Supplementary appendix to

"Trade Shocks and the Nationalist Backlash in Political Attitudes: Panel Data Evidence from Great Britain"

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Appendix A: Supplementary information on the dataset

A.1 Compiling the dataset

Data on regional employment shares are from NOMIS (NOMIS Annual Business Inquiry employee analysis, available from https://www.nomisweb.co.uk/, accessed: August 2019), the database on UK labor market statistics of the Office for National Statistics (ONS). NOMIS provides data of the total number of workers (full-time & part-time) per industry (according to SIC 2003) for NUTS 3 regions in the 2003 revision for the years 1998 to 2008. We converted this information to the 2006 NUTS 3 revision. We added data for years before 1998 NOMIS from the Annual Employment Survey employee analysis (available from https://www.nomisweb.co.uk/, accessed: December 2020). We use these alternative data only for the fixed effects models presented as a robustness check. In the fixed effects models, we can use the first observations on individual's attitudes in 1999 and, thus, needed employment shares for 1996 to compute the corresponding import shocks. Overlapping data for 1998 shows a close correspondence between the two sources.

Note that it is not possible to cleanly convert the regional employment data to more recent NUTS revisions given that some of the NUTS 3 regions were split after the 2006 revision. It is thus best to keep the NUTS 3 regional data in the structure of the 2006 revision (and this is feasible, because we are able to assign individual-years from the BHPS to 2006 NUTS 3 regions—see below).

We obtained data on **imports from China by industry**—and other bilateral trade used for robustness checks—from the OECD STAN database (STAN Bilateral Trade in Goods by Industry and End-use (BTDIxE), ISIC Rev. 3, available from <u>http://www.oecd.org/sti/ind/stanstructuralanalysisdatabase.htm</u>, accessed: August 2019). This source contains imports by industry according to ISIC revision 3. We transformed this information

to SIC 2003 (which conforms to ISIC revision 3.1), distinguishing between 21 industries in the primary and secondary sectors. We list these sectoral classifications in section A.2 and show increases as well as growth rates of Chinese imports by sector over time (both calculated over the last three years) in section B.1.

Based on these data and using correspondingly harmonized industry classifications for the regional employment shares, we computed the **"China shock"** according to

(A.1)
$$CS_{r,t} = \sum_{j=1}^{J} \omega_{jr,t-x} \left(\frac{IM_{j,t} - IM_{j,t-x}}{IM_{j,t-x}} \right) * 100$$

and

(A.2)
$$CS_{r,t,increase \ per \ worker} = \sum_{j=1}^{J} \omega_{jr,t-x} \left(\frac{IM_{j,t} - IM_{j,t-x}}{L_{j,t-x}} \right)$$

(see footnote 5 in the article). Note, that in doing so we excluded information for "E-Q other activities". For the measure based on increases per worker (equation 3), it makes almost no difference whether we include or exclude "E-Q other activities". Given the high value of the denominator, i.e., the number of workers in "E-Q other activities", imports per worker are negligible. Yet, growth rates for "E-Q other activities" are non-negligible. Given the exceptionally high corresponding regional employment shares, they would otherwise dominate our growth rate measure (equation 3) and introduce a lot of noise.

To assign individual-year observations in the BHPS to 2006 NUTS 3 regions, we rely on a (special license) dataset from the BHPS on the local authority districts (LADs) that households are situated in in a given year (University of Essex 2014). This assignment of household addresses to LADs is based on the November 2013 version of the ONS Postcode Directory. With rare exceptions, it is unequivocal to assign LADs to 2006 NUTS 3 regions, as the NUTS 3 regions represent a higher level of aggregation and do not cut through LADs. Specifically, we used a lookup

file from the ONS to assign LADs (as at 31 December 2013) to 2015 NUTS 3 regions (available from https://geoportal.statistics.gov.uk/datasets/local-authority-district-december-2013-to-nuts3-to-nuts2-to-nuts1-january-2015-lookup-in-the-uk). Using correspondence tables from Eurostat (available from https://ec.europa.eu/eurostat/web/nuts/history), we then moved backward to convert 2015 NUTS 3 regions to 2010 NUTS 3 regions and then 2010 NUTS 3 regions to 2006 NUTS 3 regions. We lost only few observations along the way. Specifically, three LADs in the (North-)West of Scotland—"Highlands", "North Ayrshire" and "Argyll and Bute"—that cut through NUTS 3 boundaries could not be assigned to a 2015-NUTS 3 region in the first place.

For reasons of consistency, we also use the 2006 NUTS revision for distinguishing NUTS 2 regions when including **NUTS 2 region-year fixed effects**. (NUTS 1 regions are identical in the 2006 revision and in more recent ones.) Excluding Northern Ireland, there are 11 NUTS 1 regions and 34 NUTS 2 regions.

We obtained estimates for shares of the population born outside the UK in England and Wales based on the Annual Population Survey (available from https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmi gration/datasets/populationoftheunitedkingdombycountryofbirthandnationality, accessed: December 2019). Recall that our dataset measures the China shock at the level of NUTS 3 regions according to the 2006 revision, which results from the structure of the available data on employment shares (see above). This makes it difficult to obtain and enter controls at the exact same regional level as the employment shares. Given that we have information on residency in LADs it is, however, straightforward, to merge data at this regional level. These data start in 2000 only, which means that the change in percentage points in 2002 only refers to changes from 2000 (not 1999) to 2002. This data source does not provide data for Scottish LADs. For Scotland, we took estimates from Scottish Census (available from: the

https://www.scotlandscensus.gov.uk/census-results, accessed: January 2020) available for 1991, 2001 and 2011 and linearly interpolated values in between. We observe 405 LADs in our merged dataset.

As stated in the article, **control variables at the individual level** include gender, age (and age squared), education and immigration background. Education reflects as categories the highest formal qualification obtained, distinguishing between no qualification (used as baseline category), other qualification, GCSE or equivalent, A-level or equivalent, other higher degree, and university degree. We include three dummy variables on immigration background that measure (a) whether an individual was born outside of the UK and whether (b) one parent or (c) both parents were born outside of the UK.

A.2 Industry classification (SIC 2003) used for computing the China shock

CODE	INDUSTRY
Α	AGRICULTURE, HUNTING AND FORESTRY
В	FISHING
С	MINING AND QUARRYING
15+ 16	Manufacture of food products and beverages; manufacture of tobacco products
17+	Manufacture of textiles, wearing apparel;
18+	dressing and dyeing of fur, tanning and dressing of leather;
<u>19</u> 20	 manufacture of handbags, saddlery, harness and footwear Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw & plaiting materials
21+ 22	Manufacture of pulp, paper & paper products, publishing, printing & reproduction of recorded media
23	Manufacture of coke, refined petroleum products & nuclear fuel
24	Manufacture of basic chemicals, manufacture of pesticides and other agro-chemical products; manufacture of paint, varnish & similar coatings, printing inks & mastics; manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet
25	Manufacture of rubber and plastic products
26	Manufacture of other non-metallic mineral products
27	Manufacture of basic metals
28	Manufacture of fabricated metal products, except machinery & equipment
29	Manufacture of machinery and equipment not elsewhere classified
30	Manufacture of office machinery and computers
31	Manufacture of electrical machinery & apparatus not elsewhere classified
32	Manufacture of radio, television, communication equipment & apparatus
33	Manufacture of medical, precision and optical instruments, watches and clocks
34	Manufacture of motor vehicles, trailers and semi-trailers
35	Manufacture of other transport equipment
36	Manufacture of furniture; manufacturing not elsewhere classified

Table A.2.1: Industry classification (SIC 2003) used for computing the China shock

A.3 Accounting for "labor market relevance" when computing the China shock

As explained in the main text, the "growth rate" measure of the "China shock" we use is given by

(A.1)
$$CS_{r,t} = \sum_{j=1}^{J} \omega_{jr,t-x} \left(\frac{IM_{j,t} - IM_{j,t-x}}{IM_{j,t-x}} \right) * 100,$$

with *r* indicating regions, *j* industries, and *t* standing for a given year. $IM_{j,t}$ is the real (i.e. nominal value deflated by the Consumer Price Index, with 1995 used as base year) value in UK imports in Pound Sterling from China in industry *j*. The weights $\omega_{jr,t-x}$ denote the employment shares for an industry in a region in the base year *t*-*x*. More specifically, they are defined as $\omega_{jr,t-x} = \frac{L_{jr,t-x}}{L_{r,t-x}}$, i.e. as a ratio that divides the number of workers in region *r* and industry *j* at time *t*-*x* by the total number of workers in region *r* in that period. Conversely, the measure used by Autor et al. (2013) as well as Colantone and Stanig (2018a, 2018b) is defined as

(A.2)
$$CS_{r,t,increase\ per\ worker} = \sum_{j=1}^{J} \omega_{jr,t-x} \left(\frac{IM_{j,t} - IM_{j,t-x}}{L_{j,t-x}} \right),$$

where the change in imports is divided by the country-wide number of workers in industry *j* at *t*-*x*, $L_{j,t-x}$. We can link the two expressions by writing

(A.3)
$$CS_{r,t} = \sum_{j=1}^{J} \omega_{jr,t-x} \varphi_{j,t-x} \left(\frac{IM_{j,t} - IM_{j,t-x}}{L_{j,t-x}} \right) * 100,$$

with $\varphi_{j,t-x} \equiv \frac{L_{j,t-x}}{IM_{j,t-x}}$ reflecting the "*initial labor market relevance*" of industry *j* imports—i.e. the employment in industry *j* at time *t-x* relative to the value of imports in that industry at time *t-x*. We argue that augmenting the standard China shock variable by these weights is important, since this transformation gives a larger weight to those import-competing industries that employed a larger number of people in the initial time period. Compare imports of jewelry and imports of textiles: while $(IM_{jewelry,t} - IM_{jewelry,t-x})/L_{jewelry,t-x}$ may be high, its "labor market relevance"—i.e. the number of people employed relative to the monetary value of imports—is likely to be low. Conversely, $(IM_{textiles,t} - IM_{textiles,t-x})/L_{textiles,t-x}$ is likely to be low, due to large-scale initial employment in the textiles industry. This, however, suggests accounting for the "labor market relevance" of imports by pre-multiplying this expression with $\varphi_{textiles,t-x}$. Note, also, that it is the industries with high initial employment and low initial imports—i.e., large values of $\varphi_{j,t-x}$ —that are most likely to trigger the structural change that influences individuals' political attitudes.

Given these arguments, we decided to use the *growth-rates*-based measure of the China shock instead of the (more standard) *increases per worker*-based measure. However, the results presented in appendix C.3 indicate that the key results of our paper are unaffected by using the latter measure.

Appendix B: Descriptive results

B.1 Change in Chinese imports across sectors

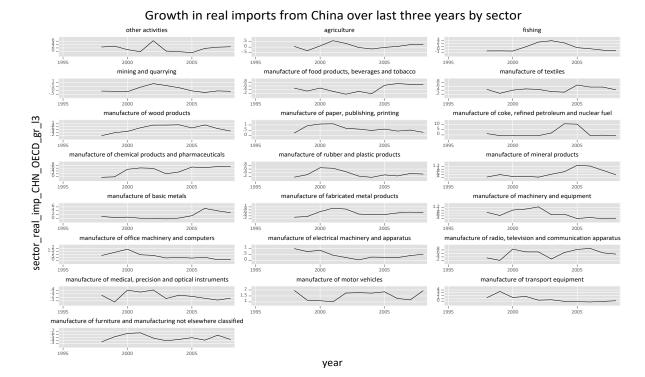


Figure B.1.1: Growth rates in Chinese real imports (in percent) over last three years

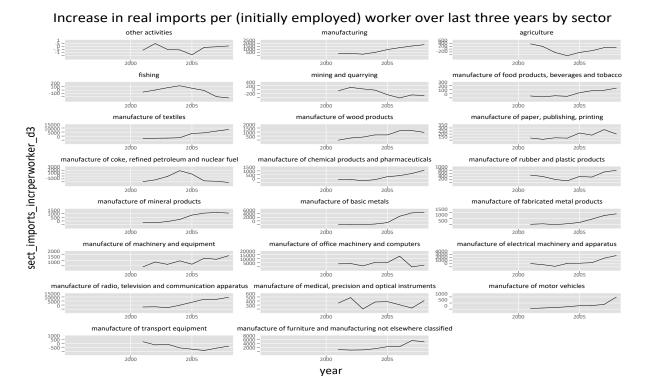


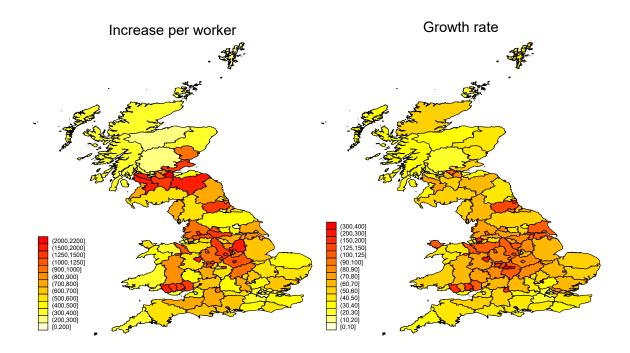
Figure B.1.2: Increase in imports per worker (in real British Pounds) over last three years

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B.2 Descriptive evidence on regional China shocks

To illustrate the geographical pattern of regional differences in exposure to growing imports from China, *Figure B.2.1* shows a map of the China shocks. For this purpose, we focus on a long-run measure that calculates equations (A.1) and (A.2) with t=2008 and t-x=1999. These are the end and starting points, respectively, for the observations of nationalist attitudes in the BHPS. While the left-hand side panel of *Figure B.2.1* is based on the *increase per worker*-measure of the China shock, the figure on the right-hand side is based on the *growth rate* measure.

Figure B.2.1: Chinese import shocks for NUTS 3 regions in 2008 with 1999 as base year



Both maps reveal roughly similar patterns. For example, we observe large shocks in regions in the Midlands and low values for London regions. Both measures indicate the smallest shocks for "Inner London – West" (increase per worker: 10.8; growth rate: 111.3). There are, at the same time, noticeable differences between the two measures, with, e.g., the increase per worker measure

recording high values for regions in Central Scotland, and the growth rate measure less so. For example, the largest shocks are observed for "West Lothian", located in Central Scotland between Glasgow and Edinburgh, in case of the increase per worker measure (2151.4), and for "Solihull" in the West Midlands in case of the growth rate measure (303.7). It is also important to recognize the substantial variation across NUTS 3 regions even within broader regions apparent for both measures. Such variation may allow us to obtain efficient estimates of the impact of the China shock from models including NUTS 1 and even NUTS 2 region-year fixed effects.

In *Figure B.2.2*, we show scatterplots that compare both measures of the import shocks, this time looking at the data we use for the regression analysis of nationalist attitudes: We present data for 2002 with 1999 as base year, for 2005 with 2002 as base year, and for 2008 with 2005 as base year. The upper panel, plotting the raw data, shows that both measures are correlated. Yet, we observe skewed distributions for both variables and heavy outliers that drive the correlation downwards. This is especially apparent for 2005.

As mentioned in the main text, we took logarithms of the original values of the China shock. Specifically, we used $CS_{r,t,m}^{log} = \ln (CS_{r,t,m} + 1)$, with *m* representing either *increase per worker* or *growth rate*.¹ The lower panel in *Figure B.2.2* displays these transformed measures. The association between the two measures is now notably higher, ranging from 0.59 for 2005 and 0.77 for 2008. These correlations are high enough such as to not result in starkly different pictures of which NUTS 3 regions are heavily exposed to growing Chinese imports.

¹ We also used the 'neglog' transformation (Whittaker et al. 2005)—which is meant to handle skewed data with both positive and negative values—to transform all alternative trade shock measures used in robustness checks, which sometimes contain negative values. It is defined as $-\ln(-x+1)$ if $x \le 0$ and as $\ln(x+1)$ if x > 0. Because the main measure contains only positive values, this transformation simplifies to the equation above.

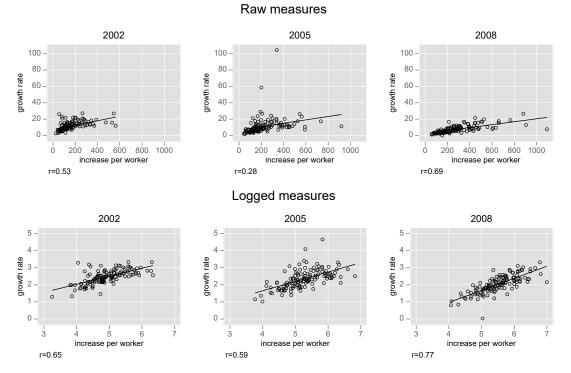


Figure B.2.2: Chinese import shocks in NUTS 3 regions, increase per worker vs. growth rate

Note: Linear fit lines added to scatterplots. Pearson correlation coefficient (r) listed below plots.

B.3 Change in nationalist attitudes over time

As our analysis aims to identify the effect of the China shock from within-individual variation in nationalist attitudes over time, it is instrumental to check how much attitudinal change is observed in the data. Alongside the level values, we plot the distributions of the first differences of EU support and nationalist attitudes in *Figure B.3.1*. The figure reveals much stability in the political attitudes of interest. Yet, we do observe a reasonable amount of change that we leverage in our analysis. The scatterplots in the lower panel illustrate the regression-to-the-mean effects that emerge from using Likert style response scales with end points.

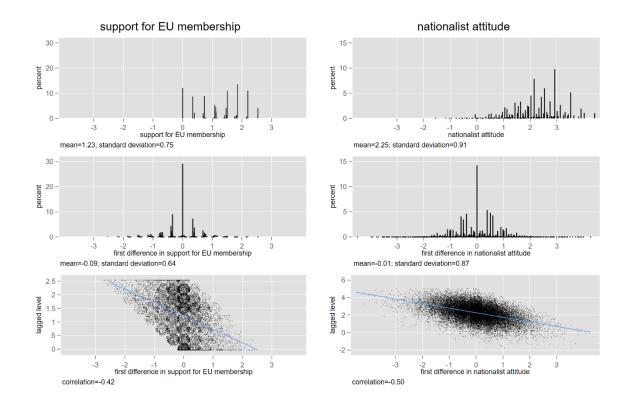


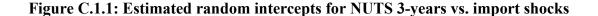
Figure B.3.1: Distribution and change in EU membership support and nationalist attitudes

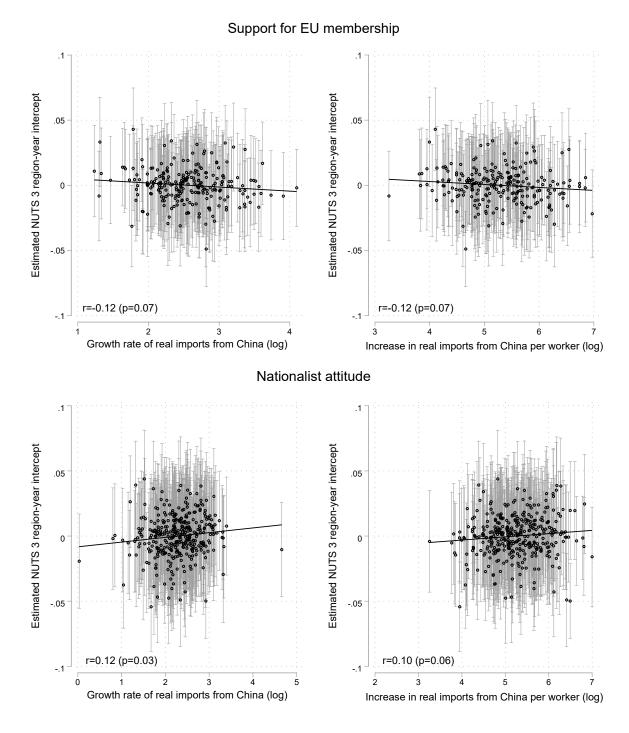
Appendix C: Additional results for nationalist backlash regressions

C.1 Estimated random intercepts vs. China shock

In this section, we show scatterplots that visualize the association between estimated changes in attitudes for NUTS 3 regions-years and the China shock. These scatterplots in *Figure C.1.1* also illustrate how the multilevel model works. To construct this figure, we estimated a slightly simplified version of equation (1): We estimated multilevel models with observations nested in NUTS 3 region-years, controlling for the lagged dependent variable, demographic variables and year fixed effects, but not the China shock. We then saved the estimated random intercepts from these regressions. These "region effects" can be interpreted as estimates of how living in the different NUTS 3 region-years affects changes in individual attitudes. *Figure C.1.1* plots these random intercepts against the two versions of the China shock.

The substantial standard errors around the point estimates for the random intercepts underscore the uncertainty inherent in drawing inferences on regional-level effects from individual-level survey data. Nonetheless, the scatterplots still support the nationalist backlash hypothesis. Higher China shocks tend to be associated with positive region effects on nationalist attitudes and negative region effects on support for EU membership, as expected. While this two-step procedure shows how the expected patterns emerge from the data, it is statistically more efficient to directly include the China shock in the multilevel models.





Note: Shown are estimated random intercepts (with error bars +/- one standard error) from multilevel models with observations nested in NUT3-years, controlling for the lagged dependent variable, demographic variables (gender, age, age², education, migration background) and NUTS 1 region-year fixed effects. Pearson correlation (r) between estimated random intercepts and exposure to increasing Chinese imports displayed within each graph.

C.2 Full tables for benchmark regressions

	(1)	(2)	(3)	(4)
Chinese import shock (log)	-0.043*	-0.064*	-0.065*	-0.036
1 ()	(0.017)	(0.028)	(0.028)	(0.035)
EU support _{t-3/4}	-0.37***	-0.37***	-0.37***	-0.37***
11 000	(0.011)	(0.011)	(0.011)	(0.011)
EU support _{t-3/4} X year=2006	-0.040**	-0.040**	-0.040**	-0.042**
	(0.015)	(0.015)	(0.015)	(0.015)
Manufacturing share1998	(*****)	0.18	0.17	0.047
		(0.18)	(0.18)	(0.21)
Foreign born population		(0110)	0.019	0.046
orongin oorin population			(0.17)	(0.20)
Change in foreign born pop.			-0.53	-0.40
shange in foreign born pop.			(0.43)	(0.44)
Other qualification	-0.028	-0.028	-0.029	-0.027
Juier quanneation	(0.026)	(0.026)	(0.026)	(0.027)
GCSE etc	0.023	0.023	0.023	0.020)
	(0.023)			(0.024)
laval ata	0.063**	(0.021) 0.063^{**}	(0.021) 0.063^{**}	
A-level etc				0.062^{*}
	(0.024)	(0.024)	(0.024)	(0.024)
Other higher degree	0.079***	0.079***	0.079***	0.078***
	(0.019)	(0.019)	(0.019)	(0.019)
Degree	0.23***	0.23***	0.23***	0.23***
	(0.022)	(0.022)	(0.022)	(0.022)
Male	0.0061	0.0060	0.0056	0.0070
	(0.011)	(0.011)	(0.011)	(0.011)
Age/100	-0.29	-0.29	-0.30	-0.31
	(0.22)	(0.22)	(0.22)	(0.22)
Age/100) ²	0.14	0.15	0.16	0.16
	(0.21)	(0.21)	(0.21)	(0.21)
Not born in UK	0.051	0.051	0.052	0.054
	(0.037)	(0.037)	(0.037)	(0.037)
One parent not born in UK	0.012	0.012	0.012	0.010
	(0.025)	(0.025)	(0.025)	(0.025)
Both parents not born in UK	0.080*	0.080*	0.080*	0.083*
1	(0.037)	(0.037)	(0.037)	(0.037)
Constant	1.06***	1.06***	1.05***	0.95***
	(0.075)	(0.075)	(0.077)	(0.095)
Fixed effects	(,.)	(,.)	(,)	(3.070)
SUTS 1-Year	\checkmark	\checkmark	\checkmark	
JUTS 2-Year	—	—		\checkmark
Random intercepts				
NUTS 3	\checkmark	\checkmark	\checkmark	\checkmark
NUTS 3-year level	$\overline{\checkmark}$	$\overline{\checkmark}$	$\overline{\checkmark}$	$\overline{\checkmark}$
AD-year level	Ľ	Ľ.		
			Ľ	Ŀ
Observations	100	100	100	100
NUTS 3	122	122	122	122
NUTS 3-year	240	240	240	240
AD-year	· ·		663	663
ndividual-year	9556	9556	9556	9556
BIC	16261.8	16270.0	16292.1	16693.4
Standard deviation in estimation sample				
support for EU membership	0.63	0.63	0.63	0.63
Chinese import shock	0.49	0.49	0.49	0.49

Table C.2.1: Regressing the (change in) support for EU membership on the Chinese import shock

Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: + p < 0.10, * p < 0.05,** p < 0.01, *** p < 0.001.

	(1)	(2)	(3)	(4)
Chinese import shock (log)	0.039**	0.049*	0.048^{*}	0.061*
	(0.014)	(0.019)	(0.020)	(0.027)
Nationalist attitude _{t-3}	-0.52***	-0.52***	-0.52***	-0.52***
	(0.0056)	(0.0056)	(0.0056)	(0.0056)
Manufacturing share ₁₉₉₈		-0.099	-0.077	-0.16
-		(0.13)	(0.14)	(0.17)
Foreign born population			0.21	0.25
• • • •			(0.14)	(0.16)
Change in foreign born pop.			-0.20	-0.25
			(0.36)	(0.36)
Other qualification	-0.039^{+}	-0.039^{+}	-0.039+	-0.037+
•	(0.021)	(0.021)	(0.021)	(0.021)
GCSE etc	-0.045**	-0.046**	-0.045**	-0.043*
	(0.017)	(0.017)	(0.017)	(0.017)
A-level etc	-0.089***	-0.089***	-0.088***	-0.088***
	(0.020)	(0.020)	(0.020)	(0.020)
Other higher degree	-0.086***	-0.086***	-0.086***	-0.084***
00	(0.015)	(0.015)	(0.015)	(0.015)
Degree	-0.20***	-0.20***	-0.20***	-0.20***
	(0.018)	(0.018)	(0.018)	(0.018)
Male	-0.030**	-0.030**	-0.030**	-0.029**
	(0.0096)	(0.0096)	(0.0096)	(0.0096)
Age/100	0.21	0.21	0.22	0.22
	(0.16)	(0.16)	(0.16)	(0.16)
(Age/100) ²	0.22	0.22	0.21	0.22
(Age/100)	(0.16)	(0.16)	(0.16)	(0.16)
Not born in UK	-0.087**	-0.087**	-0.087**	-0.086**
Not boll in ex	(0.030)	(0.030)	(0.030)	(0.030)
One parent not born in UK	-0.076***	-0.076***	-0.077***	-0.077***
One parent not born in OK	(0.021)	(0.021)	(0.021)	(0.021)
Dath namenta not have in LW	-0.046	-0.046	(0.021) - 0.052^+	
Both parents not born in UK				-0.053^{+}
Constant	(0.030) 0.45^{***}	(0.030) 0.44^{***}	(0.030) 0.45^{***}	(0.030) 0.55^{***}
Constant				
	(0.082)	(0.082)	(0.083)	(0.10)
Fixed effects	\checkmark	\checkmark	\checkmark	
NUTS 1-Year	[V]	⊻	V	17
NUTS 2-Year				\checkmark
Random intercepts				
NUTS 3				
NUTS 3-year level	\checkmark	\checkmark	$\overline{\mathbf{A}}$	
LAD-year level			\checkmark	\checkmark
Observations				
NUTS 3	123	123	123	123
NUTS 3-year	366	366	366	366
LAD-year			1039	1039
Individual-year	24159	24159	24159	24159
BIC	54304.1	54313.6	54332.2	54987.5
Standard deviation in estimation sample				
Δ nationalist attitude	0.86	0.86	0.86	0.86
Chinese import shock	0.51	0.51	0.51	0.51

Table C.2.2: Regressing the (change in) nationalist attitude on the Chinese import shock

Output0.510.510.510.510.51Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: ${}^{+}p{<}0.10$, ${}^{*}p{<}0.05$, ${}^{**}p{<}0.01$, ${}^{***}p{<}0.001$.

C.3 Dissecting the Bartik instrument and computing the Rotemberg weights

As emphasized by Goldsmith-Pinkham et al. (2020), the "Bartik instrument" we are using as a measure of the Chinese import shock is equivalent to a GMM (generalized method of moments) estimator that uses industry shares as instruments. Accordingly, one concern related to using Bartik instruments is that the exogeneity assumption might be violated to the extent that sectoral employment shares affect the outcome of interest via some other channel than differential exposure to the shock. In our case, that would be the case if employment shares that drive the identification of the import shock effect affect the *change* in nationalist attitudes via some alternative channel that we do not control for in our models. Note that our unique focus on changes in attitudes rather than their levels—which is part of the motivation of our study—alleviates some of these concerns.² As a diagnostic to explore the plausibility of the exogeneity assumption, Goldsmith-Pinkham et al. (2020: 2598) suggest computing Rotemberg (1983) weights to "highlight the subset of instruments [here: employment shares] to which the estimated parameter is most sensitive to endogeneity". If these weights were highly correlated with variables that affect the region-specific change in nationalism and EU membership support beyond their role in the Chinese import shock variable, our interpretation of the results would be questionable. In this section, we report the Rotemberg weights.³

It is not straightforward to calculate the Rotemberg weights in our setting, given that our data structure (individuals in regions) departs from the usual structure, in which the observed units are regions. In a first step, we thus collapsed our data to the NUTS 3-regional level, taking averages of

 $^{^{2}}$ Goldsmith-Pinkham et al. note that the exogeneity assumption is likely to be violated when the outcome is measured in levels, but less so when the empirical strategy is about changes in outcomes: "it can be hard to assume that the shares are uncorrelated with the levels of the outcome. But this assumption is not necessary for the empirical strategy to be valid. Instead, the empirical strategy asks whether differential exposure to common shocks leads to differential *changes* in the outcomes" Goldsmith-Pinkham et al. (2020: 2588; emphasis in the original).

³ To compute these weights, we used the package provided by Paul Goldsmith-Pinkham at <u>https://github.com/paulgp/bartik-weight</u>.

the attitudinal variables. We then verified that we obtain similar results when running regressions on the aggregated data, shown in *Tables C.3.1.* and *Tables C.3.2.* Reassuringly, the coefficients of the Chinese import shock are very similar to our main multilevel estimates, though somewhat less precisely estimated in this less efficient model. We calculated the Rotemberg weights, using the code supplied by Goldsmith-Pinkham et al. (2020), based on model 2 (in *Table C.3.1.* and *Table C.3.2*). We estimated the weights by year, but report weights aggregated across years as suggested by Goldsmith-Pinkham et al. (2020) in *Table C.3.3.*⁴ Many of the manufacturing sectors show up with a considerable weight, though some stand out—most notably manufacture of motor vehicles, trailers and semi-trailers. In addition to the Rotemberg weights, *Table C.3.3* provides the correlation between the import shock measure and the lagged sectoral employment shares. This reveals that the import shock is strongly positively correlated with the overall manufacturing employment share (and negatively with the "other share", which is largely its reverse).

We read these results as indicating that it is very important to account for the overall employment share of a region. In fact, it seems entirely possible that regions with a large manufacturing share might have become more nationalist for other reasons than growing import competition, possibly related to a general change in political outlooks of manufacturing workers in the context of shifting political cleavages (see, e.g., Arzheimer 2013). It seems less clear, however, why such a development should be limited to regions concentrated in particular manufacturing sectors, including those with relatively high Rotemberg weights in *Table C.3.3*. We therefore have used the initial share of the manufacturing sector as a control variable, accounting for the possibility that individuals who live in regions with a higher employment share in manufacturing are more susceptible to nationalism and a critical attitude towards the EU. Note, that in our regressions, we

⁴ The fact that we are using a separate set of weights for every period results in three (nationalism) and two (EU support) sets of Rotemberg weights. The numbers reported in *Table C.3.3* represent the averages of these period-specific weights.

also control for individuals' age and education, thereby conditioning on individual characteristics that might be associated with rising nationalism and growing EU skepticism. We believe that modelling *change* in attitudes while controlling for these variables renders the assumption of exogeneity conditional on observables plausible.

	(1)	(2)	(3)	(4)
Chinese import shock (log)	-0.100***	-0.046*	-0.057+	-0.055
	(0.023)	(0.021)	(0.035)	(0.035)
EU support _{t-3/4}	-0.24***	-0.15*	-0.14*	-0.15*
	(0.055)	(0.069)	(0.069)	(0.070)
EU support t-3/4 X year=2006		-0.0023	-0.0030	0.00085
		(0.095)	(0.095)	(0.096)
year=2006		-0.19	-0.19	-0.19
-		(0.12)	(0.12)	(0.12)
Manufacturing share ₁₉₉₈			0.10	0.083
e and			(0.25)	(0.25)
Foreign born population				0.100
0 11				(0.20)
Change in foreign born pop.				-0.78
				(0.96)
Constant	0.45***	0.30**	0.30**	0.31**
	(0.096)	(0.10)	(0.10)	(0.10)
Observations	240	240	240	240
R ²	0.12	0.36	0.36	0.37

Table C.3.1: Regressions on data aggregated to NUTS 3 regions: Change in EU membership support

Standard errors in parentheses; ${}^{+}p < 0.10$, ${}^{*}p < 0.05$, ${}^{**}p < 0.01$, ${}^{***}p < 0.001$.

Table C.3.2: Regressions on data aggregated to NUTS 3 regions: Change in nationalist
attitudes

	(1)	(2)	(3)	(4)
Chinese import shock (log)	0.044*	0.041+	0.038	0.034
	(0.020)	(0.021)	(0.032)	(0.032)
Nationalist attitude _{t-3}	-0.44***	-0.43***	-0.44***	-0.46***
	(0.041)	(0.041)	(0.042)	(0.043)
year=2005		0.042^{+}	0.042^{+}	0.045^{+}
		(0.025)	(0.025)	(0.025)
year=2008		0.0035	0.0022	0.016
		(0.026)	(0.027)	(0.029)
Manufacturing share ₁₉₉₈			0.032	-0.0085
C C			(0.23)	(0.23)
Foreign born population			. ,	-0.22
				(0.19)
Change in foreign born pop.				-1.03
				(0.88)
Constant	0.89^{***}	0.87^{***}	0.87^{***}	0.96***
	(0.092)	(0.096)	(0.10)	(0.11)
Observations	366	366	366	366
R ²	0.24	0.25	0.25	0.26

Standard errors in parentheses; ${}^{+}p < 0.10$, ${}^{*}p < 0.05$, ${}^{**}p < 0.01$, ${}^{***}p < 0.001$.

		EU membersh	ip support	Nationalist at	Nationalist attitudes	
CODE	INDUSTRY	Rotemberg weight	Correlation with China shock	Rotemberg weight	Correlation with China shock	
Α	AGRICULTURE, HUNTING AND FORESTRY	0.001	0.01	0.002	0.01	
B	FISHING	-0.002	-0.05	0.004	-0.04	
С	MINING AND QUARRYING	0.011	0.00	0.008	0.03	
15+16	Manufacture of food products	0.032	0.34	0.035	0.34	
17+18+19	Manufacture of textiles, wearing apparel	0.043	0.36	0.035	0.36	
20	Manufacture of wood	0.014	0.39	0.011	0.37	
21+22	Manufacture of pulp, paper	0.008	0.17	0.006	0.11	
23	Manufacture of coke	0.059	-0.03	0.215	-0.11	
24	Manufacture of basic chemicals	0.030	0.39	0.031	0.31	
25	Manufacture of rubber and plastic products	0.024	0.56	0.020	0.54	
26	Manufacture of other non-metallic mineral products	0.041	0.30	0.032	0.31	
27	Manufacture of basic metals	0.204	0.47	0.116	0.55	
28	Manufacture of fabricated metal products	0.087	0.51	0.068	0.55	
29	Manufacture of machinery	0.089	0.43	0.062	0.45	
30	Manufacture of office machinery	0.008	0.06	0.005	0.06	
31	Manufacture of electrical machinery	0.009	0.42	0.010	0.41	
32	Manufacture of radio, television	0.031	0.33	0.018	0.36	
33	Manufacture of medical, precision & optical instruments	0.002	0.08	0.003	0.05	
34	Manufacture of motor vehicles, trailers and semi-trailers	0.281	0.58	0.301	0.55	
35	Manufacture of other transport equipment	0.004	0.11	-0.001	0.04	
36	Manufacture of furniture	0.024	0.52	0.020	0.53	
D	MANUFACTURING		0.78		0.80	
	OTHER		-0.77		-0.80	

Table C.3.3: Correlations and Rotemberg weights for sectoral employment shares

Note: Rotemberg weights are calculated from data aggregated to NUTS 3 region-years. Correlation of (lagged) sectoral employment with China shock is calculated on the basis of the individual-level data included in our baseline models (model 3 of Table 2 for EU membership support and model 3 of Table 3 for nationalist attitude).

C.4 Benchmark results with increase-per-worker measure of the import shock

Here we report results from re-estimating our eight models from the baseline regressions with a measure of the import shock in which sectoral increases in imports are computed as differences in imports per worker in real Pound Sterling between *t* and *t-x* divided by the nationwide number of workers in that sector in *t-x* (see footnote 6 in the article and equation A.2 above). The results, which are shown in *Table C.4.1* and *Table C.4.2* below are similar to those presented in Table 2 and Table 3 of the article. They are slightly stronger regarding support for EU membership, with the coefficient being statistically significant across all four models, including the specification with NUTS 2-year fixed effects. Regarding, nationalist attitudes the results are slightly weaker with the coefficient failing to reach statistical significance in the fully specified model with NUTS 1-year fixed effects (model 3), though reaching p<0.05 in the model with NUTS 2-year fixed effects instead (model 4).

	(1)	(2)	(3)	(4)
Chinese import shock (log)	-0.029*	-0.043*	-0.042*	-0.051*
	(0.012)	(0.020)	(0.020)	(0.020)
EU support _{t-3/4}	-0.37***	-0.37***	-0.37***	-0.37***
	(0.011)	(0.011)	(0.011)	(0.011)
EU support t-3/4 X year=2006	-0.040**	-0.040**	-0.040**	-0.042**
11	(0.015)	(0.015)	(0.015)	(0.015)
Manufacturing share ₁₉₉₈	,	0.18	0.17	0.047
6		(0.18)	(0.18)	(0.21)
Foreign born population		(*****)	0.019	0.046
erengen erenn population			(0.17)	(0.20)
Change in foreign born pop.			-0.53	-0.40
enange in foreign com pop.			(0.43)	(0.44)
Other qualification	-0.028	-0.028	-0.029	-0.027
Juier qualification	(0.026)	(0.026)	(0.026)	(0.026)
GCSE etc	0.023	0.023	0.023	0.020)
A-level etc	(0.021) 0.063^{**}	(0.021) 0.063^{**}	(0.021) 0.063**	(0.021)
A-16V61 610				0.062^{*}
	(0.024)	(0.024)	(0.024)	(0.024)
Other higher degree	0.079***	0.079***	0.079***	0.078***
、	(0.019)	(0.019)	(0.019)	(0.019)
Degree	0.23***	0.23***	0.23***	0.23***
	(0.022)	(0.022)	(0.022)	(0.022)
/lale	0.0061	0.0060	0.0056	0.0070
	(0.011)	(0.011)	(0.011)	(0.011)
Age/100	-0.29	-0.29	-0.30	-0.31
	(0.22)	(0.22)	(0.22)	(0.22)
Age/100) ²	0.14	0.15	0.16	0.16
	(0.21)	(0.21)	(0.21)	(0.21)
lot born in UK	0.051	0.051	0.052	0.054
	(0.037)	(0.037)	(0.037)	(0.037)
One parent not born in UK	0.012	0.012	0.012	0.010
1	(0.025)	(0.025)	(0.025)	(0.025)
Both parents not born in UK	0.080*	0.080^{*}	0.080*	0.083*
1	(0.037)	(0.037)	(0.037)	(0.037)
Constant	1.06***	1.06***	1.05***	0.95***
···•	(0.075)	(0.075)	(0.077)	(0.095)
Fixed effects	(0.070)	(0.070)	(0.077)	(0.070)
UTS 1-Year	\checkmark	\checkmark	\checkmark	
JUTS 2-Year				\checkmark
Random intercepts				
NUTS 3	\checkmark	\checkmark	\checkmark	\checkmark
	\checkmark			\checkmark
NUTS 3-year level		4		$\overline{\mathbf{V}}$
AD-year level			L ¥	<u>v</u>
Observations	100	100	100	100
NUTS 3	122	122	122	122
NUTS 3-year	240	240	240	240
AD-year			663	663
ndividual-year	9556	9556	9556	9556
BIC	16262.3	16270.6	16293.0	16688.3
Standard deviation in estimation sample				
\ support for EU membership	0.63	0.63	0.63	0.63
Chinese import shock	0.67	0.67	0.67	0.67

Table C.4.1: Regressing the (change in) support for EU membership on the local Chinese import shocl	ĸ
(increase per worker measure)	

Onlinese import shock0.670.670.67Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001.

	(1)	(2)	(3)	(4)
Chinese import shock (log)	0.023*	0.030+	0.027	0.036*
	(0.011)	(0.017)	(0.019)	(0.018)
Nationalist attitude _{t-3}	-0.52***	-0.52***	-0.52***	-0.52***
	(0.0056)	(0.0056)	(0.0056)	(0.0056)
Manufacturing share ₁₉₉₈		-0.071	-0.029	-0.11
		(0.16)	(0.17)	(0.16)
Foreign born population			0.17	0.24
			(0.15)	(0.16)
Change in foreign born pop.			-0.13	-0.24
a			(0.37)	(0.36)
Other qualification	-0.038+	-0.038+	-0.038+	-0.036+
	(0.021)	(0.021)	(0.021)	(0.021)
GCSE etc	-0.045**	-0.045**	-0.044*	-0.043*
	(0.017)	(0.017)	(0.017)	(0.017)
A-level etc	-0.089***	-0.089***	-0.088***	-0.088***
	(0.020)	(0.020)	(0.020)	(0.020)
Other higher degree	-0.086****	-0.086***	-0.085***	-0.084***
2	(0.015)	(0.015)	(0.015)	(0.015)
Degree	-0.20***	-0.20***	-0.20***	-0.20***
	(0.018)	(0.018)	(0.018)	(0.018)
Male	-0.030**	-0.030**	-0.030**	-0.029**
	(0.0096)	(0.0096)	(0.0096)	(0.0096)
Age/100	0.21	0.22	0.22	0.22
(1.0.)2	(0.16)	(0.16)	(0.16)	(0.16)
(Age/100) ²	0.22	0.22	0.21	0.21
NT . 1 ' TTTZ	(0.16)	(0.16)	(0.16)	(0.16)
Not born in UK	-0.087**	-0.087**	-0.087**	-0.086**
	(0.030)	(0.030)	(0.030)	(0.030)
One parent not born in UK	-0.077***	-0.077***	-0.077***	-0.077***
	(0.021)	(0.021)	(0.021)	(0.021)
Both parents not born in UK	-0.047	-0.047	-0.052^{+}	-0.054+
	(0.030)	(0.030)	(0.030)	(0.030)
Constant	1.08***	1.07***	1.06***	0.96***
	(0.076)	(0.078)	(0.083)	(0.093)
Fixed effects	\checkmark	\checkmark	\checkmark	
NUTS 1-Year	V	V	V	\checkmark
NUTS 2-Year				V
Random intercepts	\checkmark	\checkmark	\checkmark	\checkmark
NUTS 3	\checkmark	V		
NUTS 3-year level	V	V	✓	☑ ☑
LAD-year level			V	V
Observations	100	100	100	100
NUTS 3	123	123	123	123
NUTS 3-year	366	366	366	366
LAD-year	24150	24150	1039	1039
Individual-year	24159	24159	24159	24159
BIC	54307.3	54317.2	54583.7	54988.5
Standard deviation in estimation sample	0.07	0.07	0.07	0.07
Δ nationalist attitude	0.86	0.86	0.86	0.86
Chinese import shock Note: Results from linear multilevel models. Stand	0.64	0.64	0.64	0.64

Table C.4.2: Regressing the (change in) nationalist attitude on the local Chinese import shock (increase per
worker measure)

Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: $^+p<0.10$, $^*p<0.05$, $^{**}p<0.01$, $^{***}p<0.001$.

C.5 Results using alternative measures of nationalist attitudes

	Baseline:	Arithmetic	Single item	Single item	Single item	Factor built	Factor built	Factor built	Factor built
	factor built from	mean of				from (with	from (with	from (with	from (with
	(with					loading)	loading)	loading)	loading)
	loading)					iouunig)	iouung)	icualing)	iouung)
I would rather be a citizen of Britain than of any other country in the world	☑ (0.78)					☑ (0.79)	☑ (0.76)	☑ (-0.72)	☑ (0.76)
People in Britain are too ready to criticize their country	☑ (0.66)	$\overline{\checkmark}$		\checkmark		☑ (0.79)	☑ (0.60)	☑ (-0.44)	☑ (0.51)
Cooperate with other countries even if it means giving up some independence	☑ (-0.51)	$\overline{\checkmark}$			\checkmark		☑ (-0.37)	☑ (0.60)	☑ (-0.48)
Government should do everything it can to keep all parts of Britain together							☑ (0.66)		☑ (0.56)
Britain has a lot to learn from other countries in running its affairs								☑ (0.64)	☑ (-0.48)
Coefficient of Chinese import shock (and standard error)	0.048* (0.020)	0.029^+ (0.017)	0.016 (0.020)	0.057** (0.018)	-0.044 ⁺ (0.025)	0.041* (0.019)	0.048^{*} (0.019)	-0.034 ⁺ (0.021)	0.044^{*} (0.020)

Table C.5.1: Results using alternative measures of nationalist attitudes

Note: Results for coefficient of Chinese import shock (growth rate measure) in linear multilevel models with specification as in model 3 of Table 3 (specification with NUTS 3 region-year fixed effects and local level control variables). Factors are built from polychoric principal components factor analysis. Significance levels: p < 0.10, p < 0.05, ** p < 0.01, *** p < 0.001.

C.6 Results from robustness checks of baseline regressions

In *Table C.6.1*, we report results from a set of further robustness checks for both our main dependent variables. In entry (1), we reproduced the coefficients from our preferred baseline models.

In entry (2) we replaced the log-transformed measure of the import shock with the untransformed measure while excluding the heaviest outliers. While this makes the coefficient easier to interpret, the results are weaker with the (still) skewed untransformed measure remaining statistically significant in case of nationalist attitude but falling below conventional levels of significance for EU membership support (p=0.103).

In entry (3) we tested whether the effect of the Chinese import shock differs across years by interacting it with year dummies. Regarding EU support, we essentially observe the same effect for the two periods. Regarding nationalist attitudes, there is some tendency for the effect to become successively weaker over time—though there is only a marginally statistically significant difference (p=0.097) for 2002 vs. 2008. These results may be hinting towards the effects being strongest in the direct aftermath of China's WTO succession in 2001. Foremost, they indicate that the effect is not just present in only one of the observed periods.⁵

In entry (4) we excluded all individuals with any recorded changes in residence in NUTS 3 region between t-x and t, thus limiting the analysis to those who constantly lived in the region during the time period for which the import shock was calculated. This ensures that the import shock is estimated for those who fully experienced it, and also helps to rule out that the effect is driven by people sorting into regions based on their attitudes.

⁵ For EU membership, conditional effects are statistically significant with at least p<0.05 for both 2002 and 2006. For nationalist attitudes, conditional effects are statistically significant with at least p<0.05 for 2002 and 2005.

Model	Robustness check	Support for EU	Nationalist
type		membership	attitude
multilevel	(1) Baseline model	-0.065*	0.048^{*}
(mixed)	(model 3 in Tables 2 and 3)	(0.028)	(0.020)
	(2) Untransformed measure	-0.0027	0.005^{*}
	(heavy outliers > 50 excluded)	(0.0017)	(0.002)
	(3) Interacting import shock with year		
	Coefficient for Chinese import exposure (ref.: 2002)	-0.70+	0.091**
		(0.037)	(0.034)
	Chinese import exposure X year=2006	0.006	
		(0.036)	
	Chinese import exposure X year =2005		-0.039
	1 1 5 666		(0.037)
	Chinese import exposure X year=2008		-0.061+
	enniese import exposure it year 2000		(0.037)
	(4) Excluding movers	-0.060*	0.052**
	(+) Excluding movers	(0.029)	(0.020)
	(5) Excluding primary and secondary sector workers	-0.091**	0.047*
	(5) Excluding primary and secondary sector workers		
		(0.029)	(0.021) 0.087***
	(6) Including only tertiary sector workers	-0.088*	
		(0.037)	(0.026)
	(7) Fixed employment shares from 1998	-0.064*	0.023
	(with control for 1998 manufacturing share)	(0.029)	(0.025)
	(8) Fixed employment shares from 1998	-0.040*	0.027+
	(without control for 1998 manufacturing share)	(0.017)	(0.015)
	(9) Import growth relative to fixed base year 1998	-0.043	0.020
	(with control for 1998 manufacturing share)	(0.040)	(0.031)
	(10) Import growth relative to fixed base year 1998	-0.032^{+}	0.026^{+}
	(without control for 1998 manufacturing share)	(0.019)	(0.015)
	(11) Import growth relative to fixed base year 1995	-0.020	0.034*
	(without control for 1995 manufacturing share)	(0.018)	(0.015)
	(12) Imports from China and other EMEs	-0.059+	0.061*
		(0.032)	(0.27)
	(13) Additional control for growth in all imports		
	Coefficient for Chinese import exposure	-0.057+	0.049^{*}
		(0.032)	(0.022)
	Coefficient for general import exposure	-0.016	-0.004
		(0.027)	(0.024)
	(14) Chinese imports in other advanced economies	-0.031	0.089*
	(instrument, reduced form)	(0.039)	(0.37)
2SLS	(15) Instrumental variables regression (2SLS)	-0.028	0.106**
(ivreg2)	(standard errors clustered at NUTS 3-year level)	(0.037)	(0.037)
(meg2)	Kleibergen-Paap F statistic	(0.037) 198.0	33.0
FE nonal		-0.029	0.034*
FE panel (xtreg, fe)	(16) Individual FEs, SEs clustered on individuals	(0.029)	(0.015)
(xtreg, le)	(level values [incl. 1999], no lagged dependent level)		
	(17) Individual FEs, SEs clustered on NUTS 3 regions	-0.024	0.035^{*}
	(level values [incl. 1999], no lagged dependent	(0.024)	(0.017)
	level, mover excluded)		

Table C.6.1: Results from robustness checks for baseline regressions

Note: Results for coefficients for main variables of interest with standard errors in parentheses. Significance levels: + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.

Entry (5) excludes individuals working in the primary and secondary sectors. Entry (6) includes only individuals working in the tertiary sector, thus additionally excluding those who miss sector information because they do not work. Our results are similar across these specifications, and even slightly stronger when including only tertiary sector workers. This suggests that the nationalist backlash in political attitudes is not limited to those who are, at least potentially, directly affected by import competition by way of working in one of the broad sectors exposed to trade in goods. This finding is supported by results of an additional analysis via cross-level interactions of effect heterogeneity across sectors, job status, education levels and immigration status (see section C.8). These results are generally largely in line with a sociotropic reaction that is similar across the different categories of individuals. Of course, this is not to say that exposure to via one's occupation—i.e., when individuals work in sectors that experience a surge in imports—could not have an additional effect beyond effects of regional exposure to growing import competition. In section C.10, we show evidence pointing to such an additional effect.

Next, we augmented our measure of the China shock by redefining *t*-*x* in equation (2), i.e., the base year used for the employment shares and for calculating growth in imports. We believe that our initial measure is best adopted to the panel structure of our individual level data. With this measure, we predict change in an attitude over a specific period with the growth in exposure to Chinese imports over the same period and based on the employment shares at the beginning of this period. We chose this version because for us it makes most sense to explain change in an attitude with change in import exposure over the same period. From this perspective, redefining *t*-*x* in equation (2) means moving away from the quantity that should be most relevant to account for a change in attitudes. In any case, it is prudent to check whether findings are robust to alternative versions.

We first changed only the year for calculating the employment shares. In entry (7), we use a version of the China shock measure that uses employment shares from the initial year 1998 as weights for all years. We see that the coefficients lose some precision, though the effect on support for EU membership remains statistically significant (with p<0.05). The loss in precision seems mostly to reflect that using fixed 1998 employment shares drives up the correlation between the import shock and the 1998 manufacturing employment share, which is included as

a control variable in the model. When we exclude the 1998 manufacturing employment share from the model in entry (8), the standard errors become notably smaller, and both coefficients are more reliably different from zero. (Note that the coefficients themselves do not become notably larger; this is about a gain in precision.) We interpret these results as demonstrating that it is better to use the actual employment shares at the beginning of each period under consideration (as in our main models), since this is the more directly relevant quantity. Moreover, it helps to break the correlation between the initial employment share in manufacturing and exposure to growing Chinese imports. However, while weaker, our results are largely robust to using this alternative.

Second, we used a constant base year against which to compute the growth in Chinese imports (also using employment shares from these constant base years). In entries (9) and (10) this base year is 1998, in entry (11) it is 1995. In the context of our model, using a constant base year results in the odd property that the periods the import shock refers to are of different length (x in equation (1) varies). Again, our results are largely similar with these alternatives, though the coefficients are imprecisely estimated with the manufacturing employment share included. Omitting the manufacturing employment share results in a gain in precision (with coefficients remaining similar) and at least marginally significant coefficients. Overall, we conclude that our results are largely robust to using these alternative definitions. At the same time, our results do become weaker. We believe these results point to the advantages of using our initial definition of our measure of local exposure to growing Chinese imports given our model specification, and at the same time do *not* point to our initial results being spurious.

Next, we varied the source countries used for calculating the import shock. The measure employed in entry (12) in *Table C.6.1* utilizes the sum of imports from China *and* five other emerging market economies (EMEs) (India, Malaysia, Turkey, Poland, and the Czech Republic). The results are robust to using this measure. For nationalist attitudes, we even obtain

a similar, statistically significant effect considering imports from the five other EMEs *only* (0.055 with a standard error of 0.024). This is an indication that the effects observed in the main models are not specific to Chinese imports, but rather seem to reflect a general reaction to low-cost import competition. In contrast, we do not find consistent effects of a measure that considers all imports into the UK, while the effects of exposure to Chinese imports are robust to including this covariate (see entry (13)).

In entries (14) and (15) of *Table C.6.1* we draw on an instrument that replaces Chinese imports to the UK in equations (2) and (3) with the sum of Chinese imports to other advanced economies (USA, France, Germany and Japan) following Autor et al. (2013). Entry (13) directly plugs this measure into our multilevel regressions. Entry (14) reports results from a 2SLS instrumental variables regression. While the effect on EU support becomes weaker, the effect on nationalist attitudes roughly doubles in size.

In entries (16) and (17) we report results from a model with individual fixed effects with levels as dependent variables (including the first observation from 1999).⁶ The first version of this specification in entry (15) uses standard errors clustered at the level of individual respondents, thus ignoring the clustering of observations at the NUTS 3 level (where exposure to the import shock is measured). As macro level control variable, only the 1998 manufacturing employment share is included (the other variables have missing observation for the first observation in 1999; note that the 1998 manufacturing employment share is not collinear with the individual fixed effects in this model because of movers). The second version in entry (17) uses standard errors

⁶ Note that the individual fixed effect model—which identifies the effects of interest only from within variation is highly conservative in this set-up, because there are few observations over time (three in the EU support model and four in the nationalist attitude model) and much of the of the variation in exposure to growing Chinese imports is between NUTS 3 regions rather than within NUTS 3 regions over time. This is the case because regions with large exposure to rising imports from China in one period tend to have large exposure to rising imports in other periods as well. For example, 0.59 of the variation in the three-year growth rate measures of the import shock across NUTS 3 region-years for the years 1999, 2002, 2005 and 2008 (i.e., the data underlying the individual FE model for nationalist attitudes) is accounted for by NUTS 3 region dummies. If we also include year dummies, explained variance rises to 0.69. (Analogous numbers for the EU membership support model are 0.66 and 0.71.)

clustered at the level of NUTS 3 regions. This requires individuals being nested in NUTS 3 regions and thus removing respondents moving between NUTS 3 regions over time. Both models are estimated without the lagged dependent level to prevent Nickel (1981) bias. (Note that the small number of observations over time, three to four, hinders running a dynamic panel estimator.)

In these models, we continue to find a positive effect of exposure to growing Chinese imports on nationalist attitudes and a negative one on support for EU membership. The coefficient in the model for nationalist attitudes is roughly similar as in our main models and statistically significant. However, the negative effect on support for EU membership is somewhat smaller in size and fails to reach conventional levels of statistical significance. That we obtain weaker effects regarding EU membership support may reflect that here we have one observation less over time (i.e., three rather than four). While these results are not unequivocally supportive of our expectations, they indicate at least that our results are robust to the highly conservative individual FE specification where they are most novel (i.e., regarding the finding that regional exposure to import competition is associated with an increase in general nationalist attitude).

Overall, these additional estimations attest to the robustness of our main findings, especially for the novel finding that regional exposure to import competition is associated with an increase in general nationalist attitudes.

C.7 Regressions including change in local economic activity

In this section, we report results from models that additionally control for indicators of changes in local economic activity. The goal is to explore a possible mediation sequence in which the China shock affects the state of the regional economy, and the regional economy then affects nationalist attitudes. To explore potential mediators of the impact of the China shock via regional economic activity, we additionally collected estimates of (change in) local unemployment rates (available from <u>https://www.ons.gov.uk/employmentandlabourmarket/</u> peoplenotinwork/unemployment/datasets/modelledunemploymentforlocalandunitaryauthoritie <u>sm01/current</u>, accessed: December 2019) and regional gross valued added per head (available from <u>https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/</u>

regionalgrossvalueaddedbalancedbylocalauthorityintheuk, accessed: December 2019), both also measured at the LAD-year level and provided by the ONS. In case of unemployment, we computed the change (in percentage points) in the unemployment rate between the base year t-x and t. In case of regional gross valued, we computed the difference in gross value added between the base year t-x and t, and logarithmized this value to account for its skewed distribution. Specifically, we used the "neglog" transformation (Whittaker et al. 2005) and normalized the resulting values to range from zero to one to ease interpretability. As a third measure of change in local economic activity, we calculated the percentage point change in the manufacturing employment share available from the NOMIS data (see section A1 above).

We added these three regional-level variables to our baseline model with NUTS 1 region-year fixed effects. Because (change in) the unemployment rate and regional gross value are measured at the level of local area districts (LADs), we estimated multilevel models with four nested levels (individual-years, LADs-years, NUTS 3 region-years, NUTS 3 regions). The results are in *Table C.7.1* and *Table C.7.2*. In each case, we present a baseline model, that is, one without the three indicators of economic change first to gauge how coefficients of the China shock

change once we enter the controls.⁷ We then added the indicators of regional economic activity, first in separate models and then collectively in one model. As we might not have enough statistical power to reliably detect mediation effects and given the general difficulties in establishing mediation, we need to interpret the detailed results of these models cautiously.

Nonetheless, we can draw one negative conclusion with high certainty: The findings do not suggest that the effect of the China shock is fully mediated by its (immediate) impact on the local economy. None of the potential mediators is statistically significant in any of the models and the coefficients of the Chinese import shock measure are very stable across the models. It appears that declines in local economic activity as such do not seem to trigger a strong nationalist backlash, yet local exposure to import competition does. The nationalist backlash thus does not seem to be a mere reaction to immediate changes in local economic activity, be they caused by import competition or other phenomena. It seems to matter what the source of threats for local economic activity is; (only) when it is import competition, this seems to result in a nationalist backlash.

Note that these results are roughly in line with results presented in Colantone and Stanig (2018b, p. 211). In their regressions on regional leave vote shares in the Brexit referendum, these authors enter a measure of regional change in gross value added (relative to the median region). This measure does come out as highly significant showing that regions that had fallen behind between 1997 and 2015 saw higher leave shares. Yet, including this variable reduces the magnitude of the import shock only slightly.

⁷ Note that these baseline models differ slightly from the models we used as baseline models for the robustness checks discussed in the article, in that they include random intercepts at the LAD-year level. This is necessary to make sure that differences across the models without and with indicators of change in local economic activity are driven by the inclusion of these indicators, not by the inclusion of random intercepts at the LAD-year level.

	(1)	(2)	(3)	(4)	(5)
Chinese import shock	-0.065*	-0.064*	-0.070*	-0.062*	-0.066*
chinese import shock	(0.028)	(0.029)	(0.029)	(0.029)	(0.030)
Support for EU membership _{t-3/4}	-0.37***	-0.37***	-0.37***	-0.37***	-0.37***
Support for EO membershipt-3/4	(0.011)	(0.011)	(0.012)	(0.011)	(0.012)
Support for EU memb. _{t-3/4} * year=2006	-0.040**	-0.040**	-0.045**	-0.040**	-0.045**
Support for EO memo.t-3/4 year=2000	(0.015)	(0.015)	(0.016)	(0.015)	(0.016)
Change in gross value added per head	(0.013)	(0.013) -0.078	(0.010)	(0.013)	-0.14
Change in gross value added per head		(0.23)			(0.24)
Change in unemployment acts		(0.23)	-0.20		-0.22
Change in unemployment rate			-0.20 (0.88)		-0.22 (0.88)
			(0.88)	0.32	0.24
Change in manufacturing empl. share					
Manufacturing share	0.17	0.16	0.20	(0.48)	(0.50)
Manufacturing share ₁₉₉₈	0.17	0.16	0.20	0.20	0.20
	(0.18)	(0.19)	(0.18)	(0.18)	(0.19)
Foreign born population	0.019	0.030	-0.013	0.022	0.0100
	(0.17)	(0.17)	(0.18)	(0.17)	(0.18)
Change in foreign born pop.	-0.53	-0.54	-0.46	-0.53	-0.46
	(0.43)	(0.43)	(0.44)	(0.43)	(0.44)
Demographic controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Fixed effects	_	_	_	_	_
NUTS 1-Year	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Random intercepts					
NUTS 3	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
NUTS 3-year level	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
LAD-year level	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Observations					
NUTS 3	122	122	114	122	114
NUTS 3-year	240	240	224	240	224
LAD-year	663	663	624	663	624
Individual-year	9556	9556	8962	9556	8962
BIC	16292.1	16301.2	15359.8	16300.8	15377.4

Table C.7.1: Regressing the change in support for EU membership on the China shock and the change in local economic activity

Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: p < 0.10, p < 0.05, p < 0.01, p < 0.01, p < 0.001.

	(1)	(2)	(3)	(4)	(5)
Chinese import shock	0.048^{*}	0.048^{*}	0.045^{*}	0.047^{*}	0.044^{*}
Chinese import shock	(0.048)	(0.020)	(0.043)	(0.047)	(0.044)
Nationalist attitude _{t-3}	-0.52***	-0.52***	-0.52***	-0.52***	-0.52***
Nationalist attitudet-3	(0.0056)	(0.0056)	(0.0057)	(0.0056)	(0.0057)
Change in gross value added per head	(0.0050)	0.022	(0.0037)	(0.0050)	0.019
Change in gross value added per head		(0.14)			(0.14)
Change in unemployment rate		(0.14)	0.34		0.34
Change in unemployment rate			(0.88)		(0.88)
Change in manufacturing empl. share			(0.88)	-0.63	-0.57
Change in manufacturing empt. share				(0.48)	(0.51)
Manufacturing share ₁₉₉₈	-0.077	-0.076	-0.079	-0.13	-0.12
Wanufacturing Share1998	(0.14)	-0.070 (0.14)	(0.15)	(0.14)	(0.12)
Foreign born population	0.21	0.21	0.17	0.20	0.16
r oreign born population	(0.14)	(0.14)	(0.15)	(0.14)	(0.15)
Change in foreign born pop.	-0.20	-0.19	-0.049	-0.22	-0.070
Change in foreign born pop.	(0.36)	(0.36)	(0.37)	(0.36)	(0.37)
Demographic controls	(0.50)	(0.50)	(0.57)	(0.30)	(0.57)
Fixed effects					
NUTS 1-Year	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Random intercepts					
NUTS 3	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
NUTS 3-year level	<u> </u>	$\overline{\checkmark}$	$\overline{\checkmark}$		$\overline{\checkmark}$
LAD-year level	$\overline{\checkmark}$	$\overline{\checkmark}$	$\overline{\checkmark}$		
Observations					
NUTS 3	123	123	121	123	121
NUTS 3-year	366	366	348	366	348
LAD-year	1039	1039	985	1039	985
Individual-year	24159	24159	23018	24159	23018
BIC	54332.2	54342.3	52066.9	54340.6	52087.3
			0	1 1 +	<0.10 * ·

Table C.7.2: Regressing the change in nationalist attitude on the China shock and the change in local economic activity

Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: ${}^{+}p < 0.10, {}^{*}p < 0.05, {}^{**}p < 0.01, {}^{***}p < 0.001.$

C.8 Regressions for EU membership support including change in nationalist attitudes

In this section, we report results from regression models for EU membership support that additionally control for change in nationalist attitudes. This explores a mediation argument according to which rising import exposure increases nationalist attitudes first and this increase in nationalist attitudes then causes a decrease in EU membership support. According to this reasoning, declining EU membership support is (partly) a response to rising nationalist attitudes rather than (only) a direct consequence of rising import exposure. While our theoretical argument conceives of increasing nationalist attitudes and declining support for EU membership primarily as part of the same nationalist backlash response and, thus, being simultaneously affected by rising import exposure, it is worth exploring this potential mediation.

However, doing so is hampered by the fact that nationalist attitudes (included in 1999, 2002, 2005, 2008) and EU membership support (included in 1999, 2002, 2006) have been included in different waves in the BHPS. As a feasible way to explore the mediation, we re-estimated our main regressions for EU membership support now including the first difference of nationalist attitudes. For the difference in EU membership support for 2002 relative to 1999, the difference for nationalist attitudes refers to the same period; for the difference in EU membership support for 2006 relative to 2002, we have to rely on the difference in nationalist attitudes for 2005 relative to 2002. The mediation argument would expect the difference in nationalist attitudes to affect EU membership support negatively, while the coefficient for import exposure should become smaller as compared to the baseline models.

This is indeed what we find in *Table C.8.1* below. An increase in nationalist attitudes is associated with a decrease in EU membership support with p<0.001 across all specifications. However, the effect is substantially modest. Moreover, the coefficient of the Chinese import exposure is only slightly smaller as in the baseline regressions of Table 2 of the main article.

These results provide some support for the idea that the effect of Chinese import exposure on EU membership support is, partially mediated through nationalist attitudes, albeit to a limited degree. Ultimately, however, it is difficult to clarify how the parallel shifts in attitudes that we observe are causally related to each other. In line with our argument that increasing nationalist attitudes and decreasing support for EU membership are part of the same nationalist anti-globalization backlash, it is at least reassuring to see that changes in both attitudes are related to each other—in addition to both in isolation being affected by import exposure.

	(1)	(2)	(3)	(4)
Chinese import shock (log)	-0.037*	-0.062*	-0.062^{*}	-0.032
	(0.017)	(0.028)	(0.029)	(0.036)
Δ nationalist attitudes	-0.027***	-0.027***	-0.028***	-0.029***
	(0.0066)	(0.0066)	(0.0066)	(0.0066)
EU support _{t-3/4}	-0.37***	-0.37***	-0.37***	-0.37***
	(0.011)	(0.011)	(0.011)	(0.011)
EU support t-3/4 X year=2006	-0.041**	-0.042**	-0.041**	-0.043**
	(0.015)	(0.015)	(0.015)	(0.015)
Manufacturing share1998		0.20	0.20	0.067
e and		(0.18)	(0.18)	(0.22)
Foreign born population		~ /	0.054	0.08 9
			(0.18)	(0.21)
Change in foreign born pop.			-0.56	-0.43
			(0.43)	(0.45)
Sociodemographic controls	\checkmark	\checkmark	V	Í
Fixed effects				
NUTS 1-Year	\checkmark	\checkmark	\checkmark	
NUTS 2-Year				\checkmark
Random intercepts				
NUTS 3	\checkmark	\checkmark	\checkmark	\checkmark
NUTS 3-year level	\checkmark	\checkmark	\checkmark	\checkmark
LAD-year level			\checkmark	\checkmark
Observations				
NUTS 3	122	122	122	122
NUTS 3-year	240	240	240	240
LAD-year			663	663
Individual-year	9290	9290	9290	9290
BIC	15777.2	15785.0	15807.0	16207.4
Standard deviation in estimation sample				
Δ support for EU membership	0.63	0.63	0.63	0.63
Δ nationalist attitudes	0.88	0.88	0.88	0.88
Chinese import shock	0.48	0.48	0.48	0.49

Table C.8.1: Regressing change in support for EU membership on Chinese import shock and change in nationalist attitudes

Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001.

C.9 Individual heterogeneity in the nationalist backlash effect

In this section, we investigate whether the marginal effect of the China shock depends on individual attributes. Such heterogeneity may arise as some individuals feel the impact of the China shock more strongly than others. First, it could be that those who are active in the labor force react more strongly to the China shock than those who are currently not in the labor force. Second, one might suspect that individuals working in manufacturing, and perhaps those working in the primary sector as well, are more directly affected and therefore react more strongly to local exposure to import competition than service workers. Third, one might expect that the low-skilled react more strongly as their labor market prospects are more directly affected by the effects of low-cost import competition compared to individuals with higher skill levels. While all these expectations may seem plausible at first sight, they are in tension with the idea of a genuinely sociotropic reaction: If individuals' reactions are shaped by the consequences of import competition for the local economy (and it are such local effects that the import shock measures are constructed to capture), we may see little such heterogeneity.

To explore this issue, we estimated a set of multilevel regressions with (cross-level) interactions between the China shock and four individual-level moderators: Current labor market status, sector of employment, education and immigration background. The results are shown as conditional effect plots in *Figure C.9.1* below. The first general observation to note is that the estimates of the conditional effects are often very noisy, especially when conditional effects for smaller groups are concerned (such as the unemployed or those working in the primary sector). This limits our ability to draw strong inferences on how effects differ across groups, as the confidence intervals (even 85% ones) often overlap substantially. Yet we can draw one key negative conclusion with reasonable certainty: There is, overall, little evidence that the strength of the effect of the China shock varies along the lines suggested above.

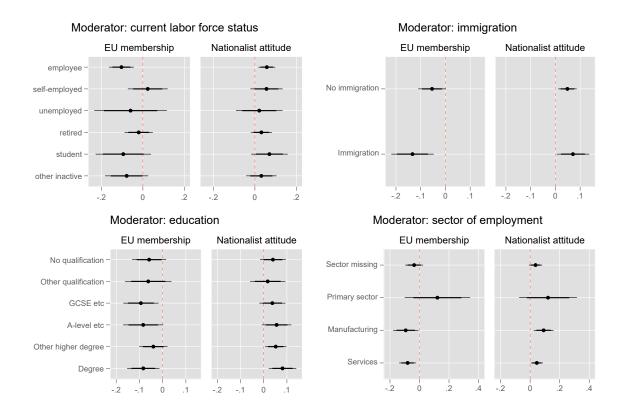


Figure C.9.1: Conditional effects of local Chinese import exposure

Note: Conditional marginal effects from linear two-level models (with random intercepts and random slopes at NUTS 3-year level) with NUTS 1 region-year fixed effects, controlling for 1998 employment share in manufacturing and individual-level controls as in main models. Note that we resort to the simpler specification with two levels to facilitate convergence of the estimator in these random slope models. Moderators tested in separate models. Lines indicate 95% and 85% confidence intervals around point estimate.

The strongest hints towards effect heterogeneity in the expected direction are obtained for current labor force status: The China shock indeed has the clearest effects among employees. Yet, the effects are not limited to employees, and some of the point estimates are even stronger within some of the inactive groups (such as the strong positive effect of the China shock on nationalist attitudes among students). Regarding sector of employment, we see that the China shock shows the expected effects among those working in manufacturing, but these conditional effects do not consistently stand out from the conditional effects for other groups. If any group stands out with respect to education, it is the high-skilled group of those with a tertiary degree rather than the low-skilled.

C.10 Adding sectoral import growth at the employment level

Our article focuses on the effects of exposure to growing Chinese imports at the regional level, rather than exposure at the individual level through one's workplace. We thereby built on previous studies that have also focused on the localized effects of import competition. In the article, we have listed several reasons why the local context might be important, and above (section C.8) we have shown that there is little evidence of individuals in distinct socio-structural categories reacting systematically differently to the local import shock. What we have not investigated so far is whether exposure to growing Chinese imports through one's workplace—that is, growing imports in the sectors individuals are employed in—might have similar effects.⁸ Our theoretical argument—which is, in essence, about exposure to low-wage import competition in general—is in line with the expectation of occupational exposure causing a nationalist backlash in political attitudes as well. While this is not the main concern of our article, we can shed some light on this question.

The BHPS contains a variable referring to the sector of one's employer based on the 1992 Standard Industrial Classification (SIC). It is available for the years 1994, 1997 and 2001 to 2008. We have matched the SIC codes in the BHPS to our sectoral scheme as defined in *Table A.2.1*. This allows us to calculate a measure of exposure to growing Chinese imports at the level of an individual's occupation. Similar to the Chinese import shock at the local level, we define it as the growth rate in imports from China in the sector *j* relative to the previous observation (i.e. when the lagged attitude was measured), i.e., as $CS_{j,t} = \left(\frac{IM_{j,t}-IM_{j,t-x}}{IM_{j,t-x}}\right) * 100$. In *Tables C.10.1* (EU membership support) and *Tables C.10.2* (nationalist attitudes), we have augmented

⁸ We thank an anonymous reviewer for bringing this to our attention.

our baseline specifications (we chose the simplest version, that is, the specification behind model 1 in Tables 1 and 2 of the article) by adding this measure.⁹

In both tables, we present four models. Models 1 and 2 merge $CS_{j,t}$ based on an individual's employment information in t-x. While this is perhaps the most appropriate way to merge the occupational import shock, it comes with the drawback that we lose the observations from 2002 (because of lacking SIC 1992 data for 1999). In models 3 and 4, we merge $CS_{j,t}$ based on an individual's employment information in t. This allows us to include observations from 2002 as well. In models 1 and 3, we only include individuals from the primary and secondary sectors contained in our sectoral scheme of *Table A.2.1* (i.e., those for whom $CS_{j,t}$ is defined). Note that this results in a much lower number of observations as compared to our baseline models. In models 2 and 4, $CS_{j,t}$ is set to zero for all respondents not employed in these sectors (including those with missing sectoral information).

The results for the regional import shock in *Table C.10.1* (EU membership support) and *Table C.10.2* (nationalist attitudes) are consistent with those from the benchmark regressions. The regional import shock enters negatively for EU membership support and positively for nationalist attitudes. Coefficients are, unsurprisingly, less precisely estimated in the models with fewer observations, but the coefficients are consistent with each other, and the statistically significant coefficients in models 4 are very close to their counterparts in the baseline regressions.

Results for occupational import exposure accord with those for regional exposure: The occupational import shock is also always negatively signed for EU membership support and always positively signed for nationalist attitudes. In the model with maximum power, model 4,

⁹ We note that the resulting data structure might be better handled in a cross-classified multilevel model with both NUTS 3 regions and sectors as non-nested higher-level units. However, these models failed to converge. The models we present, especially results on occupation-based exposure to growing Chinese imports, should thus be interpreted with some caution.

the occupational import shock is statistically significant with p<0.05 for EU membership support. According to this model, both regional as well as occupational exposure to growing Chinese imports seem to clearly contribute to decreasing support for EU membership. However, the occupational exposure fails to reach statistical significance in model 4 regarding nationalist attitudes; it is only borderline significant in model 1.

In sum, we find similar, albeit weaker, results when studying occupational exposure. We think this is additional support for the thrust of our argument. At the same time, it should be noted that our article is concerned with the regional effect whose robustness we have extensively studied. In comparison, we have not spent nearly as much attention on the occupational level and regard these findings as much more tentative. Thus, keeping our main focus in mind, another important take-away from these additional results is that the effect of regional import exposure clearly survives controlling for an effect of occupational exposure. In line with the interpretations from above, this suggests a genuine effect of the regional level.

	(1)	(2)	(3)	(4)
Sectoral import growth merged on	Lagged	Lagged	Current	Current
	employment	employment	employment	employmen
Occupational Chinese import shock	Only growth	Growth rates	Only growth	Growth rate
	rates for	set zero for	rates for	set zero for
	primary and	all	primary and	all
	secondary	respondents	secondary	respondent
	sectors as	not employed	sectors as	not
	defined in	in these	defined in	employed i
	Table A.2.1	sectors	Table A.2.1	these sector
Included years	2006	2006	2002, 2006	2002, 2006
Regional Chinese import shock (log)	-0.047	-0.036	-0.054	-0.039*
	(0.060)	(0.023)	(0.053)	(0.019)
Occupational Chinese import shock (log)	-0.089^{+}	-0.044	-0.062	-0.054*
	(0.049)	(0.032)	(0.044)	(0.026)
EU support _{t-3/4}	-0.47***	-0.40***	-0.46***	-0.37***
	(0.032)	(0.011)	(0.032)	(0.011)
EU support t-3/4 X year=2006		× /	-0.016	-0.040**
11			(0.046)	(0.015)
Other qualification	-0.024	-0.013	-0.043	-0.028
1	(0.12)	(0.037)	(0.088)	(0.026)
GCSE etc	0.019	-0.0087	0.093	0.023
	(0.090)	(0.030)	(0.067)	(0.023)
A-level etc	0.012	0.036	0.096	0.063**
	(0.098)	(0.034)	(0.074)	(0.024)
Other higher degree	0.10	0.094***	0.14*	0.079***
	(0.080)	(0.026)	(0.062)	(0.019)
Degree	0.32**	0.26***	0.32***	0.23***
Degree	(0.10)	(0.030)	(0.076)	(0.022)
Male	-0.015	-0.011	-0.026	0.010
Wale	(0.058)	(0.016)	(0.020	(0.012)
$\Delta = \frac{100}{100}$	-0.41	-0.33	-0.034	-0.28
Age/100				
(100)2	(1.34)	(0.30)	(0.99)	(0.22)
(Age/100) ²	0.47	0.30	-0.35	0.12
AT . 1 . TTTZ	(1.42)	(0.28)	(1.10)	(0.21)
Not born in UK	0.026	0.071	-0.067	0.053
	(0.15)	(0.052)	(0.11)	(0.037)
One parent not born in UK	0.024	-0.0064	0.045	0.012
	(0.094)	(0.035)	(0.073)	(0.025)
Both parents not born in UK	-0.0080	0.013	0.24*	0.079*
~	(0.16)	(0.051)	(0.11)	(0.037)
Constant	0.62	0.37**	0.71*	0.51***
	(0.39)	(0.11)	(0.31)	(0.097)
Fixed effects	_	_	_	
NUTS 1-Year	\checkmark	\checkmark	\checkmark	\checkmark
Random intercepts				
NUTS 3			\checkmark	\checkmark
NUTS 3-year level	\checkmark	\checkmark	\checkmark	\checkmark
Observations				
NUTS 3			110	122
NUTS 3-year	106	120	212	240
Individual-year	701	5162	1181	9555
BIC	1401.7	9085.7	2339.8	16462.9
Standard deviation in estimation sample	1 (01./	2002.1	2557.0	10702.7
Δ support for EU membership	0.68	0.63	0.69	0.63
	0.68	0.63	0.69	
Regional Chinese import shock				0.47
Occupational Chinese import shock	0.46	0.26	0.39	0.23

Table C.10.1: Regressing (change in) support for EU membership on growing regional and occupational	
exposure to Chinese imports	

Note: Results from linear multilevel models. Standard errors in parentheses. Significance levels: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001.

Chinese imports				
•	(1)	(2)	(3)	(4)
Sectoral import growth merged on	Lagged	Lagged	Current	Current
	employment	employment	employment	employmen
Occupational Chinese import shock	Only growth	Growth rates	Only growth	Growth rate
	rates for	set zero for	rates for	set zero for
	primary and	all	primary and	all
	secondary	respondents	secondary	respondents
	sectors as	not employed	sectors as	not
	defined in	in these	defined in	employed ir
	Table A.2.1	sectors	Table A.2.1	these sector
Included years	2005, 2008	2005, 2008	2002, 2005,	2002, 2005
	0.040	0.000	2008	2008
Regional Chinese import shock (log)	0.048	0.029+	0.071+	0.038**
	(0.041)	(0.016)	(0.038)	(0.014)
Occupational Chinese import shock (log)	0.088+	0.054	0.0056	0.043
	(0.051)	(0.034)	(0.048)	(0.030)
Nationalist attitude _{t-3}	-0.51***	-0.51***	-0.53***	-0.52***
	(0.020)	(0.0067)	(0.017)	(0.0056)
Other qualification	-0.14+	-0.041	-0.081	-0.039^{+}
200E -4-	(0.086)	(0.026)	(0.072)	(0.021)
GCSE etc	-0.10	-0.060**	-0.081	-0.046^{**}
A 11	(0.067)	(0.021)	(0.057)	(0.017)
A-level etc	-0.11	-0.093***	-0.066	-0.090^{***}
	(0.074)	(0.024)	(0.063)	(0.020)
Other higher degree	-0.11^{+}	-0.095***	-0.091^{+}	-0.086***
Deemaa	(0.061)	(0.018) -0.19***	(0.053) -0.068	(0.015) -0.20***
Degree	-0.068			
Male	(0.076) -0.045	(0.022) -0.030**	$(0.066) \\ -0.057^+$	(0.018) -0.033***
viale	-0.043 (0.040)			
Age/100	0.14	(0.012) -0.032	(0.035) -0.60	(0.0097) 0.20
Age/100	(0.94)	(0.19)	(0.79)	(0.16)
(Age/100) ²	0.41	0.43*	(0.79)	0.16)
(Age/100)-	(1.03)	(0.18)	(0.90)	(0.16)
Not born in UK	-0.057	-0.080*	-0.077	-0.087**
	(0.12)	(0.036)	(0.10)	(0.037)
One parent not born in UK	-0.057	-0.038	-0.13+	-0.076***
one parent not born in OK	(0.079)	(0.025)	(0.069)	(0.021)
Both parents not born in UK	0.019		-0.056	-0.046
	(0.12)	-0.030 (0.035)	(0.10)	(0.030)
Constant	1.06***	1.12***	1.35***	1.07***
Constant	(0.28)	(0.081)	(0.25)	(0.075)
Fixed effects	(0.20)	(0.001)	(0.23)	(0.075)
NUTS 1-Year	\checkmark	\checkmark	\checkmark	\checkmark
Random intercepts				
NUTS 3	\checkmark	\checkmark	\checkmark	\checkmark
NUTS 3-year level	\checkmark	\checkmark	\checkmark	\checkmark
Observations				
NUTS 3	114	122	113	123
NUTS 3-year	221	244	325	366
Individual-year	1884	16953	2600	24157
Individual-year				
×	4491.6	38119.6	6251.6	54304.0
BIC	4491.6	38119.6	6251.6	54304.0
BIC Standard deviation in estimation sample				
BIC Standard deviation in estimation sample Δ nationalist attitude Regional Chinese import shock	4491.6 0.86 0.55	<u>38119.6</u> 0.86 0.54	0.88 0.51	0.86 0.51

Table C.10.2: Regressing (change in) nationalist attitude on growing regional and occupational exposure to Chinese imports

Appendix D: Effects of the China shock on economic policy attitudes

One additional potential consequence of exposure to import competition is an effect on demand for 'compensation'. This expectation builds on the logic behind the well-known compensation hypothesis: As globalization increases economic risks, it leads to demands for economic safeguarding in terms of government spending, which in turn results in a positive macro-level association between trade openness and the size of government (Cameron, 1978; Rodrik, 1998). Studies on the underlying micro-level mechanisms reveal that those workers who are personally negatively exposed to international economic competition feel more economically insecure, demand stronger welfare state policies and are more likely to vote for left-wing parties who advocate such policies (Rommel & Walter, 2017; Walter, 2010). Similarly, local import shocks might be expected to cause rising demands for redistribution to the economically disadvantaged, for risk insurance through welfare state policies, and for generally more state intervention in the economy. In short, individuals living in regions exposed to import competition may move to the left on economic policy.

The BHPS incorporates a set of questions on individuals' attitudes towards economic policy, also as a 'rotating core', that allow us to test this expectation. We focused on a similar period as for the analysis of nationalist attitudes, analyzing data on economic policy orientations in 2004 and 2007, while controlling for their lagged values in 2000 and 2004, respectively. In *Table D.1* below, we present the results from a set of multilevel model estimations that follow equation (1). We experimented with different ways of combining the six different items. In none of the cases did we obtain an effect even close to conventional levels of statistical significance. We believe that this is an important non-result, which stands in contrast to the strong results we obtain for the nationalist backlash hypothesis. Taken together, these findings help to understand why previous studies have found that it is not left parties who profit from local exposure to import competition, but parties of the nationalist right.

	Overall	Factor from	Factor from	Factor from	Government'	Strong trade
	factor for	all policy	economic	state	s	unions
	economic	items	injustice	ownership	responsibilit	
	left-right		items	items	y to provide	
	ideology				a job	
	Factor	Factor	Factor	Factor	Single	Single
	from	from	from	from	item	item
	(with	(with	(with	(with		
	loading)	loading)	loading)	loading)		
Ordinary people get	☑ (-0.60)	- C,	☑ (-0.85)	- O,		
their fair share of	× /		× /			
the nation's wealth						
There is one law for the	☑ (0.66)		☑ (0.85)			
rich and one for the	, , ,		× ,			
poor						
Private enterprise is the	☑ (-0.59)	☑ (-0.63)		☑ (-0.80)		
best way to solve	× /	× /		× /		
Britain's economic						
problems						
Major public services	☑ (0.57)	☑ (0.65)		☑ (0.80)		
and industries ought	× /					
to be in state						
ownership						
Government's	☑ (0.60)	☑ (0.68)			\checkmark	
responsibility to	× /					
provide a job for						
everyone who						
wants one						
Strong trade unions	☑ (0.63)	☑ (0.72)				\checkmark
needed to protect	, í	. /				
working conditions						
and wages						
Coefficient of Chinese	0.016	0.017	0.011	-0.009	0.018	0.030
import shock						
(and standard error)	(0.016)	(0.018)	(0.018)	(0.018)	(0.022)	(0.021)

Table D.1: Regressing change in economic policy attitudes on local Chinese import shock

Note: Results for coefficient of Chinese import shock (growth rate measure) in linear multilevel models with specification analogous to models 1 of Tables 2 and 3 (specification with NUTS 3 region-year fixed effects, without local level control variables). Note that we chose this specification to show that there are no statistically significant effects even without considering local level control variables; whereas we use the more fully specified model 3 for our robustness checks. Factors are built from polychoric principal components factor analysis. Regressions regress first difference in economic policy attitudes in 2007 vs. 2004 and 2004 vs. 2000, controlling for the respective economic policy attitudes in 2000, respectively. Lagged level of attitude is interacted with year to allow its effect to vary. Significance levels: ${}^+p < 0.10$, ${}^*p < 0.05$, ${}^{**}p < 0.01$, ${}^{***}p < 0.001$.

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