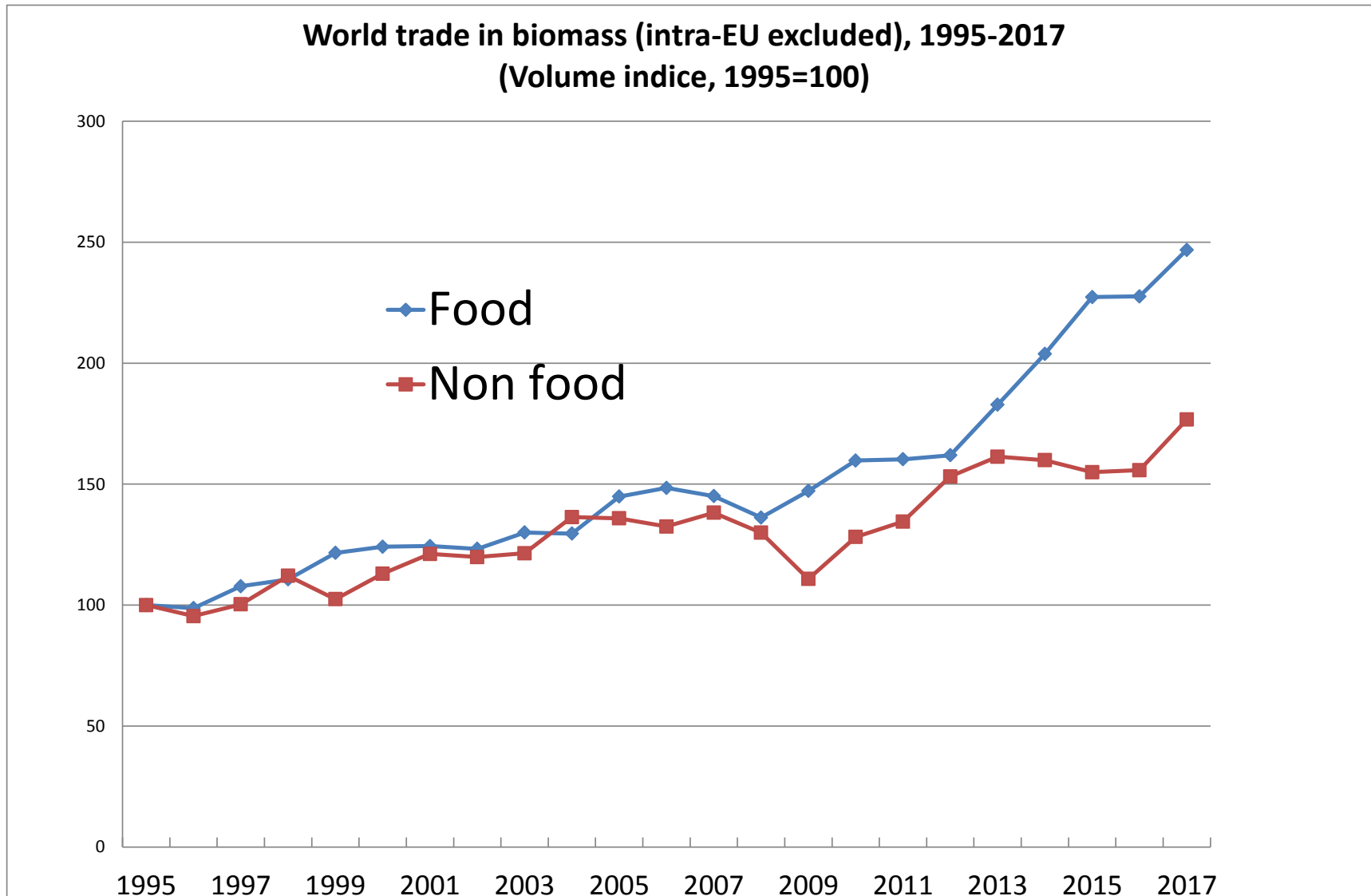




A few data and remarks about the evolution of the world biomass trade and its implication for Argentina and Brazil

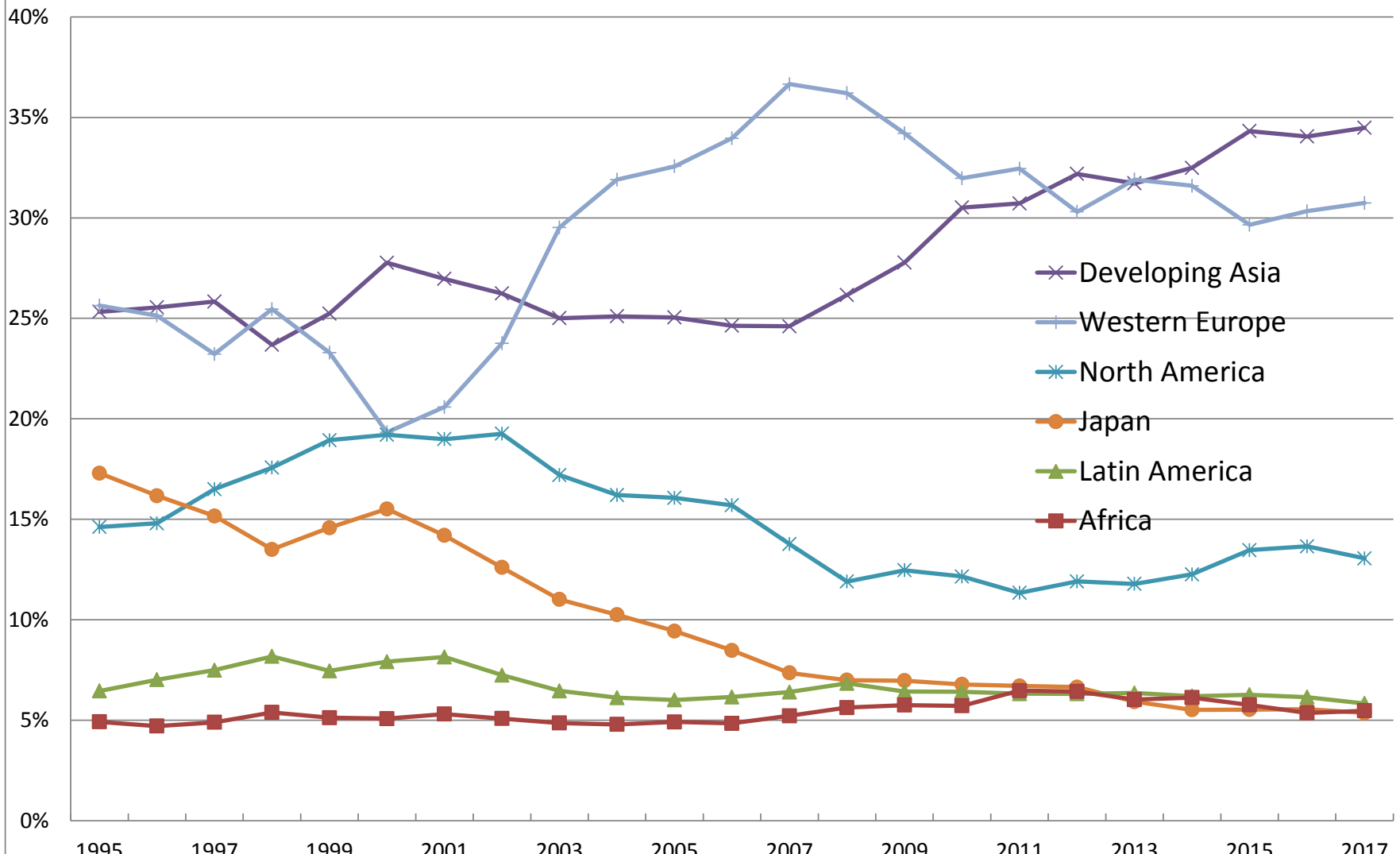
Benoit Daviron (Cirad, UMR –MOISA), 25 octobre 2018

A very dynamic international trade for biomass

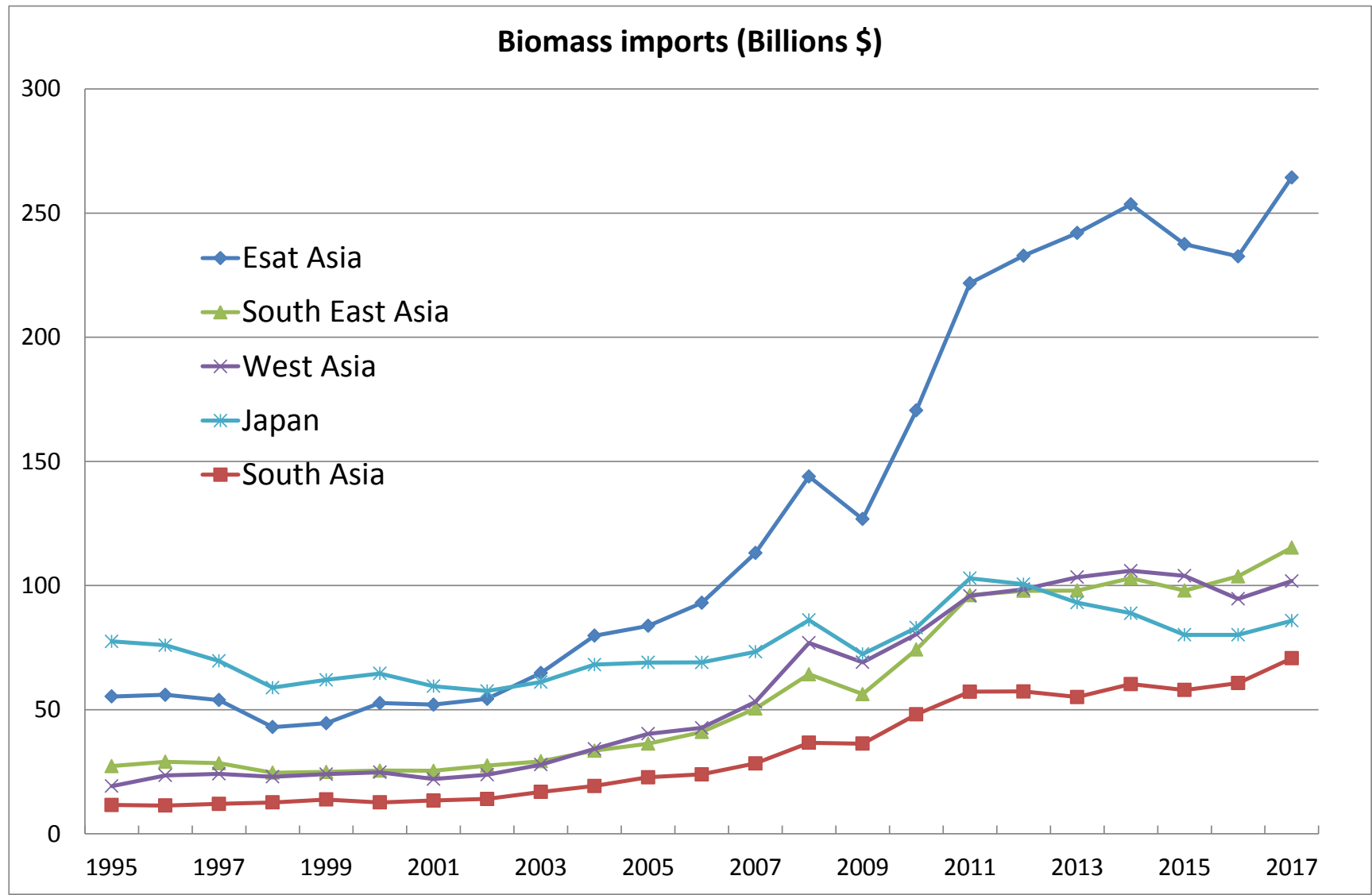


Import demand : the swing to and within (East) Asia 1

Biomass import (% of world imports), 1995-2017

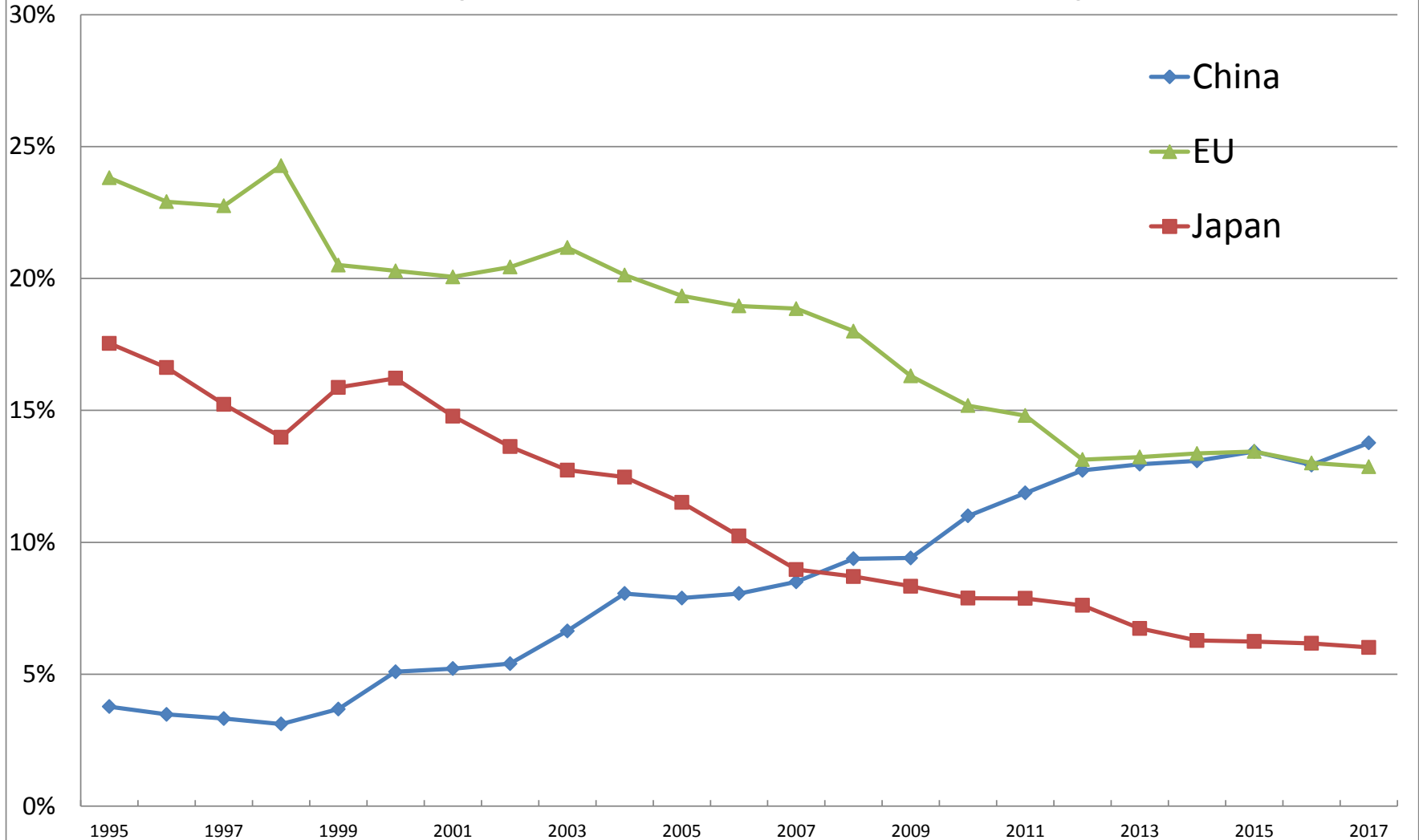


Import demand : the swing to and within (East) Asia 2

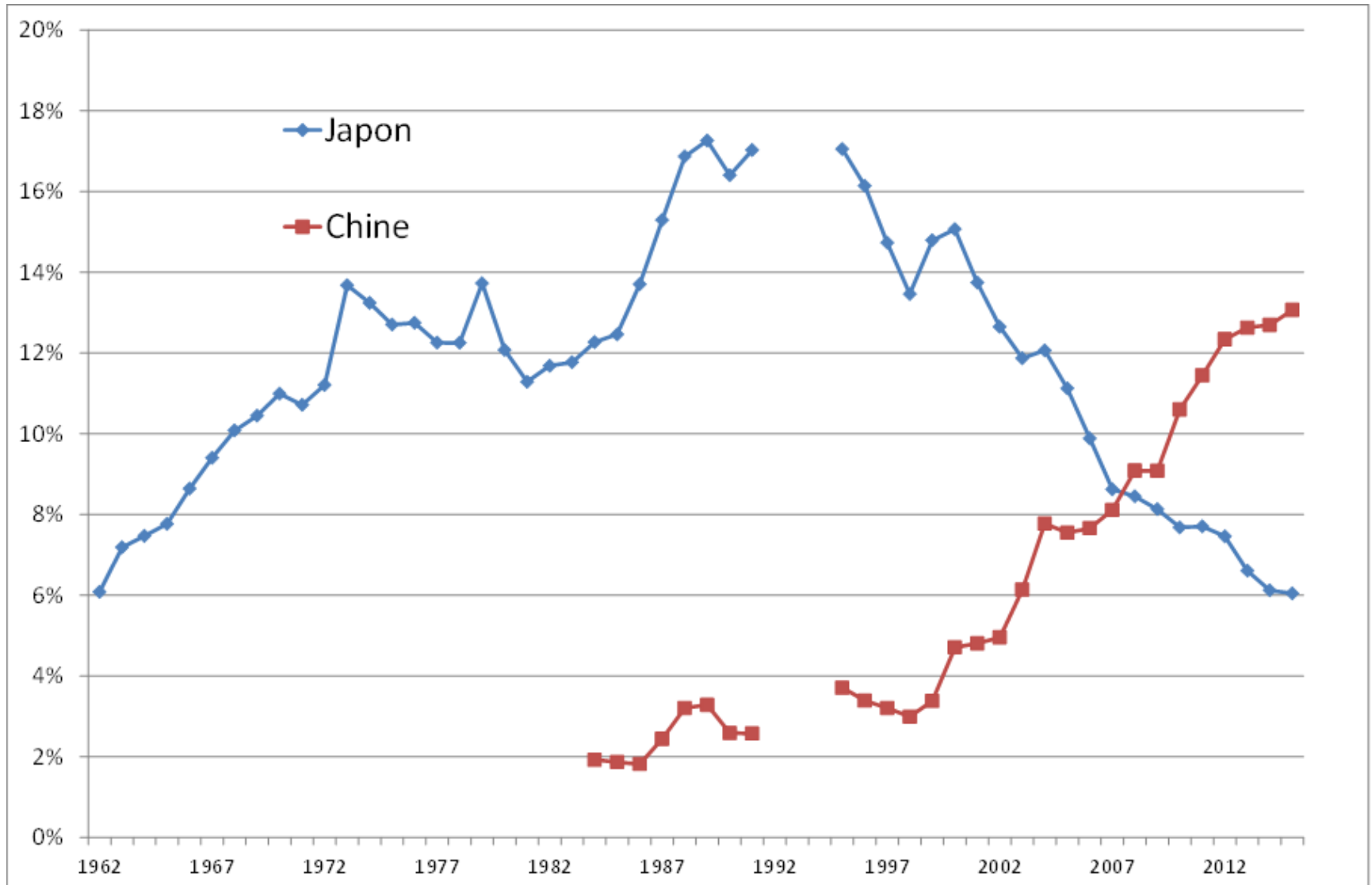


Import demand : the swing to and within (East) Asia 3

Biomass imports, 1995-2017 (% of world imports)

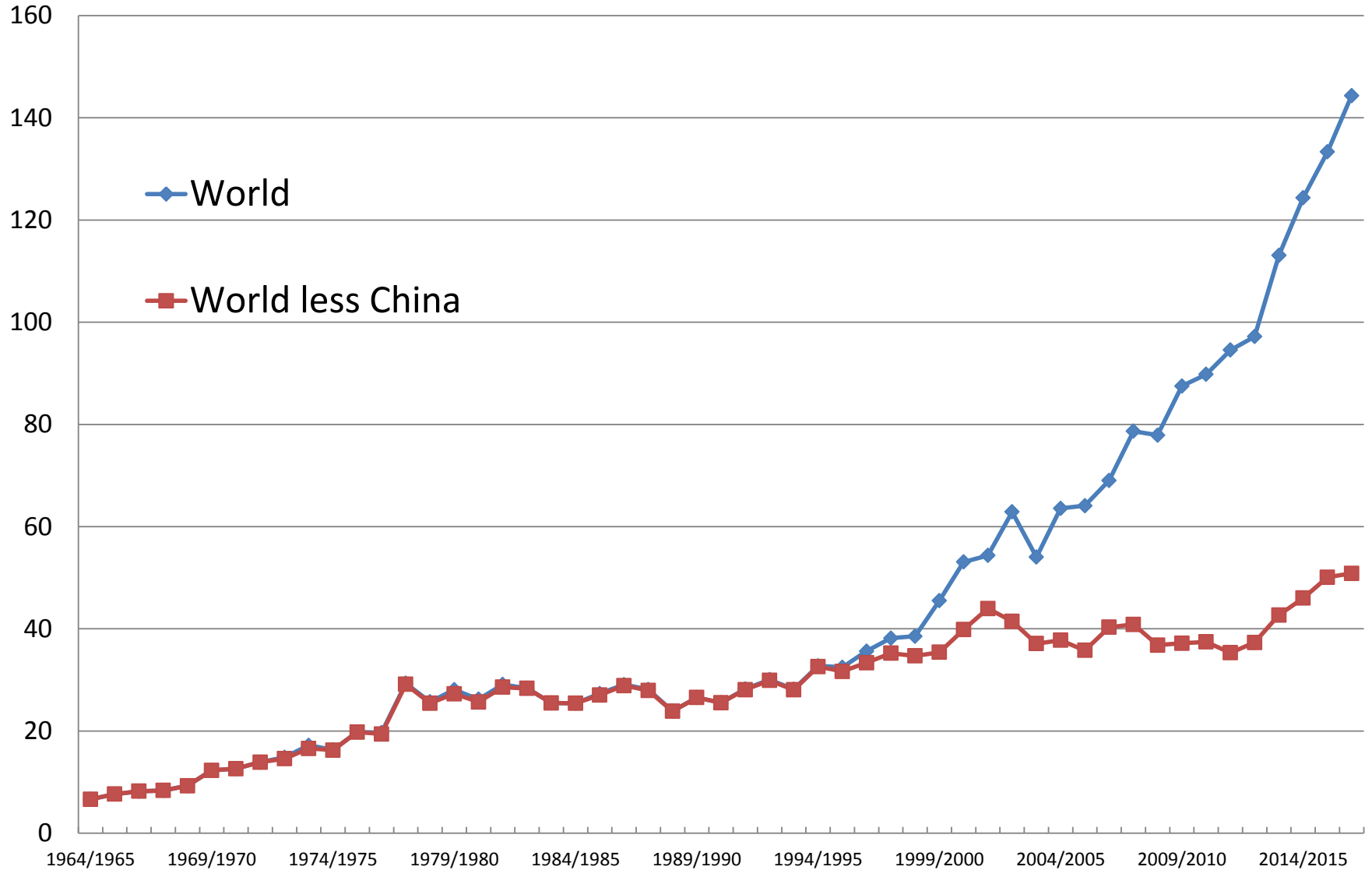


Import demand : the swing to and within (East) Asia 4

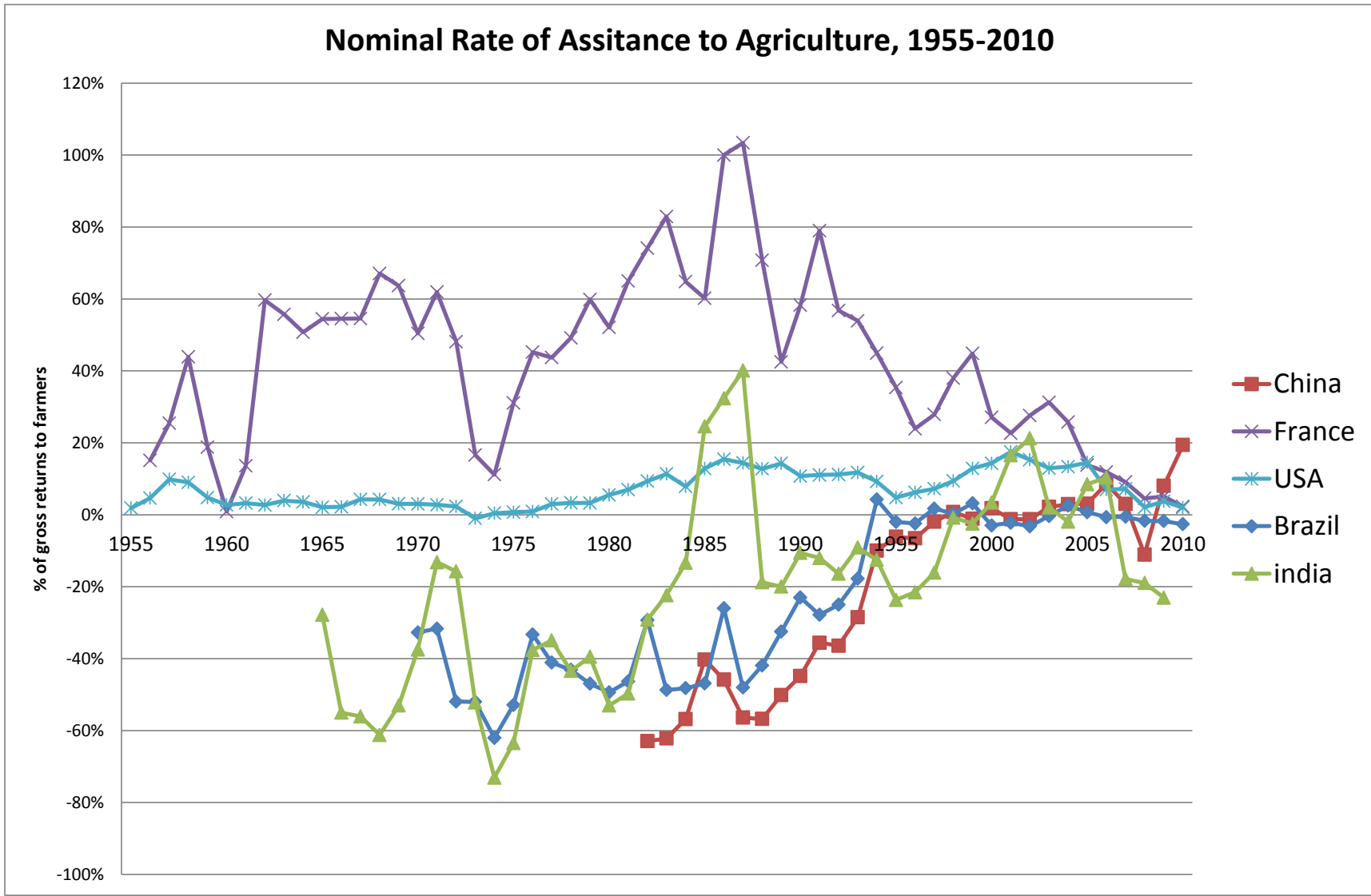


The very illustrative soybean case

Soybean imports (Millions tons), 1964-2017

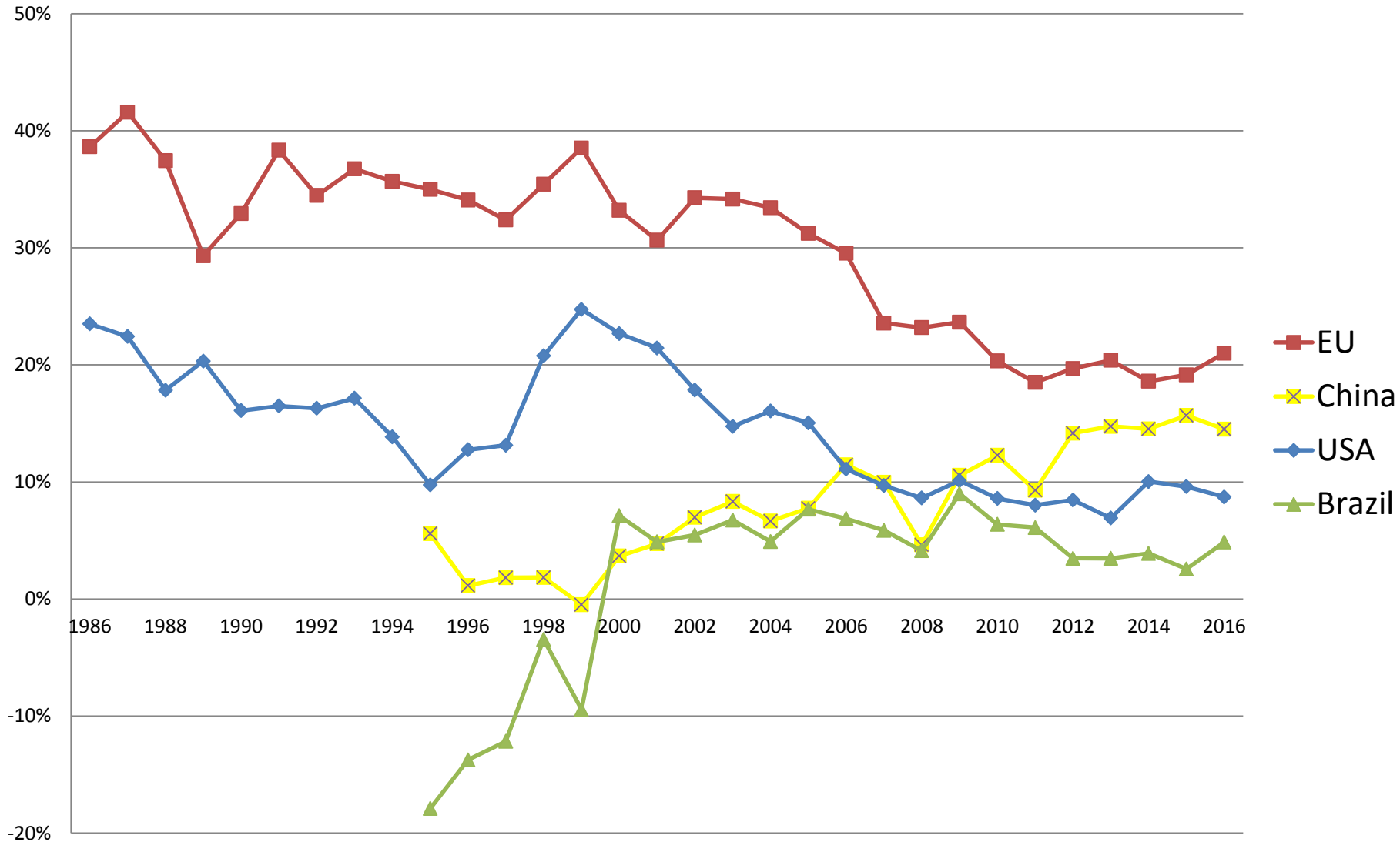


Convergence in public support to agriculture 1

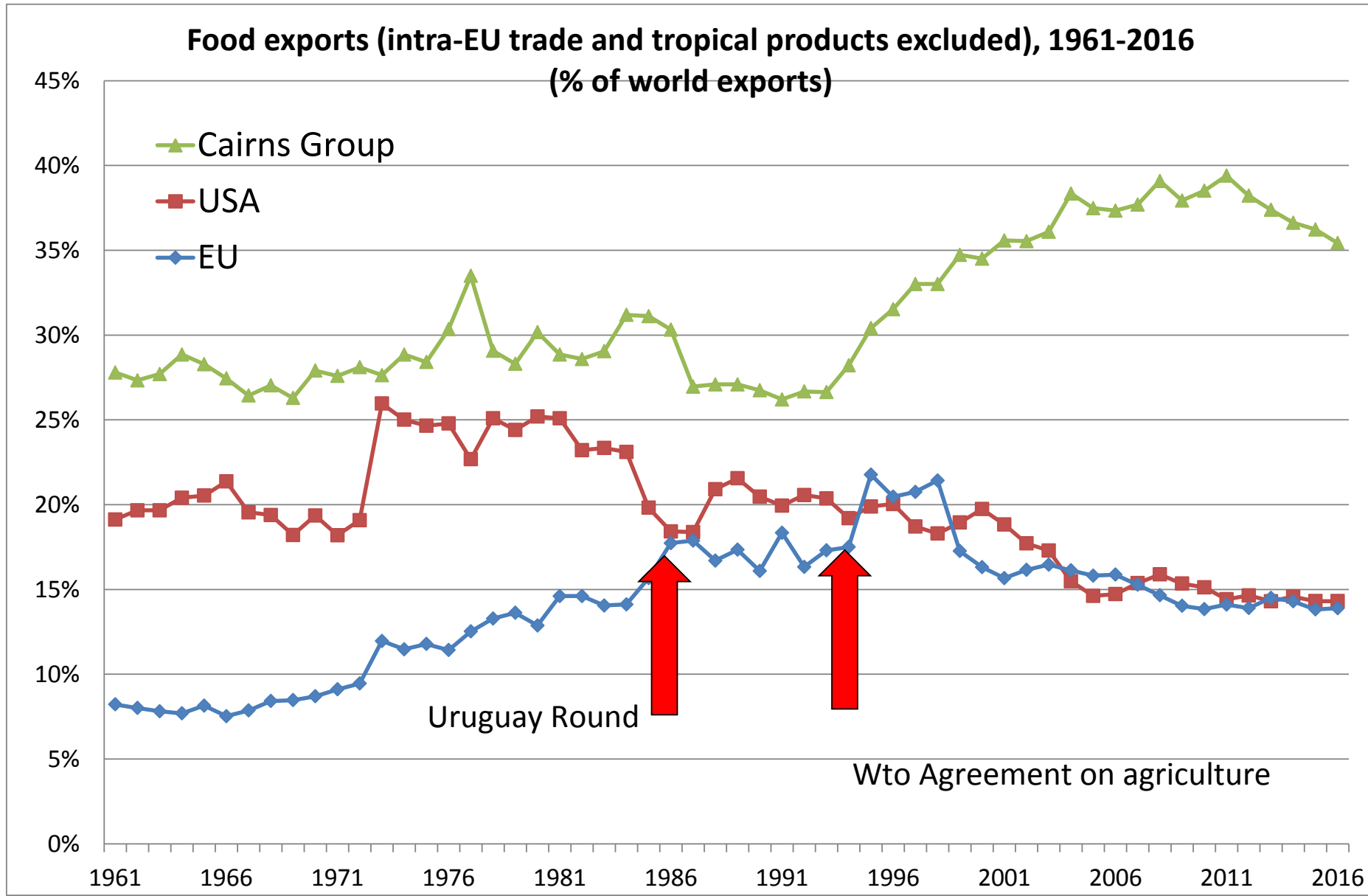


Convergence in public support to agriculture 2

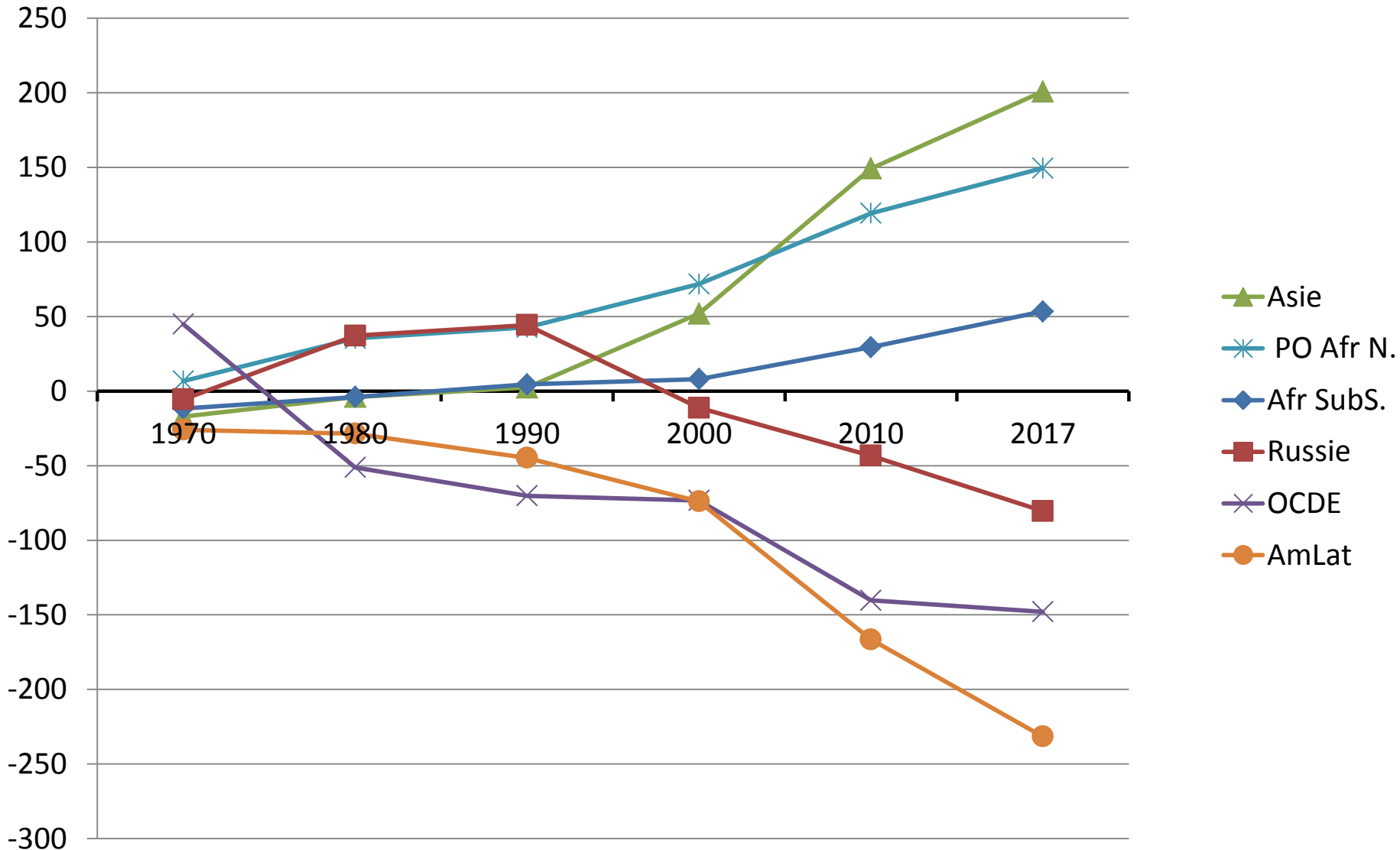
Producer Support Estimate (PSE), 1986-2016 (% of gross farm income)



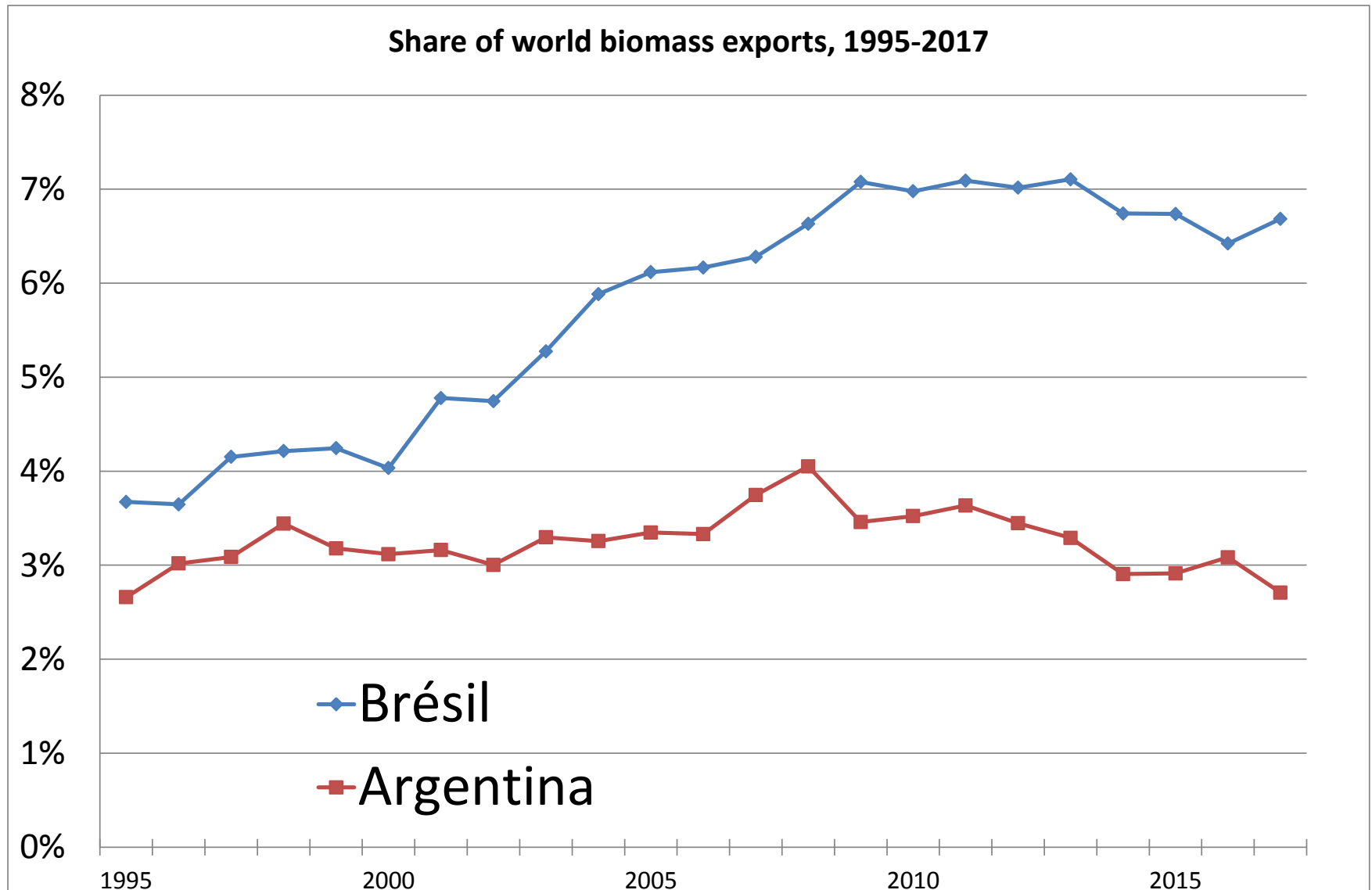
The Cairns Group revenge



Biomass balance (millions tons)

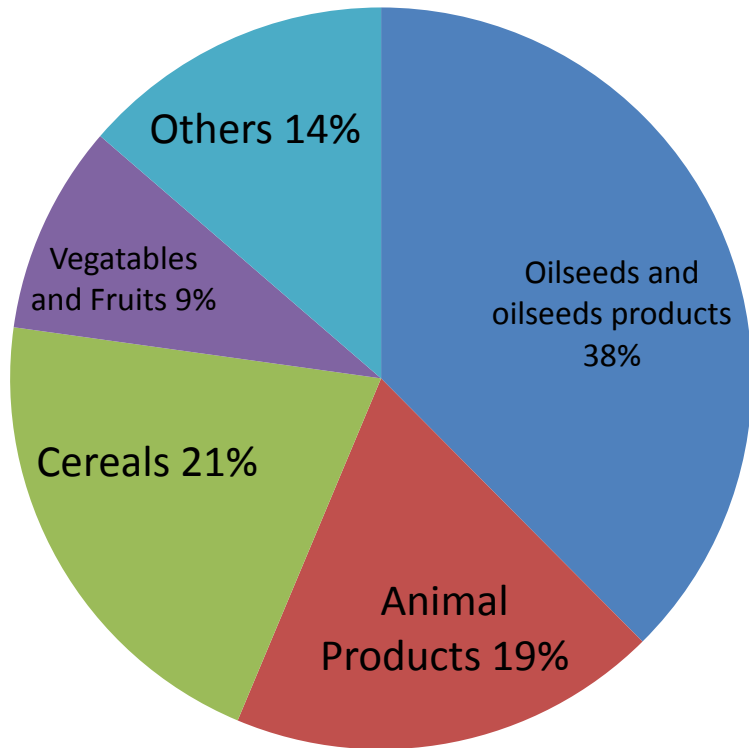


Two Latin-American champions

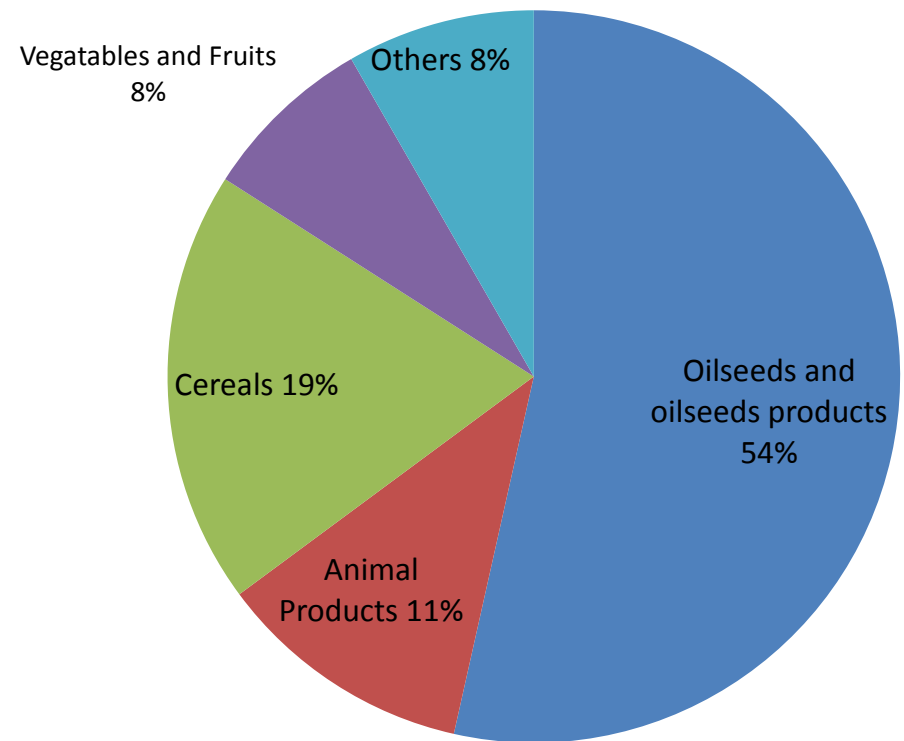


Biomass exports composition: Argentina

1995-97

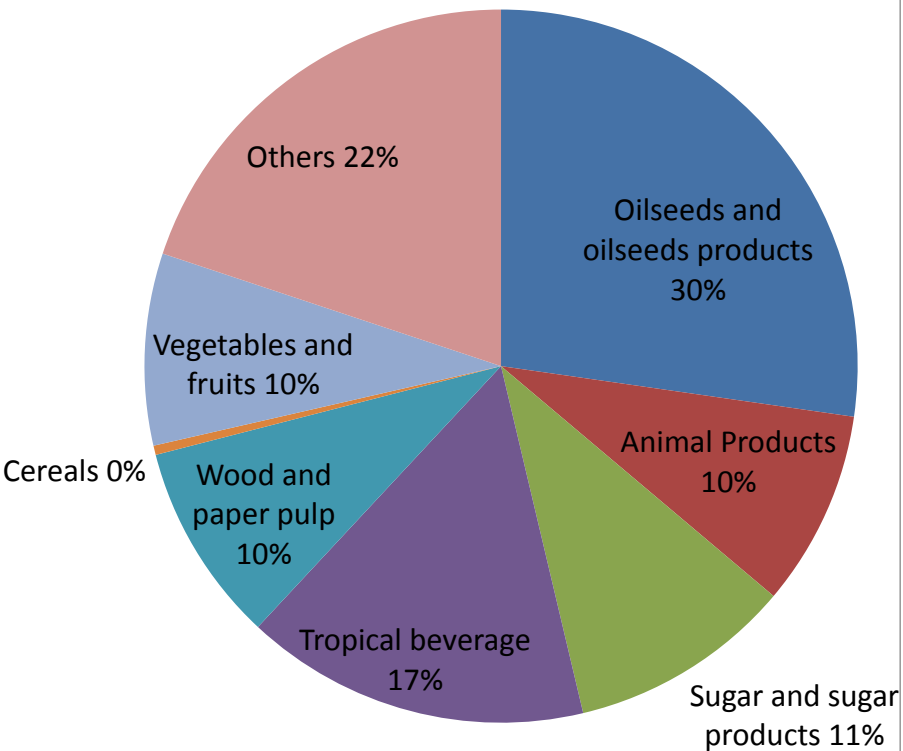


2015-17

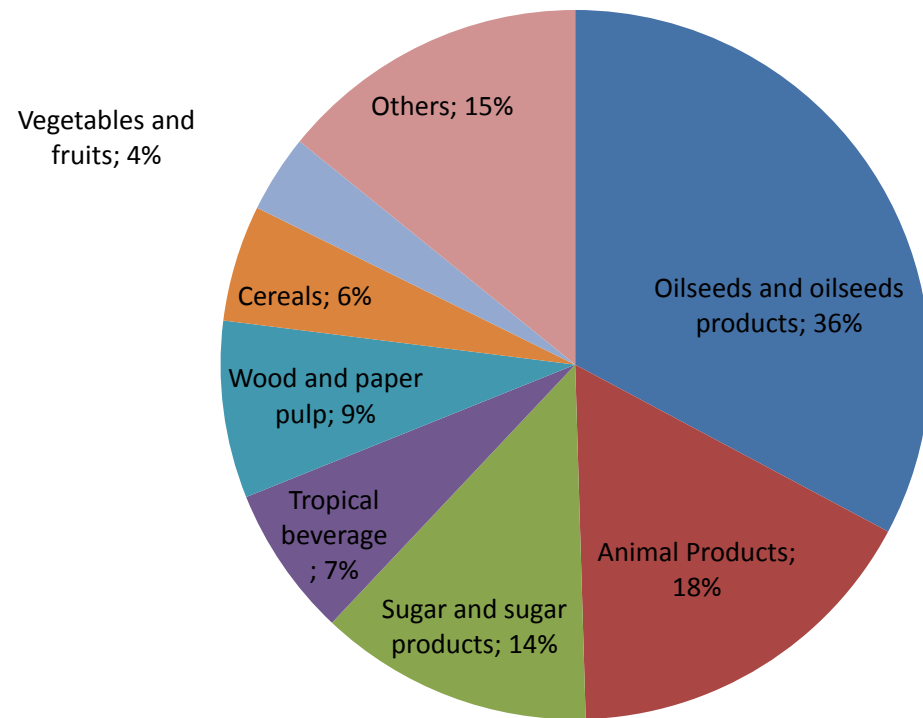


Biomass exports composition : Brazil

1995-97

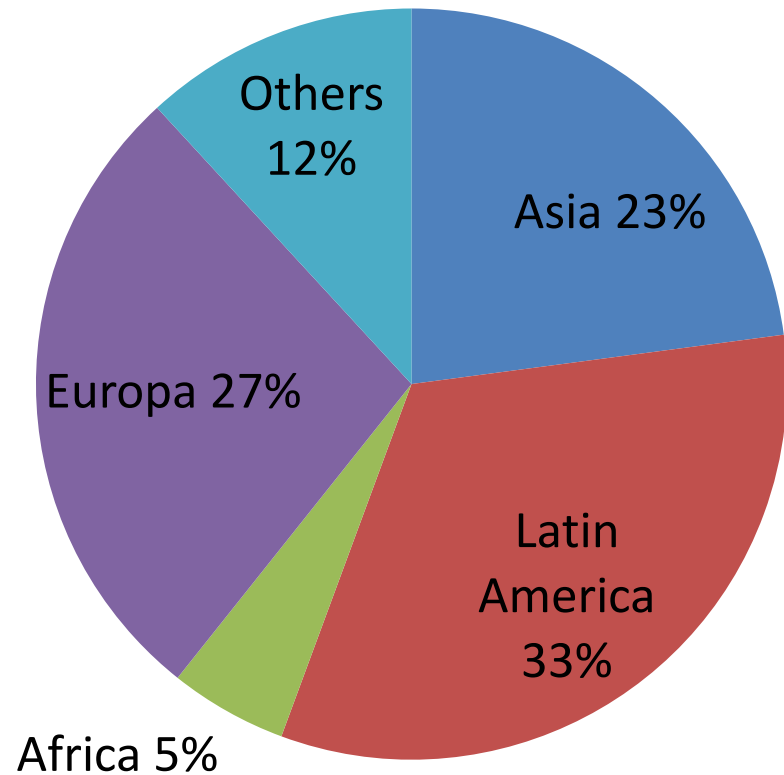


2015-17

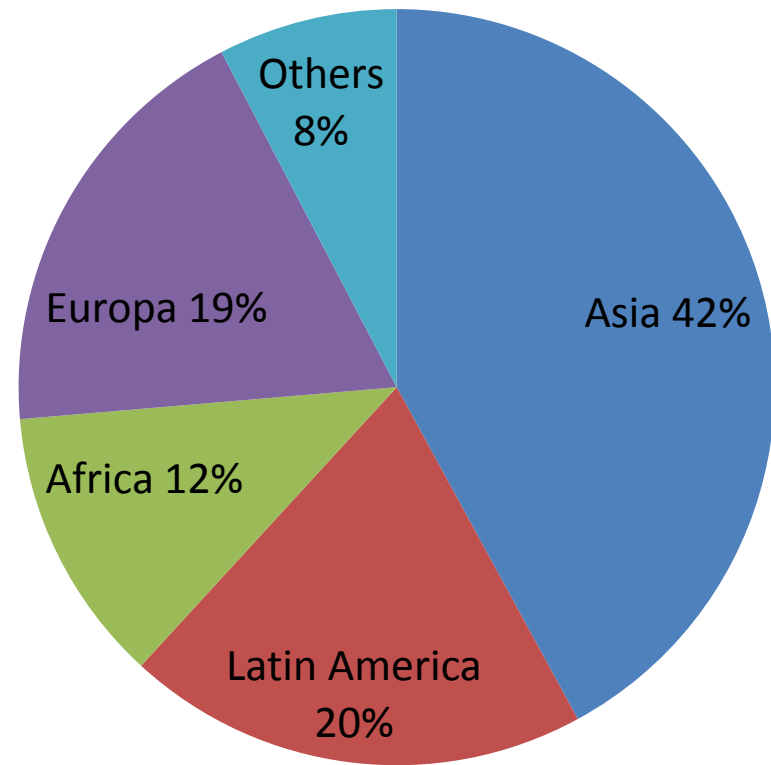


Biomass export destination: Argentina

1995-97

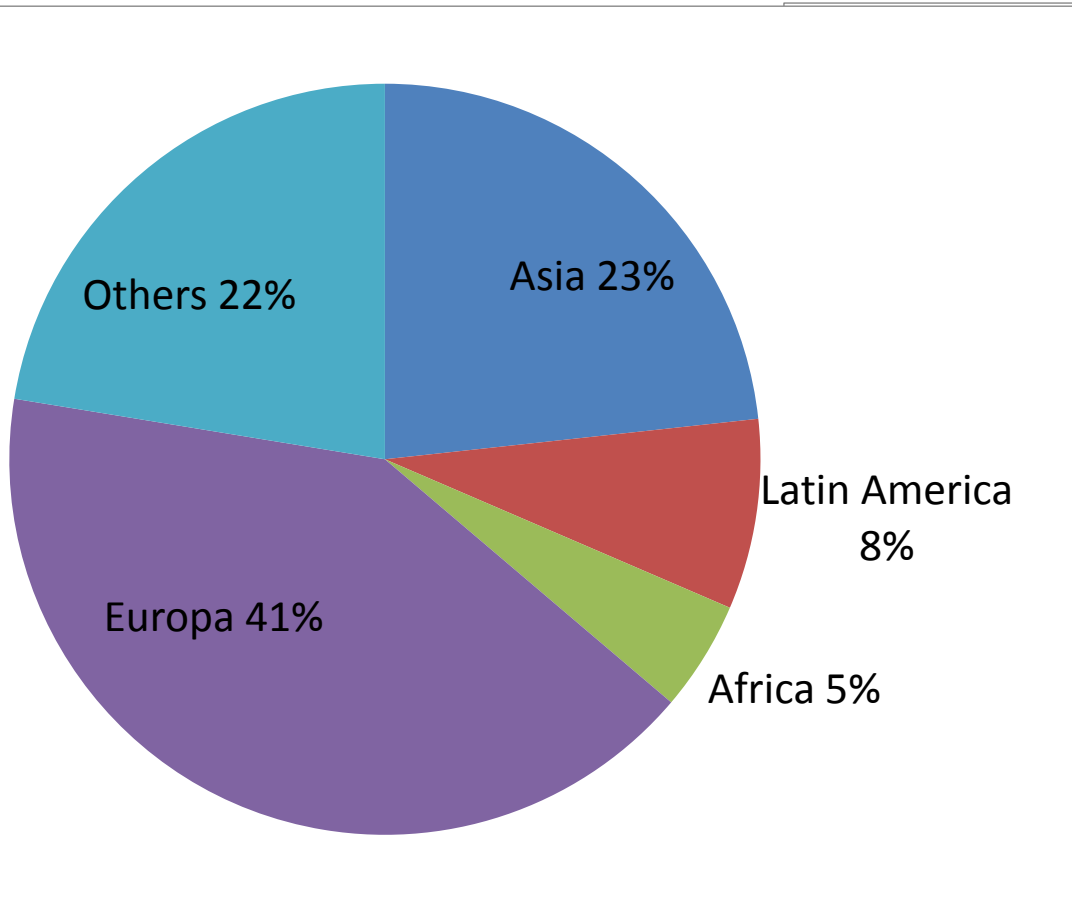


2015-17

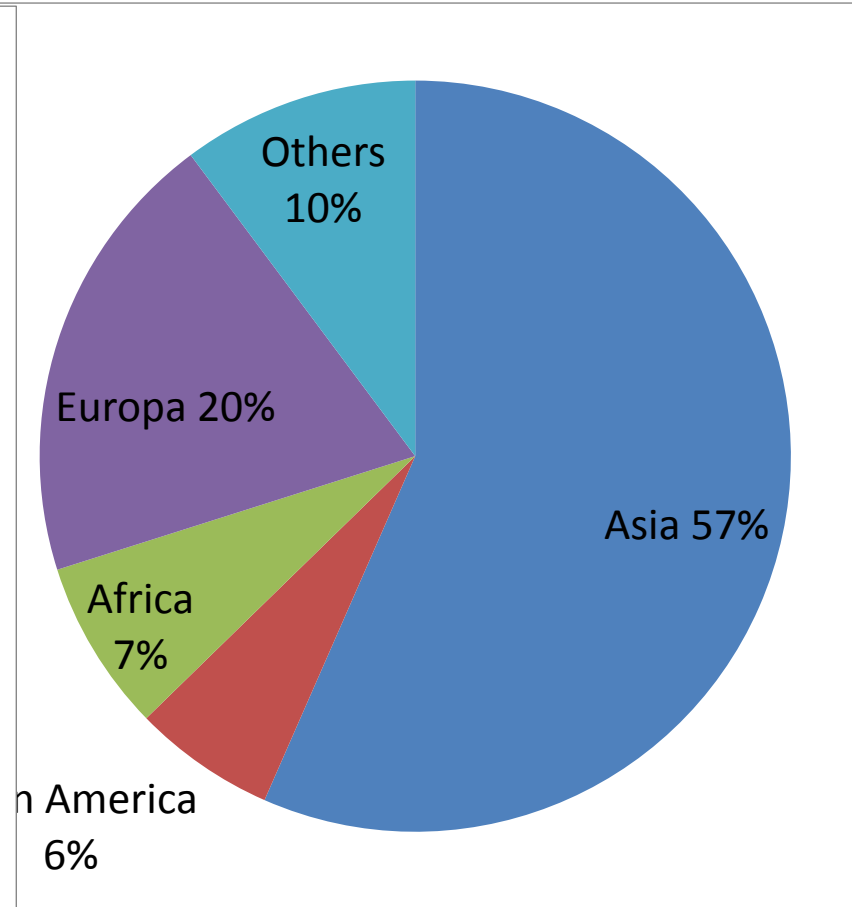


Biomass export destination: Brazil

1995-97

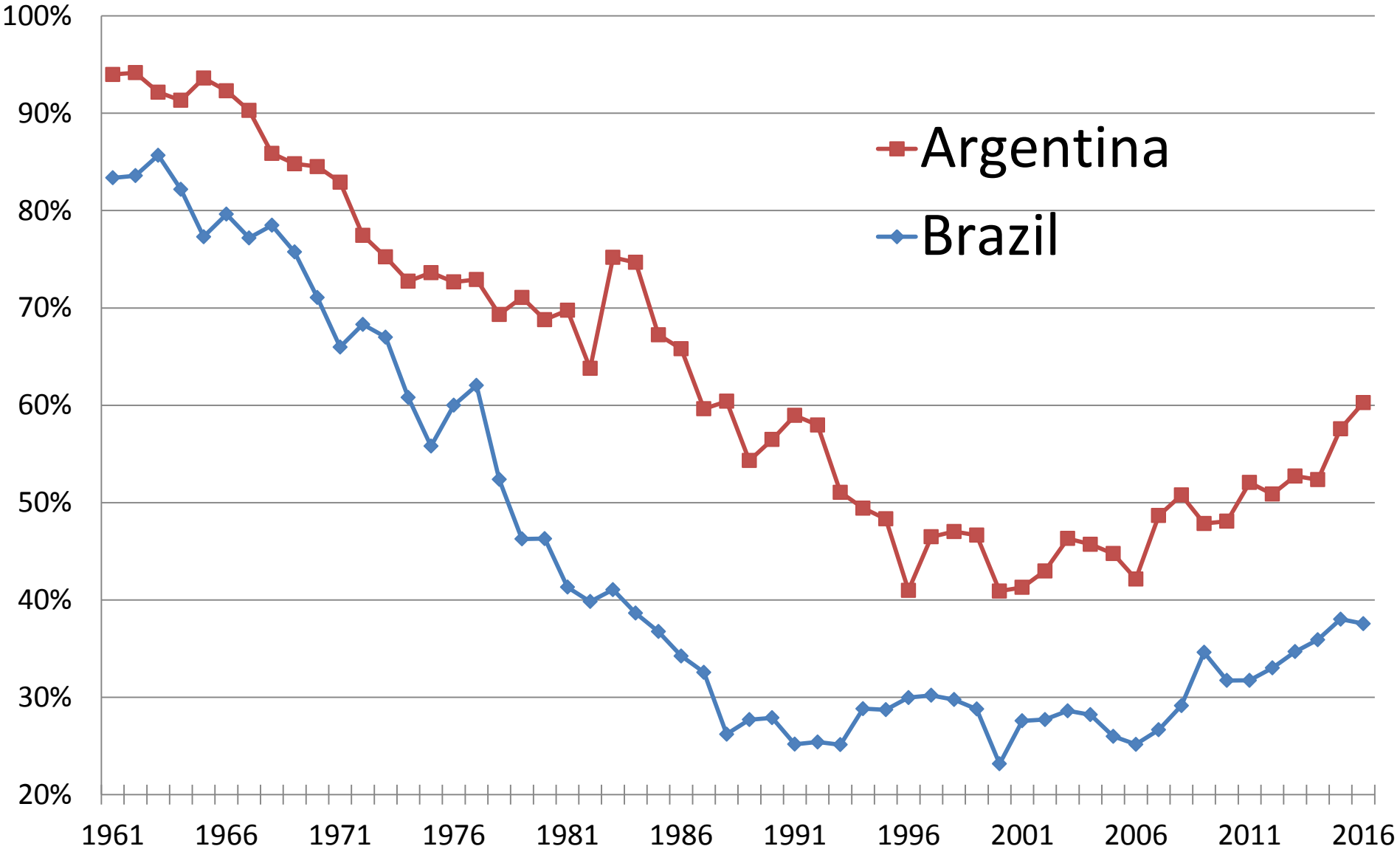


2015-17



Re-primarization of the economies

Agricultural exports (% of merchandises exports), 1961-2016



Re-primarization of the economies

Shares of primary commodities and biomass in total exports, 1995-2017

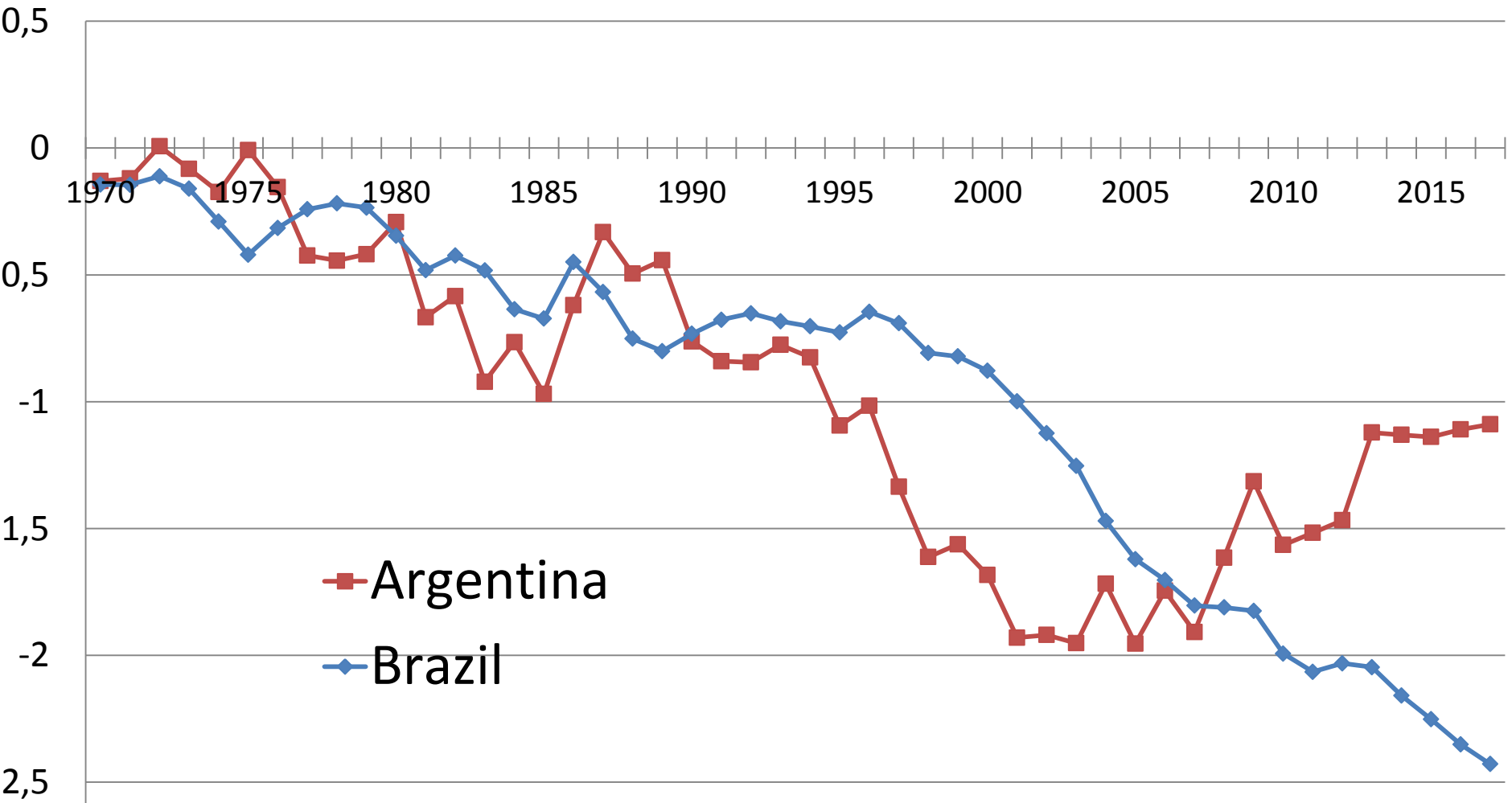
		1995-97	2005-07	2015-17
World	Primary commodities	22%	26%	25%
	Biomass	11%	8%	10%
Argentina	Primary commodities	67%	66%	67%
	Biomass	54%	48%	61%
Brazil	Primary commodities	44%	48%	62%
	Biomass	33%	29%	40%

Ecologically Unequal Exchange (EUE)

- Alf Hornborg, Stephen Bunker
- Thermodynamic :
 - No wealth and power with energy and materials
 - no order without disorder
- Exporting energy and materials
against
- Importing entropy (mineral > biomass) : ecosystem destruction, contamination, erosion, biodiversity lost
- Material Flow Account

Ecologically Unequal Exchange

Total Physical Trade Balance per Capita, 1970-2017 (ton)



Conclusion about the future

- Chinese hegemony or Chinese collapse
- Non food use of biomass
- Escaping the ecologically unequal exchange