

A HOLISTIC ANALYSIS OF TRADE VERSUS AID ISSUES: WORLD AND AUSTRALIAN INSIGHTS

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A. *Introduction*

MUCH of the theorizing and empirical research on the trade and aid effects on the development process of recipient economies occurred during the decades of a stable global economic environment following World War II. In the late 1970s, following the oil shocks, chronic stagflation in donor nations, commodity market slumps, and rising neo-protectionism, the international economy was in disarray. This study explores the trade-aid-growth nexus debate in a crisis-ravaged international economy during the quinquennium 1977–81. A sample of thirty developing nations which are beneficiaries of the aid from the Development Assistance Committee (DAC) of the OECD, and one of its high-quality aid donors—Australia—is examined in this study. The aim is to ascertain the differential impacts of trade and aid on the growth and development process of the recipient nations. Much of the past theorizing and empirics of the trade-versus-aid debate have used single equation models to probe separately the impact of either trade or aid on growth. These studies failed to take into account the simultaneous interactions of trade, aid, and growth on the recipient economies' development process. This study breaks new ground in formulating a model to test the trade-versus-aid interactions on growth and development in a holistic framework. The stylization of the trade-aid-growth nexus draws heavily on past theorizing and the current donor policy perspectives on aid and trade. Most Western donor policy perspectives on aid (including that of Australia) are saturated with the rhetoric of maximizing the welfare of the recipient economies or the humanitarian objectives of aid. This study models the trade-aid-growth process on the basis of the dominant paradigm of aid: the recipient needs model. If the results of the model do not support the recipient needs hypothesis, we could conclude that the alternative hypothesis of the donor interest model, which aims to maximize the foreign policy objectives of the donor, is favored. This is despite the proclaimed policy motivations of donors to the contrary.

The concessional transfer of resources from Western donors to developing economies has now been accorded an institutional status. But the record of aid, in attempting to release recipient nations from the vicious circle of poverty that ties them down and sets them on a locus of self-sustained growth, remains a mixed one. The mounting debt crisis, poverty and income inequality, and the

widening gap between rich and poor nations bear testimony to the failure of aid to achieve some of its aims. This recently led to the call for a big push in aid comparable to the Marshall Plan, to help the poor countries [3]. But in the context of domestic economic woes of major donor countries, the North-South dialogue to improve the lot of the poor countries has turned into a dialogue of the deaf. Most donor nations, whilst maintaining their rhetoric on the humanitarian and developmental role of aid, have been reticent about increasing the quantum of aid. Donors nowadays are apparently eager to improve the quality and effectiveness of aid by better aid management.

B. *Conflicting Mandates and Repugnant Rhetoric*

The recent Australian review of Australian overseas aid (Jackson report [2]) is very much in the mold of the many reports of major Western aid donors [28]. Sections of the Jackson report are typical of the rhetoric that obfuscates the Western aid allocation process. The opening gambit of the Jackson report is: "Aid is given primarily for humanitarian reasons." It then elaborates the need to reconcile the conflicting mandates of aid to obtain an optimal aid allocation process. The Jackson report, *inter alia*, identifies the following mandates for aid: (1) humanitarian, (2) economic development and growth of recipients, (3) fostering of trade or commercial interests, (4) serving of strategic geopolitical or foreign policy interests of the donor. The Jackson report elaborates Australia's aid strategy in terms of recipient needs. But its recommendations for a geographical refocus of aid and the bureaucratic streamlining of only the donor aid operations depart from the basic human needs strategy. This is not surprising as the report is premised on the trickle-down paradigm or neoclassical growth theory [33].

The public confusion about the recommendations of the Jackson report may be partly due to the report's failure to explain clearly the underlying analytical framework [19] and the uncritical adoption of the neoclassical development strategy. The latter is shrouded in controversy [15]. The report also underplays the donor interests that the aid allocation process serves and overkills the recipient needs. In this respect, the Australian aid report shares the zealous propaganda and vain policy postures pursued by other major Western donors. Many empirical studies clearly show that aid serves mainly the strategic and foreign policy interests of donors [22]. This is achieved through leverage and by bargaining with recipients in an anarchic world order [23] [24]. According to this realist-political perspective of aid, the collective hegemonic interests of donors, rather than recipients' humanitarian needs, are maximized by the aid process. The implication of donor reviews that aid is mainly a zero-sum game is therefore misleading. It leads to aid fatigue and confusion in donor policymaking and kindles hostility toward aid giving amongst the donor public. Aid has many reverse flows or kickbacks to the donors, and it is a positive-sum game. An evenhanded approach to the balancing of donor interests against recipient needs is desirable. Such an approach would not only provide clear-cut guidelines to aid administrators, but would also revive public support for aid. The condescending tone of donor reviews could also make aid repugnant to the decisionmakers in recipient countries.

C. *Confusing Statics on Trade versus Aid*

The inadequacy of Western donors' aid policy reviews and strategies is further compounded by the lack of a consistent and logical theoretical basis to analyze the trade-offs between aid, trade, and growth in the development process. The debate on trade versus aid that dominated North-South relationships in the past clearly asserted the superiority of aid over trade using flawless static logic. The costly binge of import-substituting industrialization with diminishing dynamics (which many developing economies pursued) perhaps led to a theoretical over-reaction. One typical orthodoxy that prevailed during this period is captured by the Johnson formula [14]. The formula asserted, with impeccable reasoning, that aid (A) *directly* transferred free investible resources from donors to recipients. Moreover, *indirectly* it helped the recipients to avoid the costs of import substitution. Trade, or exports (X), on the other hand, only provided the indirect benefit of avoiding costly import substitution using the recipients' own resources. As long as there was a percentage excess cost of import substitution (c), it was inexorable that an equivalent amount of aid would be superior to trade.

The Johnson formula was modified by deflating aid for cost of tying aid (r) (i.e., the excess cost of tied goods valued at domestic prices compared with its valuation at world prices). Further, the Johnson formula was inflated by the concessionality or grant element (g) to give formula II. A further revision yielded formula III which showed that as long as there was an excess cost of import substitution, aid on any terms (as measured by its nominal or face value, F), would be superior to trade [34].

Formula I: Johnson formula: $(1 + c)A > cX$.

Formula II: Johnson-Thirlwall formula: $(1 + c)(g/r)A > cX$.

Formula III: Thirlwall formula: $(g + c)F > cX$.

Formula I asserts that aid is superior to an equivalent amount of trade as long as there is an excess cost of import substitution, because of both the direct and indirect investible resource benefits it confers on the recipients compared with only the indirect benefits of trade. Formula II asserts that, after allowing for tying costs and the grant element, aid will be more valuable than trade of the same magnitude, if the costs of import substitution and the grant element are high, and the tying costs are low. These static formulae may have been concocted to provide a correct perspective on the relative worth of aid vis-à-vis trade in a developing world where costly import substitution was rampant [20]. The emphasis on aid rather than trade in a scenario of excessive import substitution led to the cavalier dismissal of the secondary repercussions of aid or trade as inconsequential. Import substitution, if based on infant industry logic or dynamic trade externalities (such as scale economies, linkages or learning effects [16] and more profound benefits such as technology transfer and competition [5] [12]), could offset or even hone down the excess costs of import substitution over time and even make them negative. If this had not occurred, how could some of the culprits of costly import substitution emerge as the newly industrializing countries (NICs) or the success stories of export-led growth in the late 1970s?

D. *The Trade Aid Paradoxes and Polemics*

The much touted superiority of aid over trade failed to surface in a cross-sectional analysis of the relationship between growth (G), trade (X), and aid (A). Contrary to the prevailing dogma, as exemplified by the Johnson-Thirlwall formulae, trade proved to be a more powerful contributor to growth than aid. A regression fit showed the coefficient of trade ($\hat{\alpha}_1$) was greater than the coefficient of aid ($\hat{\alpha}_2$) in the relationship:

$$G = \hat{\alpha}_0 + \hat{\alpha}_1 \frac{\Delta X}{Y} + \hat{\alpha}_2 \frac{\Delta A}{Y}.$$

The analyst was surprised by the superiority of trade over aid effects or $\hat{\alpha}_1 > \hat{\alpha}_2$. He implored that more research be undertaken to clarify this seeming paradox [9].

On a theoretical plane the role of trade in promoting the welfare of all trading partners has been cogently argued in both classical and neoclassical theories of comparative advantage. Both Ricardian and Heckscher-Ohlin theories and the new theories based on neo-technology and product differentiation have virtually accorded the mutually beneficial role of trade a canonical status. The positive contribution of trade to growth has been empirically established using single equation models [17] [25] [26] [30]. Also trade has been widely hailed as the engine of growth of the developing economies, until it began to slow down after the mid-1970s [18].

The secondary repercussions, which were swept under the carpet in the Johnson-Thirlwall aid-versus-trade debate became the focus of the aid-growth polemics and macro-dynamics. Based on an elaboration of the Harrod-Domar growth models, the two-gap models [6] postulated that growth (G) was constrained either by a shortfall of the marginal rate of saving (s) or the foreign exchange constraint. An injection of foreign aid (A) could augment the marginal rate of saving (s), leading to enhanced growth (G), given that the capital output ratio (k) is invariant in the short run: $G^* = s^*/k$. However, several empirical and theoretical investigations contended that aid eroded domestic savings operating via a demonstration effect [10] [11] [13] [35]. But further investigations proved that the negative correlation between aid and saving was spurious. It resulted from a mis-specification or the omission of crucial explanatory variables. It was argued that both high aid and low savings were related to increasing poverty and that high aid did not cause the alleged low savings [1] [29].

Serious misgivings were also expressed about the validity of the OLS (ordinary least squares) estimates of the aid, trade, growth equations. With reference to aid it was argued that incorporating lag-structures would improve the realism of the models. More importantly, the endogenizing of the two-way effects of growth on aid was advocated to improve the reliability of the estimates. The simultaneous equation bias that prevailed in OLS estimation procedures could be obviated by the 2SLS (two-stage least squares) estimation procedure [27]. Heretofore, much of the research on aid, trade, and growth impacts was based on single equation modelling. The only exception being a simultaneous equation

model of trade and growth [31]. The interactions between growth, aid, and trade, however, remain unexplored. This study attempts to overcome this deficiency by conceptualizing and testing an appropriate model.

E. *Stylization of a Holistic Model*

The stylization of a holistic or a simultaneous interactions model of growth, aid, and trade in the development process is a complex one. The complete specification of the relevant model is a formidable challenge. Also, the compilation of the data bases for its empirical validation opened up a Pandora's box of econometric problems. Nevertheless, an investigation of the simultaneous interactions should provide some transparency to the murky rhetoric that pervades contemporary trade and aid policy statements. These policy reviews and reports are based on very scanty empirical analysis. The nettle of empirical analysis has to be grasped to go beyond mere assertion. A model postulated for the above purpose is presented below:

$$\text{GROWTH} = f[(+) \text{ DEVELOPMENT}, (+) \text{ AID}, (+) \text{ TRADE}, (+) \text{ CAPITAL FLOWS}]. \quad (1)$$

$$\text{AID} = f[(-) \text{ DEVELOPMENT}, (+)/(-) \text{ GROWTH}, (+) \text{ TRADE}, (+) \text{ STRATEGIES}]. \quad (2)$$

$$\text{TRADE} = f[(+) \text{ GROTH}, (+) \text{ AID}, (+) \text{ COMPETITIVENESS}, (+) \text{ INDUSTRIALIZATION}]. \quad (3)$$

The variables incorporated in the model are based on relevant theoretical perspectives and empirics culled from the trade-aid debate. The expected signs of the coefficients of the explanatory or predictor variables are shown in parenthesis.

The underlying rationale of the model equations and the simultaneity links are briefly discussed next: equation (1) describes that growth of recipient economies in terms of development, aid, trade, and capital-flow arguments—all are expected to have positive growth impacts. Equation (2) explains the humanitarian bias in aid through an expected negative relation to the level of development. Furthermore, aid is anticipated to be positively related to growth implying that efficient utilization of aid by recipients leads to an increased allocation of donor aid for development. Aid impacts would be positive or negative depending on whether it is trade tied or motivated by balance-of-payments support. The nexus between aid and strategic factors would also be expected to be positive. This depends on the proper choice of a proxy for the strategic factors. Equation (3) postulates that trade is explained in a positive manner by growth, aid, competitiveness, and the level of industrialization.

The simultaneity links are established in the model by the endogenous variables: growth, aid, and trade. They appear as explanatory variables on the right-hand side of the three equations. Growth which is explained by aid and trade arguments in equation (1), explains in turn both trade and aid in equations (2) and (3). Trade is explained by the endogenous variables growth and aid in equation (3). Thus the mutual interactions of the aid, trade, and growth variables are captured in the proposed model in an explicit manner. The relationships of

growth, aid, and trade are clarified further in the algebraic analogue below. The equations were linearized for estimation purposes.

$$\text{GROWTH: } G = f\left(\frac{Y}{P}, \frac{A}{Y}, \frac{X}{Y}, \frac{F}{Y}\right). \quad (1')$$

$$\text{AID: } \frac{A}{Y} = f\left(\frac{Y}{P}, G, \frac{X}{Y}, D\right). \quad (2')$$

$$\text{TRADE: } \frac{X}{Y} = f\left(G, \frac{A}{Y}, W, R\right), \quad (3')$$

where

G : percentage annual growth rate of real GDP,

Y : gross domestic product,

X : value of exports (f.o.b.),

M : value of imports (c.i.f.),

F : net capital flow,

P : population,

D : distance or country-size strategics' proxy,

W : indicator of competitiveness or the ratio of price level of recipient to that of the donor, and

R : level of industrialization (manufacturing plus construction) as a percentage of GDP.

Each variable has an it th subscript where i refers to the recipient country and t refers to the year. Most of the arguments on trade, aid, capital flows, and industrialization are expressed as a percentage of GDP. These variable definitions are analogous to those used to analyze multidimensional shifts in the production possibilities of developing economies elsewhere [7].

F. Empirical Validation of the Model

A consistent data set for a sample of thirty recipient nations during the quinquennium (1977–81) was compiled from international and country sources. A sample of pooled cross section and time-series of 150 observations on fourteen variables was generated. Using the sample data, world and Australian versions of the model were validated. The variables relating to the Australian version are superscripted *AUS* (see Table I). The systems method, 3SLS (three-stage least squares), due to its merits of providing unbiased and asymptotically efficient estimates of the model parameters, was selected for the proposed model estimation [37]. The systems method, 3SLS, overcomes the problem of simultaneity bias inherent in OLS estimation. OLS estimation undermined the reliability of some past growth, aid, and trade empirics. Lag structures although relevant have not been included in the modelling. This is because systems methods of equation only handle contemporaneous simultaneity [21].

Some salient characteristics of the data for the sample of recipients have been selected for comment next (see Table I). The average population per recipient was 48 million people but varied enormously from 0.6 million in Fiji to 690

TABLE I
AVERAGE VARIABLE VALUES OF A SAMPLE OF AID RECIPIENTS, 1977-81

Variable Number	Variable Description	Variable Symbol	Average Value	Coefficient of Variation (%)	Sample of Recipient Countries
1	Population (mid-year million)	P	48	248	1. Fiji
2	GDP (U.S.\$ million)	Y	17,102	172	2. Papua New Guinea
3	Average annual growth rates of real GDP (%)	G	4.0	125	3. Indonesia
4	Industrialization (% of GDP)	R	15.1	53	4. Malaysia
5	Total bilateral aid (U.S.\$ million)	A	364	131	5. Philippines
6	Exports (f.o.b.) (U.S.\$ million)	X	3,141	178	6. Singapore
7	Imports (c.i.f.) (U.S.\$ million)	M	3,375	147	7. Thailand
8	Competitiveness index (recipient CPI/donor CPI)	W	1.40	118	8. Burma
9	Australian aid (U.S.\$ million)	A _{AUS}	10.4	356	9. Bangladesh
10	Exports to Australia (c.i.f.) (U.S.\$ million)	X _{AUS}	38.8	232	10. Sri Lanka
11	Imports to Australia (f.o.b.) (U.S.\$ million)	M _{AUS}	70.3	164	11. Pakistan
12	Australian competitiveness (recipient CPI/Australian CPI)	W _{AUS}	0.86	13	12. India
13	Proximity to Australia (1,000 km)	D _{AUS}	11.2	33	13. Nepal
14	Recipient country size (1,000 km ²)	D	694	117	14. Jordan
15	GDP per capita (U.S.\$)	Y/P	719	144	15. Ethiopia
16	Aid : GDP (%)	A/Y	6.8	129	16. Egypt
17	Exports : GDP (%)	X/Y	24.5	186	17. Ghana
18	Imports : GDP (%)	M/Y	31.9	134	18. Kenya
19	Aid : GDP (Australian) (%)	(A/Y) _{AUS}	0.37	467	19. Lesotho
20	Exports : GDP (Australian) (%)	(X/Y) _{AUS}	0.42	256	20. Malawi
21	Imports : GDP (Australian) (%)	(M/Y) _{AUS}	1.31	336	21. Mauritius

Sources: For variable numbers 1, 2, 4, IBRD, *World Tables*, 3rd ed., 2 vols. (Baltimore: Johns Hopkins University Press, 1983); for 14, idem, *World Development Report 1984* (New York: Oxford University Press, 1984); for 3, OECD, *Latest Information on National Accounts of Developing Countries*, No. 16 (Paris, 1983); for 5, idem, *Development Co-operation: Review* (Paris, 1981 and 1983 editions); for 6, 7, IMF, *Direction of Trade Statistics*, 1984 (Washington, D.C., 1984); for 8, 12, idem, *International Financial Statistics*, 1984 (Washington, D.C., 1984); for 9, Australian Development Assistance Bureau, *Statistical Summary, 1982-83* (Canberra, 1983); for 10, Australian Bureau of Statistics, *Export Australia Annual Summary Tables, 1983-84* (Canberra, 1984); for 11, idem, *Import Australia Annual Summary Table, 1983-84* (Canberra, 1984); for 13, National Geographic Society, *National Geographic Atlas of the World*, 5th ed. (Washington, D.C., 1981).

TABLE II
RESULTS OF MODEL VALIDATION

World version I:				
$G = 16.44^{**} - 0.001(Y/P) - 1.56(A/Y)^{**} - 0.05(X/Y)^{**} + 0.12(F/Y)$	(2.46)	(0.003)	(0.33)	(0.06) (3.02)
$A/Y = 10.86^{**} - 0.001(Y/P) + 0.71G^{**} - 0.22(X/Y)^{**} - 0.001D$	(2.19)	(0.004)	(0.50)	(0.04) (0.001)
$X/Y = 43.28^{*} - 6.19G - 3.53(A/Y)^{**} - 4.19W + 2.41(R/Y)$	(22.60)	(12.09)	(1.09)	(7.05) (2.77)
Australian version I:				
$G = 2.67^{**} - 0.001(Y/P) - 2.47(A/Y)^{**} + 5.42(X/Y)^{**} + 0.001(F/Y)$	(0.55)	(0.02)	(0.50)	(1.34) (0.55)
$A/Y = 1.08 - 0.004(Y/P) - 0.40G^{**} + 2.20(X/Y)^{**} - 0.004D$	(1.18)	(0.04)	(0.11)	(0.85) (12.48)
$X/Y = -0.49 - 0.18G + 0.46(A/Y)^{**} - 0.002W - 0.001(R/Y)$	(0.74)	(0.18)	(0.06)	(0.99) (0.04)
World version II:				
$G = -0.81 + 0.004Y^{**} + 0.14(A/Y) + 0.09(M/Y)^{**} - 0.001(F/Y)$	(1.28)	(0.001)	(0.11)	(0.02) (0.004)
$A/Y = 5.70 - 0.003Y + 0.002(Y/P) - 0.70(M/Y) + 7.03G^{**}$	(6.41)	(0.002)	(0.007)	(0.47) (3.80)
$M/Y = 9.26 - 2.80G + 0.005(A/Y) - 4.34W^{**} + 2.65R^{*}$	(15.49)	(6.50)	(0.79)	(3.78) (1.59)
Australian version II:				
$G = -76.19 - 0.001Y - 535.07(A/Y)^{**} + 213.58(M/Y)^{**} + 0.09(F/Y)$	(63.17)	(0.001)	(14.99)	(14.71) (40.18)
$A/Y = -0.14 - 0.02G - 0.003(Y/P) + 0.39(M/Y)^{**} - 0.004Y$	(0.11)	(0.06)	(0.001)	(0.03) (0.003)
$M/Y = 0.42 + 0.02G + 2.51(A/Y)^{**} - 0.08W - 0.03R$	(4.49)	(0.85)	(0.24)	(5.73) (0.20)

Notes: 1. 3SLS, n=150.

2. Figures in parentheses indicate asymptotic SE.

* Significant at 5 per cent level.

** Significant at 1 per cent level.

million in India. The average per capita income per recipient nation was U.S.\$719 and ranged from U.S.\$82 for Bangladesh to U.S.\$7,844 for Singapore. Trade in value terms was more than eight and a half times compared to aid given to recipients by the major DAC donors. The comparable Australian trade: aid ratio was over three and a half times. The value of aid as a percentage of recipient GDP was nearly 7 per cent. In percentage of the GNP of major donors (DAC), aid accounted for only 0.35 per cent during the quinquennium under review. For Australia the comparable figure was only 0.48 per cent. This was way below the U.N. prescribed target of 0.7 per cent of GNP as ODA. A Chow test at 5 per cent level of significance established that the world and Australian versions of the model were different [8].

TABLE III
SUMMARY RESULTS OF WORLD AND AUSTRALIAN VERSIONS I AND II OF THE
MODEL (OBSERVED SIGNS OF STATISTICALLY SIGNIFICANT
EXPLANATORY VARIABLE)

Endogenous Variables Explanatory Variables	Growth			Aid		Trade		
	Develop- ment (Y)	Aid (A/X)	Trade (X/Y) or (M/Y)	Growth (G)	Trade (X/Y) or (M/Y)	Aid (A/Y)	Compe- tition (W)	Industrial- ization (R)
Version I:								
World I		(-)	(-)	(+)	(-)	(-)		
Australia I		(-)	(+)	(-)	(+)	(+)		
Version II:								
World II	(+)		(+)	(+)			(-)	(+)
Australia II		(-)	(+)					

Source: Table II.

G. Interpretation of Model Results

The models formulated on the basis of dominant paradigms on aid and trade produced unexpected results. The expected signs and significant coefficients of key endogenous variables did not eventuate. The instability of the data, reflecting the highly volatile global economy prevailing during the sample period, perhaps contributed to the unexpected results. These results also question the relevance of the major aid-trade paradigm underpinning the proposed model.

Both the world version I and the Australian version I revealed that aid immiserized growth during the sample period. The trade effect on growth was negative in world version I and positive in the Australian version I. The overall conclusion that both versions convey is that trade is superior to aid even during periods of global downturn. The adverse growth impact of declining trade appears to be less severe than that attributable to the shortfall in aid. The effects of growth on aid emerged positive in world version I and negative in the Australian version I. This could imply that aid allocation of major Western donors was mainly on the basis of growth and efficiency criteria. On the contrary, the Australian aid program may have been impaired by the use of a more ad hoc approach to aid programming. The trade effects on aid were negative in the world version I and positive in the Australian version I. This may suggest that world aid was prompted by balance-of-payments support for recipient economies in strife. However, in the Australian case, the tying of aid to trade may have dominated other effects. During the sample period, over 45 per cent of Australian aid was procurement tied. The effect of aid on trade emerged negative in the world version I and positive in the Australian version I. This may suggest that major donor aid allocations played a significant role in recipients' balance-of-payments support. In the Australian case, aid appeared to be mainly tied to procurement from the donor.

The importance of strategic and trade-tying effects of aid on the endogenous variables was explored further. For this purpose, GDP in absolute terms was

substituted for the strategic arguments of country size or distance (D) in the world and Australian models respectively. GDP also doubled as a development status indicator instead of per capita income (Y/P). Furthermore, imports by recipients from donors (M/Y) replaced exports in the earlier version. World version II of the model revealed that level of development explained significantly growth performance of recipient economies, as expected. The immiserizing effects of aid on growth continued to persist for Australia together with the benign effects of trade. World version II showed that trade as expected had a positive effect on growth, whereas world version I did not produce the expected result. In world version II, growth had a positive relationship on donor aid allocation. This seems to confirm that efficient performance by recipients is rewarded by the allocation of more aid by the donors. As expected, the level of poor competitive performance of recipients had a significant negative relationship on donor trade. The level of recipient industrialization, as expected, had a positive pull effect on donor trade in world version II. The summary table below gives the signs of the statistically significant variables for versions I and II of the model.

H. *Concluding Remarks*

The empirical validation of the model, capturing simultaneous interactions of growth, aid, and trade in the development process, provided disappointing results when viewed against the backdrop of dominant aid-trade paradigms. In an international economy gripped by crises, neither aid nor trade acted as an engine of recipient growth, rather they operated in reverse gear, immiserizing growth.

The orthodoxy that aid is superior to trade as encapsulated in static formulae is little mentioned nowadays, and the current orthodoxy is "trade is more important than aid for donors and recipients alike" [2, p. 115]. In particular, the mutual benefits hypothesis of trade has tremendous theoretical support. Aid, however, has been viewed largely as a zero-sum game. The model empirics do not accord with the mutual benefits hypothesis of trade, nor do they lend support to the excessive focus in aid targetry (ODA/GNP) by donor countries and international agencies such as the United Nations.

If trade is superior to aid from the perspective of the recipients' development, surely the joint effects of trade and aid should be considered in appraising the developmental contribution of donors to recipients. A recent analysis clearly indicates that when the joint effects of trade and aid are taken into account, low performers on the ODA/GNP target (such as Australia and the United Kingdom) are promoted to the top of the DAC league. At the same time, some Scandinavian high flyers in the league are demoted [36]. The acceptance of the superiority of trade over aid calls for a comprehensive approach to measuring the developmental impact both aid and trade have on the recipient economies. The reticence of major donors to commit themselves to the U.N. target on aid is not, of course, explained by deficiencies in the targetry concept. It may have more to do with the low priority accorded to international development and aid during times of high domestic unemployment and inflation.

The failure of the model empirics to support the dominant paradigms of trade

and aid in an unequivocal manner casts serious doubt on the mutual benefits hypothesis of neoclassical trade theory. In this context, the dependency thesis deserves a cool look. This thesis asserts that trade and aid marginalizes recipient economies by smothering auto-centric development. Further, it promotes collusion among domestic and foreign elites and big business that promotes maldevelopment and aid dependency [32]. So far because of the lack of a cogent and consistent rationale, the dependency thesis has been dismissed as economic heresy [4].

Many economists still hold as sacrosanct the mutual benefits hypothesis of trade and the trickle-down paradigm of growth. The success stories of export-led growth in a few newly industrializing countries seem to support their case. However, in a world of over 160 developing economies in economic strife, owing to the increasing malfunctioning of trade and aid mechanisms, the neoclassical viewpoint needs to be examined critically. Many developed countries and aid donors have turned increasingly to beggar-thy-neighbor policies and neo-protectionism. In this scenario, all developing economies cannot expect success by traversing the path taken by the "gang of four" or a few NICs. Unless there is a change of heart on trade and aid in major donor nations, and a restructuring of the present international order, the poor countries will remain poor. Trade and aid will offer an escape route only to a few favored nations. The majority of developing economies may be condemned to live in poverty for many decades to come.

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