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Soviet arms exports to the Third World: a pattern and its implications

RAYMOND HUTCHINGS

The observable similarity between the rhythms of Soviet defence spending and Soviet arms deliveries to the Third World raises the possibility of an important and as yet little heeded causal factor in international crises.

SOVIET support of individual countries in the Third World, or of particular factions in them, either directly or vicariously, has become a major issue in international relations. Among the means at the disposal of the Soviet Union to influence events in this part of the world, weapons occupy an increasingly prominent place, due both to the growing volume of weapons exports and to their capability to place recipients in a stronger position.

The motives of the Communist countries for selling arms have sometimes been alleged to be non-economic. Thus, according to the Stockholm International Peace Research Institute (SIPRI), 'the economic gains which the Soviet Union has made by supplying weapons to developing countries are negligible', and 'there seems no significant pressure to export, on the supply side, in the Soviet Union'.¹ While Soviet arms deliveries to the Third World have been on a scale that cannot have failed to be of substantial importance to the Soviet balance of payments, the latter is not the only dimension in which to measure the impact of economics. If, as cannot be doubted, the economic structure of capitalism affects the arms trade, what can be said in this connexion about the economic structure of Communist countries?

This article argues that the timetable of the Soviet long-term economic plans has very probably exerted a major influence upon the timing of Soviet arms deliveries to the Third World. If this is so, the timing of

¹ SIPRI, *The Arms Trade with the Third World* (Stockholm: Almqvist and Wicksell, 1971), pp. 182-3; cf. SIPRI, *The Arms Trade with the Third World* (Harmondsworth: Penguin Books, 1975), pp. 78-9.

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many events of great importance in the post-war international scene must have been affected by the rhythms of Soviet planning.

The pattern

The Soviet Union publishes no statistics about its arms deliveries, but SIPRI has compiled and published its own figures upon which this analysis rests.³ The annual series covering the period 1950 to 1975 inclusive reveals two regularities which although plainly exhibited have not attracted the attention they deserve: (i) The overall trend of Soviet 'major arms' exports to the Third World rises steeply and almost uninterrupted. This is seen especially clearly when a moving average⁴ with a duration of five years is calculated. (ii) Their annual totals fluctuate in a rather regular, rhythmical or cyclical manner, the duration of this cycle being about five years.

'Major arms' comprise aircraft, naval vessels, armoured fighting vehicles, and missiles. Several categories of weapons are therefore excluded. SIPRI believes 'major arms' to include just under half the total of Soviet arms exports to the Third World, which latter term signifies here Africa, including South Africa; Asia, excluding the USSR, China and Japan; Latin America; and Greece and Turkey. The SIPRI totals—and consequently this analysis—do not distinguish between arms supplied by trade or by aid. Let us now look at the two above-mentioned regularities individually.

(i) Soviet exports of major arms to the Third World have become huge. As reckoned by SIPRI in US dollars at 1973 prices, in each of the years 1973, 1974 and 1975 they exceeded \$1.5 billion (see Table 1). And the

Table 1

Soviet Exports of Major Arms to the Third World
(US \$m. at 1973 prices)

Year	Year	Year	Year	Year	Year
1950	25	1955	66	1960	165
1951	43	1956	148	1961	391
1952	28	1957	256	1962	786
1953	176	1958	196	1963	329
1954	9	1959	111	1964	287
				1965	408
				1966	608
				1967	1013
				1968	892
				1969	870
				1970	836
				1971	1085
				1972	726
				1973	1542
				1974	1540
				1975	1652

Source: Stockholm International Peace Research Institute, *World Armaments and Disarmament, SIPRI Yearbook 1976* (1976), pp. 252-3.

³ The series appearing in successive versions put out by SIPRI are not identical. For some comments on differences between the series, see the present writer's longer article in *Osteuropa-Wirtschaft* mentioned above; also the Central Intelligence Agency's *Communist Aid to the Less Developed Countries of the Free World, 1976* (August 1977), Table 5 and Figure 1.

⁴ A moving average of annual quantities is reckoned as the arithmetical average of the annual totals of a fixed number of years, of which the given year is the middle one. Such an average will obscure any fluctuation which has a periodicity equal to this fixed number.

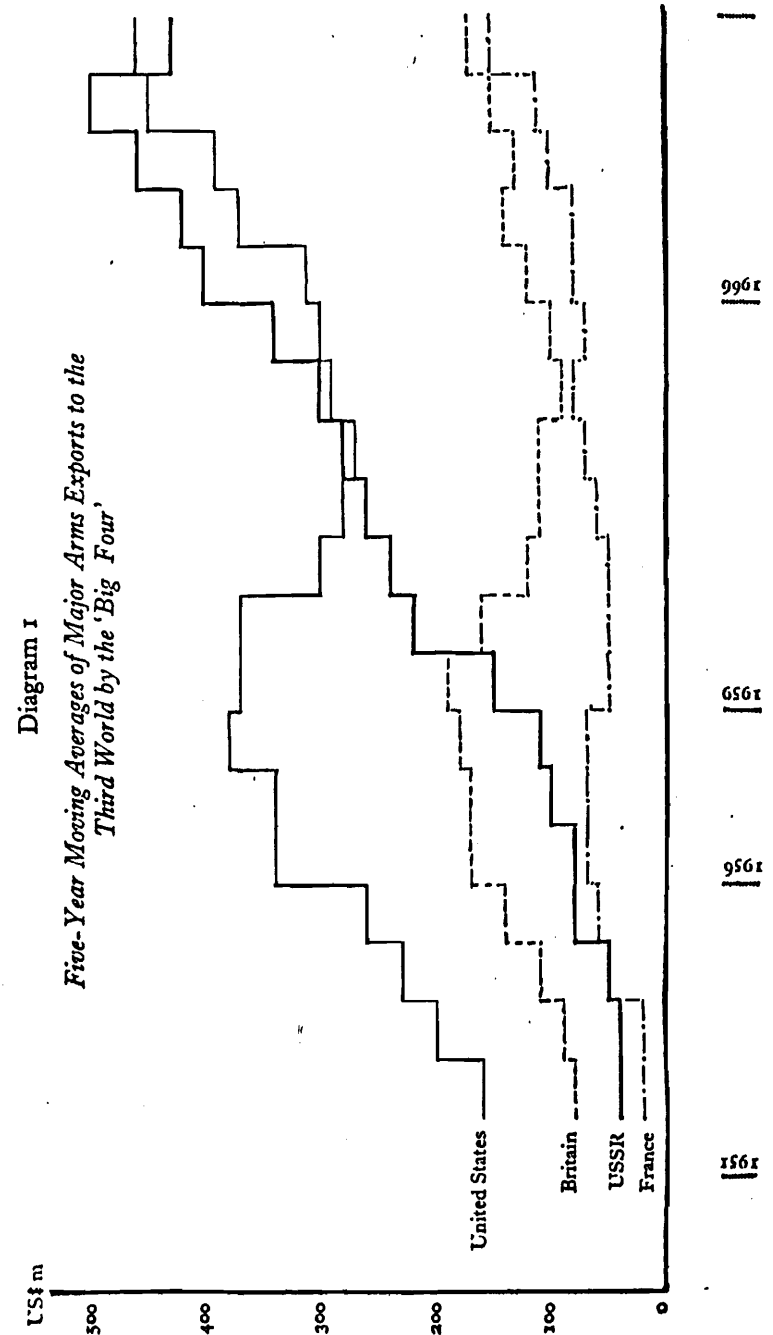
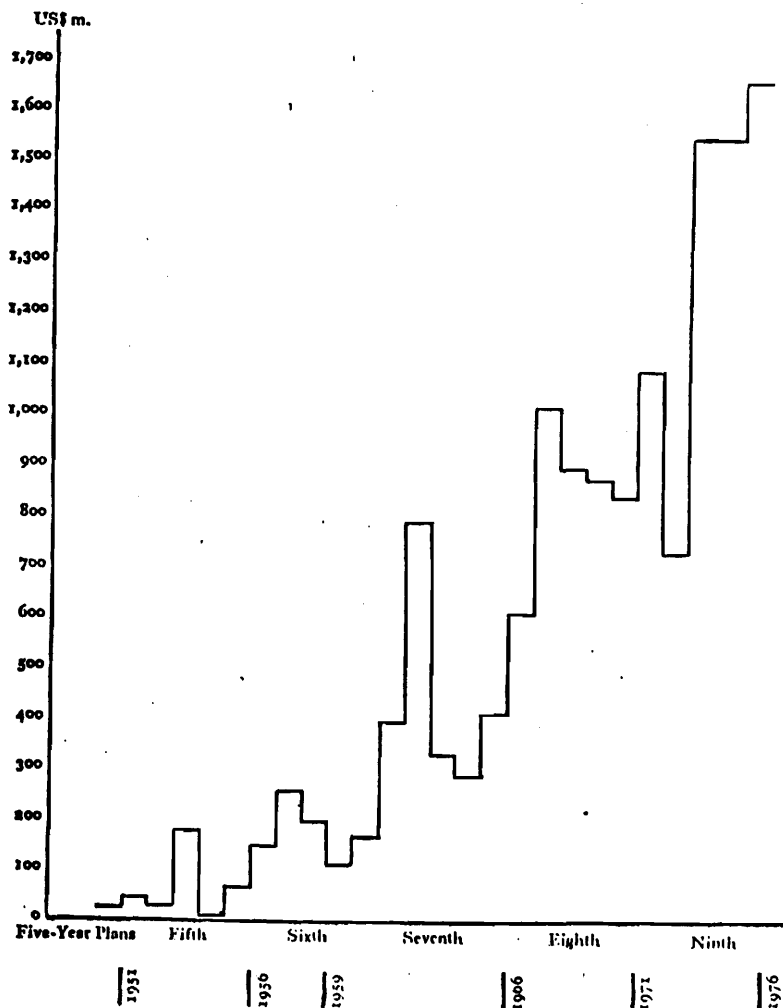


Diagram 2

Annual Totals of Soviet Major Arms Exports to the Third World

Soviet Union does not export only major arms, or export arms solely to developing countries. The almost continuously rising trend of Soviet exports of major arms to the Third World contrasts with similarly reckoned averages of exports to those countries from the other principal arms suppliers—the United States, France and Britain. As Diagram 1 shows, exports by these three countries have risen less steeply and consistently. Although over about the last two-fifths of the period examined

here the two super-power trends were approximately parallel, it was the US gradient that drew closer to the Soviet trend, rather than the other way round. The remarkably steady Soviet gradient puts one in mind of some more consistent influence than would be likely to stem from the variable tempos of international relations. If one seeks instead a linearly increasing quantity, it may be relevant that such quantities can be found in Soviet economic development.⁴

(ii) Going behind the moving average to the annual totals, we obtain Diagram 2—the most prominent feature of which is a marked fluctuation. By eye, this seems to rise and fall with a wavelength of about five years, which fits the fact that it is virtually eliminated by a moving average of this duration.⁵ While this fluctuation is immediately visible, especially if one draws attention to such regularities as the accelerated growth from the final year of a five-year plan to the second year of the next five-year plan in each of the Fifth, Sixth and notional Seventh⁶ five-year plans, it is confirmed by less subjective analytical tests.⁷

The reasons

What are the origins of this fluctuation? Conceivably, it might simply reflect a correspondingly varying total demand for Soviet arms from the Third World in general. However, this is very unlikely. In that case there should be a strong possibility that sales of arms from other major suppliers would exhibit a similar pattern. In fact, however, year to year changes in exports of major arms to the Third World from the United States and the Soviet Union are statistically uncorrelated. Moreover, whereas the USSR repeats the sequence described in footnote 7 (up-down-down-up-up), none of the other suppliers exhibits any given sequence; there is also no common sequence of the suppliers during any span corresponding to a Soviet five-year plan, except only of the United States and Britain during the Seventh Plan (down-up-down-up-down in each case). It is also extremely unlikely that any autonomous rhythm in international affairs which was reflected in the Third World's demand

⁴ For instance, this has been true in certain periods of Soviet budget revenues and expenditures, and of Soviet electric power output.

⁵ See above, note 3.

⁶ A notional 'Seventh Five-Year Plan' is interpolated here between the Sixth Five-Year Plan, which is assumed to have run its full course, i.e. from 1956 to 1960 inclusive, although it was claimed to have been superseded in 1957 by a Seven-Year Plan which began in 1959. The interpolation is consistent with some subsequent official statements and with various practical results although not with the contemporary nomenclature.

⁷ These show that (a) each of the Sixth, Seventh and Eighth Plans records a sequence up-down-down-up-up of arms exports from each year to the next (beginning with the first year in each Plan), which would be unlikely by pure chance since over a five-year span, if a total can either rise or fall, there can be thirty-two possible different sequences, and (b) measurement of the fluctuation (by adapting an index originally devised by this author to measure seasonality) yields very similar results for each of these three five-year plans.

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— for arms would adopt a quinquennial cycle. The broadest post-war trend affecting the Third World—decolonization, which is directly relevant to the demand for arms supplies—has had a very irregular timing.

No doubt, various events external to the USSR, such as wars, fears of wars, and the consolidation of tyrannical regimes, could and did influence the series; but they seem to have affected the destinations of Soviet arms exports more than their annual totals. This is clearly shown in the SIPRI statistics in geographical cross-section. In 1967, for example, by far the largest increase was in Soviet arms supplied to the Middle East—doubtless to Arab countries in the wake of their huge losses of equipment in the Six-Day War. Soviet exports of major arms to the Middle East rose from 84.0 (US \$m. at 1973 prices) in 1966 to 522.7 in 1967—a more than sixfold increase. Soviet exports of major arms to all Third World countries not quite doubled over the same period.*

Apart from direct evidence, the proposition that destinations will be more variable than totals, is made overwhelmingly probable by the following considerations. First, this is simply a particular application of the statistical norm that parts tend to be more variable than the whole. Second, the USSR is a planned economy, with little surplus productive capacity. Sharp variations in arms exports in response to variations in external demand would make the planning of arms stocks, and any rational planning of arms production, impossible. A market economy, being unplanned and possessing surplus capacity, is far better equipped to respond to such variations. Thirdly, Soviet foreign policy—being untrammelled by interest groups among Soviet citizens, in stark contrast to the situation in Western countries and especially in the United States—has exceptional political flexibility in switching its deliveries to alternative destinations. If proof is required of this statement, recent events in the Horn of Africa supply it. Thus, both the recorded facts and theoretical arguments point to the conclusion that external events would impinge on the destinations of Soviet arms exports more than upon their total amounts.

Of course, this does not mean that the Soviet Union, once its international interests are strongly engaged, will necessarily limit its response to redistributing shipments that would have been made anyway to the Third World in general: but this would probably be the first reaction. Redistribution may also extend to shipments that in other circumstances would have been made from the USSR to bloc countries, which may even be required to deplete their own stocks. Finally, adjustments can be made to the total volume of exports. The less regular fluctuation in 1966–70 perhaps shows that external influences were then starting to rival the internal ones.

The Middle Eastern wars of 1967 and 1973 coincided with years when

* SIPRI, *The Arms Trade with the Third World* (1975), Table 6 (pp. 82–3).

Soviet shipments of arms to the Third World rose sharply, but while these increases were certainly not accidental, those events need not have compelled such a massive Soviet response. Moreover, it is by no means impossible that the causation was the other way: larger supplies of Soviet arms tending to precipitate the conflict. Similarly, the massive airlift of Soviet arms to Ethiopia in 1977–8 is currently enabling that empire to overwhelm the Eritrean secessionists. Middle Eastern wars cannot account for the peaks in arms exports in 1953 and 1962, which respectively were the third year of the Soviet Fifth Five-Year Plan and the second year of a notional Seventh Five-Year Plan—the peaks in those years matching the dominating rhythm of Soviet arms exports to the Third World.

External events not being unambiguously assignable as the cause, we might consider whether internal events, in particular the most important and regular of these—the Soviet long-term plans—might be responsible. Could one surmise that the fluctuation in arms deliveries is mainly governed by the timetable of these plans? Let us see what evidence can be adduced for or against this hypothesis.

It might be urged against it that the Soviet Union could not then be sufficiently responsive to external happenings, and so would fail to seize all conceivable opportunities. But such opportunities would be much more likely to emerge in the direction of giving support to particular countries or factions than in the direction of maximizing total exports of arms.

As regards evidence in favour, can any realistic mechanism connect arms exports with the chronology of the five-year plans? Three angles of approach seem to offer promise: (a) production generally, (b) foreign trade generally, and (c) defence spending.

(a) The USSR constantly renews its stock of military material, and Soviet-type production plans tend to make production runs to a chronological line. Over a range of items that line would surely be blurred, and that range being extremely wide, surpluses and shortages would be unlikely to emerge overall in such a pronounced manner as to evoke the observed fluctuation in exports. However, as 'major arms' tend to involve unusually long lead-times in their production, their output might vary unusually markedly or unusually regularly, this variation being reflected also in exports. It can be presumed that unless foreign policy considerations supervene, arms supplies go first to the Soviet armed forces, then to allied countries and last to others. With a six-year cycle starting in the first year of a five-year plan,* exports to the Third World would thus surge upwards in the second year of each five-year plan (except the first). This timing is actually the most common case, as shown in Diagram 2.

(b) If Communist economies concentrated their imports in the closing

* This phasing is based on M. Chechinski, 'Structural Causes of Soviet Arms Exports', *Osteuropa-Wirtschaft*, No. 3, 1977.

years of their plans, which in general are synchronized, imports into all these countries would rise at about the same time. If production did not adopt the same sequence—and there is in fact some tendency for growth rates of production to be higher in the middle years of long-term economic plans—there would be mistiming between each country's production and its imports, and consequently also (neglecting times of transit, which are small between most Soviet bloc countries as they are mostly adjacent to each other) between each country's production and its exports to other Communist countries. What could the country do to neutralize the effects of such mistiming, short of revising its planning timetable? One imaginable solution would be for it to export to economies that were not synchronized with its own at times that dovetailed with the low points of its exports to the plan-synchronized group. Supposing that this rhythm applied to arms exports to Third World countries—the only customers for arms from the Soviet bloc, apart from other bloc countries—such exports would tend to be concentrated in years other than the closing years of the bloc countries' five-year plans. The observed peaking of arms exports from the Soviet Union to the Third World, usually in the second year of the Soviet five-year plan, matches this imagined reaction.

(c) As the present writer has shown elsewhere,¹⁰ sums assigned for defence (in Russian: *oborona*) as a proportion of Soviet total budget expenditure tend to rise towards the mid-point of a Soviet long-term plan and to decline towards its end. While not an invariable or altogether regular sequence, this happens often enough and regularly enough to be interpretable as a non-random variation, especially as a reason for it can be discovered. For spending on the economy (i.e. investment and subsidies for economic purposes) should be highest at the start and end of each long-term plan in order to get the plan off to a good start and to bring it to a successful conclusion. If there is a ceiling on total spending at any one time—this would match a situation of no surplus productive capacity—any other heading of expenditure that is not debarred from adopting an opposite, dovetailing, rhythm, would probably have to do so. As expenditures on social welfare (pensions, health, education) are inherently rather inflexible, spending on the economy and on defence which are the only other major headings would be likely to vary in a mutually compensating manner—as, in fact, they do. The tendency for spending on defence to be highest at the middle point of long-term plans is thus the concomitant of the tendency for spending on the economy to be highest at their start and end. The assumption here is that spending on the economy is normally the independent variable. This by no means excludes the possibility that abnormal international events might upset the normal priority—as does happen on occasion.

¹⁰ See especially Raymond Hutchings, 'Fluctuation and interaction in estimates of Soviet budget expenditure', *Osteuropa-Wirtschaft*, No. 1, 1973.

Soviet defence spending thus shows a tendency to fluctuate. This fluctuation is much smaller in amplitude than that of Soviet arms exports to the Third World. However, this is to be expected, arms exports being the smaller quantity; moreover, arms are sent to a number of destinations (and as noted in (b), times of maximum delivery to the Third World may compensate for times of minimum delivery to alternative destinations) whereas defence spending has to be adjusted to the less flexible circumstances of a single one, where the link between manufacturing capacity and spending would be closer than that between manufacturing capacity and volume of exports.

Possible connexion

How might the rhythms of defence spending and of arms exports be connected? Perhaps the simplest imaginable connexion would be that, with the overcoming of a period of relatively acute stringency for defence spending, arms production could rise (or, could rise more rapidly) so that larger quantities would become available for export (amongst other purposes). We can, however, imagine less straightforward scenarios: for instance, supplying ministries might find it easier to obtain authorization to export (and thereby regulate stocks) just before an anticipated spell of peak production when stocks could be more rapidly replenished.

The statistics offer a clue to which of these alternatives is correct. Rises in arms exports mostly precede rises in defence spending by a year, rather than follow them by the same interval. Similar directions of movement are found almost twice as frequently when upward movements in arms exports precede similar movements in defence spending as when they follow them. This result was unexpected; but on reflection it strikes the present writer as much the most likely causation, especially because exports could then exert a compelling influence on production whereas the converse relationship would merely be permissive. If arms have already been exported, this would goad the affected ministries to press for larger appropriations, particularly if the exports have deprived the national armed forces of weapons that they urgently need. This having been the sequence of events following the shipment from the United States of substantial numbers of main battle tanks to Israel during the Yom Kippur war, one can expect Soviet reactions to be analogous.

But are Soviet exports of arms to the Third World large enough to determine whether Soviet spending on defence rises or falls? Although both quantities can be estimated only with substantial margins of error, the answer must be affirmative. On average, in years when the directions of change of both quantities were the same, the magnitude of the change in arms exports was about one-fifth of the change in that fraction of defence spending that might have been spent on exportable hardware (assumed here to be 40 per cent). In certain years the ratio would have

risen to about half as large. Moreover, 'major arms' includes perhaps less than half the total volume of Soviet arms exports to the Third World, and arms shipments to Soviet bloc countries are undoubtedly large also. In certain years, Soviet arms exports have become so big relative to overt defence spending that the latter must be understated. Although this conclusion would not be original (Western assessments ordinarily suppose some Soviet spending on defence to be included under headings other than *oborona*), it would have been reached by a new route.¹¹

By a quite different technique of analysis, Soviet estimates of defence spending in 1964 were previously found to have been unexpectedly small, but in 1967 to have been unexpectedly large.¹² These were years when Soviet arms exports to the Third World also were unusually small and unusually large, respectively: in 1964 they were the smallest in total for any year since 1960, while in 1967 they amounted to the biggest post-war total up to that time (see Table 1). Very possibly arms exports were curtailed in 1964 due to an unexpectedly small defence appropriation, while in 1967 they could rise due to an unexpectedly large one.

Summing up the preceding paragraphs, the rhythms of Soviet arms exports and the chronology of the Soviet five-year plans are very probably interconnected. One of the envisaged links even solves a previous puzzle. The argument does not *prove* the existence of a causal link, one way or the other: for this, direct evidence, which in the nature of the case is unlikely to become available, would be required. But evidence that falls short of proof can nevertheless be persuasive—and a valuable guide to action.

For logical completeness, one ought indeed to ask one further question: do Soviet circumstances give rise to any rhythm with a duration of about five years apart from the five-year plans? No such rhythm occurs to the present writer, and given the plans' pervasive character it appears very unlikely that any exists. Although the periodicity of congresses of the Soviet Communist Party is the same, they cannot be separated from the long-term plans since as a rule each plan is approved by the corresponding congress.

As to whether fluctuations in arms exports are cause or consequence of some other fluctuation, the arguments may appear divergent. On the one hand, such exports if they exceed a critical level can (we suppose) necessitate an appropriate alteration in production and/or in defence spending; on the other, such a result seems incompatible with a directive role of

¹¹ Analogously, Soviet spending on science can be contrasted with Soviet spending on defence. Official figures show the former as now exceeding the latter, a relationship that one analyst has called 'totally implausible'. See William T. Lee, *The Credibility of the Soviet 'Defense' Budget* (Washington: General Electric—Tempo, Center for Advanced Studies, January 1975), p. 5.

¹² Raymond Hutchings, 'Patterns of fluctuation and visibility of Soviet post-war defence expenditure', in Franz-Lothar Altmann (ed.), *Jahrbuch der Wirtschaft Osteuropas*, Band 7 (München-Wien: Gunter Olzog Verlag, 1977), pp. 278–91.

plans in the Soviet economy. Yet a way out of this apparent impasse can be found. The solution may be that variations in arms exports *both determine and are determined by* the plans' timetable. Determine, because once they have been exported there is a need to take appropriate measures, which impinge on weapons production and defence spending; are determined by, because those exports had been authorized bearing in mind how long it would take to replace them. The long-term plans being a deep-seated feature of the Soviet political and economic system, the fluctuation in arms exports to the Third World—like their continually rising trend—must be seen as strongly influenced by internal forces.

The international implications

Elsewhere, it has been suggested that Soviet foreign policy might sometimes have been manipulated by the Soviet defence authorities with the object of securing larger appropriations for themselves.¹³ Manipulation of the volume of arms exports with parallel motives would offer an analogy. If the enlarged appropriations could purchase newer weapons for the Soviet armed forces, technical improvement of those forces could even emerge as a motive for exports. Alternatively—though this probably has only marginal importance in Soviet circumstances—production runs might be lengthened, and unit costs consequently reduced. However, perhaps the likeliest normal sequence of causation is that a demand for arms from the Third World that is relatively stable from year to year (although rising in a long-term trend) comes up against a variability of Soviet willingness to supply, with the result that the pattern of supplies assumes the cyclical form already described.

The relationships uncovered in this article may have specific retrospective implications. What, in fact, determined the timing of events of such huge importance in the post-war history of international relations as the Cuban crisis of 1962? It must now be seriously considered whether that crisis was not precipitated by the rhythms of Soviet armaments production, and thence—at only a slight remove—by the timetable of the Soviet long-term plans. Factors behind the timing of the Middle Eastern wars also need to be reconsidered from this angle. Although other factors may already seem adequate to explain their timing, it may be remembered, for example, what a surprise the Yom Kippur war was at the time, not least to the Israelis. It would appear necessary to undertake a systematic investigation into the role of Soviet arms supplies as triggers for major events.¹⁴ Meanwhile, it is immediately clear that the examined relation-

¹³ See Raymond Hutchings, 'Soviet defence spending and Soviet external relations', *International Affairs*, July 1971.

¹⁴ The impact of Soviet arms supplies at particular times has been noticed by many people, and some have linked their arrival with impending conflict. For instance, according to Uri Ra'anani, arms supplied to Nasser's Egypt at least fifteen months before the Suez conflict were one of its prime causes (*Slavic*

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ships may have the ability to illustrate, and indeed explain, certain current events on the international scene. Thus, the large-scale shipments of Soviet arms that enabled Ethiopia—aided by Cuban troops and Soviet advisers or commanders—to reconquer the Ogaden, began late in 1977, which was the second year of the Soviet Tenth Five-Year Plan and precisely the year when Soviet exports of major arms to the Third World are normally at their peak. The unexpected switch of Soviet aid from Somalia to Ethiopia indicates a probable answer to a question this author set himself a year ago; namely, what would be the focus of an anticipated substantial rise in Soviet arms exports in 1977. If the two principal trends described above and their interconnexion have validity, the near future should see some falling-off in Soviet arms deliveries to the Third World in general (although their specific destinations can be varied), unless it is decided to award a higher priority to such deliveries as compared with alternative uses. In the early 1980s, however, when the cycle is due to enter another period of upswing, Soviet arms deliveries to the Third World in general are likely to rise again.

Review, December 1977, p. 689). The need now is to take the explanation a stage further, by means of interweaving the influence of the rhythms of the Soviet long-term economic plans.