

Response

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In her comment on our article, Alice Amsden provides plenty of evidence in support of her and *our own* claim that over the last forty years there has been a remarkable industrial convergence between North and South, but she dismisses our central claim that this industrial convergence has been associated with a lack of income convergence between North and South. We shall first focus on Amsden's contentions with which we have no dispute and then turn to her dismissal of our central claim.

We have no problem whatsoever with the data shown in Amsden's four tables. As Amsden notes, they demonstrate "convergence in manufacturing value added (MVA)" (33). The combination, shown in our article, of a constant North-South GNP per capita ratio and an increase in the Southern relative to the Northern population in itself implies an increase in the South's share of global value added. Moreover, if—as our data show—the manufacturing share of GDP has been rising in the South and declining rapidly in the North, it follows logically that the South's share of MVA must have grown even more rapidly than the South's share of world value added. Amsden's first table thus comes as no surprise to us since it simply makes explicit what was already implicit in our data.

Amsden's second table shows that since 1975 the Southern share of world manufactured exports increased considerably faster than the Southern share of world MVA. In our article we made neither explicit nor implicit reference to this important tendency. Nevertheless as we shall see in discussing Amsden's dismissal of our central claim, the tendency in question is not only compatible with, but strengthens, our argument concerning the forces that have reproduced the North-South income divide despite the closing of the industrial divide.

Amsden's third table neither strengthens nor weakens our argument. It simply details the sectoral distribution of the increase in the Southern share of world MVA shown in her first table and implicit in our data. The data provided are insufficient to assess the validity of Amsden's double contention that "the growth of manufacturing employment has meant the emergence of jobs that pay better—some much better—than alternatives in agriculture and services," (34) and that "sweatshops in [the textile and garment] industries remain located primarily in developed countries" (34). Nevertheless, neither statement

is inconsistent with our arguments concerning the reproduction of the North-South income divide.

Finally, Amsden's fourth table shows that even her best performing group of Southern countries—what she calls “the rest”—outperformed Northern countries in the rate of growth of MVA to a far greater extent than they did in the rate of growth of MVA per employee. Thus, including Japan in the Northern average, the rate of growth of the Rest's MVA between 1960 and 1995 was on average 119 percent higher than that of Northern countries, but the rate of growth of its MVA per employee was only 27 percent higher (calculated from Amsden's Table 4). It follows that, even within manufacturing and leaving out of consideration most of the worst performing Southern countries, strong North-South convergence in the degree of industrialization has been associated with a considerably weaker convergence in value-added (i.e., income) per capita. This observation in no way contradicts our claim that strong North-South industrial convergence has been associated with virtually no convergence in *total* value added per capita. It simply tells us that if we were to focus exclusively on “the rest” and on manufacturing, the discrepancy between industrial and income convergence would be smaller than it is for calculations that include all Southern countries and all sources of income, as done in our article.

In sum, none of the evidence that Amsden provides in her commentary contradicts our thesis. In part, it restates in a different form the evidence on North-South industrial convergence that we presented in our article; and in part, it provides evidence that we did not present but is perfectly compatible with our claims. On what grounds, then, does she dismiss our contention that North-South industrial convergence has not been associated with North-South income convergence? The dismissal is based on three grounds: conceptual, empirical, and theoretical.

Conceptually, Amsden inexplicably denies validity of our interests in value added/income generated outside manufacturing. Why, she asks, are Arrighi, Silver, and Brewer looking at “income, which includes not just the value added by manufacturing but also the value added by services, agriculture, etc.? The non-convergence they observe in income may have nothing to do with manufacturing per se but, rather, with differences in the growth rates of the service sectors and agricultural sectors of North and South” (33). As we just noted in discussing Amsden's fourth table, the non-convergence we observe does have *something* to do with manufacturing, because even within manufacturing, strong North-South industrial convergence has been associated with a considerably weaker income convergence. Nevertheless, the non-convergence we observe has indeed *primarily* to do, not just with differences in the growth rates of the service and agricultural sectors of North and South, but also with differences in the overall growth of manufacturing relative to other activities.

Suffice it to mention that the share of MVA in total value added for the world as a whole has declined from 28 percent in 1960 to 24.5 percent in 1980 to 20.5 percent in 1998 (calculated from the same sources as our Tables 1 and 2). The South has thus been catching up with the North in a declining sphere of economic activity. Moreover, as Amsden's second table shows, this growing participation of the South in a declining sphere of economic activity has been

accompanied by an even faster growth of its manufactured exports. It follows that manufacturing has not just been a declining sphere of economic activity. It has also been a sphere in which the very success of Southern industrialization has intensified competitive pressures and sharply reduced returns (that is, value added per capita) relative to other spheres of activity. Under these circumstances, we argue, industrial convergence (due primarily to Northern de-industrialization and secondarily to Southern industrialization) has been a key mechanism in the reproduction of the North-South income divide. Manufacturing may indeed have been historically, as Amsden claims, “at the heart of modern economic growth” (32). But whether or not that was the case prior to generalized industrialization in the South, the empirical evidence presented in our article shows that over the last forty years manufacturing has not played any such role.

Amsden, however, also rejects this empirical evidence on the grounds that she finds it hard to believe that both in the period 1960-1980 and in the period 1980-1998 *none* of the variability among countries in income performance was predicted by variability in their industrialization performance (adjusted R-squared = 0). In her view, the probability of obtaining an adjusted R-square equal to zero “is itself close to zero because most variables show some relationship” (34). The reason why we obtained an adjusted R-square equal to zero, therefore, “is more likely to lie in a bug in [our] program than in the absence of a relationship between industrialization and income” (34).

We do not know what logic leads Amsden to think that the probability of obtaining an adjusted R-square equal to zero is itself close to zero. In reality, obtaining an adjusted R-square equal to zero or less is not unusual. A colleague of ours who runs far more regressions than we do has a drawer full of regressions that obtained that result. Nevertheless, to be on the safe side we reran all our regressions in SPSS—they were originally run in STATA. As it turns out, we obtained exactly the same results. We are therefore confident that the reason why we originally got an adjusted R-square equal to zero does not lie in a bug in our program but in the absence of a statistically significant relationship between industrialization and income performance. Since in the article we provide both the list of countries included in the regressions and the sources of the data (easily available World Bank datasets), interested readers can of course check for themselves the correctness of our calculations.

Unfortunately, even if the calculations are correct, Amsden seems inclined to reject our findings on theoretical grounds, because in her view we “present no persuasive theory to suggest why it should be so” (32). And to the extent that we do, our view of the world economy is “akin to that of old dependency theorists” (32) who ruled out the possibility that some underdeveloped countries could “beat the system.” Two issues are involved here. One is whether empirically observed patterns that falsify existing theories should be rejected simply because there are no alternative theories that can persuasively explain those patterns. The other issue is what, if anything, our explanations of the observed discrepancy between industrial convergence and income non-convergence have in common with dependency theories.

On the first issue, our inclination is to reject the falsified theories and then seek some plausible explanation of the observed patterns. If others do not find

our explanation plausible, they should propose more plausible ones. Reiterating the old idea that manufacturing continues to be at the heart of modern economic growth flies in the face of the facts and will not do.

As for the second issue, the fact that we observe a pattern of non-convergence similar to what dependency theorists might have predicted does not mean that we subscribe to their conceptualizations and interpretations of development and underdevelopment. For one thing, dependency theorists were as prone as Amsden to identify development with industrialization, so that our critique applies as much to them as it does to Amsden. Moreover, in our explanation of income non-convergence there is hardly a trace of the notion that "dependence" constitutes a hindrance to development. In any event, as we underscore in the article's concluding section, we see the system of world capitalism not only as something that *individual* Southern countries can beat, but as a highly unstable structure that may well be in the midst of fundamental transformation, in no small part as a result of Southern agency.