

**Discussion of:  
EXIM's Exit:  
The Real Effects of Trade Financing by Export  
Credit Agencies  
By Kabir, Matray, Muller, and Xu**

**ABFER, Singapore**

**Stephen Teng Sun  
City University of Hong Kong  
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# Overview

- A smart leverage of the EXIM shutdown shock in 2015 to firm-level data.
  - Relates to other works such as Kurban (2022) on industry/product level; Benmelech and Monteiro (2023) on Boeing and its customers.
  - No staggered DID.
- Extremely well motivated: industrial policy.
- Sharp and compelling results.
- Highly transparent on specification, extensive robustness checks.
- I like this paper a lot, a very insightful paper!
  - Want to study another recent shock on US exporters use public data, check out this paper!

# Main Conclusion

- When the EXIM was not in full operation (half a year suspension + unable to approve projects with over 10m funding), firms previously supported by it were negatively affected:
- In total sales, export sales;
- In capital, employment, but not ROA;
- Results work well in event study, robustness checks.
- The effect was more salient for firms with more exposure; more export opportunities; and more financially constrained
- Aggregate effect in trade also observed;
- The ex-ante higher MRPK firms cut capital more, which the authors interpret as increased misallocation.

# An important and timely question

- A heated policy debate: EXIM bank was temporarily shut down due to political disputes;
- Supporters say it is a win-win solution;
- Opponents believe the benefits were captured by a small number of large U.S. exporters like Boeing, and it benefitted foreign buyers but hurt U.S. domestic competitors.
- Industrial policy is policy-relevant: export credit subsidies being one of the major form;

# First Reaction

- Trade literature has well established that financial institution is a source of comparative advantage.
- When exporters have lower financing costs, they will be able to produce and export more.
- Therefore, paper's conclusions are not that surprising in light of the trade literature.
- But this helps their paper, to convince readers of the effect of EXIM bank.
- Agarwal et al. (2023) study a Swedish Export Credit Agency marketing campaign using RDD and find it increases export, but not firm employment or value-added.

# How EXIM could work?

- “For example, exporters need working capital for the period of time between the production of a good to its final sale, and they face a risk of non-payment from customers in foreign countries after the good is shipped. In addition, their customers may need credit to finance the purchase in the first place.”
- Scenario 1: firms need working capital, EXIM provides it; (SME)
- Scenario 2: EXIM lowered the risk of non-payment; firms’ marginal projects are made possible by EXIM, which increases risk-adjusted ROA;
- Scenario 3: firms’ customers are attracted by the generous financing deal provided by banks due to EXIM support.

# Some critics of EXIM



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## Delta sues U.S. Export-Import Bank over aircraft subsidies

By David Ingram

February 14, 2013 8:35 AM GMT+8 · Updated 11 years ago



- Delta Airline sued EXIM for providing cheap financing for Air India to buy Boeing planes.
- Saying it gave an unfair competitive advantage.
- “Specifically, the U.S. loan guarantees enable foreign carriers to obtain financing for aircraft at considerably lower rates, in some cases up to 50 percent lower, than what U.S. airlines must pay on the commercial market.”

# My slightly different story

- Firms choose investment/export projects with different ROAs, with a threshold (say, 8%).
- Two types of projects: always taken ones; switchers.
- Switchers: export projects without EXIM support will not pass the threshold, but with EXIM support, they will be chosen and have similar ROAs as other projects that would always be taken.
- With a sudden stop in EXIM support, certain future export projects won't be taken, firms will need to downsize their capital and labor (reduce total asset). But the ROA will remain the same.
- Constrained firms more likely to have these switcher project.
- High MRPK firms more likely to have these switcher projects.
- However, not clear if there is significant effect on MRPK or misallocation: while high MRPK firms shed capital, they also reduce sales proportionally.



# Comment on misallocation

- The misallocation framework borrows from Bau and Matry (2020 Econometrica), which I like a lot!
- Bau and Matry (2020) study the effect of India's FDI liberalization, it provided more capital to domestic firms, which clearly affected the wedge in  $K$ .
- However, in the EXIM setting, the current approach could be too “reduced-form”.
- Two possible channels of how the EXIM works:
  - 1<sup>st</sup>, firms don't have enough funding to increase their production capacity, they need working capital, clearly  $K$  is affected; (SME)
  - 2<sup>nd</sup>, firms have enough working capital and can increase  $K$  easily, but for some of their foreign customers, they either have higher default risk, or need attractive financing terms to buy. Not clear here if it is directly a wedge for firms to increase  $K$ . (large public firms).
    - EXIM induces marginal customers, then induces marginal investment.

# Comment on misallocation

- For high MRPK firms, see a larger decline in both K and Y, in the end the  $MRPK=Y/K$  may stay the same.
  - Usually K has adjustment cost and is less elastic than sales.
- Need to see an increase in the dispersion of MRPK.
  - Restuccia and Rogerson (2008); Hsieh and Klenow (2009); Sraer and Thesmar (2023)

Table 9: Does EXIM Support Inefficient Firms?

<i>Dependent variable</i>	Global sales			Capital		
	Low	High	All	Low	High	All
	(1)	(2)	(3)	(4)	(5)	(6)
EXIM×Post	-0.064 (0.054)	-0.22*** (0.060)		-0.044 (0.055)	-0.25*** (0.067)	
EXIM×Post×MRPK			-0.16** (0.081)			-0.21** (0.087)

# Comment on efficiency of EXIM

- Results refute the null that the EXIM money is a pure waste, which leads to no change in firm behavior without the money.
- However, critics may say the current allocation of EXIM money may not be truly efficient, with large companies like Boeing capture the majority of the funding.
- A change in the funding allocation could be more efficient?
- Suggestion: authors could calculate the \$ value needed to save one employment, compare it with other government expenditure/funding programs.

# Davis-Haltiwanger growth variable used (should be cited)

$g_{i,p,d}^X = (X_{i,p,d,t} - X_{i,p,d,t-1}) / [(X_{i,p,d,t} + X_{i,p,d,t-1}) \times 0.5]$ . This method ensures that we have a balanced panel that captures extensive margin changes.<sup>37</sup>

The mid-point growth specification has two important and appealing properties.<sup>38</sup> First, it handles entry and exit of markets (destination-by-products) without relying on transformations of the log function (such as “x+1”), which are sensitive to small variations around zero and are therefore not invariant to the unit measurements for a value (for example, thousands versus millions). Second, it ensures that the coefficients at the firm-product-destination level aggregate exactly to the coefficients at the firm level when using the correct weights, which is not possible with non-linear functions. The weights are defined as the share of the denominator in the total firm-period cell. For each firm  $i$  shipping product  $p$  to destination  $d$ , we compute the weight as  $g_{i,p,d}^X / (\sum_{i \in i,p,d} g_{i,p,d}^X)$ .

38. [Fonseca and Matray \(2022\)](#) provides a detailed explanation and an application to firm entry and exit across industries.

# Comment on sample concentration

- The treated sample is extremely concentrated: among the 3000 public firms (2010-2019), only 120 firms (4%) have any EXIM exposure, 30 firms (1%) have large exposure. If we drop the 10 largest treatment firms, only end up with 20.

Table 1: Summary Statistics

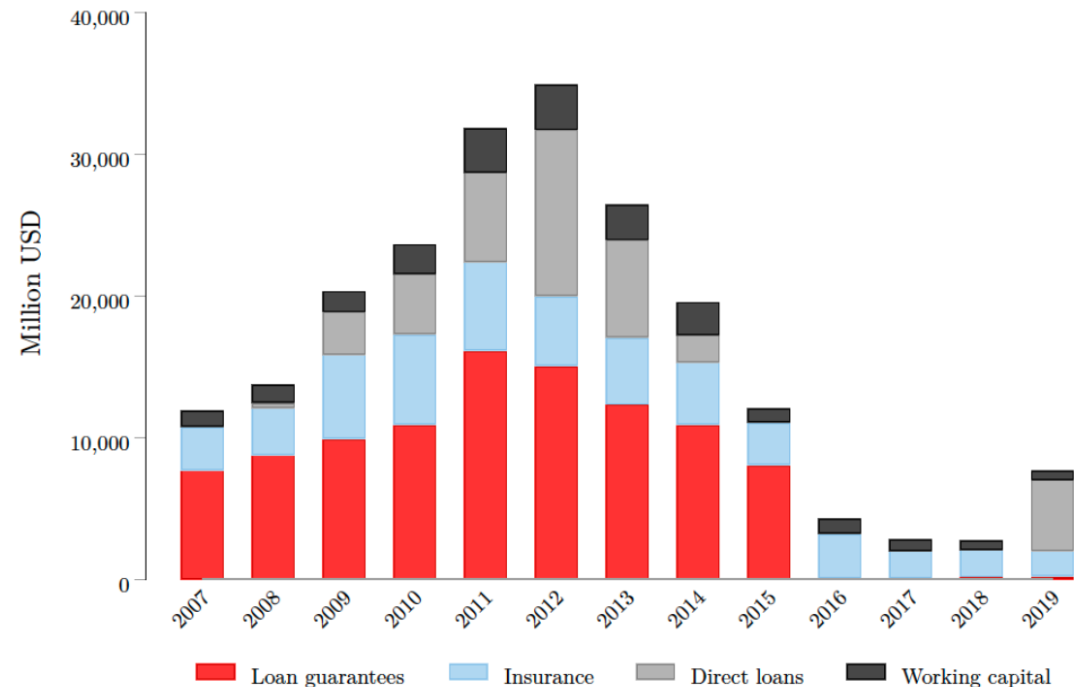
	Mean	Std. Dev.	p25	Median	p75
EXIM dummy	0.04	0.21	0.00	0.00	0.00
Large loan dummy	0.01	0.10	0.00	0.00	0.00
Exporter dummy	0.70	0.46	0.00	1.00	1.00
Global sales	4,137.46	17,581.10	66.24	470.30	2,178.18
Employees No. (thousands)	12.65	56.15	0.21	1.50	7.40
Foreign sales	1,376.75	7,895.81	0.00	8.59	355.49
Total assets	5,283.22	24,501.34	90.11	554.94	2,498.88
ROA	-0.01	0.72	0.02	0.10	0.15
Leverage	0.29	0.35	0.03	0.21	0.40
Tangibility	0.25	0.24	0.06	0.15	0.36
Observations	28583				

# Comment on sample concentration

- We know the EXIM loans distribution is extremely skewed, with Boeing alone taking up 1/3, and public firms taking up 80%.
- What are the distributions among the public firm sample? For example, what % of loans do firms outside of top 10 account for?
- What actually got reduced in the sample?
- a, change in the number of loans and value for loans of **below** 10m?
- b, change in the number of loans and value for loans of 10m or **above**?
- Relatedly, to do a DID, rather than use a treatment dummy, would it be more reasonable to use an intensity: EXIM loans/total debt or EXIM loans/asset?

# Comment on the type of programs

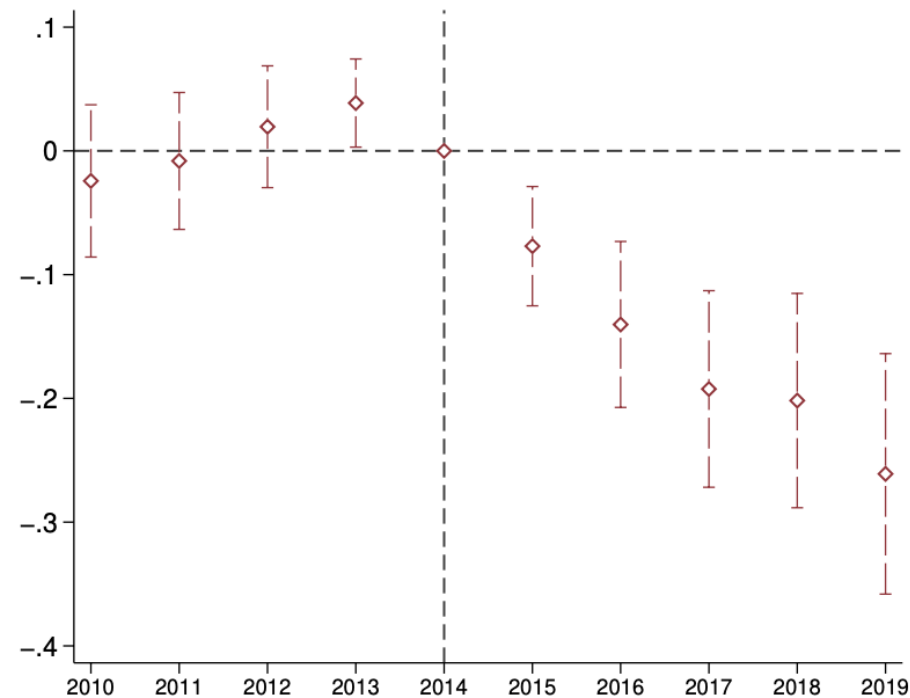
- Loan guarantee; Insurance; Direct loans; Working capital;
- Loan guarantee and direct loans basically stopped in 2016-2018/9. But insurance much less affected.
- Do the same firm always receive multiple types of programs? Any heterogeneity? Essentially the firms with insurance used as control group in the within EXIM comparison, what is their avg. effect compared to non-EXIM firms?



# Comment on magnitude

- Magnitude: is it too large?
- Question: what % is export out of total sales?
- Anything else going on: spillover to domestic production/sales?

(B) Event study D-i-D









# Suggestion: granularity of the trade data

- The destination by year FE not really that useful. A firm exporting planes and another firm exporting clothes to a country not comparable.
- The more useful FE is the destination\*product\*year fe, which can be used in the Datamyne trade sample.
- With the granular data, you can decompose the export growth to different margins: intensive margin (export growth due to surviving incumbent destination-product pairs), dropped extensive margin (export growth due to dropped destination-product pairs), added extensive margin (export growth due to added destination-product pairs).

# Suggestion: granularity of the trade data

- You can run cross-sectional tests or decompositions based on the destination country's riskiness or level of financial development.
- You can also do cross-sectional tests based on proxies of the strength of countries' contract enforcement with the overall rule of law index from Kaufmann et al. (2003) and Nunn (2007).
  - Kaufmann, D., Kraay, A. and Mastruzzi, M. (2003). Governance matters: Governance indicators for 1996-2002. iii. World Bank, 3106 (2).
  - Nunn, N. (2007). Relationship-specificity, incomplete contracts, and the pattern of trade. The Quarterly Journal of Economics, 122 (2), 569–600.
- “Financing is essential for trade. Trade typically involves a lag between the time when goods are shipped and when they are received, and firms need working capital during that period. In all transactions, the payment terms imply that one of the importer or exporter is financing the other. However, when contractual frictions are sufficiently high such that neither party provides financing, a beneficial trade may not occur.”

# Typos in the first difference regressions?

- Why include Post variable? If the data is already collapsed?
- How many firms and how many treated in the Datamyne sample?

<i>Dataset</i>	Compustat Segment	Hoberg–Moon	Datamyne				
<i>Dependent variable</i>	$\Delta$ Foreign sales	$\Delta$ # 10-K mention	$\Delta$ Maritime export				
<i>Unit of analysis</i>	Firm	Firm	Firm	Firm $\times$ destination $\times$ product			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
EXIM $\times$ Post	-0.16** (0.077)	-0.12* (0.070)	-0.39** (0.18)	-0.39** (0.17)	-0.33* (0.19)	-0.44*** (0.16)	-0.31** (0.15)
<i>Fixed Effects</i>							
Industry $\times$ Post	✓	✓	✓	✓	✓	✓	✓
Product $\times$ Post	—	—	—	—	✓	—	✓
Destination country $\times$ Post	—	—	—	—	—	✓	✓
Observations	2,012	3,131	600	126,938	126,938	126,938	126,938

This table reports the estimated effects of EXIM’s shutdown on various measures of firm exports. In all columns, regressions are estimated in first difference, with data collapsed into an average “pre” ( $t \leq 2014$ ) and average “post” ( $t > 2014$ ) period, and each dependent variable is defined as the midpoint growth rate  $g_i^X = [(X_{i,t} + X_{i,t-1}) \times 0.5]$  and estimated using equation (2). In column 1, exports are proxied by foreign sales taken from the Compustat

# Conclusion

- A very interesting, well-implemented, smart paper.
- The paper already does a lot, and is still being updated.
- Hit on an important topic.
- Thought-provoking paper.
- Hope to see it come out in a top journal and inspire lots of follow-up works.