



**Australian Government**

---

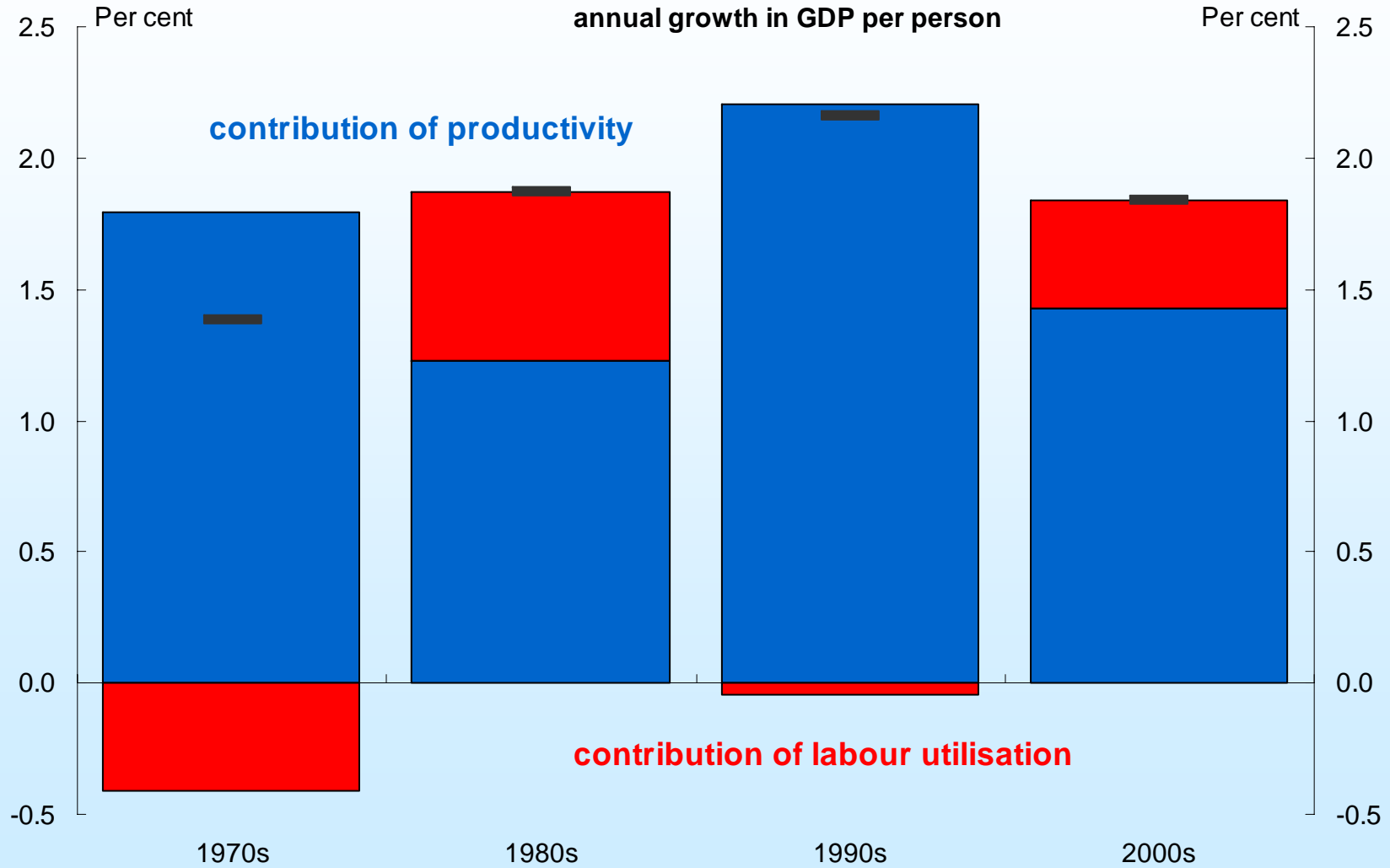
**The Treasury**

# **Productivity level: how far can Australia catch up?**

Graeme Davis

23 March 2006

# Productivity matters



# Outline

Catch up

The Australia-US productivity gap

Recent and future trends

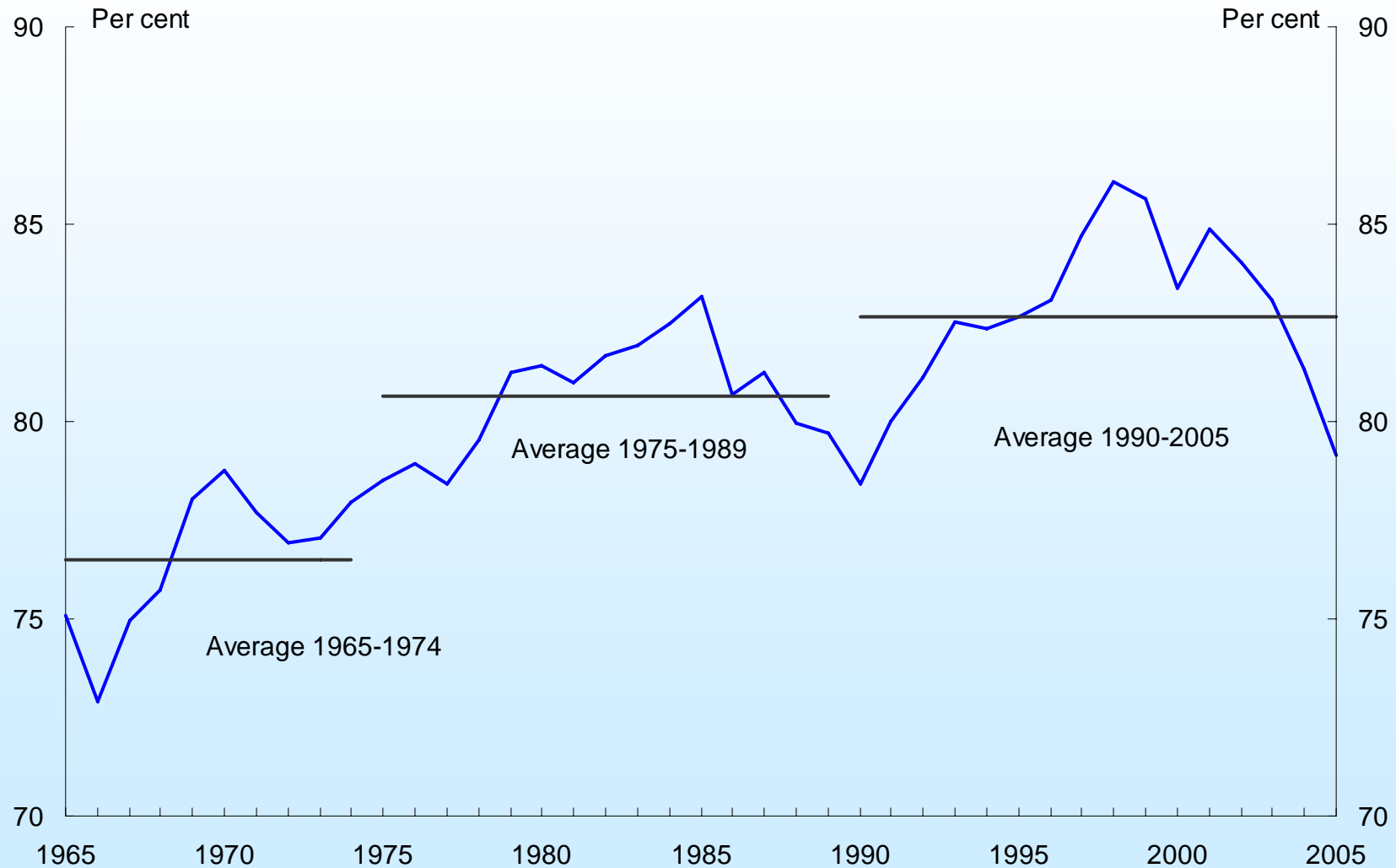
# Catching up: different possibilities

Identical countries:  
*everyone catches up to the same level*      Not very likely

No catch up: *AK model, agglomeration*      Not tractable

Level gap: *countries catch up to  
their own steady states  
then grow by the same rate*      Tractable,  
but is it likely?

# Australia's productivity level relative to the United States



# Scope for further catch up

Observe

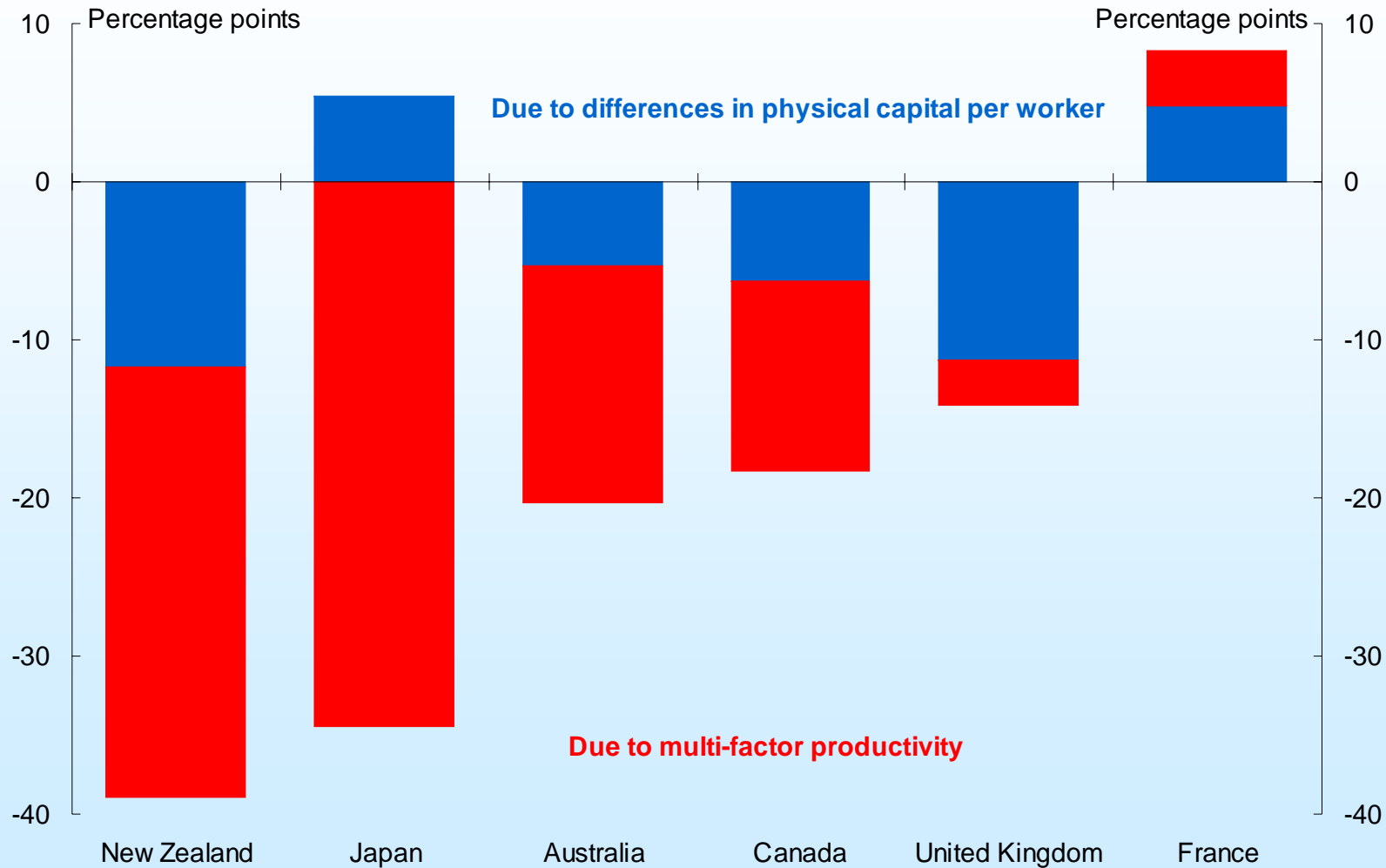
$$\frac{y_{Aus}}{y_{US}}$$

Guess

$$\frac{y^*_{Aus}}{y^*_{US}}$$

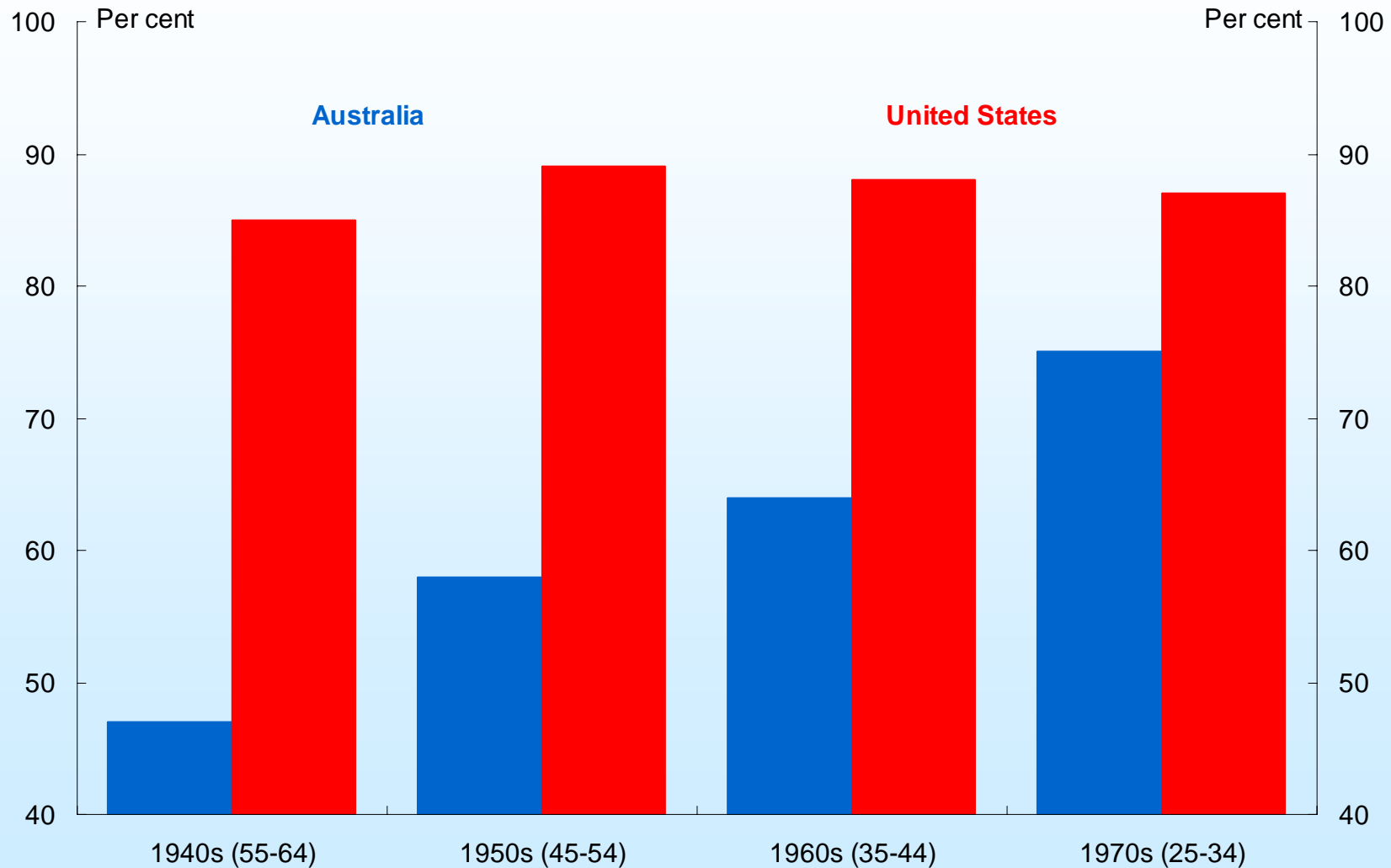
# Explaining the productivity gap(1)

## Decomposing the productivity gap with the US, 2002



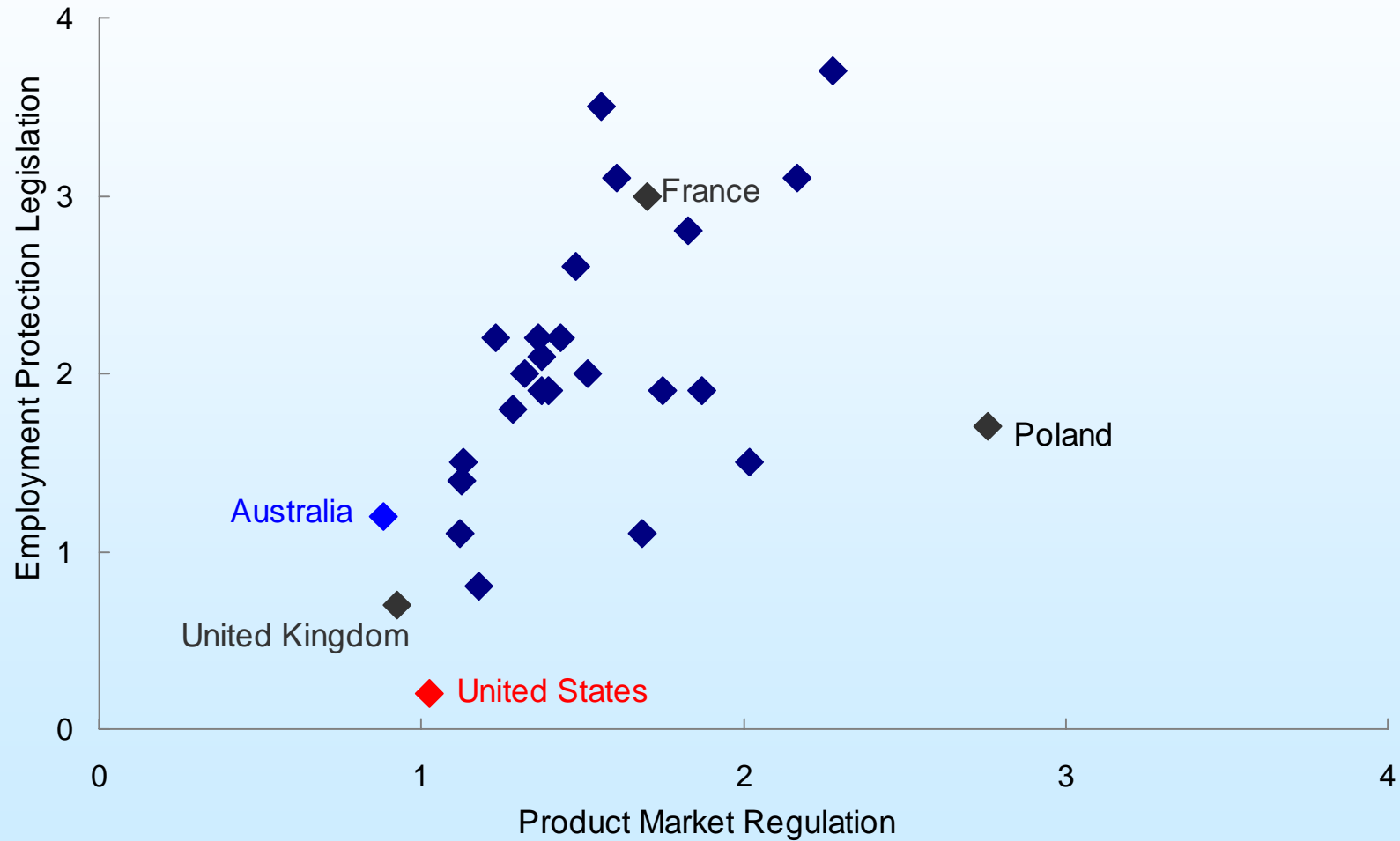
# Explaining the productivity gap(2)

At least upper secondary attainment by cohort, 2003





# Explaining the productivity gap(3) Policy



# Stock take

Capital

Policy



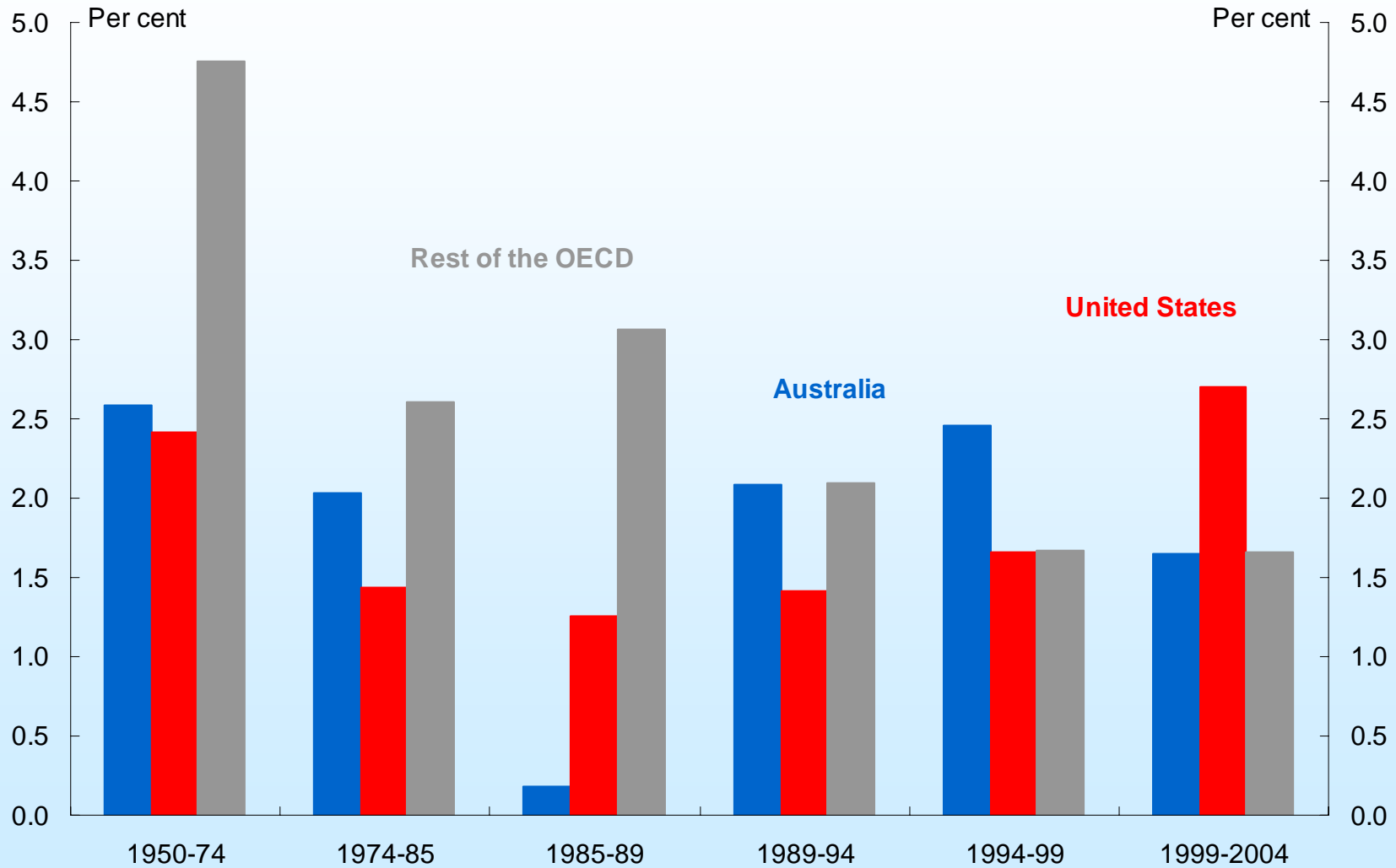
*Half the gap*

Context

*Substantial, but how much?*

*The rest: catch up????*

# Productivity growth: international comparison



# Why did the gap narrow in the 1990s?

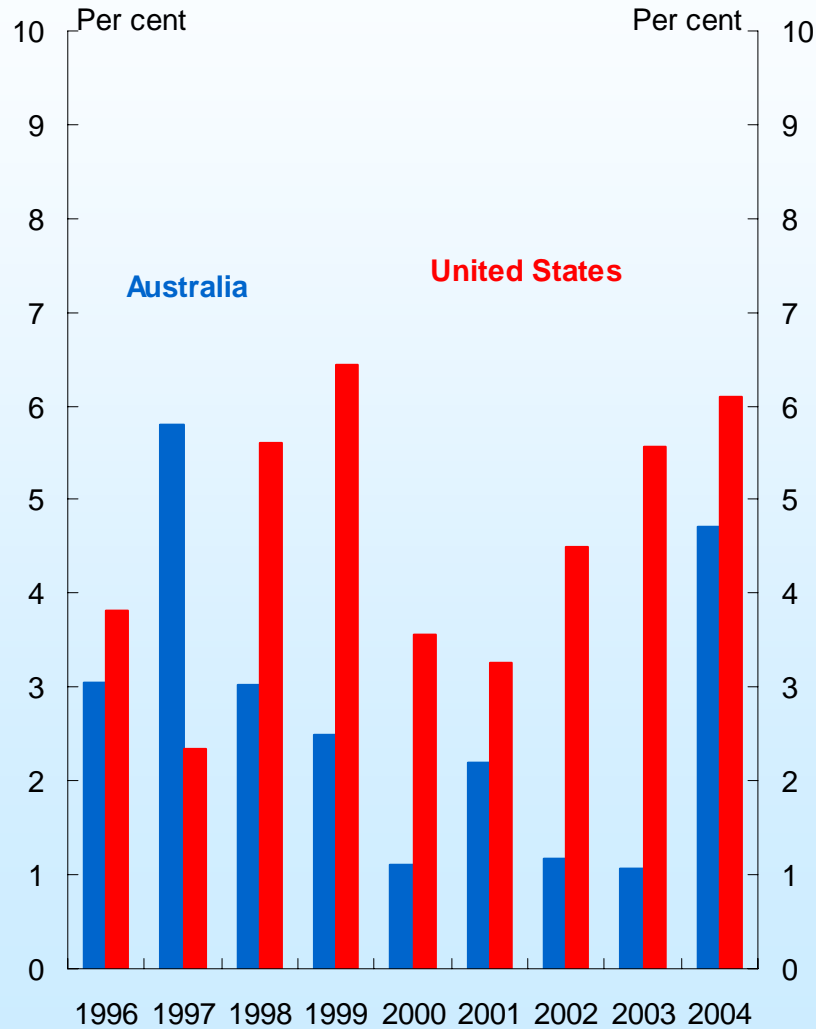
*Reforms?*

$$\frac{y_{Aus}^* \uparrow\uparrow}{y_{US}^*}$$

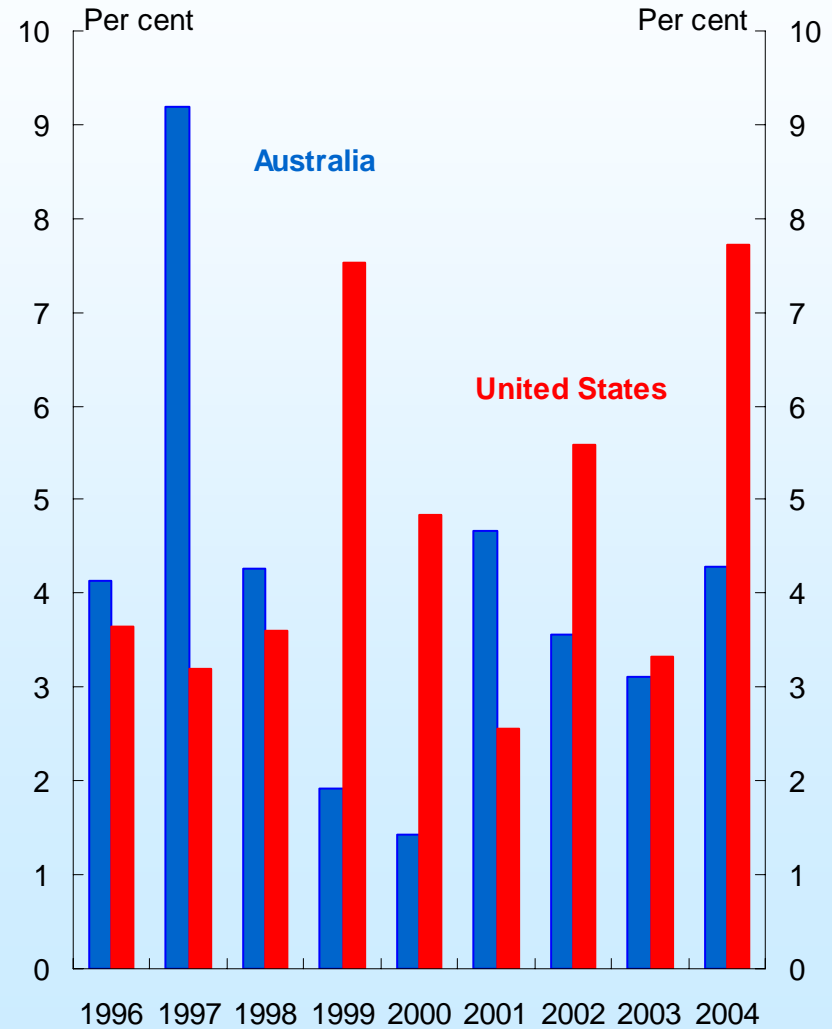
*New economy?*

# Productivity growth in...

## ...retail trade



## ...wholesale trade



# Why did the gap narrow in the 1990s?

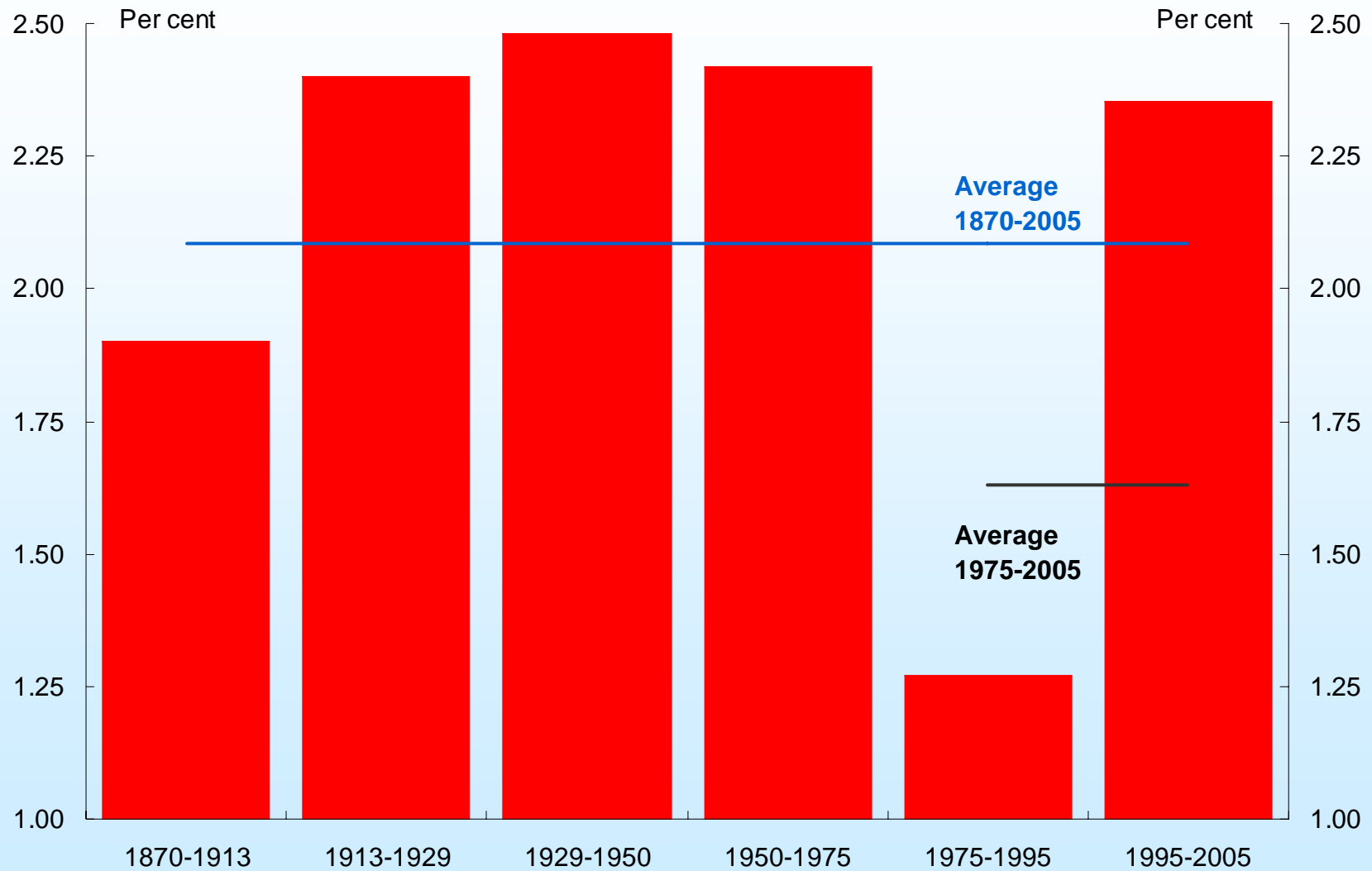
*Reforms?*

$$\frac{y_{Aus}^* \uparrow\uparrow}{y_{US}^*}$$

*New economy?*

$$y_{Aus}^* \uparrow\uparrow \quad y_{US}^* \uparrow\uparrow \quad \frac{y_{Aus}^*}{y_{US}^*} ???$$

# US productivity growth (1870-2005)



# Annualised US productivity growth (years to 2005)





# How far can Australia catch up?

US grows by 1.6%pa

Australia grows by 1.75%pa

*5ppt by 2040s*

or no catch up, or the gap widens,  
or the gap narrows by more than 5ppt

## Policy implications