

The Impact of Forced Displacement on Host Communities

A Review of the Empirical Literature in Economics

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Objectives

1. Provide an overview of the econometric modelling, identification strategies, estimation choices and instruments used by the literature as a guide for empirical economists
2. Provide a meta-analysis of all key results covered by the literature to determine whether forced displacement leads to positive, negative or non-significant outcomes for host communities
3. Determine whether some population groups among host communities are more likely to be associated with negative outcomes

The Review in numbers

- 94 years of history (1922-2016)
- 18 major forced displacement crises
- 30 years of publications (1990-2019)
- 54 published papers
- 26 different journals
- 868 results extracted from the published papers
- 4 outcomes
- HICs, MICs, LICs
- MENA, SSA, LAC, Europe, US

Focus

- Impact of forced displacement on host communities
- Refugees, returnees, expellees, escapees and Internally Displaced Persons (IDPs)
- FD due to conflict, violence, persecution, human rights violations or high levels of insecurity or uncertainty that result in a sudden burst of population movements
- Empirical economics papers
- Labor market (employment and wages)
- Consumer market (Consumption and prices)

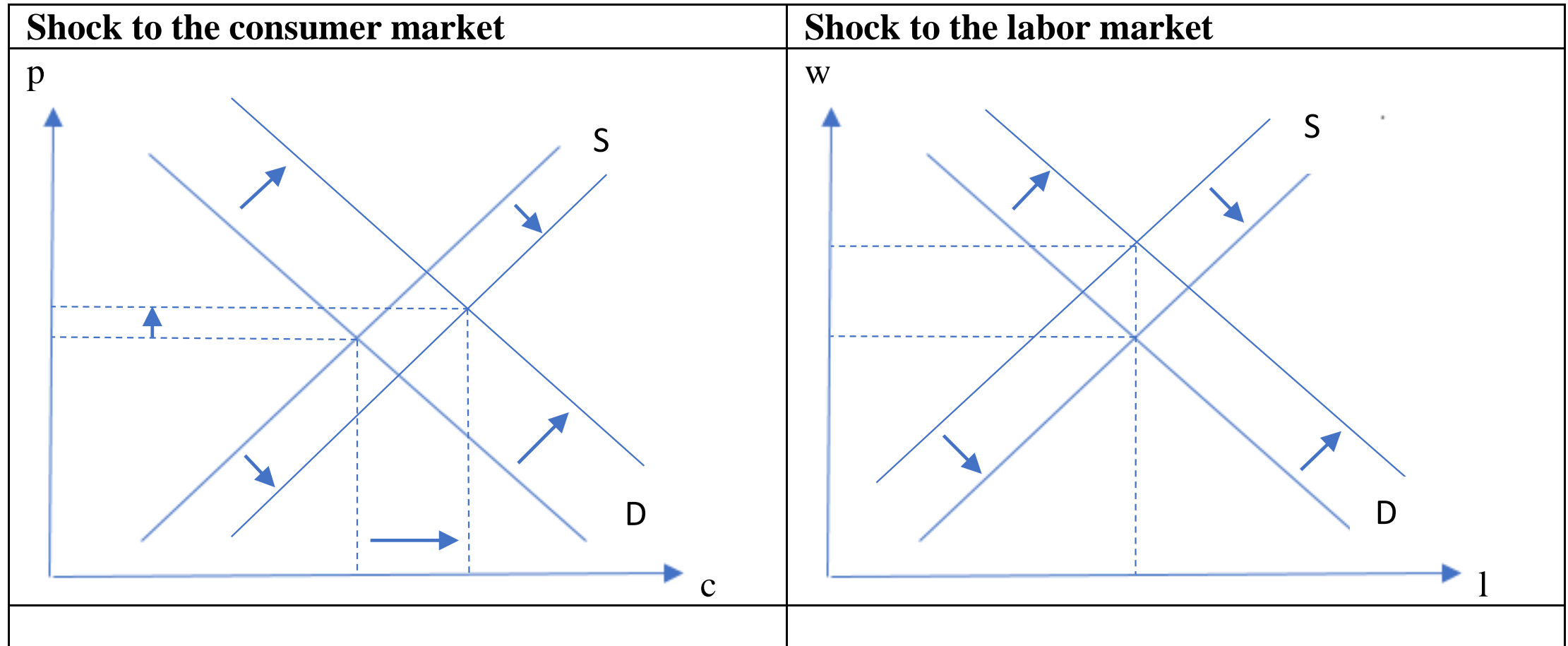
Other reviews

- Ruiz and Vargas-Silva (2013, 8 papers)
- Özden and Wagner (2018) focus on the labor market impacts of migration in general and only cover some of the natural experiments included in this paper
- Borjas and Monras (2017) and Clemens and Hunt (2017) revisit several cases of large and sudden displacement crisis in HICs
- Other reviews focus on LICs (e.g. Verwimp and Maystadt 2015; Maystadt et al. 2019)
- Becker and Ferrara (2019) – Broad review but no meta or comparative analysis

=> First comprehensive review with meta analysis and comparative analysis of modelling

What should we expect?

A Population and an Expenditure Shock



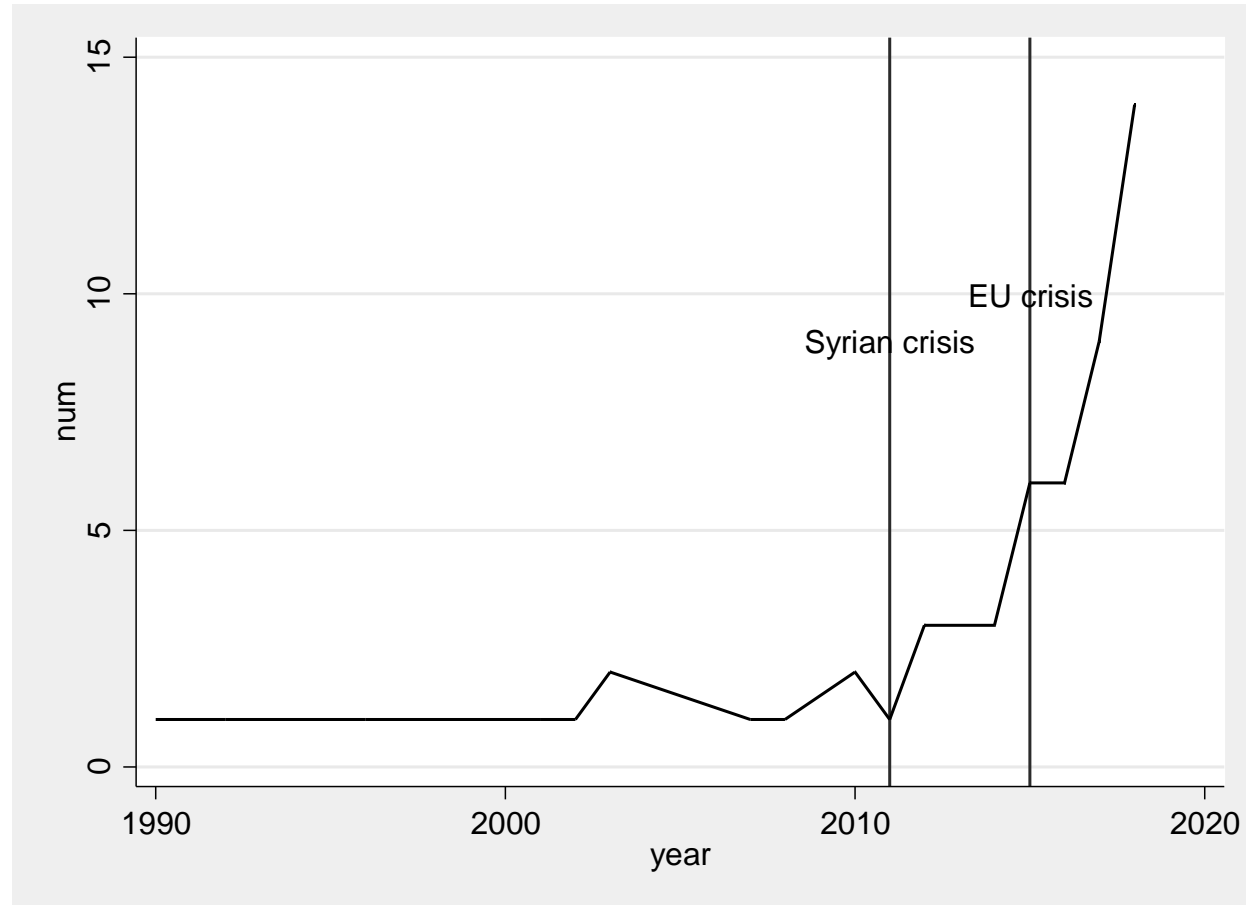
What should we expect?

Asymmetric impacts across population groups

Variable	Short- to Medium-Term Effect
Consumer prices	Up
Wages (skilled)	Up
Wages (unskilled)	Down
Net wage effect	?
Employment (skilled)	Up
Employment (unskilled)	Down
Net employment effect	?
Household well-being (owners)	Up
Household well-being (non-owners)	Down
Net effect on household well-being	?

Data

Publications per year



Papers and Outcomes

N.	Paper	WB	PR	EM	WG	TOT	N.	Paper	WB	PR	EM	WG	TOT
1	Akgündüz and Torun (2018)			14		14	29	Fakih and Ibrahim (2016)			2		2
2	Akgündüz et al. (2015)		12	20		32	30	Fallah et al. (2018)			16	4	20
3	Aksu et al. (2018)			68	12	80	31	Foged and Peri (2015)			32	12	44
4	Alhawarin et al. (2018)	8				8	32	Friedberg (2001)			2	12	14
5	Alix-Garcia and Bartlett (2015)	2				2	33	Gehrsitz and Ungerer (2018)				6	6
6	Alix-Garcia and Saah (2010)	4	4			8	34	Glitz (2012)			6	6	12
7	Alix-Garcia et al. (2012)		4			4	35	Hercowitz and Yashiv (2002)	4	4			8
8	Alix-Garcia et al. (2018)	6	2		2	10	36	Hunt (1992)				2	2
9	Angrist and Kugler (2003)			12		12	37	Kreibaum (2015)	2				2
10	Balkan and Tumen (2016)		14			14	38	Kurschner Rauck and Kvasnicka (2018)		8			8
11	Balkan et al. (2018)	2	14			16	39	Lach (2007)		4			4
12	Bodvarsson et al. (2008)				8	8	40	Makela (2017)				12	12
13	Borjas (2017)				8	8	41	Mansour (2010)				4	4
14	Borjas and Monras (2017)			10	8	18	42	Mayda et al. (2017)			6	6	12
15	Bozzoli et al. (2012)			6	4	10	43	Maystadt and Duranton (2018)	16	12			28
16	Braun and Kvasnicka (2014)	2		2		4	44	Maystadt and Verwimp (2014)	2				2
17	Braun and Mahmoud (2014)			18		18	45	Morales (2017)				20	20
18	Calderon-Mejia and Ibanez (2016)				44	44	46	Murard and Sakalli (2018)	2			2	4
19	Card (1990)			4	4	8	47	Peri and Yasenov (2019)				8	8
20	Carrington and de Lima (1996)			4	4	8	48	Rozo et al. (2018)	12		28	16	56
21	Cengiz and Tekguc (2018)			8	8	16	49	Ruiz and Vargas-Silva (2015)			6		6
22	Ceritoglu et al. (2017)			20	20	40	50	Ruiz and Vargas-Silva (2016)			10		10
23	Clemens and Hunt (2017)				6	6	51	Ruiz and Vargas-Silva (2018)			56		56
24	Cohen-Goldner and Paserman (2011)			24	24	48	52	Saiz (2003)		10			10
25	Del Carpio and Wagner (2015)			22		22	53	Taylor et al. (2016)	4				4
26	Depetris-Chauvin and Santos (2017)	2	12			14	54	Tumen (2016)		16	4	2	22
27	Depetris-Chauvin and Santos (2018)		12			12		Total results	64	128	412	264	868
28	Esen and Binatli (2017)			8		8		Total papers	13	14	27	27	54
								Results per paper	4.9	9.1	15.3	9.8	16.1

Crisis by income group

Caseload	HICs	LICs	MICs	Total	FD (%)	Est.Time
1 2015 Refugees in Germany	1.6	0.0	0.0	1.6	1.3	0.6
2 Burundian and Rwandan refugees in Tanzania	0.0	12.7	0.0	12.7	53.3	13.0
3 Congolese refugees in Rwanda and Uganda	0.0	0.7	0.0	0.7	17.4	16.7
4 Cuban refugees in Miami	6.5	0.0	0.0	6.5	8.1	5.8
5 Escapees from Algeria to France	0.5	0.0	0.0	0.5	3.1	6.0
6 Ethnic Germans from EE and FSU to Germany	1.4	0.0	0.0	1.4	3.5	5.0
7 Ethnic Greeks from Turkey to Greece	0.0	0.0	0.5	0.5	20.0	58.0
8 Expellees from East Europe to West Germany	2.5	0.0	0.0	2.5	16.5	7.0
9 FSU escapees to Israel	9.2	0.0	0.0	9.2	9.4	6.3
10 FY refugees to Europe	1.6	0.0	0.0	1.6	0.3	8.3
11 IDPs in Colombia	0.0	0.0	11.5	11.5	10.4	4.6
12 IDPs in Sudan (Darfur)	0.0	0.7	0.0	0.7	30.0	3.7
13 Palestinians in West Bank	0.0	0.0	0.5	0.5	50.0	4.0
14 Refugees in Denmark	5.1	0.0	0.0	5.1	4.7	14.0
15 Refugees in Kenya (Turkana)	0.0	1.2	0.0	1.2	10.0	20.0
16 Refugees in the USA	1.4	0.0	0.0	1.4	0.1	30.0
17 Returnees from Angola and Mozambique to Portugal	0.0	0.0	2.3	2.3	5.1	12.4
18 Syrian refugees in Jordan and Turkey	0.0	0.0	40.3	40.3	5.8	2.7
Total/Average	29.7	15.2	55.1	100.0	13.8	12.1

Journals by Papers and Results

N.	Journal	Papers	Results	Imp. Fact.	N.	Journal	Papers	Results	Imp. Fact.
1	AEJ: Applied Economics	1	44	3.61	20	KNOMAD Working Paper	1	14	0.01
2	American Economic Review: Papers and Pro	2	28	0.01	21	Labour Economics	2	12	0.01
3	Defence and Peace Economics	1	2	0.07	22	Mimeo	1	56	0.01
4	ERF Working Paper	1	8	0.05	23	Oxford Economic Papers	1	2	0.58
5	Economic Development and Cultural Change	1	2	0.73	24	PERI Working Papers	1	16	0.01
6	Economic Policy	1	18	2.25	25	Proceedings of the National Academy of S	1	4	0.01
7	Economic Research Forum Working Papers	1	20	0.05	26	Quarterly Journal of Economics	1	14	8.40
8	European Economic Review	2	60	1.24	27	Review of Development Economics	1	56	0.13
9	GLO Discussion Paper	1	14	0.01	28	Social Sciences	1	8	0.02
10	IZA Discussion Papers	6	148	0.66	29	The Economic Journal	1	12	2.27
11	IZA Journal of Labor Policy	1	40	0.35	30	The Journal of Economic History	1	18	0.27
12	Industrial and Labor Relations Review	5	32	0.48	31	The Journal of Human Resources	1	8	2.45
13	Journal of Conflict Resolution	1	10	0.11	32	The Review of Economics and Statistics	1	10	2.38
14	Journal of Development Economics	3	42	1.90	33	US Department of State Chief Economist W	1	12	0.01
15	Journal of Economic Geography	3	82	0.45	34	World Bank Economic Review	1	8	0.57
16	Journal of International Economics	1	4	2.85	35	World Bank Policy Research Working Paper	1	22	0.01
17	Journal of Labor Economics	1	12	3.01	36	World Development	2	6	0.29
18	Journal of Political Economy	1	4	6.64	37	ZEW Discussion Papers	1	6	0.01
19	Journal of Population Economics	1	14	0.02		Total/Average	2.4	868	0.93

Database (validated by authors)

Paper	Journal	Group	Caseload	FDshare	Indvar	Depvar	Timeline	Coeffmin	Coeffmax	Reference
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (consumption, real per adult equivalent, households, 1991 vs 2004)	13 years	x	+0.078**	Table 2
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (consumption, real per adult equivalent, households, 1991 vs 2010)	19 years	x	+0.195***	Table 2
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (consumption, 1st quartile, 1991 vs 2004)	13 years	+0.095***	+0.095***	Table 10
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (consumption, 1st quartile, 1991 vs 2010)	19 years	+0.120***	+0.120***	Table 10
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (consumption, 10th decile, 1991 vs 2004)	13 years	+0.095***	+0.095***	Table 10
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (consumption, 10th decile, 1991 vs 2010)	19 years	+0.120***	+0.120***	Table 10
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (poverty rate, 1991 vs 2004)	13 years	x	+0.044**	Table 10
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Well-being (poverty rate, 1991 vs 2010)	19 years	x	x	Table 10
Maystadt and Duranton (2018)	Journal of Economic Geography	LICs	Burundian and Rwandan refugees in Tanzania (Kagera)	53.3	Refugee population weighted by inverse of the distance from camps	Prices (index, 1991 vs 2004)	13 years	x	x	Table 9

Empirical modelling

Models Compared

No. Paper	Estimator	Unit	Fixed Eff.	Dep.Var.	Forced Displ. Var.	Instrumental Var.
1 Akgündüz et al. (2015)	OLS	i, t,r	t, r	EM, PR	FD presence; FD; isf(FD)	none
2 Akgündüz and Torun (2018)	OLS, 2SLS	i, r, t	r, t	EM	FD/pop	Sum(((Syrians_t-1/pop)*FD)/d))
3 Alhawarin et al. (2018)	OLS	i, t	i, r, t	WB	(FD/pop)*TM	none
4 Alix-Garcia and Bartlett (2015)	D	i	n.a.	WB	Simple diff with matching	none
5 Alix-Garcia and Saah (2010)	OLS	i, t	mkt, y/m	PR, WB	1/d_mk*(FD/pop)*100	none
6 Alix-Garcia et al. (2012)	OLS	w, m, t	t	PR	FD	none
7 Alix-Garcia et al. (2018)	DMSP-OLS	v, r, t	r, t	PR, WG, WB	Sum_d{(ihs(FD)*d)}	none
8 Angrist and Kugler (2003)	OLS	g, r, t item, r, m,	g, r, t	EM	ln(FD/g_t)	d
9 Balkan and Tumen (2016)	OLS	t	item, r, m, t	PR	(FD/pop)*TM	none
10 Balkan et al. (2018)	OLS	h, r, t	r, t	PR, WB	(FD/pop)*TM	none
11 Braun and Kvasnicka (2014)	OLS	r	none	EM, WB	FD/pop	none
12 Bodvarsson et al. (2008)	3SLS, CGE	r	none	WG	FD/pop	FD_t-1
13 Borjas (2017)	OLS	r, t	r, t	WG	TR*TM	none
14 Borjas and Monras (2017)	OLS	r, s	r, s	EM, WG	FD/LF	(FD/WAP)_t-1
15 Braun and Mahmoud (2014)	OLS	j, r	j	EM	FD/LF	Sum_r(FD*occ)/(Sum_r(FD*occ)+natives*occ)
16 Calderon-Mejia and Ibanez (2016)	OLS	i, r, t	r*t, t	WG	FD/WAP	Sum_r(Casualties/d)
17 Card (1990)	D	r	n.a.	EM, WG	Simple diff with matching	none
18 Carrington and de Lima (1996)	OLS	t or r	none	EM, WG	FD/pop	none
19 Ceritoglu et al. (2017)	OLS	i, r, t	none	EM, WG	TR*TM	none
20 Clemens and Hunt (2017)	OLS	r, s	r, s	WG	his(FD)	stock of prior migrants
21 Cohen-Goldner and Paserman (2011)	OLS	i, j, t	j, t, j*t	EM, WG	FD/j	FD/E_t-1
22 Del Carpio and Wagner (2015)	OLS	i, r, t	r, t	EM	FD/WAP + d	Sum_r(FD*(FD_t-1/pop)/d)
23 Depetris-Chauvin and Santos (2017)	OLS	r, t	r, t	PR, WB	FD flow_t-1	sum_r(FD outflow/d)
24 Depetris-Chauvin and Santos (2018)	OLS	r, t	r, t	PR	FD flow_t-1	sum_r(FD outflow/d)
25 Esen and Binatli (2017)	OLS	t, r	r	EM	FD; FD/pop	none
26 Fakih and Ibrahim (2016)	VAR	t	none	EM	n.a.	none
27 Fallah et al. (2018)	OLS	i, r, t	none	EM, WG	FD/pop	(FD/pop)/d
28 Foged and Peri (2015)	OLS	i, j, r, t	t*j; t*r, i*u	EM, WG	FD/E	sum_r(FD/WAP)
29 Friedberg (2001)	OLS	i, j, t	j	EM, WG	FD/natives	FD/E_t-1
30 Glitz (2012)	OLS	s, r, t	s*t, r*t	EM, WG	Delta(s/LF)	(FD/s*FD/WAP*Delta(FD))/LF_s

Models

- Ex-post evaluations
 - Quasi-natural experiments
 - Mostly partial equilibrium models
 - Few general equilibrium models
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- DiD is the dominant method
 - Few papers use matching methods
 - No regression discontinuity
 - Placebo tests are common
-
- Cross-section regressions with multiple points in time are common
 - Few time-series models
 - Panel data are rare

Key predictor

- Number of FD
- Presence of FD
- Share of FD (of host population or labor force)
- In certain geographical area or in certain education-experience group
- Various combinations with distance from those forcibly displaced (distance from camps, distance from border)

Empirical results

Household Well-being - Statistics

	Unweighted				Weighted by impact factor			
	Freq.	%	% (s.e.)	Cum.	Freq.	%	% (s.e.)	Cum.
Positive	29	45.3	6.3	45.3	34.0	53.2	8.8	53.2
Nonsignificant	22	34.4	6.0	79.7	23.8	37.2	8.7	90.3
Negative	13	20.3	5.1	100.0	6.2	9.7	4.1	100.0
Total	64	100.0	0.0		64	100.0	0.0	

Household Well-being – Odds Ratios of a Negative Result

Dep. Var.: 1=Neg.Sign;
0=Pos.sign or Non signif.

	Non weighted		Weighted	
	Odds Ratio	z-stat	Odds Ratio	z-stat
Well-being (bivariate)				
shortrun_longrun	n.a.	n.a.	n.a.	n.a.
largeshock_smallshock	0.6	-0.9	1.4	0.3
LICs-MICs/HICs	0.2	-2.5	0.6	-0.4
monet-other	1	-0.1	0.4	-0.7
Well-being (trivariate)				
Short-run	n.a.	n.a.	n.a.	n.a.
Long-run	n.a.	n.a.	n.a.	n.a.
Medium-shock (>10% & <30%)	3	1.3	4	1
Large shock (>30%)	0.1	-1.9	0.6	-0.4
MICs	6.9	2.7	2.6	0.8
HICs	1	.	1	.
Wellbeing-housing	14	2.3	12	1.7
Wellbeing-other monetary	4.7	1.4	1.1	0.1

Prices - Statistics

	Unweighted				Weighted by impact factor			
	Freq.	%	% (s.e.)	Cum.	Freq.	%	% (s.e.)	Cum.
Positive	45	35.2	4.2	35.2	56.3	44.0	4.7	44.0
Nonsignificant	28	21.9	3.7	57.0	29.5	23.1	3.6	67.1
Negative	55	43.0	4.4	100.0	42.2	32.9	4.6	100.0
Total	128.0	100.0	12.3	192.2	128.0	100.0	13.0	

Prices – Odds Ratios of a Negative Result

Dep. Var.: 1=Neg.Sign; 0=Pos.sign or Non signif.

	Non weighted		Weighted	
	Odds Ratio	z-stat	Odds Ratio	z-stat
Prices (bivariate)				
shortrun_longrun	9.0	1.7	35.0	2.8
largeshock_smallshock	0.9	-0.3	1.0	0.1
lic_hic	0.4	-1.6	0.6	-0.7
food_rents	3.6	2.7	0.9	-0.2
Prices (trivariate)				
Short-run	1.2	0.3	5.0	2.6
Long-run	0.1	-1.9	0.1	-1.7
Shock size (>10% & <30%)	1.0	-0.1	1.0	-0.1
Shock size (>30%)	0.8	-0.5	1.2	0.2
MICs	2.2	1.5	0.8	-0.3
HICs	2.7	1.6	2.9	1.6
Food	0.3	-2.3	0.1	-3.1
Rents	0.1	-4.9	0.1	-4.0

Employment - Statistics

	Unweighted				Weighted by impact factor			
	Freq.	%	% (s.e.)	Cum.	Freq.	%	% (s.e.)	Cum.
Positive	53	12.9	1.7	12.9	62.1	15.1	2.0	15.1
Nonsignificant	257	62.4	2.4	75.2	254.3	61.7	2.7	76.8
Negative	102	24.8	2.1	100.0	95.6	23.2	2.2	100.0
Total	412.0	100.0	6.2	188.1	412.0	100.0	6.9	

Employment – Odds Ratios of a Negative Result

Dep. Var.: 1=Neg.Sign; 0=Pos.sign or Non signif.

	Non weighted		Weighted	
	Odds Ratio	z-stat	Odds Ratio	z-stat
Employment (only tagged results)				
shortrun_longrun	3.9	2.9	1.5	0.5
largeshock_smallshock	1.4	1.3	1.7	1.5
lic_hic	0.84	-0.55	1.1	0.2
female_male	2.1	2.2	1.6	1.2
young_old	1.5	0.64	2.9	1.5
informal_formal	4.1	3	5	2.4
lowskill_highskill	1.2	0.33	6.7	1.1
Employment (with untagged results as base category)				
Short-run	2.3	2.2	0.7	-0.5
Long-Run	0.6	-1.6	0.5	-1.5
Shock size (>10 & <=30)	3.3	2.9	3.1	2.1
Shock size (>30)	0.9	-0.2	1.2	0.4
MICs	1.2	0.6	1.1	0.1
HICs	1.2	0.4	0.8	-0.4
Female	1.7	2.0	3.3	3.6
Male	0.8	-0.7	2.1	2.1
Young	2.7	2.1	5.3	3.2
Old	1.8	1.2	1.9	1.1
Informal	3.6	3.9	4.4	3.3
Formal	0.9	-0.4	0.9	-0.2
Low-skilled	0.2	-3.4	0.2	-3.5
High-skilled	0.2	-3.3	0.0	-2.3

Wages - Statistics

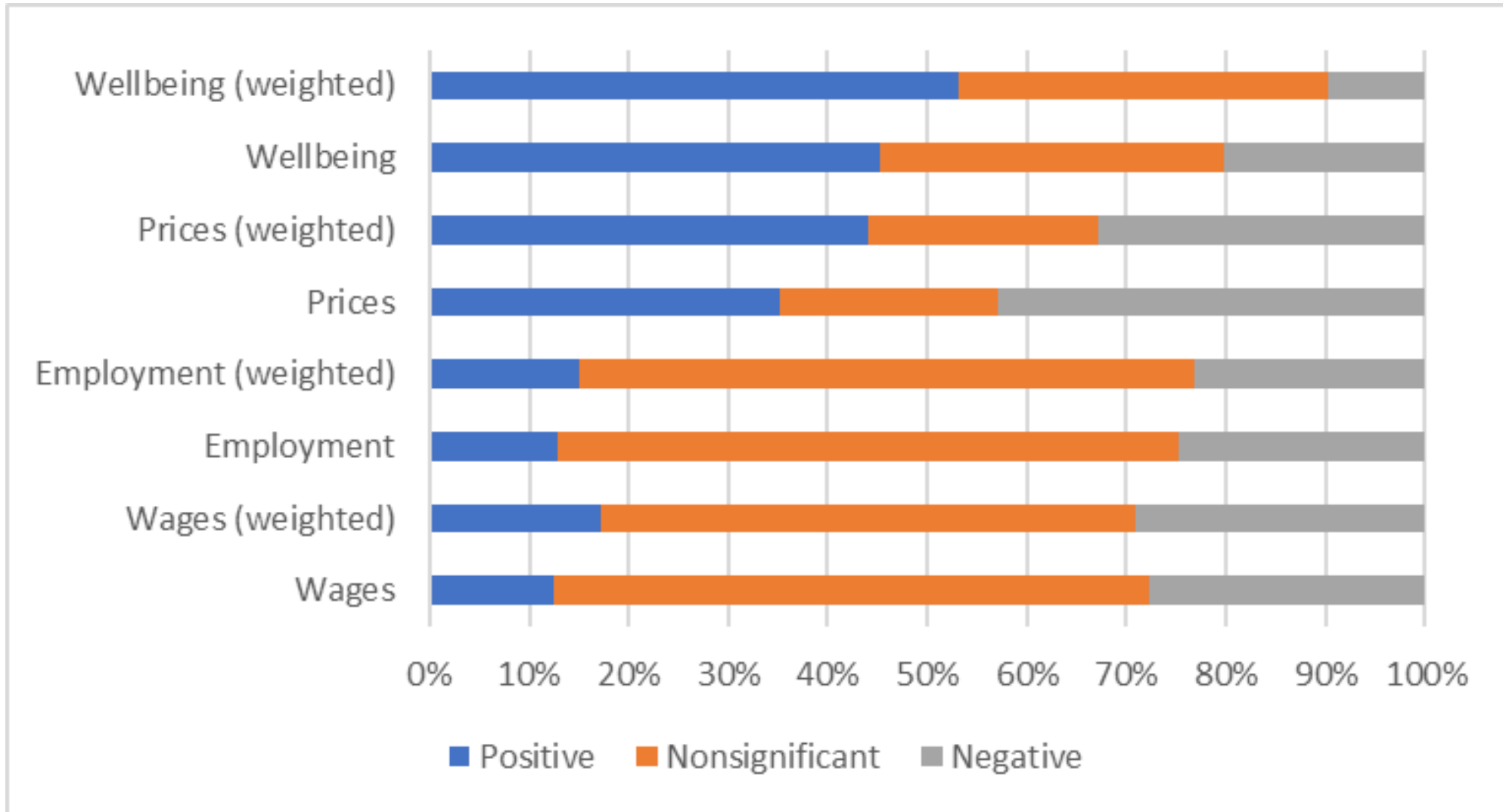
	Unweighted				Weighted by impact factor			
	Freq.	%	% (s.e.)	Cum.	Freq.	%	% (s.e.)	Cum.
Positive	33	12.5	2.0	12.5	45.5	17.2	2.2	17.2
Nonsignificant	158	59.9	3.0	72.4	141.6	53.7	2.7	70.9
Negative	73	27.7	2.8	100.0	76.9	29.1	2.3	100.0
Total	264.0	100.0	7.8	184.9	264.0	100.0	7.3	

Wages – Odds Ratios of a Negative Result

Dep. Var.: 1=Neg.Sign; 0=Pos.sign or Non signif.

	Non weighted		Weighted	
	Odds Ratio	z-stat	Odds Ratio	z-stat
Wages (only tagged results)				
shortrun_longrun	6.5	3.3	4.9	3.0
largeshock_smallshock	3.3	4.0	2.7	3.1
female_male	1.7	1.2	2.1	1.7
lowskill_highskill	8.5	2.7	5.4	2.4
Wages (with untagged results as base category)				
Short-run	6.1	4.1	5.5	4.0
Long-Run	0.9	-0.2	1.1	0.3
Shock size (>10 & <=30)	3.3	3.9	2.7	3.1
Shock size (>30)	3.9	1.3	3.2	0.4
Female	2.1	2.1	2.9	3.0
Male	1.2	0.6	1.4	0.9
Low-skilled	1.2	0.7	0.8	-0.5
High-skilled	0.2	-2.6	0.2	-2.9

Summary of results



Conclusions – Summary

- Over 50% of results show that the impact on host HHs well-being is positive. However, results on well-being are mostly limited to LICs
- 8-9 in 10 results on well-being are either positive or non-significant. Negative results are limited to a few assets in selected countries
- 3 in 4 results on employment or wages are either positive or non-significant
- Negative results on employment and wages are mostly explained by female, informal and low-skilled employment in MICs
- Negative results on employment and wages tend to disappear in the long-term

Conclusions – Gaps in the literature

- We need more studies on:
 - Well-being
 - Mechanisms through which forced displacement impacts labor and consumer markets
 - Impacts of displacement policies
 - Other areas of impacts (like education, health)
 - Longer-term and dynamic impacts, second-round effects on the production side of the economy
 - Other forced displacement crises, and notably IDP situations
- With:
 - Comparable methods, equations
 - Using panel data

Conclusions – Some indications for policy

- Address distributional impacts of forced displacement inflow: Focus on large crises, the short-term, females, informal and low-skilled workers
- Improve price elasticity of supply of food and housing (connect remote places to markets, improve business and investment climate, issue construction permits, notably for social housing)
- Tackle rigidities on labor market; allow refugees to work and move freely to diffuse impacts; provide support for those with complementary skills and protection for those with competing skills
- Support adaptation mechanisms like internal migration, skills upgrading among hosts, changes in production technology, new investments (including entrepreneurship by forced migrants themselves)
- Make short-term investments to improve long-term prospects; low- and middle-income countries need support from the international community to fund these investments