Cross-Country Stock Market Comovement: A Macro Perspective

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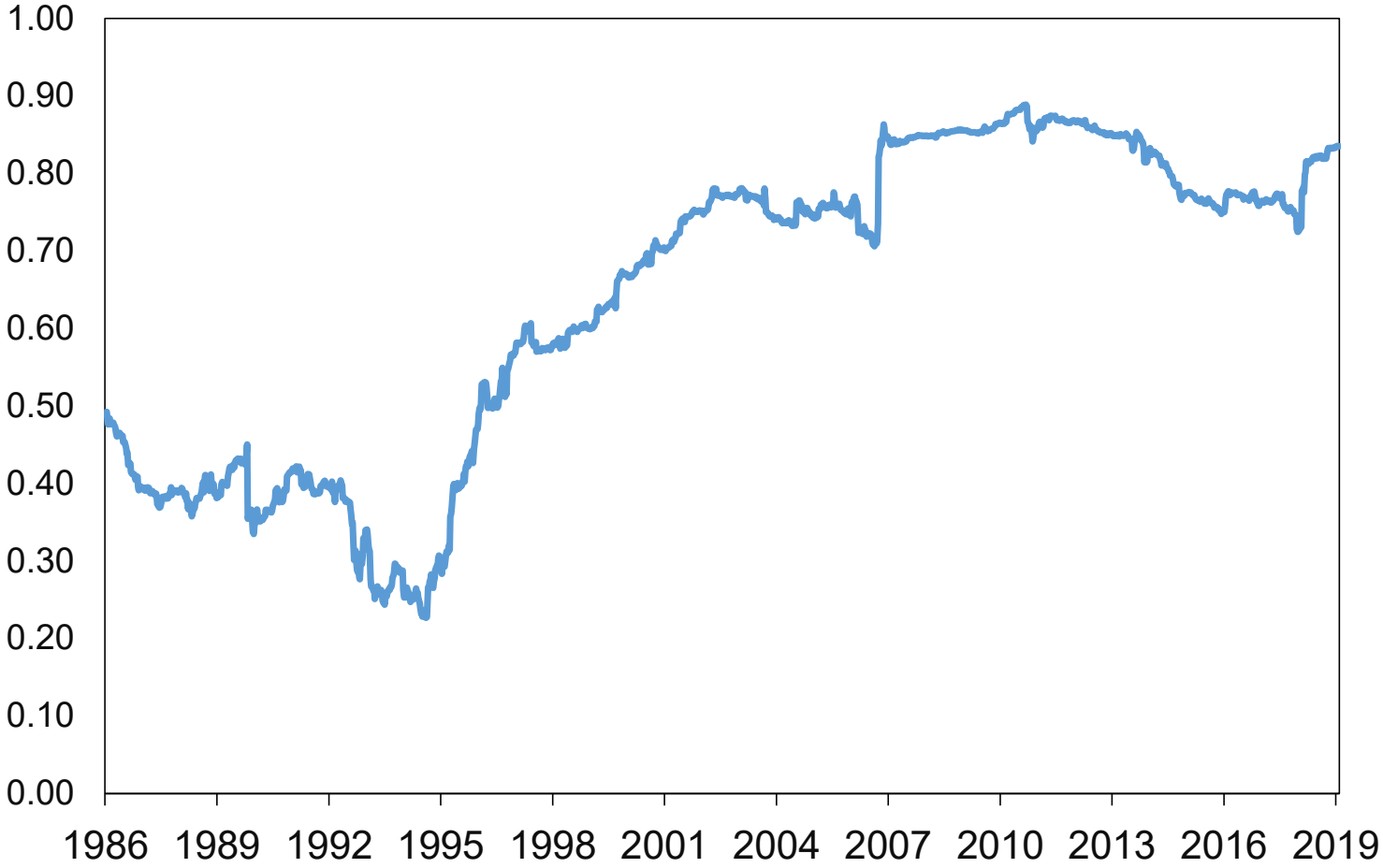
Stock returns comovement

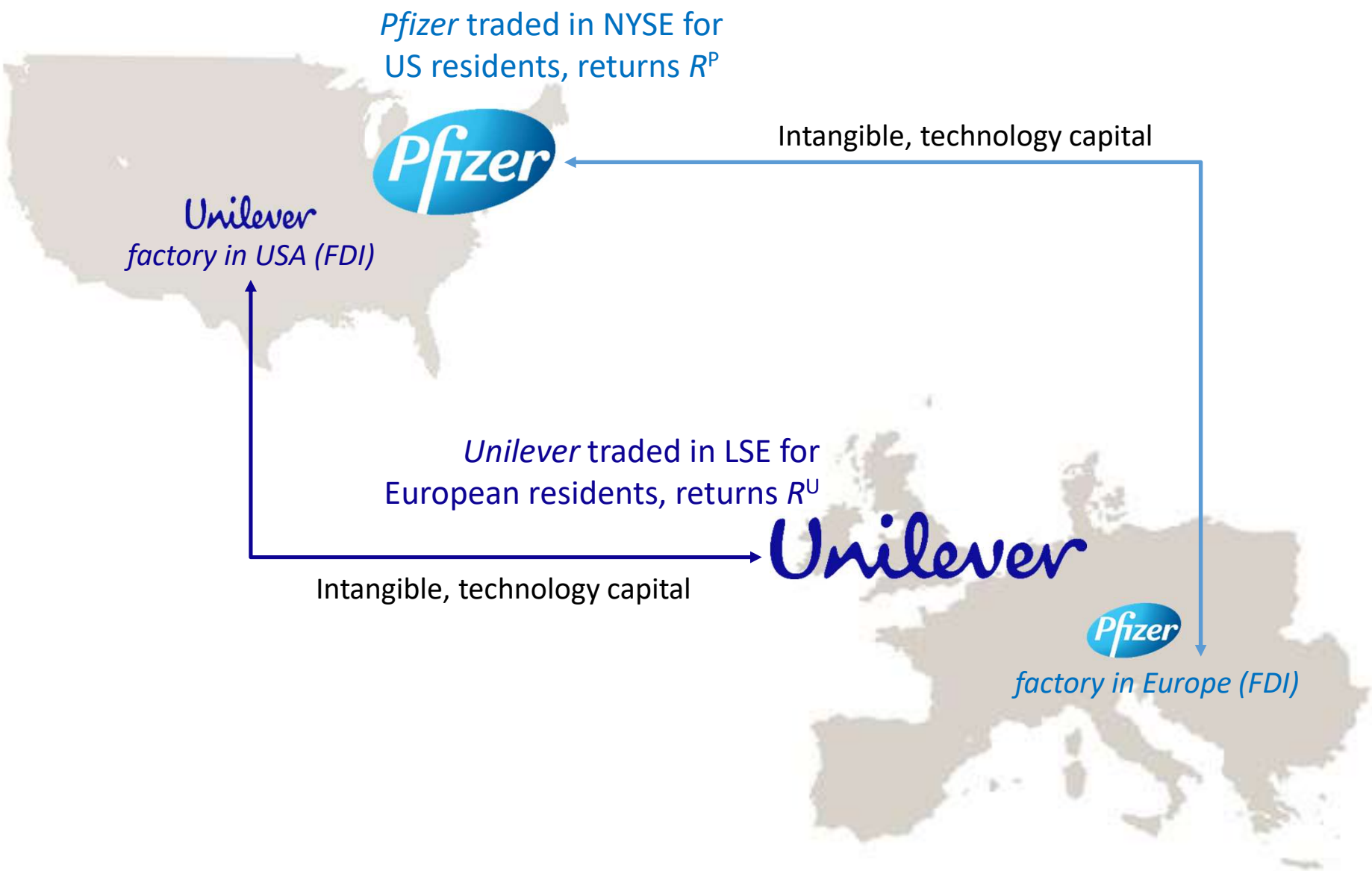


Four year rolling window correlations of weekly returns of MSCI US and MSCI World ex. US

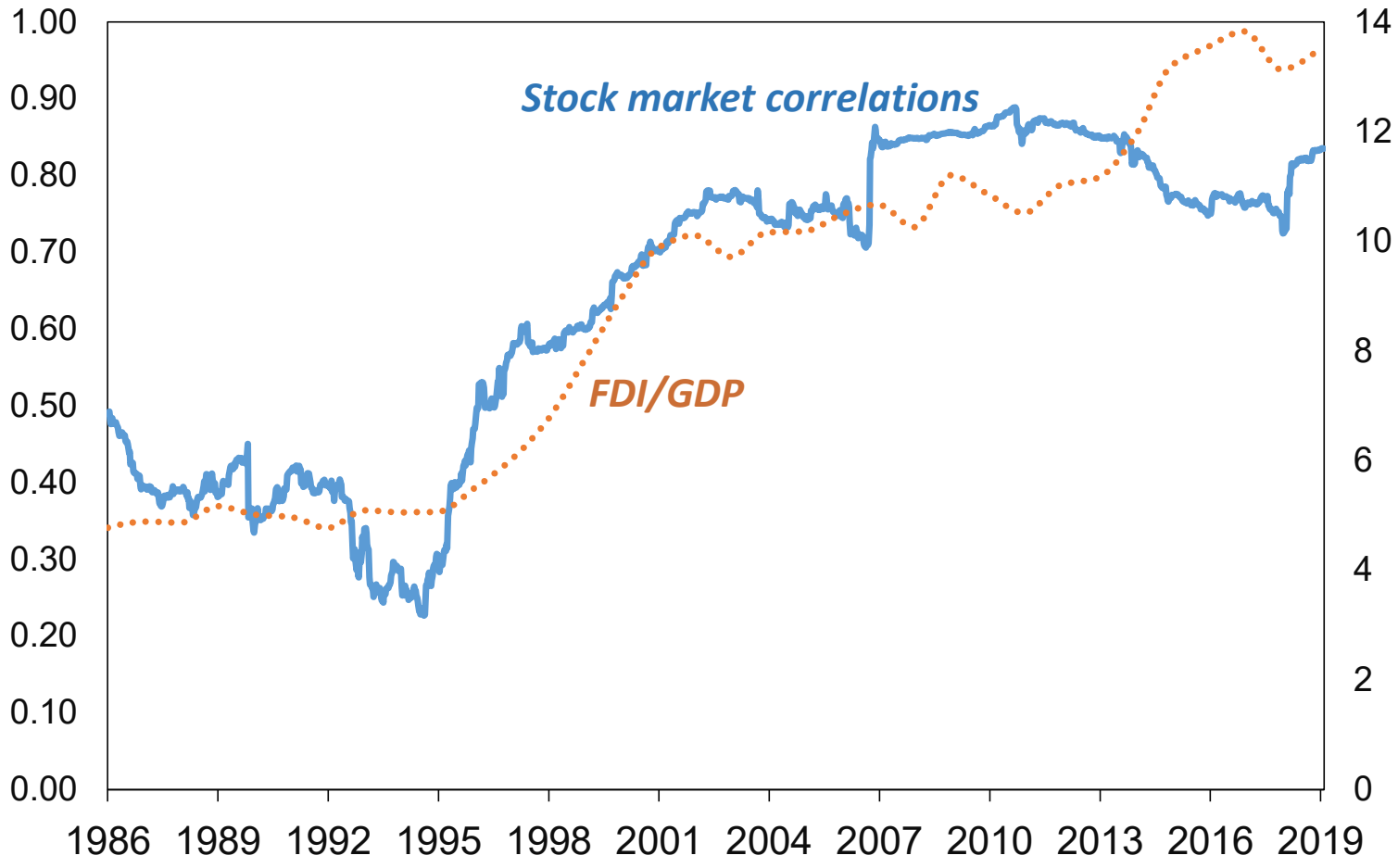
Stock returns comovement

- Correlation of US stock returns with returns of other large stock markets has *doubled* between 1980s and 2010s.

- Some potential factors…
  - General business cycle synchronisation
  - Monetary policy
  - International trade
  - Cross-border equity holdings
  - **Foreign direct investment** (FDI) by multinational firms


Pfizer traded in NYSE for
US residents, returns R^P
Pfizer
Intangible, technology capital
Unilever
factory in USA (FDI)
Unilever traded in LSE for
European residents, returns R^U
Unilever
Intangible, technology capital
Pfizer
factory in Europe (FDI)

Comovement and FDI

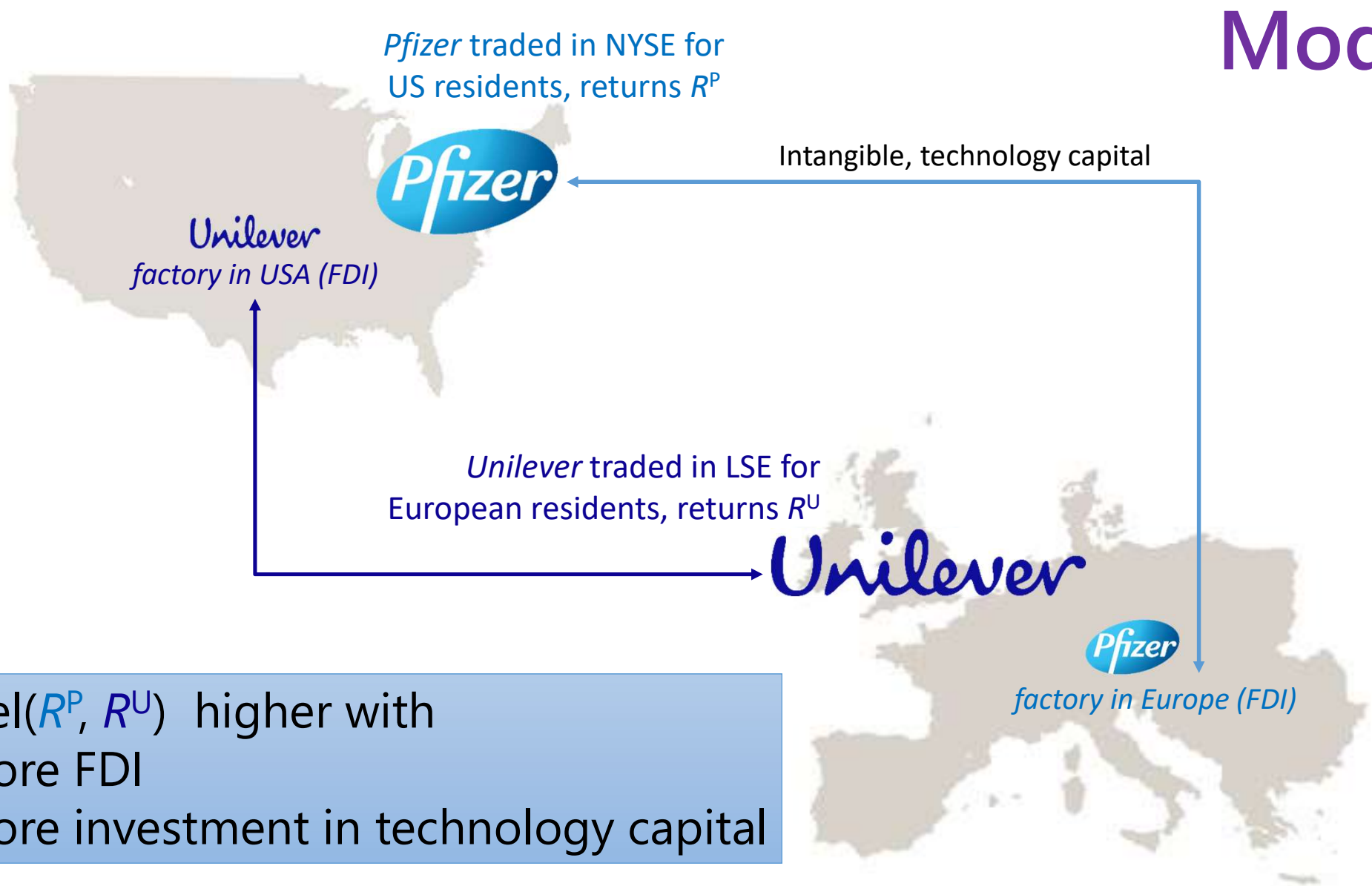


Four year rolling window correlations of weekly returns of MSCI US and MSCI World ex. US

Empirical results

- Is ***FDI*** an important driver for country stock return comovement?
  - **Yes**: Doubling country-pair relative FDI positions is associated with an increase of **0.16** in stock market correlations, even after controlling for trade.
- Is ***investment in tech capital*** by ***multinational firms*** important for explaining stock market comovement?
  - **Yes**: Such firms have a return correlation with foreign stock markets that is on average **0.11** higher than that of non-multinationals.

Model



correl(R^P, R^U) higher with

- more FDI
- more investment in technology capital

Quantitative results

- Calibrate model to **USA** and the **Rest-of-the-World** in early 1990s, and match correlation of returns in data for the same period, at **0.38**

- Experiments: simulate increase in FDI positions as observed in the data, and see what the model predicts for stock returns

- The model explains about **1/3** of increase in stock market comovement: correlation increases from **0.38** to **0.52**

Directions for future research

- What explains the remaining **2/3** of stock market correlation increases across countries?