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## Summary and Conclusions

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## Final Exam

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- Thursday, May 22<sup>nd</sup>
  - 12:30 – 3:30 p.m.
  - 100 Haas Pavilion
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## Agenda

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- Summary
    - The IS-LM, DAD-SAS, and SGM together.
    - Macroeconomic Rules of Thumb.
  - Conclusions
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## CORRECTION on Fiscal Policy

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- Automatic Stabilizers (slide 24-8):
    - Because of automatic stabilizers, the government budget balance will **rise** during recessions and **fall** during booms.
    - Because of automatic stabilizers, the government budget balance will **fall** during recessions and **rise** during booms.
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## Summary

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- Three models of economic activity:
  - The IS-LM model.
  - The DAD-SRAS model.
  - The Solow Growth model.

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## Summary

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- The IS-LM Model:
  - Short-run orientation.
  - Determination of  $Y$  and  $r$ .
  - Prices are exogenous.
  - $Y$  can deviate from  $Y^*$  in the short-run.
  - Adjustment mechanism is through inventory change and changes in  $r$ .

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## Summary

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- The DAD-SAS Model:
  - Medium-run orientation.
  - Determination of  $Y$  and  $\pi$ .
  - Wage and price adjustment is sticky.
  - $Y$  can deviate from  $Y^*$  in the short-run but not in the intermediate-run.
  - Adjustment mechanism is through  $\pi$ , changes in the real  $M_s$ , and  $r$ .

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## Summary

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- The Solow Growth Model:
  - Long-run orientation.
  - Determination of  $Y^*/N$ ,  $Y^*$ , and  $y\text{-dot}$ .
  - Wages and prices are fully flexible.
  - $Y$  does not deviate from  $Y^*$  in the long run.
  - Adjustment mechanism is through adjustments in investment-per-worker and the capital-to-labor ratio.

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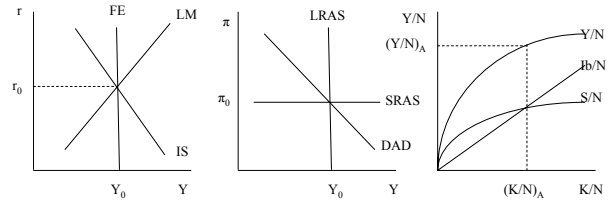
25-8

## Summary

- The IS-LM, DAD-SAS, and SGM are fully consistent with one another.
- Changes in one model **MUST** be transmitted to the other models in a fully consistent manner.

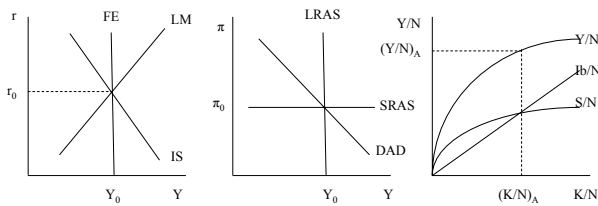
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## Changes in fiscal policy



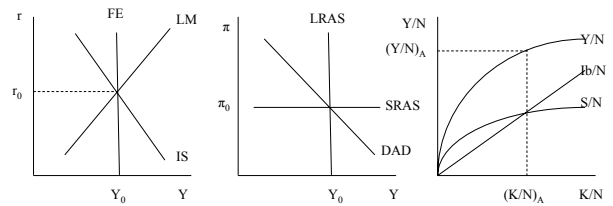
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## Changes in monetary policy



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## Changes in productivity



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## Macroeconomic Rules of Thumb

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- Based on Okun's Law and the DAD – SAS Model (with only demand shocks).

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## Macroeconomic Rules of Thumb

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- Economic output:
  - If the output ratio ( $Y/Y^*$ ) is rising, then  $\Delta Y/Y > \Delta Y^*/Y^*$ .
  - If the output ratio ( $Y/Y^*$ ) is falling, then  $\Delta Y/Y < \Delta Y^*/Y^*$ .

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## Macroeconomic Rules of Thumb

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- Economic output and unemployment:
  - If  $Y > Y^*$ , then  $U < U^*$ .
  - If  $Y < Y^*$ , then  $U > U^*$ .

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## Macroeconomic Rules of Thumb

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- Implications:
  - If  $Y/Y^*$  is rising, then  $U$  is falling.
  - If  $Y/Y^*$  is falling, then  $U$  is rising.
- Conclusion:
  - **Changes** in the unemployment rate depend on **changes** in the output ratio, **NOT** on its **level**.

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## Macroeconomic Rules of Thumb

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- Implications:
    - If  $U$  is falling, then  $Y/Y^*$  is rising.
    - If  $U$  is rising, then  $Y/Y^*$  is falling.
  - Conclusion:
    - **Changes** in the output ratio depend on **changes** in the unemployment rate, **NOT** on its **level**.
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## Macroeconomic Rules of Thumb

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- Economic output, unemployment, & inflation:
    - The relationship between economic output and inflation is more subtle than the relationship between economic output and unemployment.
    - It depends on whether the economic output is above or below its full-employment level.
      - That is, whether the output ratio ( $Y/Y^*$ ) is  $>$  or  $<$  1.
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## Macroeconomic Rules of Thumb

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- Implications:
    - If  $Y/Y^* > 1$ , then inflation will accelerate.
    - If  $Y/Y^* < 1$ , then inflation will decelerate.
  - Conclusion:
    - **Changes** in inflation depend on whether the output ratio is **above or below** 1, **NOT** on whether the output ratio is **rising or falling**.
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## Macroeconomic Rules of Thumb

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- Implications:
    - If  $U < U^*$ , then inflation will accelerate.
    - If  $U > U^*$ , then inflation will decelerate.
  - Conclusion:
    - **Changes** in inflation depend on whether the output ratio is **above or below** 1, **NOT** on whether the output ratio is **rising or falling**.
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## Conclusions about Macroeconomic

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- Conclusions about Macroeconomics:
  - What we know.
  - Questions searching for better answers.

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## Conclusions about Macroeconomic

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- What We Know:
  - *In the long-run*, a country's standard of living is determined by its capacity to produce.
  - *In the short-run*, changes in aggregate demand influence a country's production.

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## Conclusions about Macroeconomic

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- What We Know:
  - *In the long-run*, changes in the money supply influence inflation but not unemployment.
  - *In the short-run*, policymakers face a trade-off between inflation and unemployment.

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## Conclusions about Macroeconomic

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- Questions Searching for Better Answers:
  - Exactly how should a country go about attempting to raise its standard of living?
  - How and should policymakers try to stabilize the economy?

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## Conclusions about Macroeconomic

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- Questions Searching for Better Answers:
  - Exactly how costly is inflation and how costly is it to reduce inflation?
  - How big a problem are substantial budget and/or trade imbalances?

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