

The effects of US recession on major remittances recipients

Julio Guzman

Nhi Tran

Simulation set up

Fact: US GDP falls by 2.6% in 2009

- under-utilisation of factors of production
- Technological deterioration

Shock calculation:

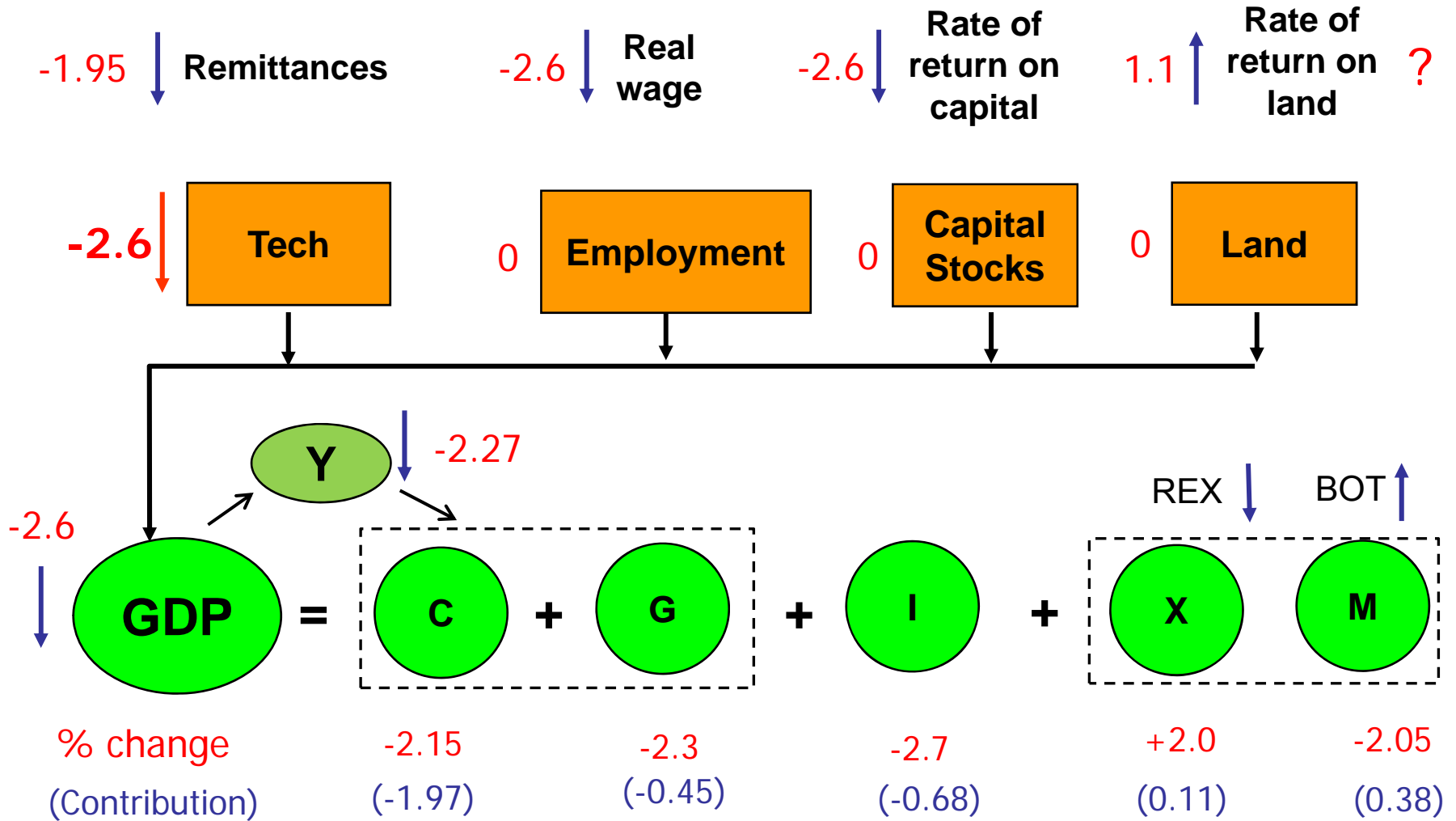
- Swap $avareg(\text{"USA"}) = qgdp(\text{"USA"})$;
- Shock $qgdp(\text{"USA"}) = -2.6$;
- Result: $avareg(\text{"USA"}) = -2.6$; (used as shock in the main sim)

Closure:

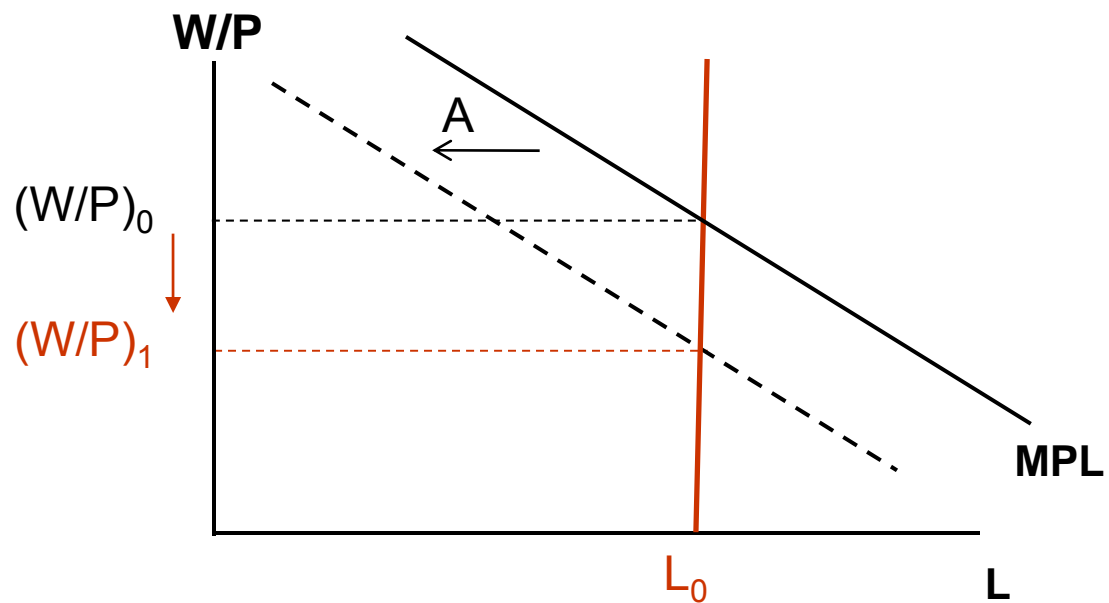
- Fixed quantities of endowments
- Fixed number of migrants

$$y = a + S_L \bar{l} + S_K \bar{k} + S_T \bar{t}$$

The USA

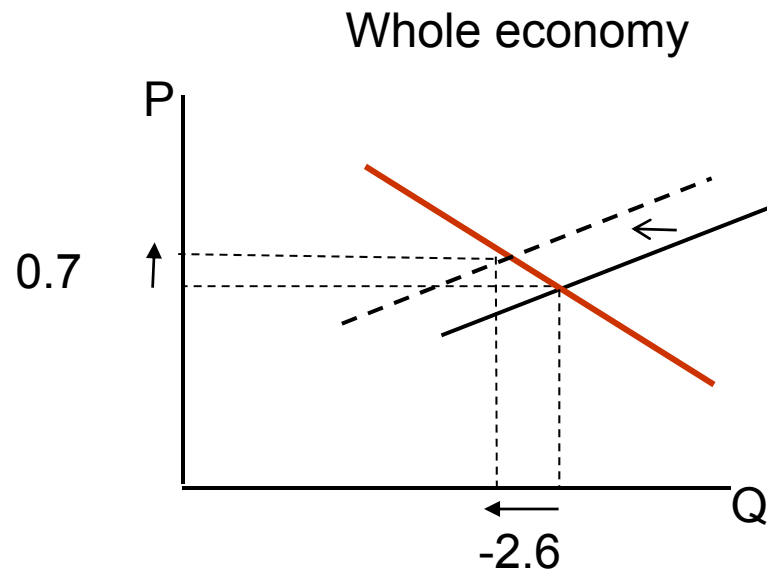
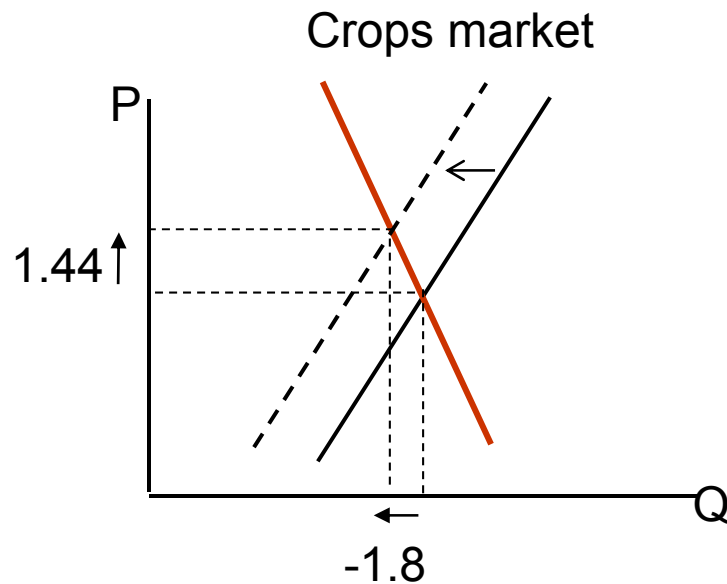


The effects of technological deterioration on returns to primary factors



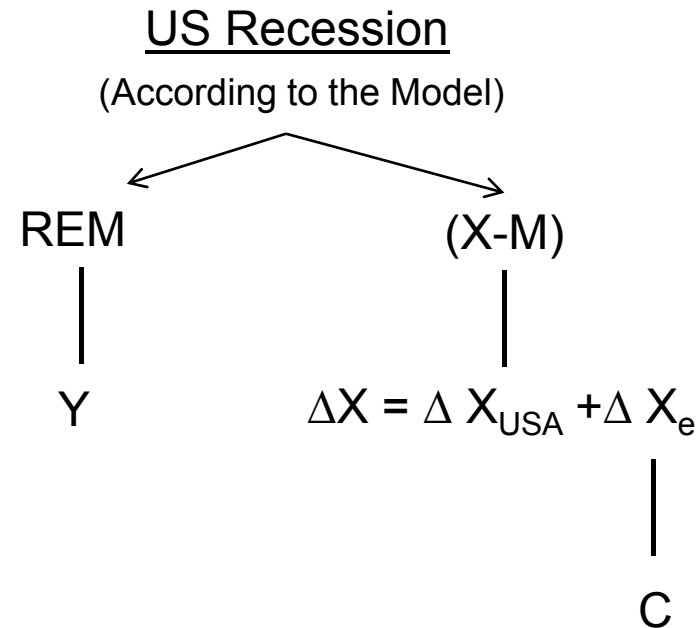
Rate of return on land

- Land is used mainly in crops (76%)
- Crops: both supply and demand are less elastic than economy-wide average
- Land share in costs: 82%; EY: 0.14 vs. rest 0.9;



Crop price increases \rightarrow returns to land also increases

Cross-the-Borders Transmission Channels



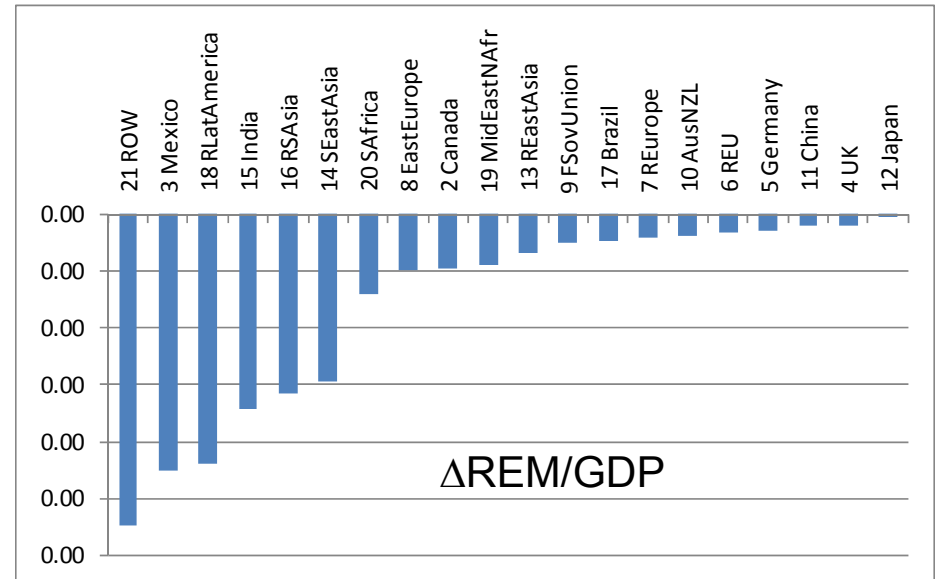
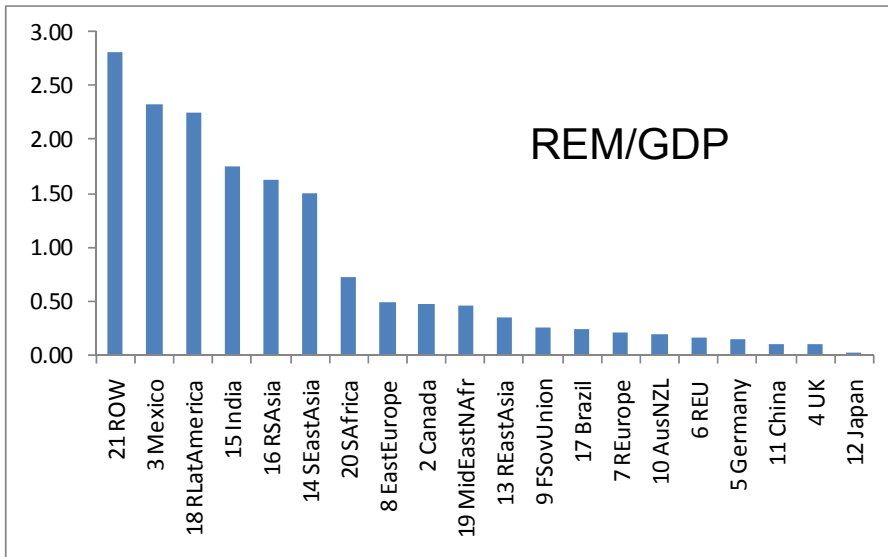
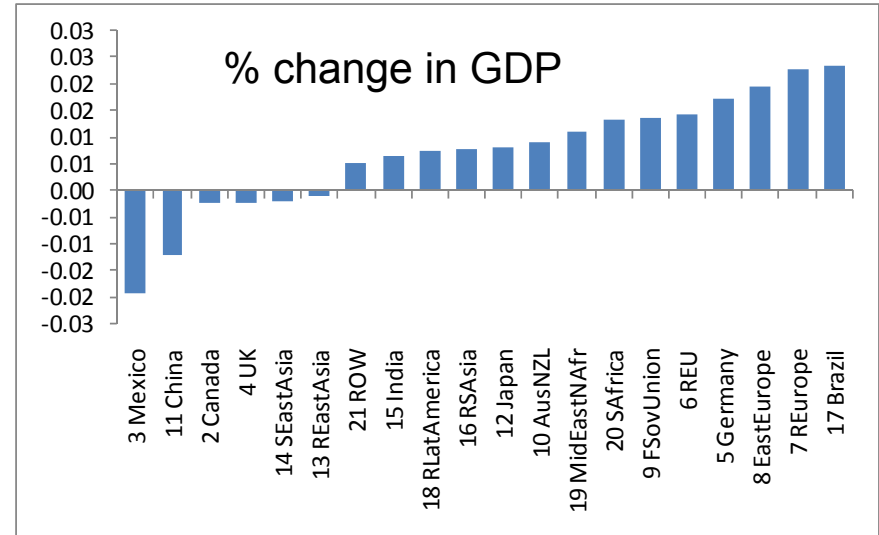
$$\text{GDP} = (\text{REM}, \text{TB}, \text{C})$$

World-wide effects on remittances and exports

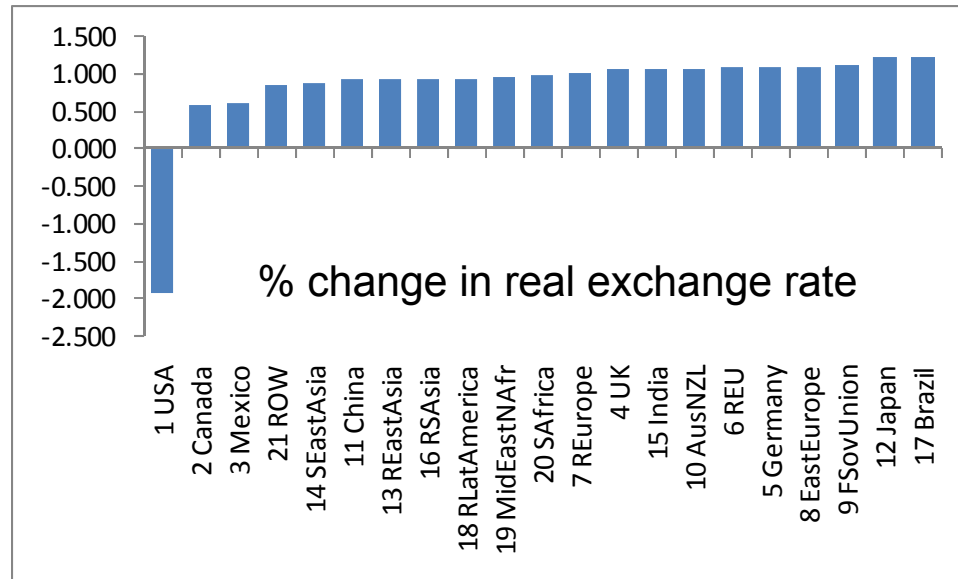
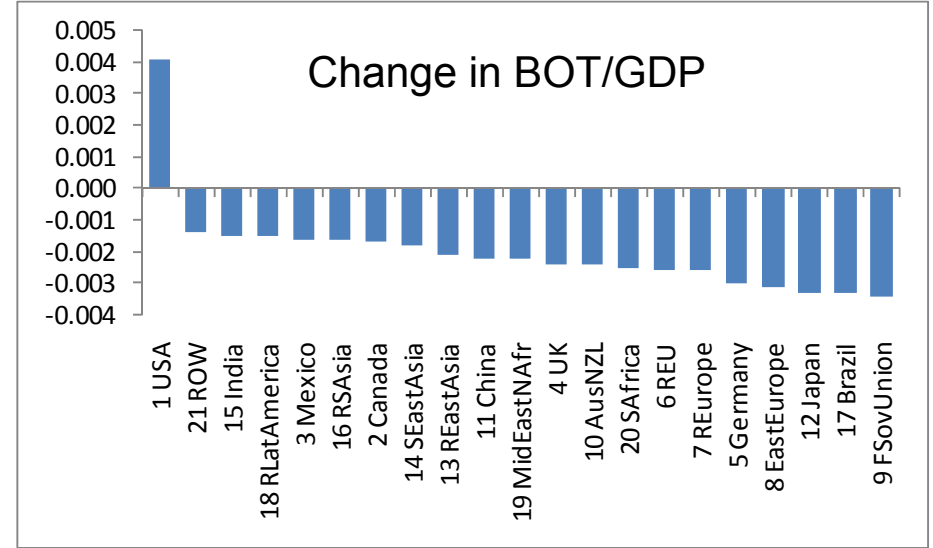
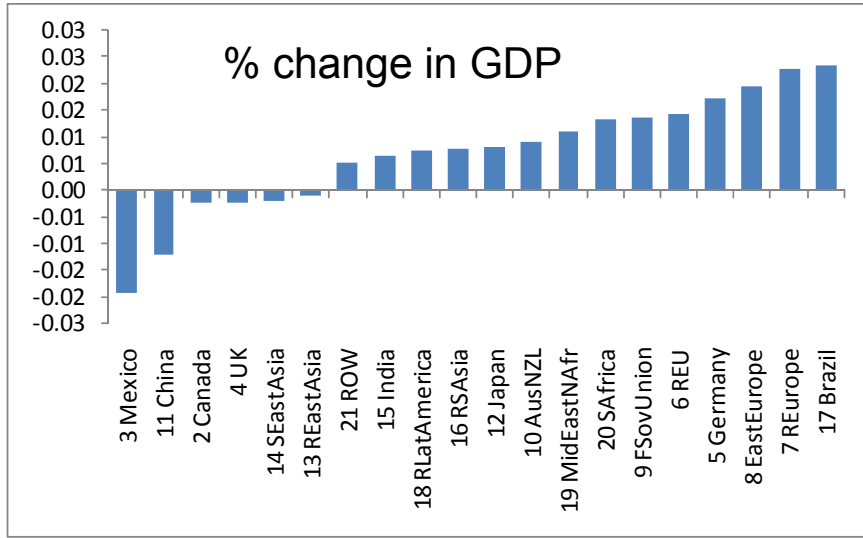
Effects on countries outside the US depend on:

- (1) The importance of remittances as a source of income
- (2) The magnitude of the trade linkages with the USA (given a relative equal exchange rate appreciation across countries)

Guess who?

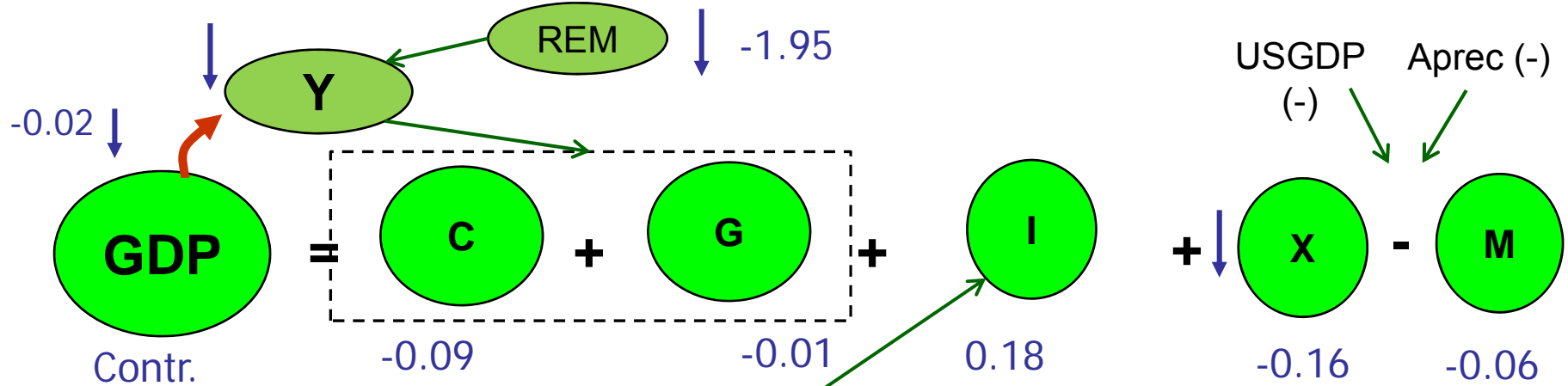


World-wide effects on remittances and exports



MEXICO

In fact, in Mexico:



Global Bank: Return of capital in Mexico decreases, but less than world average

$$\downarrow S - I \uparrow = (X - M) \downarrow + R \downarrow$$

Comparisons between scenarios

USA	Sim 1 Fixed Labour	Sim 2* Endo labour
Real GDP	-2.60	-2.66
Labour	0.00	-0.08
Capital	0.00	0.00
Land	0.00	0.00
Real wage	-2.60	-1.90
Return to capital	-2.60	-1.95
Return to land	1.10	1.70

* Same shocks: $\text{avareg}(\text{"USA"}) = -2.6\%$. Endogenous migration: allow migration flows to adjust to changes in relative wages.