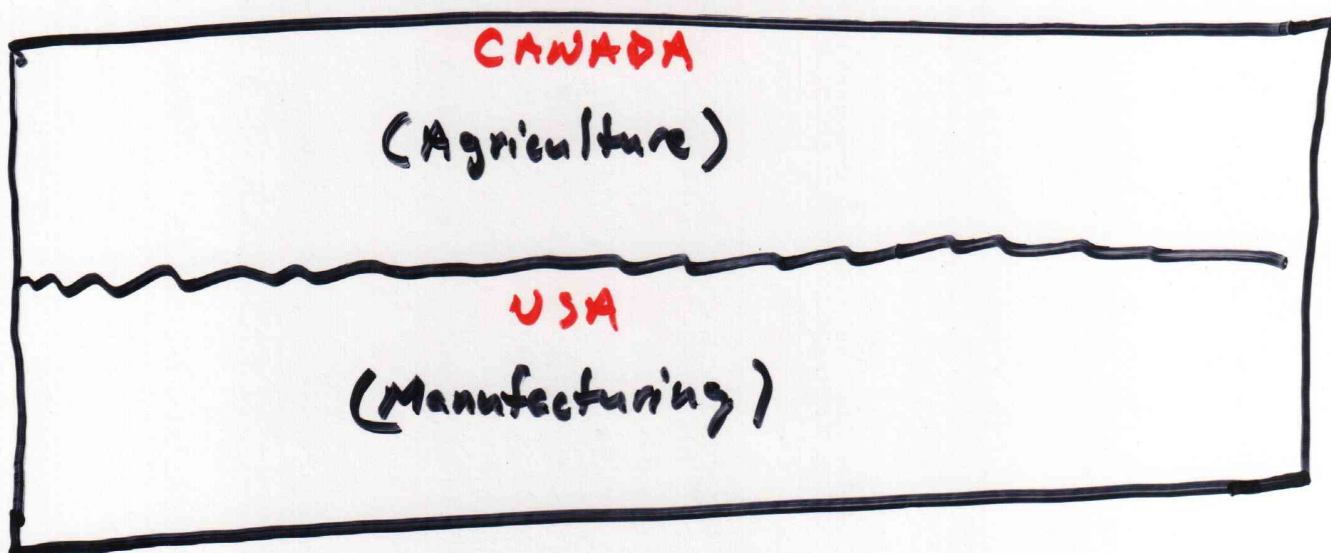


## Mundell's Optimum Currency Area Criteria

Last time we saw how flexible ex. rates can act as a "shock absorber".

Implicit in this argument is the assumption that shocks are national in origin.

For example, consider the case of the U.S. + Canada



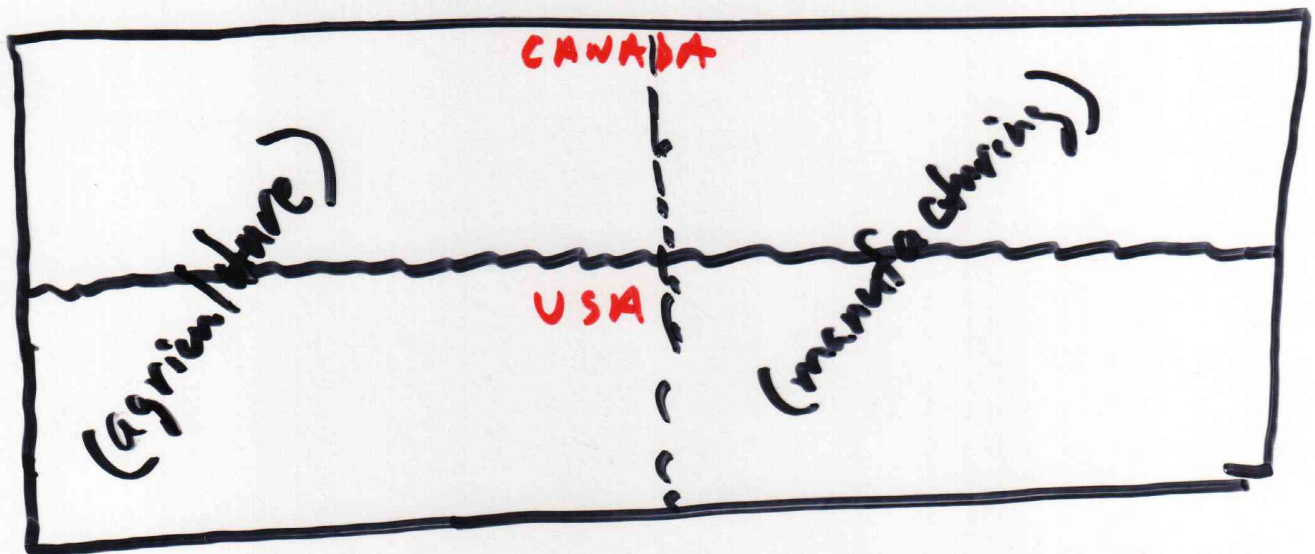
Suppose there is a decline in the demand for agriculture

The adverse effects on Canada are mitigated by a currency depreciation that partially shifts demand back toward agriculture.

Mandell pointed to a potential problem with this argument.

He asked, "What if the structure of production is organized East/West rather than North/South?"

In particular, suppose our map looks like this,



Now a depreciation of the C\$ is not the right response. It produces inflation + excess demand in the Canadian East, and it makes a bad situation even worse in the American West.

Clearly, what is needed is a "Western dollar" and an "Eastern dollar", not a U.S. + Canadian dollar!

More generally, Mandell argued that the Optimum Currency Area is an economic region, not (necessarily) a country.

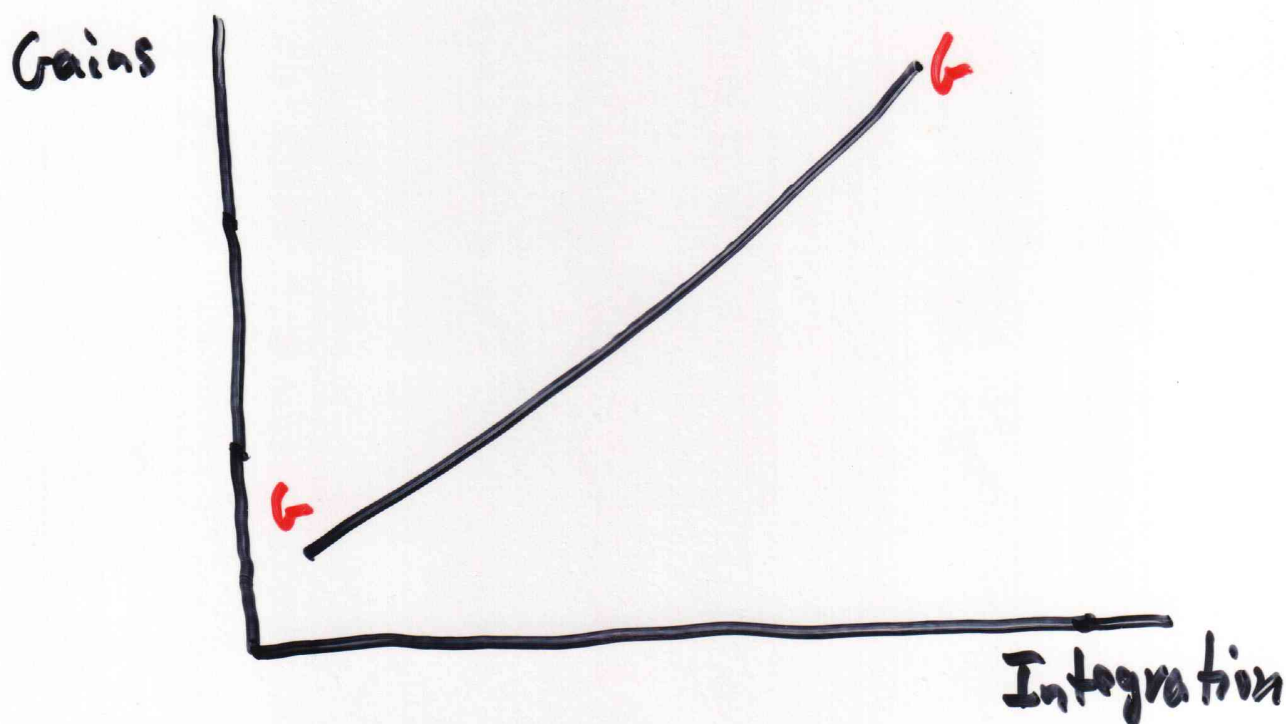
From just a stabilization perspective, it would seem desirable to have many currencies and exchange rates. This would provide some insurance against fluctuations in local economic conditions.

However, stabilization is only half the story. Having many currencies would be a headache in terms of transactions costs. (Just imagine if each U.S. state had its own currency!). Clearly, there are some efficiency gains from having a single currency.

Mundell's Optimum Currency Area criteria studies the balance between the efficiency gains from using a common currency and the potential stabilization loss incurred by losing the ability to adjust ex. rates.

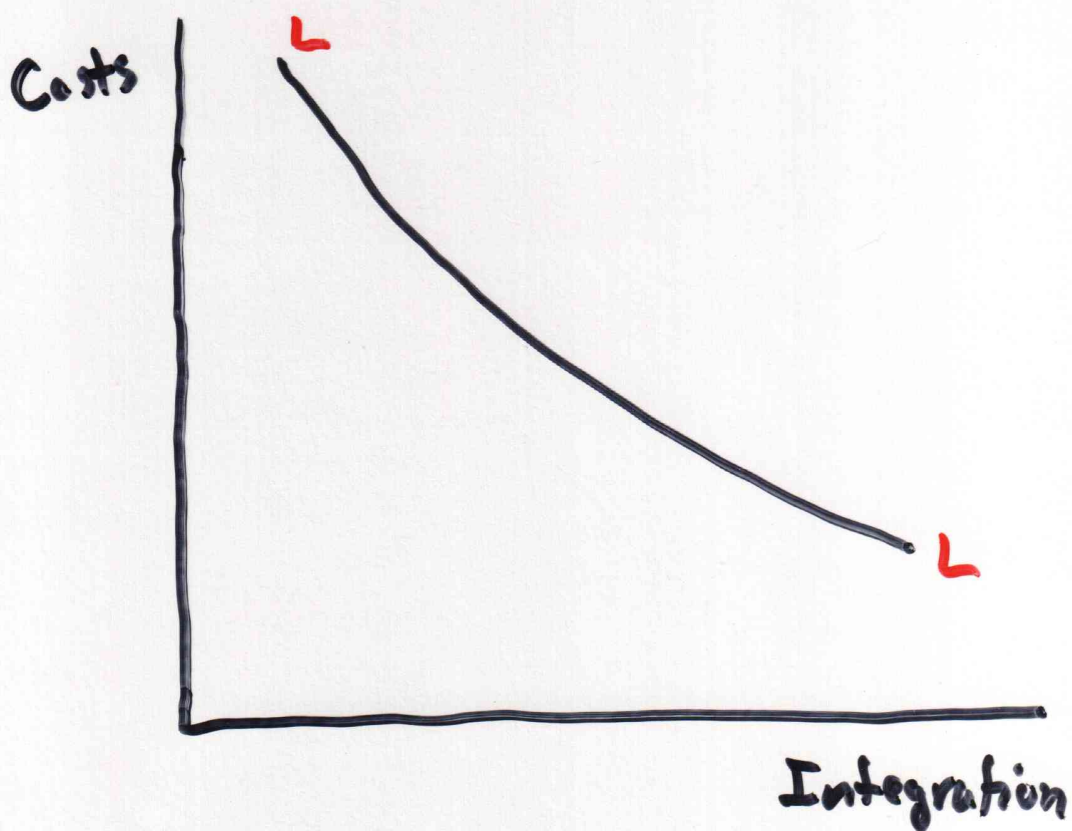
The crucial factor determining the relative costs + benefits of a common currency is how closely integrated the 2 regions are, in terms of both goods + factor markets.

Clearly, if there is little trade between the regions, then the efficiency gains will be small. Conversely, if there is a lot of trade, then the gains will be large.

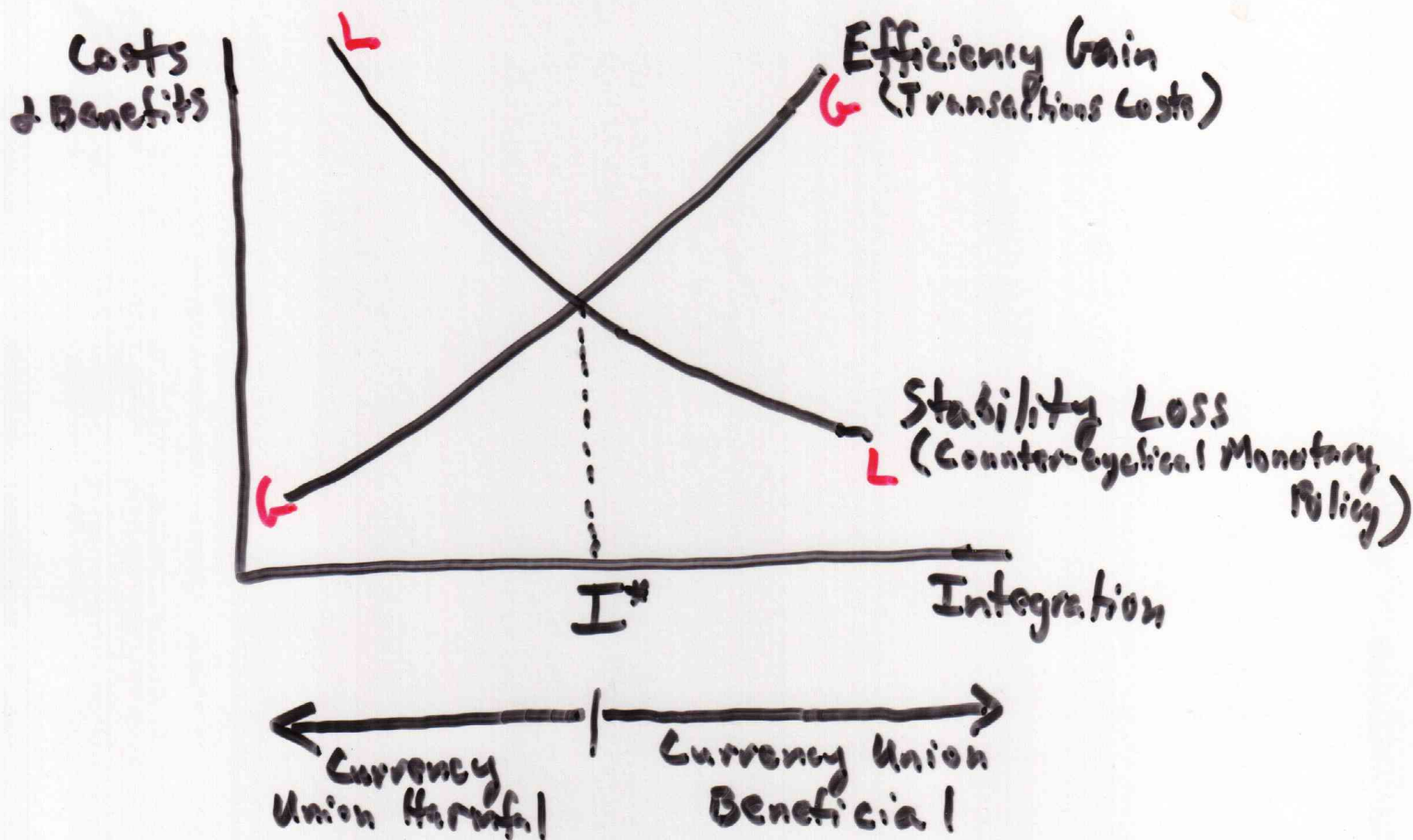


At the same time, the stabilization loss from joining a Monetary Union is likely to be a decreasing function of integration.

The closer two regions are linked in terms of goods markets, the less likely they are to confront region-specific shocks. The closer they are linked in terms of factor markets, the easier it will be to adjust to what region-specific shocks there are.



# Optimum Currency Areas

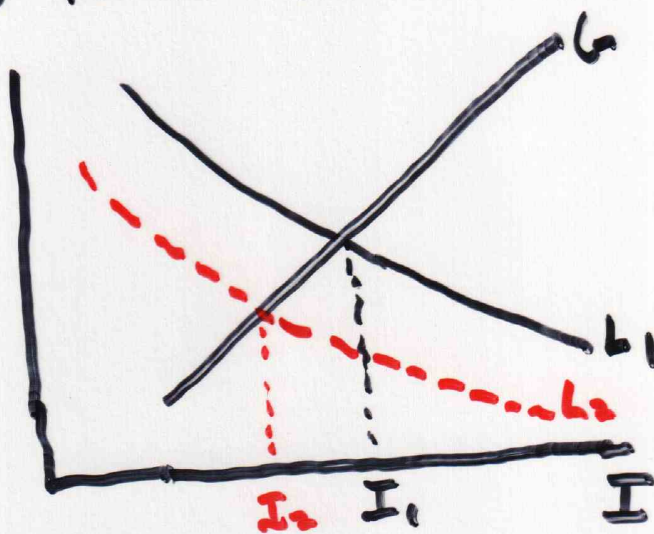


## 4 Main Criteria

- 1.) Extent of Bilateral Trade  
Trade  $\uparrow \Rightarrow$  CU more desirable
- 2.) Correlation of Business Cycles  
Correlation  $\uparrow \Rightarrow$  CU more desirable
- 3.) Degree of Factor Mobility  
Factor Mobility  $\uparrow \Rightarrow$  CU more desirable
- 4.) Fiscal Transfers / Risk-Sharing  
Fiscal Transfers  $\uparrow \Rightarrow$  CU more desirable

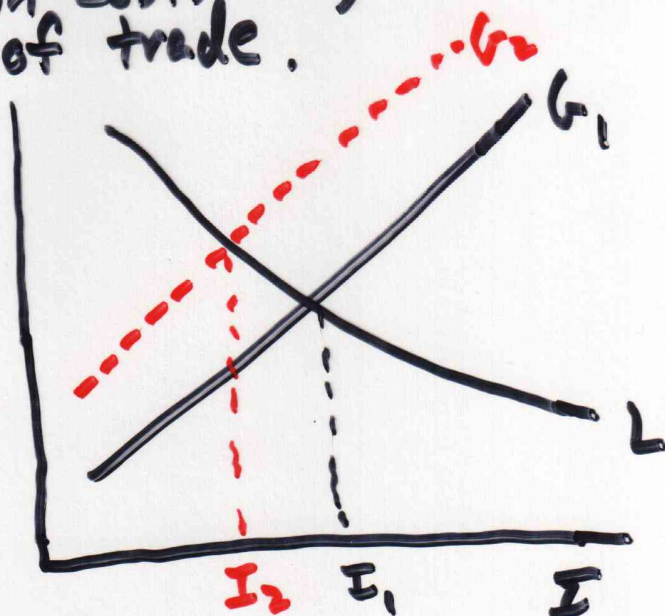
# Examples

- ① Suppose legislation is passed making it easier for workers to take jobs in other countries.



This makes it more likely the Monetary Union will be beneficial, since it reduces the stabilization loss.

- ② Suppose that trade barriers are removed, or transportation costs fall, which leads to an expansion of trade.



The increased volume of trade makes the efficiency gains larger.