

Global Export Partner Concentration since 1980:

Trends in Dependency and Globalisation

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ABSTRACT: Sociologists have long identified export partner concentration as a potential barrier to economic and social development in poor countries. This study explores trends in poor-country export partner concentration in the current age of globalisation using data from the IMF's Direction of Trade Statistics database. Standard accounts of globalisation suggest that the world is becoming increasingly uniform when viewed from different vantage points; this suggests that export partner concentration should be declining as countries find new markets for their products. We find little support for this position, at least with regard to poor countries. Instead, average export partner concentration among poor countries has barely changed since 1980, and has actually risen since the mid-1990s. We verify these findings using multiple operationalisations of trade dependence. All our results consistently demonstrate that globalisation does not have a broad, uniform, flattening impact on poor-country trade patterns.

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Introduction

When poor countries rely on just one or a small number of countries as the markets for their exports, they are in effect dependent on those export partners in many ways. The colonialism and both informal and formal imperialism of the first few centuries of global capitalism created many such dependent relationships. Poor, dependent countries can have little choice but to implement the demands of the partner country or countries, whether these be for particular product specifications, particular forms of economic governance, or even particular political forms, such as electoral democracy (or, in an earlier age, lack of electoral democracy). The argument can be made that unless a poor country has a reasonably large number of trading partners, it cannot be fully sovereign.

Globalisation was supposed to have changed all that, creating a 'flat' world in which every actor in the world has easy access to every other actor in the world. In an early and influential summation of the emerging globalisation literature, Guillen (2001:236) influentially defined globalisation as 'a process leading to greater interdependence and mutual awareness (reflexivity) among economic, political and social units in the world'. This is consistent with Giddens' (1990:64) seminal characterization of globalization as a 'reconfiguration of geography' in which the effective distances that separate the peoples of the world are getting smaller every year. This leads to what (Robertson 1992:8) called an 'intensification of the consciousness of the world as a whole'. In the standard narrative, pioneered by sociologists and since embraced by economists, journalists and pundits, globalisation is tearing down barriers and reconfiguring long-established relationships among the countries (and people) of the world. The overriding message has been that globalisation brings homogenisation; even anti-globalisation activism is often framed in terms of resistance to globalisation's homogenising tendencies.

From an empirical standpoint, globalisation is most often operationalized in terms of international trade (Babones 2007). Total global levels of trade have increased steadily in the age of globalisation, from 39% of global GDP in 1990 to 57% in 2006 (World Bank figures). Trade levels continued rising through 2008, and after a sharp decline in 2009 have rebounded in 2010. Globalisation seems to imply not only an increase in global trade, but a change in its character. To the extent that globalisation opens opportunities to interact with the world as a whole, previously established patterns of global trade based on historical and especially colonial relationships should be breaking down. One positive characteristic of the age of globalisation should thus be the final dissolution of exploitative patterns of trade in which poor countries find their export opportunities monopolized by one or a few powerful rich countries. Whatever its pros and cons, globalisation should at least spell the end of the era of dependency.

Dependency is a multifaceted concept, but export partner concentration has long been considered an important indicator of dependency (Hirschman 1945; Galtung 1971). It has been used especially in the cross-national regression-based literature on dependency and economic growth. Export partner concentration has been associated empirically with such negative outcomes as slow economic growth (Kentor and Boswell 2003), high inequality (Lee et al 2007) and environmental devastation (Shandra 2007). Sociologists have historically seen export partner concentration in a uniformly negative light, but some economists actually argue that export partner concentration should be associated with faster growth (Kali et al 2007), seeing it as a sign of economically the efficient allocation of resources.

Studies of export partner concentration, however, have been hampered by the enormous data processing demands of computing them. We have computed export, import and total trade concentration levels for every country of the world for the period 1980-2006. We illustrate changing patterns of export partner concentration over time using a constant sample of 127 countries for which fully saturated time series data are available in our larger dataset. In the next section below we describe the methods we used to convert the available raw data into usable

concentration measures. We then report trends in export concentration by four different measures, poor versus rich countries, and region of the world. In the ensuing discussion we illustrate ways in which export partner concentration may be empirically problematic as an indicator of dependency. We then return to the question of what our results say about globalisation, concluding that globalisation has not had the expected effect of reducing export partner concentrations in poor countries.

Data and Methods

We have computed export partner concentrations for all of the countries of the world that report their export levels in the International Monetary Fund's (IMF's) Direction of Trade Statistics (DOTS) database for the years 1980-2006. We end our analyses in 2006 since, due to reporting lags, data more recent than 2006 are not yet complete. In all, 184 countries are included in the raw data, though not all of these existed as countries over the entire 27-year period. The DOTS database includes a matrix of export flows from and to nearly all the countries of the world. Thus, for each year there are 33,856 entries (200 entries for each of 200 countries). Our analyses focus on just the 127 countries that existed and reported trade data continuously over the 27 study years, but all 184 countries in the DOTS database are recorded in our data as possible trading partners for those 127 countries. As a result, our concentration figures include partners that are not among our sample countries; for example, the Soviet Union was a major export destination for Poland, and is included in Poland's export statistics for the years 1980-1991, but the Soviet Union is not itself among our study countries, since it did not exist as a country throughout the entire study period.

The 127 study countries collectively represented 86% of the world's population in 2006. The majority of the excluded countries (by population) are what are now the post-Soviet states, which in any case would represent problematic cases from the standpoint of dependency theory since they were not fully integrated into the larger capitalist world-economy. Yugoslavia, Czechoslovakia and their successor states have also been excluded because of their breakups in the

course of the study period. Germany has been included in the study sample through the aggregation of data from the former East and West Germanys in the period. Yemen has similarly been included as a single, composite state. Due to a quirk of IMF reporting, data for Luxembourg are subsumed within data for Belgium. Other missing are, as usual in cross-national research, mainly very poor, war-torn, or small island states.

We computed four measures of export partner concentration. The first, the percentage of a country's export total that goes to its single largest export destination, is the measure most commonly used in the sociology literature. We call this 1-CON for 'top 1 partner CONcentration'. In our view, however, the same logic that applies to dependency on a single partner would also apply to dependency on a small number of export partners. We thus computed 3-CON and 5-CON measures as well (top three partner concentration and top five partner concentration, respectively). Further extending this logic, it seemed to us that concentration should matter the most when it represents concentration of trade into just one partner, a little less when it represents two partners, etc. Hirschman (1945) argued seventy-five years ago that the appropriate measure of inordinate power in trade partnership relationships was geometric mean concentration: the sum of the squares of the concentrations with each partner. This measure has entered the literature under the name of the Herfindahl index (Hirschman 1964). We compute this for all countries in our dataset, using the conventional Herfindahl operationalisation which, unlike Hirschman's, does not take the square root of the final measure to return the measure to its original units (Hall and Tideman 1967).

In our initial cross-national analyses (Figure 1) we report results for all four measures of concentration (1-CON, 3-CON, 5-CON and Herfindahl). We find, however, that they are all closely correlated across countries and over time. The 2006 cross-national correlation of 1-CON and Herfindahl concentration is $r = 0.97$, and annual percent changes in global average 1-CON are correlated $r = 0.96$ with annual percent changes in the global average Herfindahl index. Thus, in our regional breakdown analyses (Figures 2 and 3) we report only results for the Herfindahl index

(as the most inclusive and sophisticated of the four). Results for the other measures are substantially the same.

Cross-National Results

World average export partner concentration levels for the period 1980-2006 are reported in Figure 1. All series rise slightly in the 1980s, then fall slightly thereafter back down to their 1980 levels. The most striking feature of the chart is its constancy over time. It is not known whether the slight rise at the beginning of the series represents a continuation of a longer, earlier rise or just a temporary anomaly. It is also unknown what affect the collapse of global trade in the 2008-2009 financial crisis might have had on concentrations. Nonetheless, the main result is that there has been virtually no change in export concentration over time. This unremarkable result is quite remarkable. The 1980s Latin American debt crisis, the 1990s Asian financial crisis, the global spread of neoliberal trade policies under the aegides of the IMF and World Trade Organization (WTO) and the progressive globalisation of the world-economy over the study period seem to have had no effect whatsoever on world average levels of export partner concentration. This result seems at odds with standard accounts of economic globalisation.

Export Partner Concentration by Region

Average levels of export partner concentration for less-developed ('Poor') and developed ('Rich') countries are reported in Figure 2. Only the Herfindahl index is reported; trends for other measures are similar. Official World Bank (2009) designations have been used. The cutoff between poor and rich countries here represents a level of national income per capita of around \$15,000 per year (approximately the level of Hungary, which is classed as rich; its eastern neighbors are classified as poor).

Here the story is slightly different from the global story. Levels of export partner concentration for poor countries are at all times higher than those for rich countries. The two series

converge until 1989, when they come close to equalizing. In the years after 1989, however, levels of export partner concentration decline by nearly 14% for rich countries but rise 9.5% for poor countries. The divergence in the two series only becomes decisive in the mid-1990s. This timing is consistent with trends in globalisation and the history of the WTO, which came into operation in 1995.

The poor-country data are broken out by region in Figure 3. Official World Bank (2009) regions are used. The official World Bank region of Eastern Europe and Central Asia includes the post-Soviet states of central Asia, but since these are excluded from the analyses only European countries are represented in the data graphed in Figure 3. It is difficult to identify clear trends in the regional data because the individual series are so volatile, but some general patterns distinguishing the regions are clear. Latin America, east Asia and sub-Saharan Africa show consistently high levels of export partner concentration, while the Middle East and north Africa, south Asia and eastern Europe show consistently low levels. Note that the 1993 spike for south Asia is due to a massive one-year spike in Afghan exports to Russia recorded in the raw IMF data.

Discussion

Though accompanied by a massive expansion of world trade, globalisation has remarkably failed to change long-established patterns of trade for the majority of the countries of the world. On the contrary, it seems to have reinforced preexisting patterns. For rich countries, which already exhibited relatively low levels of export partner concentration, the globalisation era has been associated with further declines in concentration. This generally accords with expectations: rich countries have taken advantage of globalisation to diversify the outlets for their products. For poor countries the opposite has been true: in the decade following the founding of the WTO, poor country export partner concentration has increased. To the extent that export partner concentration is an indicator of dependency in international economic relations, this is a worrying trend. It potentially makes poor countries even more vulnerable to already-powerful external forces.

In light of the relatively high levels of export partner concentration in Latin America, it is perhaps not surprising that dependency theory has its roots in that region. Latin America consistently exhibits the highest concentration levels of any world region. For most Latin American countries, the top export destination is the United States, long resented throughout the region as an imperialist power. East Asia, however, also exhibits high levels of export partner concentration, and as in Latin America the chief export destination is also the United States, but in east Asia there has been no accompanying rhetoric of dependent underdevelopment. This may be attributed to east Asia's perceived economic success, but east Asia (outside Japan and Korea, which are in any case categorised here as developed countries) is, in fact, poorer on average than Latin America -- and by a wide margin. National income per capita in Latin America is about three times that in east Asia.

The cross-regional comparison of levels of export partner concentration highlights the danger of associating dependency broadly with neocolonial underdevelopment. Across the Middle East, north Africa and south Asia average levels of export partner concentration are actually lower than those in the developed world, yet these regions suffered direct colonial exploitation right up through the mid-twentieth century, while most of Latin America has been at least formally independent for some 200 years. Moreover, export partner concentration can only reasonably be linked to dependency if the most important export destinations are rich countries with histories of colonial exploitation. Thus, though Argentina and Brazil report near-identical levels of 1-CON export partner concentration (18%), it surely means something that Brazil's top partner is the United States while Argentina's top partner is Brazil. The unreflexive ascription of meaning to quantitative indicators in such cases can produce meaningless results.

On the other hand, given appropriate contextualisation, export partner concentration might be a very meaningful indicator of dependency. We mentioned above the dependency theory has its roots in Latin America. Across the 81 poor countries in our constant sample that report GNP per capita data to the World Bank (2009), the correlation between the Herfindahl index and logged national income is a negligible $r = -.02$. Across the 25 Latin American countries included in this

group, the correlation is $r = -0.36$. This suggests that in Latin America export partner concentration may have arisen out of dependent relationships with imperial powers (primarily the United States), while in the rest of the world export partner concentration has arisen out of other factors, particularly in Asia.

Conclusion

Globalisation is usually construed to imply the breaking down of long-existing structures. International trade has been a major locus of globalisation, with overall levels of trade increasing dramatically in recent years, but the patterns of international trade seem remarkably stable. If anything, those patterns seem to be ossifying, not dissolving: levels of export partner concentration in rich countries, already low, are declining, while levels of export partner concentration in poor countries, already high, are increasing. We might see this as evidence of bifurcation in the effects of globalisation, with rich countries 'globalising' while poor countries are 'globalised' by others. We plan to undertake more extensive analyses on this question in a full-length research paper using the concentration data developed here.

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Figure 1. Four Measures of Global Export Concentration, 1980-2006

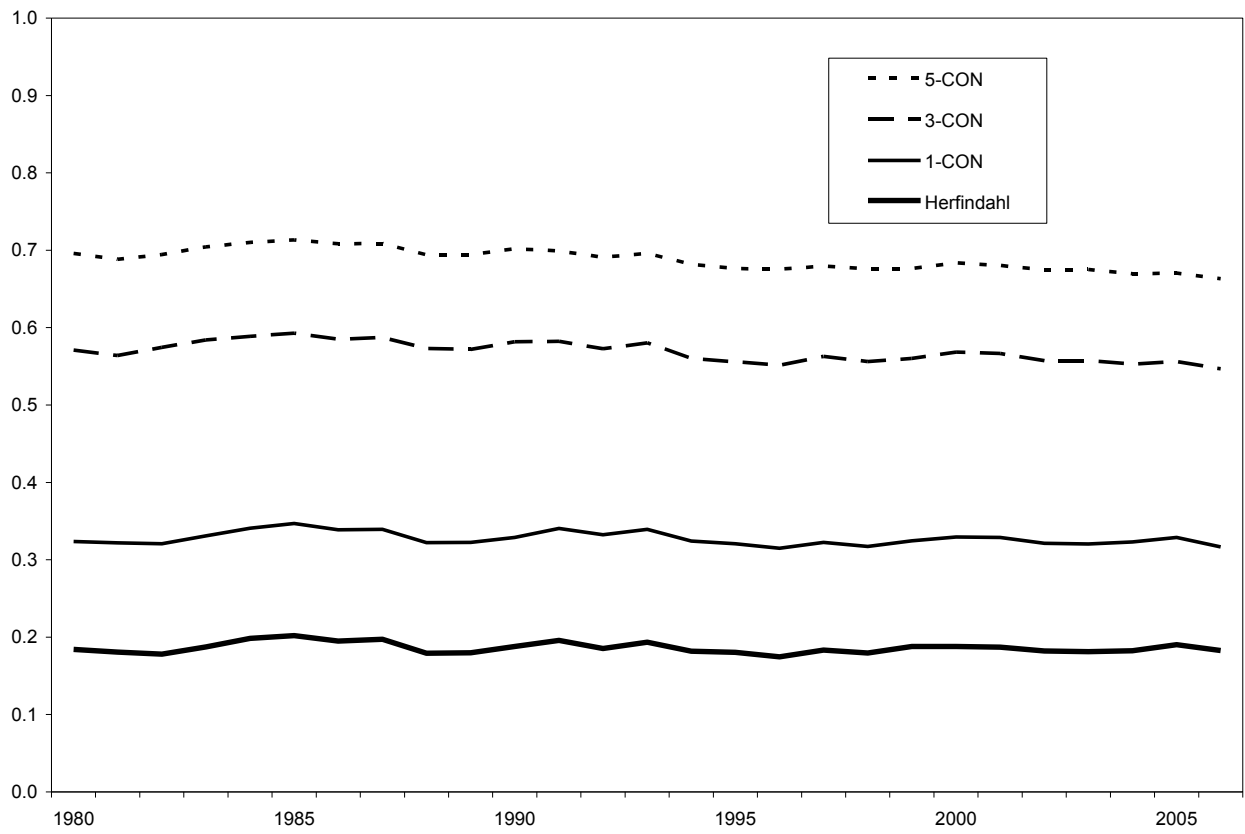


Figure 2. Export Concentration for Rich versus Poor Countries, 1980-2006

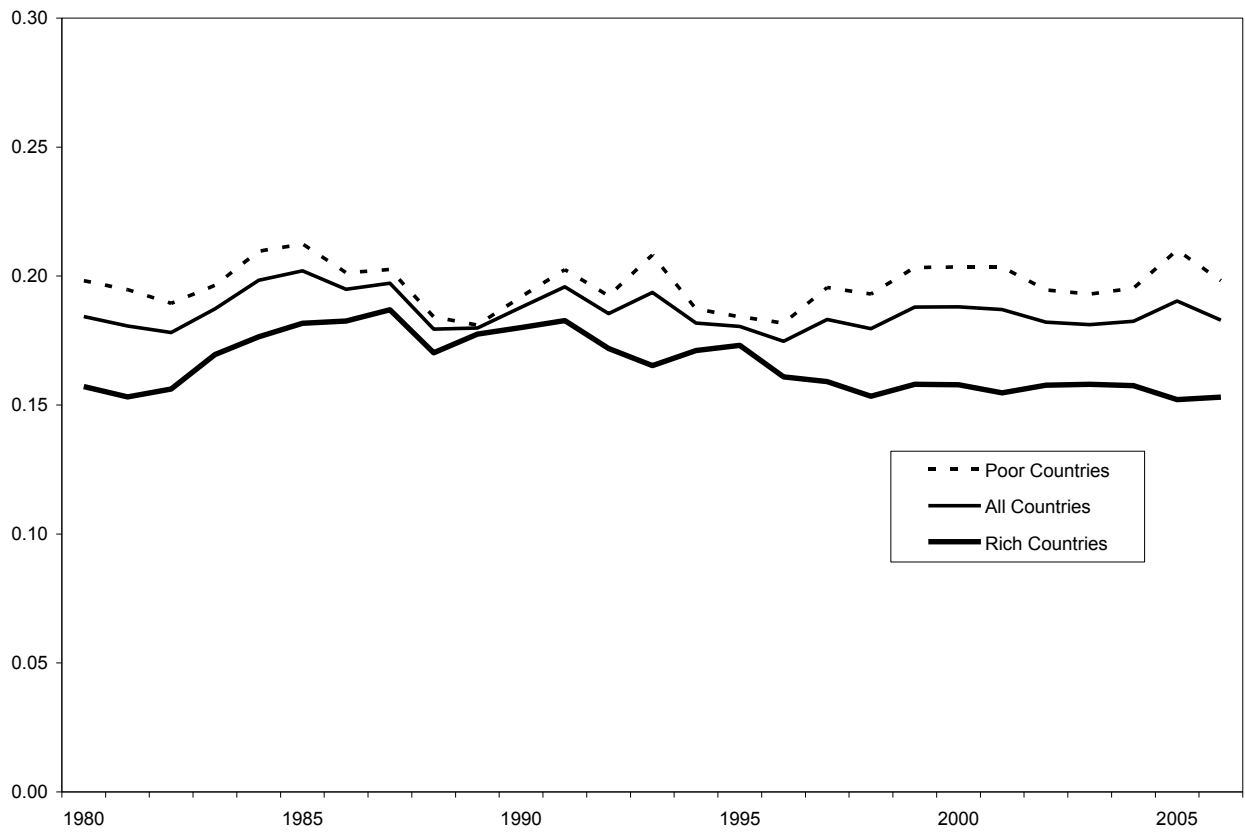


Figure 3. Export Concentration for Poor Countries by Region, 1980-2006

