ECON1002 Intro. Macro.

Tutorial 10

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Plan of Today

- 1. Concept Review
- 2. Tutorial Questions
- 3. Preparation for Essay Task

More details out now!

Open: Apr 29th

Due: May 11th

4. Replacement test: Week 11th

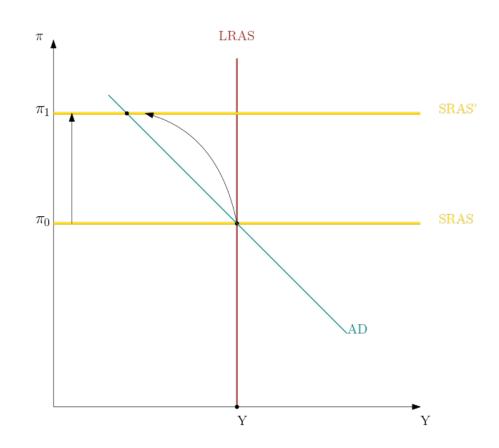
Concept Review

Oil Price and AS Curve

Suppose that a permanent increase in oil prices creates an inflationary shock and reduces potential output.

Firms supply Y goods given the price level or inflation π

Up is not MORE for AS curve!



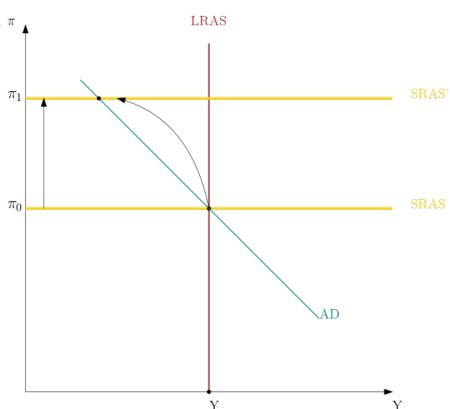
Self-Correcting Mechanism π

The economy will self-correct due to the Philips curve.

$$\pi_t = \pi_t^e + \gamma \left(\frac{Y_t - Y^*}{Y^*} \right) + \epsilon_t$$

And central banks' policy response

$$r_t = r^* + 0.5 \times \frac{(Y_t - Y_t^*)}{Y_t^*} + 0.5 \times (\pi_t - \bar{\pi})$$



Tutorial Questions

You have employed 5 workers of varying physical strength to dig a ditch. Workers without shovels have zero productivity in ditch digging. How should you assign shovels to workers if you do not have enough shovels going around? How should you assign any additional shovels that you obtain? Using this example, discuss (a) the relationship between the availability of physical capital and average labour productivity and (b) the concept of diminishing returns to capital

- Say we have 3 shovels, how would you assign it?

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- Now if we have 4, what would you do

- Low hanging fruit principle
- Extra capital enhances average labour productivity
- Extra output from additional shovel is decreasing

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Human Capital

Total Factor Productivity

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Doubling K and L gives 2 times the output,

Thus, constant returns to scale

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We have $Y = AK^{\alpha}L^{1-\alpha}$, divide the production function by L, which gives

$$\frac{Y}{L} = AK^{\alpha}L^{-\alpha} \to \frac{Y}{L} = A\left(\frac{K}{L}\right)^{\alpha}$$

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$$y = Ak^{\alpha}$$

Assume that the aggregate production function for an economy is described by: $Y = AK^{\alpha}L^{1-\alpha}$, where $0 < \alpha < 1$.

c. Draw the per capita production function with k on the horizontal axis and y on the vertical axis. Is it concave downward? Why?

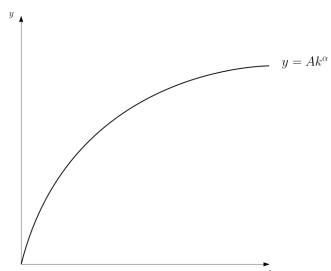
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Denote
$$y = \frac{Y}{I}$$
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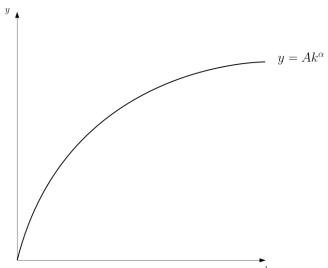
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The University of Sydney

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- Concave downward
- Diminishing marginal return

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Which of the following would be the **most helpful** in raising Australia's standard of living in the long run? Discuss.

- a. A policy of making firing workers more difficult, other things held constant.
- b. A government policy of giving more assistance to first home buyers and hence raising the overall level of consumption.
- c. A government policy of increasing funding on universities and TAFE (technical and further educations) colleges.
- d. A policy of increasing money supply along with fiscal expansion, other things held constant.

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a. A policy of making firing workers more difficult, other things held constant.

More labor market rigidity, likely to reduce labor participation

b. A government policy of giving more assistance to first home buyers and hence raising the overall level of consumption.

Increases Aggregate Demand (AD)

c. A government policy of increasing funding on universities and TAFE (technical and further educations) colleges.

Raises human capital and TFP

 A policy of increasing money supply along with fiscal expansion, other things held constant.

Increases Aggregate Demand (AD)

Preparation for Essay Task



"Explain the monetary and fiscal policies implemented in Australia after Covid-19 lockdowns were over"

- a. Engage in a conversation with Bing Copilot so it gives the most accurate response
- b. Think how the response you got could be further improved
- Think of extra explanation and analysis using relevant theories, graphs, equations, or other evidence.



Copilot

In response to the economic effects of COVID-19, the Reserve Bank of Australia (RBA) implemented a comprehensive package of monetary policy measures to support jobs, incomes, and businesses 1. The target for the cash rate was lowered to 0.1 per cent during the COVID-19 recession, and on 3 May 2022, the Board began to increase the cash rate target towards more normal levels 1. The RBA had committed to not increase the cash rate until actual inflation was sustainably within the 2 to 3 per cent target range 1. Additionally, the RBA purchased government bonds issued by the Australian, state, and territory governments in the secondary market, a practice known as quantitative easing (QE) 1.

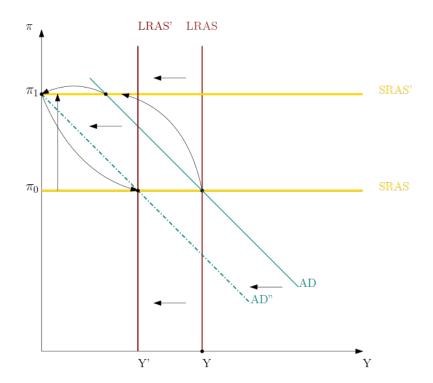
The RBA also targeted a yield of 0.10 per cent on the Australian Government Bond expiring in April 2024 1. This was a price target at the shorter part of the yield curve 1. However, on 2 November, the Board announced that the target on the April 2024 bond had been discontinued 1. From April 2020 to June 2021, banks (and other authorised deposit-taking institutions) borrowed funding from the RBA for a period of 3 years at an interest rate equal to the cash rate target at the time 1. Banks used this funding to make loans to businesses and households 1.

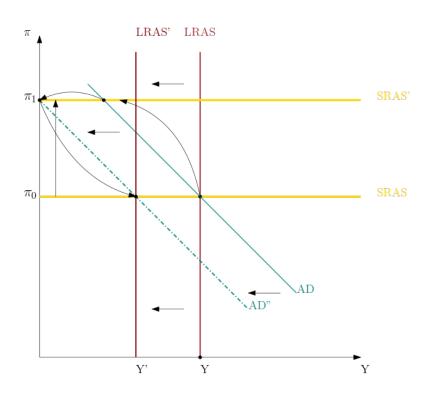
On the fiscal policy front, the Australian government implemented numerous policies to provide economic support to the Australian economy 2. The majority of fiscal support was targeted towards healthcare spending and provision of assistance to households, businesses, and non-profit institutions 3. Spending on subsidies by the Commonwealth and state governments remained at historically elevated levels but decreased sharply during the December quarter, driven primarily by the tapering of JobKeeper and Boosting Cash Flow for Employers payments 3.

Spending on current monetary transfers to eligible households by the Commonwealth government also decreased this quarter, driven by a reduction in Economic Support Payments and the Coronavirus Supplement rate as well as improving labour market conditions 3. Health and aged care spending remained elevated as a result of ongoing COVID-19 health response expenditure on frontline staff, personal protective equipment (PPE), and additional aged care support . The roll-out of COVID-19 vaccines began affecting government final consumption expenditure from March guarter 2021 onwards 3.

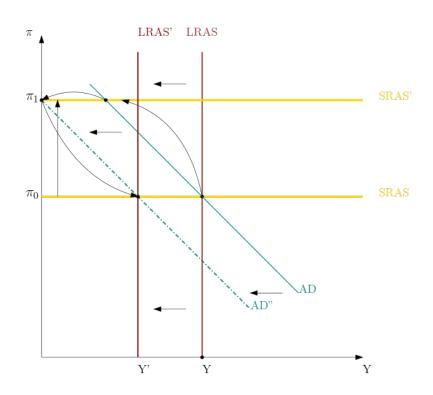
Learn more 1

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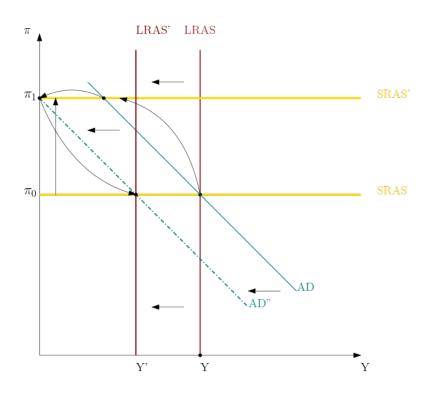


- AD shifts right

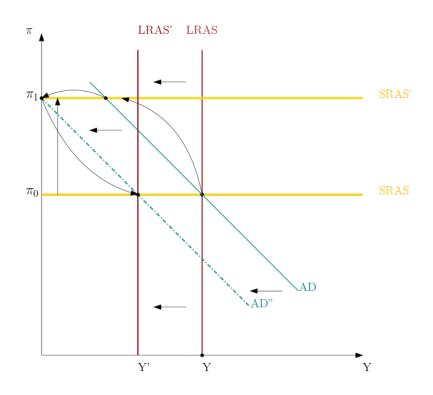


- AD shifts right
- SRAS shifts up

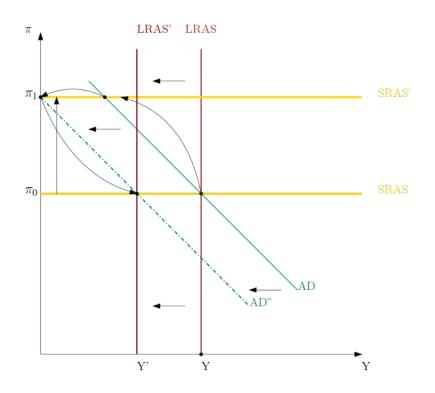
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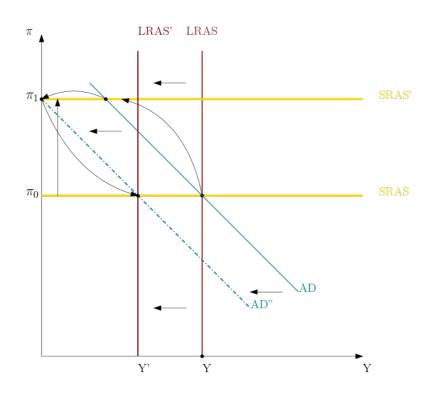
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- RBA raises i
- Government reduces G



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- RBA raises i
- Government reduces G
- Move AD to the left



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- Government reduces G
- Move AD to the left
- Inflation stables

Questions?

