Whither the Third World Arms Producers?

By

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The increased prominence of secondary suppliers in the international arms market--including the growing role of some Third World producers--has been among the most discussed trends in worldwide arms transfers in recent years. By 1984, countries outside the NATO and Warsaw Pact alliances accounted for 17 percent of the world arms market and 20 percent of the Third World market.[1] The share of Third World arms exporters in 1984 reached almost 15 percent of the world market and about 18 percent of the Third World market.[2] The present article examines these trends and some of their implications in greater detail.

Figure 1:
Arms Suppliers in 1981-1985 by Group and Scale of Exports

MILLIONS OF CURRENT DOLLARS (CUMULATIVE)*	WARSAW PACT	OTHER COMMUNIST	NATO	OTHER NON-COMMUNIST: DEVELOPED MARKET	OTHER NON-COMMUNIST: THIRD WORLD
50,000	● SOVIET UNION				
			● UNITED STATES		
20,000			● FRANCE		
10,000			● UNITED KINGDOM ● WEST GERMANY		
5,000		● CHINA †	● ITALY		
3,000	● POLAND ● CZECHOSLOVAKIA				
2,000	● ROMANIA	● NORTH KOREA †	● SPAIN†		● SOUTH KOREA†
1,000	● BULGARIA † ● EAST GERMANY	● YUGOSLAVIA †	● BELGIUM	● SWITZERLAND ● JAPAN	● ISRAEL† ● BRAZIL†
500	● HUNGARY		● CANADA ● NETHERLANDS	AUSTRIA ● SWEDEN ● FINLAND	● PAKISTAN† ● EGYPT† ● SAUDI ARABIA†
200			● PORTUGAL TURKEY†		LIBYA†
100			● GREECE	● AUSTRALIA	● SYRIA† ● ARGENTINA†
60		● CUBA †	● NORWAY		SINGAPORE† PERU†
35			● DENMARK	● SOUTH AFRICA	● TAIWAN† INDIA† ● CHILE†

● Ratio or log scale; equal vertical distances represent equal ratios of value.
† "Developing country per WMEAT definition.
Underlined countries are discussed in this essay.

TRENDS

Figure 1 shows the range of arms exporting countries and puts into perspective the Third World suppliers to be highlighted in the present article. All of the countries selected are "developing" in accordance with the World Military Expenditures and Arms Transfers (WMEAT) definition of this term. [Editor's note. WMEAT classifies the following countries as *developed*: all member countries of NATO except Greece and Turkey; all Warsaw Pact members except Bulgaria; Austria, Finland, Ireland, Sweden, and Switzerland (i.e., "other Europe"); and Australia, Japan, New Zealand, and South Africa. All other nations are classed as *developing*. (WMEAT, p. 155.)]

Tables 1 and 2 summarize arms export statistics for these selected suppliers over the past ten years. These data support the following observations:

- Most of these suppliers were able to increase their exports in the period 1982-1984, even as worldwide arms transfers were leveling off and starting to decrease. However, many now appear to be feeling the impact of the recent downturn of the global arms market.[3]

Table 1
Annual Arms Exports of Selected Arms Exporters
(In Millions of 1983 dollars)

	Argentina	Brazil	China	Egypt	India	Israel	North Korea	Pakistan	Singapore	South Korea	Yugoslavia
1985	0	56	327	28	5	196	196	28	9	47	290
1984	77	483	1,837	193	19	232	367	290	10	508	556
1983	20	130	1,600	50	0	170	290	300	20	370	330
1982	0	335	1,151	356	10	408	680	21	10	994	314
1981	11	190	470	34	22	392	644	45	45	291	325
1980	6	169	327	0	36	169	230	12	0	303	303
1979	13	145	185	13	40	343	119	13	26	238	224
1978	0	143	242	114	29	185	128	43	29	100	585
1977	8	123	170	77	77	93	31	8	15	170	370
1976	0	114	229	0	16	245	131	0	33	8	278

Table 2
World Ranking of Selected Arms Exporters, 1976-1985

	Argentina	Brazil	China	Egypt	India	Israel	North Korea	Pakistan	Singapore	South Korea	Yugoslavia
1985	--	25	9	31	37	15	16	32	34	28	12
1984	33	14	5	25	40	22	16	19	43	13	12
1983	37	26	6	31	--	25	20	18	39	10	14
1982	--	18	5	17	41	14	11	36	44	8	19
1981	40	21	12	35	37	13	9	30	31	19	17
1980	39	17	10	--	30	18	13	36	--	11	12
1979	36	17	14	37	33	10	20	38	35	12	13
1978	--	17	12	20	32	15	19	31	35	25	19
1977	40	16	13	23	24	20	30	43	38	14	10
1976	--	19	13	--	33	12	18	--	31	38	10

- Despite increased exports in recent years, most countries did not dramatically improve their relative position *vis-a-vis* other exporters. South Korea, for example, ranked twelfth in 1979 and thirteenth in 1984, despite a doubling of exports. Brazil was seventeenth in 1979 and fourteenth in 1984, even though exports had tripled in this period.

- Apart from China, the countries listed in Tables 1 and 2 are all suppliers of decidedly second rank. Even the larger exporters (North Korea, South Korea, and Yugoslavia) export less than half the volume of arms that China and other major countries do.

- Market competition is intense and susceptible to large year-to-year fluctuations. Of interest are Israel's general decline in the ranking since 1979, significant drops (over fifty percent) in transfers between 1982 and 1983 for such countries as North and South Korea, Brazil, and Egypt, and major reductions practically across the board in 1985.

- Interesting patterns within regions also emerge. Brazil maintains a clear lead over Argentina, the only other significant Latin American arms supplier. Pakistan's edge in exports over India is perhaps surprising, given the much greater size and diversification of India's defense industry. However, this edge is primarily due to troop support costs for Pakistani manpower, which is prominent in many Middle East military establishments, particularly Saudi Arabia.

The graphs in Figure 2 on the following page provide a perspective on the regional patten of exports by these suppliers over the past five years. Two significant conclusions flow from these data:

- Most of these countries depend heavily for their markets on the Middle East. This is understandable since a greater proportion of world arms transfers goes to this region than to any other (approximately 49 percent in recent years). However, the dependence of many Third World suppliers on Middle East markets is much higher, and it has been increasing over the past five years.

- Most of these countries do not have a regionally balanced arms transfer pattern. Apart from a general dependence on the Middle East, none of these suppliers approaches a market distribution resembling the worldwide pattern of arms transfers represented in Fig. 3. For example, Brazil, Argentina, and Israel all have major dependence on Latin American markets.

The accompanying box (on page 76) lists some of the major weapons produced by selected Third World suppliers. Most of these systems are low to medium technology, based on licensed production or copies of older weapons, and have not been exported in large numbers. For example, with the exception of the Israeli Merkava, other producer's tanks do not have the sophisticated fire control systems and optics of modern tanks built by the major suppliers. Moreover, according to ACDA data, Third World suppliers to date have not exported a significant portion of the tanks, artillery, warships, or aircraft involved in the world arms trade, probably deriving more business from the supply of infantry support weapons and munitions of various types. Two cross-cutting trends--recognition of the battlefield value of high technology "smart" weapons, demonstrated in Lebanon and the Falklands in 1982, and the enduring demand for simple, rugged weapons and enormous quantities of ammunition, exemplified in the Iran-Iraq war--suggests that Third World suppliers could theoretically pursue either end of the market. In reality, however, few Third World suppliers will be able to compete in the high end of the market.

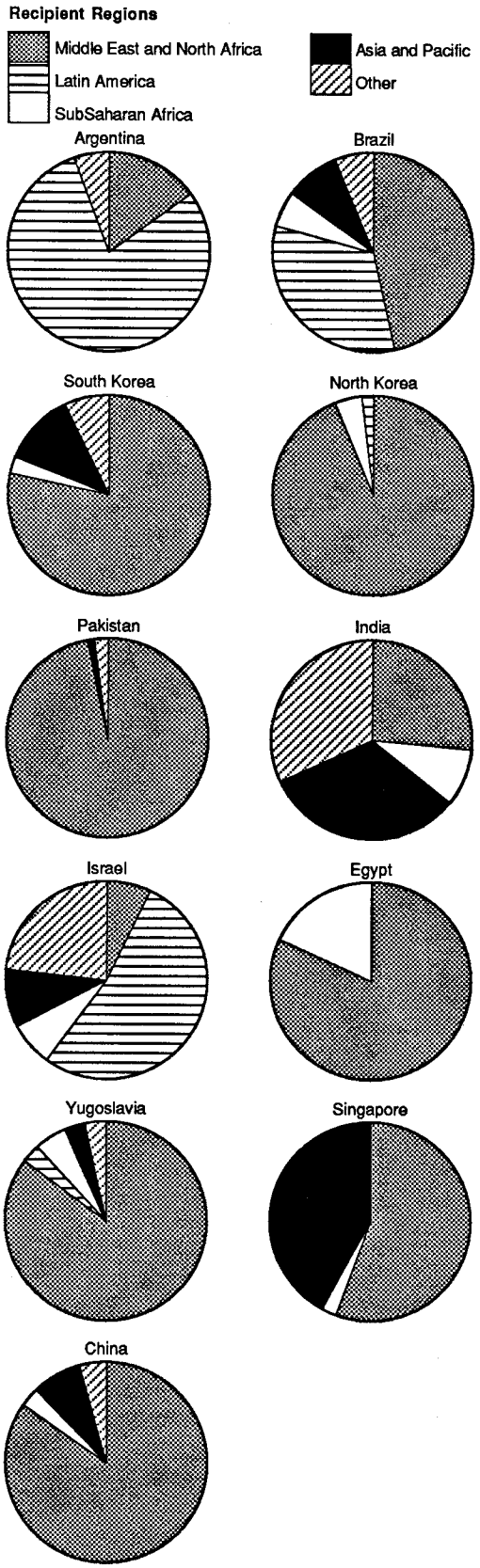
LIMITATIONS

While the increased role of Third World arms suppliers in the international arms trade can be demonstrated, projections are complicated by a number of potential financial, technical, economic, and political constraints. Whether the trend will revolutionize the global arms trade and have a major impact on world politics will depend to a large extend on whether Third World suppliers can overcome these serious limitations.

The financial issue boils down to whether, in a world of substantial debt servicing burdens, falling commodity prices, and shrinking foreign aid resources, Third World countries can afford to import the technology and training required to produce modern weapons systems. For example, the U.S. has underwritten the one billion dollar development cost for the Israeli Lavi combat aircraft--funding which has been crucial to sustain the Lavi program. Few countries, however, will be able to build an aircraft that costs $15 to $22 million a copy. U.S. assistance for the Korean indigenous tank has been substantial, and U.S. help for the expansion of Egyptian and Pakistani defense industries will be essential for the development of military production in these countries over the next 5-10 years. The U.S. and other major suppliers are now under pressure to support weapons sales through coproduction or other offset arrangements that ultimately will lead to increased Third World capabilities and competition. However, the continued willingness of these suppliers to provide such support hangs as a question mark over the future development of Third World arms industries.

Technical constraints are closely related in the sense that technology transfer is also a developmental necessity not guaranteed and not fully within the control of would-be suppliers. To use the Lavi as an example again, more than 100 U.S. companies are involved in providing components for this "indigenous" aircraft. From the engine to the winds to the flight control computer and heads-up display, U.S. technology is broadly incorporated in the Lavi. A similar range of foreign technology will be required for India to produce its Light Combat Aircraft (LCA). Whether most of this technology will come from the U.S. or from

FIGURE 2: Arms Exportations of Selected Supplies, 1981- 1985



PRODUCERS AND PRODUCTS

Argentina: TAM medium tank; IA-58 Pucara counter-insurgency aircraft; IA-63 Pampa trainer/attack aircraft; Hughes 500/300 helicopters; utility aircraft including Piper and Cessna; and 105mm rocket launchers.

Brazil: EE-T1 (Osorio) and MB-3 (Tamoyo) tanks; Urutu and Cascavel armored personnel carriers; Astros-II multiple rocket launcher; EMB-312 Tucano trainer aircraft; EMB 110 Bandeirante and EMB 120 Brasilia transport aircraft; and Gaviao and Esquilo helicopters.

China: Type 69 tank; various artillery including 152mm self-propelled howitzers; multiple rocket launchers (107mm-103mm); F-7 and F-8 fighters; B-6 bomber; and a range of naval vessels.

Egypt: artillery including 122mm howitzers and 130mm gun; Swingfire anti-tank guided missile; ZSU-23 air defense gun; Alpha Jet trainer/attack aircraft; Gazelle helicopter; and Hawkeye man-portable surface-to-air missiles.

India: Vijayanta and Arjun tanks; Vijayanta 130mm self-propelled gun; Godavari-class frigate; MIG 21/23/27 fighter; S-315 Cheetah helicopter; and Atoll air-to-air missiles.

Israel: Merkava tank; Mar 290mm rocket launcher; Kfir fighter; Arva transport; Gabriel anti-ship missile; and Shafrir and Python air-to-air missles.

North Korea: T-62 tank; Type 303 armored personnel carrier; artillery including 122mm/130mm/152mm self-propelled weapons; various classes of coastal patrol boats; MI-2 Hoplite helicopter; SA-7 surface-to-air missile; and AT-3 anti-tank guided missiles.

South Korea: Daewoo infantry fighting vehicle; 105mm/155mm howitzers; Vulcan air defense gun; coastal patrol boats; F-5E fighter; and Hughes 500 helicopters.

Pakistan: 120mm mortar; Muschsak trainer aircraft; various infantry weapons and munitions, including RPG-7 anti-tank rocket launchers and 106mm recoilless rifles.

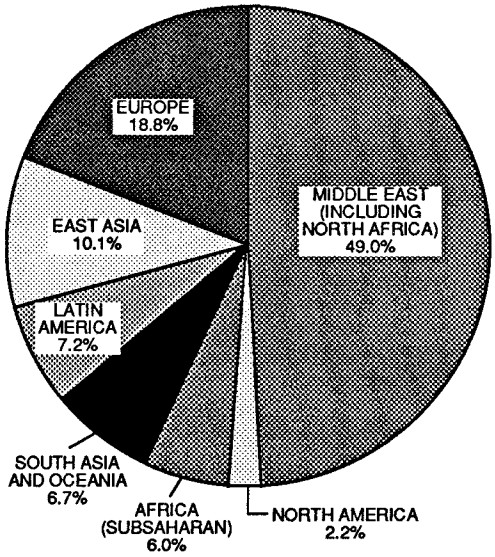
Singapore: 120mm mortar; coastal patrol boats; various infantry weapons including Ultimax 100 light machine gun and SAR-80 rifles.

Yugoslavia: T-72 tank:various infantry combat vehicles; field and air defense artillery guns; Galeb and Utva trainer aircraft; Gazelle helicopter; and AT-3 anti-tank guided missiles.

Western Europe is not yet clear. However, if the Indians insist on producing high-tech "indigenous" aircraft, the technology will have to come mainly from abroad. Foreign equipment inputs to the Brazilian EE-T1 (Osorio) light tank are also instructive in this regard. The tank incorporates a West German engine, transmission, and tracks, a British suspension system, and British or French main gun and fire control system.

In a broader sense, the financial and technical constraints discussed above can be viewed as aspects of the political limitations facing Third World arms suppliers. Financial assistance and technology transfer are political decisions by major arms producers, which are based on a dynamic calculus of strategic, political, and economic self-interest. The extent to which such decisions create new problems--increased competition, loss of control, new centers of power -- is likely to serve

FIGURE 3: Regional Shares of World Arms Imports, 1981 - 1985



as growing restraint on additional transfers. Furthermore, these transfers of assistance and technology provide a measure of political control in that the supplier has at leas the theoretical possibility of influencing the Third World producer's international marketing efforts. U.S. law, for example, prohibits the retransfer to a third party of any U.S. equipment or system containing U.S. components without the prior approval of the U.S. Government. Although Israel undoubtedly hopes to market the Lavi and its Merkava main battle tank abroad, it needs specific authorization from the U.S. to do so. If such approval is given, these Israeli systems could be competing directly with U.S. tanks and fighter aircraft for foreign sales.

The choices are likely to be even more stark for major Western European suppliers, whose arms industries are more dependent upon arms exports than is the defense industry in the United States. Failure to control the marketing of licensed production by Third World suppliers could have a serious impact on British and French arms industries, for example, and make it even more expensive for these countries to equip their own forces. The crunch is likely to come because most Third World producers will probably find themselves in a situation even more acute than that of the British and French in being faced with a relatively small internal market and a consequent need to export to maintain their defense industrial base.

Moreover, political constraints could be imposed by Third World producers on the own efforts. The desire to secure political influence in certain countries, to coordinate policies with important allies, or to limit the impact of foreign sales on a country's own armed forces can influence decisions to sell arms abroad even in the case of secondary suppliers. Even Brazil, for example, whose arms export policy is almost totally driven by commercial factors, has recently been supportive of U.S. efforts to restrict arms sales to Libya. India is another case in point. Although India possesses the largest arms industry in the Third World, the volume of India's armed exports is small, owing to the large demands of its own forces, its dependence on restrictive licensed production, and its desire to maintain political standing in non-aligned fora. None of these considerations lends itself to an effort to maximize international sales. Finally, Israel, reacting to recurrent "scandals" involving Israeli arms dealers, recently announced measures to insure stricter administration of arms exports. It is even possible that some sort or Knesset review of the Israeli arms sales process could evolve over the next few years. More dramatically, in response to the recent U.S. report to Congress on the South African arms embargo, Tel Aviv has announced a ban on future defense agreements with South Africa and is considering other ways of down-grading its military ties to Pretoria.

And then there are the economic limitations. Although some secondary suppliers have thus far not been substantially affected by overall reduced demand in the world arms market, this trend, if it should continue, could eventually have a serious impact on Third World suppliers. Reduced funds, completion of procurement cycles, and programs to extend the service life of old equipment rather than purchasing new are all likely to undercut the smaller producers' ability to sell. Financing arrangments for major weapons purchases are likely to be difficult for Third World suppliers to support, and the proliferation of suppliers will make the market more competitive and survival more problematic.

Finally, the extent to which the markets for Third World producers are dependent upon transitory conditions needs to be considered. The heavy orientation of some suppliers toward the Middle East market has been previously noted. Much of this trade has resulted directly from the Iran-Iraq war and from U.S. efforts to restrict the flow of arms from major suppliers to the belligerents. A resolution of the conflict, recission of the U.S. embargo, or policy choices on the part of major suppliers could substantially reduce this important market. The over-dependence of secondary suppliers on the Middle East market is a basic weakness, and most Third World suppliers have yet to demonstrate a capability to diversify markets for long-term stability and growth.

PROSPECTS

Notwithstanding such limitations, there are certain factors stimulating the growth of arms industries in the Third World that are unlikely to change in the near term. Whether for primary economic motives (e.g., Brazil, Argentina), security considerations (e.g., Israel, North and South Korea), or desires for self-sufficiency in arms supply (e.g., Egypt and India), Third World producers are likely to continue to play an important role in the world arms market.

The proliferation of Third World producers has been paralleled by a widespread desire for diversification among arms recipients in an effort to gain leverage on their major or sole suppliers. The goal of diversification has perhaps been most intense in countries with longstanding arms relationships to Moscow such as India, Algeria, North Yemen, and even Syria. Dissatisfaction with the performance of Soviet military equipment, with the standards of Soviet military training and support, with Soviet arrogance and unwillingness to provide technology transfer and assistance programs that would lead to military independence have all been responsible for this trend. This situation, coupled with what could be a less ambitious Soviet Third World policy under Mikhail Gorbachev, should help to open markets for Third World producers.

One aspect of the arms market that could provide momentum for Third World producers is the potential for refurbishment and upgrade of existing equipment. If (as seems probable) the near-term global economic situation tends to restrict the purchase of expensive new weapons, many countries may turn to upgrades to prolong the life of equipment already in service. Some Third World producers have, or are developing, capabilities to provide this kind of service, including Singapore, Brazil, Israel, Egypt, Pakistan, and India. Israeli-developed reactive armor, for example, provides a simple and relatively inexpensive way to enhance armor protection for tanks and armored personnel carriers. This type of upgrade is likely to be attractive to cash-strapped armed forces in many countries.

Another favorable development for some Third World producers is the extent to which they are currently receiving foreign support in expanding their defense industries. U.S. assistance to Israel in this regard is widely known and highlighted by the extent of technological and financial assistance provided for the Lavi program. Brazil and Italy are collaborating on the AMX fighter, and the Argentines have an agreement with the Italians to co-produce a remotely piloted vehicle. A 1984 U.S.-Pakistani agreement on defense industrial cooperation is intended to facilitate the flow of technological and industrial information to Pakistan. Specific areas for cooperation include ammunition production, tank upgrade and rebuild, development of aircraft and shipyard overhaul capabilities, and production and maintenance of electro-optics and electronics. Egypt has received industrial base assistance through assembly and licensed production arrangements for British, French, and U.S. weapons, while India has made similar arrangements and is seeking additional ones from these and other countries, including the Soviet Union.

On another level, the pooling of resources may provide a partial solution for the problems facing Third World producers. Just as production consortia have become common in Europe (the British-French Jaguar, British-German-Italian Tornado, and French-German Euromissile corporation, are examples), cooperative bilateral and multilateral arrangements among Third World arms manufacturers could also be developed. For example:

- A revitalization of the Arab Organization for Industrialization, originally formed in 1975 but which became a victim of the Camp David Accords, could enhance the defense industrial potential of Egypt and other Arab states.

- Other Arab capabilities could eventually develop through the creation of a Gulf Cooperation Council (GCC) arms industry as envisaged under a 1979 agreement which predates the founding of the GCC itself. Recent indications that the Saudis are planning to purchase a

munitions manufacturing capability from West Germany, an anti-tank missile production facility from the U.S., and the likelihood of some kind of licensed-manufacture or assembly arrangement for Brazilian tanks (if the Saudis buy Brazilian) suggest some of the possibilities. Moreover, in the fall of 1986, GCC defense ministers adopted a resolution dealing with the expansion of arms production in member countries, suggesting that the GCC is indeed serious about this program.

- Brazil's recent political rapproachment with Argentina and trends in economic cooperation between the two countries suggest the possibility of a fledgling Latin American arms consortium. In fact, Brazil and Argentina have signed an agreement to build a replacement for the Brazilian Bandeirante civil-military transport aircraft. This arrangement marks the first co-production agreement to date between the two largest arms manufactures in Latin America and may be a harbinger of future arms cooperation.

CONCLUSION

Even with some pooling of resources, none of the Third World arms producers would appear to have the capability to escape the ranks of the secondary suppliers. Despite the diversification of arms manufacturers and the significance of this development for certain producers and recipients, the international arms trade will continue to be dominated by the major suppliers. Indeed, the Third World exporters' share of the world arms market dropped to 7 percent in 1985--barely above the level of a decade ago.

Some Third World producers, however, may be able to influence the international arms market in another way. By increasing their own self-sufficiency in arms, they may reduce the total world demand for arms imports. The following percentage shares of total Third World arms imports in 1981-1985 show that eight countries accounted for over half the total.

Iraq	15.9	Syria	5.9	India	4.0
Saudi Arabia	9.8	Egypt	4.7	Israel	2.7
Libya	6.9	Iran	4.2	All Others	45.9

At lease four of these countries--Egypt, India, Saudi Arabia, and Israel--have the potential for and are actively pursuing policies geared toward expanding indigenous arms production. Such production in the largest market countries could have an important impact on both the size and pattern of the international arms market. The longer term significance of producer proliferation, therefore, may not be in the direction of stimulating greater arms transfers, but of promoting local and regional arms autarky.

NOTES:

1. "Third World" as used herein refers to the non-NATO and non-Warsaw Pact developing countries.

2. These estimates are based on revised data for 1984, as shown in this edition of *World Military Expenditures and Arms Transfers* (WMEAT). The previous edition (WMEAT 1985) had indicated that the non-NATO and Pact share of the world market had reached 19 percent in 1984 and that the combined U.S.-Soviet share had declined from 78 percent in 1973 to under 50 percent in 1984. Current estimates place the U.S.-and-Soviet share above 50 percent in 1984 and higher in 1985, according to preliminary data. A current review of estimates of Soviet arms transfers in value terms may raise this share even higher in future editions.

3. Available 1985 data, however, are preliminary and are likely to be revised upward when more complete information becomes available.

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