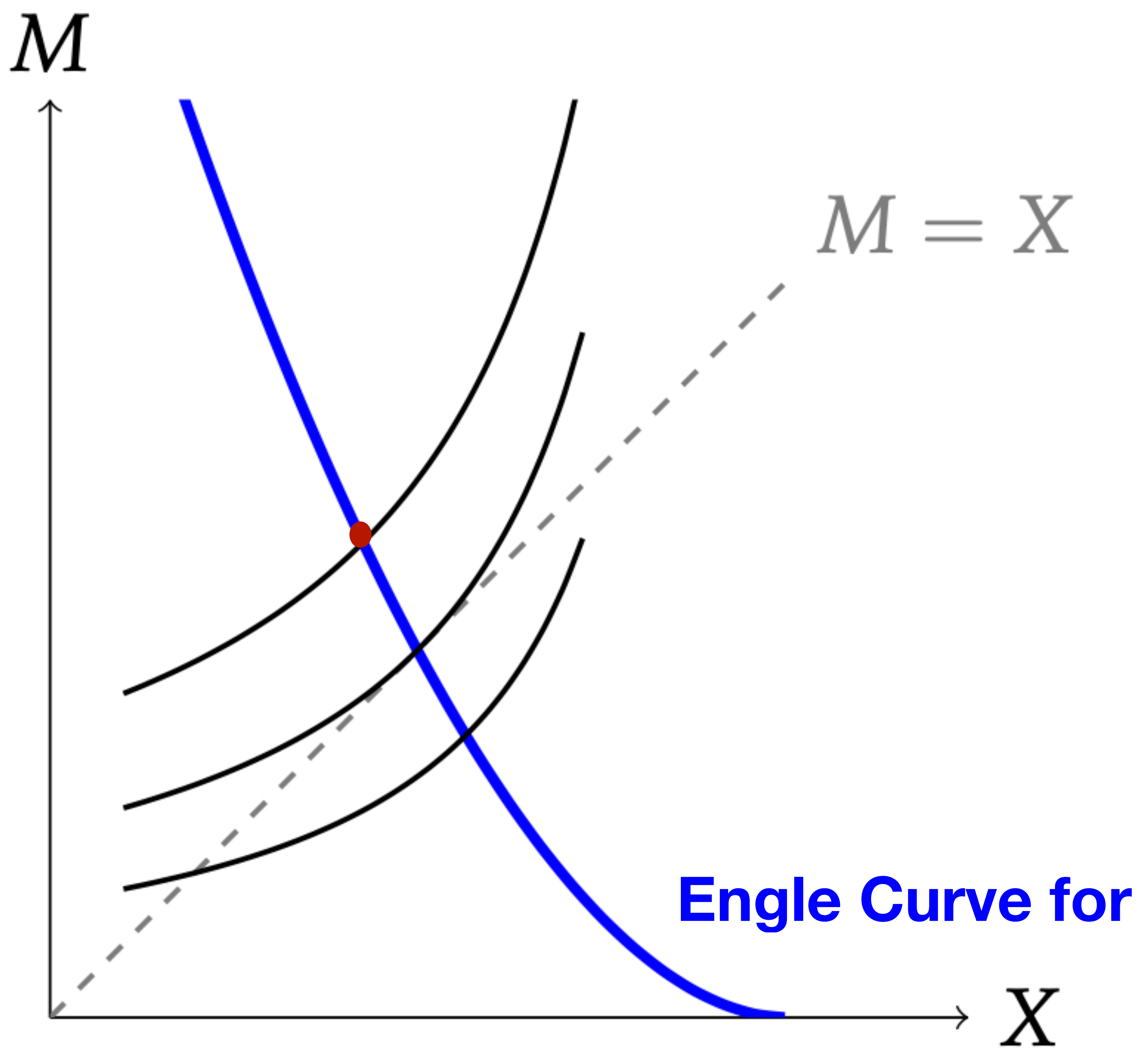

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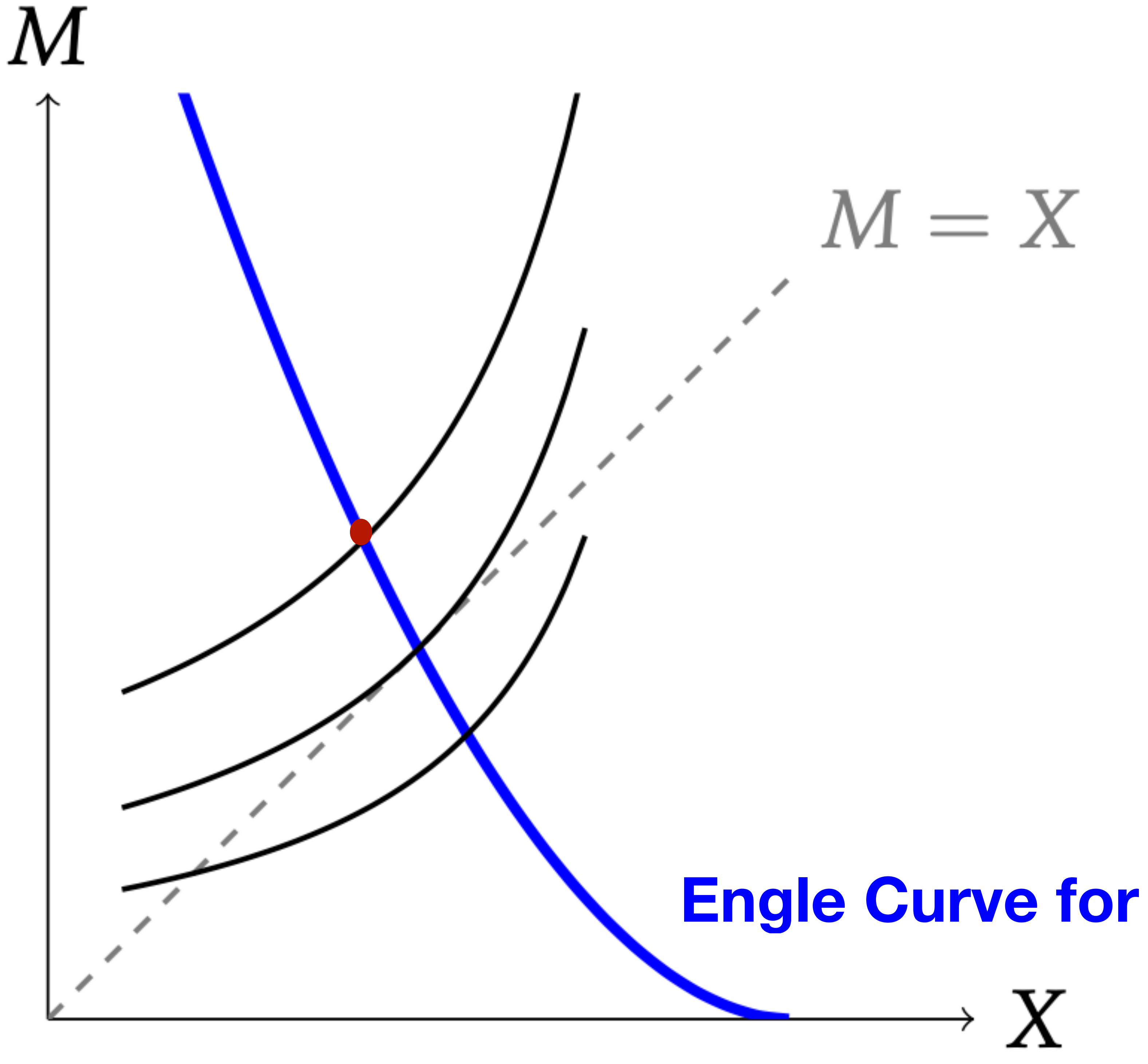

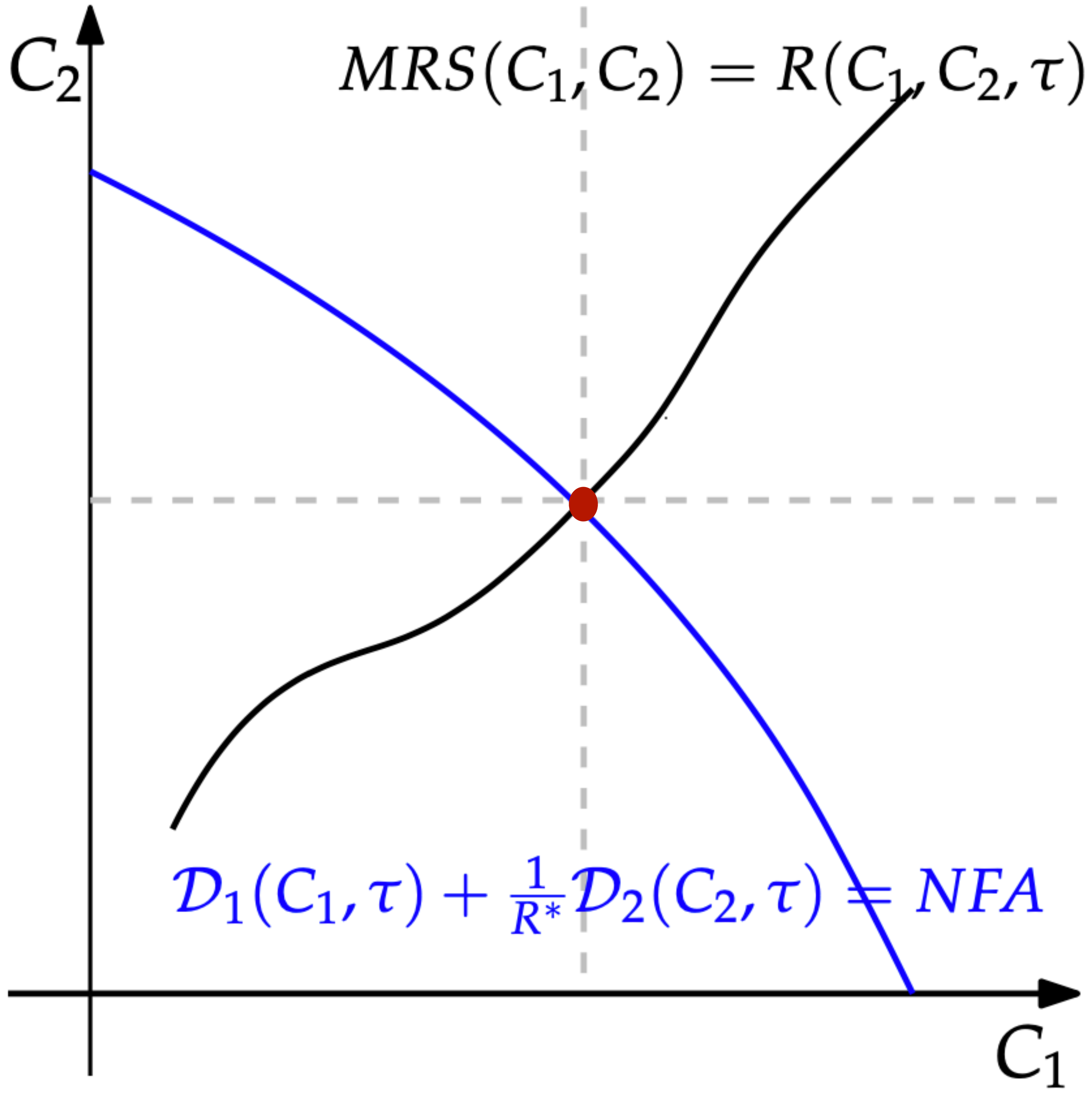

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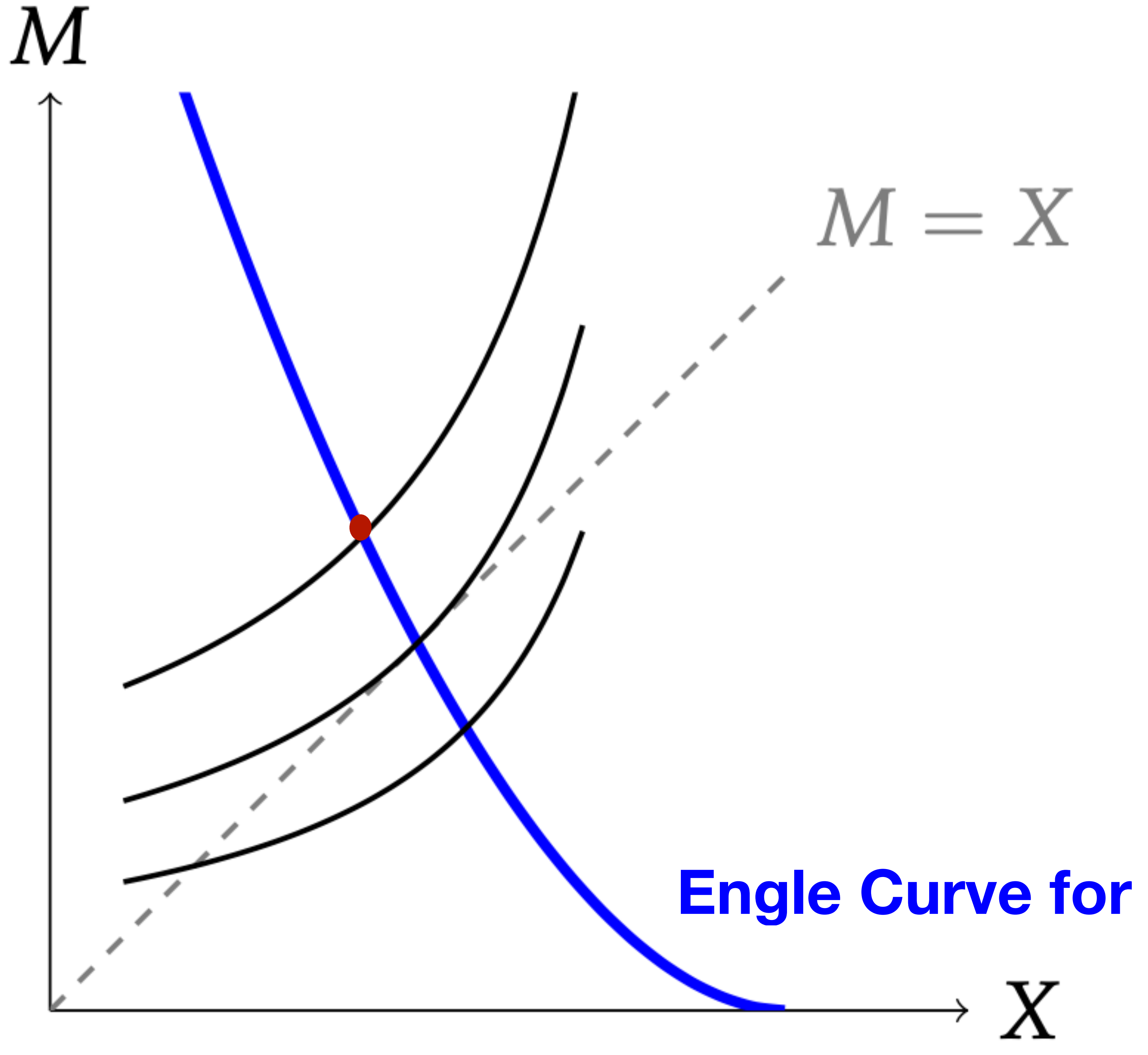

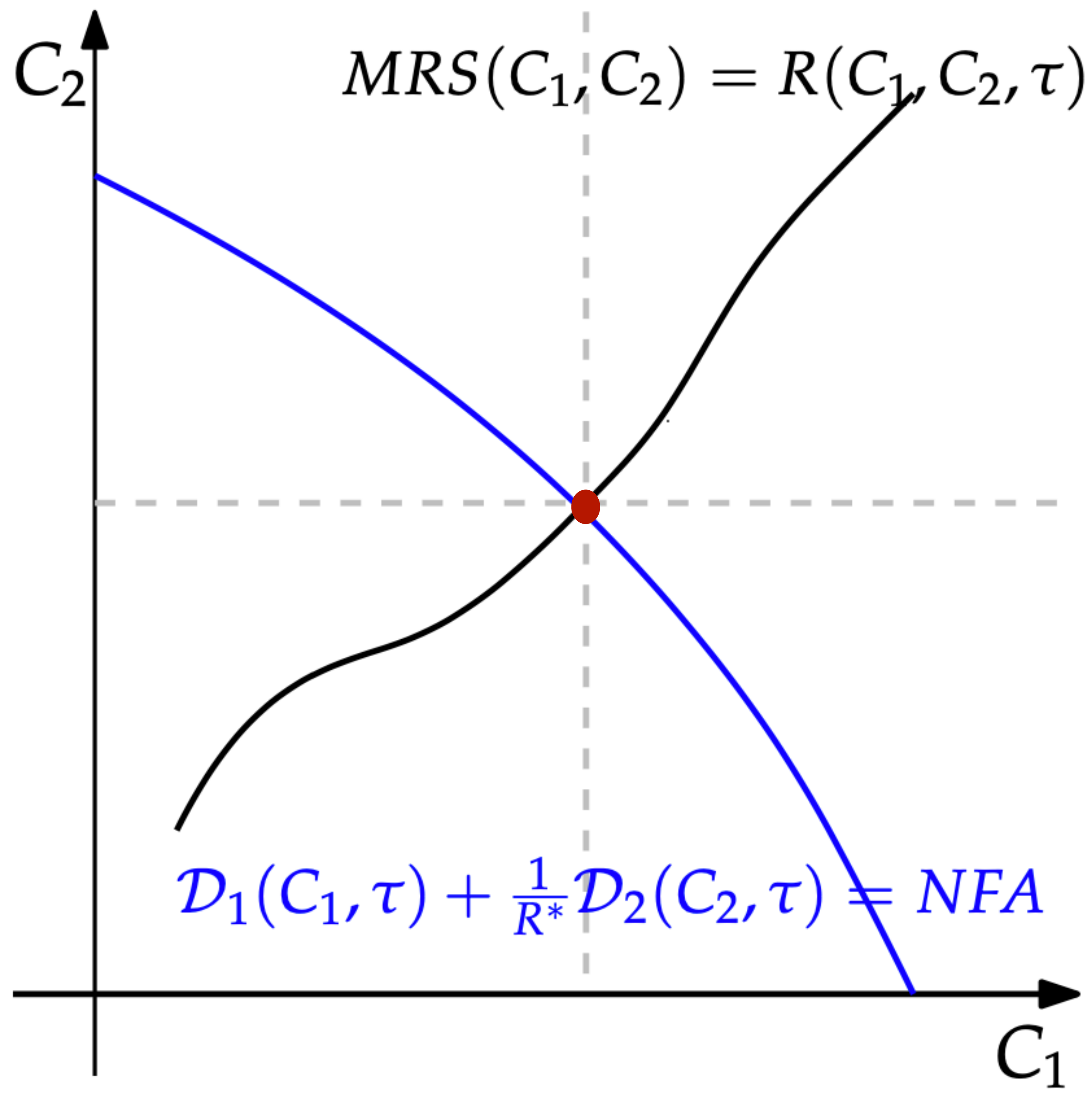

$$\left|\frac{dM_1}{dX_1}\right| > \left|\frac{dM_2}{dX_2}\right| \Longleftrightarrow D_1'(\tau) < 0$$

Static Engel Curve = Key to Dynamic Question

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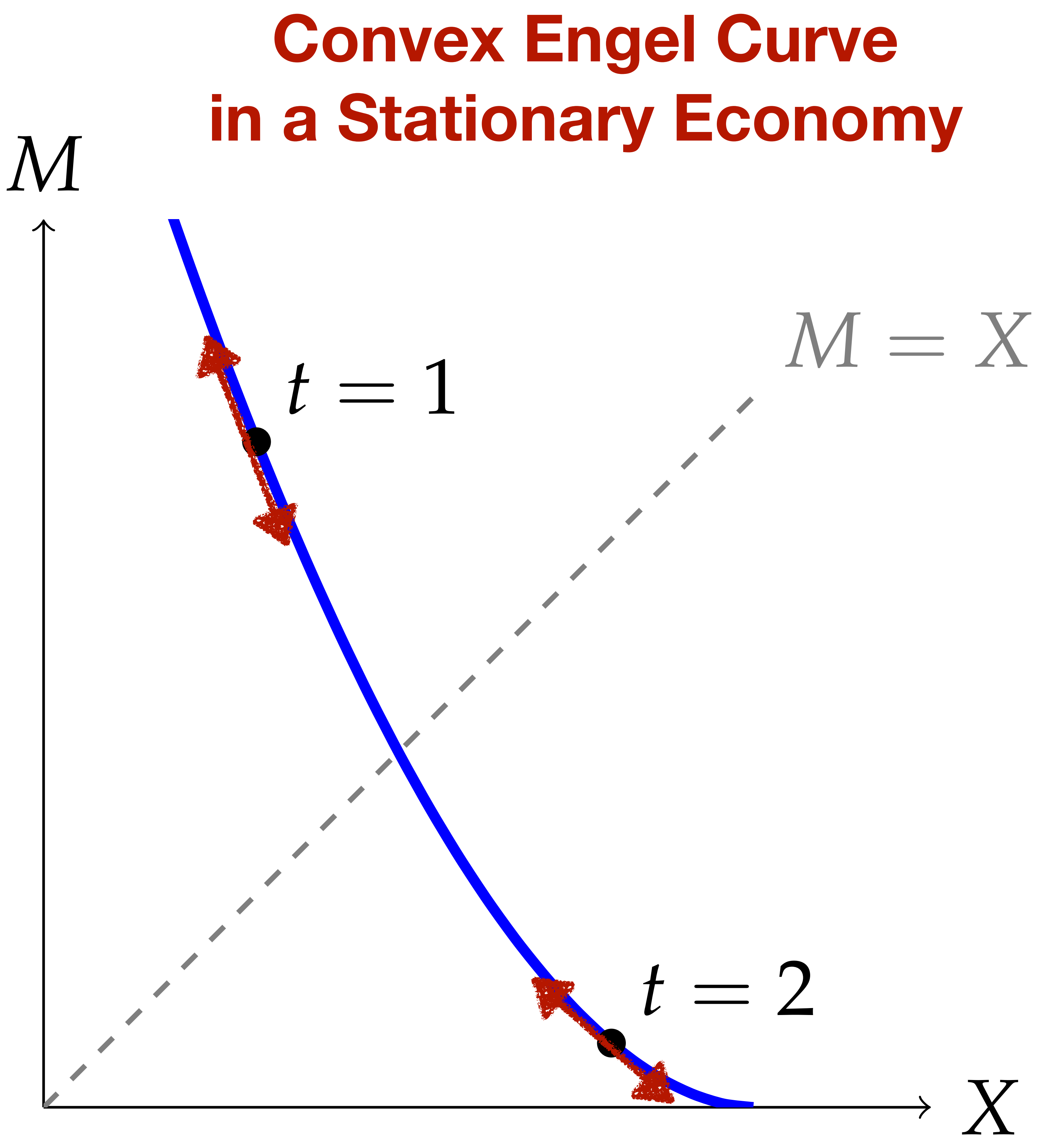

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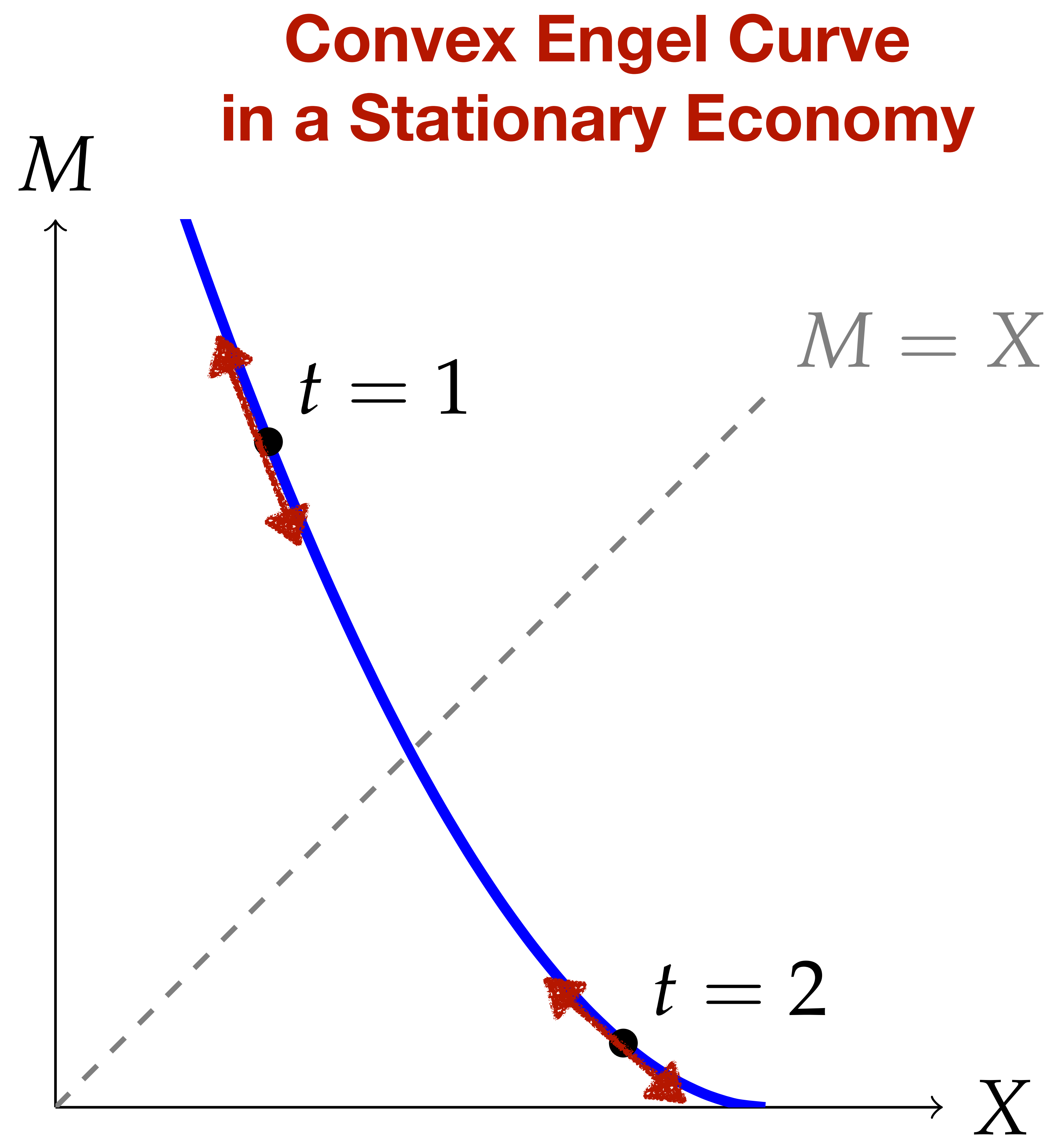
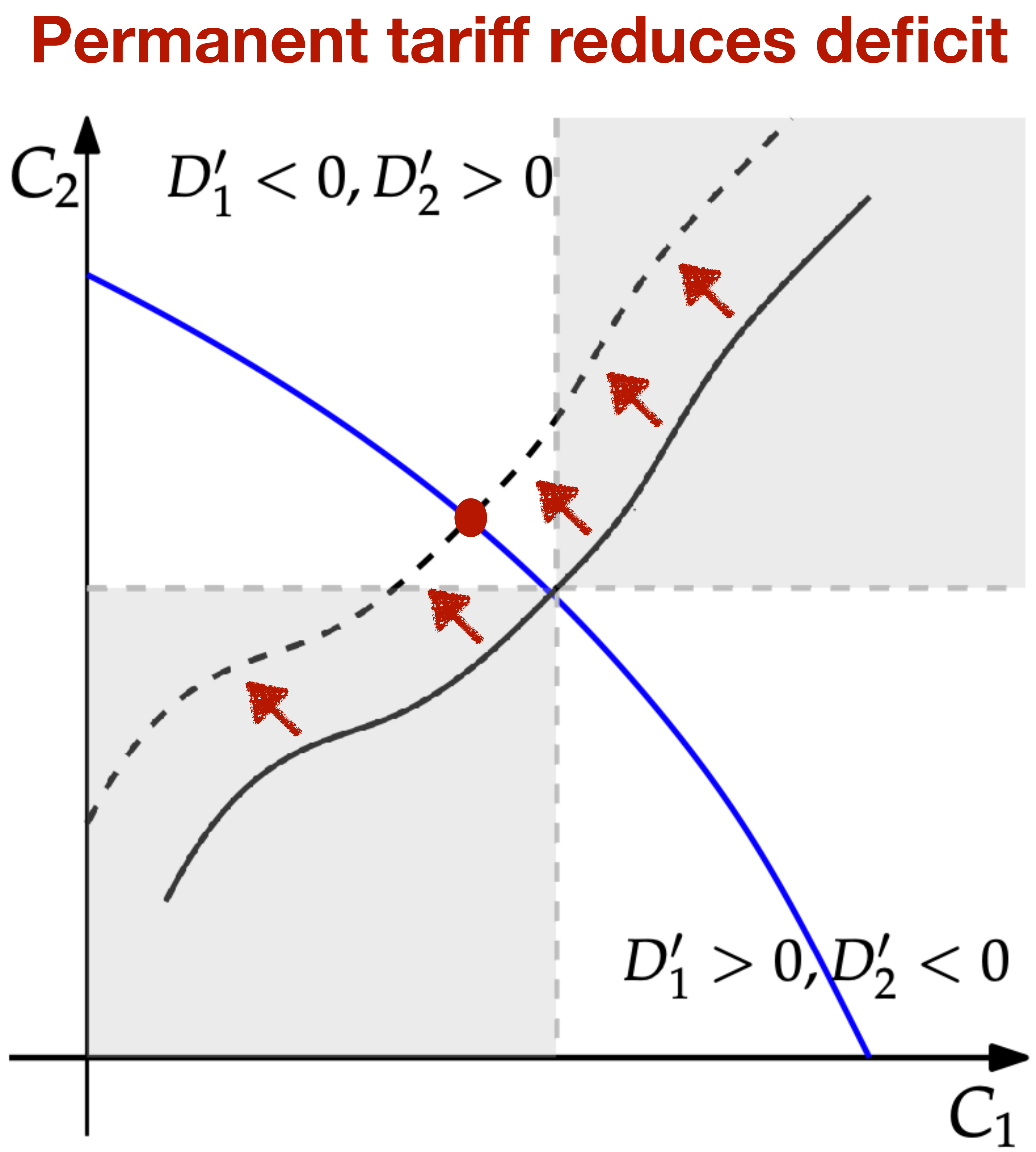
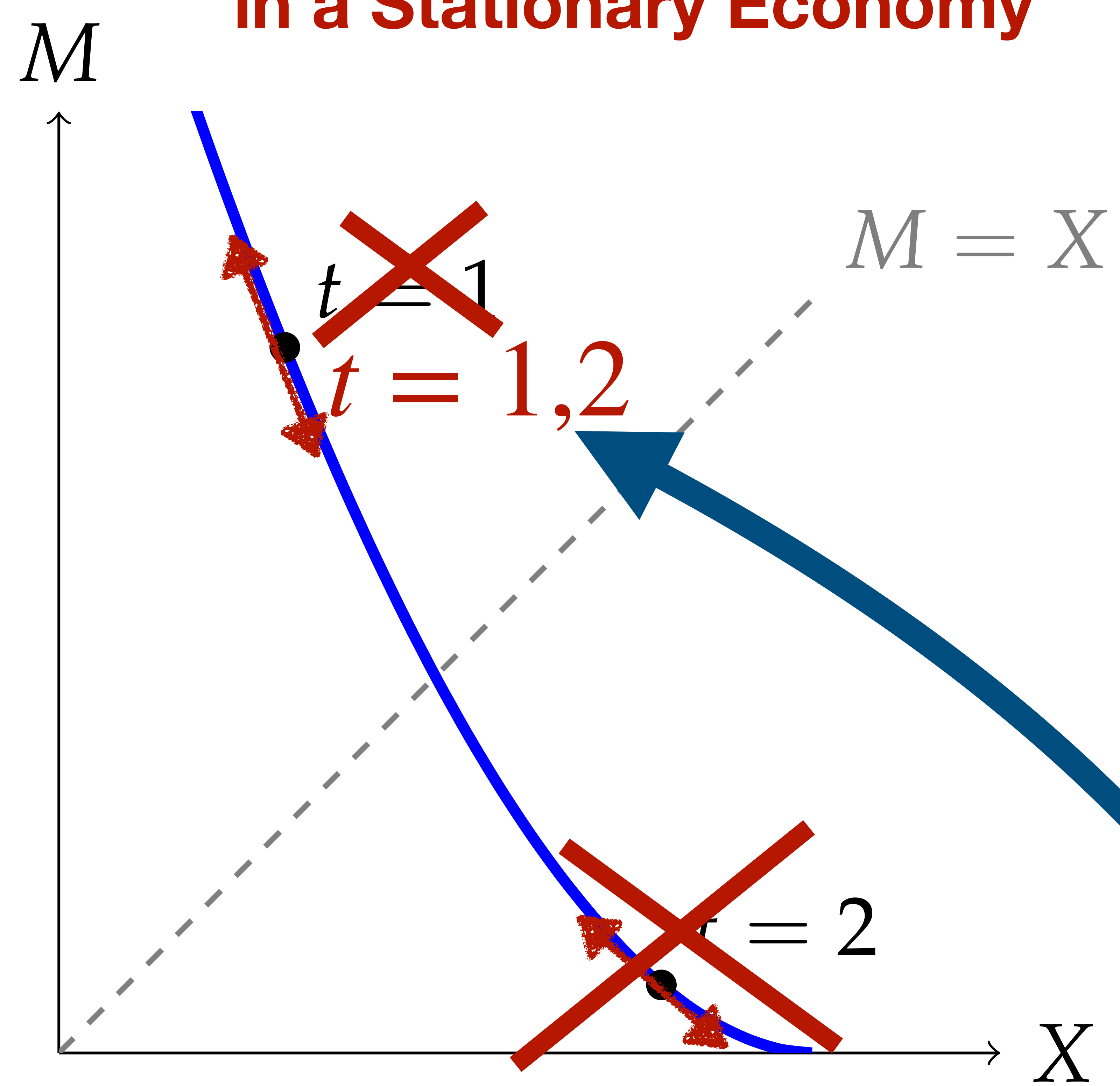


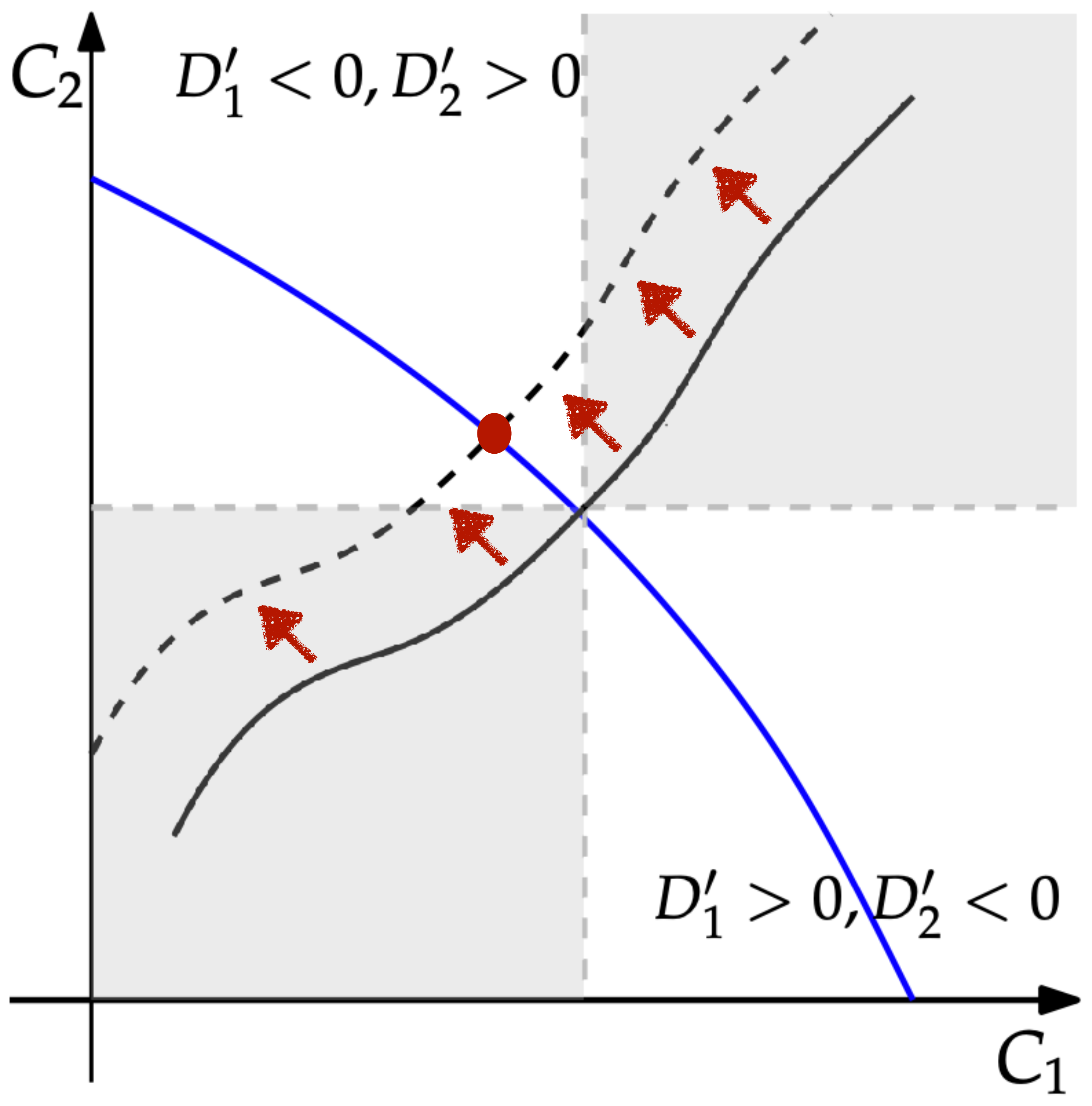


Static Engel Curve = Key to Dynamic Question

Convex Engel Curve in a Stationary Economy



Permanent tariff reduces deficit



Paper Main Result.

constant deficit $\leftrightarrow$ no effect

Very Robust!

Intuitive!

#2. Empirical Limits?

- Paper Requires → Deficits financed by convenience yield can be constant…
- How Big?
- As explained in paper, total flow benefit is

$$(i - i_b)b^*$$

- Back of the Envelope?…
  - Krishnamurthy yesterday: $i - i_b \approx 0.9\,\%$ **(90 bp)**
  - BEA IIP Table 1.2: U.S. debt liabilities in dollars 2024: 77% (relative GDP)

$$b^* \leq 50\,\% \text{ (relative to GDP)}$$

  - convenience yield finances: **~0.5% GDP < 3-4% of GDP today**
- Mitigates quantitative effect of paper, but **not** irrelevant. Qualitative effect still present.

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  - endowments: single tradable consumption good → no gains from intra-trade!
  - F autarky interest rate < H autarky interest rate (e.g. “China wants to save in US”)
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    young F exports get $1 - \tau$ less today in assets; but sell US assets high when old to F young tomorrow (pay more to avoid tariff)
  - large tariff → **two** equilibria!…
    - ✦ Integrated equilibrium:
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Tariff → Danger of losing privilege of borrowing r<g

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  - variant of above, but old consume different good than young
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- Simple Model 3: intra-temporal trade benefits
  - 2 goods: H and F
  - H sees them as perfect substitutes
  - F can use H as input to increase output of H
  - assumption: F saves more if richer
  - result: tariffs → lower F output → lower F savings → lower H deficit!

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- My OLG toy models: endogenous channel…
  - models 1-2: tariffs distort savings returns for F (substitution)
  - model 3: tariffs affect F efficiency output (income effect)
  - both capture interactions (other? investment?)
  - plausible?

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  - No! Welfare Theorems: intertemporal trade is Pareto efficient
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- What tool to use? Targeting principle!
  - capital controls
  - savings subsidies
  - tariffs not well targeted: hurt intra-temporal trade directly, inter-temporal more indirectly

Conclusions

- Great paper
- Comments…
  - 1. Result effect is economically intuitive and robust.
  - 2. Empirical limits: not apply fully to US trade deficits sizes
  - 3. Conceptual limits: $r < g$ Global Savings Glut → affects deficits endogenously
  - 4. Stepping Back: why reduce deficits, what tool?