

Exchange Rate and Japanese Firms

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Discussion by
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Motivation of paper

- Role of exchange rate in the impact of Abenomics
- At aggregate level, we saw significant depreciation after 2013
- But modest increase in export volume
- What is the explanation?
- Need to look at more micro data
 - So this study is very welcome

Content of paper

- Micro evidence on the effects of Abenomics on firms sales and return on assets
- Very large firm level data
 - Survey of Japanese Business – longer sample, large and medium sized firms, smaller number of firms
 - Orbis data for smaller firms – much shorter sample but a lot more firms

Results

- Finds strong effects of REER changes on sales and ROA
- Bigger effects for larger firms
- Post 2013 effects (Abenomics bonus) is significant
- Stronger for trading firms
- But post 2013 REER change worse for exporters
- No evidence of weaker effects from offshoring

Discussion

- Overall assessment
- Details of regressions
- Abenomics and the exchange rate
- Explaining exchange rate disconnect
 - Some lessons from existing literature

1. Assessment

- In line with recent literature
 - Aggregate effects of exchange rates give weak and ambiguous results – exchange rate disconnect
 - Need more firm level evidence
 - This paper garners amazing micro data set
 - Results seem very robust
 - But some results seem somewhat preliminary – need to delve deeper into mechanisms involved

2. Details of regressions

- Benefit of micro data is large set of micro covariates, at firm level
 - Can see how exchange rate affects firms conditional on characteristics
- Here most of controls (except for export status) are aggregate, not firm specific
- Other features may be important
 - Balance sheet characteristics
 - Productivity

2. Details of regressions

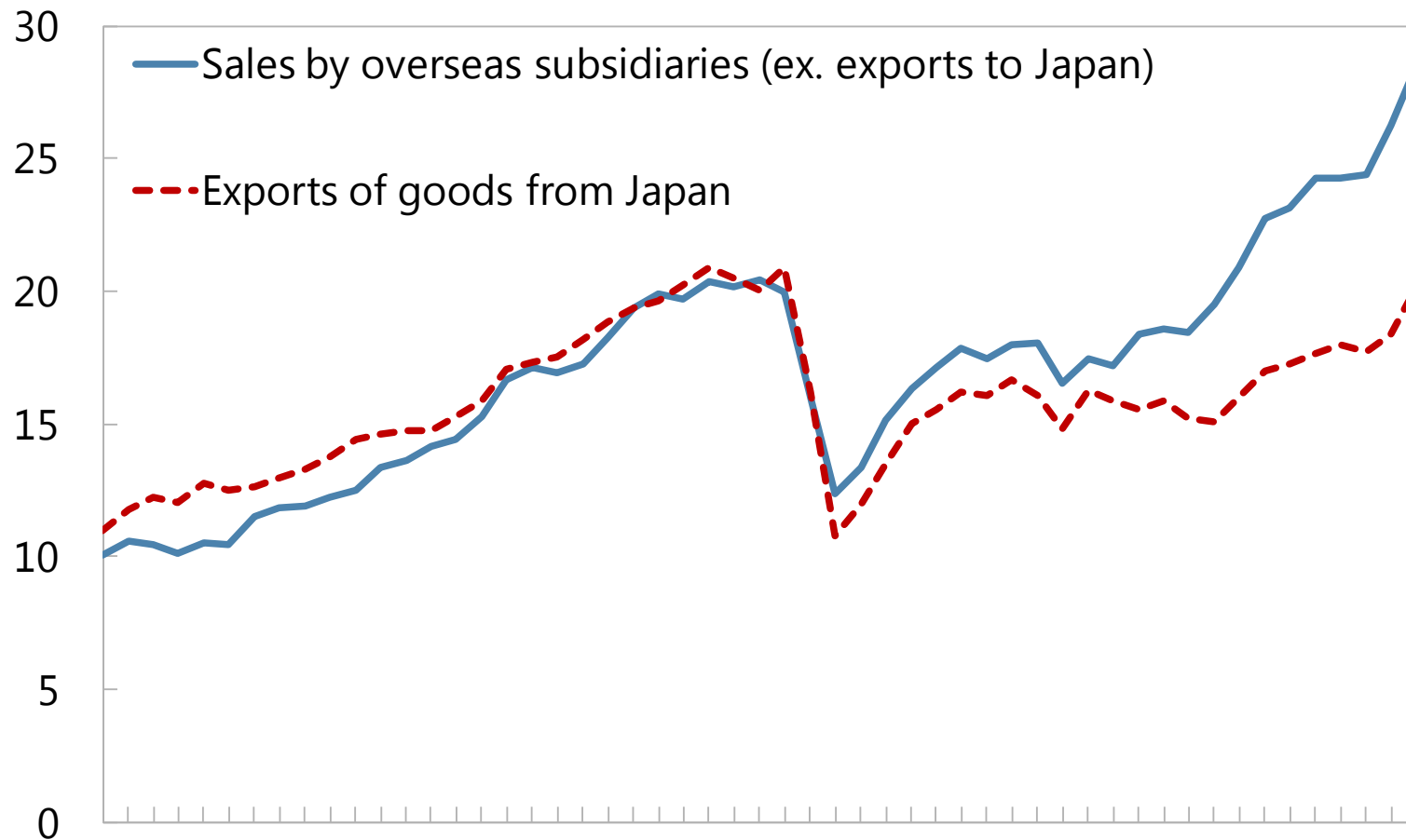
- Do regressions include firm fixed effects?
- Much heterogeneity (see)
 - Suggests need clustering residuals?
- Export status
 - Meaning of $(X-M)/S$ variable?
 - Literature usually separates exporters from non-exporters
- Oil
- 2013 export status – why negative for response to REER?

Huge heterogeneity

Total number of observations		Sample of large and medium-sized firms from the <i>Basic Survey of Japanese Business Structure and Activities (BSBSA)</i> FY1994-FY2013			
<i>BSBSA</i> + <i>Orbis</i>	(Total number of firms)	Obs.	Mean	Median	S.D.
2,239,123	(359,641)	514,745	23,940	4,987	187,502

Standard Deviation is 9 times the mean

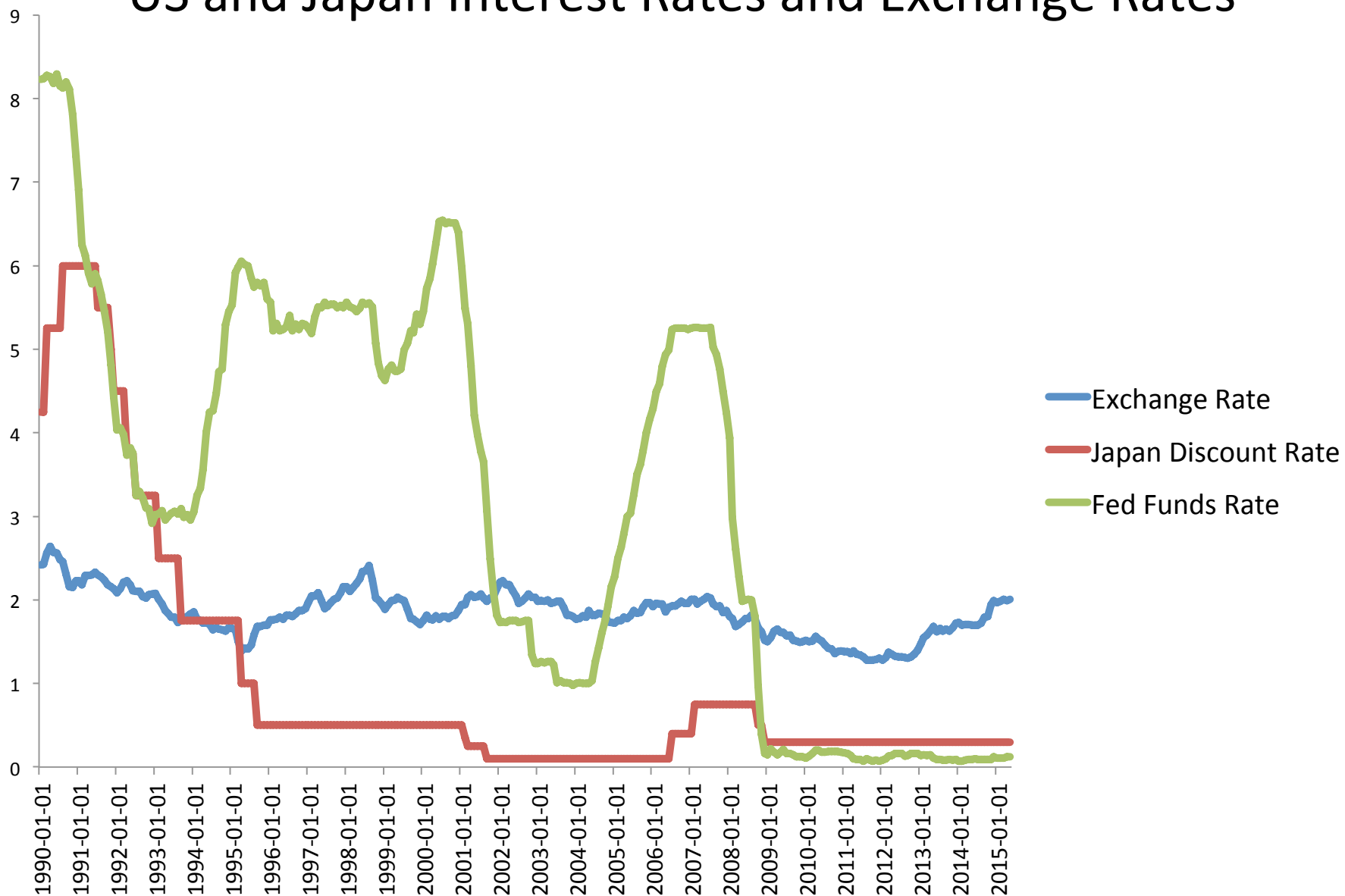
Finding that offshoring unimportant: at odds with aggregate evidence?



3. Abenomics and exchange rate

- Puzzling that monetary policy has been excessively accommodating for decades, but only 2013 did currency begin to fall significantly
- Svensson's 2001 argued for variant of Abenomics – devaluation with price level target
- But requires commitment
 - If all elements of Abenomics not in place, may currency strengthen again?

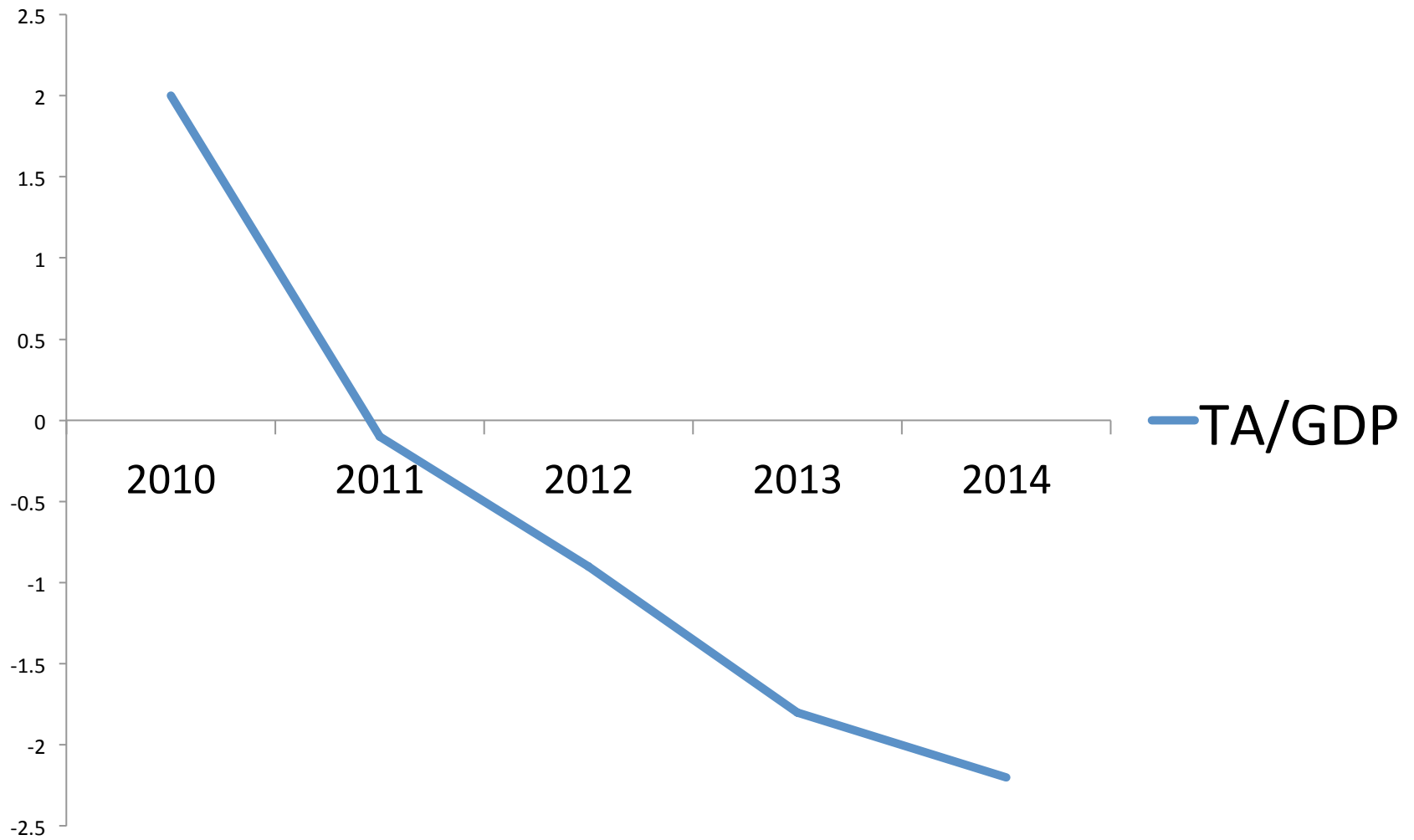
US and Japan Interest Rates and Exchange Rates



4. RER depreciation and growth

- May translate little into growth
- TA has continued to fall over last 4 years
- Growth in export volume has not been strong
- Suspects
 - Low pass-through?
 - Offshoring (need better controls for this?)
 - High import content of exports – supply chains

TA/GDP



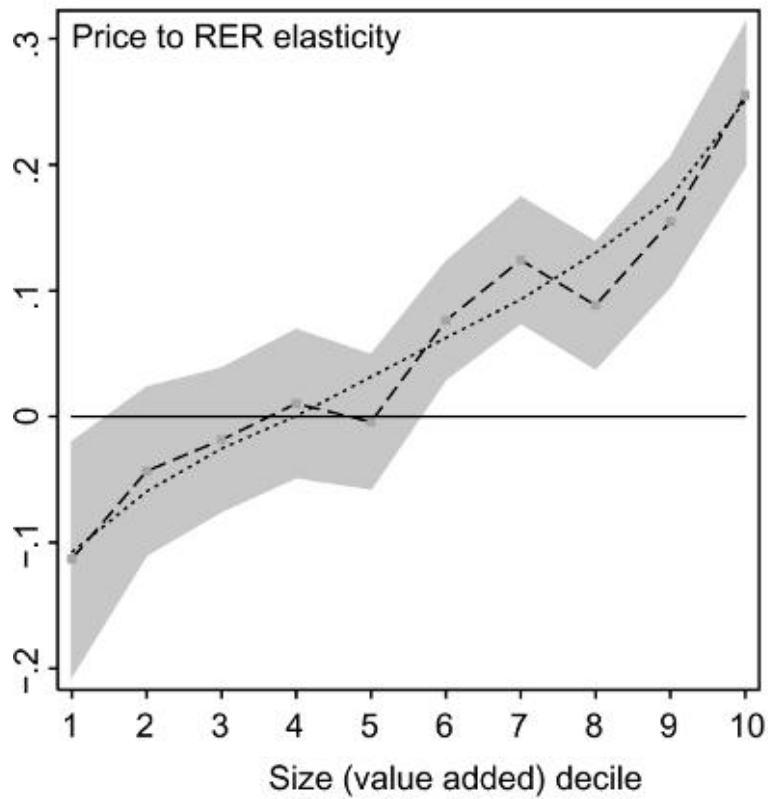
Exchange Rate pass-through

- Question here reminiscent of 1980's
 - US dollar depreciation saw little change in Japanese imported goods prices in US dollars
 - Krugman 87, Froot and Klemperer 89 Dornbusch 87
 - Micro/IO reasons for slow pass-through
- But then no micro data
 - Last 10 years has seen an explosion of detailed studies of firm level data
- Importance of firm characteristics
 - Suggests directions for this paper

Pass-through and Productivity

- Berman et al 2012 QJE French firm level data
 - Most productive firms are exporters
 - Large share of exports accounted for by high performing large firms incurring fixed costs
 - Tend to absorb exchange rate movements in profits with small pass-through

A: Unit values



B: Volumes

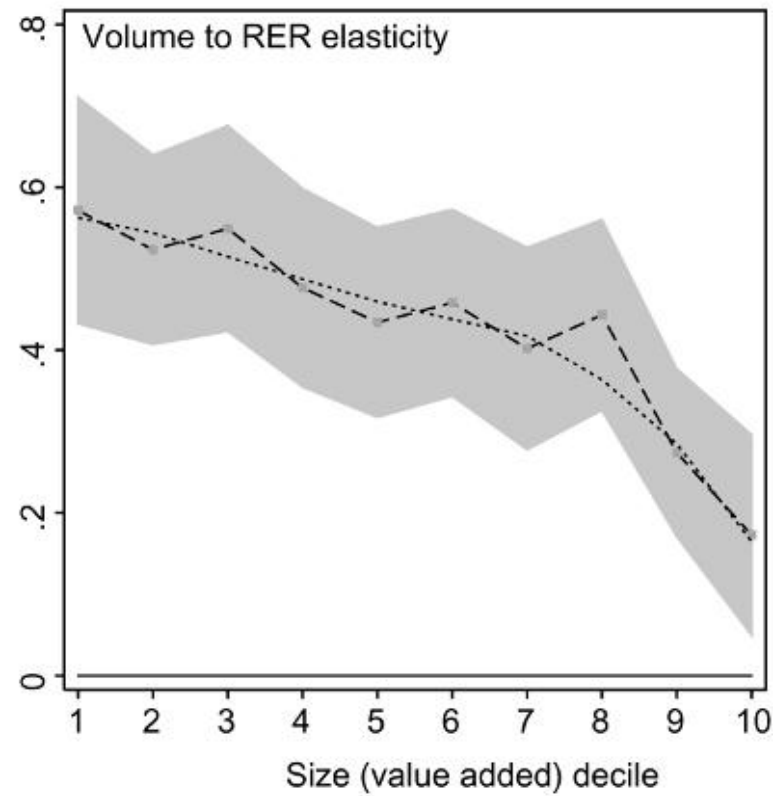


FIGURE I

Responses to RER Changes by Decile of Size

Pass-through and Supply Chains

- Amiti et al 2013 Belgian data
- Firms with large share of intermediate goods in production have systematically lower pass-through
- Here we see surprisingly that impact of REER does not depend on whether firms are net exporters or importers
 - But perhaps need more direct measure of intermediate inputs use?

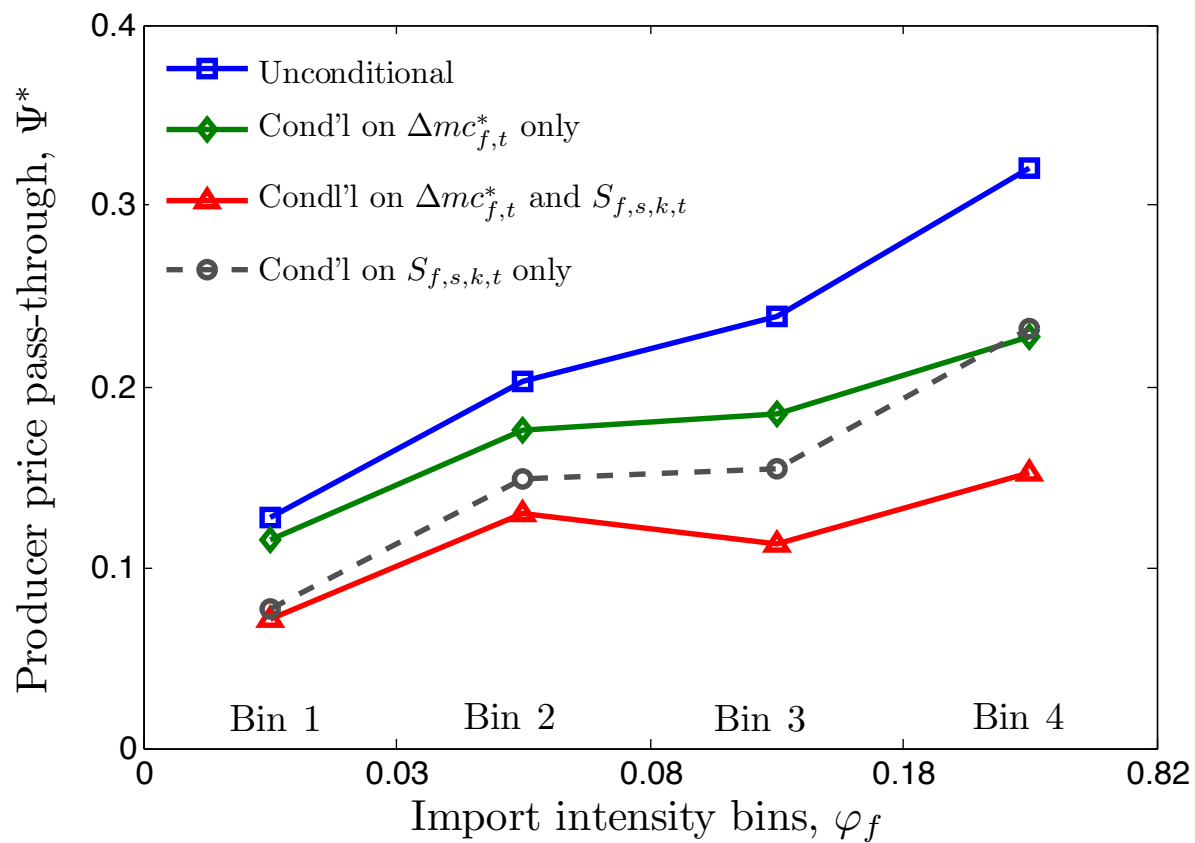
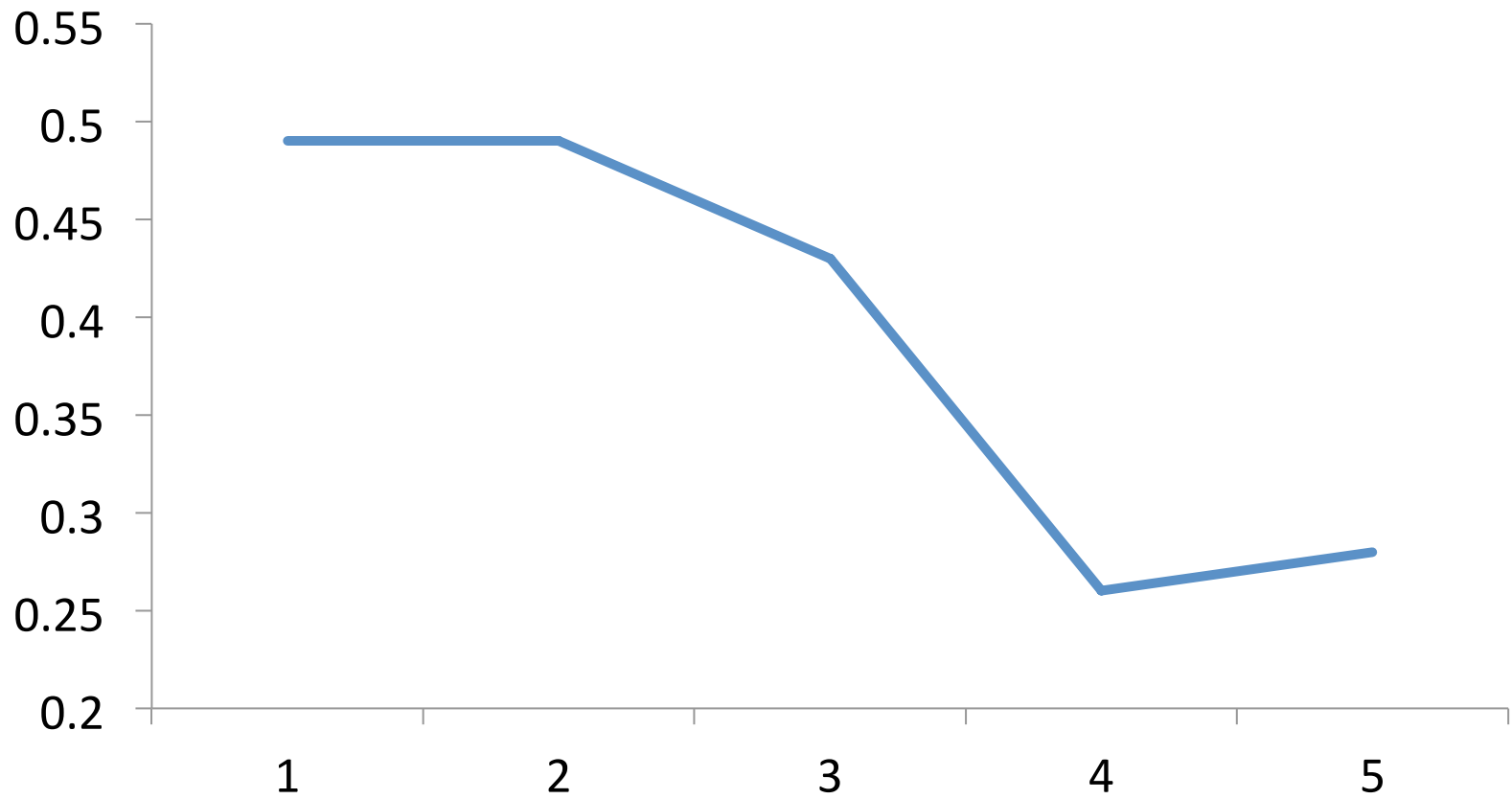


Figure 1: Pass-through by quartile of import intensity

Pass-through and Market Share

- Auer and Schoenle 2015 US data
 - Pass through is 'U'-shaped in exporter market share
- Devereux Dong and Tomlin 2015a Canadian Import price data
 - Pass-through is declining in market share of the *importing* firm

Pass-through and Quintile of Importers Market Share



Pass-through and currency choice

- Gopinath et al. 2009: Pass-through is lower for LCP pricing
 - Supported by Canadian data

CA Dollar		US Dollar		Euro	
β_C	(s.e.)	β_U	(s.e.)	β_E	(s.e.)
0.137***	(0.01)	0.502***	(0.01)	0.497***	(0.01)

- Look at European versus US exports?

Granularity: importance of huge firms

- Granularity
 - Gabaix, Levchenko et al.
 - Large part of volatility in GDP accounted for by firm specific shocks of large firms
 - Similar for exporters (Levchenko et al. 2014)
- Devereux Wei and Tomlin 2015b
 - Canadian exports 50% of market share accounted for by top 1 percent of firms in terms of sales
 - Situation even more extreme on the importers firm side
- Suggests focusing on top decile of exporting firms

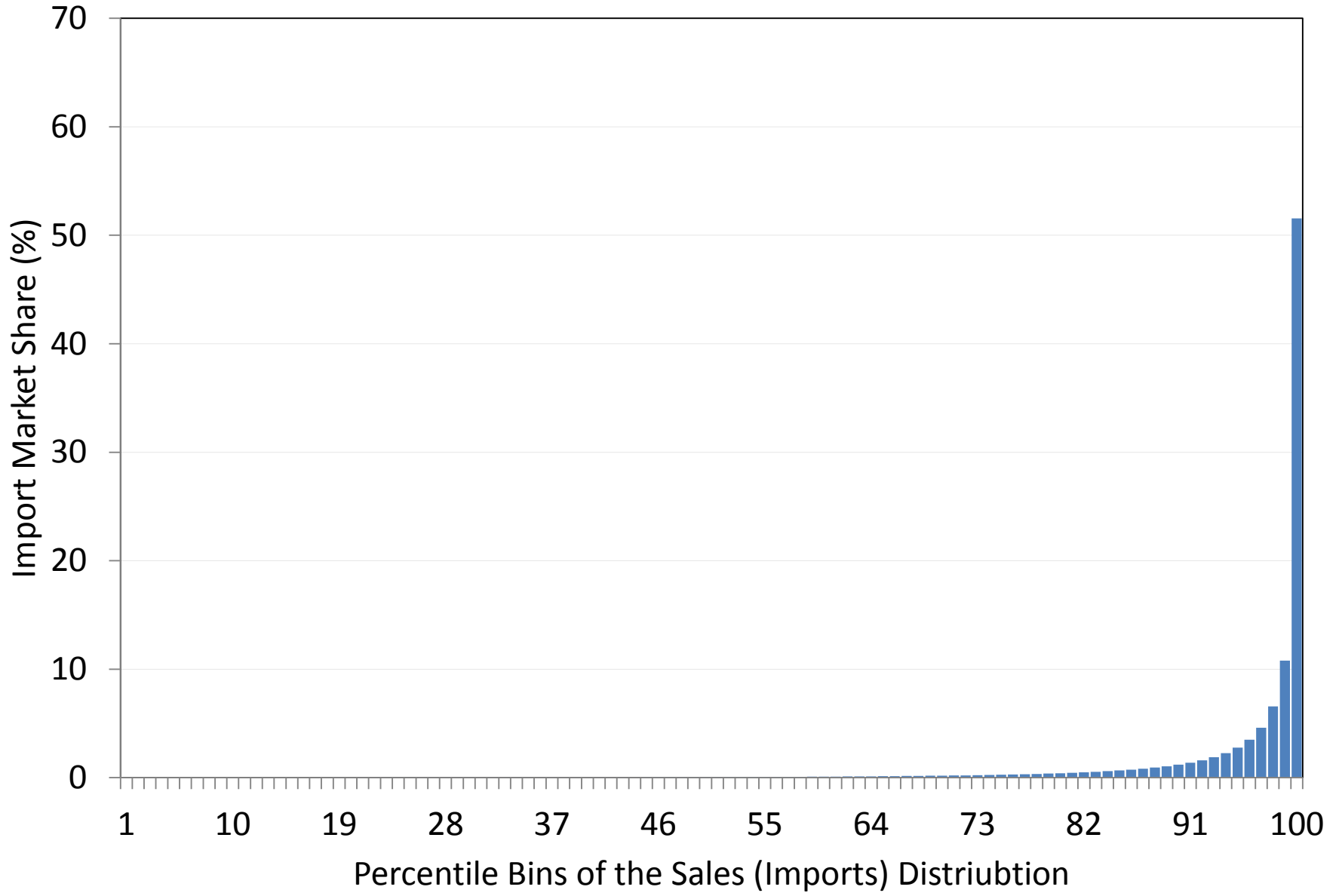
In total firm sample for this paper, granularity not too high:
Sales by largest firms less than 8 percent of total sales

But maybe different for exporters?

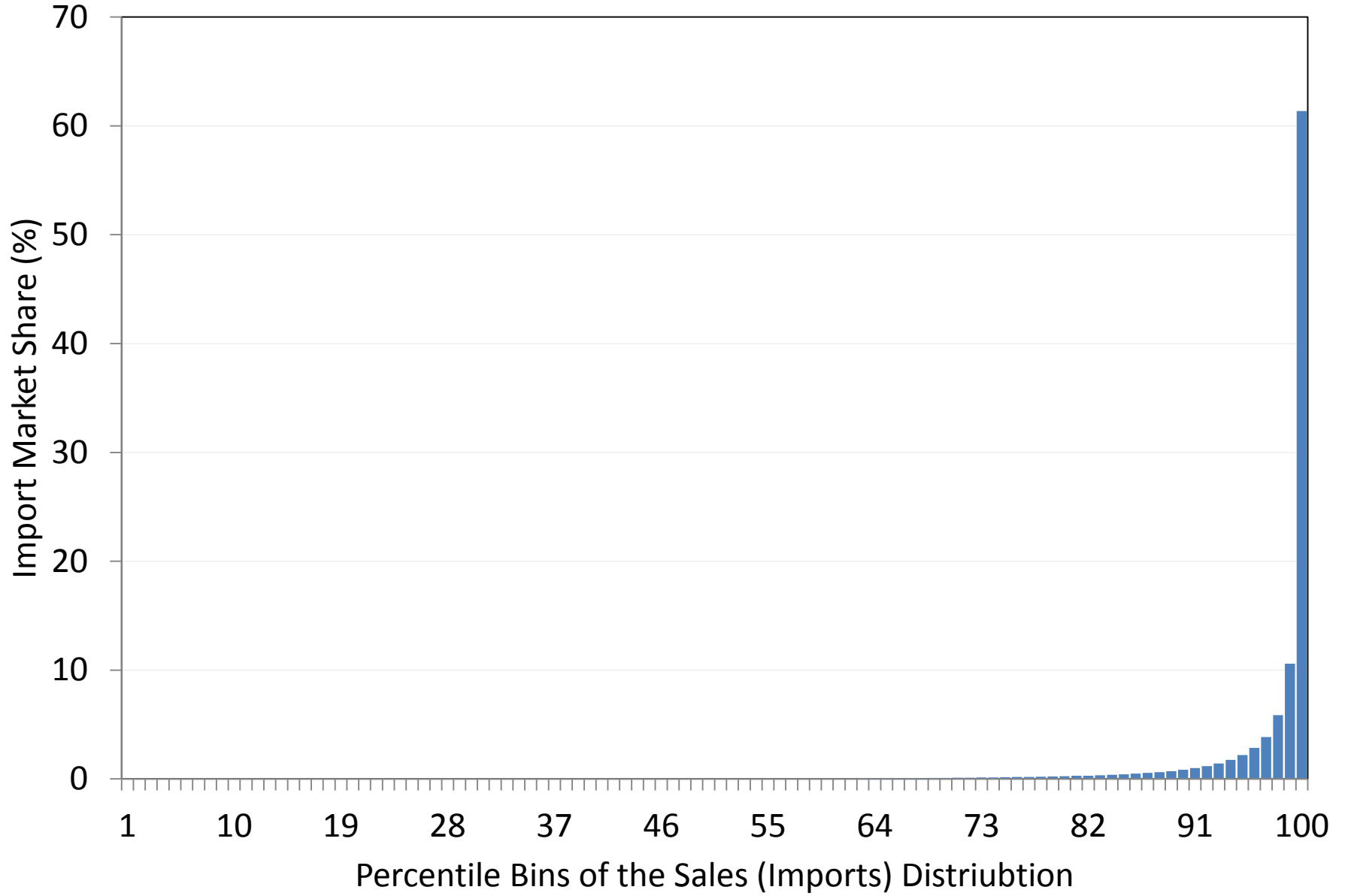
■ Amount of sales (million yen)

Total Sample		2,239,123 (359,641)
By firm size:	Large (300 or more employees)	108,303 (8,324)
	Medium (50 to 299 employees)	406,442 (37,556)
	Small (fewer than 50 employees)	1,724,378 (313,761)

Exporter Market Share (% of Canadian import market, 2007)



Importer Market Share (% of Canadian import market, 2007)



Policy implications

- Currency depreciation affecting sales profits more than employment?
- Stimulus for the real economy muted?
 - Maybe want to rethink policies of recovery through competitive depreciation?
- Also, evidence seems clear that exchange rate depreciation is very ineffective in raising inflation