

Comments on:
Capital and Labour
(mis)allocation in the EA
*(E. Gamberoni, C. Giordano
and P. Lopez-Garcia)*

Matteo Bugamelli
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MRPK and misallocation

- Asker-Collard-Wexler-De Loecker (JPE, 2014): in a model with dynamic inputs and adjustment costs, $\text{Var}(\text{MRPK})$ is not necessarily a measure of misallocation; could even be of efficient (dynamic) allocation
- Moreover, show $\text{Var}(\text{TFPR})$ explains $\text{Var}(\text{MRPK})$
- TFPR (ACWDL): «demand shocks, natural disaster, infrastructure, change in markups, incidence of corruption/nepotism...»

MRPK and misallocation

- **GGLG not really measuring misallocation?**
- **Less relevant to search for role of frictions to explain dispersion in MRPK?**
- **Regression on OP: fewer significant coefficients; frictions are not relevant at all**

Turning positive

- **GGLG adds and finds a role for demand: growth and uncertainty**
- **Also relevant and significant in OP regressions**
- **Credit measures: maybe capturing demand side (demand shocks heterogeneous across firms, countries, sectors, years) more than supply (i.e. frictions) side effect**

Some suggestions

- **Bring in more firm-level-based evidence: how much of $\text{var}(\text{MRPK})$ is due to within vs between components by firm characteristics?**
 - **more across firm size classes or within classes?**
 - **more across export status (or propensity) or within export status**

Some suggestions

- Investigate more on mechanisms through interactions with key explanatory variables:
 - effect of credit more important where external financial dependence more relevant? where firms are on average smaller? For different export propensity (demand side)?
 - Uncertainty more important in sectors where capital/adjustment costs more important?
 - Compute measure of difference btw domestic & foreign demand growth: related to changes in $\text{Var}(\text{MRPK})$? exploit different export propensity across countries or sectors?

Comments on:
Trade liberalisation and
Productivity: the Role of
Foreign Ownership
(*C. Bircan*)

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What the paper does and finds

Use custom union agreement btw EU and Turkey (Dec 1995) as quasi natural experiment to show effects of tariff changes on: i) foreign equity share in Turkish firms; ii) productivity enhancement and technological upgrading by Turkish firms:

Results :

- output tariff reductions (tariffs applied on imports of goods produced by domestic firms) have expected effects: greater market competition
- with very few exceptions, input and export tariff reductions have no significant effects

Merits and critical issues

Merits:

- Interesting contribution to trade literature
- Unveiling novel mechanisms of productivity enhancing trade liberalization
- Carefully executed

Critical issues:

- 2000-01 big crisis
- Missing link or 2 papers in 1: foreign ownership vs productivity/tech upgrading
- Other minor issues

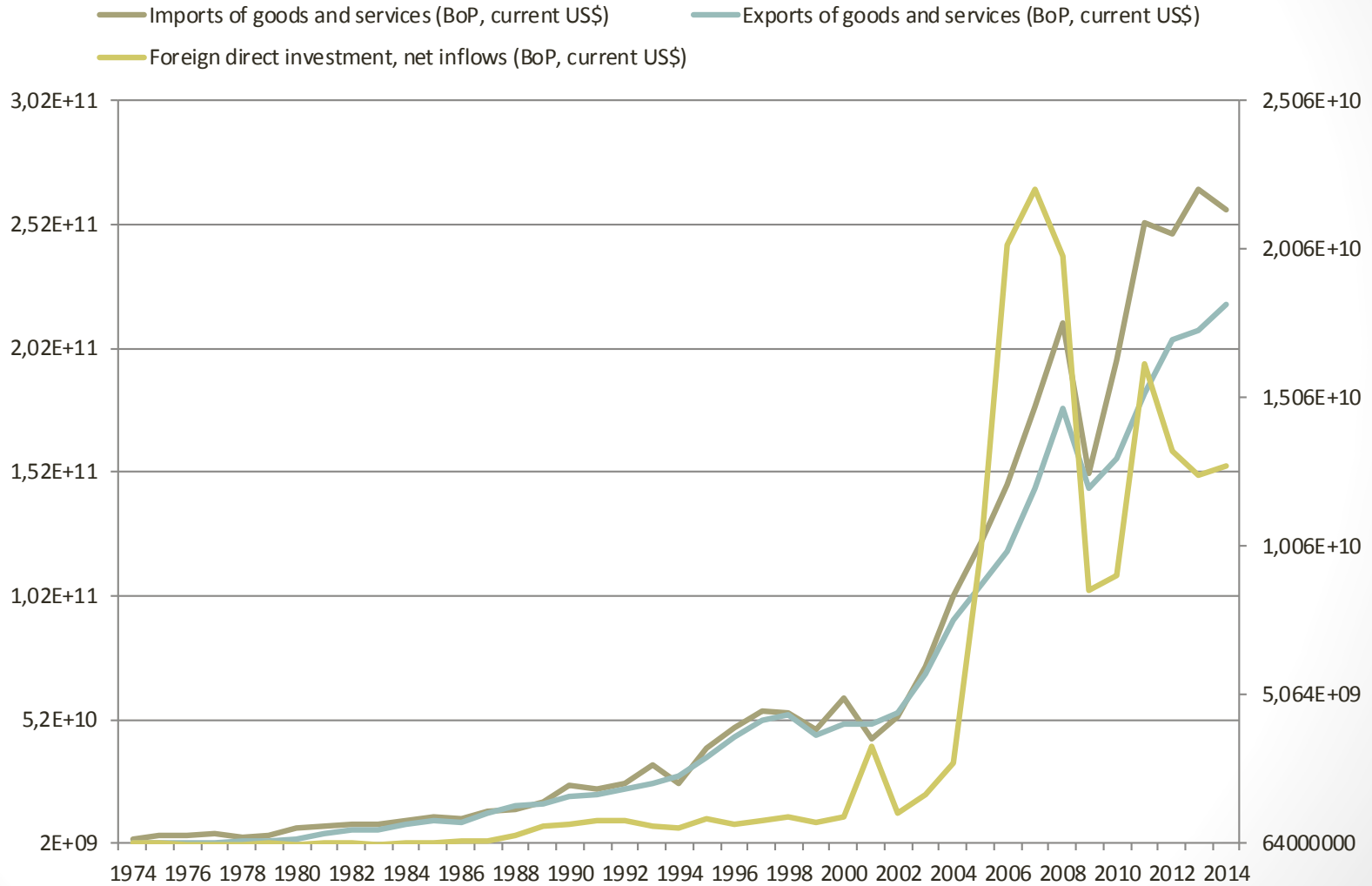
2000-2001 Big Crisis

- Dec 1999 - Turkey entered into an IMF stand-by arrangement: exchange rate anchor, fiscal consolidation through adjustment in primary fiscal deficit, structural reforms
- Inflation falling less & interest rates falling more than expected; boom in domestic demand & current account deficit; fiscal consolidation and structural reforms lagging behind
- Oct 2000 – banking crisis starts. Central bank injects liquidity, but drain on official reserves. Help of IMF not enough to prevent high interest rates and depreciation of lira

2000-2001 Big Crisis

- 2001: real GDP declined by 5.7%, investment collapsed by 30%, industrial output by 8.7%; manufacturing activity by 9.4% (automotive - 26%); imports down by 8% (exports stable); real wages -15%; 81 banks in trouble lira depreciated by 60% against USD

Trade and FDI



The 2001 crisis in this paper

Table 1: Cross-Border Acquisitions and Foreign Presence in Turkey, 1993-2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
<i>Number of Plants:</i>									
Foreign	244	256	269	273	302	333	345	334	332
Domestic	5,414	5,700	6,171	6,583	6,985	7,485	7,174	7,013	6,582
<i>Share of Foreign Plants in:</i>									
Employment	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.14	0.15
Output	0.25	0.24	0.24	0.25	0.26	0.24	0.26	0.29	0.29
Value Added	0.27	0.25	0.26	0.27	0.29	0.25	0.28	0.30	0.30
<i>Foreign Investments:</i>									
New Acquisitions	28	15	22	19	28	39	38	30	40
Greenfield Investments	22	8	12	19	38	27	16	12	0
Continuing Affiliates	194	233	235	235	234	264	290	292	292
Decreases in Equity	8	15	16	11	14	14	10	10	10
No Changes in Equity	174	195	203	206	207	233	266	260	263
Increases in Equity	12	23	16	18	13	17	14	22	19
Divestments	11	8	17	30	27	27	24	38	35

Notes: A decrease (increase) in equity refers to cases when the share of foreign equity at the investee firm falls (rises) from one year to the next by more than 1 percentage point. Divestment refers to cases when a foreign affiliate is shut down or the foreign parent withdraws all of its equity investment (i.e. a sale to domestic owners).

The 2001 crisis in this paper

«We restrict our dataset to a balanced panel of domestic and foreign firms over the period 1995-2001.»

potential incidental parameters problem. We take first differences of (1) between 1995 and 2001 to eliminate time-invariant plant and industry heterogeneity, and we include firm-level controls X_{ij} measured in 1995 to arrive at our main model:

$$\Delta FEP_{ij} = \beta_{prd} \Delta \tau_{ij}^{prd} + \beta_{imp} \Delta \tau_{ij}^{imp} + \beta_{exp} \Delta \tau_{ij}^{exp} + X'_{ij,1995} \Gamma + \Delta \alpha_j + \Delta \varepsilon_{ij} \quad (2)$$

$$FEP_{ij,2001} = \beta_{prd} \Delta \tau_{ij}^{prd} + \beta_{imp} \Delta \tau_{ij}^{imp} + \beta_{exp} \Delta \tau_{ij}^{exp} + \delta FEP_{ij,1995} + X'_{ij,1995} \Gamma + \alpha_j + \varepsilon_{ij,2001} \quad (3)$$

2001 crisis: FE and controls

- Equation in levels: are industry time varying FE and firm time-invariant FE, other firm level controls are enough?
- Maybe...but how about if 2001 crisis had differential effects across firms not captured by firm level controls?

Ex: state-owned or strategic industries/firms more protected through tariffs before trade liberalization: hit more during 2001 crisis (due to fiscal consolidation and problems and crisis of state-owned banks) and therefore more likely need of foreign capital inflows

2001 crisis: change end period

Table 2: Tariff Reductions and Cross-Border Investment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panel A: Dependent variable: Δ Foreign Equity Share</i>								
Δ Output Tariff	-1.4306*	-1.8194**	-1.9168**		-1.7446**		-1.8341**	-1.7585**
	(0.6700)	(0.7672)	(0.7887)		(0.7090)		(0.7705)	(0.7193)
Δ Input Tariff				-0.8446	-0.4585			-0.4496
				(0.7078)	(0.8473)			(0.8538)
Δ Input Tariff \times Importer 1995				0.8779	0.6877			0.6735
				(2.4422)	(2.5266)			(2.3887)
Δ Export Tariff						-0.1741	-0.2675	-0.2520
						(0.3228)	(0.3987)	(0.4450)
Δ Export Tariff \times Exporter 1995						0.1044	0.1403	0.3278
						(2.4276)	(2.9687)	(3.0113)
Firm controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Δ Firm controls, 1993-1995			Yes					
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,120	4,110	4,012	3,989	3,755	4,170	4,080	3,729
R ²	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<i>Panel B: Dependent variable: Foreign Equity Share in 2001</i>								
Δ Output Tariff	-1.4324*	-2.0069**	-2.1290**		-1.9619**		-2.0031**	-1.9456**
	(0.7471)	(0.8346)	(0.8708)		(0.7817)		(0.8469)	(0.7923)
Foreign Equity Share, 1995	0.8511***	0.8281***	0.8243***	0.8211***	0.8074***	0.8321***	0.8279***	0.8072***
	(0.0814)	(0.0682)	(0.0688)	(0.0677)	(0.0603)	(0.0568)	(0.0583)	(0.0603)
Δ Input Tariff				-0.8473	-0.1231			-0.1146
				(1.0191)	(1.2617)			(1.2764)
Δ Input Tariff \times Importer 1995				0.6867	0.4544			0.3851
				(1.7268)	(1.8165)			(1.6799)
Δ Export Tariff						0.0485	-0.0618	-0.0073
						(0.2603)	(0.2999)	(0.3193)
Δ Export Tariff \times Exporter 1995						0.4413	0.7906	1.0818
						(2.5788)	(3.0495)	(2.9677)
Observations	4,120	4,110	4,012	3,989	3,755	4,170	4,080	3,729
R ²	0.55	0.56	0.56	0.55	0.54	0.56	0.56	0.54

Panel C: Sample excludes foreign-owned firms during 1995-2001. Dependent variable: Δ Foreign Equity Share

2001 crisis: change end period

Table B.6: Tariff Reductions, Cross-border Investment, and Productivity – Sample ends in 2000

(a) Tariff reductions and cross-border investment

<i>Dependent variable:</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Δ Foreign Equity Share</i>				<i>Foreign Equity Share in 2000</i>			
<i>Δ Output Tariff</i>	-1.1174*** (0.3101)	-0.9396** (0.3060)	-1.1893** (0.3974)	-1.0243** (0.3967)	-1.3339*** (0.3229)	-1.1730*** (0.3124)	-1.3836*** (0.3972)	-1.2342** (0.3932)
<i>Δ Input Tariff</i>		-2.7873 (1.9773)		-2.7732 (2.0088)		-2.1011 (1.9606)		-2.0822 (1.9834)
<i>Δ Input Tariff * Importer 1995</i>		-0.2244 (2.2331)		0.0566 (2.1064)		-0.9190 (1.8677)		-0.6882 (1.7648)
<i>Δ Export Tariff</i>			-0.1684 (0.4730)	-0.2009 (0.4984)			0.0142 (0.4706)	-0.0348 (0.5366)
<i>Δ Export Tariff * Exporter 1995</i>			-3.2078 (4.1842)	-3.3316 (4.2177)			-3.1682 (4.2843)	-3.2677 (4.3471)
<i>Foreign Equity Share, 1995</i>					0.8482*** (0.0385)	0.8384*** (0.0368)	0.8482*** (0.0388)	0.8385*** (0.0371)
<i>Firm controls, 1995</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	4,380	3,977	4,360	3,962	4,380	3,977	4,360	3,962
<i>R²</i>	0.01	0.01	0.01	0.01	0.61	0.60	0.62	0.60

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

2001 crisis: change end period

Table B.5: Tariff Reductions, Cross-border Investment, and Productivity – Sample ends in 1999

(a) Tariff reductions and cross-border investment

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>Δ Foreign Equity Share</i>				<i>Foreign Equity Share in 1999</i>			
<i>Δ Output Tariff</i>	-0.5670*	-0.5122	-0.5872*	-0.5365	-0.7551*	-0.6951	-0.7700*	-0.7089
	(0.2332)	(0.3474)	(0.3118)	(0.3773)	(0.3571)	(0.4451)	(0.3741)	(0.4694)
<i>Δ Input Tariff</i>		-1.4352		-1.4745		-1.5529		-1.5971
		(0.8129)		(0.8648)		(1.0161)		(1.0809)
<i>Δ Input Tariff * Importer 1995</i>		3.2133		3.4504		3.2058		3.4762
		(2.0050)		(2.1715)		(1.8877)		(2.0869)
<i>Δ Export Tariff</i>			-0.3416	-0.3168			-0.0895	0.0238
			(0.3004)	(0.3149)			(0.2378)	(0.2652)
<i>Δ Export Tariff * Exporter 1995</i>			-1.2288	-1.1315			-0.9841	-0.9510
			(3.0408)	(2.8381)			(3.0374)	(2.8797)
<i>Foreign Equity Share, 1996</i>					0.8575***	0.8451***	0.8574***	0.8451***
					(0.0285)	(0.0280)	(0.0288)	(0.0280)
<i>Firm controls, 1995</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	4,573	4,230	4,506	4,168	4,573	4,230	4,506	4,168
<i>R²</i>	0.004	0.004	0.004	0.004	0.67	0.66	0.67	0.66

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

So what?

- Need to discuss 2000-01 crisis more carefully
- What happens if end period=1998 or 1997?
- Discuss evolution of tariffs and timing for having effects
- Careful with other confounding factors: adoption of EU regulations on competition and intellectual property rights. Not enough to show no anticipation: what is time for such changes to have effects?

Missing link

- 2 papers in 1 with no real connection: foreign ownership sections vs productivity/tech upgrading sections
- Author suggests: increase foreign ownership favoured productivity and tech adoption increases, relaxing credit and liquidity constraints
- But no evidence of that
 - firms with enhanced productivity are the ones injected with foreign capital?
 - reallocation is due to foreign capital inflows?
 - foreign capital go to credit and liquidity constrained firms?

Minor issues

- Too many stretched-out conclusions: «multinational entry following the customs union is more likely driven by incentives to serve the domestic market rather than for exports»
- Do a placebo test of change in foreign ownership on change in tariffs before 1996
- Robustness test on changes in the product mix: why not showing numbers on importance of it
- Heterogeneity on productivity: story on 3rd quartile not very convincing; need to dig more. What happens to sample split around median?

Comments on:
Factor Reallocation in Europe
*(E. Bartelsman, P. Lopez-
Garcia and G. Presidente)*

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What the paper does and finds

Use Compnet micro-aggregated database to study degree and effects of reallocation (capital and labor) among 6 EU countries along the cycle and with focus on GR

Results :

- Reallocation in EU is productivity-enhancing, with significant differences across countries
- Prod-Enh reallocation did not weakened over 2001-12 (contrary to US)
- No specific cleansing effect during GR

Merits and critical issues

Merits:

- **Hot topics: reallocation and productivity**
- **Focus on EU productivity: «the sick man among advanced economies»**
- **GR: cleansing or scar effects?**
- **Smart and interesting use of Compnet data**

Critical issues:

- **Very preliminary**
- **Too many goals: better to make it more focused**

Employment dynamics

- Suggestion: before going to ProdEnh reallocation, better to have a full section on employment growth and reallocation (JC+JD)
- Provide full and accurate description of cyclical properties over the cycle, during GR, by country , maybe by sector
- Compare results with what available in the literature (DynEmp o single countries studies)

The dependent variable

- For any country-sector-year, growth rate in terms of L or K of a representative firm
- 25 representative firms according to size-class transition across quintiles over 3-year period
- Must show this criterion is not too biased: take a country with accessible firm-level data and check whether Foster et al. methodology and your cell-based methodology give similar results

The dependent variable

- Quintiles vs fixed values
- With quintiles: width of size-classes may be very different across countries, sectors and years

Country A: [20,23), [23, 25), [25,30), [30,50), [50+]

Country B: [20,23), [23,75), [75,150), [150,500), [500+]

- Employment growth rates when switching class are artificially very different: eg firm with 23 employees
- Very different growth rates when remaining within class (change in average size depends on width of size class): eg firm with 50 employees

Empirical specification

Add initial level of employment at (t-3)

- Fixed effects at country-sector or sector-size are not enough to control for all possible differences (country-sector-size class-year)
- To better control for biases in dependent variable due to different width of size classes
- Standard control since differences in growth rates depend on initial level
- Also L is omitted variable correlated with productivity (Y/L): larger L , lower employment growth rate but also lower productivity

Empirical specification

On country specific results

- Sample splits vs interactions
- Better first studying different cyclical properties: truly different as in Table 6?

On heterogeneity by firm size

- Reallocation is correlation between size and productivity: too much searching for heterogeneity in such a correlation across firm size? What's the rationale?
- size classes differ across countries, sectors and years: dummy size=X mixes very different firms

Empirical specification

On cyclical issues

- High risk of multicollinearity
- Check size of coefficients of interaction terms: 1% growth rate of GDP is enough to have productivity-weakening reallocation?

Miscellanea

- Repeat main regressions on cyclical behavior and determinants using OP covariance
- How about effects on capital intensity?
- Why only 6 countries?
- Table 3: columns to be inverted?
- Variable proxying for cycle: why not taking measure computed from official statistics? At least, for robustness purposes
- Weighted regressions: try with weights inversely proportional to representativeness of single cell

THANKS AND CONGRATULATIONS!