

The Australian Business Cycle: A new view

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Overview

■ Questions

- ◆ Has the business cycle become longer and shallower?
And Why?
- ◆ How stabilizing is monetary policy.

■ Answers

- ◆ Depends on time period considered.
 - ☞ Annual data 1861–2001. Some improvement.
 - ☞ Not much evidence of improvement in business cycle over past 40 years in quarterly data.
- ◆ Must take into account two types of measurement error in constructing answer.
 - ☞ Neglected seasonality.
 - ☞ Improved measurement procedures at ABS.



Approach

- Non parametric.
- Peak and trough dating in manner of Burns and Mitchell.
 - ◆ Robust to variations in data quality.
 - ◆ Peaks and troughs mark beginning and end of extreme events.

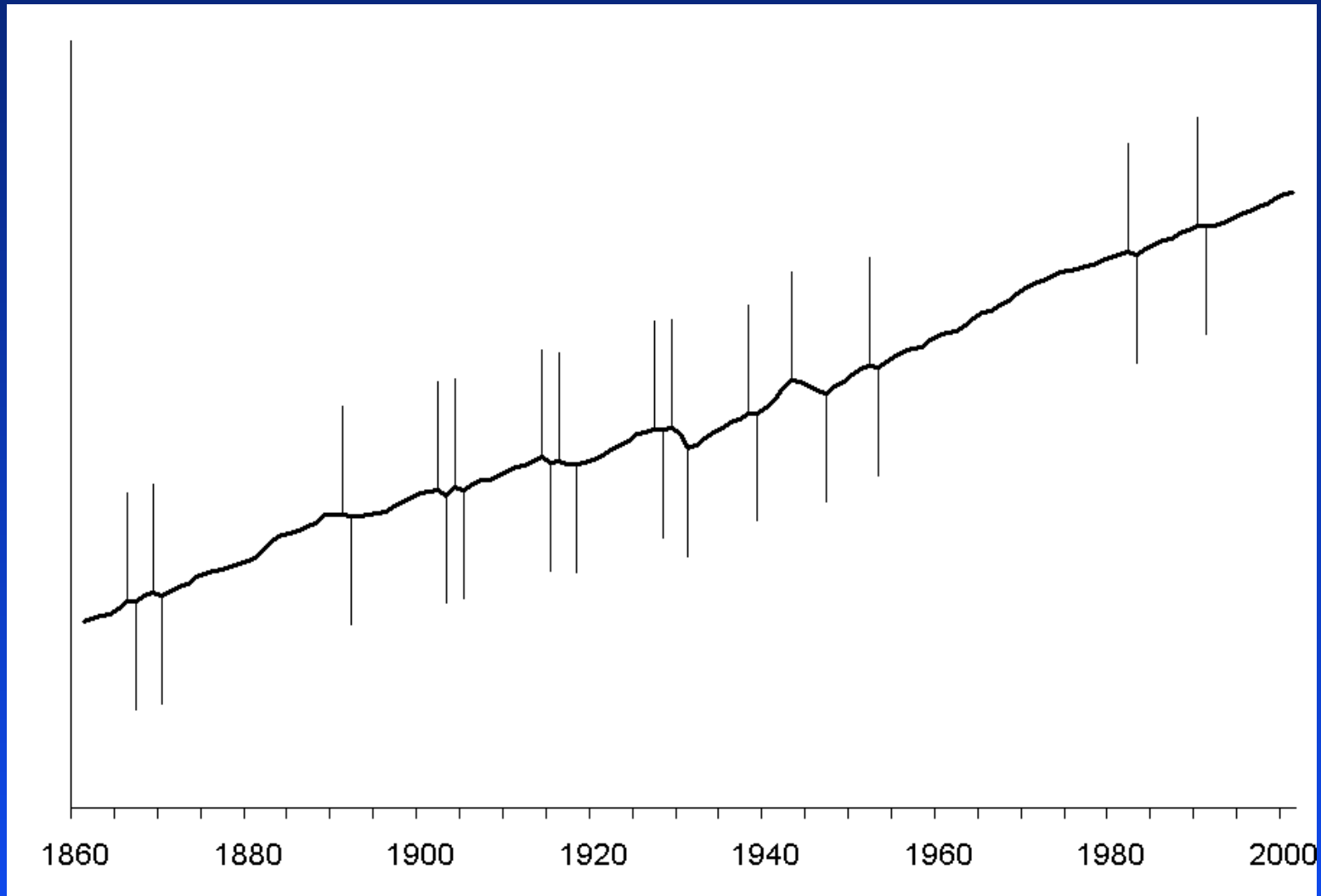


Locating local peaks and troughs

- Recession sustained decline in GDP
- Algorithm makes this precise



Annual real GDP 1861–2000/01

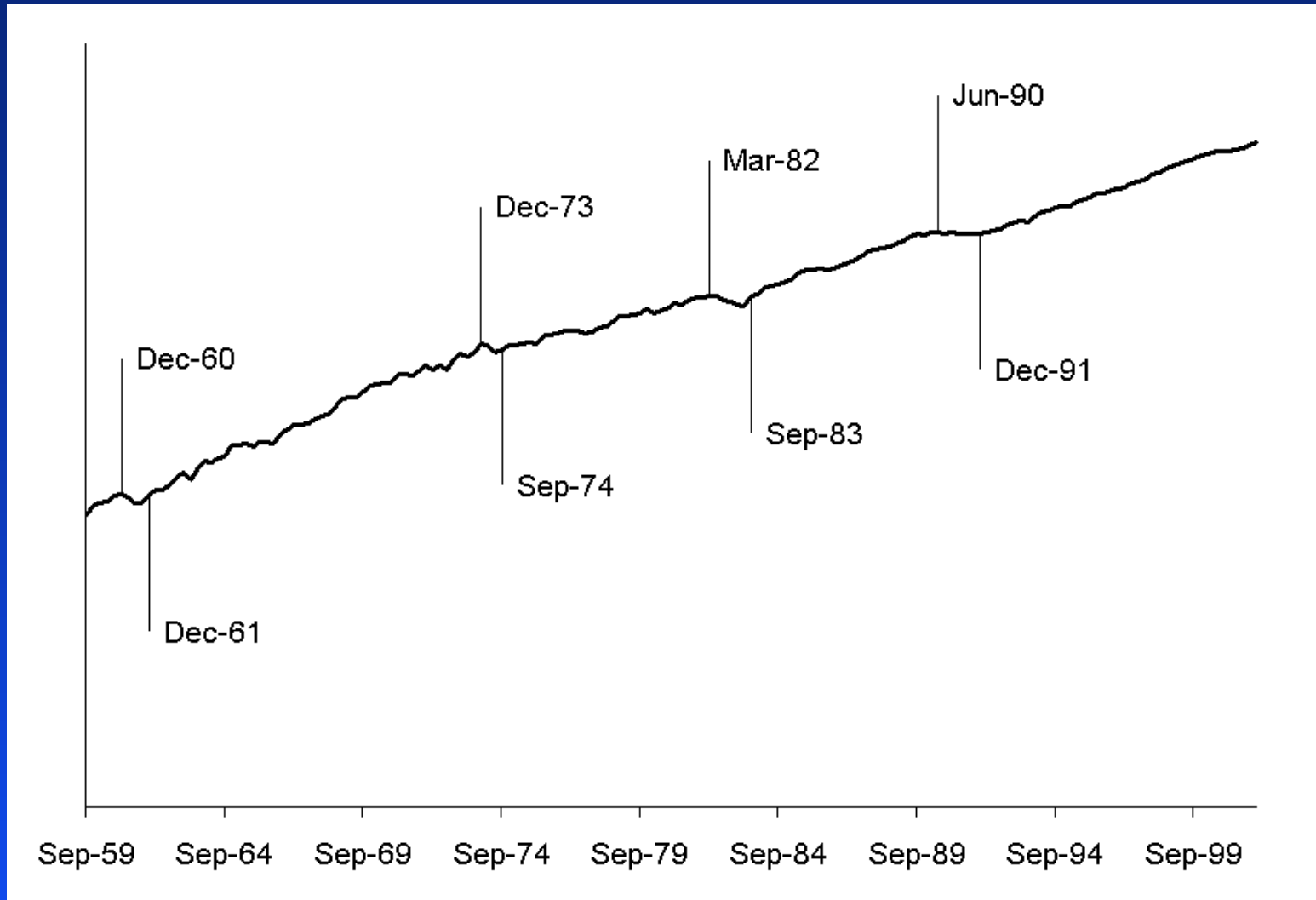


Average features of cycle

	Full Sample	1861–1990	1900–50	1951–2001
#Peaks	14	3	8	3
Duration				
– Contractions	1.36	1.00	1.63	1.00
– Expansions	8.15	11.50	4.57	18.00
Amplitude				
– Contractions	–4.46	–1.88	–6.67	–1.17
– Expansions	35.14	47.87	22.15	75.37
Excess				
– Contractions	0.18	0.00	0.32	0.00
– Expansions	0.48	1.28	–0.35	3.09



The business cycle in quarterly GDP



Contractions in quarterly GDP

Peak	Trough	Duration (quarters)	Amplitude (Per cent)
1960.4	1961.4	3	-3.89
1973.4	1974.3	2	-3.69
1982.1	1983.3	5	-4.01
1990.2	1991.4	5	-1.16

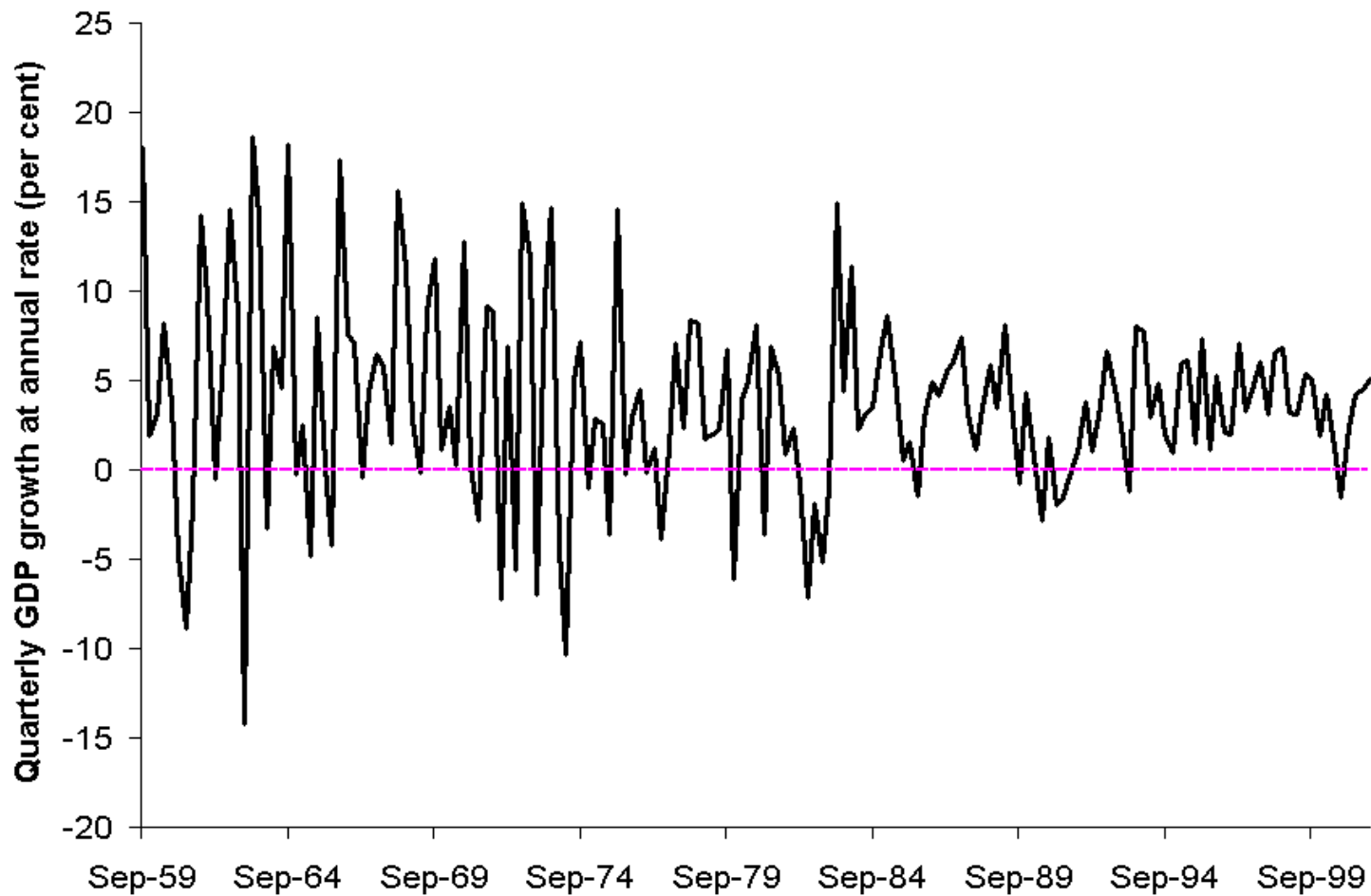


Expansions in quarterly GDP

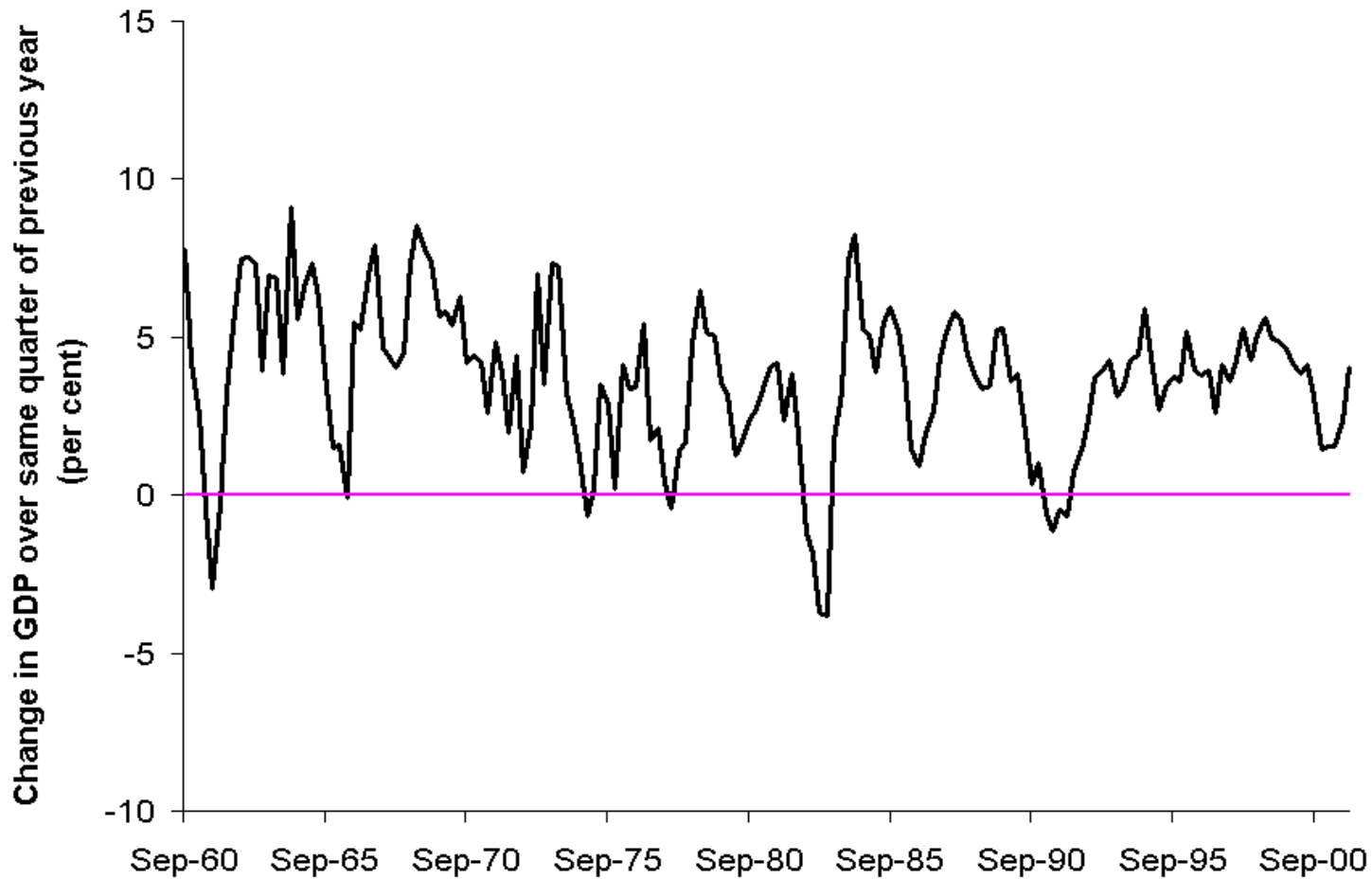
Trough	Peak	Duration (quarters)	Amplitude (Per cent)
1961.4	1973.4	49	67.75
1974.3	1982.1	31	23.62
1983.3	1990.2	28	31.15
1991.4	?	>40	>38.67



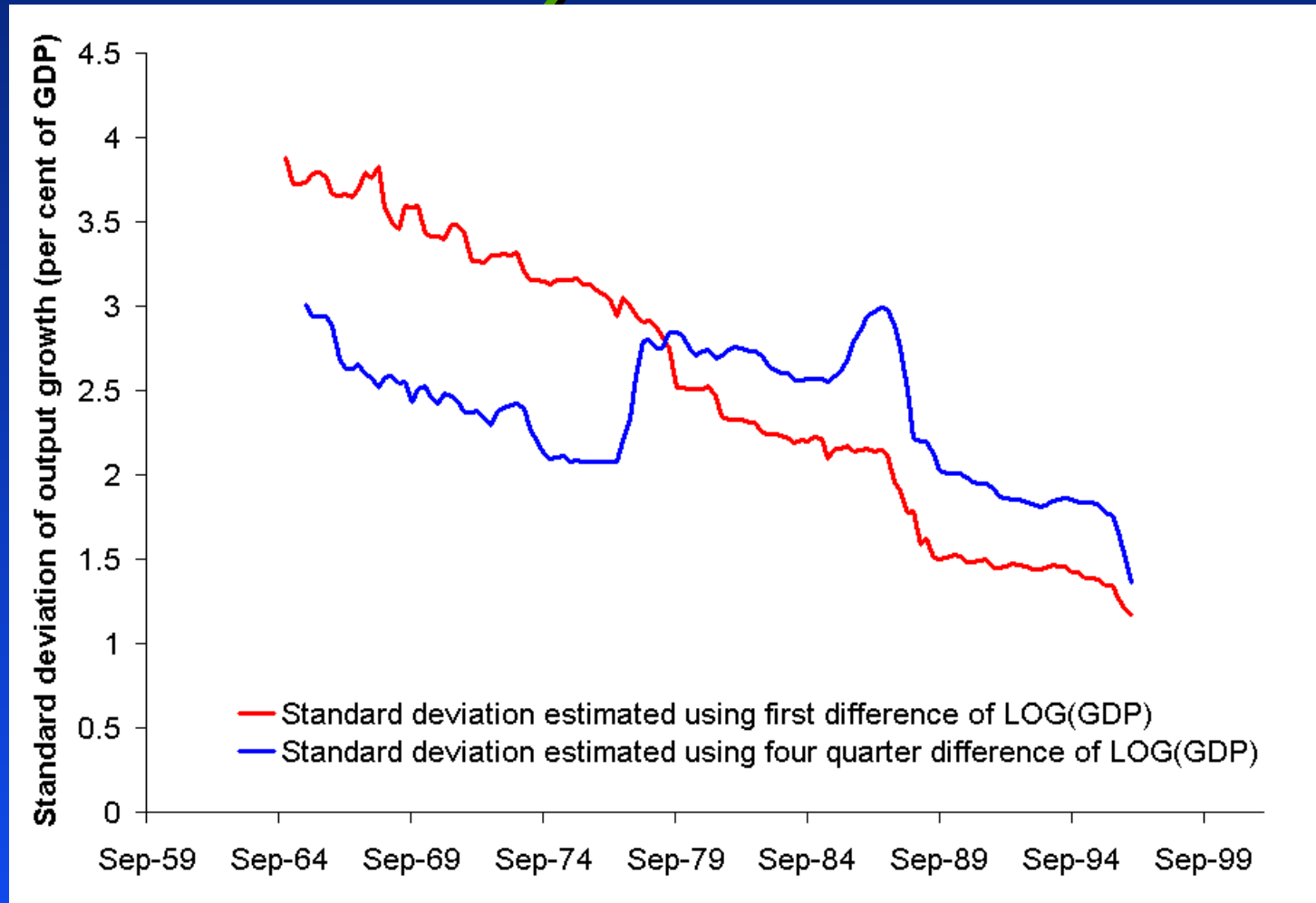
Percentage change in quarterly GDP over previous quarter



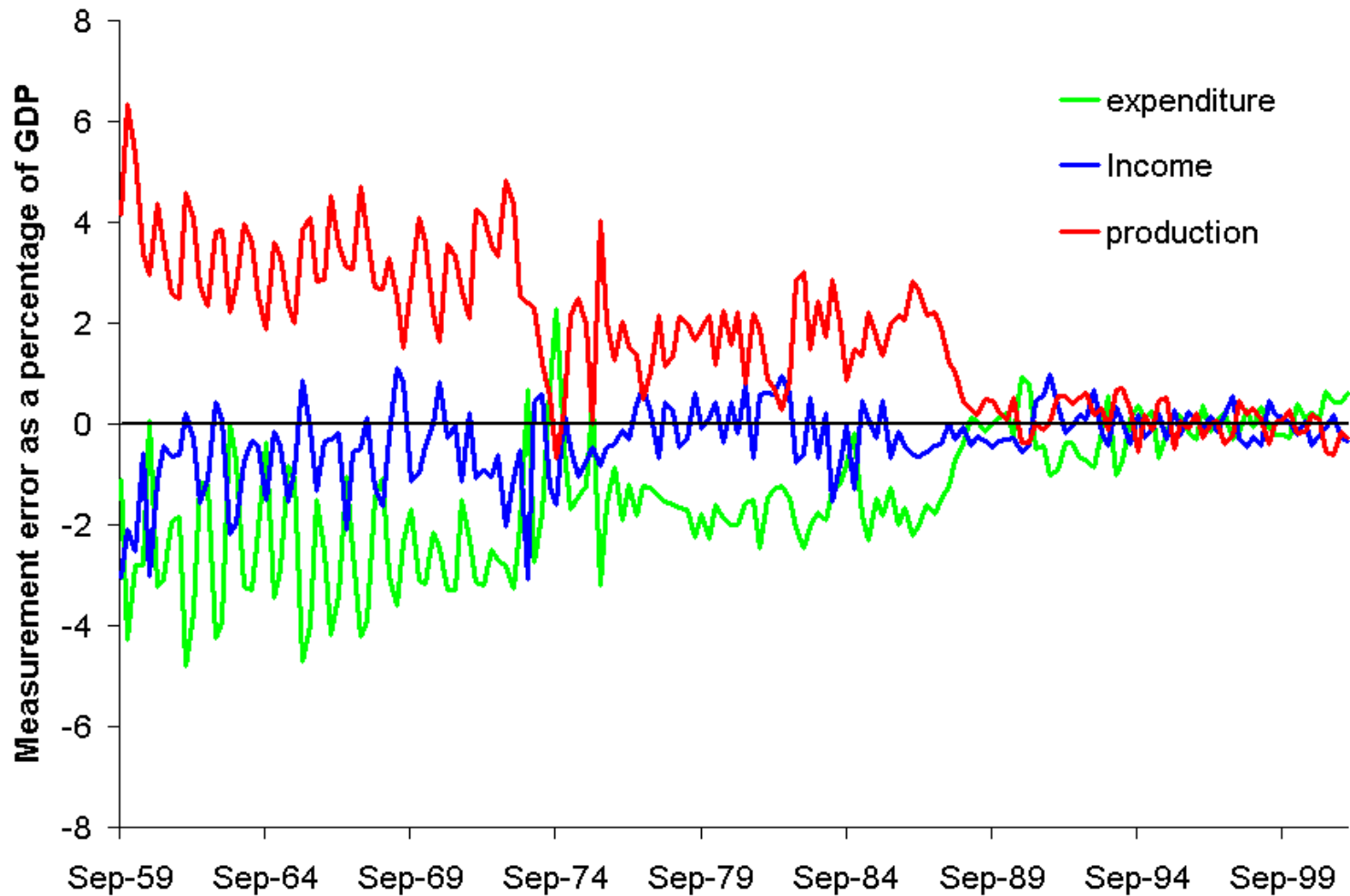
Percentage change in GDP over same quarter of previous year



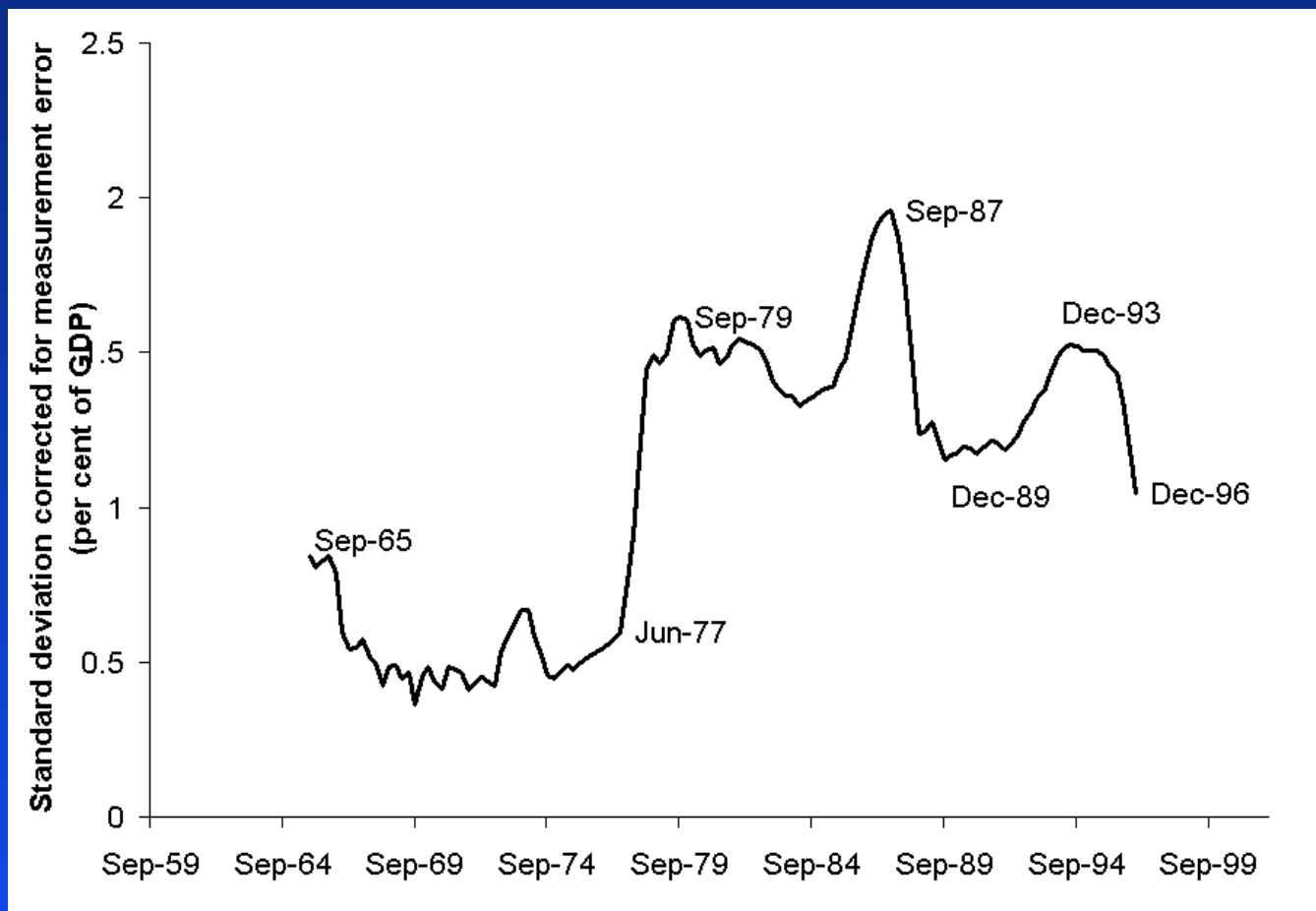
41 quarter moving average estimate of GDP volatility



Importance of measurement error



Estimate of volatility of GDP after correcting for measurement error



Conclusions

- Business cycle in late 20th century similar to that in late 19th century
 - ◆ First half of 20th century an outlier
 - ◆ Some evidence of milder cycle post 1950 versus pre 1950
- Not much evidence of milder cycle in quarterly data
 - ◆ Much of the apparent reduction in volatility made at the ABS not RBA
 - ☞ Needs further investigation.
 - ◆ Some evidence of slight reduction in amplitude of contractions

