

Sudden Stops, Productivity, and the Exchange Rate

Discussion by Şebnem Kalemli-Özcan

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Overview

The Key Message of Castillo-Martinez (2020): Fixed exchange rate regimes fare better under a **sudden stop shock** as aggregate productivity improves

Mechanism: **Selection effect at exit:** Unproductive firms' exit more under fixed exchange rates, improving aggregate productivity.

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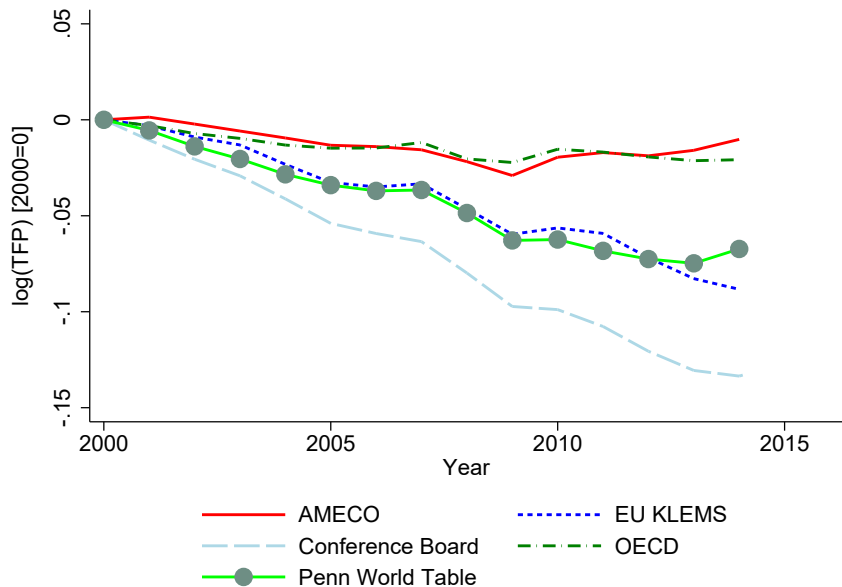
Mechanism: **Selection effect at exit:** Unproductive firms' exit more under fixed exchange rates, improving aggregate productivity.

- This is a very interesting paper that takes firm heterogeneity seriously to understand aggregate outcomes by introducing new channels
- With some additional work, the paper can be more convincing on:
 - **Is it really the case the unproductive firms exit under a peg and unproductive firms enter under a float?**
 - **Can Spain results driven by other factor/s instead of the exchange rate regime?**

- 1 Aggregate and Manufacturing TFP Trends
- 2 Representativeness of ESEE Data
- 3 Empirical Analysis and Alternative Mechanisms

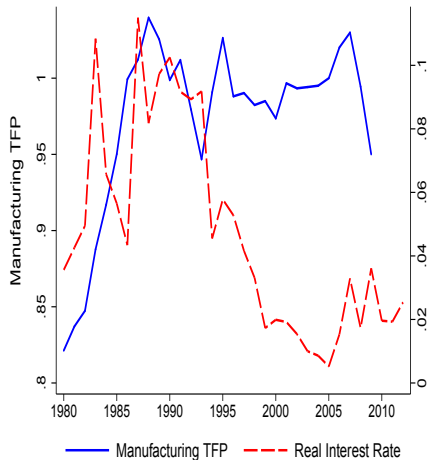
I. TFP Trends

Spain Aggregate TFP is flat/declining since the Euro

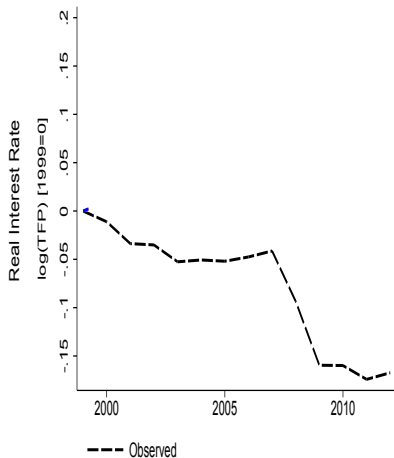


Spain Manufacturing TFP is flat/declining since 1990s

..also flat/declining in measures constructed from firm level data since 2000s



(a) KLEMS



(b) ORBIS

II. Representativeness of ESEE Data

- Large firms only (almost no SMEs), skewed firm size distribution
- Firm entry moves with the size threshold of the data collection
- Limited coverage of the manufacturing sector

Coverage of the Manufacturing Sector

<u>ESEE</u>				<u>ORBIS-Amadeus</u>		
Employment	Wage Bill	Gross Output		Employment	Wage Bill	Gross Output
1995	0.20	0.18	0.18	.	.	.
1996	0.17	0.16	0.16	.	.	.
1997	0.19	0.18	0.19	.	.	.
1998	0.17	0.18	0.19	0.44	0.65	0.70
1999	0.16	0.17	0.18	0.56	0.69	0.75
2000	0.19	0.20	0.23	0.58	0.71	0.76
2001	0.18	0.19	0.22	0.65	0.75	0.79
2002	0.17	0.19	0.21	0.65	0.75	0.79
2003	0.14	0.16	0.19	0.65	0.74	0.78
2004	0.14	0.17	0.19	0.66	0.75	0.78
2005	0.17	0.21	0.23	0.66	0.74	0.77
2006	0.17	0.20	0.23	0.67	0.74	0.77
2007	0.17	0.22	0.24	0.67	0.74	0.77
2008	0.18	0.24	0.25	0.65	0.72	0.72
2009	0.18	0.23	0.24	0.71	0.72	0.75
2010	0.17	0.21	0.24	0.68	0.73	0.74
2011	0.18	0.22	0.23	0.69	0.74	0.75
2012	0.18	0.22	0.21	0.69	0.74	0.75
2013	0.12	0.17	0.19	0.70	0.75	0.75

Firm Size Distribution

		Employment	Wage Bill	Gross Output
ESEE	1-19 employees	0.01	0.01	0.00
	20-249 employees	0.19	0.15	0.12
	250+ employees	0.80	0.84	0.88
ORBIS-AMADEUS	1-19 employees	0.24	0.19	0.14
	20-249 employees	0.50	0.47	0.42
	250+ employees	0.26	0.34	0.45
Eurostat (SBS)–Official	0-19 employees	0.31	0.20	0.14
	20-249 employees	0.43	0.43	0.38
	250+ employees	0.26	0.37	0.49

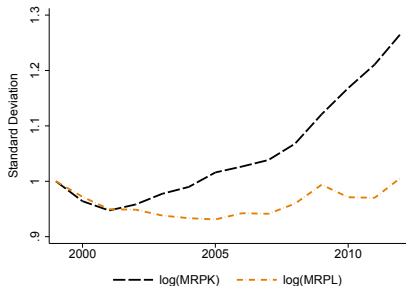
Importance of Representativeness

- Comparing two shocks for the same country requires that the firm sample is representative over time
- If firm size distribution changes over time due to selection, then **entry and exit cannot be interpreted solely as a function of shocks**
- Having **small firms** is essential for **capturing the factor misallocation trends**
- Misallocation of factors can be an alternative mechanism and also linked to markups

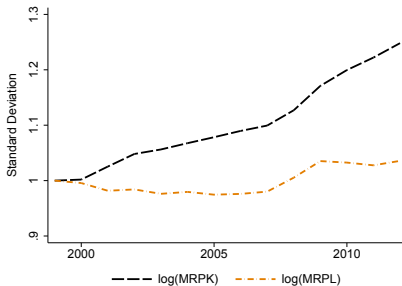
MRPK dispersion increases MRPL dispersion stays constant over time in Spain

Gopinath, Kalemli-Ozcan, Karabarbounis, Villegas-Sanchez, 2017

No entry and exit sample

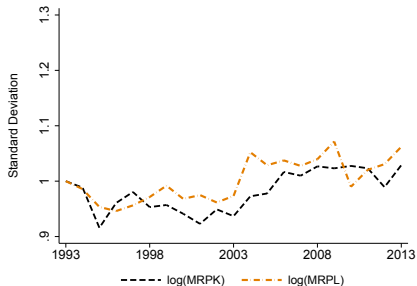


Full Sample

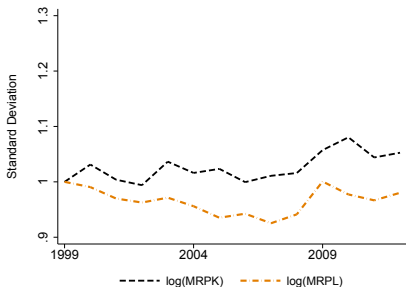


MRPK dispersion does not increase within large firms

ESEE Data



Similar large firms in ORBIS Data



III. Empirical Analysis and Alternative Mechanisms

Exit and Employment Growth Regression

Foster, Grim, Haltiwanger, 2016 (FGH)

$$(1) y_{it} = \beta TFP_{it} + \gamma ss_t^1 \times TFP_{it} + \theta ss_t^2 \times TFP_{it} + \delta ss_t^1 + \mu ss_t^2 + \epsilon_{it}$$

Following FGH exactly:

$$(2) y_{it} = \lambda_t + \mathbf{X}'_{it}\omega + \mathbf{X}'_{it}\omega \times ss_t^j + \beta TFP_{it} + \gamma ss_t^1 \times TFP_{it} + \theta ss_t^2 \times TFP_{it} + \epsilon_{it}$$

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- **Specification (1) cannot account for omitted variables at the firm level and policies that differ during two shocks ($\lambda_t + \mathbf{X}'_{it}\omega$)**
 - During 1992-1993 exit might be harder as labor market regulations were tighter
 - During 2010-2013, larger demand shock and support for smaller firms not to exit so exit shifted to larger firms
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- **Specification (1) cannot account for alternative stories: banking crisis, balance sheet effects, misallocation trends, intermediate imports ($\mathbf{X}'_{it}\omega \times ss_t^j$)**
 - How these characteristics interact with shocks and how they correlate with TFP?

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- Under the peg, demand and cost channel works (larger demand response), these are muted under the float as monetary policy is effective
- Monetary policy is largely ineffective in emerging markets with capital flows (floats/managed floats)—might even respond to sudden stop (Spain in early 1990s?)
- Maybe can test for monetary policy effectiveness via **short-rate disconnect** (Kalemli-Ozcan, 2019).
- If monetary policy is ineffective, other reasons might also explain the low exit rate during 1992-1993 shock

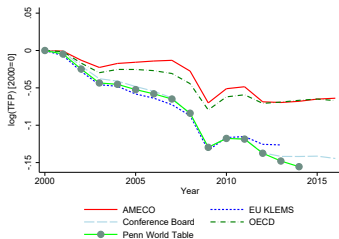
Conclusion

- Interesting, thought-provoking paper
- It will be great to revisit the aggregate and manufacturing TFP trends in Spain
- It will be good to undertake a systematic empirical analysis to rule out alternative explanations
- Alternatively, can use the model's implications to test different micro moments under different exchange rate regimes
- For the floating regime: need representative firm level data from another country or Census data from Spain.

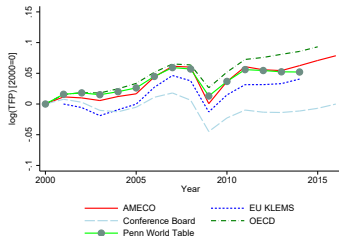
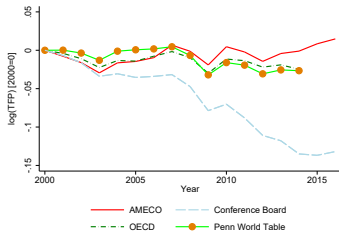
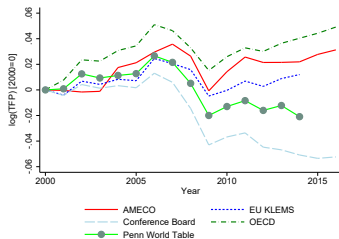
APPENDIX

Aggregate TFP: Other Euro Area Countries

Italy and Portugal

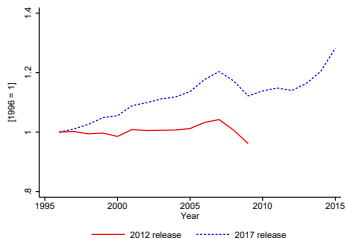


France and Germany



KLEMS Revision: Manufacturing TFP

Spain and Italy



France and Germany

