

## 1 A note on the weak law of CA

In class we saw that there is a positive covariance between autarky prices and imports, since  $\Pi^a M \geq 0$ , with  $\sum M_k = 0$  from the equilibrium in goods markets.

Another way to see this positive covariance that may be more useful is the following. Let  $p^f$  be the equilibrium prices with trade, and assume without loss of generality that  $\sum_k p_k^{a_i} = \sum_k p_k^f = 1$  for all  $i$  (countries). (This is just a normalization of prices). Then from  $p^{a_i} m^i \geq 0$  and trade balance (i.e.,  $p^f m^i = 0$ ) we get

$$(p^{a_i} - p^f) m^i \geq 0$$

Since  $E(p^{a_i} - p^f) = 0$ , this implies a positive covariance between  $p_k^{a_i} - p_k^f$  and  $m_k^i$  - in other words, countries tend to export the goods for which their autarky price is low relative to the free trade international price.