

## **Appendices for “Illusion in Crisis? World-Economic and Zonal Volatility, 1975-2013”**

### **Appendix A: Data**

The main dataset used in this research is the Gross National Income Per Capita (GNIPC) measure, using the foreign exchange Atlas method, provided by the World Bank. This measure was selected because: GNI measures the total income of a country including income obtained abroad, taking ownership of the means of production into account, and this data was calculated using foreign exchange rates instead of Purchasing Price Parities (PPPs), meaning that it is better representative of the hierarchy of power in the world-economy (as opposed to being representative of general well-being) (See Bonini, 2015).

Because of the temporal scope of this inquiry, the World Bank's data does not cover all countries for all years from 1975 to 2013. Since data was needed in every year in order for the succeeding tests to be conducted, data was interpolated and extrapolated using several methods.

Any country missing only one data point throughout the entire period was automatically included. Any country missing two to four data points was only included if that country's population in 1992 was more than 0.1% of the world's population. Any country missing five or more data points was automatically excluded (with the exception of those countries which comprised the former Soviet Union). If only one data point was missing between 1976 and 2012, the point was linearly interpolated using the values immediately preceding and succeeding it. If two to four consecutive years were missing, or if the missing values fell at the endpoints of the available information, the values were interpolated using the corresponding growth rates of the World Bank's Gross Domestic Product Per Capita (GDPPC) dataset (which is more comprehensive than its GNIPC) and the next available year's data in the GNIPC set.

Only when GDPPC growth rate information was not available was the information extrapolated using a three-year moving average of the GNIPC growth rates. This extrapolation was conducted on four countries or 3% of the set of nations.

The data from the countries that comprised the former Soviet Union was extrapolated backwards. Due to the substantial number of countries that were included in the Soviet Union, combined with the knowledge that the former USSR comprises much of the theorized semiperiphery, it was deemed important to fill in the data completely over this timeframe. The World Bank only provides data on these countries post-collapse of the USSR. To determine the missing data going back to 1975, the researchers used the earliest available country data provided by the United Nations and extrapolated backwards using the growth rates presented in the dataset created by Angus Maddison. This procedure was conducted for fourteen countries, comprising 11% of the complete set of nations. In total, 5.3% of the data points were added by the methods described above, with 5% being the former USSR and 0.3% being the other data points added. 94.7% of data points were unaltered.

Methodological Note: all countries were weighted equally in our analysis and population was only taken into account during the replication of Arrighi and Drangel's (1986) methodology for

delineating boundaries of the zones of the world-economy. For the calculations of our volatility measures, population and other factors were ignored.

## Appendix B: Countries and Zones

Using Arrighi and Drangel's (1986) vocabulary, we distinguish each organic zone, its perimeter, and its exceptional cases. The organic zone is defined as those countries which remained within the boundaries of that zone for the entire period—allowing up to a 2 year exit, as our methodology requires a solid boundary to be drawn which can be passed due to changes in the exchange rate without actually leaving the zone.

The perimeter of each zone is defined as those countries that spent 3-5 years outside of their zonal position (according to the 1992 distribution) but eventually returned (or entered permanently) the zone. Exceptional cases are countries which left their zonal positioning (again, based on the 1992 distribution) for more than 5 years—most of the time, these cases left the zone permanently and entered the organic composition of another zone.

The tables below show the positioning of all 126 countries in our analysis.

*Table 1: Country Breakdown, Core*

Organic Core		Perimeter of Core	Exceptional Cases
Andorra	Ireland	Greece	Bahamas
Australia	Israel		Spain
Austria	Italy		Hong Kong SAR, China
Belgium	Japan		Singapore
Canada	Liechtenstein		
Denmark	Luxembourg		
Finland	Netherlands		
France	Norway		
Germany	Sweden		
Greece	Switzerland		
Greenland	United Kingdom		
Iceland	United States		

*Table 2: Country Breakdown, Semiperiphery*

Organic Semiperiphery		Perimeter of Semiperiphery	Exceptional Cases
Algeria	Latvia	Dominican Republic	Botswana
Argentina	Lithuania	Morocco	Congo, Rep.
Barbados	Malaysia	Oman	El Salvador
Belarus	Malta	Trinidad and Tobago	Guatemala

Belize	Mexico		Hungary
Brazil	Panama		Saudi Arabia
Chile	Peru		Slovak Republic
Colombia	Poland		St. Vincent
Costa Rica	Portugal		Thailand
Cuba	Puerto Rico		Ukraine
Czech Republic	Russian Fed.		
Ecuador	Seychelles		
Fiji	South Africa		
Gabon	Tunisia		
Jordan	Turkey		
Kazakhstan	Uruguay		
Korea, Rep.	Venezuela, RB		

Table 3: Country Breakdown, Periphery

Organic Periphery		Perimeter of Periphery	Exceptional Cases
Bangladesh	Malawi	Egypt, Arab Rep.	Armenia
Benin	Mali		Azerbaijan
Bolivia	Mauritania		Cameroon
Burkina Faso	Moldova		China
Burundi	Nepal		Iran, Islamic Rep.
Central African Rep.	Nicaragua		Kiribati
Chad	Niger		Turkmenistan
Congo, Dem. Rep.	Nigeria		
Cote d'Ivoire	Pakistan		
	Papua New Guinea		
Gambia, The	Philippines		
Georgia	Rwanda		
Ghana	Senegal		
Guinea-Bissau	Sierra Leone		
Guyana	Sri Lanka		
Honduras	Sudan		
India	Tajikistan		
Indonesia	Togo		
Kenya	Uzbekistan		
Kyrgyz Republic	Zambia		
Lesotho	Zimbabwe		
Madagascar			

## Appendix C: Country Movement within Zones

Figure 1: Rank Position of Core Countries

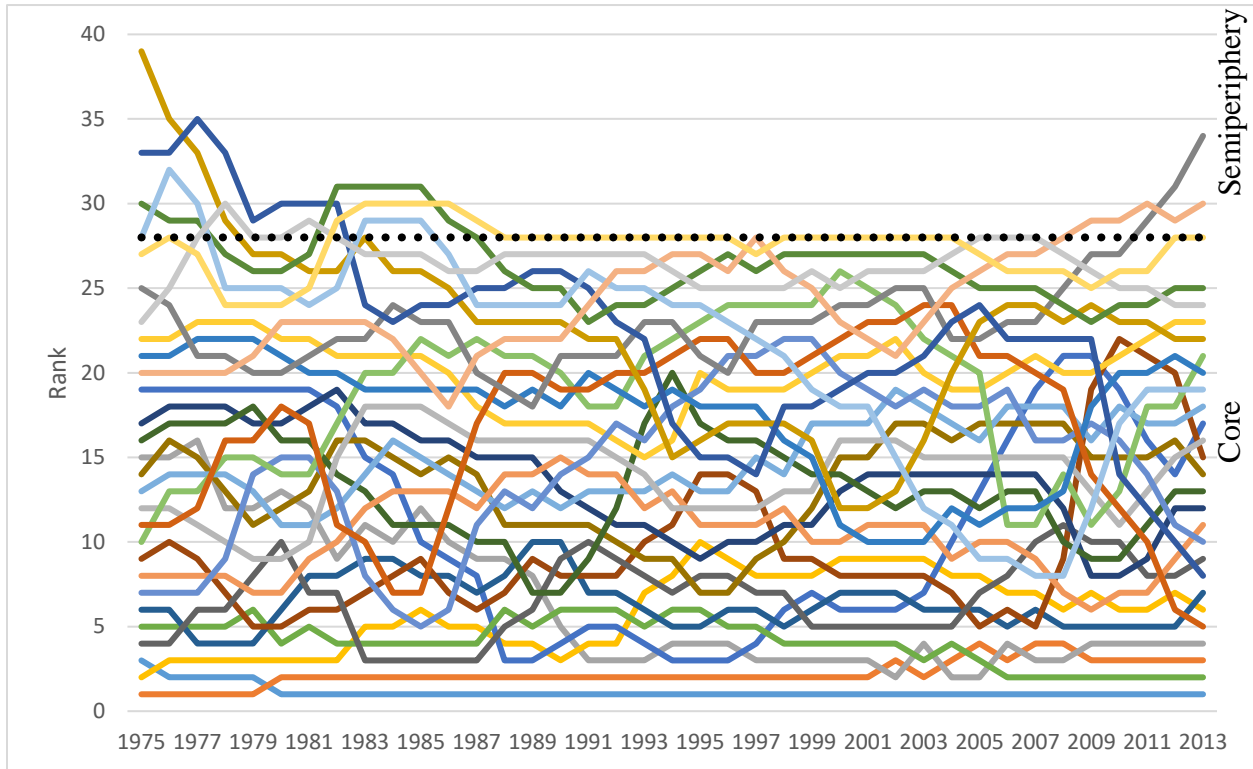


Figure 2: Rank Position of Core Countries, without stable countries

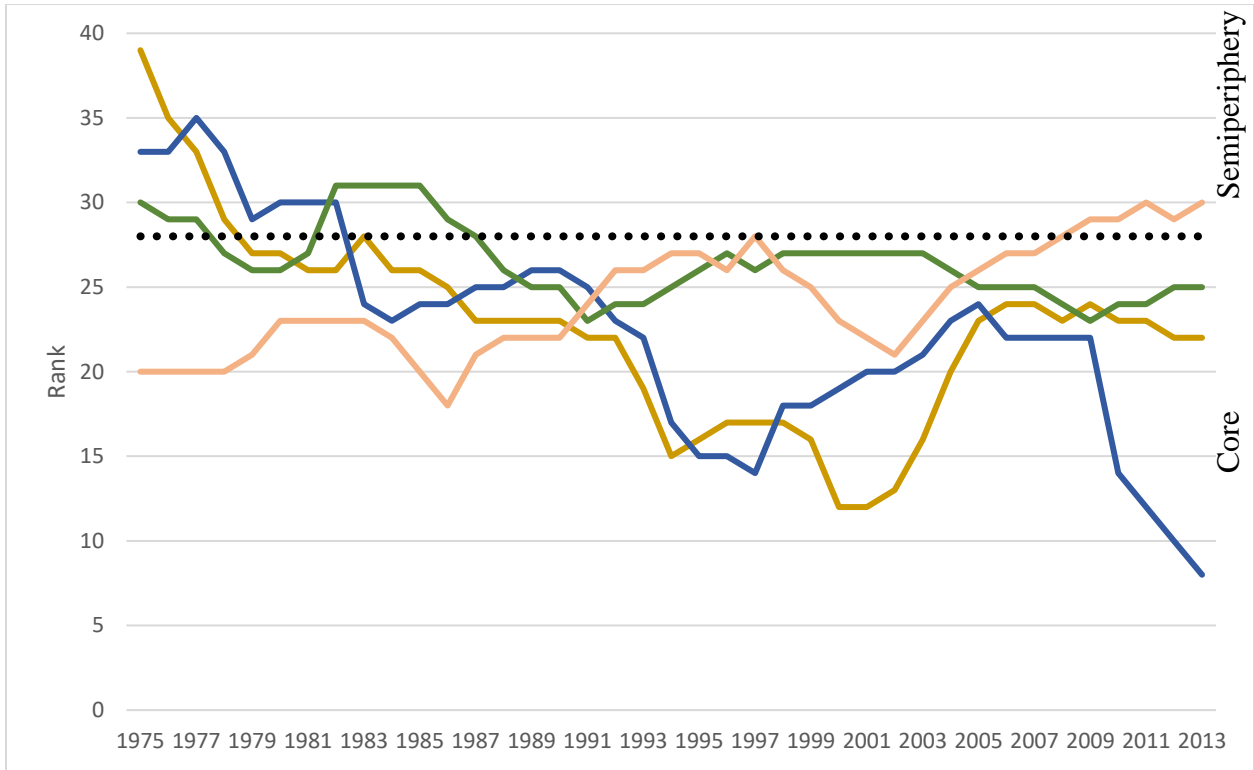


Figure 3: Rank Position of Semiperipheral Countries

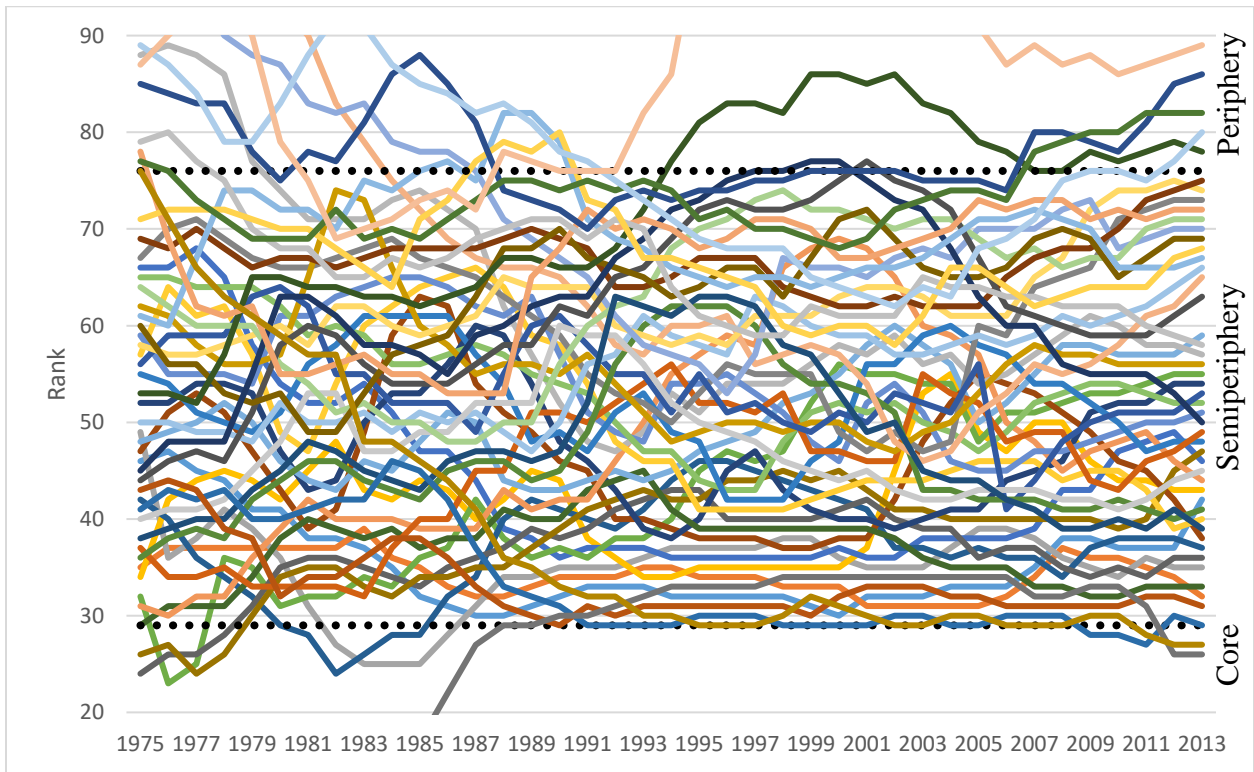


Figure 4: Rank Position of Semiperipheral Countries, without stable countries

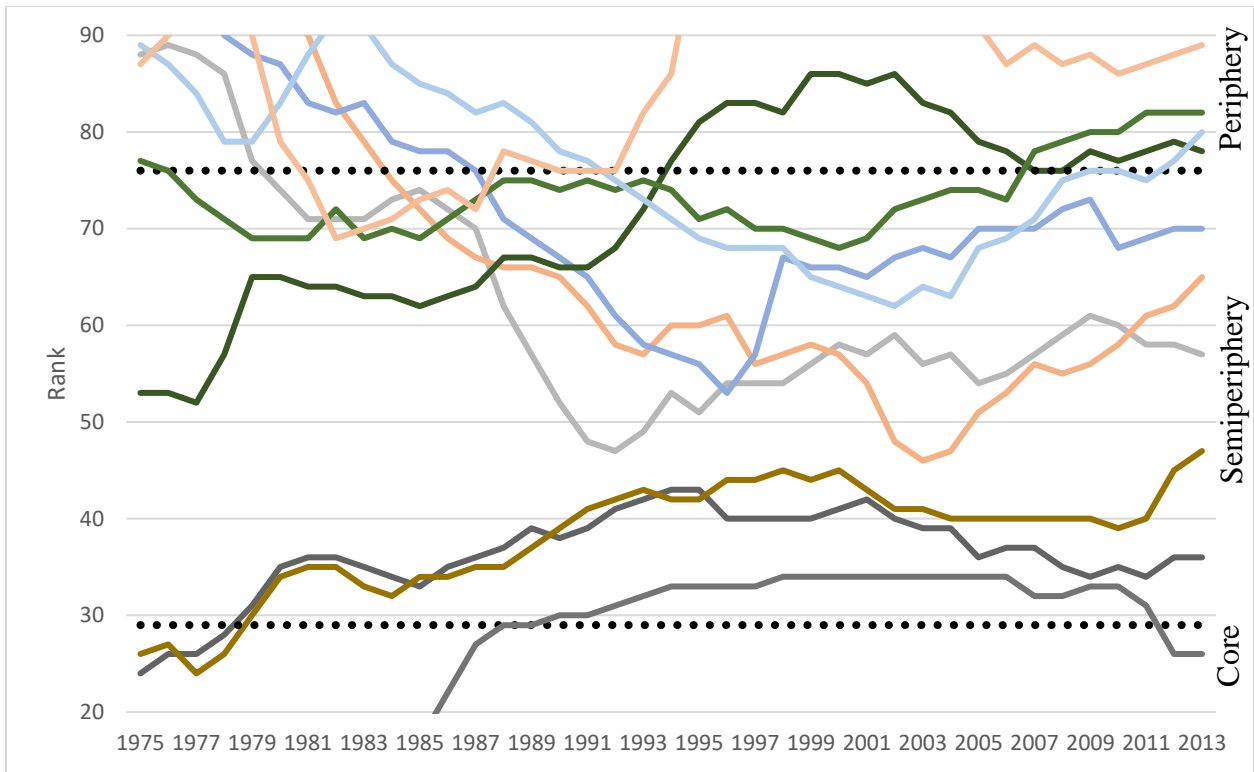


Figure 5: Rank Position of Peripheral Countries

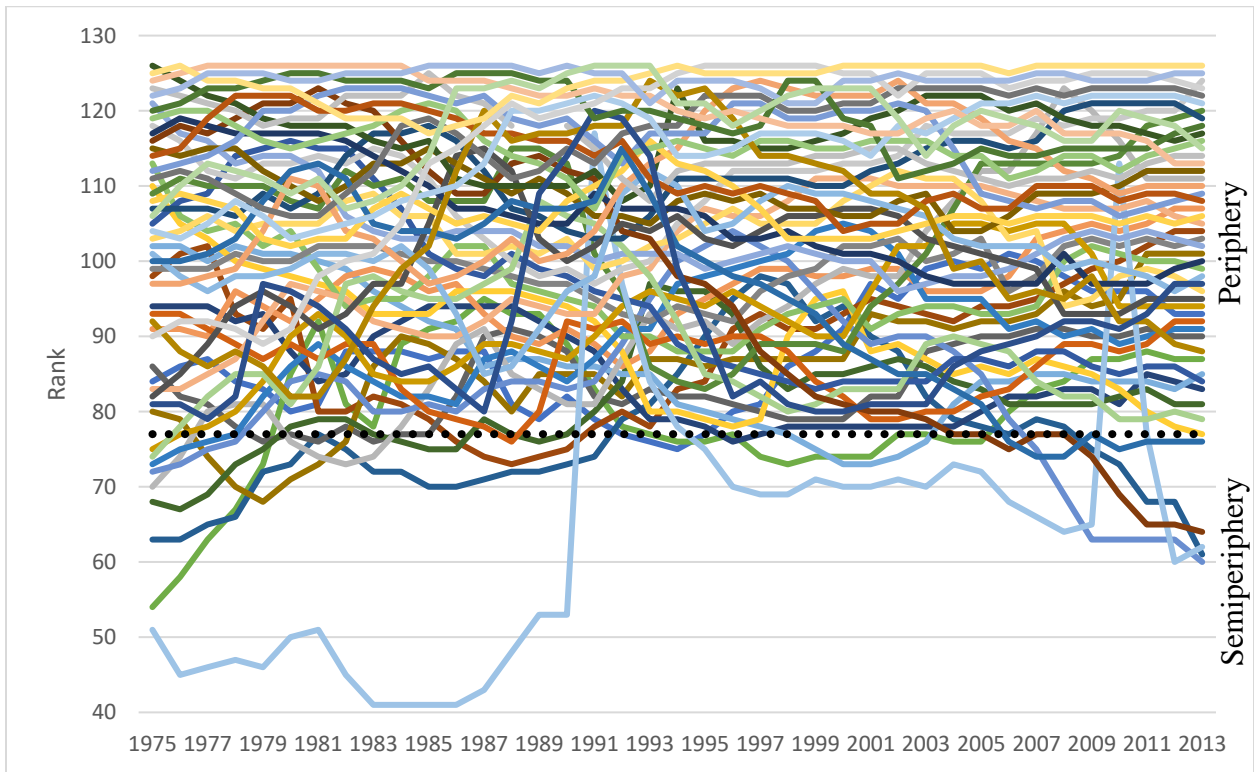


Figure 6: Rank Position of Peripheral Countries, without stable countries

