



Import competition and mental distress: The hidden cost of globalisation

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Influential studies have shown that trade liberalisation is associated with substantial adjustment costs for workers in import-competing jobs. This column uses UK data to shed light on one such cost that has not been considered to date – subjective well-being. Import competition is found to substantially raise mental distress, through worsened labour market conditions and increased stress on the job. These findings provide evidence of an important hidden cost of globalisation.

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International trade theory suggests that trade liberalisation may raise countries' welfare by increasing aggregate productivity, by lowering consumer prices, and by expanding the range of goods available for consumption. Influential empirical studies show, however, that trade liberalisation is also associated with substantial adjustment costs for workers in import-competing jobs. These costs take the form of higher risk of job displacement, longer unemployment spells, costly reallocation to different jobs, and lower earnings growth (e.g. Autor *et al.* 2013, 2014, 2015).

In a recent paper (Colantone *et al.* 2015), we shed light on a new trade adjustment cost that reaches beyond the ones implied by observable changes in labour market outcomes – the impact of import competition on individuals' subjective well-being. We show, in particular, that import competition determines a significant worsening of individuals' mental health – a *hidden*, yet economically important, cost of globalisation.

Context and data

Mental health is becoming a primary concern for governments worldwide (*The Economist* 2015). According to the OECD, mental diseases cost up to 4% of GDP in terms of direct treatments, disability benefits, and productivity losses (OECD 2014). Our analysis focuses on the UK over 2001-2007, a period in which mental health has become a top clinical priority for the British government. In 2007, the direct cost of treatment associated with mental illness reached £22.5 billion, absorbing around 12% of the overall National Health System budget. The estimated indirect cost due to employment losses, absenteeism, and reduced productivity on the job was of a similar magnitude (McCrone *et al.* 2008, Cooper and Dewe 2008). During the same period, the UK has witnessed a sharp increase in import competition, with growth in real imports (75%) outpacing growth in real output (27%) and exports (52%).

We employ data from the British Household Panel Survey (BHPS), which covers a representative sample of approximately 13,000 individuals interviewed every year. The BHPS is the only publicly available dataset with repeated information on mental health for a nationally representative sample of individuals over a long time span. The database also contains information on many individual characteristics, including demographic variables, employment status, and physical health.

To measure mental distress, we use the 12-item version of the Generalised Health Questionnaire indicator (GHQ-12). This index is widely used both as a clinical tool to detect psychiatric illness (Goldberg 1978) and as a proxy for mental distress in studies on the economic and social determinants of mental health (e.g. Clark 2003, Dustmann and Fasani 2015). In a nutshell, every year each individual is asked 12

questions related to mental health, and may answer each question in four ways, corresponding to increasing levels of distress.¹ GHQ-12 is the sum of the scores across the 12 questions.

The BHPS contains information on the industry of employment of each worker in a given year. We use this information to match the individual-level data on mental health with an industry-level measure of import competition. Overall, we observe workers employed in 122 industries, which span the entire UK economy – that is, both manufacturing and services. We construct the import competition measure using data from COMEXT (for manufacturing) and WIOD (for services). Then, we define the import competition shock as the five-year percentage change in this measure in each worker's industry of employment. This variable has an average of 17.6 across industries and years, consistent with foreign competitive pressure having substantially intensified over the period. There is also significant heterogeneity across industries, with the standard deviation of the import competition shock equal to 40.6 in our sample.

The effect of import competition on mental distress

To investigate the impact of import competition on mental distress, we regress GHQ-12 on the trade shock plus a wealth of controls for concomitant factors at the individual, household, and industry level. Crucially, since we have repeated information on mental health for the same worker, we can also control for any time-invariant differences in mental distress across workers through individual fixed effects. Accordingly, our identification strategy compares changes in mental health across similar individuals who live in similar households and work in similar industries, except for the import competition shock. To correct the estimates for endogeneity bias due to demand shocks occurring in the UK, we instrument import competition using non-UK exports to the rest of the world. Similar in spirit to Autor *et al.* (2013, 2014, 2015), this instrument isolates variation in UK imports due to supply shocks in the trading partners.

We find that import competition substantially raises mental distress. Quantitatively, a one standard deviation increase in import competition raises GHQ-12 by 1.2 percentage points, explaining roughly 13% of the within-individual variability in mental distress. Alternatively, our point estimates imply that moving a representative worker from the industry at the first quartile of the import competition shock to the industry at the third quartile would worsen her mental distress by 5%.

We find the effect of import competition to be relatively stable across individuals of different age, gender, and tenure within the firm, as well as across full-time and part-time employees, or across permanent and temporary workers. The effect is instead milder for the self-employed – who mostly operate in market niches and low tradable jobs – and larger for service sector employees, a result that reflects the strong specialisation of the UK economy in services.

Mechanisms

We investigate some of the possible channels through which import competition affects mental health. We find supportive evidence for a number of mechanisms. First, an increase in import competition determines a higher likelihood of job displacement and, for continuously employed workers, a lower wage growth. Both changes in labour market conditions are in turn associated with higher mental distress.

These first two channels are related to observable labour market outcomes. We then ask what happens to workers who experience no change in employment status and wage growth. Are these people affected by import competition? If so, how? In this respect, our results suggest that two additional mechanisms are at play.

The first mechanism is related to a worsening of workers' satisfaction with their current job. This happens mainly because import competition makes individuals less satisfied with their workload, as firms adjust to foreign competitive pressure by switching to longer and more demanding working schedules. The associated increase in job-related stress then leads to a deterioration of mental health. The second mechanism is related to a worsening of future expectations. In particular, we find that import competition leads individuals to expect fewer opportunities for job promotion and training in the following year, as well as a deterioration of their personal financial situation, which gets reflected in higher (precautionary) savings and lower purchases of durable goods. In turn, worsened expectations are associated with an increase in individuals' mental distress. Importantly, these two channels reach beyond standard mechanisms related to observable labour market outcomes.

Conclusion

Import competition deteriorates workers' subjective well-being through a combination of mechanisms, including worsened labour market conditions, increased stress on the job, and gloomier expectations about the future. Overall, our results suggest that the response of individuals' mental health to globalisation should be taken into account for an accurate assessment of the net welfare gains from trade.

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Footnote

¹The twelve questions are: Have you recently (1) lost much sleep over worry?; (2) felt constantly under strain?; (3) felt you couldn't overcome your difficulties?; (4) been feeling unhappy or depressed?; (5) been able to concentrate on whatever you're doing?; (6) felt that you were playing a useful part in things?; (7) felt capable of making decisions about things?; (8) been able to enjoy your normal day-to-day activities?; (9) been able to face up to problems?; (10) been feeling reasonably happy, all things considered?; (11) been losing confidence in yourself?; (12) been thinking of yourself as a worthless person?. The four answers are: not at all, no more than usual, rather more than usual, much more so than usual.

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