Motu Public Policy Seminar Series

The Evolution of the New Zealand Business Cycle: Returning to a Golden Age?

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Motu Public Policy Seminar Series

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Te Tari Tatau

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THE TREASURY
Kaitohutohu Kaupapa Rawa

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- Viv Hall
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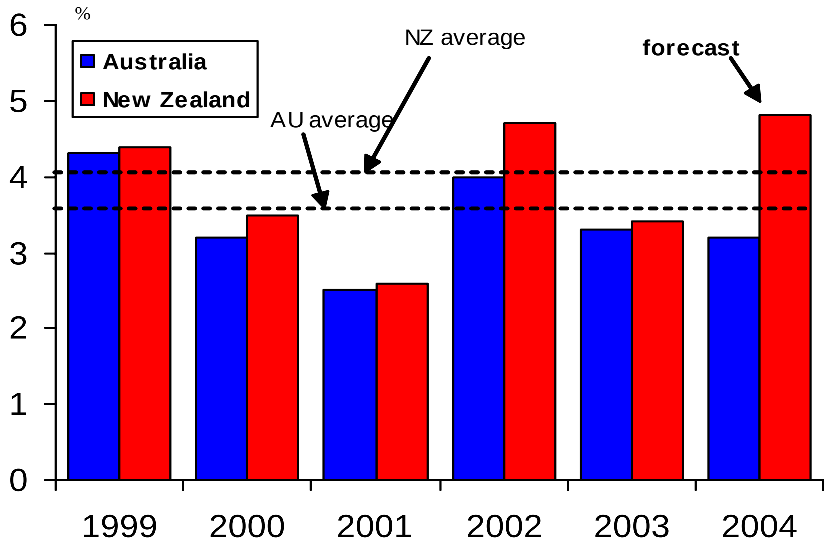
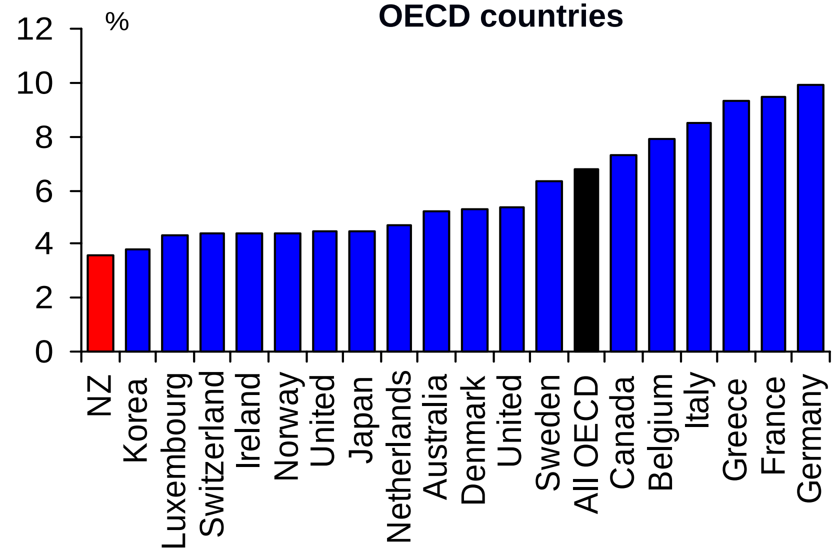
- Reserve Bank of New Zealand

NZ economic indicators

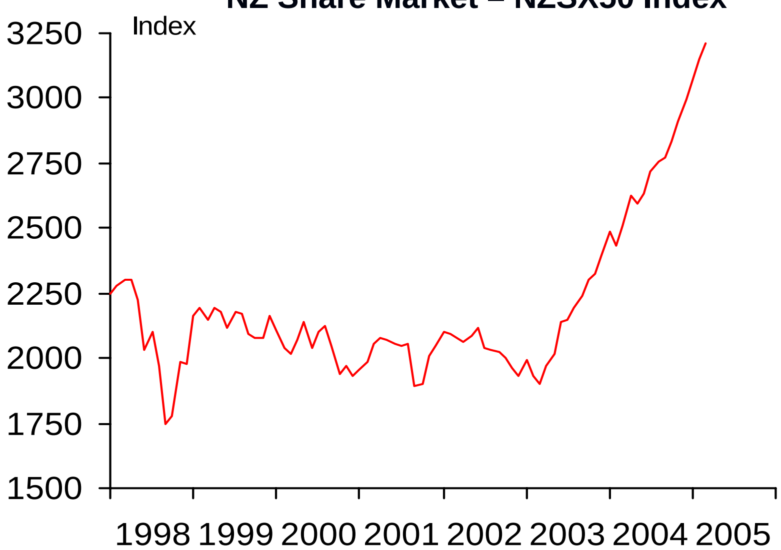
Annual GDP Growth – NZ and Australia



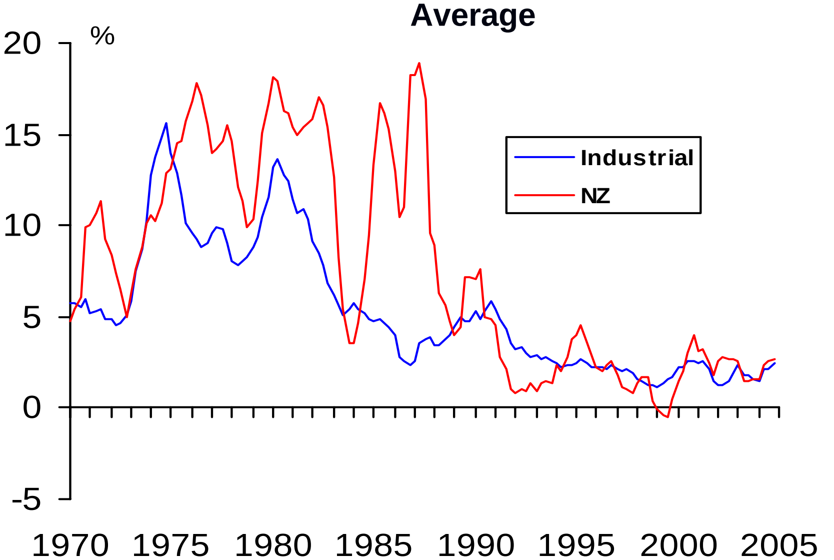
Unemployment Rate – NZ and selected OECD countries



NZ Share Market – NZSX50 Index



Annual CPI inflation – NZ and Industrial Country Average

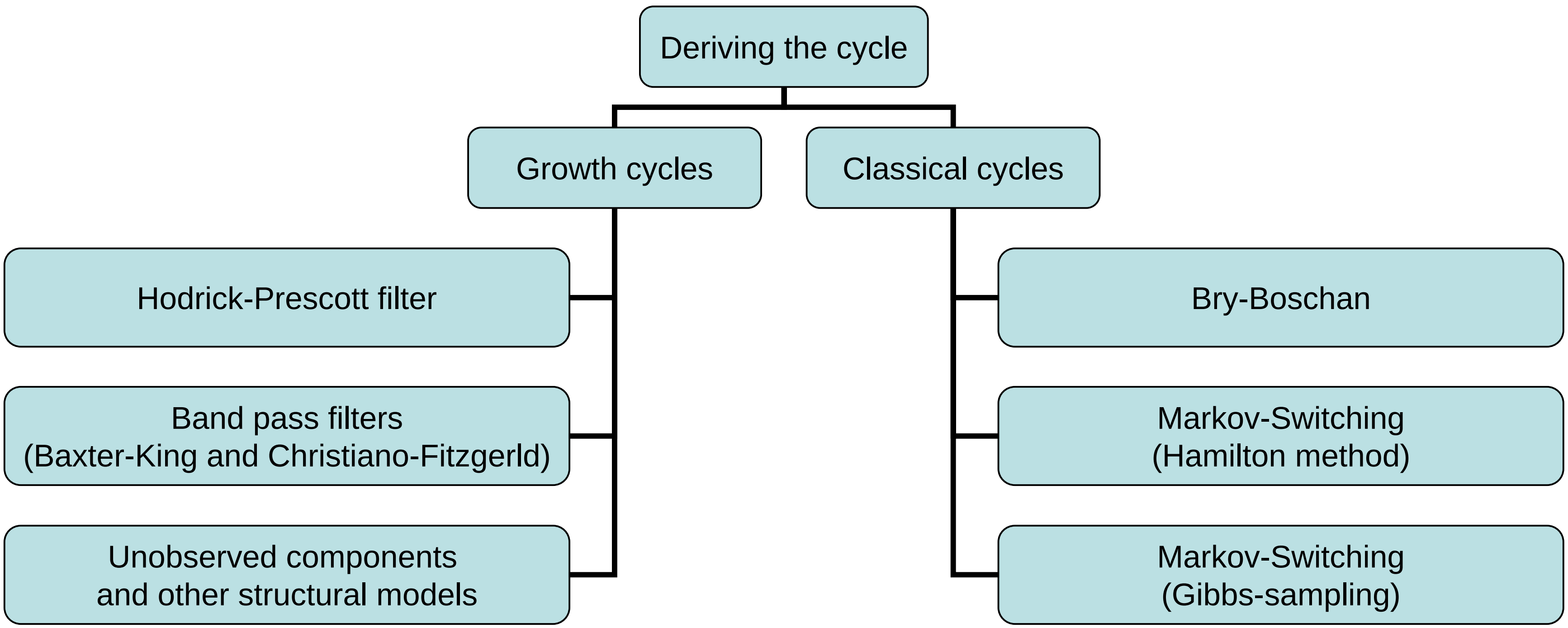


Sources: Bloomberg; Statistics NZ; ANZ National Bank; IMF; Reuters

Outline

- Deriving the cycle
- Changes in the nature of the cycle
- Using regional cycles to overcome limited information
- Policy issues – a murder mystery!

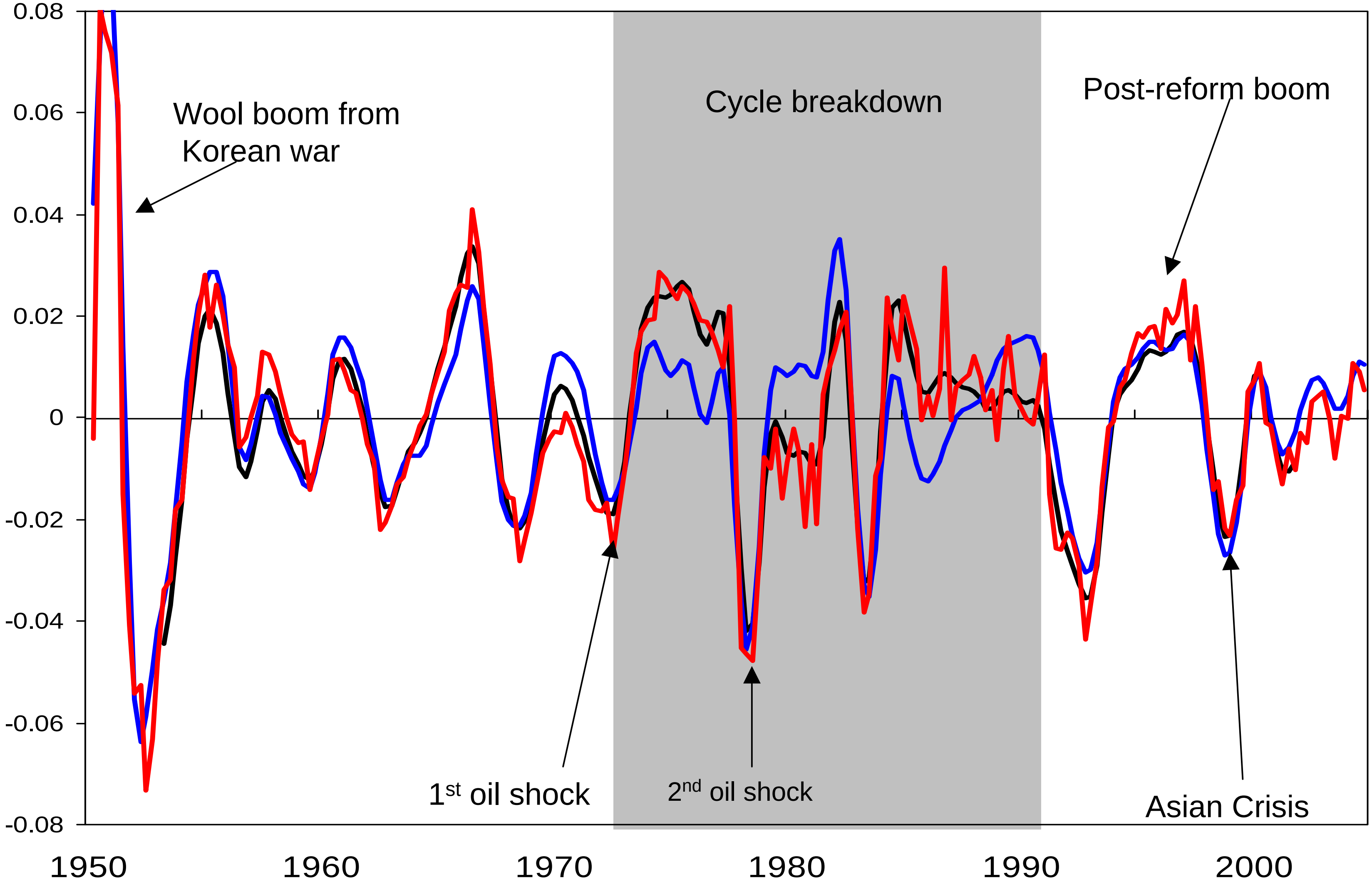
The Universe of Cycle Identification Methods



For details see Baxter and King (1999), Bry and Boschan (1971), Christiano and Fitzgerald (2003), Clark (1989), Hodrick and Prescott (1977), Kim and Nelson (1999), and Hamilton (1989).

Growth Cycles:

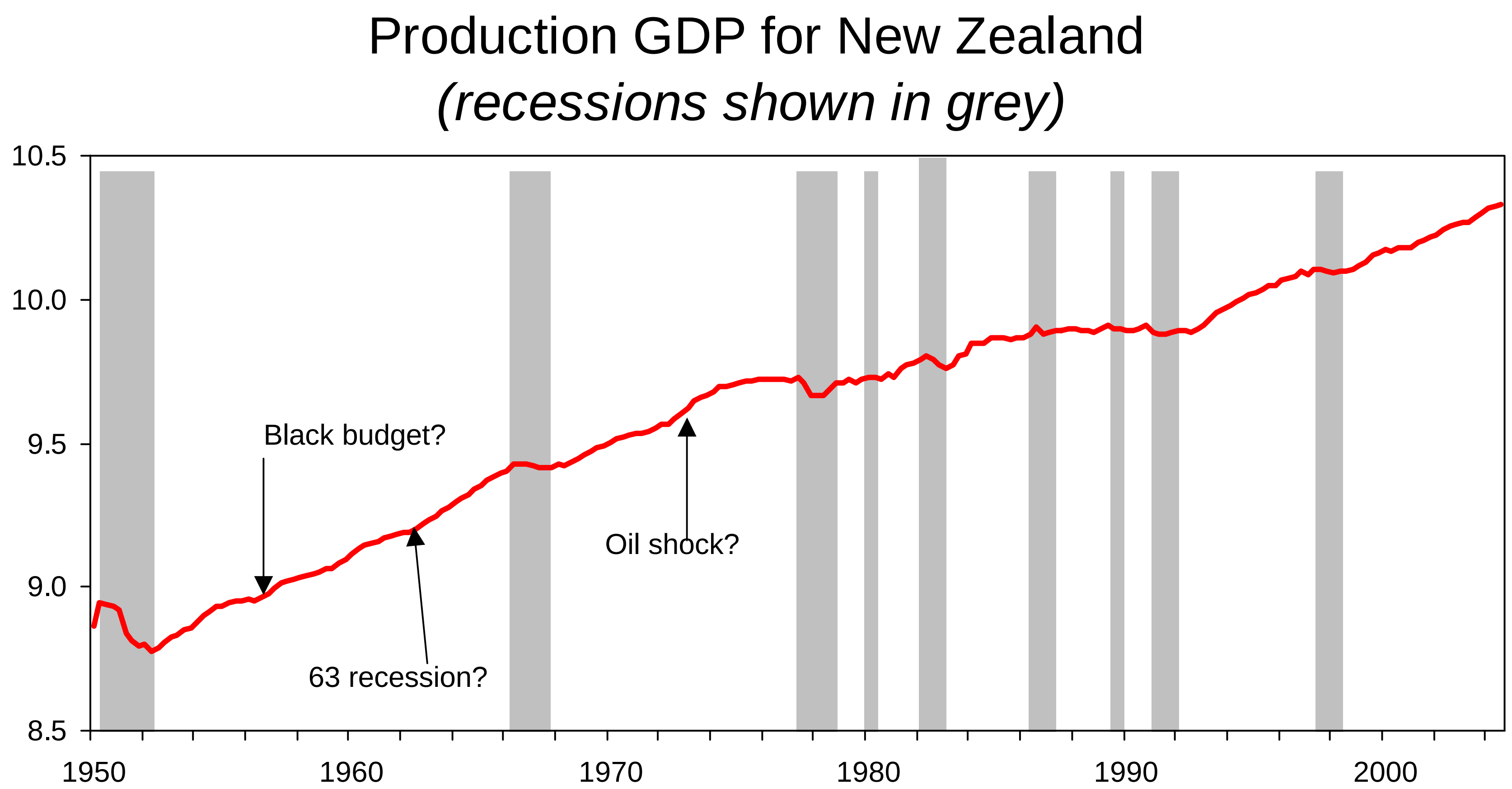
Based on HP and Frequency filters



Data source: Statistics New Zealand, Reserve Bank of New Zealand, ANZ National Bank

Classical Cycles

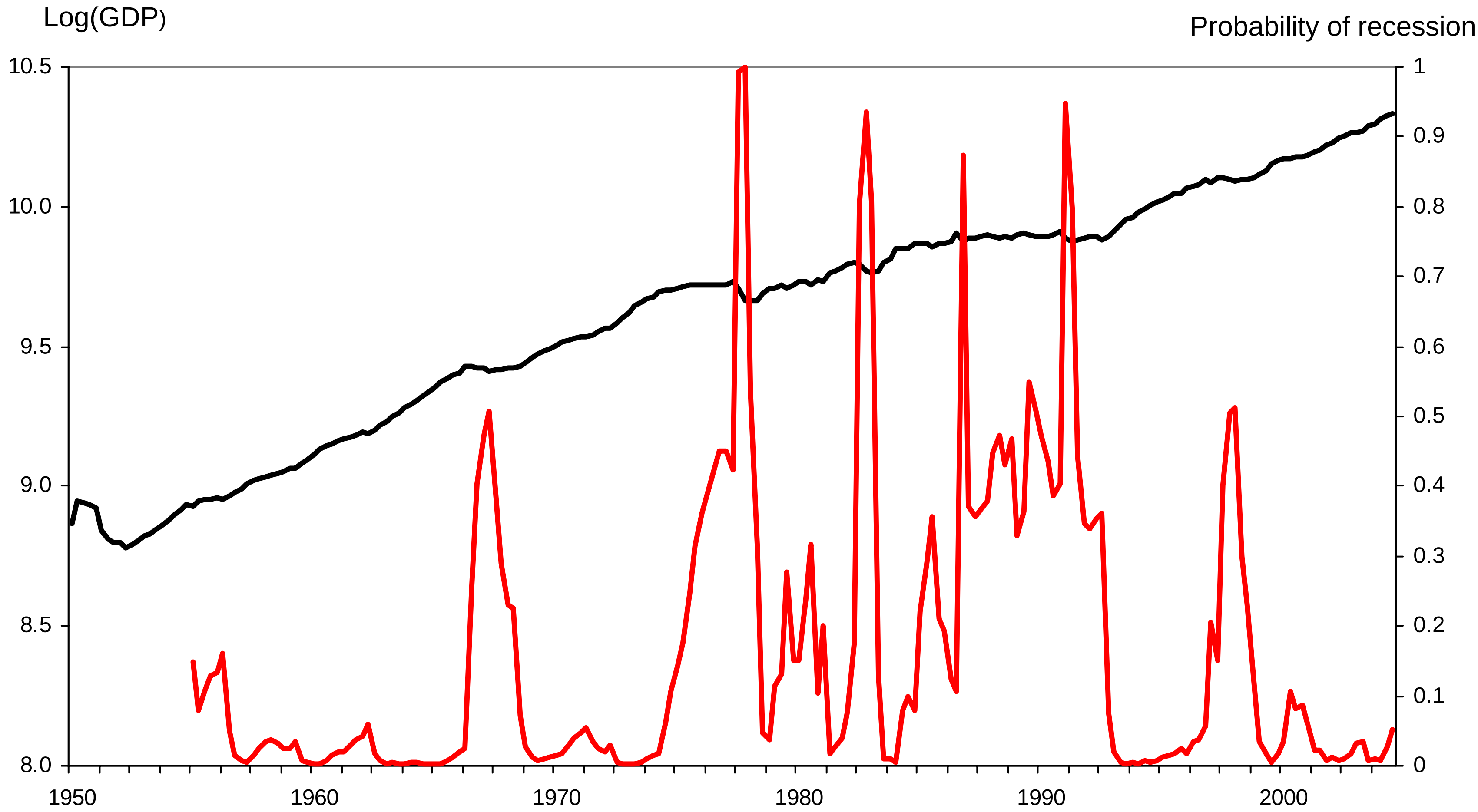
Based on Bry-Broschan method



Estimation method based on Bry and Boschan (1971). For comparsion see Kim, Buckle and Hall (1995).

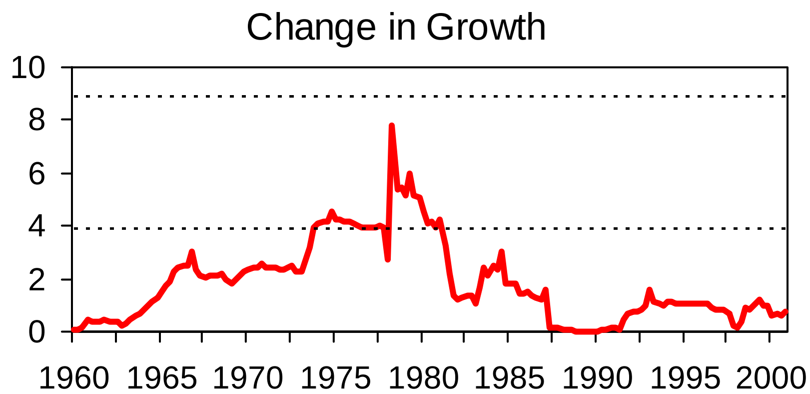
Classical Cycles

Based on state-space models

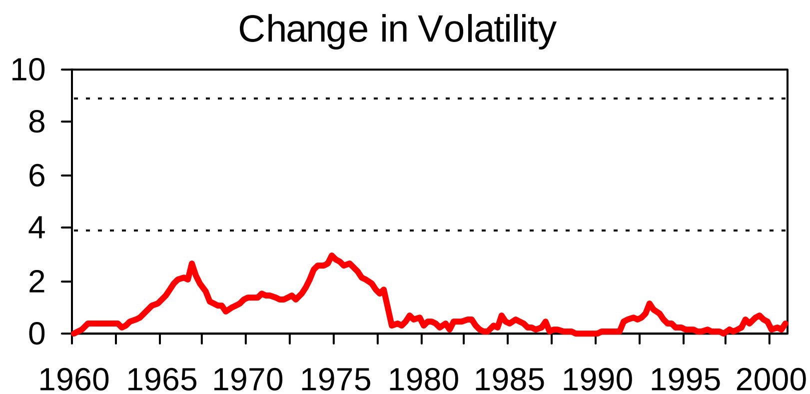


Bayesian Gibbs-Sampling estimation method based on Kim and Nelson (1999).

Formal Tests of Regime Change



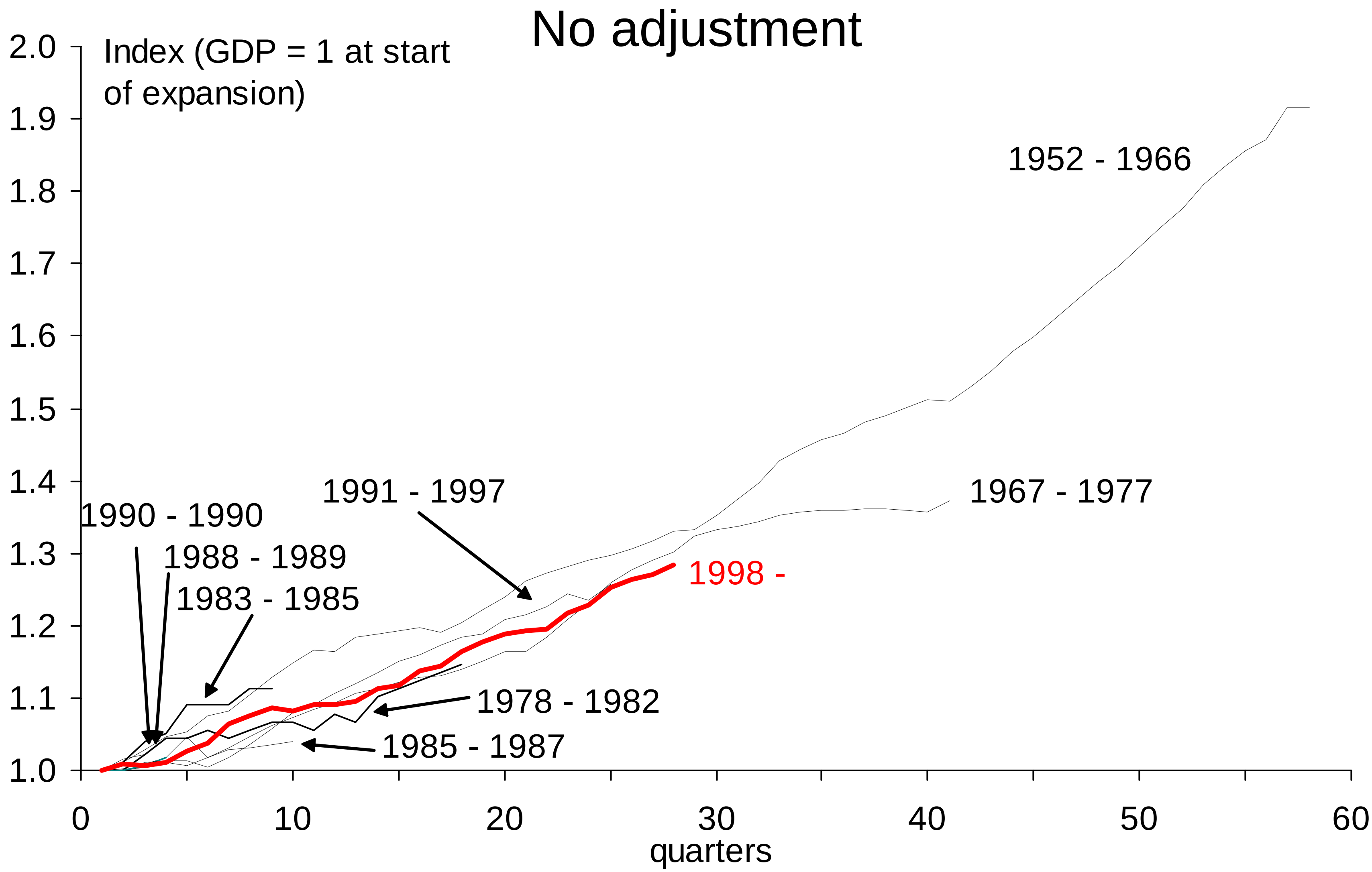
- Marginal evidence for a change in growth
  - Growth slowdown occurs in 1977



- Insufficient evidence on a change in volatility
  - First oil shock (1974) has some impact on volatility

For details see Andrews (1993) and Andrews, and Ploberger (1994).

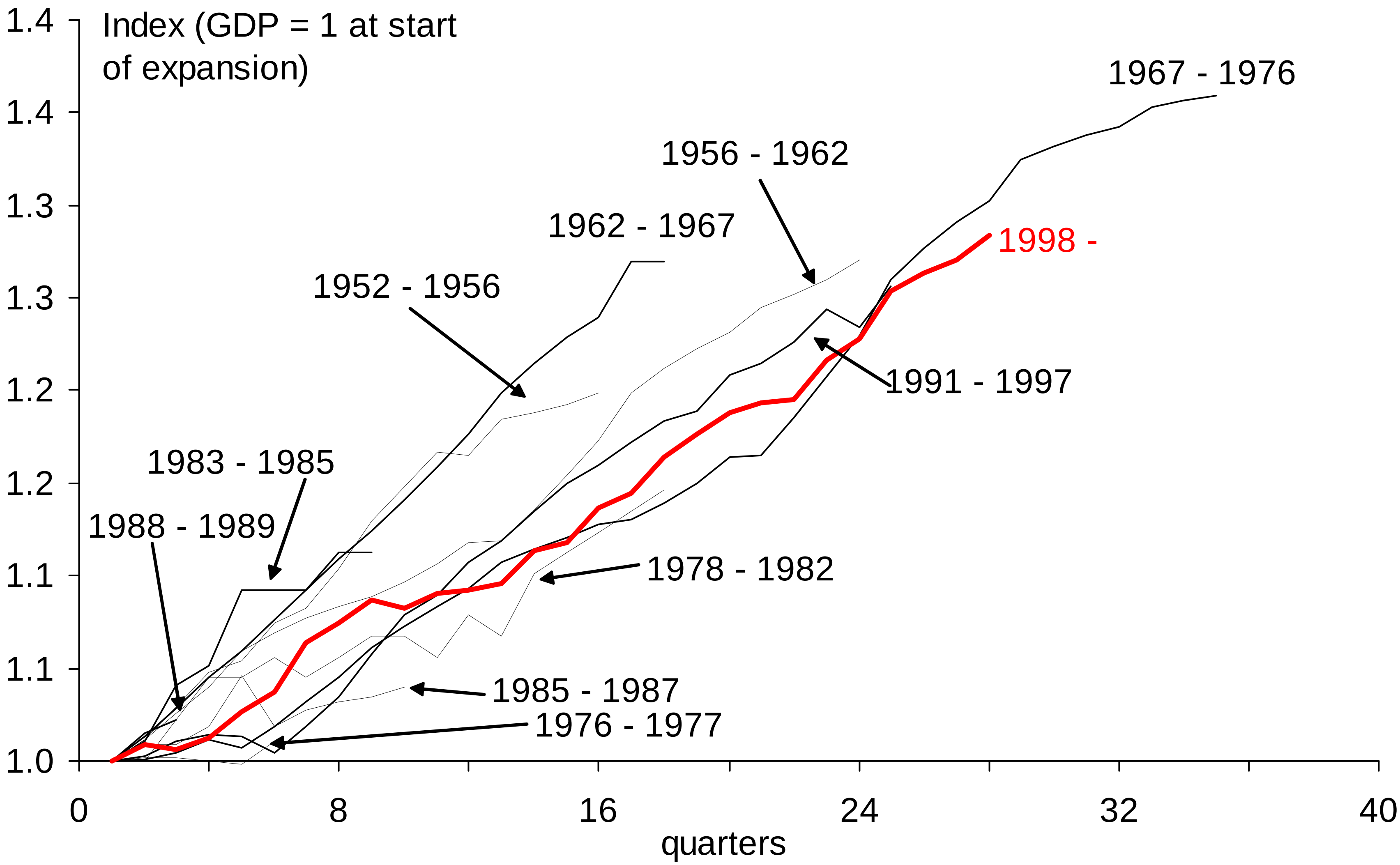
Duration of economic expansions



Sources: Statistics New Zealand, Reserve Bank of New Zealand, ANZ National Bank

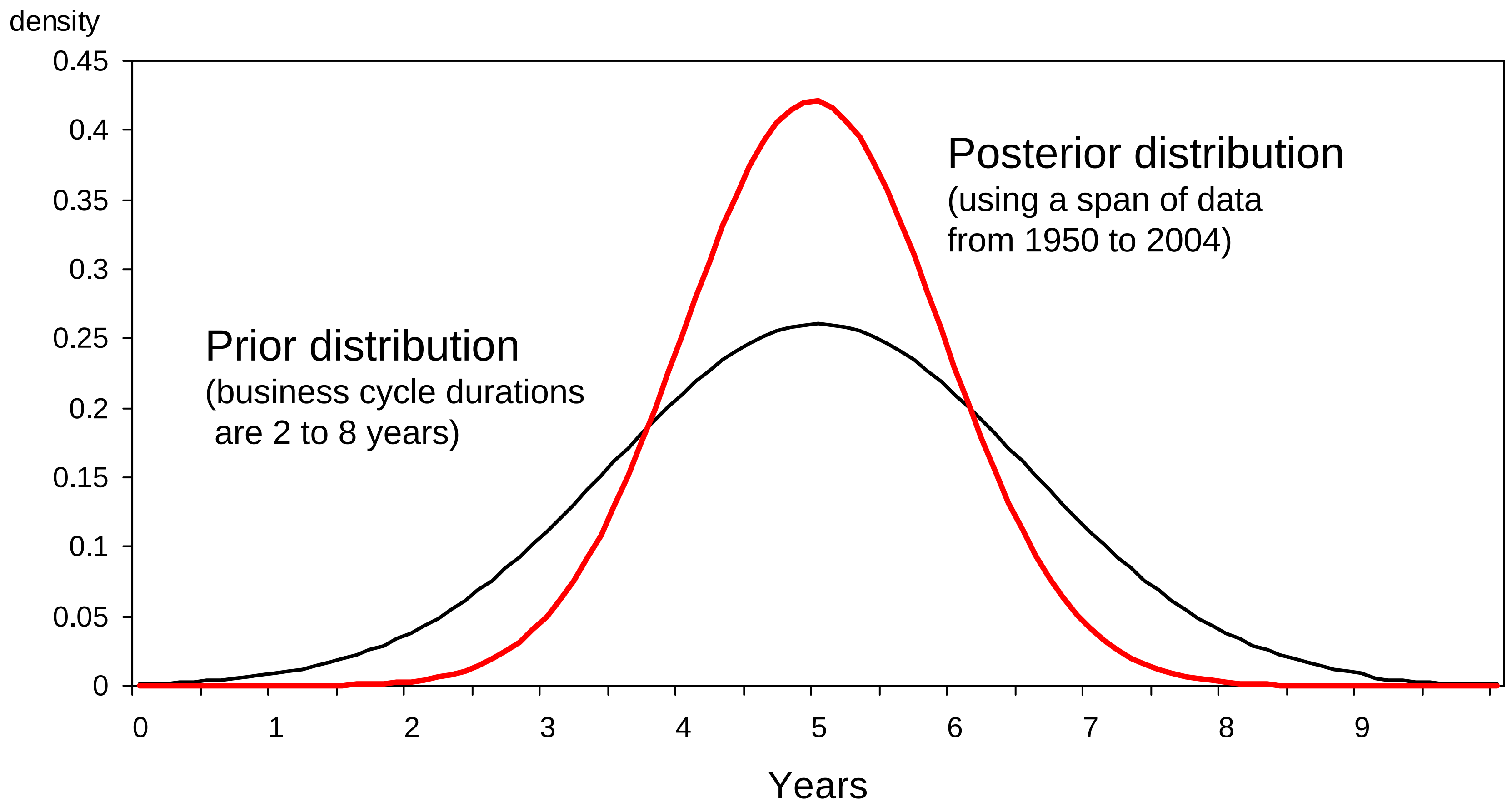
Duration of economic expansions

Judgemental adjustment

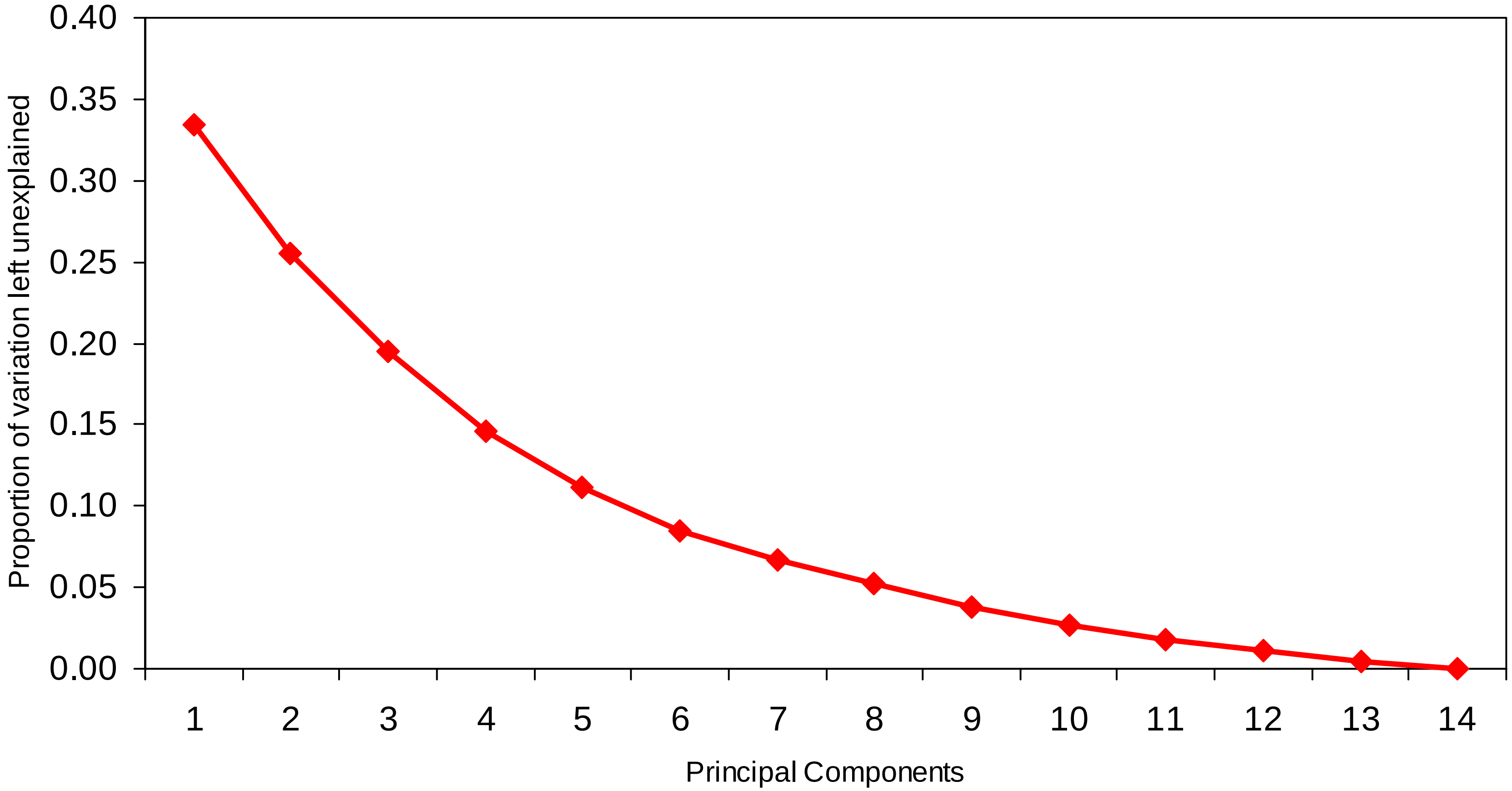


Sources: Statistics New Zealand, Reserve Bank of New Zealand, ANZ National Bank

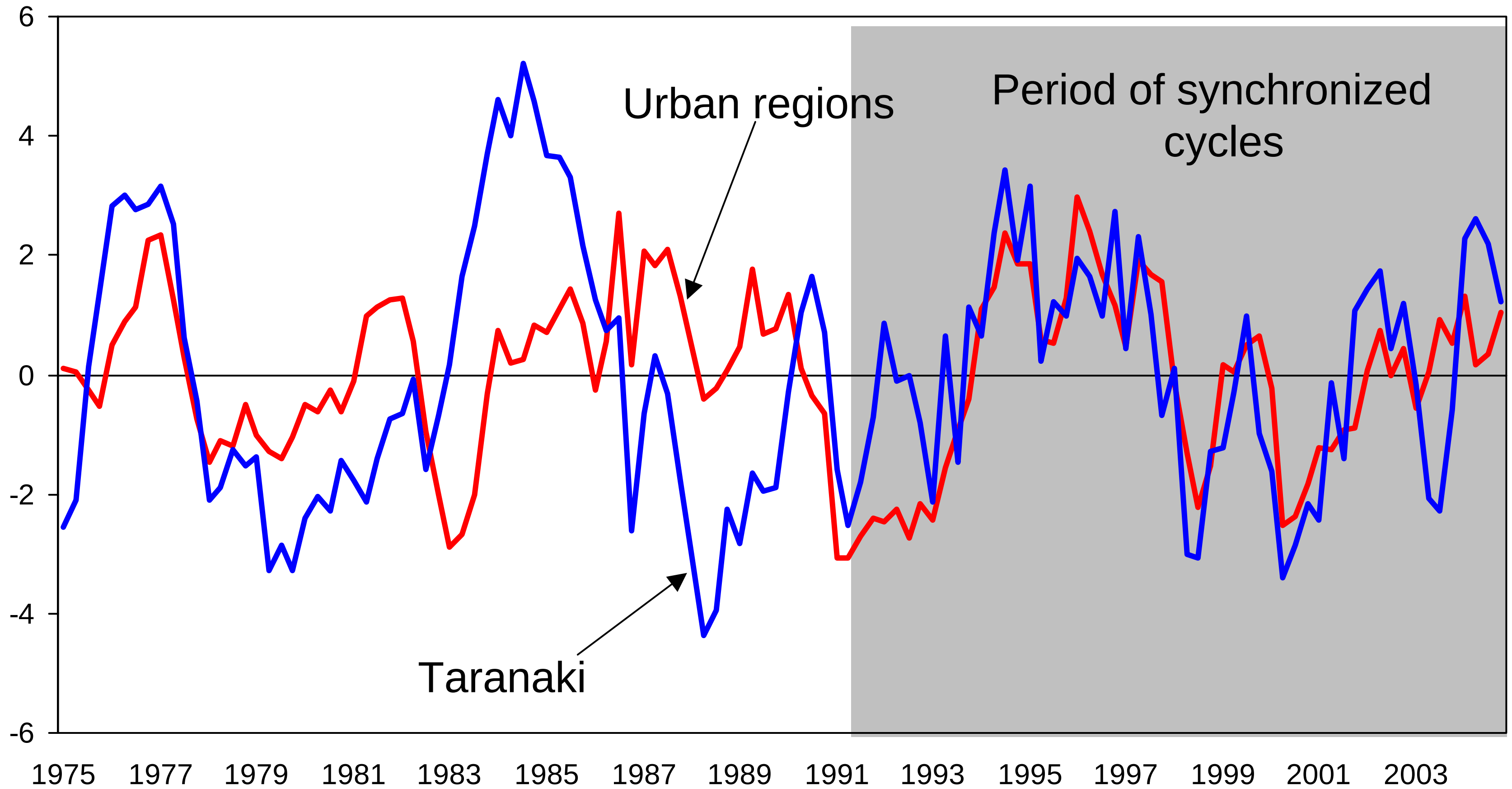
Distribution of New Zealand’s Business Cycle Duration



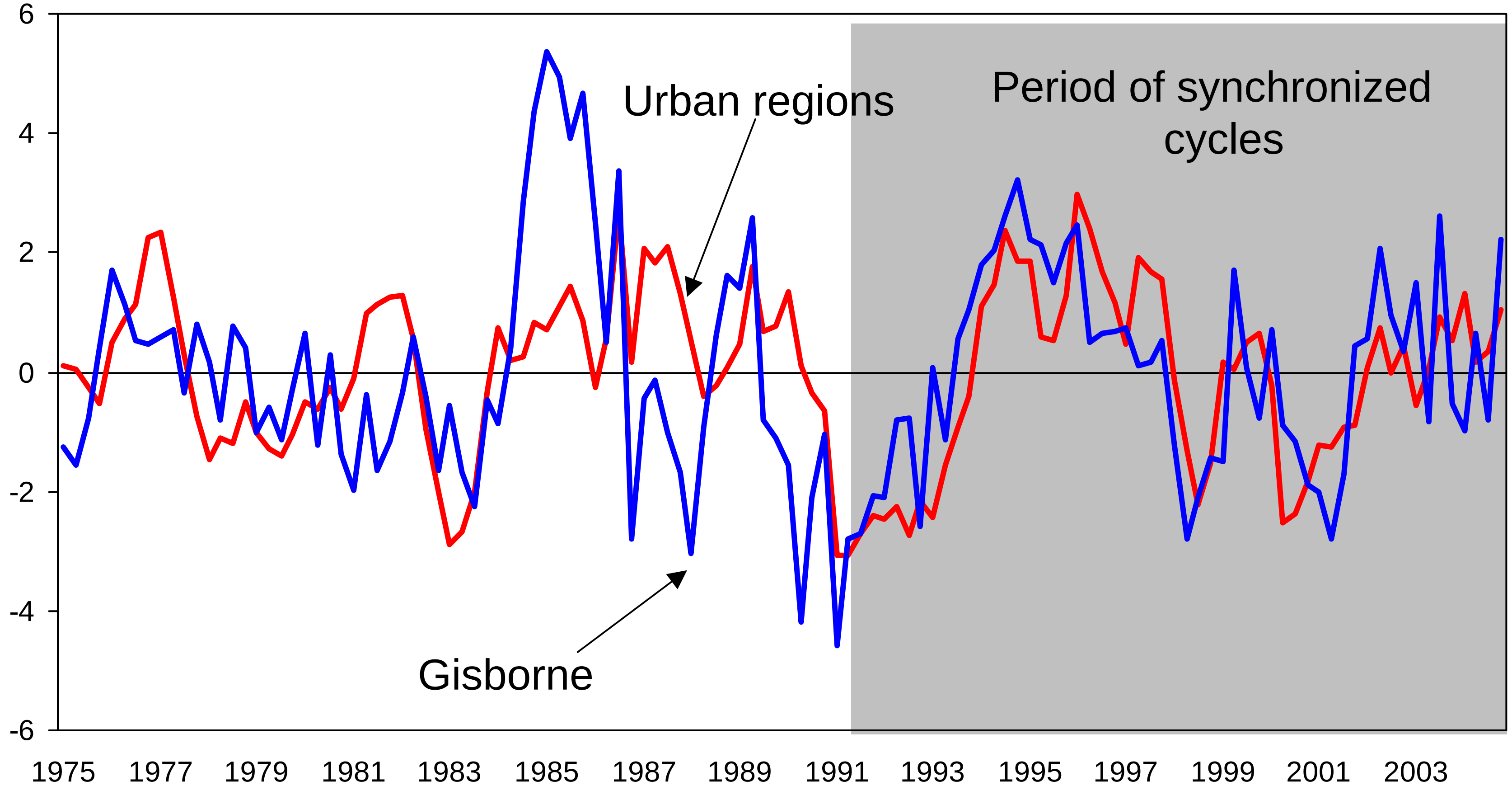
Complexity of a Model Required to Explain Region Cycle



Information from Regional Cycles



Information from Regional Cycles



Duration Dependence: Or who kills the cycle?

- **Expansions come in similar shapes**
  - Implies the length of a cycle is more important than the actual growth rate. Policy implication: government should not target the growth rate but set conditions to keep expansion intact.

- **Expansions do not die of natural causes**
  - Unusually dry conditions (Buckle et al 2002)
  - Terms of trade shocks (yes)
  - Excess in asset prices (esp housing)
  - Efficacy of monetary policy (Romer 1999)
  - Structural policy and resilience to shocks (see above).

For regional cycle reults see Hall and McDermott (2004).

Policy issues

- **Cycle harmonization**
  - Provides an interpretation of the effectiveness of the policy reforms of the late 1980s.
  - Does monetary policy treat some regions unfairly?
  - Is there a role for regional economic assistance?

- **Duration dependence**
  - Do economic expansions age?
  - Lessons on enhancing our prosperity.

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