

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

The Impact of Tariffs on Price and Welfare: Literature Reviews and Future Research Plans

Ming-Chieh, Chang

National Taiwan University

December 28, 2022

Outline

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

- 1 Introduction
- 2 Price and Basic Welfare Impact
- 3 Distributional Effects and Rationales of the Trade War
- 4 Productivity Effects from Tariffs
- 5 Effects of the US-China Trade War on Taiwan

Introduction

GOAL: "DISCUSS THE EFFECTS OF TARIFFS USING MODELS AND EMPIRICAL EVIDENCE FROM THE US-CHINA TRADE WAR"

Effects of Tariffs

- Price effects
- Welfare effects
- Distributional effects
- Productivity effects

US-China Trade War

- Started 2018
- Literatures: econometric methods and quantitative models
- Affected **Taiwan** since we are highly **export-oriented**

Introduction

Price and Basic
Welfare Impact

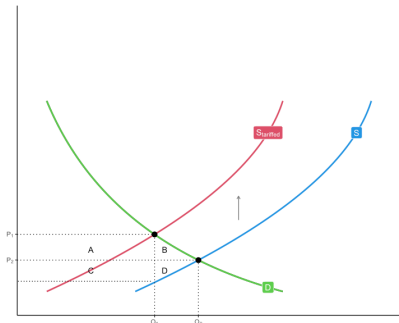
Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Price and Basic Welfare Impact

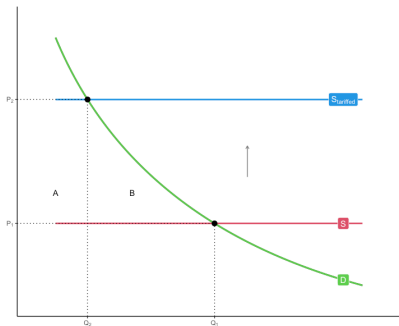
When Export Supply Is **Not** Perfectly Elastic



- Consumer price **raises**, producer price received **falls**
- Consumer's tariff burden is rectangle A
- **Producer also bear tariff burden C**

Price and Basic Welfare Impact

When Export Supply Is Perfectly Elastic



- Consumer price **raises more**, producer price received **unchanged**
- Consumer's tariff burden is a **bigger** rectangle A
- **Producer bears no tariff burden**

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Price and Basic Welfare Impact

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Empirics in the US-China Trade War

- Amiti et al. (2019), Fajgelbaum et al. (2020), and many other papers: almost **perfectly elastic** export supply
- Improving consumers bear all burdens
- **"Complete pass-through"** of import tariffs to consumers

Distributional Effects and Rationales of the Trade War

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Distributional Effects

- Winners: producers
 - Exporters did **not** pay tariff since tariffs were paid by importing consumers
 - **Domestic price raised** since imported goods were tariffed
- Losers: consumers: paid tariffs
 - Counties in the Midwestern Plains in the US were hit hardest by retaliatory tariffs

Distributional Effects and Rationales of the Trade War

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Rationales of the Trade War: Political perspectives

- 2016 presidential election data combined
- Fajgelbaum et al. (2020): **Politically competitive** counties were protected the most by US tariffs
- Consistent to the logic of **majority voting**
- Relatively suggestive

Productivity Effects from Tariffs

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

"Within" An Industry

- Melitz (2003): in a heterogeneous firm trade model, firms with **higher productivity**
 - expand to larger scale
 - gain more market share
 - increase market efficiency
- Tariffs may **block** productivity growth

Productivity Effects from Tariffs

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

"Between" industries

- Krugman (1987): **learning-by-doing** model
 - Firms **cumulate** experience and **improve productivity** by time
 - Temporary government protections keep infant industries from stringent foreign competitions
- Tariffs **help** productivity accumulation

Productivity Effects from Tariffs

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Discussions

- No contradiction in the above two model
- "Within" or "between" industries matters
- Productivity is hard to measure
- Literatures on the US-China trade war in this remain small

Effects of the US-China Trade War on Taiwan

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Why does the US-China Trade War matter to Taiwan?

- Taiwanese firms are largely **export-oriented**, especially toward the US and China
- US high tariffs to Chinese goods may be **good for Taiwanese exportes in the short run**
- **Loss of purchasing power globally** may hurt them in the long run
- We do not know which channels are the most influential, so **econometric estimations** are needed

Effects of the US-China Trade War on Taiwan

Introduction

Price and Basic
Welfare Impact

Distributional
Effects and
Rationales of
the Trade War

Productivity
Effects from
Tariffs

Effects of the
US-China
Trade War on
Taiwan

Future Research Plan

- Estimate the gain of exporters in the short run
- Connect trade policy making with **political** considerations
- Evaluate trade policy, give suggestions based on empirical evidence
- Productivity estimations are extensions