

Discussion of Ma, Tang and Zhang (2012):

# Factor Intensity, Product Switching and Productivity: Evidence from Chinese Exporters

Benjamin Mandel (FRBNY)

The views expressed in this presentation are those of the author and do not necessarily reflect those of the Federal Reserve Bank of New York or the Federal Reserve System.

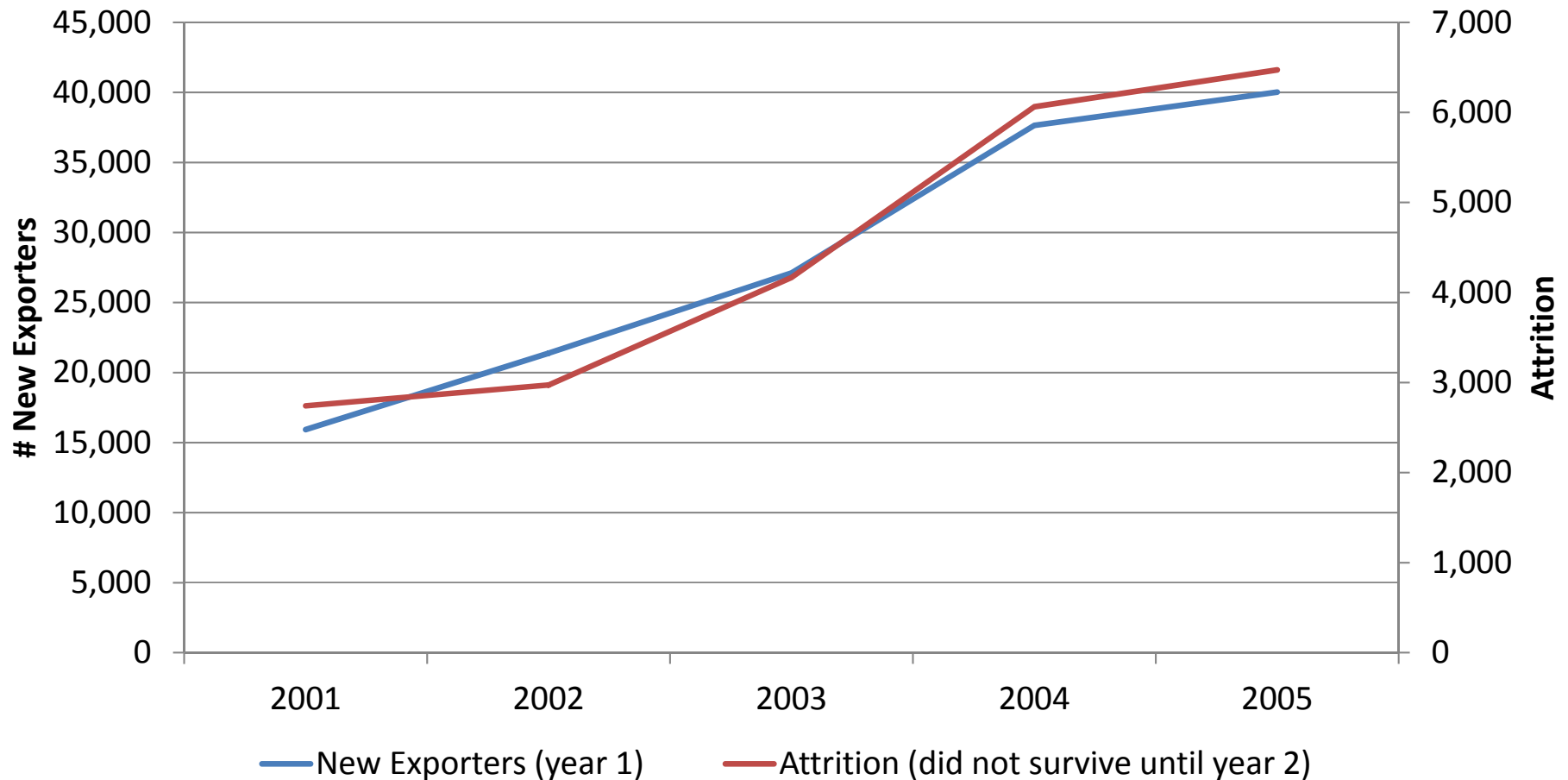
# Characteristics of Chinese Exporters...

- Cross section:
  - Domestically-owned exporters have higher TFP than domestically-owned non-exporters (incl. SOE).
  - Foreign-owned exporters do not have higher TFP than foreign-owned non-exporters.
  - **Exporters (in all groups) have lower K/L than non-exporters.**
- Panel:
  - New exporters' TFP rises in the first year.
  - **New exporters experience persistent declines in K/L.**
    - More pronounced for low ex-ante TFP firms.
    - Firms add L-intensive products, drop K-intensive products.

# Matching Methodology

- In this paper: Matching of firms that *enter into* exporting to those that remain non-exporters (treatment and control, respectively).
- Not in this paper (or barely): Two types of firms which might alter the results or interpretation:
  - Treatment and control groups defined by firm *exit* (i.e., match firms that discontinue export activity with those that always export).
  - Processing firms (import intermediate materials, with tariff exemptions and other tax preferences, then export the finished products).

# I. Exit Treatment



Source: Table 10.

- Transaction dataset implies over **20k** firms started and stopped exporting 2000-5.
- This is *in addition to* continuing exporters that subsequently exited.

# I. Exit Treatment

	Story #1: “Learning by exporting”	Story #2: “Core competency”
Firm <b>enters</b> export market	TFP ↑ <ul style="list-style-type: none"><li>• <math>Y=Af(K,L)</math>: <math>K/L</math> unchanged</li><li>• <math>Y=f(K,AL)</math>: <math>K/L</math> ↓</li></ul>	TFP ↑ $K/L$ ↓

# I. Exit Treatment

	Story #1: “Learning by exporting”	Story #2: “Core competency”
Firm <b>enters</b> export market	TFP ↑ • $Y=Af(K,L)$ : K/L unchanged • $Y=f(K,AL)$ : K/L ↓	TFP ↑ K/L ↓
Firm <b>exits</b> export market	TFP unchanged K/L unchanged	TFP ↓ K/L ↑

## II. Processing Trade

**Table 6. Propensity Score Matching Balancing Test**

		Mean	
		Treated	Control
ln(TFP)	Unmatched	-1.1267	-1.2696
	Matched	-1.1267	-1.1308
ln(wage rate)	Unmatched	1.9804	1.7199
	Matched	1.9804	1.9651
ln(sales)	Unmatched	10.101	9.5056
	Matched	10.101	10.112
ln(age)	Unmatched	2.0858	2.3672
	Matched	2.0858	2.0767
ln(K/L)	Unmatched	3.7688	3.7146
	Matched	3.7688	3.789

- Intermediate inputs are used to estimate TFP and are not included in the matching variables.
- But this implies that treatment and control firms may have drastically different levels of value added.
- Suggest using VA in place of sales?

# It would be nice to see...

- ...the dynamics of other firm attributes.
- ...summary statistics of firm matches.