Appendix 4. Re-specifying the French and Swedish models

In this appendix I report the effects of changing the specification of the French and Swedish models in ways that make sense given the structures of their economies.

France

In the French case, I separate wine from the rest of the non-grain sector. In experiments where land is sector-specific, I allow for three types of land: land in pasture, land in tillage, and land in vineyards. I impose the same three shocks on this model as in the text of the paper. The results are given in Appendix Table 4.1. As can be seen by comparing this table with Tables 7 and 8 in the text, re-specifying the model in this way makes almost no difference to the results.

Sweden

In the Swedish case, I adopt a more complicated specification, as in O'Rourke and Williamson (1995a). That is, I separate fishing and forestry from the rest of the non-grain sector, and allow labour to be imperfectly mobile between agriculture, industry and services, and fishing and forestry. Second, manufacturing is divided into 2 sectors: export oriented sectors such as wood products and mining, and home-market oriented sectors such as clothing and textiles.

The results of imposing the price shocks on this revised model are given in Appendix Table 4.2. The decline in the price of grain produces larger declines in agricultural employment, as workers who move to forestry are now counted as leaving agriculture, rather than moving within agriculture. This is only an accounting difference, rather than a substantive difference in results. The key income distribution results of the paper are only very slightly affected by the change in model specification.

Appendix Table 4.1. Alternative French results

(percentage changes)

| | Sector-specific land | | | Mobile land | | |
|-----|----------------------|-------|-------|-------------|-------|-------|
| | GBP | FP | TAR | GBP | FP | TAR |
| P | 3.7 | 4.7 | 1.3 | 11.9 | 15.7 | 4.4 |
| G | -44.8 | -57.2 | -19.3 | -48.0 | -61.0 | -20.4 |
| NG | 24.8 | 32.2 | 10.3 | 19.4 | 24.6 | 8.3 |
| W | 9.0 | 11.4 | 3.7 | 17.1 | 22.7 | 6.4 |
| М | 3.7 | 4.5 | 1.5 | 3.0 | 3.4 | 1.2 |
| S | -1.3 | -1.6 | 0.0 | -1.4 | -1.7 | 0.0 |
| WA | -5.0 | -6.0 | -2.4 | -4.5 | -5.3 | -2.2 |
| WNA | -4.1 | -4.9 | -2.0 | -3.7 | -4.3 | -1.8 |
| K | 5.6 | 7.3 | 2.4 | 6.9 | 9.0 | 2.8 |
| R | | | | -4.2 | -4.7 | -2.3 |
| RT | -10.2 | -12.1 | -5.0 | | | |
| RP | 9.7 | 12.7 | 3.6 | | | |
| RW | 9.7 | 12.6 | 3.9 | | | |
| LA | -5.5 | -6.8 | -2.6 | -5.1 | -6.1 | -2.4 |

Note: 'Sector-specific' experiments assume land specific to either pasture or tillage; 'mobile' experiments assume land mobile between all agricultural sectors. The 'GBP' scenario imposes a 28.9% decline in the price of grain; the 'FP' scenario imposes a 33.7% decline in the price of grain, while the 'TAR' scenario imposes a 33.7% decline in the world price of grain, and a 26.5% tariff on grain imports. P, G, NG, W, M, S: outputs in pasture, grains, non-grains, wine, manufacturing and services. WA, WNA, K, R, RT, RP, RW: real returns to agricultural and non-agricultural labour, capital, land, and land in tillage, pasture and wine. LA: agricultural employment.

Source: see text.

Appendix Table 4.2. Alternative Swedish results

(percentage changes)

| | Sector- | Sector-specific land | | | Mobile land | | |
|-----|---------|----------------------|-------|-------|-------------|-------|--|
| | GBP | SWP | TAR | GBP | SWP | TAR | |
| P | 2.6 | 2.3 | 1.2 | 6.0 | 5.3 | 2.8 | |
| G | -21.0 | -19.3 | -13.1 | -22.3 | -20.3 | -13.3 | |
| NG | 5.1 | 4.6 | 2.9 | 4.9 | 4.4 | 2.6 | |
| FF | 8.4 | 7.8 | 5.7 | 8.5 | 7.9 | 5.5 | |
| EX | 25.4 | 23.7 | 17.2 | 26.7 | 24.7 | 17.3 | |
| Н | 8.5 | 7.7 | 4.6 | 8.0 | 7.2 | 4.0 | |
| S | 0.9 | 0.8 | 0.5 | 1.0 | 0.9 | 0.6 | |
| WA | -1.7 | -1.6 | -1.3 | -0.8 | -0.8 | -0.8 | |
| WNA | 1.0 | 0.9 | 0.3 | 2.0 | 1.7 | 0.8 | |
| WFF | 1.0 | 0.9 | 0.4 | 2.0 | 1.7 | 0.9 | |
| K | 5.2 | 4.6 | 2.5 | 5.5 | 4.8 | 2.4 | |
| R | | | | -15.7 | -14.4 | -10.1 | |
| RT | -22.2 | -20.5 | -14.4 | | | | |
| RP | 7.9 | 6.9 | 3.3 | | | | |
| LA | -17.3 | -15.9 | -11.1 | -17.5 | -16.0 | -10.8 | |

Note: 'Sector-specific' experiments assume land specific to either pasture or tillage; 'mobile' experiments assume land mobile between all agricultural sectors. The 'GBP' scenario imposes a 28.9% decline in the price of grain, while the 'SWP' scenario imposes a 26.8% decline in the price of grain, and the 'TAR' scenario imposes a 26.8% decline in the world price of grain, and a 22.4% tariff on grain imports. P, G, NG, FF, EX, H, S: outputs in pasture, grains, non-grains, fishing and forestry, exportoriented and home-market-oriented manufacturing, and services. WA, WNA, WFF, K, R, RT, RP: real returns to agricultural, non-agricultural and forestry labour, capital, land, and land in tillage and pasture. LA: agricultural employment.

Source: see text.