

Comments on the paper of Frank Rodriguez, Soterios Soteri and Stefan Tobias

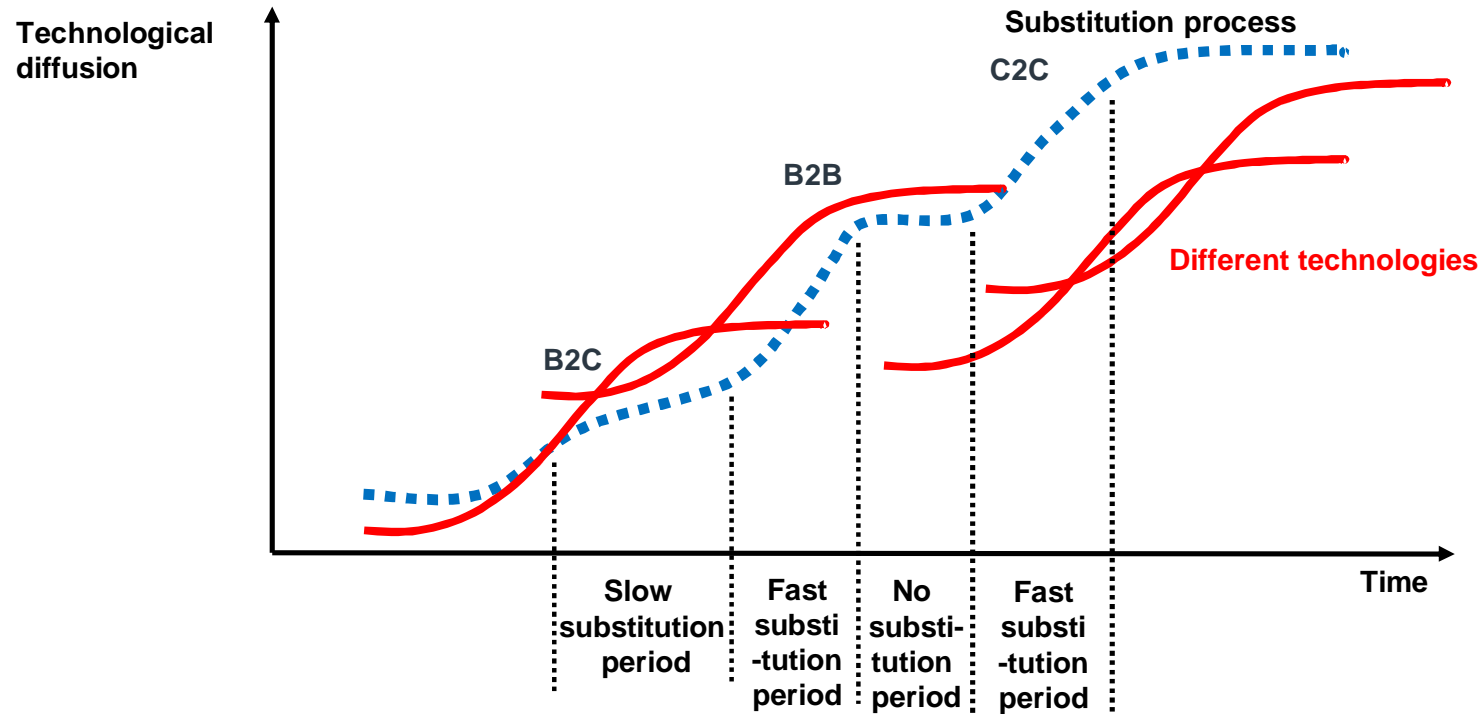
‘The Impact of E-substitution on the Demand for Mail: Some Results from UK

9th bi-annual conference on "*E-commerce, Digital Economy and Delivery services*" in Toulouse on March 31st – April 1st, 2016.

Heikki Nikali

- The objective of the paper is to increase the understanding of e-substitution
- Aggregate level ➔ Disaggregate level

E-substitution process



The preconditions for e-substitution

1. *A new means of communication must be available.*
2. *The ability to use new technology.*
3. *The desire to use new technology.* The biggest barrier to substitution. This leads from voluntariness to the sanctions.
4. *Messaging must become adapted to the new forms of communication.*

All of the factors classified above must, as a general rule, take place simultaneously, both with regard to the sender and the receiver, before the traditional letter can be transferred to electronic channels.

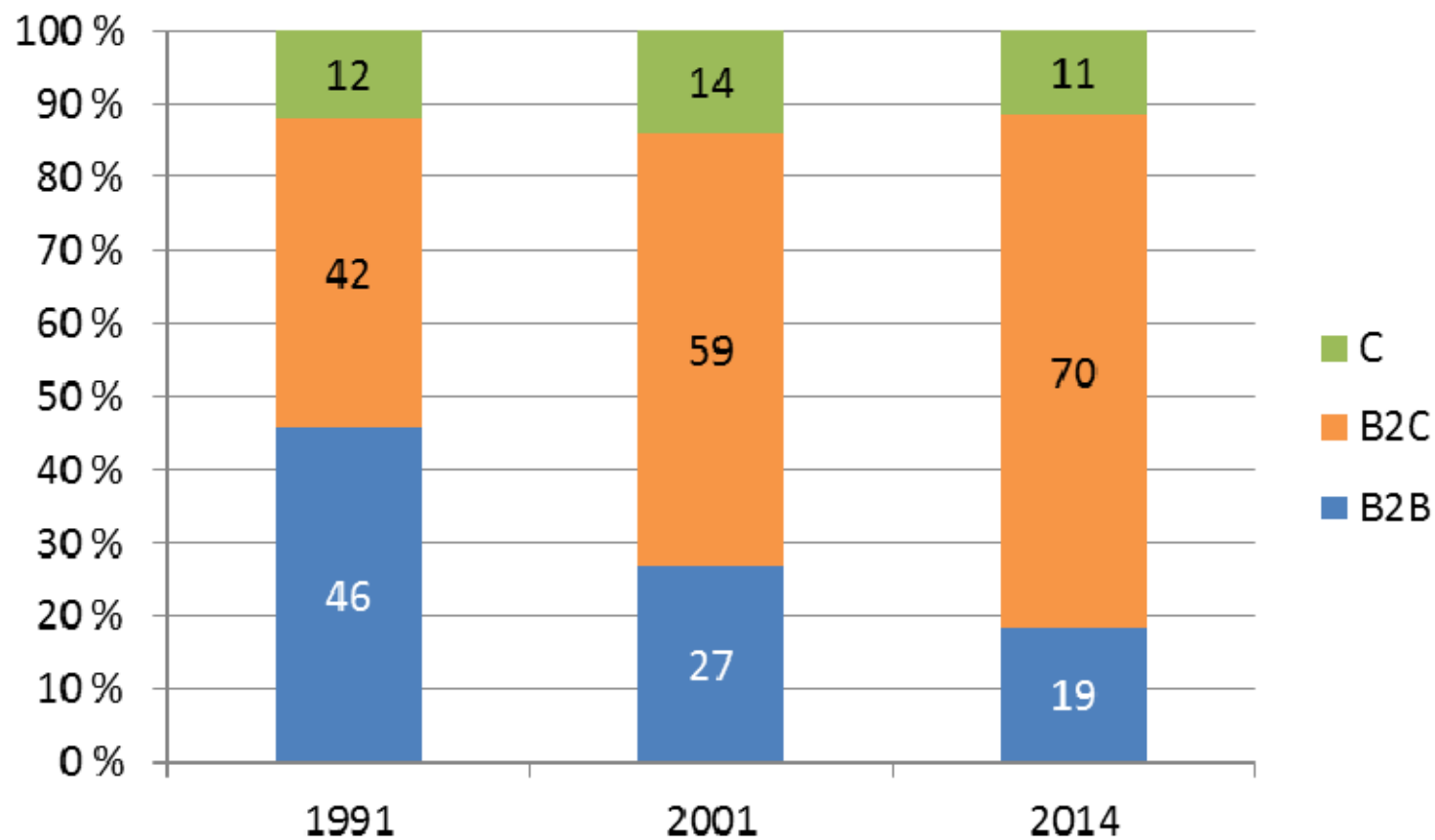
Where does the complexity of e-substitution process lead to?

- There are many preconditions and different executions to e-substitution and therefore this happens differently in different content types, sender groups and age groups.
- It is not possible to identify directly the replacement of communication, its measurement is always theoretical and there are two different substitutions:

Two components of e-substitution :

1. *direct substitution*: messages move over from letters to electronic channels
 2. *indirect substitution*: potential of letter demand will not realize because of increase of electronic communication
- One variable as a substitution proxy in time series analysis is always a strong simplification to the phenomenon.
 - In order to understand e-substitution both time series analyses and qualitative market research are needed.

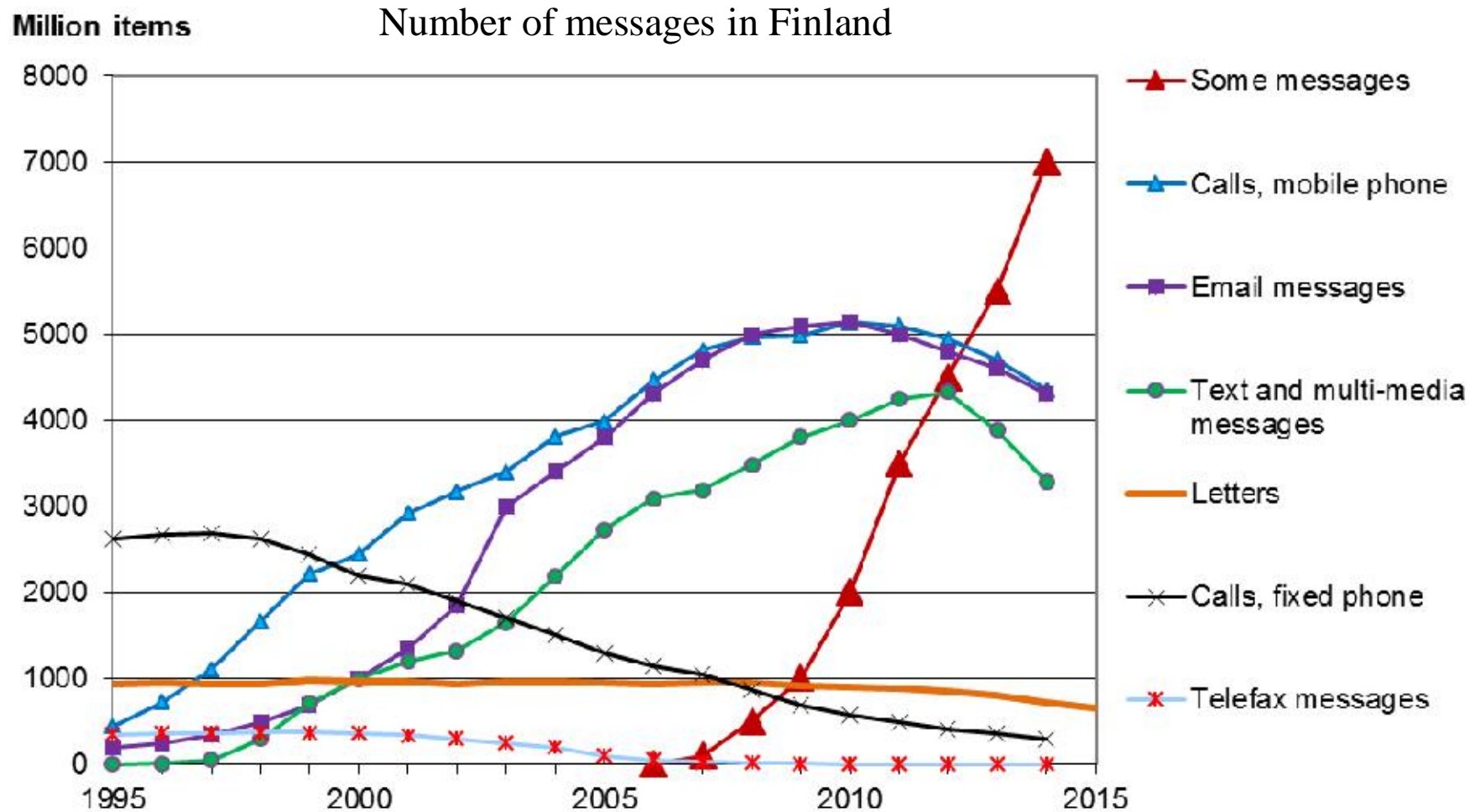
Sender-recipient distributions of 1st and 2nd class letters in Finland



Total volume change

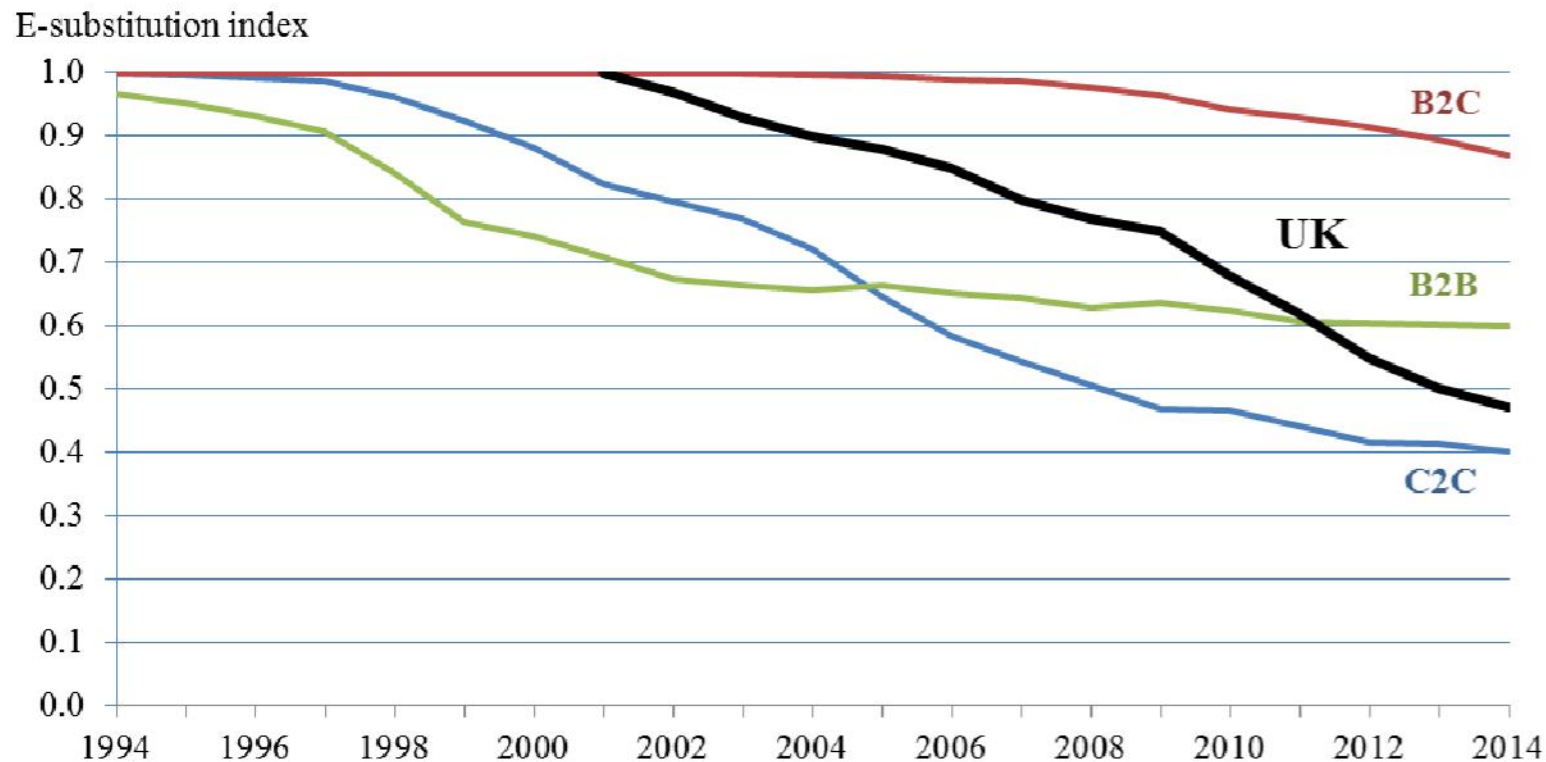
- 1991/2001 + 6 %
- 2001/2014 -25 %

How fast the communication market can change?



There are e-substitution from paper letters to the digital channels and substitution between the digital channels, too!

Business mail e-substitution indexes for total volume in UK and sender-recipient groups in Finland

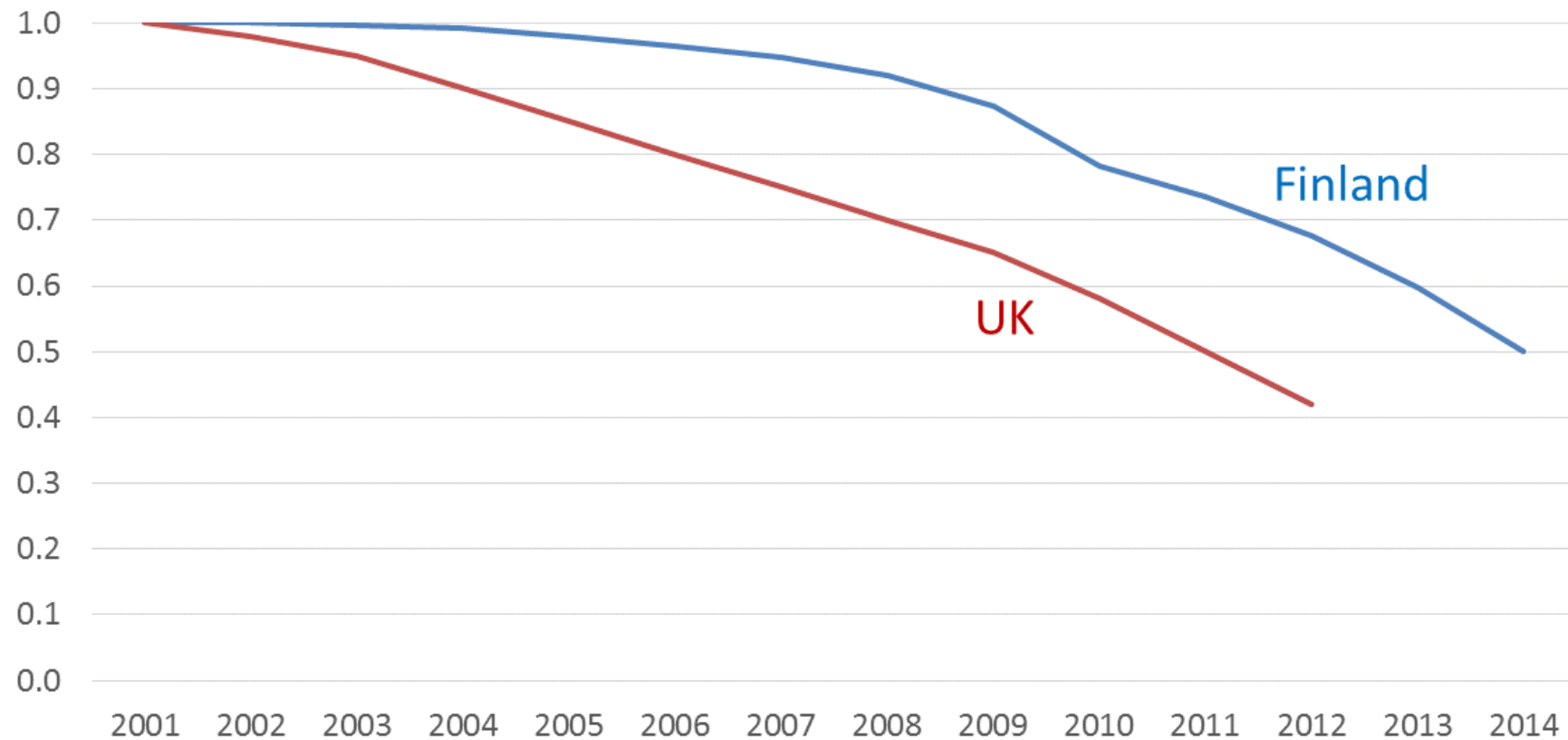


Development of e-substitution process in UK

Substitution has proceeded the furthest

- content type: bills and invoices (bulk mail, automated procedures)
- sender groups: retail (bills and invoices) and utilizes sector (digitalizing of processes)
- age groups: age under 45 (indirect substitution)

E-substitution indexes of B2C paper invoices in UK and Finland



Two extra comments

You mention that e-substitution seems to accelerate from about 2010 in UK, although the decline on letter volume lessened because of economic and demographic growth. My experiences shows the same, substitution will become slower in recession and accelerates just after the recession.

Discussing the formula (2) in your paper you mention that e-substitution includes also price effect. Did I understand right?