PRODUCTIVITY IMPACT EVALUATION

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The Summative Assessment

The Logic Model

Consistent project classification information

Insight into likely outcome and impact indicators / measures

Understand likely pattern of outcomes and impacts

Foundation for strong Summative Assessment

Monitoring Data

Consistent data to support impact evaluation across project types

Collection of appropriate monitoring data

Stronger management info and Summative Assessment

Assessment Report

Project evidence of impact, effectiveness and lessons

Evidence: impact and effectiveness

Lessons to strengthen delivery

DCLG / GDTs

Meeting project closure procedures

The productivity of those firms given 'productivity support' depends on the support itself and other factors (confounding variables)
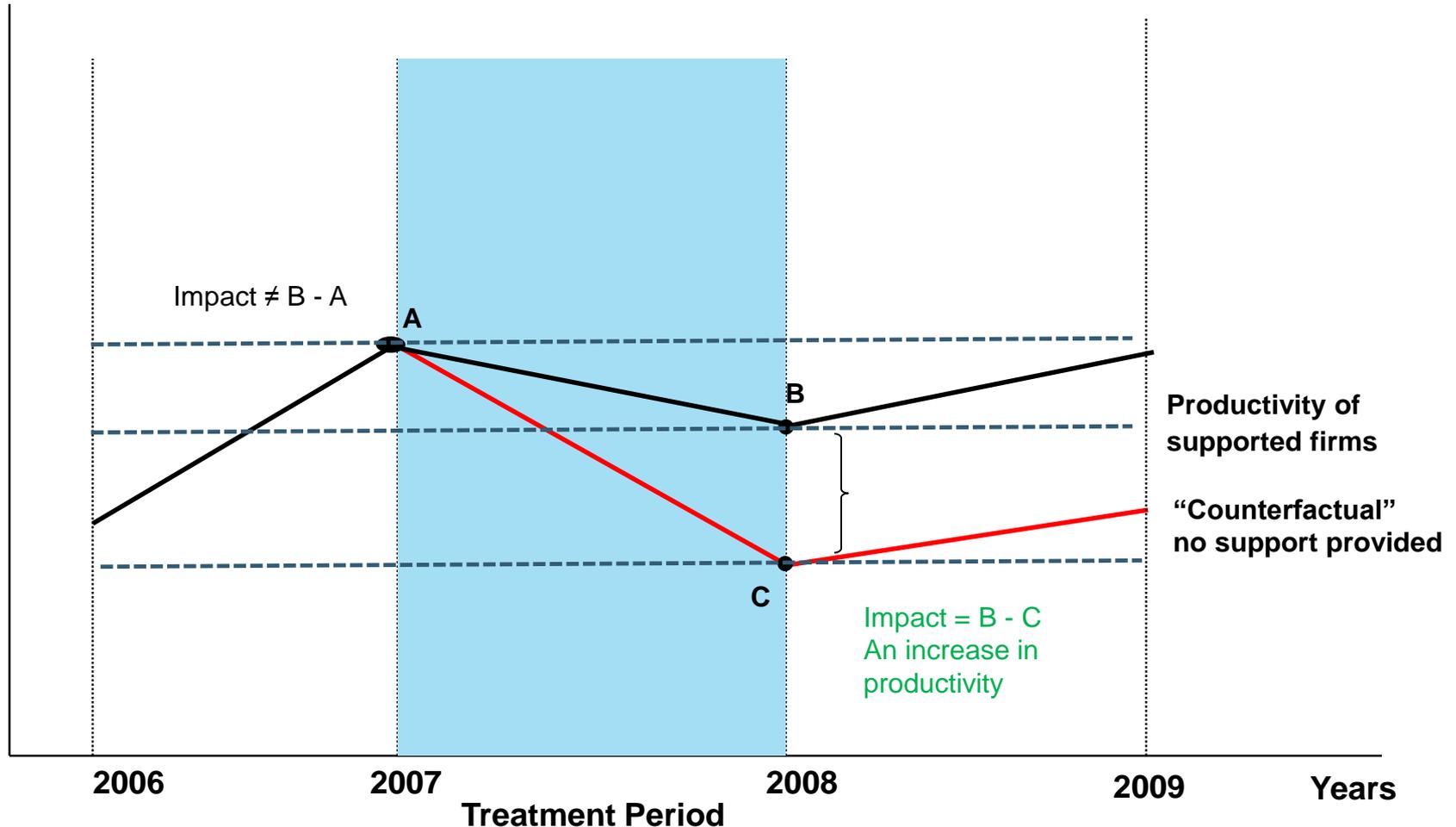
Productivity Improvement Programme **+** Confounding Variable **=** Productivity
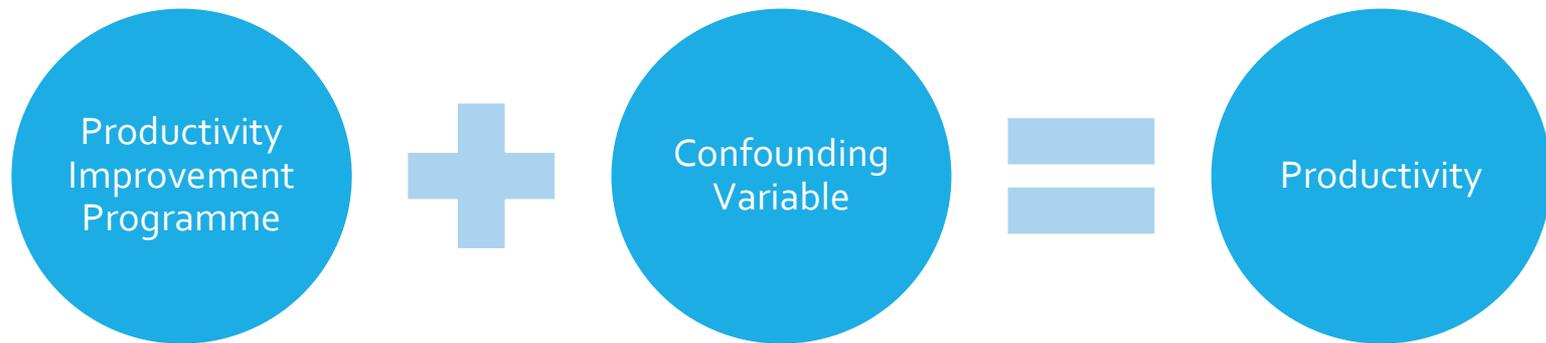
To remove the effect of the confounding variables requires a comparison to a counterfactual.

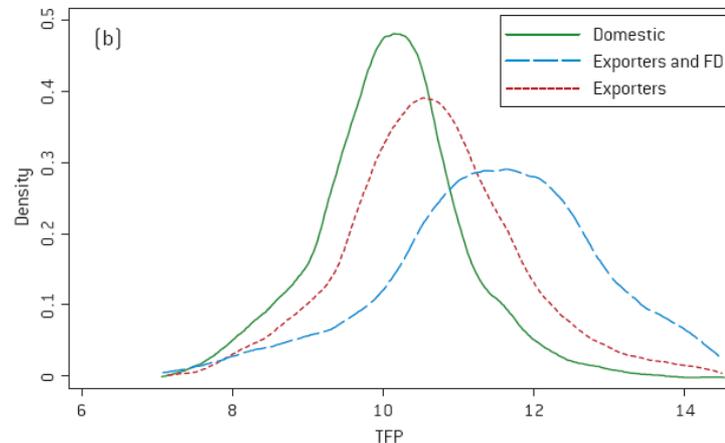PIP Group **−** Couterfactual group **=** Effect of the PIP

Basic Problem of Impact Evaluation

Mis-measured Impact when using before/after comparisons during Global Financial Crisis years

productivity

Impact ≠ B - A

A

B

C

Productivity of supported firms

"Counterfactual" no support provided

Impact = B - C
An increase in productivity

2006   2007   2008   2009   Years

Treatment Period

Are confounding factors a problem?

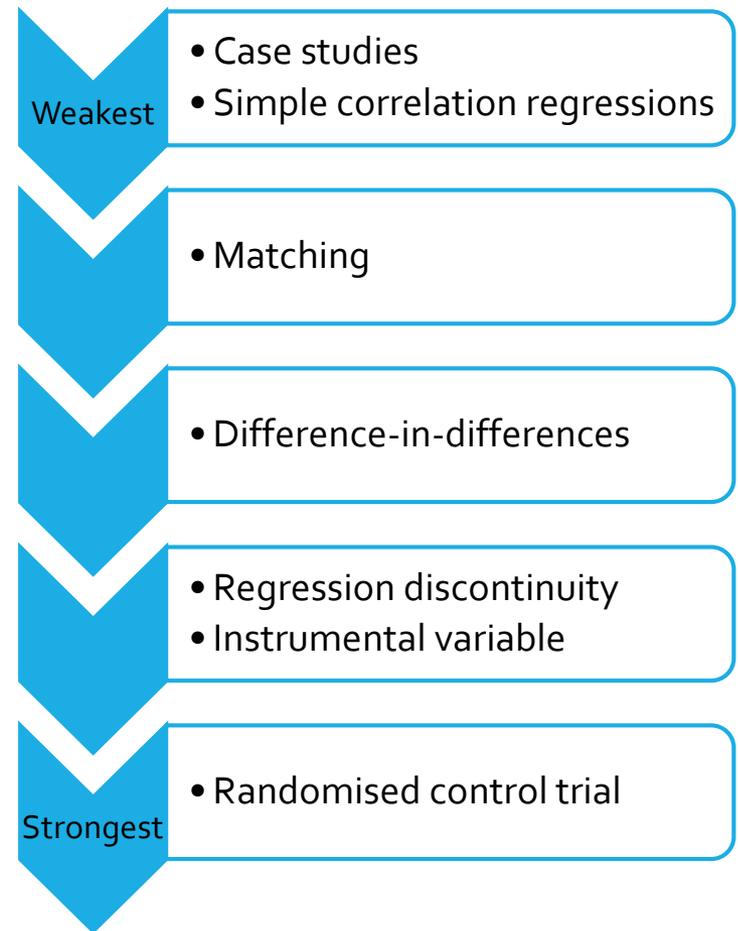Source: EFIM. Note: Data for Belgium 2004.

- The average multinational is more productive than a small domestically owned firms that sells just to the local market
- But, some multinational firms are only as productive as these small domestic-focused firms
- And, some small domestic-focused firms are as productive as multinationals!
- The most productive cardboard box producers generate 3 times more output from the same cardboard, employees and machines as the least productive ones.

What determines productivity?
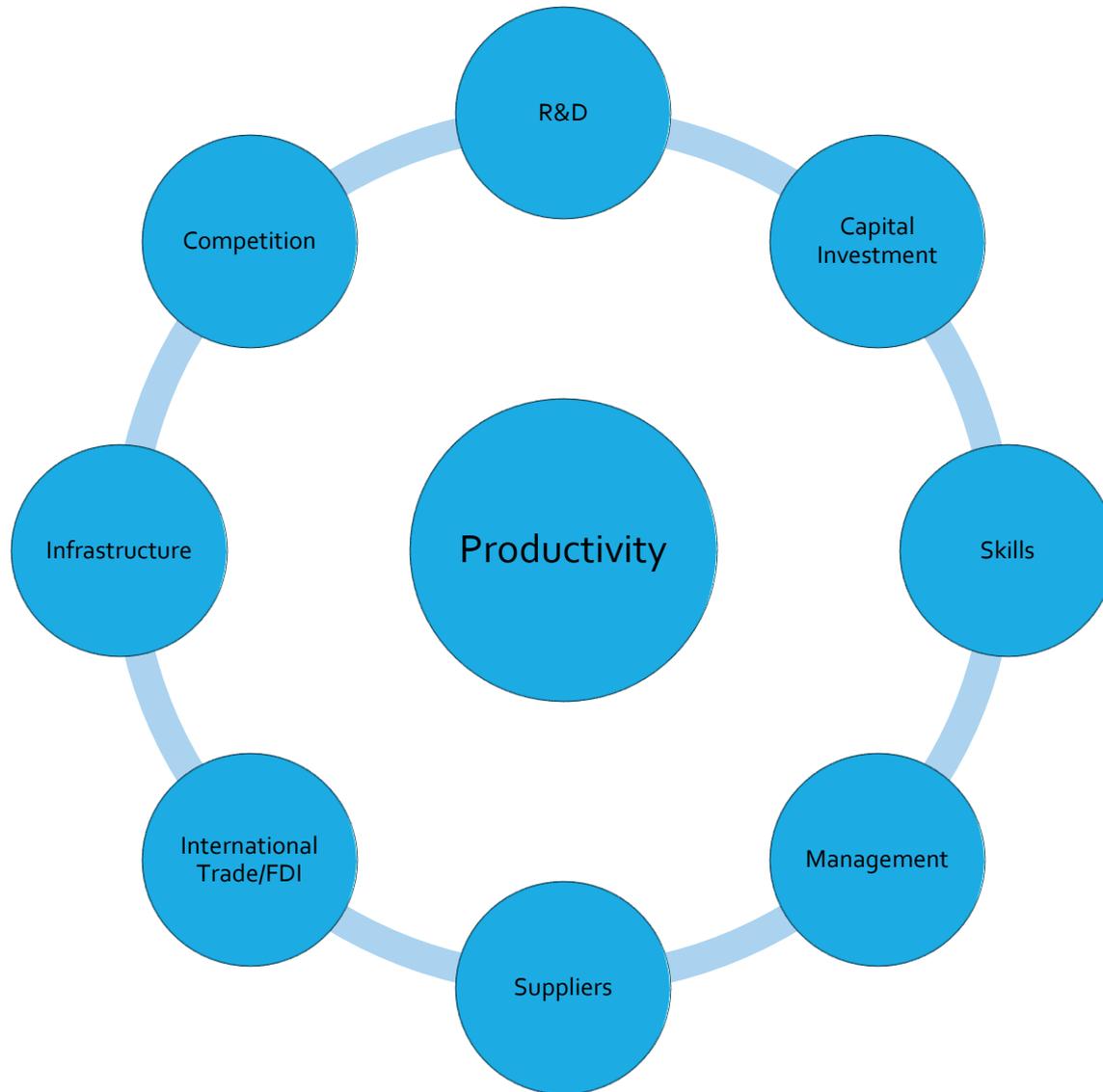
Impact Evaluation Methods

- We don't fully know what the confounding productivity factors are, nor why they are important
- The counterfactual cannot be observed so it must be created using data on other firms.
- Confounding variables come in different types
- Different methods remove different types of confounding variables (so they may leave some behind!)
- For those methods we have to assume that confounding variables of those particular types are not present
- The most successful way to do this is randomisation
- RCT's do this before firms get support, other methods try to re-create it afterwards

Weakest
- Case studies
- Simple correlation regressions

- Matching

- Difference-in-differences

- Regression discontinuity
- Instrumental variable

Strongest
- Randomised control trial

Common types of RCT

- Oversubscription – if there are not the resources to provide support to all firms, then a fair way of choosing who to support would be to randomise this choice.

- Phase-in – as there are likely to be constraints on the number of firms that can be supported at any one time, the support might be phased in. Which phase firms are supported in could be decided randomly.

- Encouragement design – an encouragement to receive the treatment is randomly assigned. Participation is available to anyone who applies but some, randomly chosen, are encouraged to apply.

How can D2N2 raise productivity?

UK wide	D2N2 specific
• Creation of new technologies	• Target the middle firms
• Management Practice and Organisation	• Increase investment in new capital
• Efficient use of new technologies	• Evidence of an export gap
• Access to finance	• Evidence of a 'management' gap
• Entry of better firms and weaker firms to exit	• Support for small productive firms – not just small firms
• Infrastructure & market access	• Skills - limited direct effect, but pays off as a complement to better technologies