

The ‘Dutch Disease’ In Oil Exporting Countries

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A key current policy issue for oil exporting economies is how much to spend domestically out of their windfall. The right answer depends in part on the size of the so-called ‘Dutch Disease’ effect, which measures the decline in non-oil tradable production due to spending out of resource income. This thesis quantifies the Dutch disease in oil exporting countries in response to petroleum price shocks. The work explores the Dutch disease both theoretically and empirically and adds to the study of its consequences and the different scenarios under which it can be particularly debilitating to non-oil tradable production.

1 How And Why The ‘Dutch Disease’ Affects Countries Differently (*job market paper*)

This chapter models the Dutch disease under open and closed capital markets. I show that capital mobility offsets pressures on the real exchange rate while still resulting in a Dutch disease as windfall increases. I show that the Dutch disease effect can result in more/less shrinkage in manufacturing in the case of open capital markets when nontradables are labor/capital intensive. The result stresses the importance of labor and capital movements in finding the Dutch disease impact. Previous studies have found ambiguous evidence on the size (and even existence) of the Dutch disease using aggregate data. This chapter finds cross-country evidence of the Dutch disease using disaggregated data. In my data, manufacturing shrinks in output on average by 3.5 percent in response to a 10 percent increase in oil price. I also find that an increase in oil price increase leads to higher capital intensity, which is consistent with theory when nontradables are labor intensive. Additionally, I find evidence of stronger Dutch disease in economies with more open capital accounts.

2 When Is The ‘Dutch Disease’ Really A Disease: An Endogenous Growth Analysis (*in progress*)

Models of the Dutch disease that have attempted to explain the slower growth of resource rich countries are based on learning-by-doing external to the firm from manufacturing production (Matsuyama 1992, Sachs and Warner 1995). These models assume that learning-by-doing only depends on the magnitude of production. However, if learning-by-doing exists, then it probably depends not only on the amount of production, but also on the productivity of labor employed in the sector. Ismail (2008) shows that the Dutch disease may lead to changes in the method of production through the capital-labor ratio which in turn affects the marginal productivity of labor. This paper formulates a model of endogenous growth that accounts for changes in the method of production as well as its magnitude in modeling learning-by-doing. It shows that when nontradables are labor intensive, a small amount of Dutch disease can lead to higher growth rates in the long run.