Aggregate Demand Curve and Solution of the Dynamic Model

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Aggregate Demand curve.

Euler equation

$$y = [1+\tau(\theta)] \times c = 1+\tau(\theta) \times \left[\frac{\xi - r}{\sigma(\theta)}\right]^{\xi} \times \frac{1}{[1+\tau(\theta)]^{\xi}}$$

$$\boxed{y = \left[\frac{\xi - r}{\sigma(\theta)}\right]^{\xi} \times \frac{1}{[1+\tau(\theta)]^{\xi-1}} = y^d(\theta)}$$

- $y^d(0) = \left[\frac{\xi - r}{\sigma(0)}\right]^{\xi} > 0$
- $y^d(\theta_m) = 0$
- $y^d(\theta)$ is y with θ

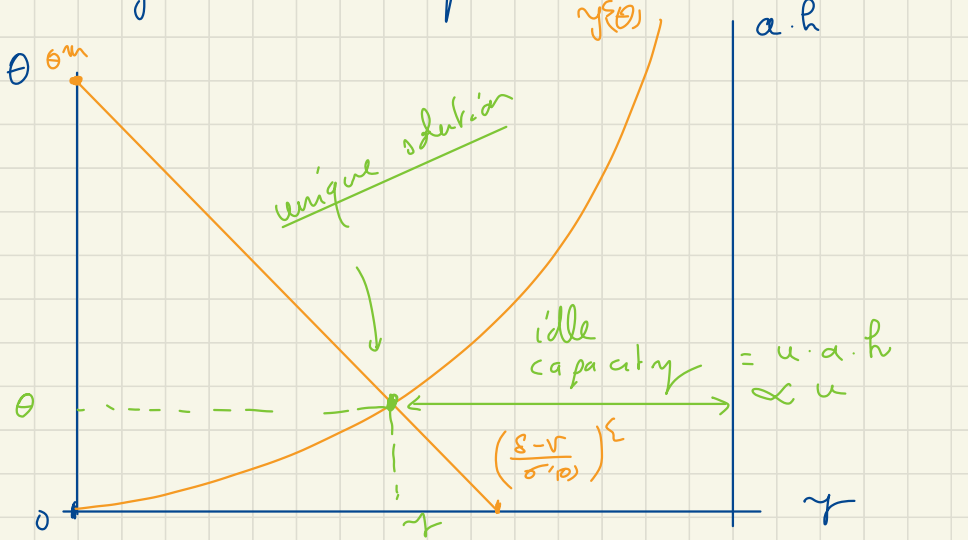
Solution of model:

1. θ satisfies $\boxed{y^d(\theta) = y^s(\theta)}$

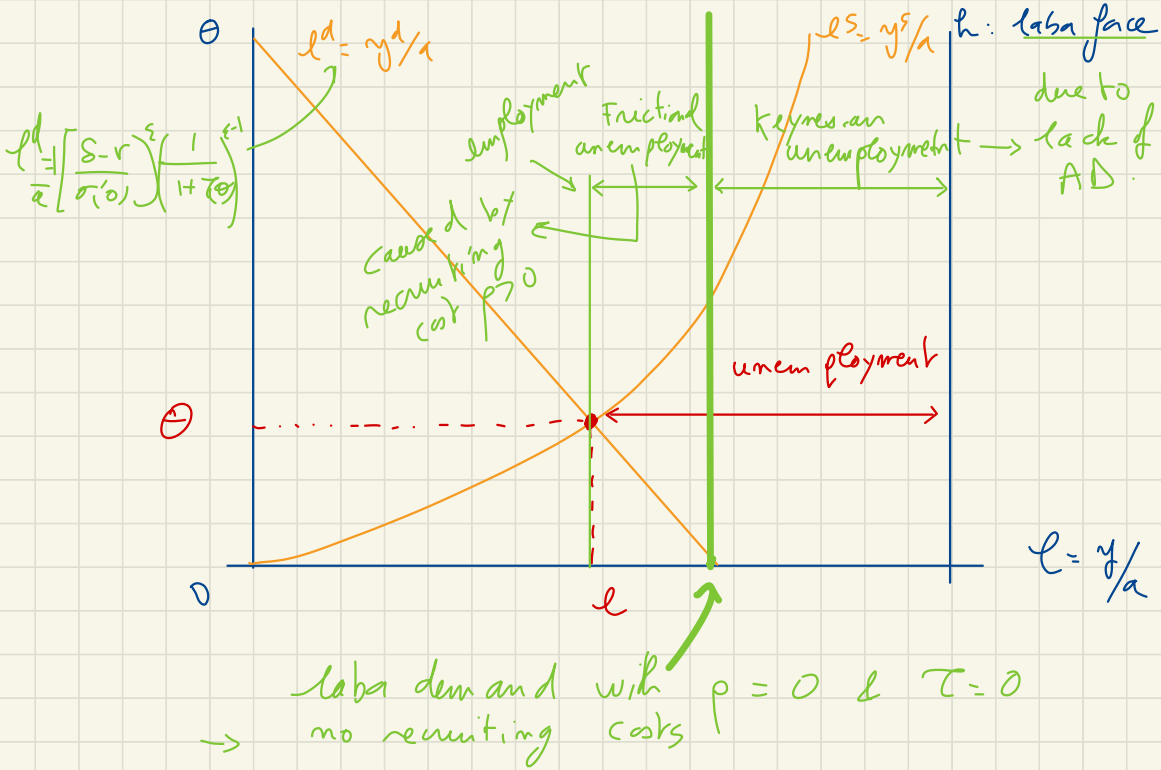
AD (euler) — AS (bevendge)

2. from θ : compute all other variables

Finding θ:



Decomposition of unemployment: Keynesian + frictional



With low AD:
- Keynesian unemployment ↗
- Frictional unemployment ↘
- Total unemployment ↗

With high AD:
- Keynesian unemployment ↘
- Frictional unemployment ↗
- Total unemployment ↘

See Michaillat (2012)