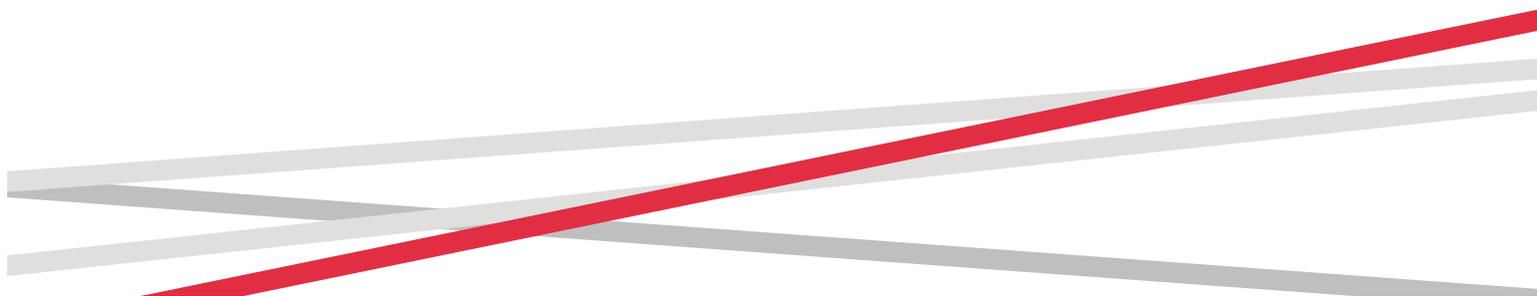




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Higher Competition in the Domestic Market – A Way to Boost Aggregate Productivity

Competition is a good thing not only because of lower prices and larger variety. Higher competition in the domestic market also shifts necessary labour and capital resources from less productive domestic-oriented firms to export-oriented productivity champions. Such firms will make better use of production factors and generate larger output. Thus, simply increasing the level of competition in the domestic market can boost the aggregate productivity of a country.



The aggregate productivity of a country can be boosted even without changing the productivity of individual enterprises. This can be achieved by improving the allocation of resources – the redistribution of labour and capital towards more productive firms. These firms will make better use of production factors and generate larger output. But how can one affect the allocation of resources? Economic theory says that allocation depends on the productivity of individual firms: more productive enterprises attract more labour and capital. However, there exists another factor behind allocation: distortions.

Distortions affect the allocation of resources

A model developed by Hsieh and Klenow (2009) – one of the most popular frameworks to study the allocation of resources – has a very important and realistic feature: it acknowledges that firms are not treated equally. Some firms may face lower supply of banking loans ending with higher capital costs. Other firms could confront with trade unions and higher wages. Tax rates may also differ across firms. These are all examples of distortions. Firms facing larger distortions are forced to underuse respective production factor, while firms that enjoy more favourable conditions tend to overuse capital and labour, generating more output.

While it is virtually impossible to imagine an economy without any distortions (the one where all firms face the same taxes, costs of labour, capital etc.), not all distortions damage the allocation of resources. Only distortions to productive firms create misallocation of resources by shifting labour and capital towards unproductive firms. Thus, removal of such distortions can improve the efficiency of allocation and raise the aggregate output of the country.

According to Hsieh and Klenow (2009) the distortions faced by every individual firm can be quantified from the balance sheets and

profit/loss data. For example, observing lower-than-usual ratio of capital to intermediate inputs (comparing with other enterprises in a narrowly defined industry) indicates a capital distortion, possibly related with limited access to banking loans. Similarly, lower-than-usual share of wages in total production costs implies high labour distortions. Finally, the size of the distortion can be detected as a case of abnormally low share of intermediate inputs in total output, and signals about the restrictions to total output (e.g. due to higher taxes for large enterprises).

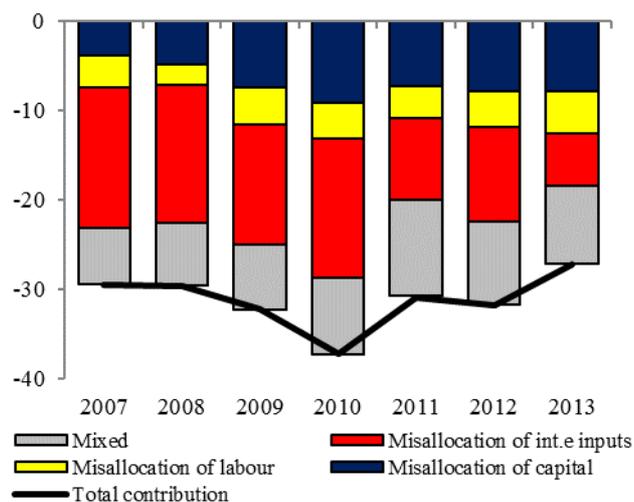
Misallocation of resources is small in Latvia

In my recent research (see Benkovskis, 2015), I use anonymised firm-level dataset for 2007–2013 and apply the Hsieh and Klenow (2009) model to study the allocation of resources in Latvia – a unique example of a small and open economy facing extreme structural shifts during the financial crisis. According to my estimates, the negative contribution of misallocation to aggregate productivity was close to 27% in 2013 (see Figure 1). In other words, it suggests that actual aggregate productivity could be boosted by 27% if all distortions were removed!

This may seem large but in fact 27% is a comparatively low figure. Hsieh and Klenow (2009) argue that full liberalisation would boost aggregate manufacturing productivity by 86–115% in China, 100–128% in India, and 30–43% in the US. Dias et al. (2015) show that removing distortions would lead to a 30% gain in output of Portugal in 2011. Thus, misallocation of resources is relatively small in Latvia. Even more important: the misallocation of resources decreased after the crisis in Latvia (contrary to the case of Portugal), adding more than 10 percentage points to aggregate productivity growth between 2010 and 2013.



Figure 1. Contribution from misallocation of resources to aggregate total factor productivity, %



Source: Benkovskis (2015). Note: shows the contribution of misallocation comparing with the counterfactual case of no distortions.

The finding that allocation of resources improved after the crisis is interesting per se, but uncovering the reasons behind the improvement is even more important. Figure 1 provides a decomposition, which shows that labour distortions are minor in Latvia due to high flexibility of labour market (in line with recent findings by Braukša and Fadejeva, 2016). The capital distortions, while being minor in 2007–2008, increased afterwards, pointing to some credit supply constraints faced by the highly productive enterprises after the financial crisis. However, by far largest contribution comes from the misallocation of intermediate inputs – the turnover of the most productive firms face some constraints. And it was the ease of constraints to turnover for the most productive firms that determined the improvements in aggregate productivity since 2010.

The level of competition matters for misallocation

My research stresses the importance of the competition level on the market, since higher competition serves as a natural constraint for the

firm to increase its turnover. What if the most productive Latvia’s firms systematically come up against higher competition? I found that indeed this is the case. First, recent results by Fadejeva and Krasnopjorovs (2015) show that Latvia’s domestic market has lower competition level comparing with external markets. Second, it is widely acknowledged that exporters tend to be more productive comparing with domestically oriented firms (see e.g. Bertou et al., 2015, who report positive export premiums for EU countries, while Benkovskis and Tkačevs, 2015, find higher productivity of exporters in Latvia). Thus, Latvia’s productive export-oriented firms are subject to higher competition and cannot enlarge their turnover as easy as other entities. This shifts labour and capital towards small and less productive firms working solely on domestic market, creating the misallocation of resources.

The domestic competition factor can also explain the improving allocation of resources after 2010. The study by Fadejeva and Krasnopjorovs (2015) reveals that the competition gap between domestic and foreign markets narrowed after the financial crisis (see Table 1). Namely, life was too easy on the local Latvia’s market during the boom time, allowing unproductive firms to survive and drain away resources from more productive firms. But conditions became tougher after the crisis (although the competition level still remained lower than abroad). We can view this as a “cleansing effect of the crisis”: some of the least productive domestic oriented firms went bankrupt (or decreased their turnover), freeing the necessary capital and labour resources for productive exporters.



Table 1: Change in the competitive pressure on main product in domestic and foreign markets compared to the situation before 2008, %

	Domestic market		Foreign market	
	2008– 2009	2010– 2013	2008– 2009	2010– 2013
Strong decrease	2.9	2.2	0.9	1.0
Moderate decrease	11.8	3.8	7.6	5.9
Unchanged	33.8	24.7	45.7	51.5
Moderate increase	30.0	28.1	25.2	19.7
Strong increase	18.7	38.5	11.2	8.8
Does not apply	2.8	2.8	9.4	13.1

Source: Fadejeva and Krasnopjorovs (2015), Table A.102. Notes: based on the sample of 557 Latvia's firms; results are weighted to represent firm population.

Conclusion

This research has an important policy conclusions applicable to any country that seeks to increase aggregate productivity. The competition level in the domestic market is important not only for consumers, who enjoy lower prices and higher variety. Higher competition in the domestic market also shifts necessary resources from less productive domestic-oriented firms to export-oriented productivity champions.

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