

# Comparative Analysis of Illinois Monthly Employment: 1990- 2003

Growth Rate Changes in Comparison  
with the Rest of the Midwest and the US

*IEO Report 2003-2*

Presentation by the Illinois Economic Observatory



R | E | A | L

# Introduction

- Analysis in this presentation will explore Illinois' experience by comparing each sector's growth rate with
  - Overall US and Midwest growth rate
  - Growth rate of the same sector in the US and Midwest
  - Growth rate if Illinois had had the same economic structure as US or Midwest

- Analysis will provide some additional insights into the Illinois experience
- Methodology does not provide explanation but decomposition to reveal any tendencies or trends
- As before, two reference areas will be used
  - Midwest (WI, IN, OH, MI, MO)
  - US

# Use Shift-share analysis

- Decomposes the growth into three different parts:

$$g_i = G + (G_i - G) + (G_i - g_i)$$

where

$g_i$  = Illinois growth of sector  $i$

$G_i$  = Benchmark's growth of sector  $i$

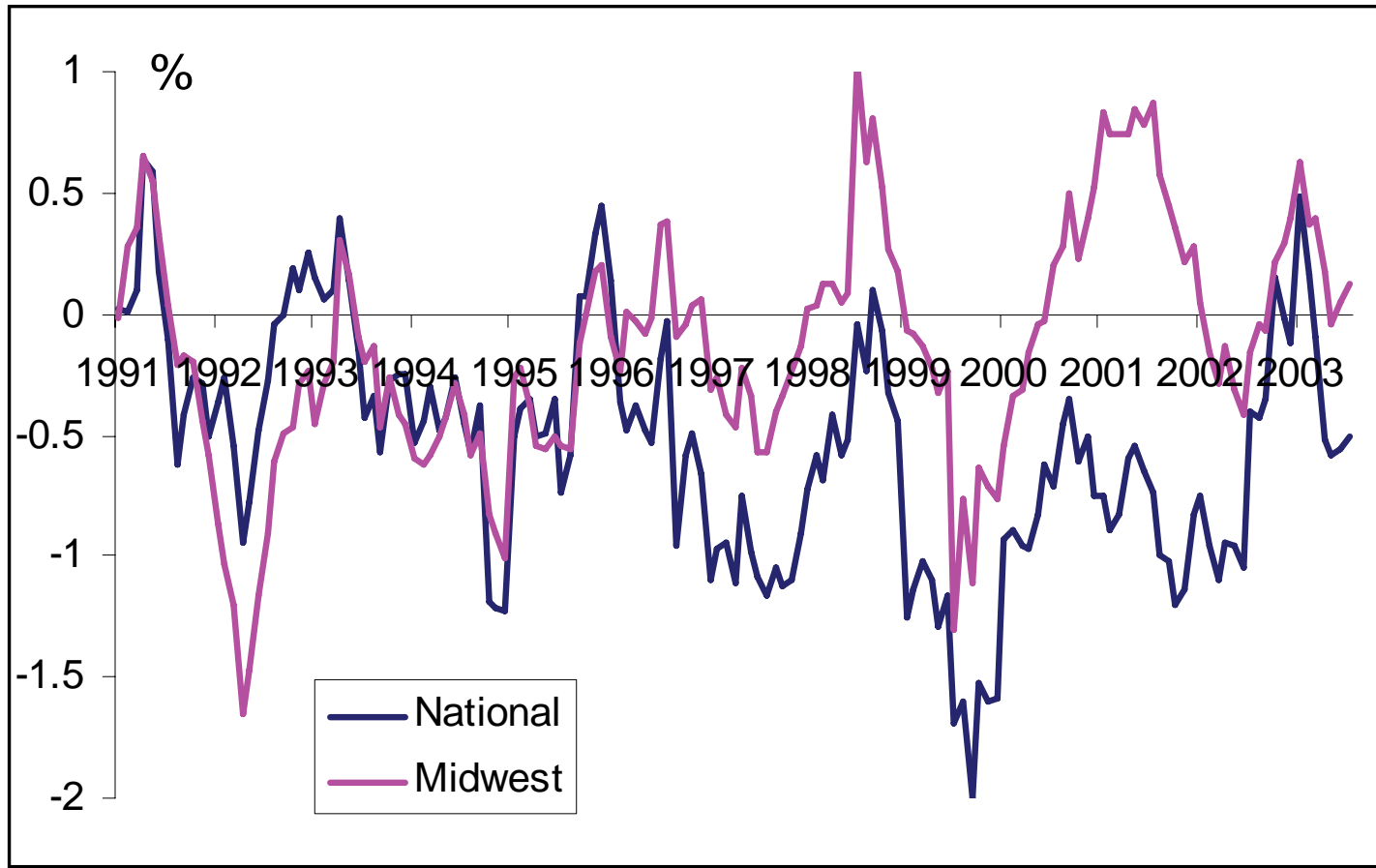
$G$  = Benchmark's growth of all sectors

- Two benchmarks: US and Midwest employment growth

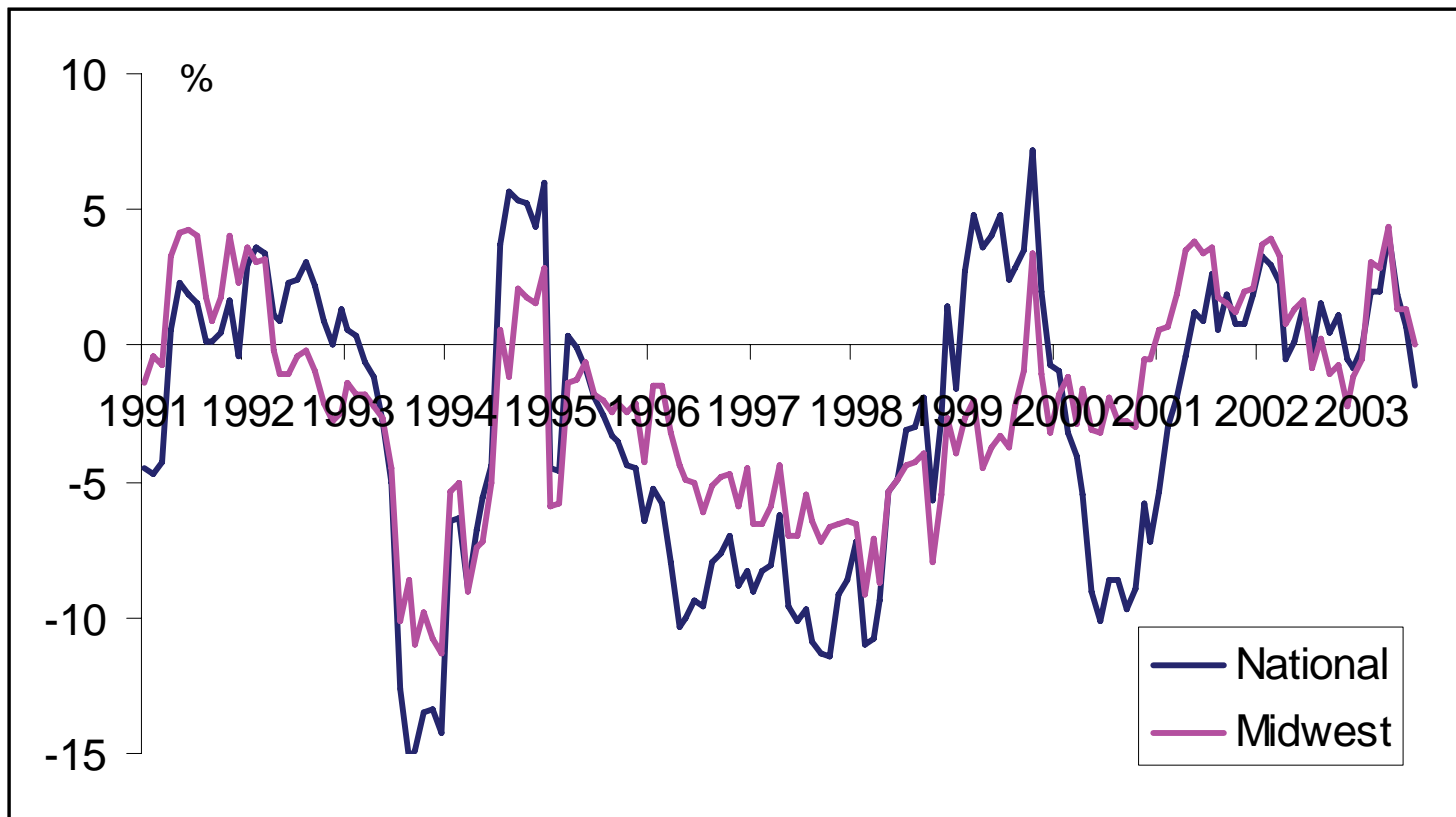
# Regional shift effects

- The growth difference between Illinois' and the benchmark's sectoral employment growth
- Two benchmarks: US and Midwest
- Positive effect means that Illinois employment grows faster than that in the benchmark.

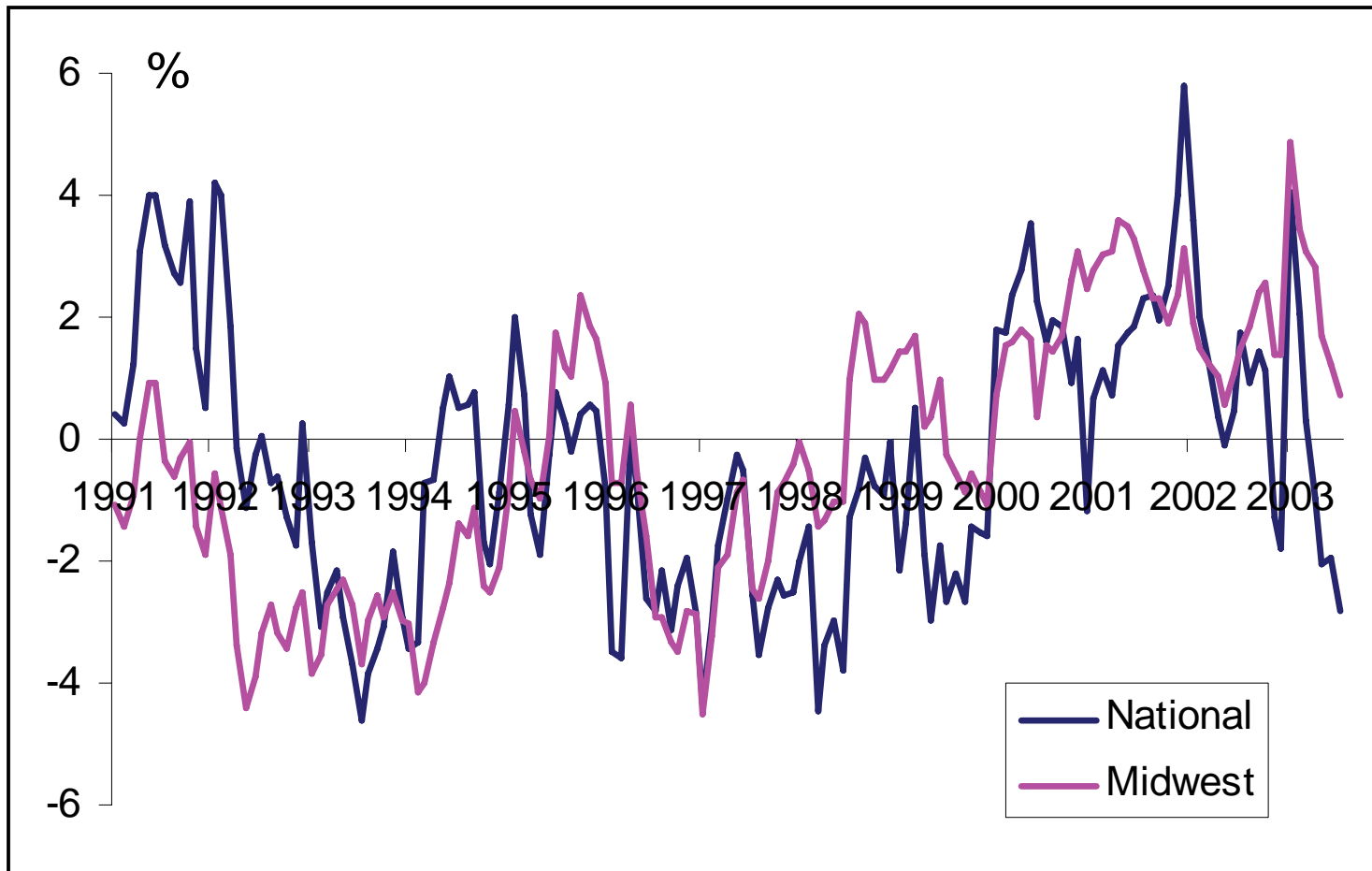
# Total non-farm



# Natural resource and mining

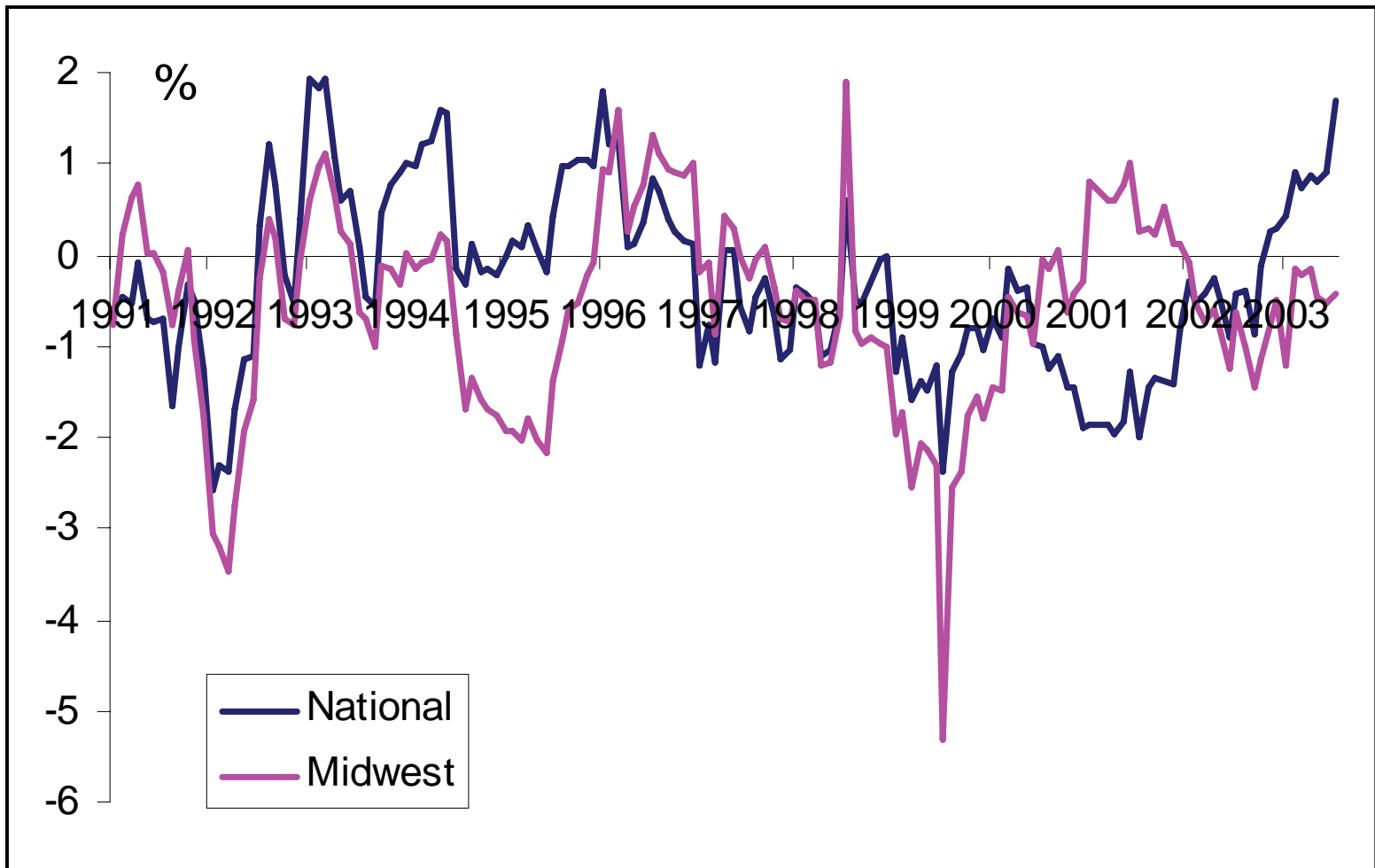


# Construction

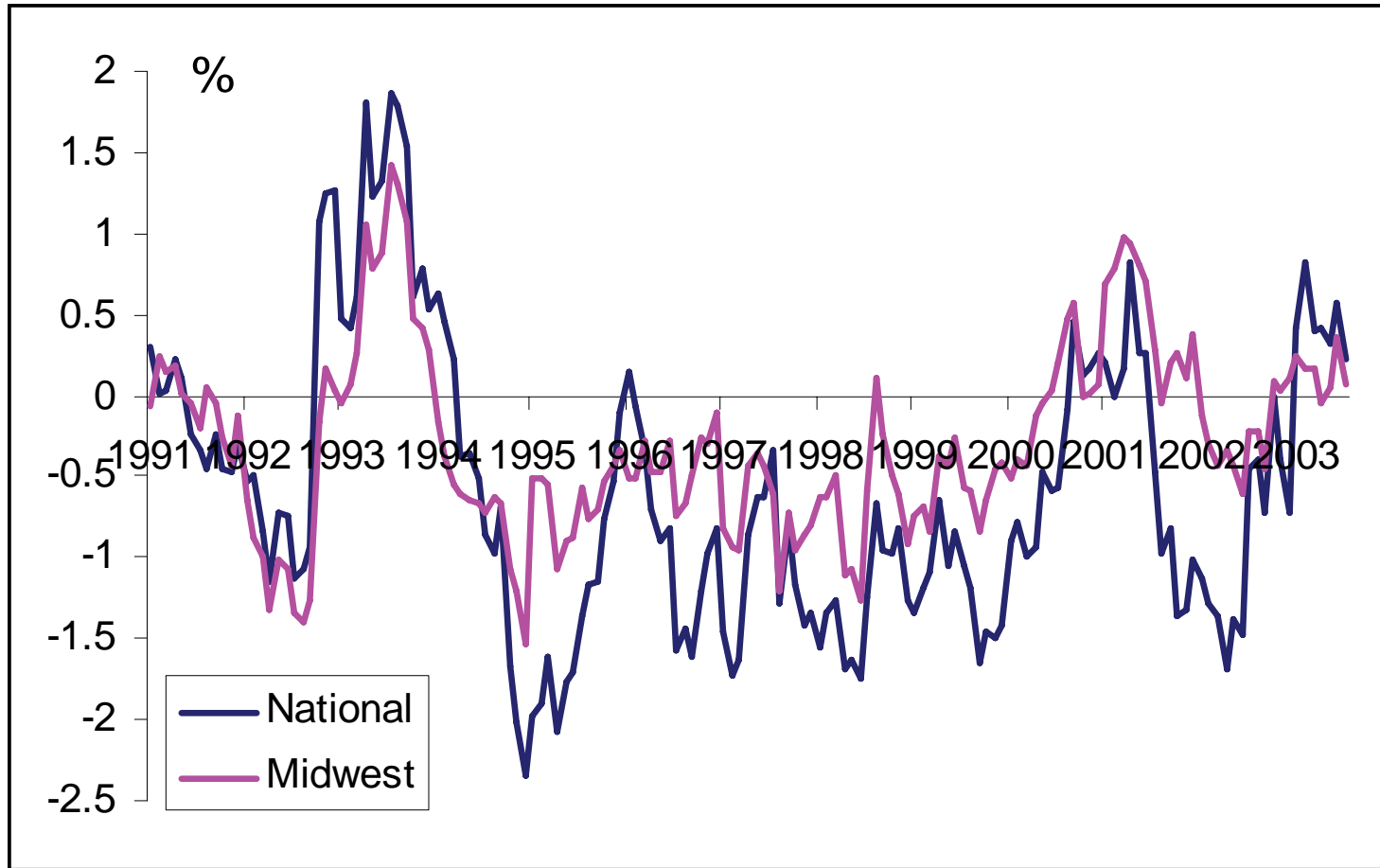




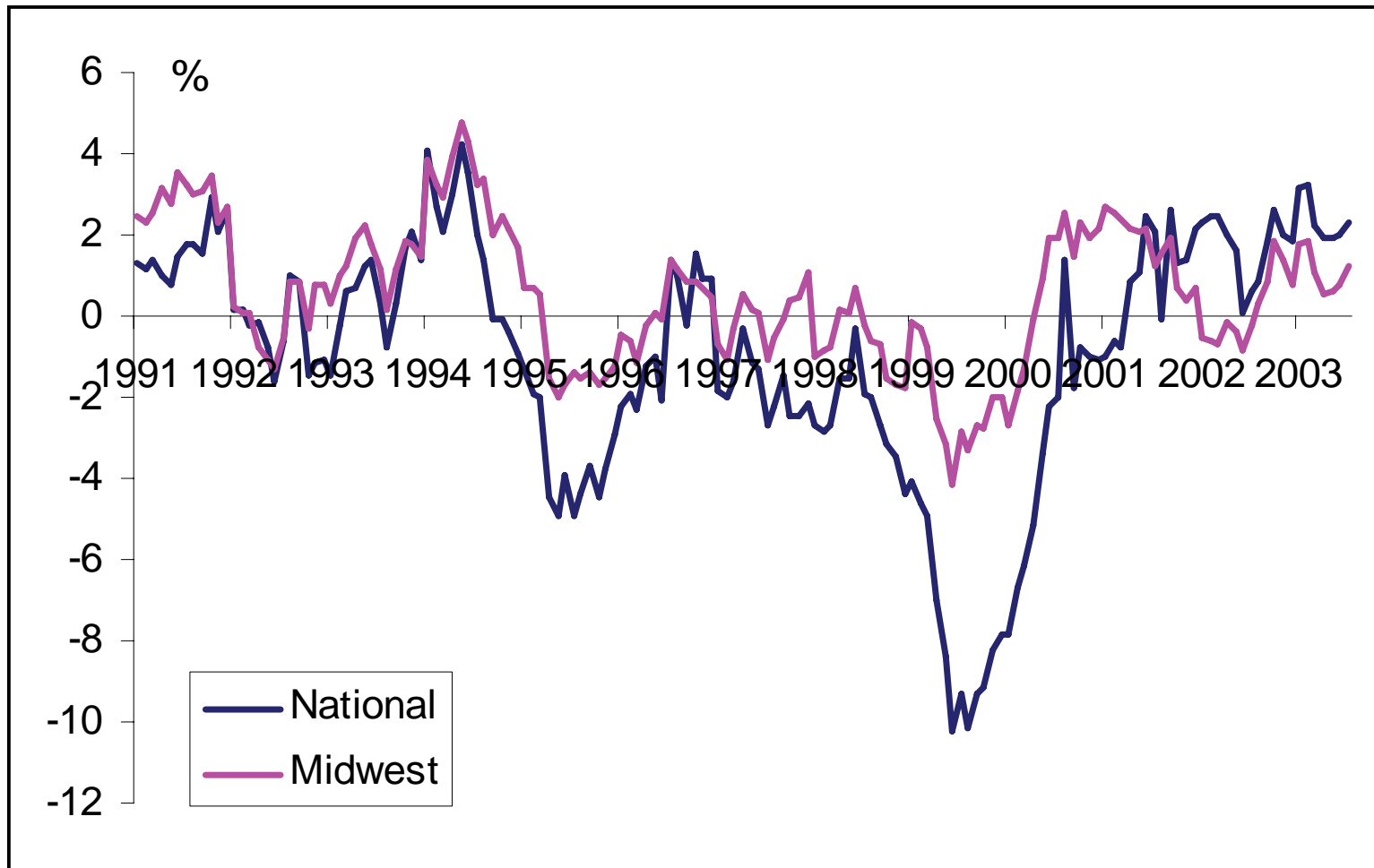
# Manufacturing



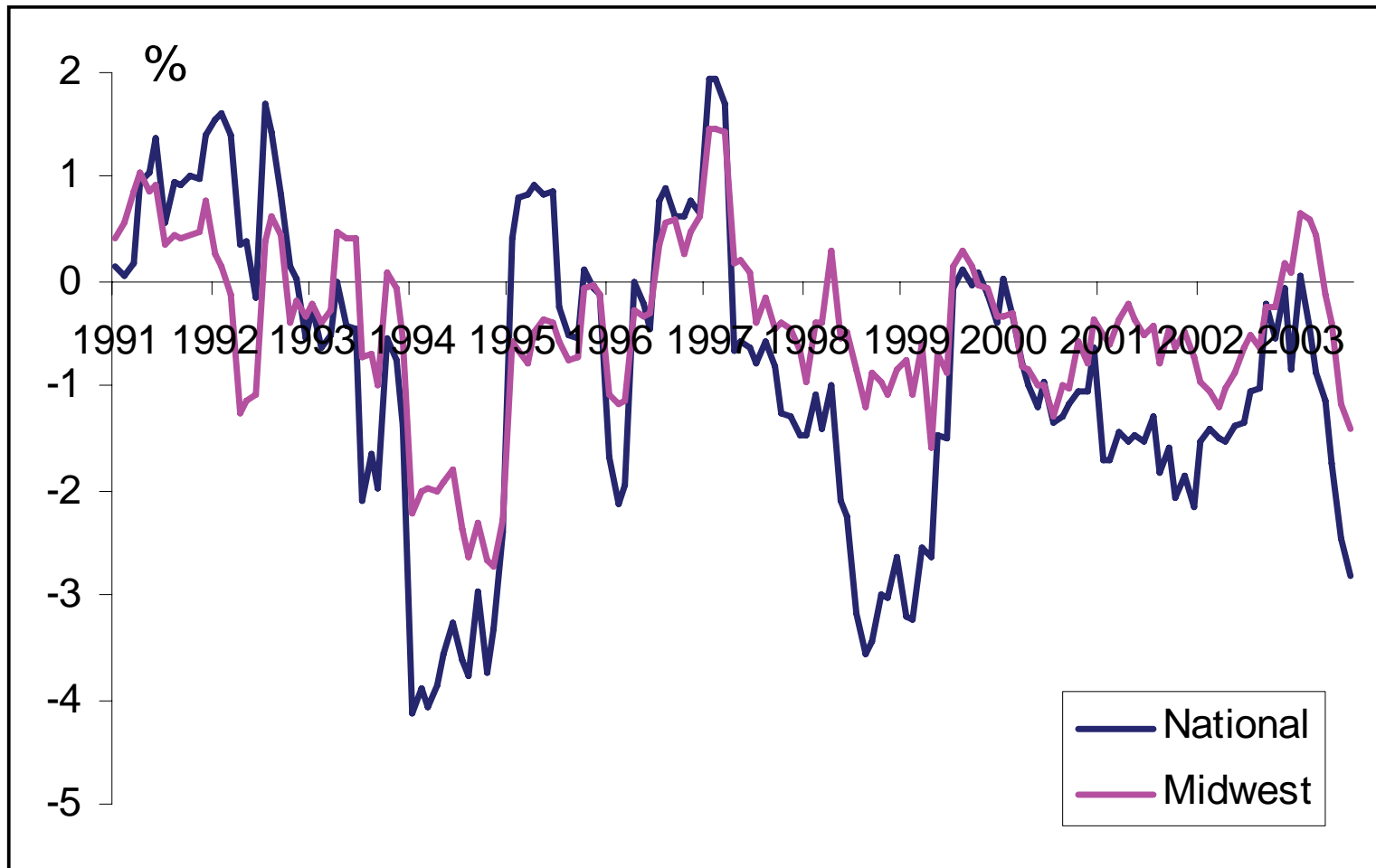
# Trade



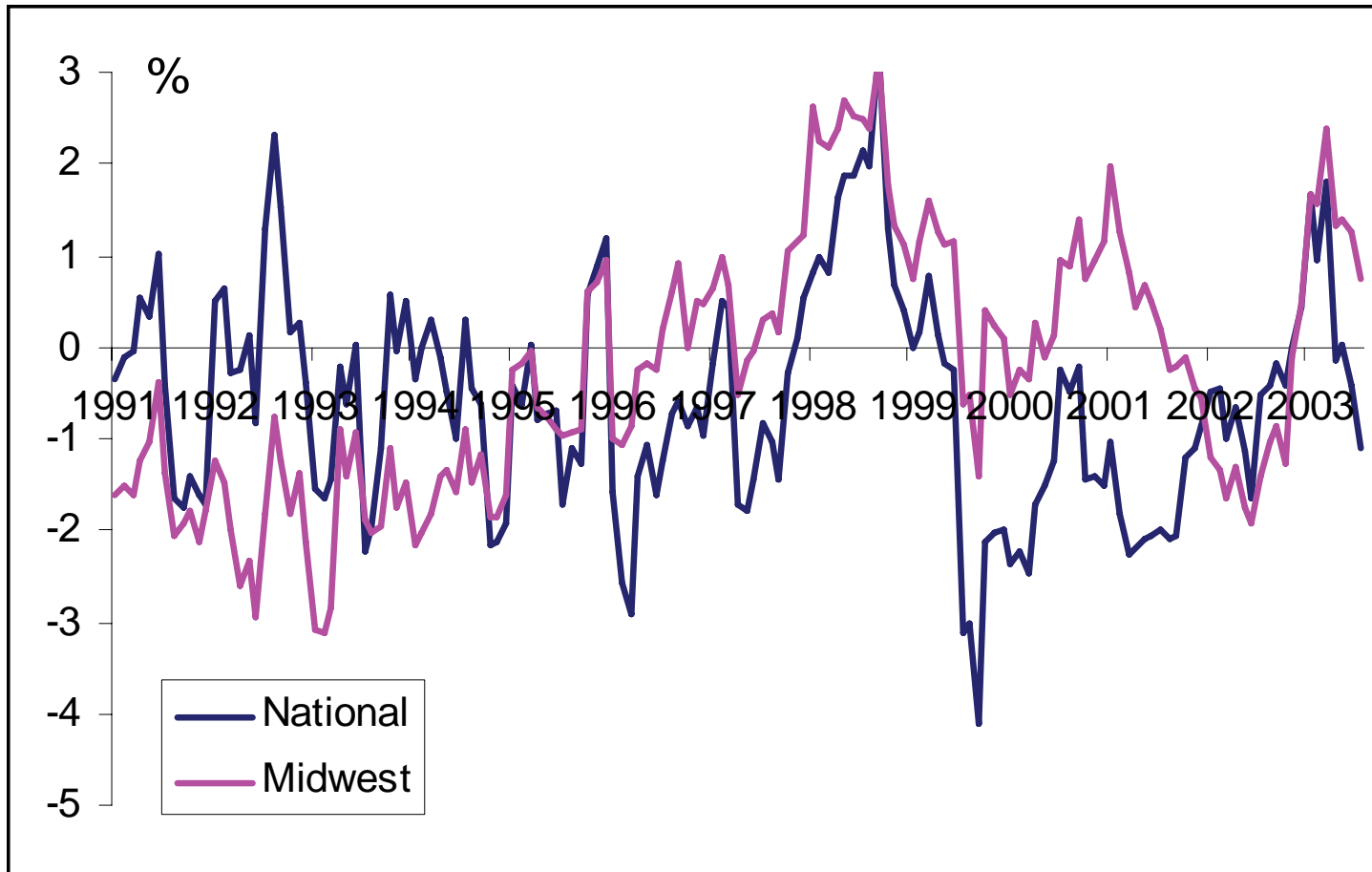
# Information



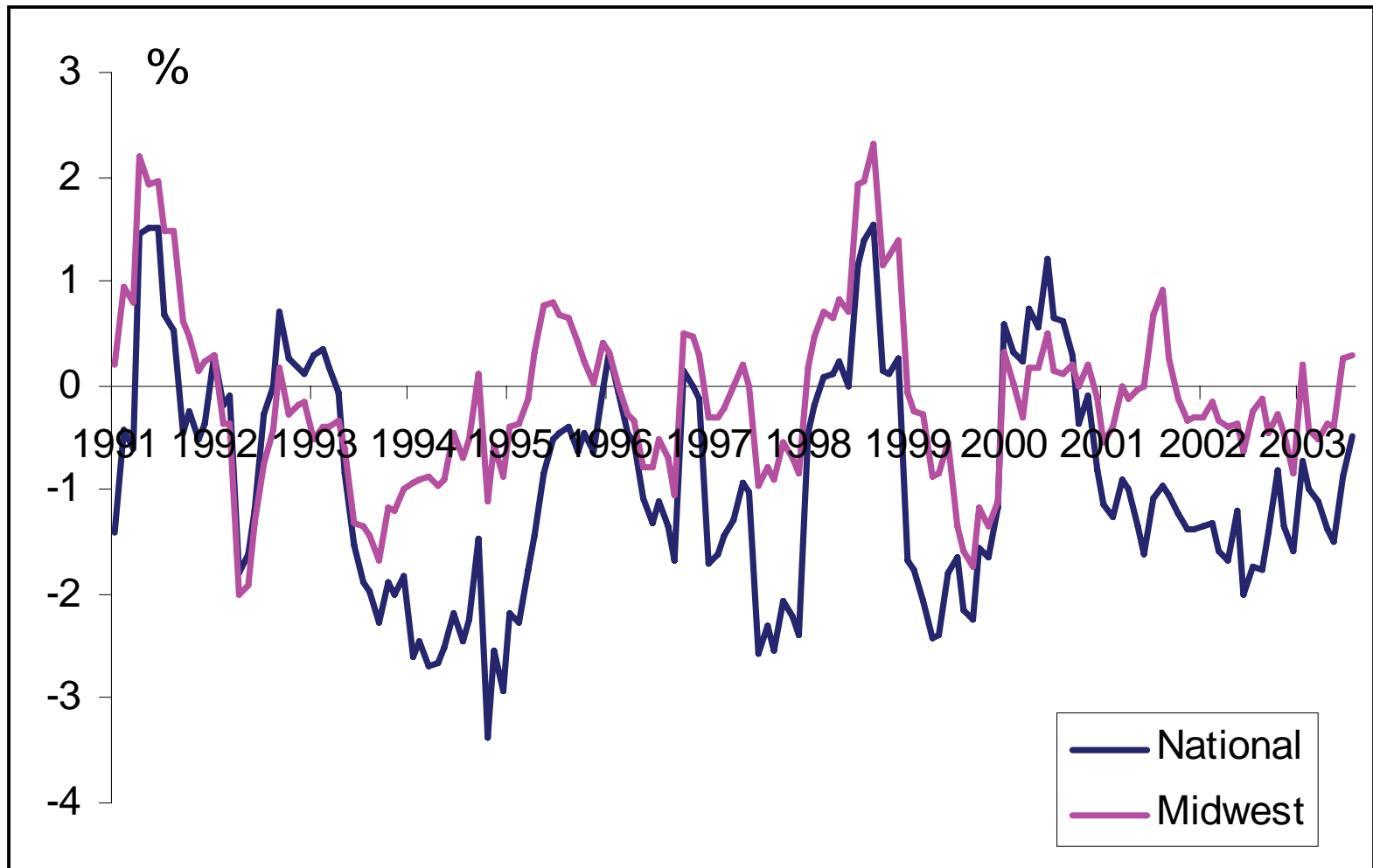
# Financial services



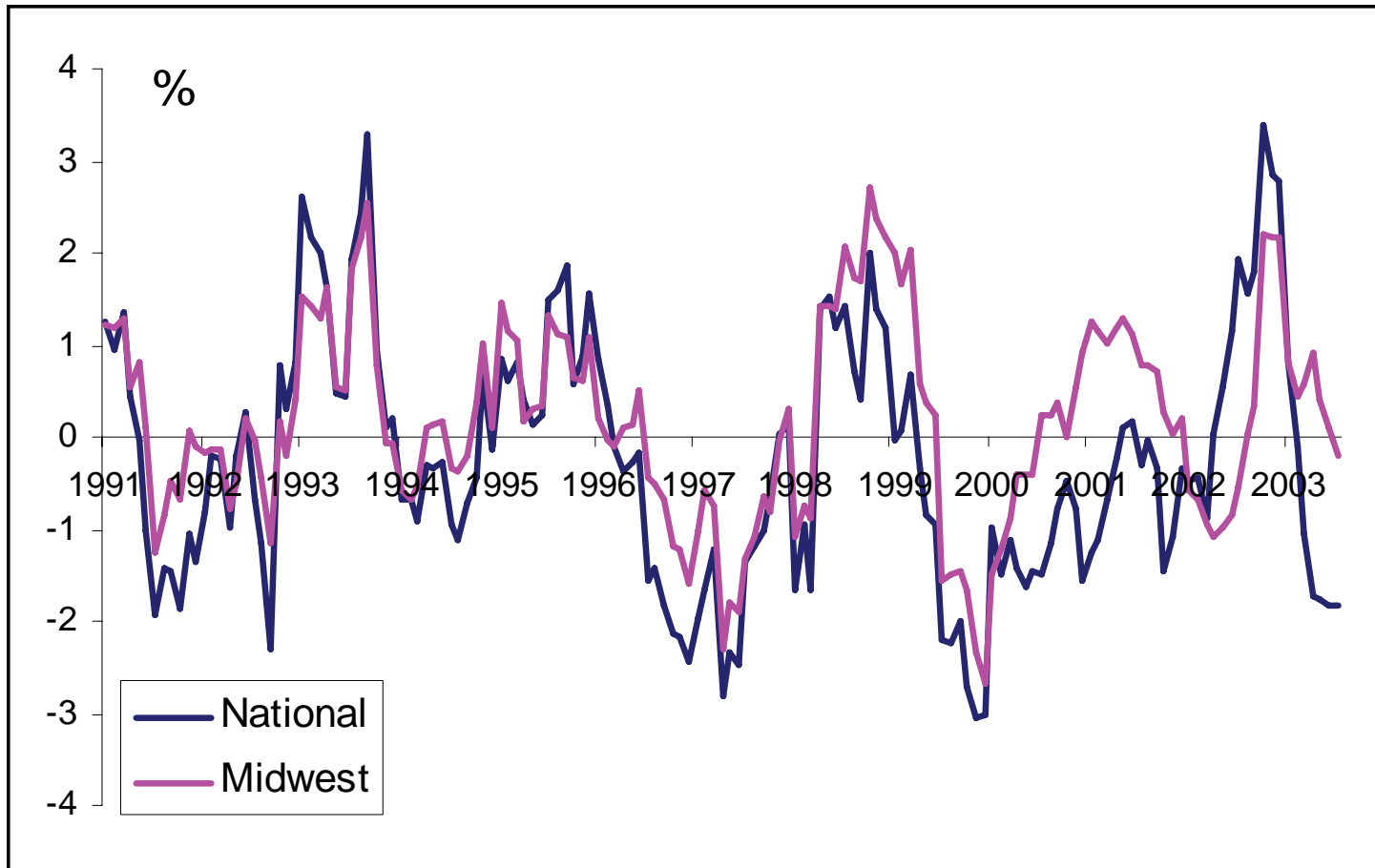
# Professional-business services



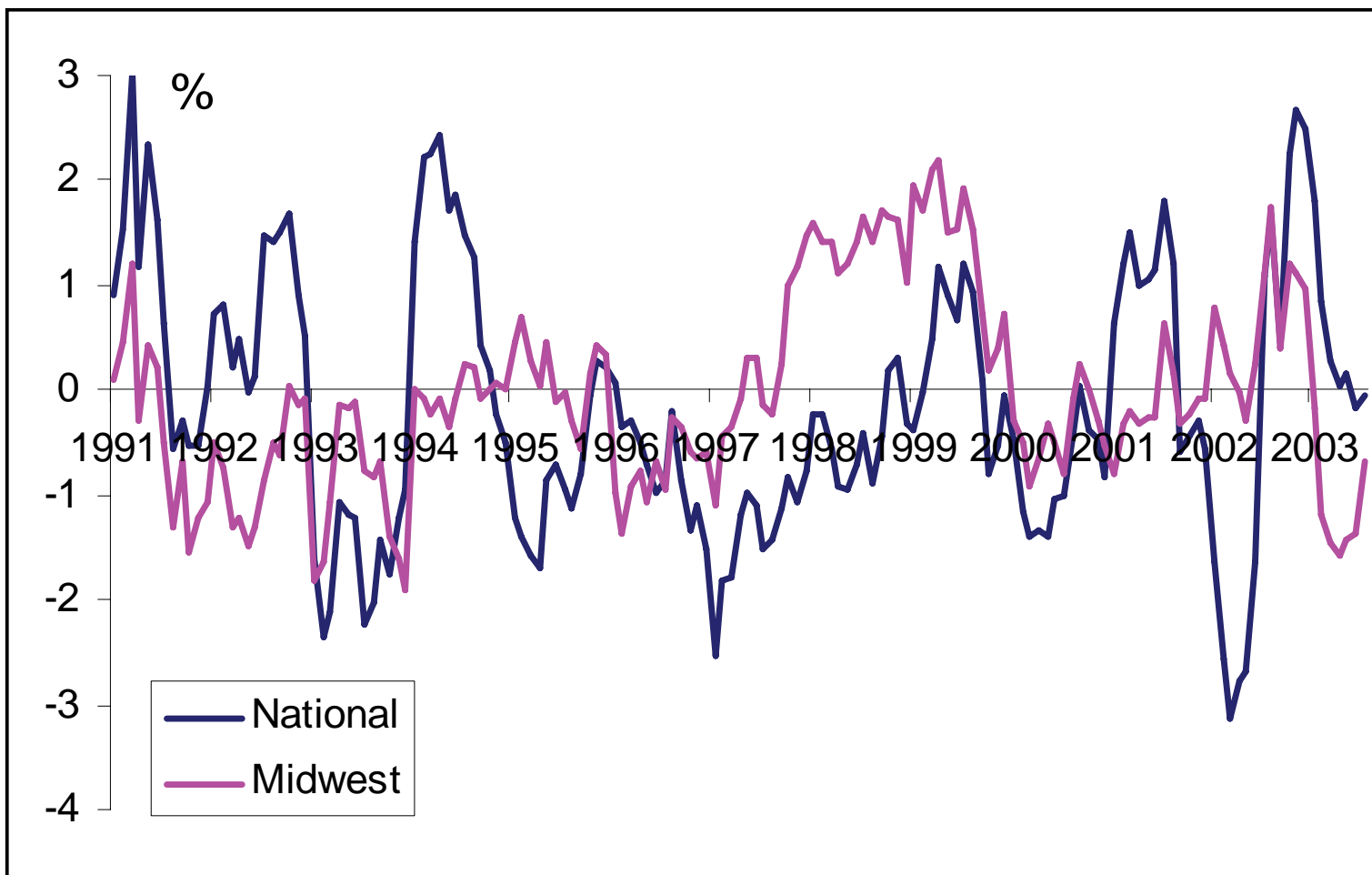
# Education-health services



# Leisure and hospitality

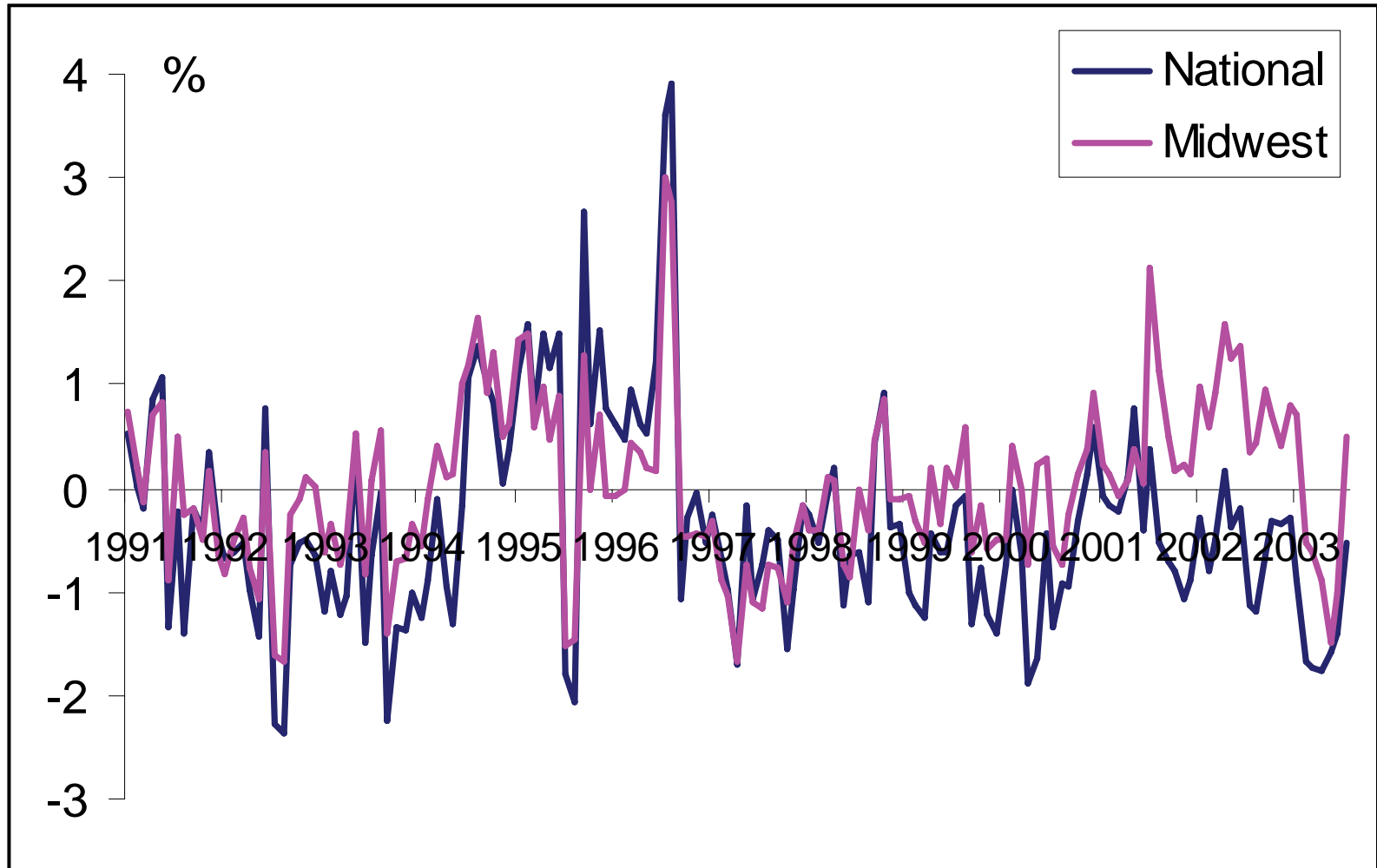


# Other services





# Government





# Industry mix effect

- In shift-share analysis

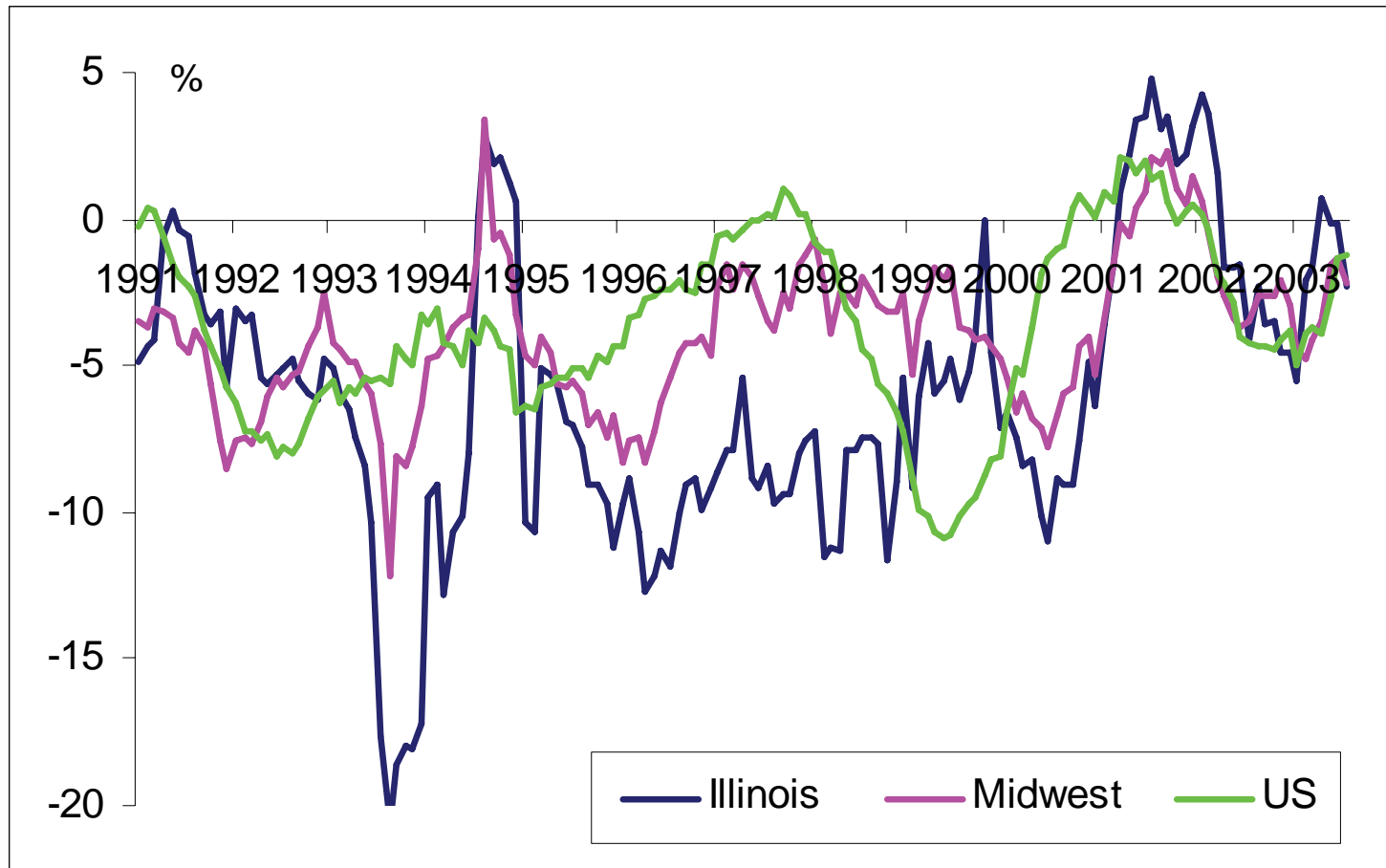
$$g_i = G + (G - G_i) + (G_i - g_i)$$

$(G - G_i)$  is called industry-mix effect, showing how sector  $i$ , at the national level, fares with the overall growth for all sectors

- The industry-mix effect is computed for Illinois, Midwest and US

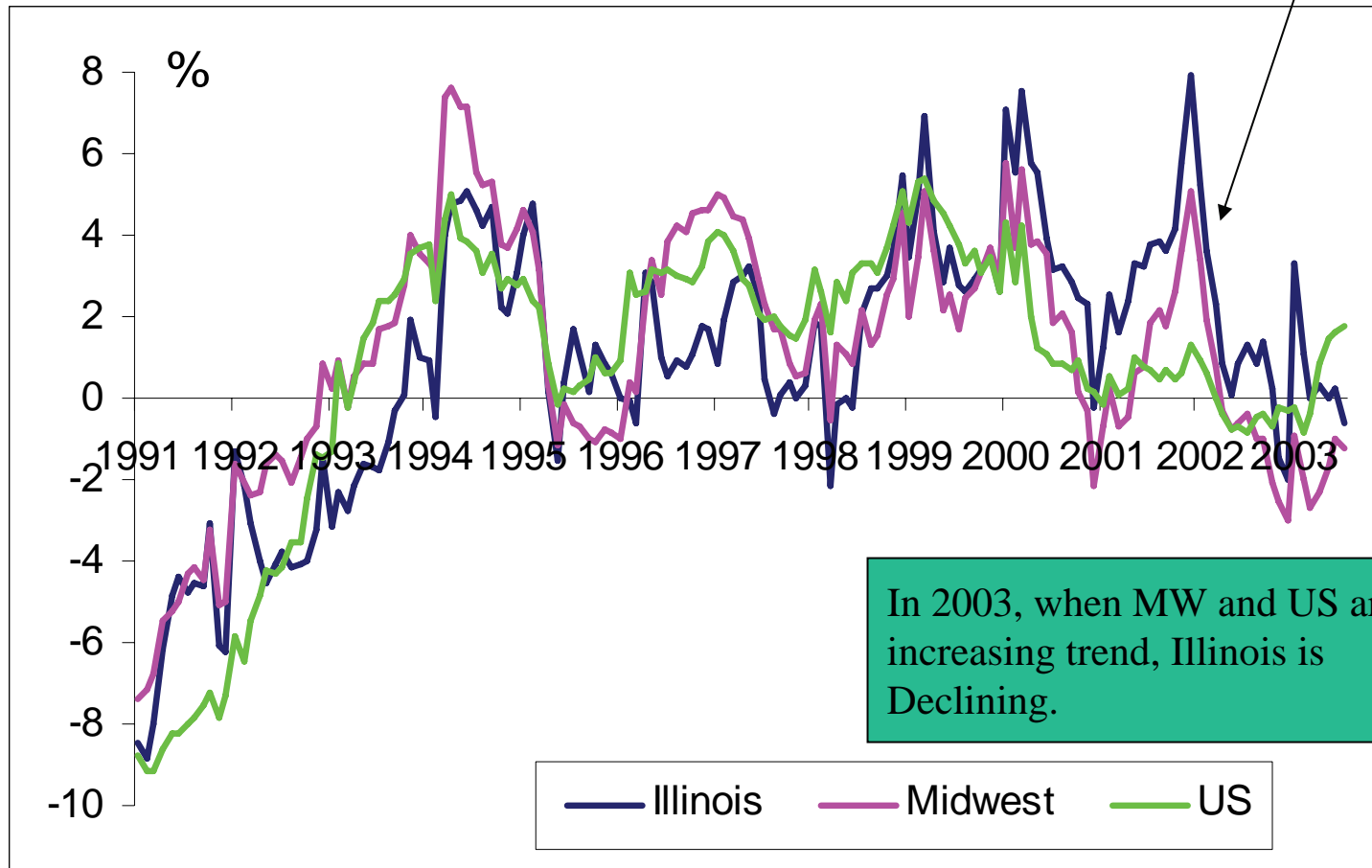
- Positive (negative) industry-mix effect means that the sector grows higher (slower) than the economy as a whole

# Natural resource and mining



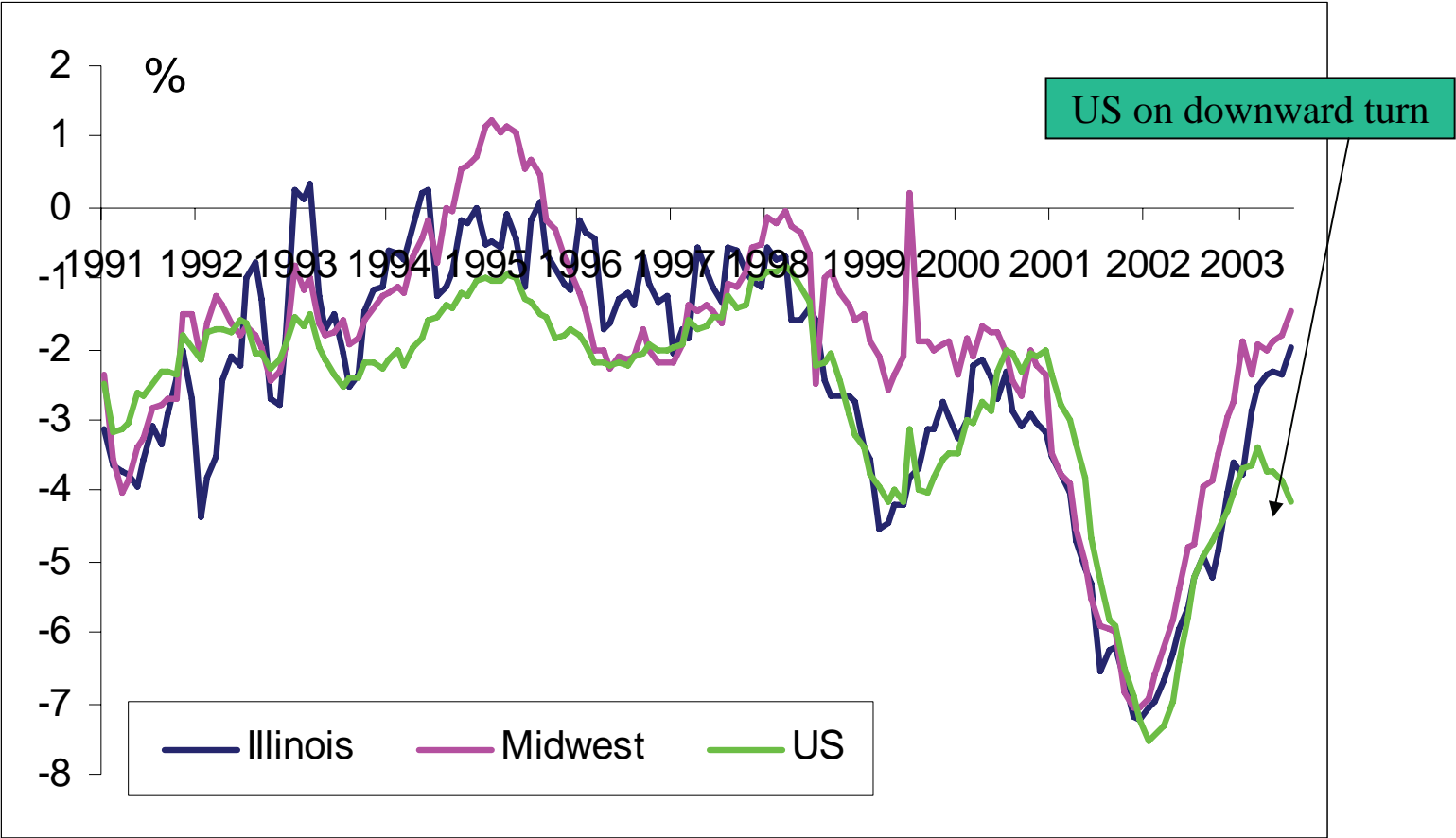
# Construction

In this decline, IL suffers more Than US or MW

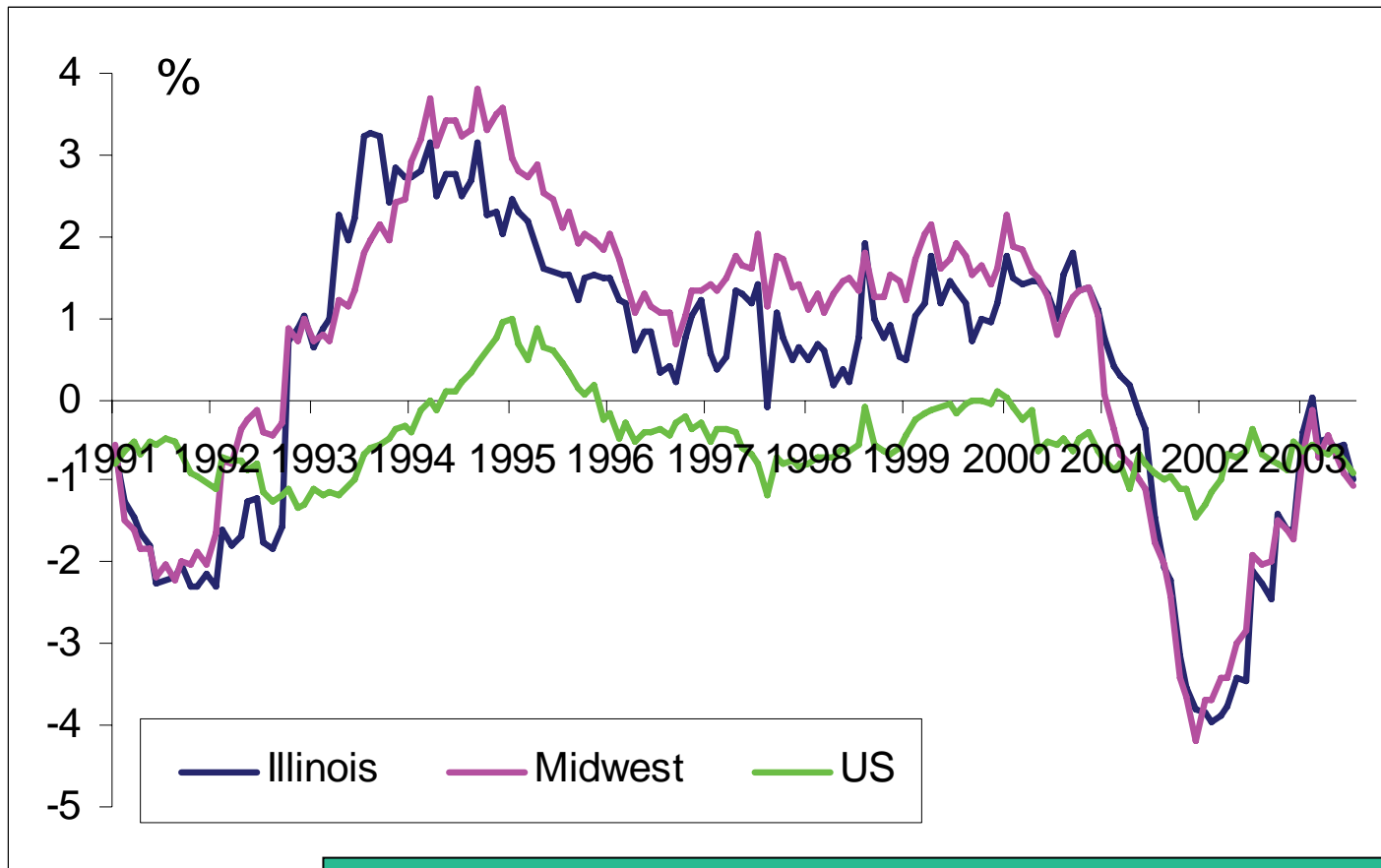


In 2003, when MW and US are in increasing trend, Illinois is Declining.

# Manufacturing



# Trade

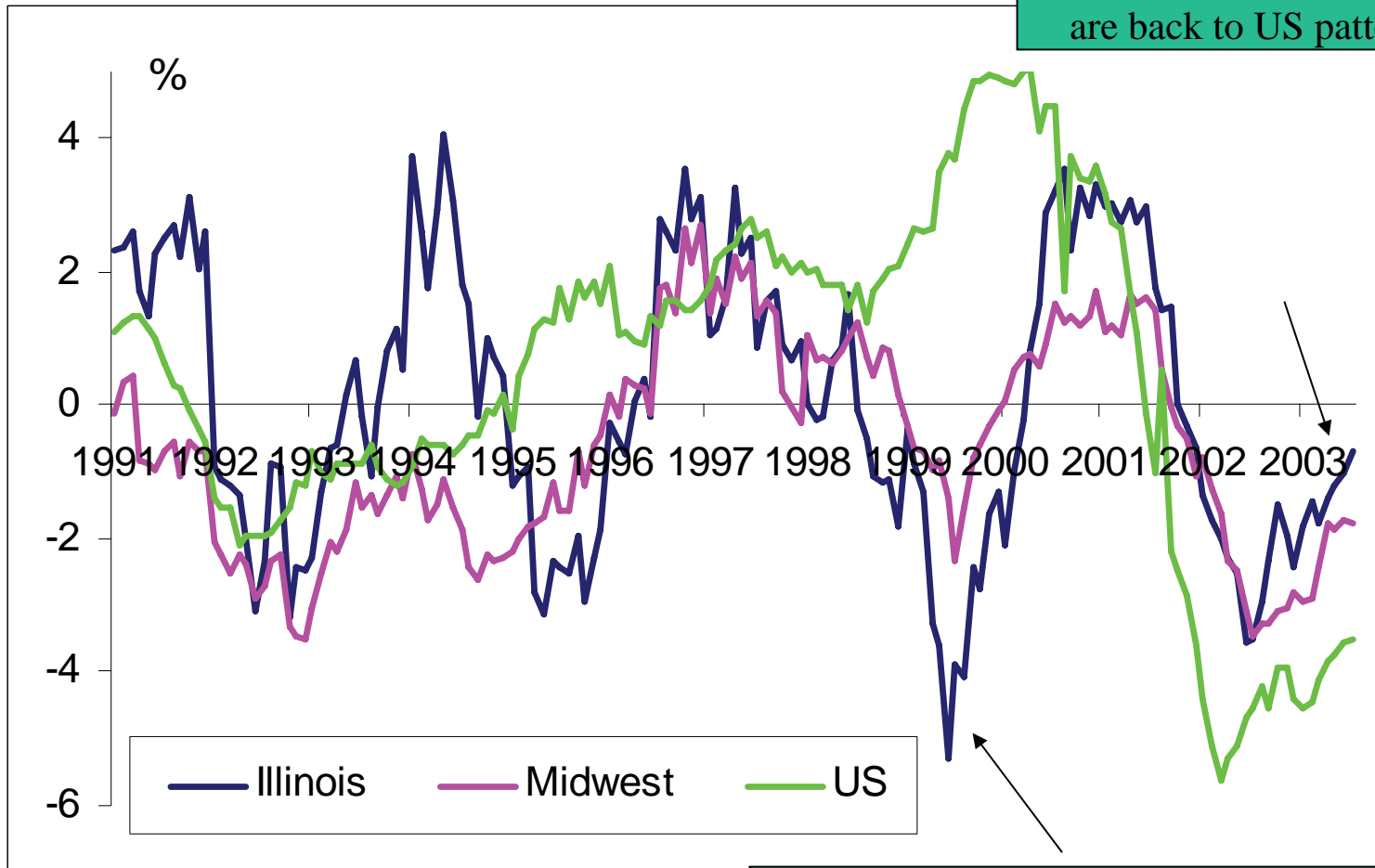


IL and MW were always better than US, up to 2001.  
Then, IL and MW plunged down. The recovery  
in 2002 peaked in early 2003, and now back to downward trend



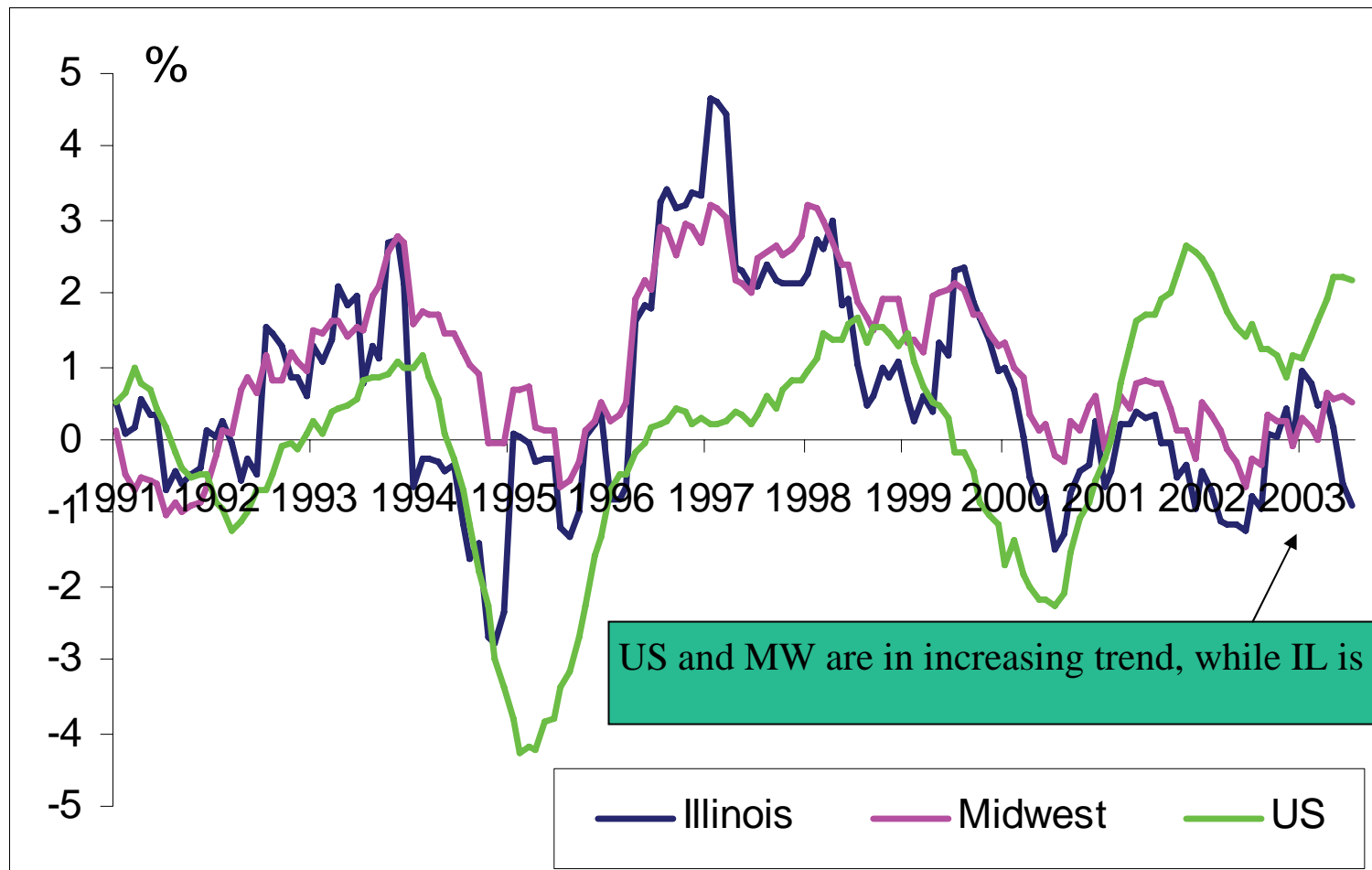
# Information

In the recovery IL seems better than MW or US. but trend wise, IL and MW are back to US pattern

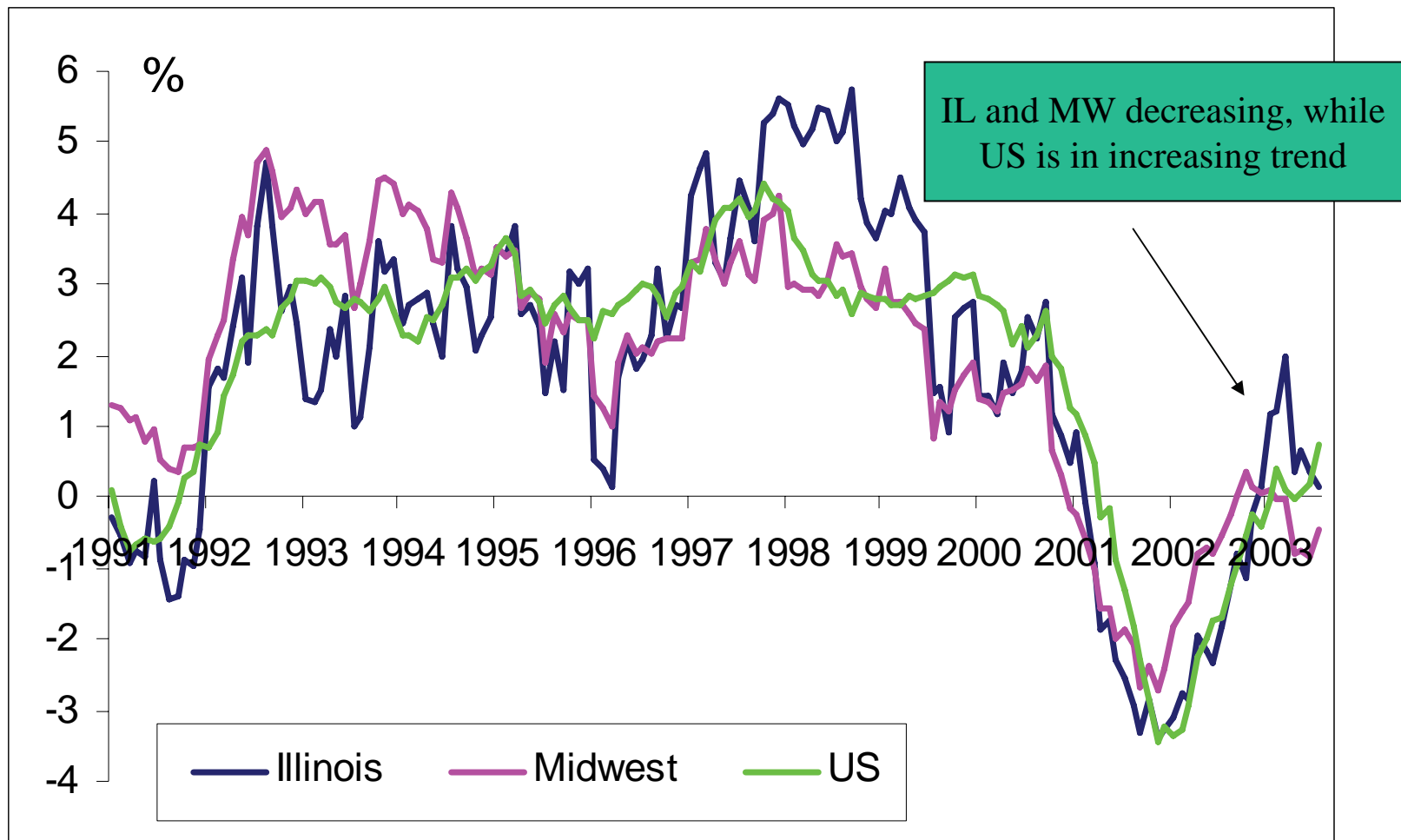


IL suffered a lot, while the US was booming.

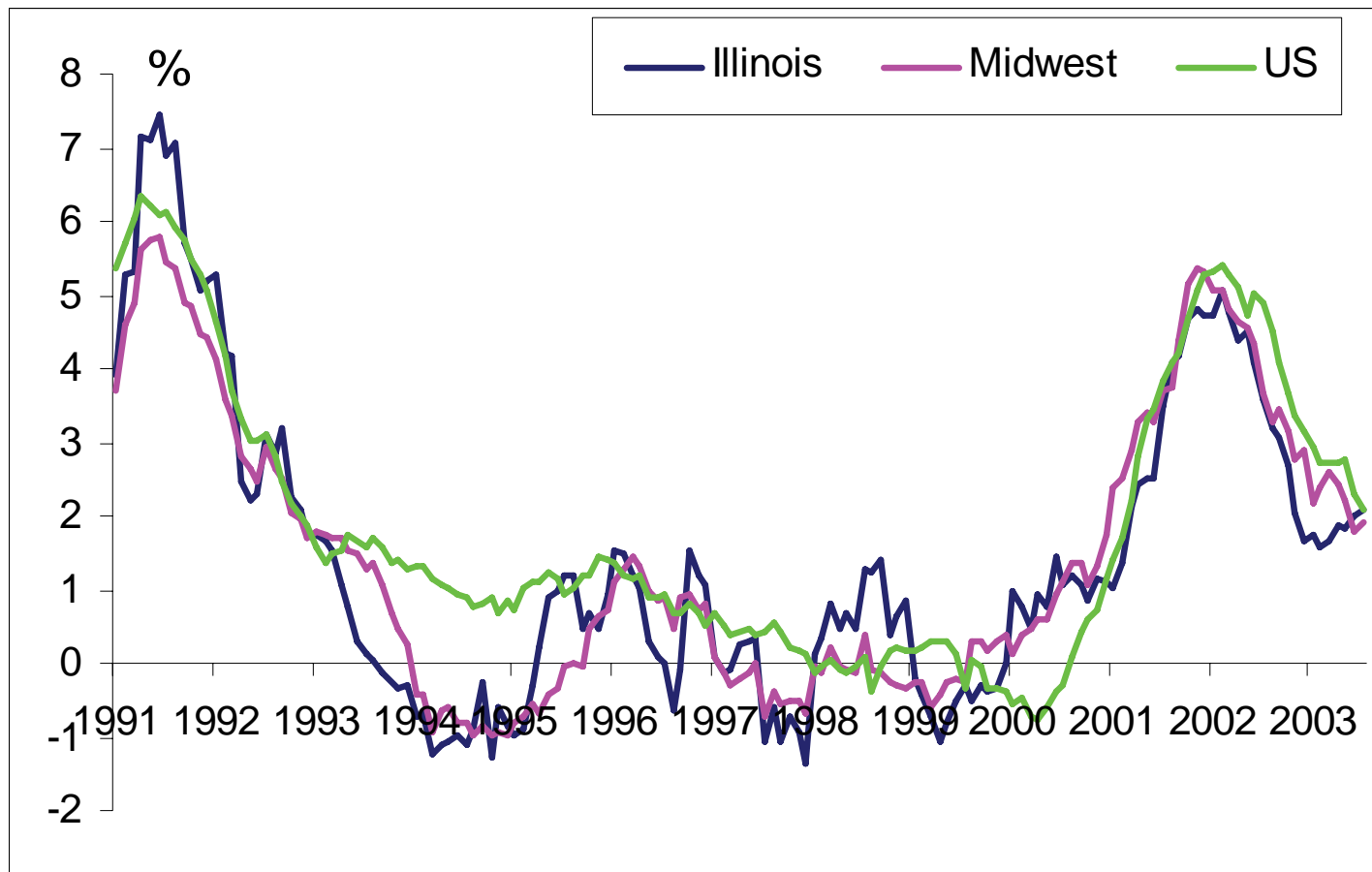
# Financial services



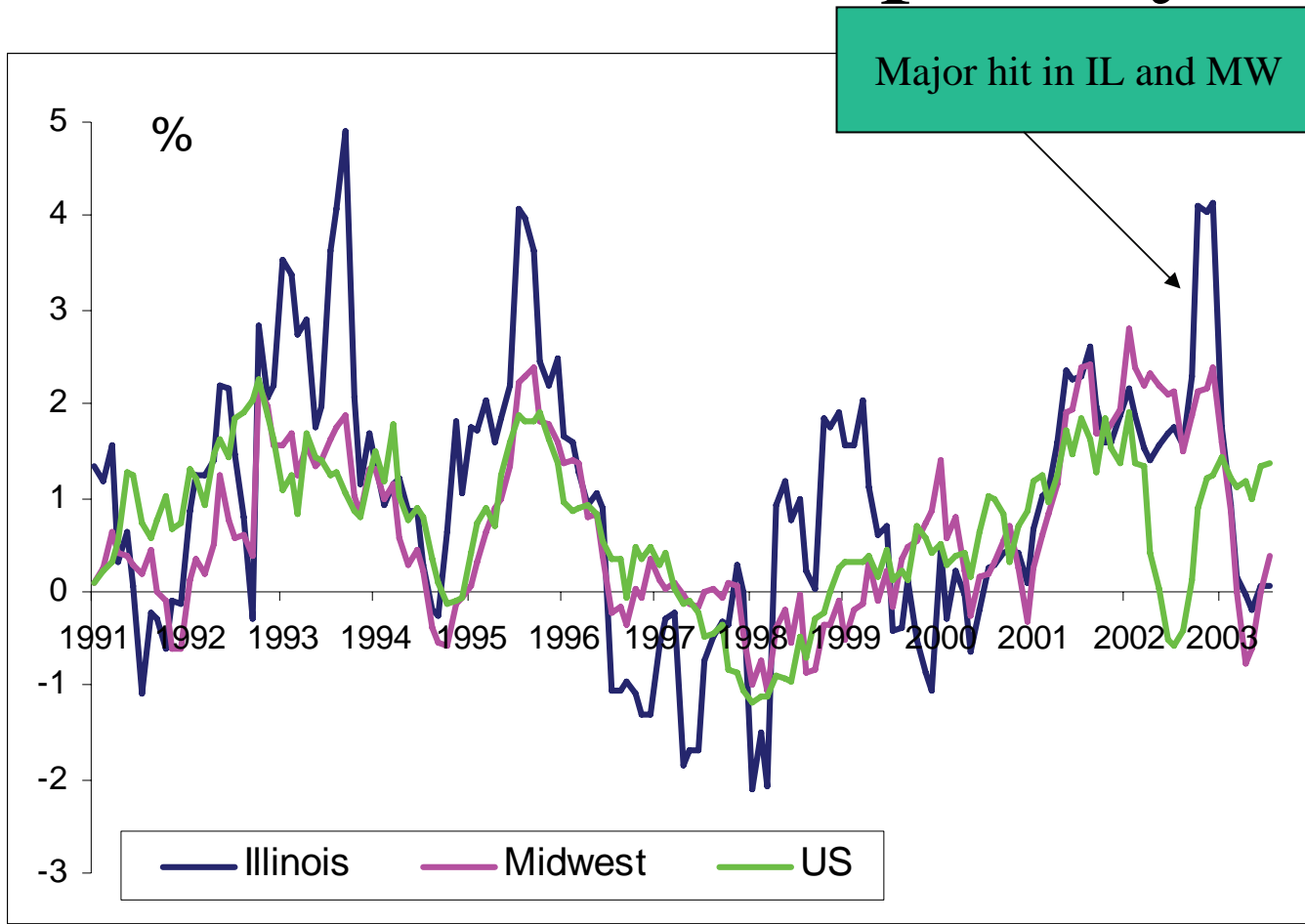
# Professional-business services



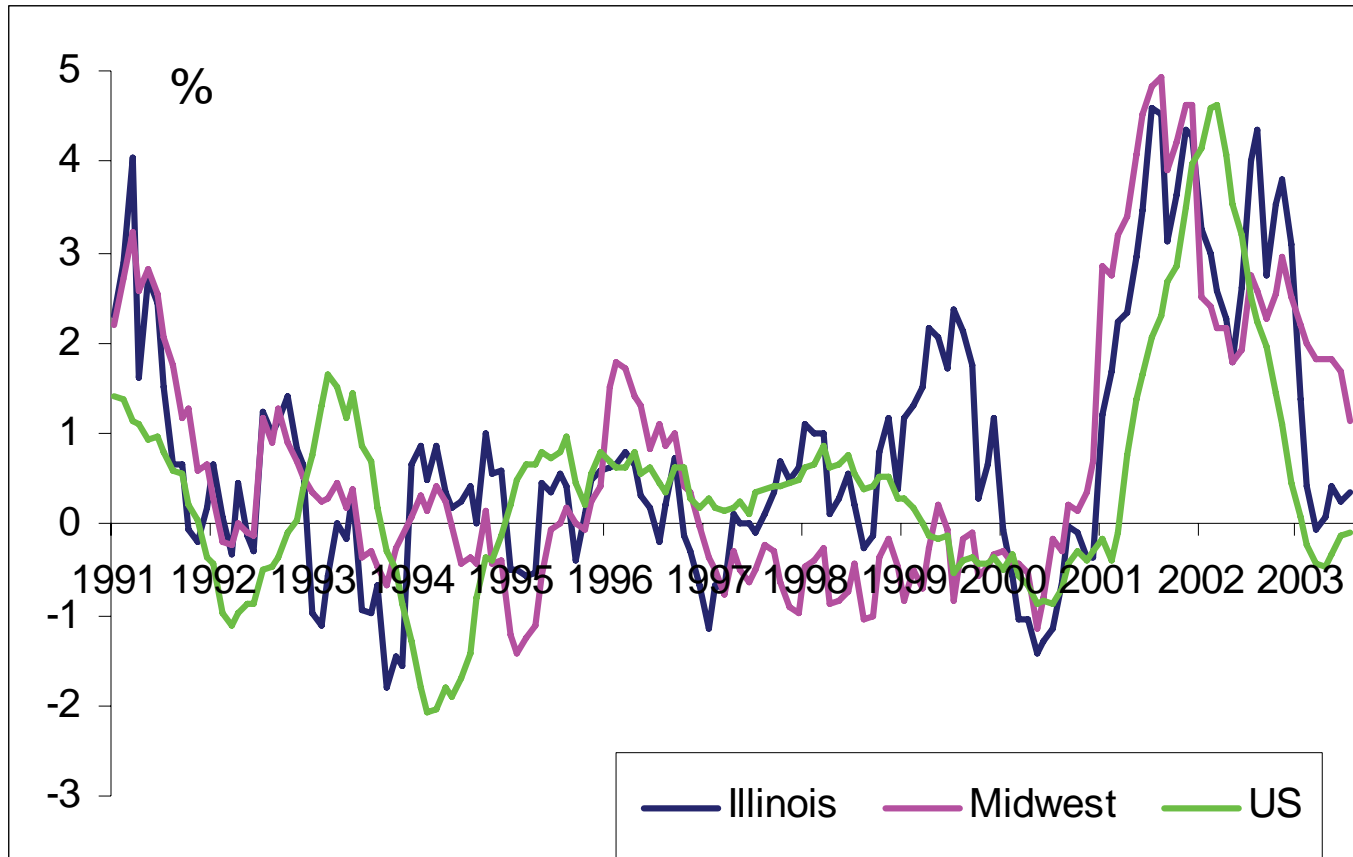
# Education-health services



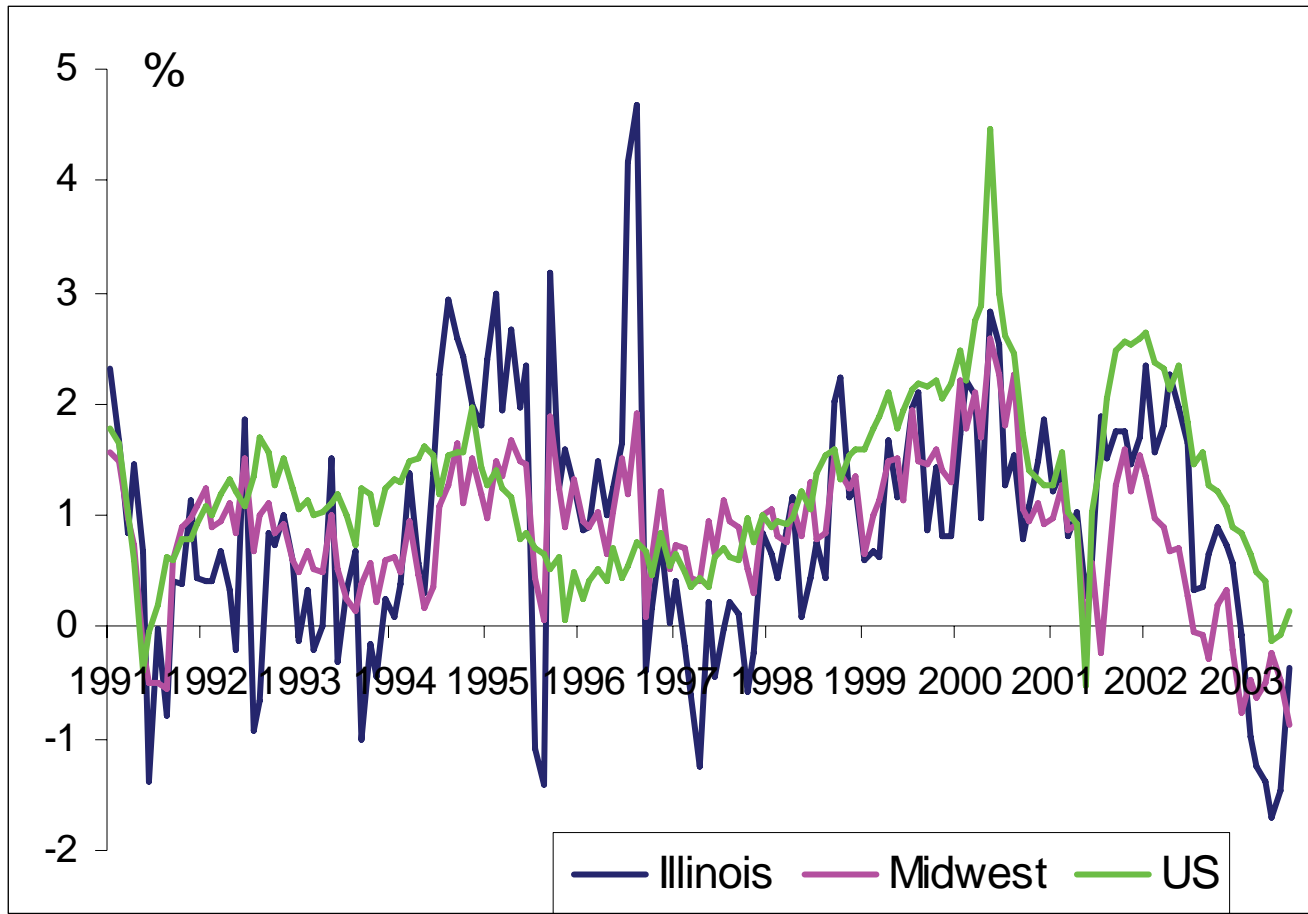
# Leisure and hospitality



# Other services



# Government



# How Much Better/Worse off would we have been with a different Employment Structure?

- Homothetic employment ( $E_i^*$ ) is the number employed in sector  $i$  in the region if the region had the same structure as the nation:

$$E_i^* = e \cdot (E_i / E)$$

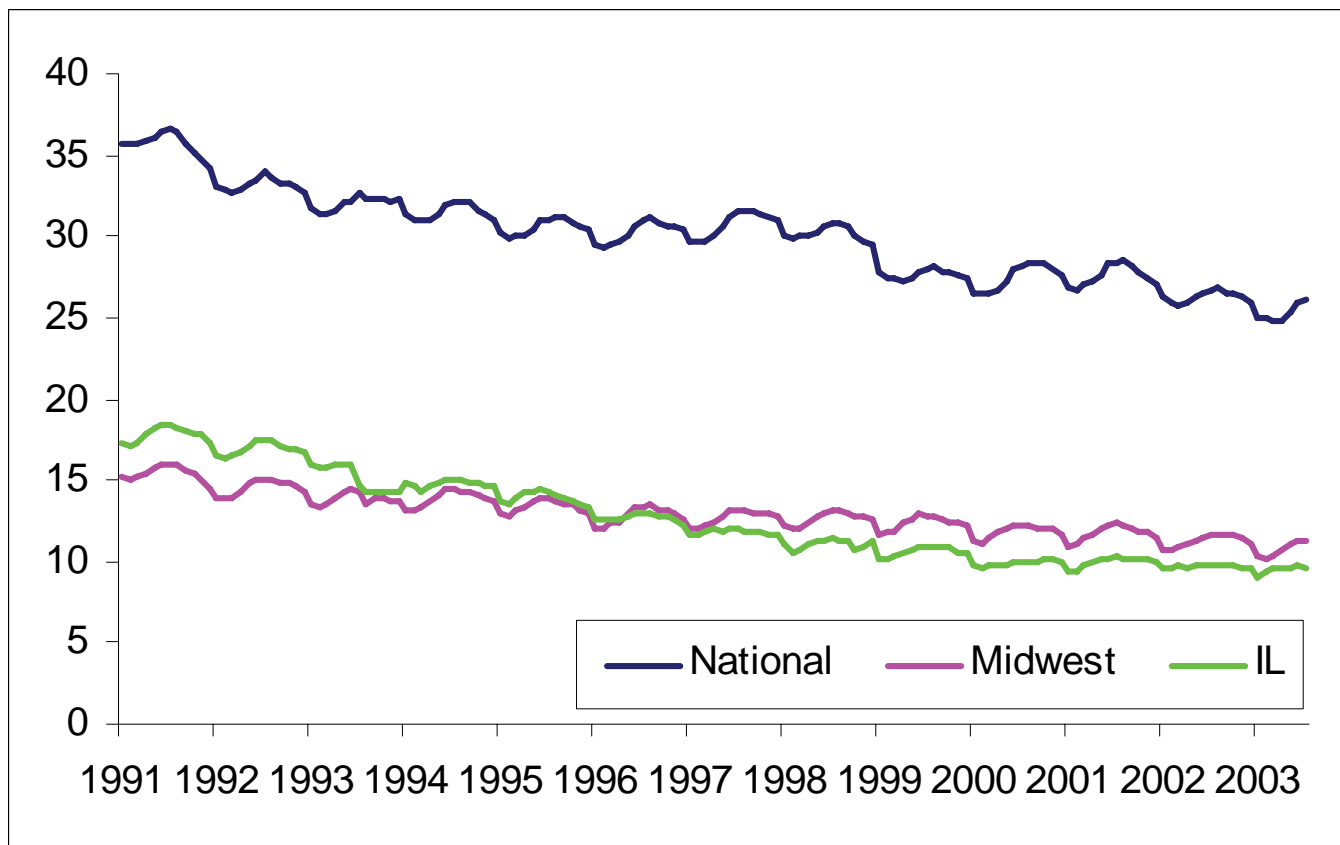
where  $e$  is total employment in region;  $E$  is total employment in the nation;  $E_i$  is sectoral employment in the nation



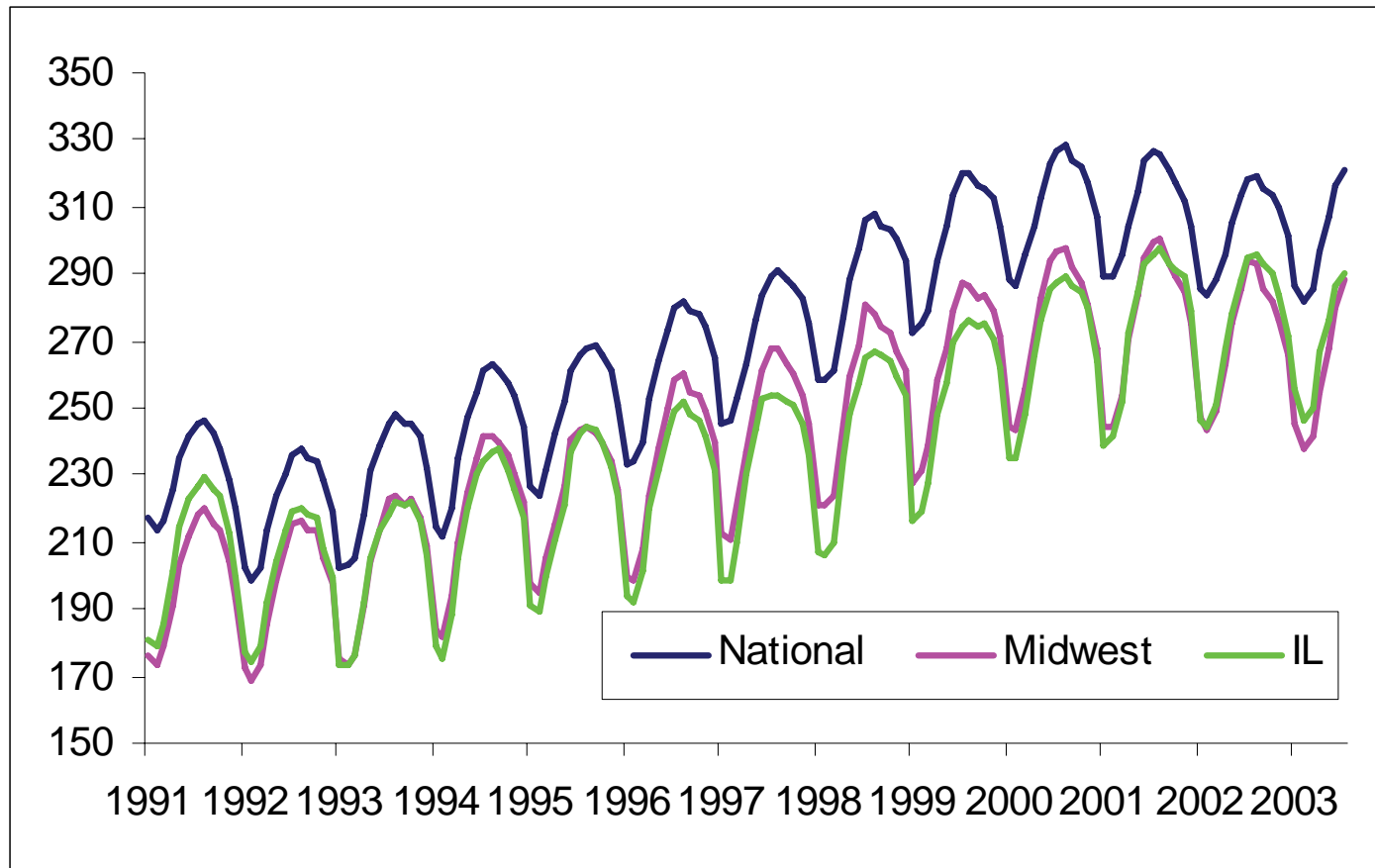
# Homothetic employment (cont.)

- Two benchmarks are used: US and Midwest
- Three graphs are drawn:
  - IL graph shows the Illinois actual number of employment in the sector
  - MW graph shows the number of Illinois employment in the sector, had IL followed the Midwest rate of growth
  - US graph shows the number of Illinois employment in the sector, had IL followed the US rate of growth

# Natural resource and mining

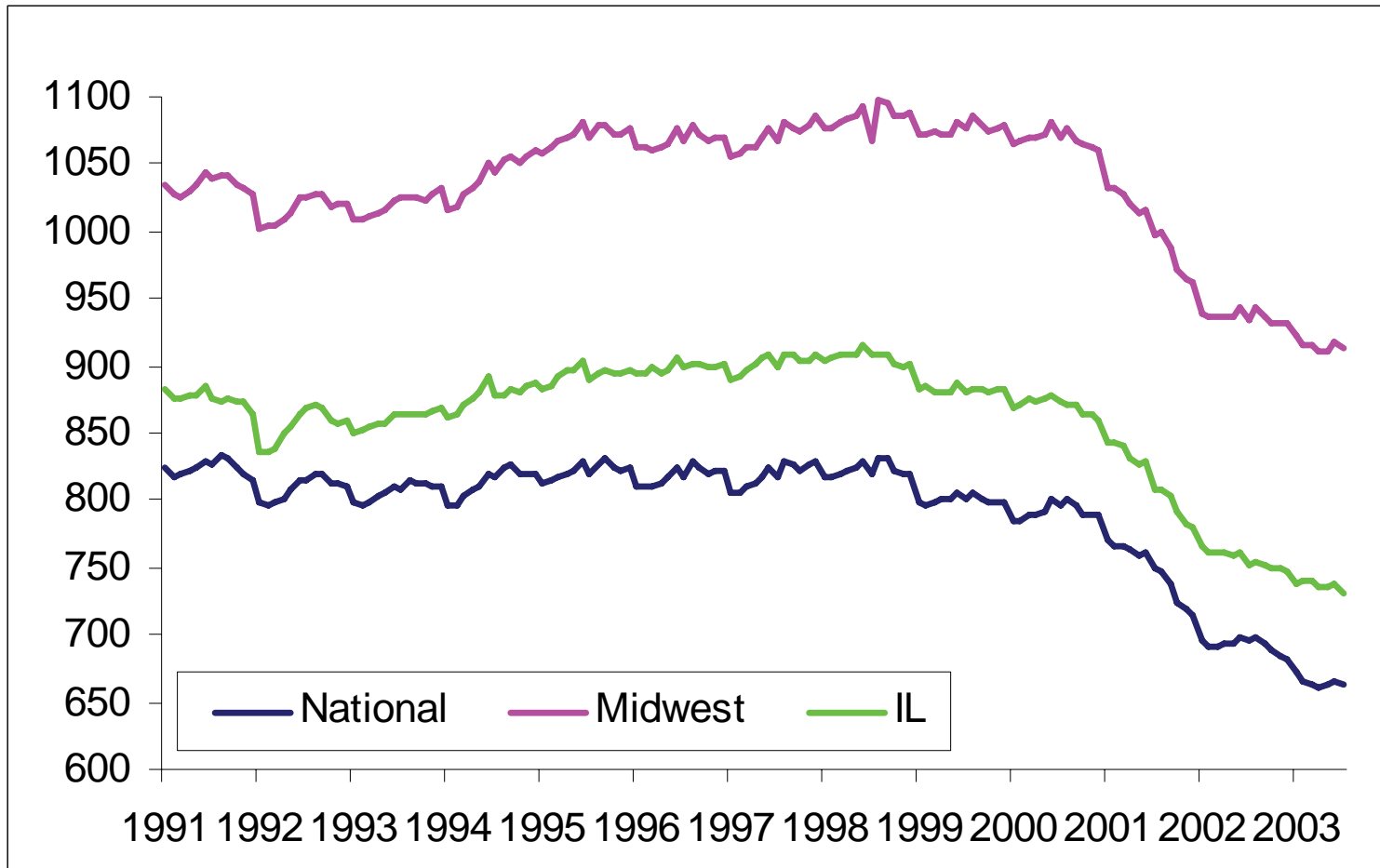


# Construction

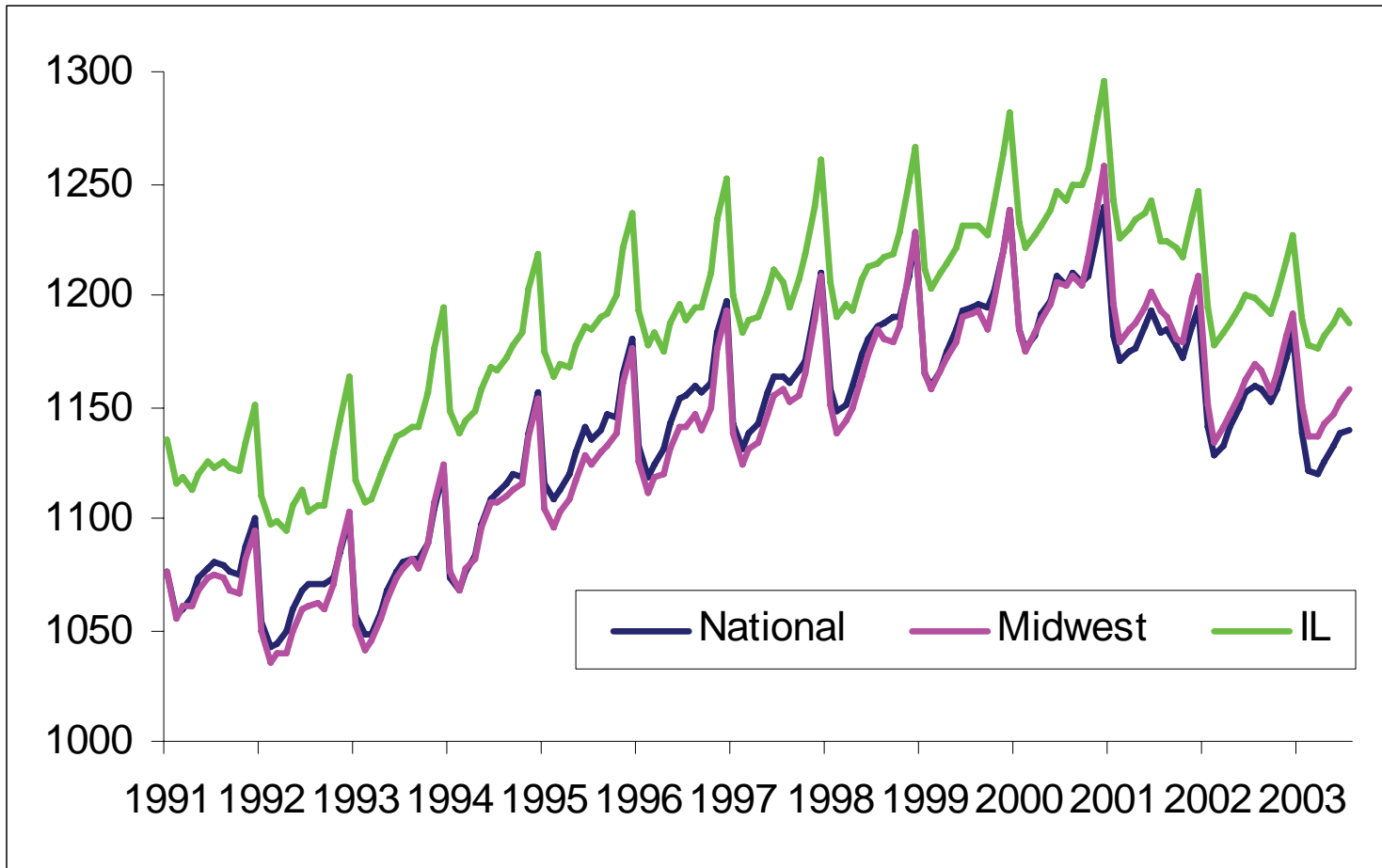


# Manufacturing

Illinois employment levels way below those of MW or US structure

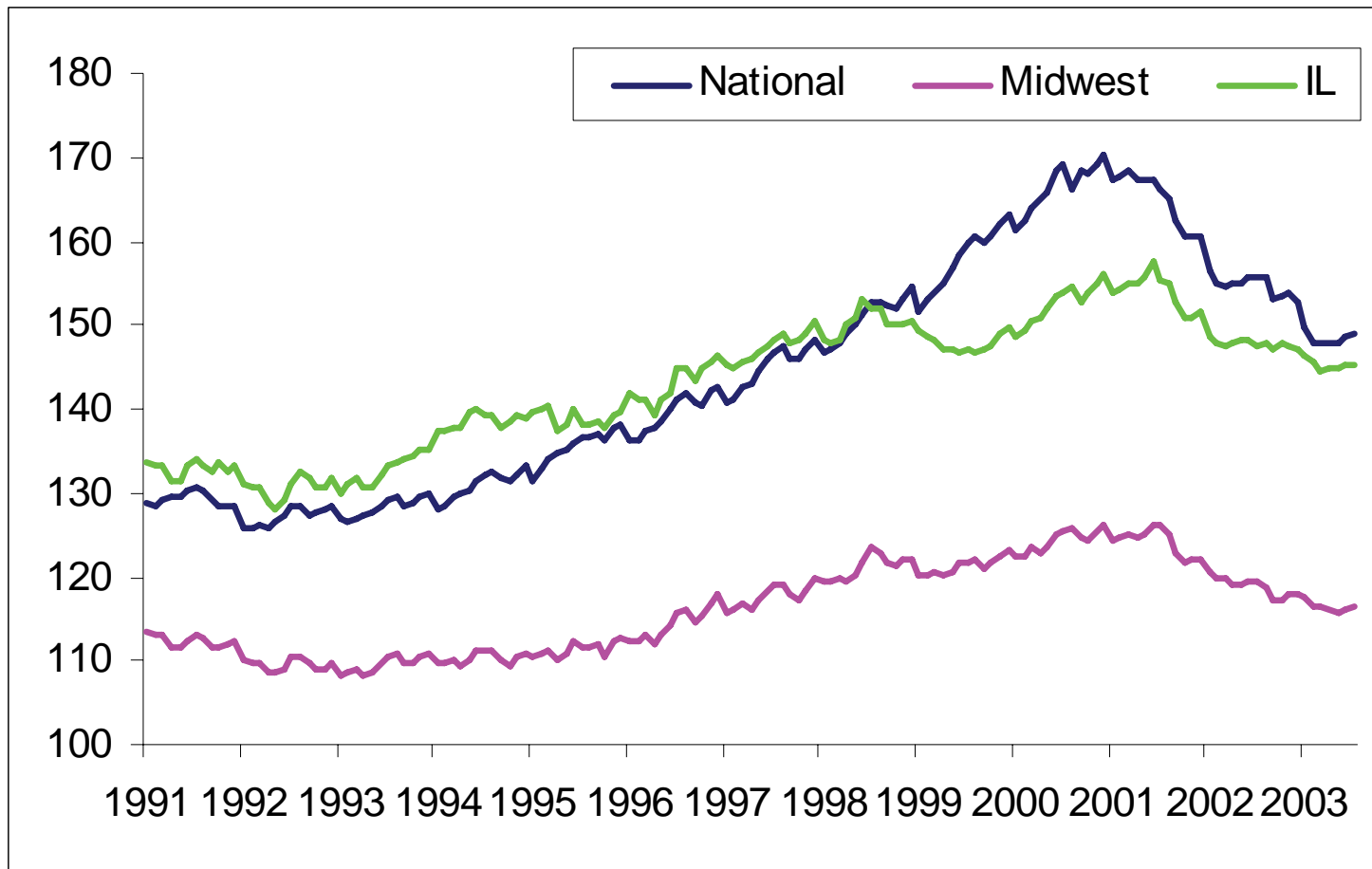


# Trade



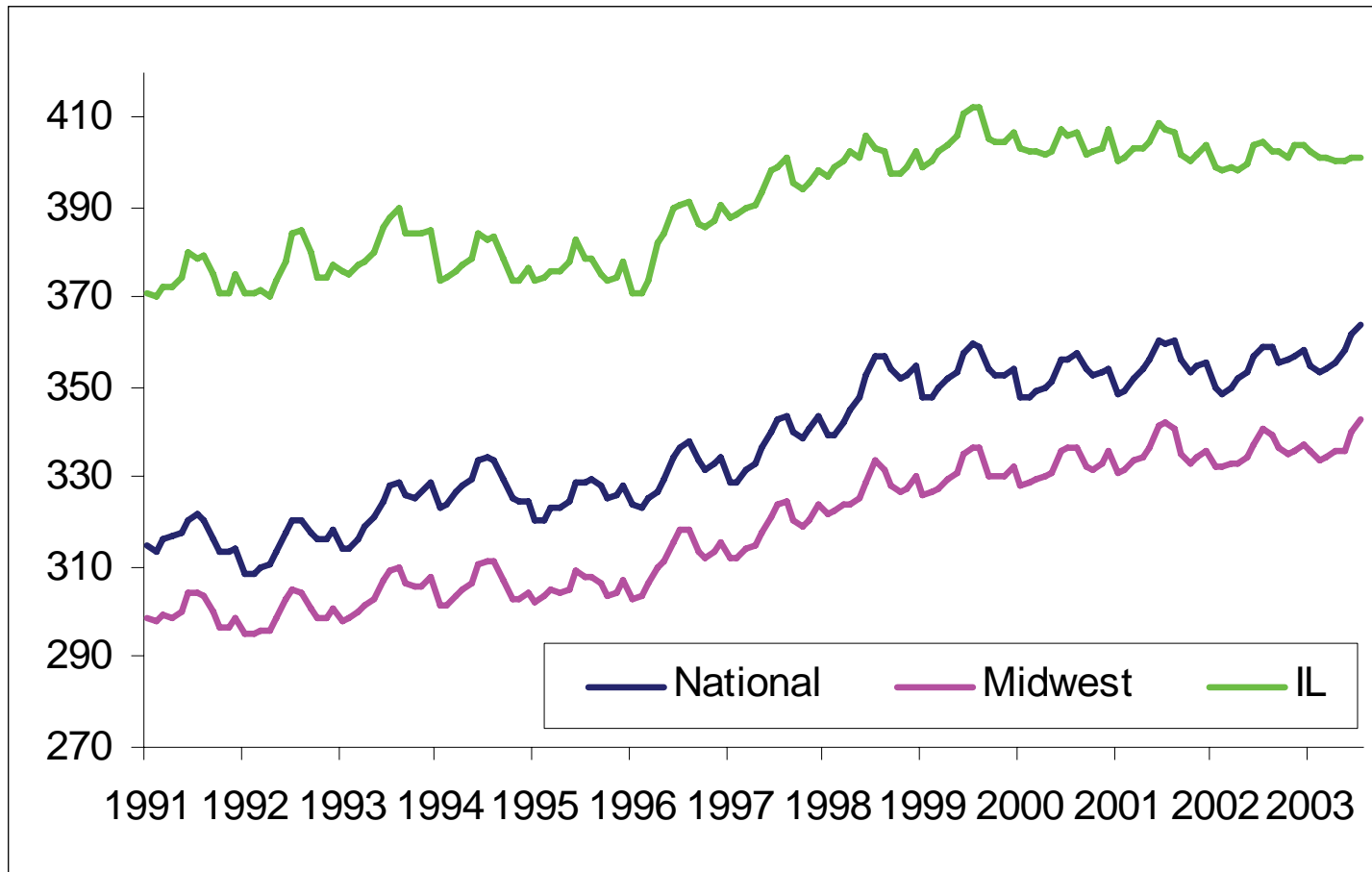
# Information

Illinois experience parallels US and is better than MW

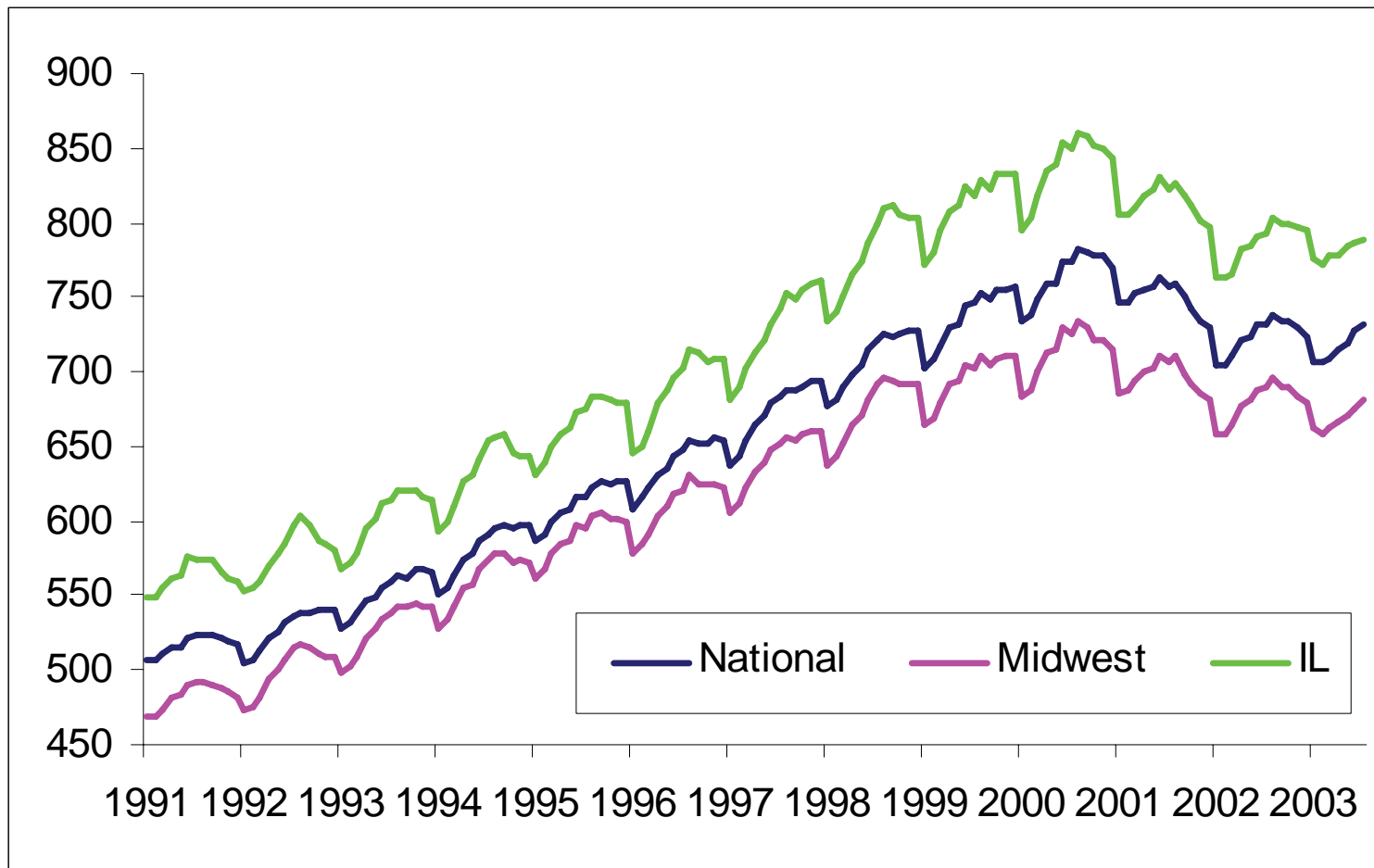


Sector is which Illinois far more specialized than US or Midwest

# Financial services

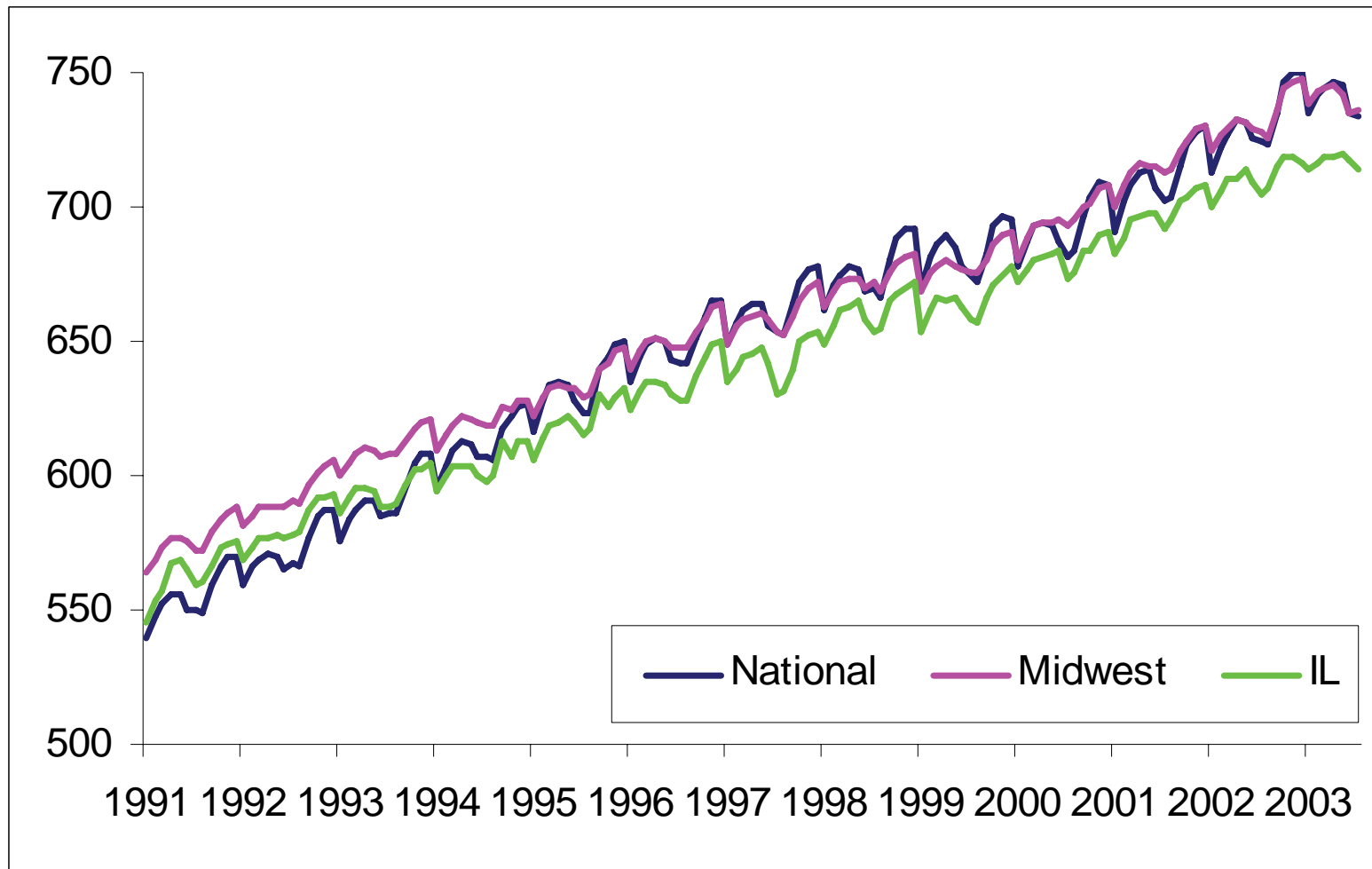


# Professional-business services

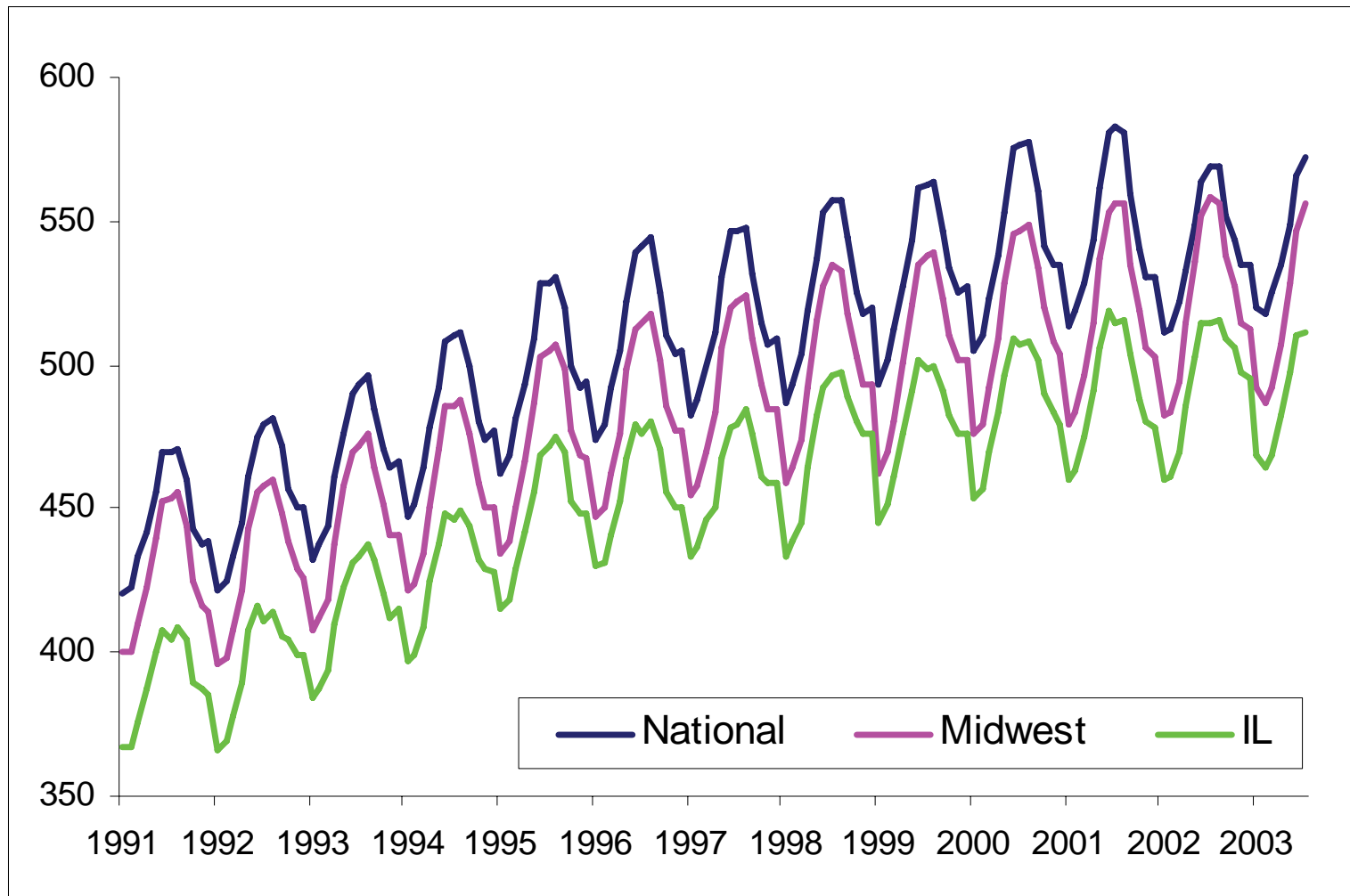




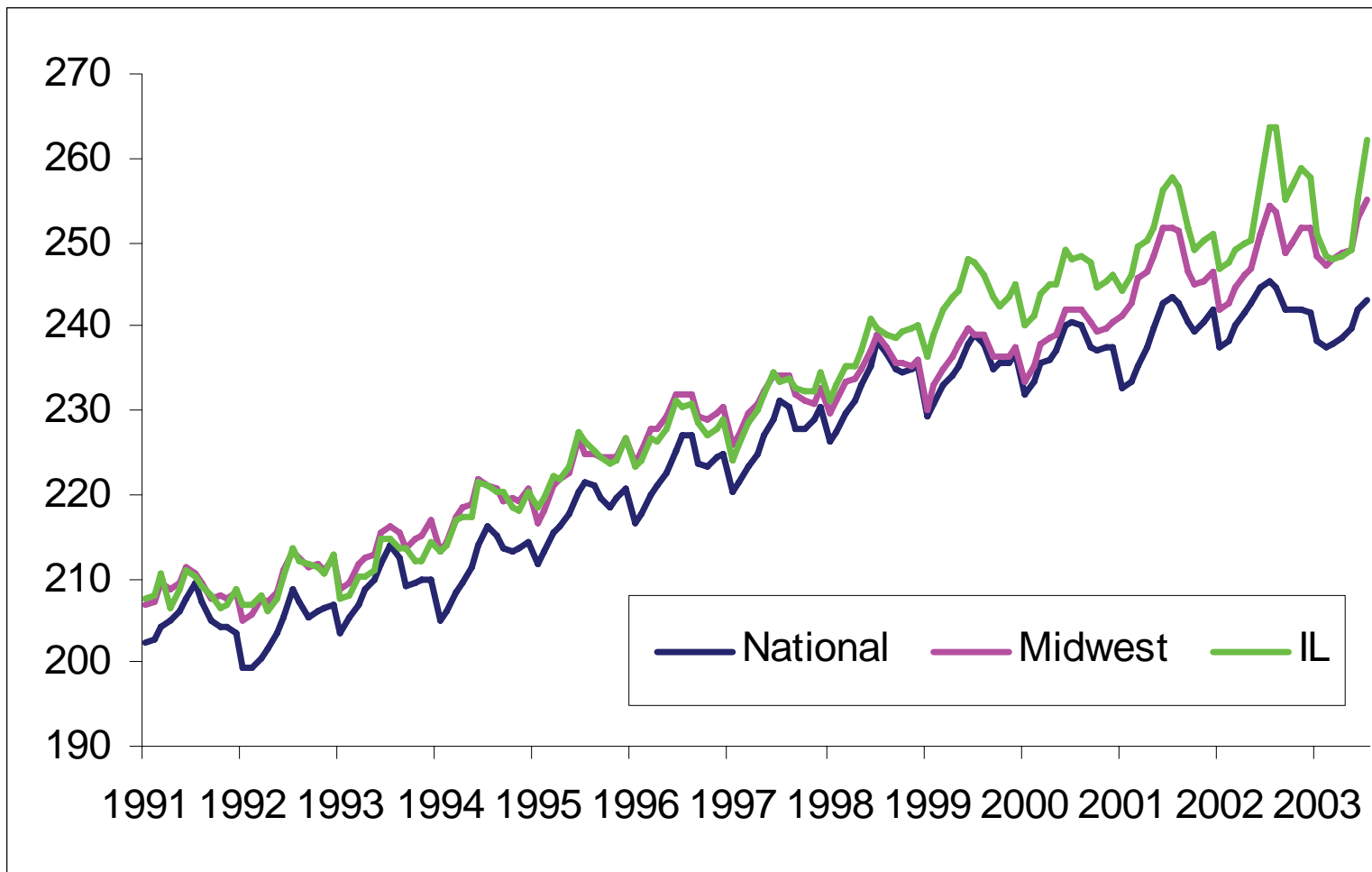
# Education-health services



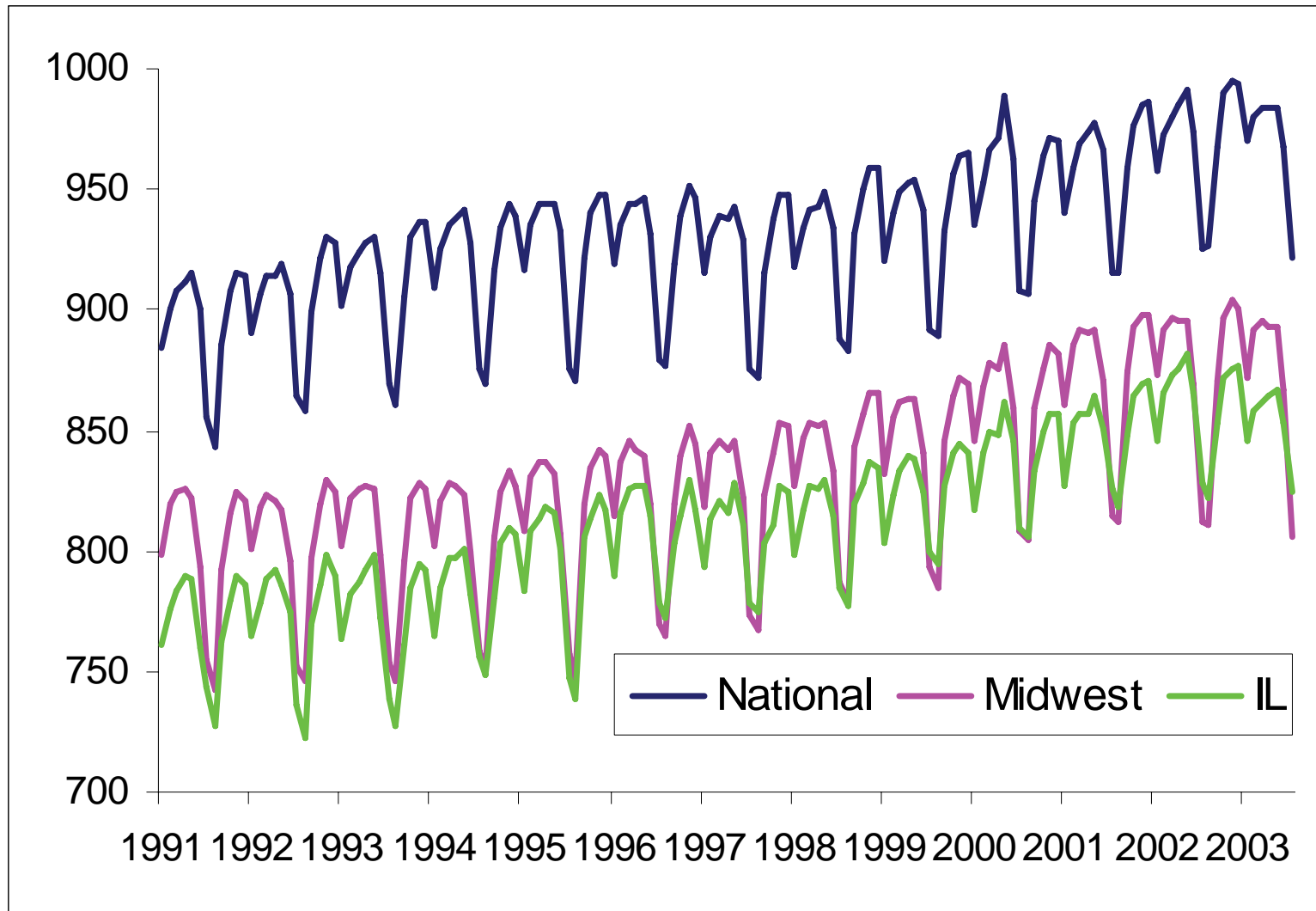
# Leisure and hospitality



# Other services



# Government



## **Summary**

- For the most part Illinois recent experience can be traced to slower than MW or US growth
- Part of the explanation lies in differences in the mix of economic activities in Illinois in comparison with Midwest and US