

African military spending: Defence versus development?

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This paper aims to extract empirical regularities from the extensive but often contentious econometric literature on the relationship between military expenditure ('milesx') and socioeconomic development in the Third World, with special reference to Africa. It finds that African states invest in defence at low levels by global standards, and their defence burdens correspond to political, security, and economic realities. Security conditions are the main drivers of military spending, which in turn produces a complex mix of socioeconomic effects. Such relationships are not uniform across large heterogeneous groups of countries, but are mediated systematically by specific structural economic, political, and security conditions (eg resource-rich versus resource-constrained, conflict vs non-conflict, arms producers versus arms importers). Presumably, other yet-to-be-hypothesised intervening factors will also prove to be determinants of milesx-development patterns among Third World and African countries. We can state with confidence that (1) milesx produces a mix of both positive and negative effects that vary across countries; (2) its overall effects, whether positive or negative, are usually not pronounced; and (3) the modal economic impact of defence spending in the Third World is slightly negative, more so in Africa. Negative relationships between defence and development are most evident and severe in countries experiencing legitimacy/security crises and economic/budgetary constraints. Among the implications of these findings are that 'one size fits all' analytical or policy models of defence – development relationships are problematic and prone to failure. Considering that milesx provides a public good (security), its negative socioeconomic effects are not excessive, at least in states enjoying higher legitimacy, socioeconomic standards, and peace. Ironically, states that enjoy relative peace and plenty reap more economic benefits from defence spending, while those afflicted by conflict and poverty pay higher economic costs for their defence. In the larger scheme of things, conflict- and poverty-reduction efforts will likely produce more beneficial milesx-growth linkages than well-intended appeals to reduce military spending in favour of development.

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Introduction

African military expenditures have historically been but a tiny fraction of global outlays for defence. According to World Military Expenditures and Arms Transfers (WMEAT) data published by the US government, in 1979 all African states less Egypt accounted for only 1.8 per cent of worldwide military spending, and in 1989 the portion had dropped to 1.5 per cent.¹ Ten years later it had risen slightly, to 2.4 per cent, but a handful of states – the Democratic Republic of the Congo (DRC), Ethiopia, Eritrea and Nigeria – represented most of this recent growth.² In other words, since the 1970s Africa's 50 countries, representing 29 per cent of the nations covered in WMEAT, have accounted for only about 2 per cent of defence outlays worldwide.

Nevertheless, in Africa – as elsewhere – military not only competes with other public spending programmes, but also affects the allocation of available public goods and broader socioeconomic conditions. Hence the longstanding research interest in Third World defence spending has been primarily concerned with 'guns versus butter' issues, that is, whether military expenditure helps or hinders economic growth and socioeconomic development.³ Not surprisingly, the results are mixed, but most studies have demonstrated that Third World defence spending has either insignificant or somewhat negative effects on growth and socioeconomic performance, and some recent papers have explored linkages between military expenditures and conflict.⁴ Yet, despite the controversies and contradictions that continue to be generated – or more accurately, repeated – by yet further studies, clear patterns are emerging across the research results.

This paper aims to distil empirical regularities from the large, variegated, and conflicted literature on the relationship between defence spending and economic growth/development in the Third World and Africa, including both cross-national econometric analyses and salient case studies, to present a coherent crystallisation of its findings. It also seeks to determine whether the impact of military spending in African states conforms to or deviates from patterns observed in Third World studies. Finally, it deduces some implications concerning the prospects for realising greater benefits from defence spending while avoiding or offsetting its potential socioeconomic costs.

Preliminaries: Meaning, measurement, muddles and models

Before proceeding to review the substantive results of empirical research on the defence burden–economic growth relationship, we need to acknowledge its manifold methodological afflictions. Social scientists know all too well that how they define terms, conceive of relationships, specify models, and select, operationalise, and measure

variables, largely determine the results they get. In this regard, those who analyse milex are among the most vulnerable to methodological miasma, for a host of reasons.

The problems begin with data availability and quality: the data are, to be blunt, grossly inadequate, of dubious reliability, comparability, and meaning, and deficient in other significant respects. The long-suffering efforts by the Stockholm International Peace Research Institute (SIPRI) and WMEAT editors to collect, standardise and publish time series data on worldwide military spending have been both heroic and quixotic. Simultaneous reviews by Blackaby and Ohlson, and Fontanel in 1987 revealed some of these data discrepancy issues.⁵ As a concrete example of how research results can differ drastically depending on which data source is used, Chan cited a 1983 study by Deger and Smith in which WMEAT data for Africa produced a negative impact on GNP growth four times that of SIPRI, but for Latin America WMEAT showed a negative effect on GNP growth while SIPRI figures yielded a positive impact!⁶ Another analyst also evaluated the reliability of data published by WMEAT and SIPRI regarding the direction of military spending growth: over time their military expenditure estimates diverged significantly, especially in Africa and the Middle East.⁷ Scholars are truly between a rock and a hard place: these are often the only available data, so with ample qualifiers and caveats, and a few 'Hail Marys,' they march on.

Having made the first two fateful decisions – to conduct such a study, and to use one of the available datasets – analysts then face an array of tough data-related methodological choices. Aggregate data on annual defence outlays, the only measure used in many studies, may be too coarse for determining specific or even overall economic effects. Some research designs employ variants such as milex per capita, or milex as a percentage of GNP/GDP or central government expenditures. Beyond that, should analysts use annual levels or rates of change? Are the impacts of defence spending to be measured synchronically or over time? In the short, intermediate, or long terms? Still other questions: Are military budget/appropriation decisions assumed to become outlays/expenditures the same year? Are the economic effects of milex assumed or specified to be simultaneous or lagged? Furthermore, but certainly not finally, do expenditures for military personnel wages and benefits, training, equipment, housing, base construction and maintenance, weapons procurement (local or international), etc, have different economic ramifications? If the answer to this last question is yes, the analyst can stop right here: such detailed function- or account-level data are not available for most countries, certainly not over time.

As if these data-related problems are not enough, the difficulties of milex-growth research are compounded by a host of theoretical and methodological issues. Analysts have made different assumptions, postulated alternative models, used different universes or samples of cases that vary across studies, and often treated the Third World or regional groupings thereof as a single bloc of countries presumably having more commonalities than differences.

Indeed, as we shall see below, failure to control for crucial differences within and between states is at the root of the contention and confusion that continues to pervade the literature.

This paper is hardly the first to take stock of the field and point out its methodological muddles. As Chan cautioned two decades ago, “analysts need to be especially sensitive to how the differences in their data bases, country samples, and research designs can contribute to inconsistent and confusing research findings”.⁸ He also pointed out the need to distinguish between and measure both direct and indirect effects of *milex*, in the near term and over time, across a wide range of dependent variables (eg direction and rate of changes in GNP, (un)employment, inflation, capital formation, investment, foreign aid, trade, balance of payments, debt, technological changes, human resources, social services, poverty levels, income distribution, industrial development, and government budget allocations), under a variety of situations and conditions. Similarly, Dunne outlined four theoretical perspectives that prevail among analysts (neoclassical, Keynesian, institutionalist, and Marxist) and highlighted their menu of methodological choices: level of analysis/degree of abstraction, diverse concepts, varied types of analysis (eg historical, qualitative, quantitative, institutional, or some combination thereof), time period (short term, intermediate, or long term), countries or regions to be included, statistical methods (eg correlation, regression, factor analysis), different clusters of dependent variables (eg resource allocation and mobilisation, organisation of production, socio-political, external relations), and different ways to operationalise them.⁹

Fortunately, over the years a number of scholars have summarised, synthesised, and evaluated the literature on the relationship between defence spending and economic growth. These periodic appraisal exercises are a mixed blessing. On the one hand, they simplify our task of assessing the field; on the other hand, they have produced little accumulation of empirical knowledge. Unlike the study of international war, where modest progress has been made in identifying empirical patterns or causal connections, the defence burden—economic growth literature remains hotly contested. Indeed, whereas Bennett and Stam have taken our understanding of war onset and escalation to new levels by scientifically testing and evaluating the relative explanatory power of various causal theories, the guns versus butter debate remains an academic civil war zone.¹⁰

But all is not lost. Despite the methodological morass, and amidst the confusion and frustration perpetuated by those who hypothesise but don’t find uniform, consistent, or strong relationships between *milex* and growth, there is a saving paradox: that so many studies using so many different research designs and datasets have reached essentially similar but undramatic results should increase our confidence in their overall characterisations of the *milex*—growth relationship.

In the next three sections we review the findings of empirical studies of the economic impact of military spending in the Third World and Africa, and distil from this variegated

literature several significant conclusions and empirical regularities that have not been sufficiently proclaimed as reliable research results.

Milex and economic growth in the Third World

In this section we seek to answer two basic questions:

- On balance, does milex have a positive or negative effect on economic conditions in the Third World?
- To the extent that the economic impact of defence spending varies across developing countries, what factors seem to account for such variations?

As noted above, Chan surveyed the field and found more confusion than consistency. Ram listed 29 studies and tried to sort out their diversity by concluding: “There is very little evidence of an overall positive effect of defense outlays on growth in a typical case ... However, it is also difficult to say that the evidence supports the view that defense outlays have an overall negative effect on growth.”¹¹ According to Dunne, who summarised the results of 54 studies in the period 1973–1996, “military expenditure has at best no effect on growth. It is likely to have a negative impact – certainly there is no evidence of a positive effect.”¹²

More recently, Smith assessed that the “large literature ... does not seem to indicate any robust empirical regularity, whether positive or negative,” nor has the “vast empirical literature” on the determinants of economic growth “found military expenditure to be an important determinant of growth ...” In short, “the literature on military expenditure and growth is inconclusive.”¹³ He went on to argue that we should not even expect to discern empirical regularities: if defence spending and economic growth were closely related, reciprocal causality produces both negative and positive interactions between them. Moreover, when security-related variables are factored in, the relationship between milex and growth will be either positive or negative depending on whether growth or threat conditions are constant or changing. Smith concluded that “military expenditure probably does have a small negative economic effect on output in the long run – but measuring that effect requires care, sophistication and being lucky enough to get the right historical pattern of events to reveal it.”¹⁴

I agree with Smith: the absence of clear, consistent, significant bivariate associations between milex and economic development in the Third World should come as no surprise given the diversity of conditions obtaining within and between this heterogeneous grouping. Yet, while valid, universal, cross-national relationships have eluded researchers, those who have posited *intervening variables* as determinants of such relationships have

achieved a measure of progress. For example, Looney's studies have found "a consistent pattern whereby certain groups of third world countries – usually the more successful economically, the most stable politically, or those engaged in military production – derive positive impacts from military spending. Those countries less successful economically, more politically unstable, or lacking a domestic arms industry fail to derive any positive economic impacts from defense expenditures."¹⁵ Nevertheless, even the former category of states can and do suffer some negative effects, and both regime types (civilian versus military) and indigenous arms production capacity also produce a mix of positive and negative economic effects.¹⁶

Picking up on such discriminating observations, Heo's work has reinforced the importance – indeed the necessity – of controlling for key variables in the study of defence-growth relationships. As others before, in his tabularised summary of 49 empirical studies published during 1973–1998 he found no empirical or theoretical consistency, but rather a variety of findings including positive, negative, and no significant relationships. He then investigated selected economic growth-related effects of military spending in a mix of 80 developed and developing countries (including 22 African) for the period 1961–1990, using a three-sector production function model (military, non-military and external). His findings echo most of Looney's:

- The effects of defence spending on economic growth varied across countries.
- The level of defence burden had a significant effect on growth: in countries where the relationship is negative, increases negatively affect more countries; where positive, increases positively affect fewer countries.
- Lower per capita income countries experienced higher negative effects than those over \$1,000 per capita, but above that figure there was not much difference.
- Regime type had no pronounced effect on military externality effects, but did have a significant effect on non-military externality effects and on productivity in the non-military government sector.
- Arms production capability was not related to the effects of milex on growth.¹⁷

Having observed that clear and consistent global relationships between milex and development have not been found and are not likely to be discovered, due diligence obliges us to pay attention to Stewart's article, which is interesting in two respects.¹⁸ First, his results challenge analysts who contend that the effects of milex on economic growth are not consistent across countries and regions but rather depend on an array of intervening variables, particularly economic and fiscal. Second, he contests others' findings that higher levels of military spending are associated with lower growth rates

across nations. Using samples of 19 Latin American and 13 African states (varying dates, 1950–1970), Stewart found that both large defence and non-defence burdens increased economic growth over the longer term. More remarkably, the positive effect of the defence burden was more pronounced than the non-defence burden, so that increasing relative outlays for non-defence programmes will lower GDP growth over time! Since these effects were constant across regions, Stewart contended that universal generalisations can be made about the impact of milex. However, quite aside from the more complex methodological technicalities of his study, his sample of 13 African states (including four in North Africa) hardly appears representative of the continent.

We can now offer tentative answers to the two questions posed at the beginning of this section, based on empirical research results:

Question: On balance, does milex have a positive or negative effect on economic conditions in the Third World?

Answer: Milex produces a variety of both positive and negative effects, with a varying mix in different countries. Overall, its effects, whether positive or negative, are not pronounced. Rather, to the extent that one can generalise, the modal economic impact of military spending (after sorting out the pluses and minuses) is slightly negative.

Question: To the extent that the economic impact of defense spending varies across developing countries, what factors seem to account for such variations?

Answer: The economic effects of military spending vary by levels of economic poverty/prosperity, political (in)stability, and possibly arms production capability. Presumably, other yet-to-be-hypothesised intervening factors will also prove to be determinants of milex-growth patterns among Third World countries.

Milex and international debt

In addition to investigating the economic growth/development-related effects of milex, analysts have also paid some attention to whether defence spending (particularly for arms imports) affects external debt. More than twenty years ago Brzoska drew attention to the implications of the changing character and structure of arms import financing during the 1960s and 1970s: as grants were superseded by credit and cash sales, the level of external debt incurred by Third World arms importers grew substantially.¹⁹

Accordingly, in this section we seek to answer two basic questions:

- On balance, does milex have a positive or negative effect on the international debt of Third World countries?

- To the extent that the debt-related impact of defence spending varies across developing countries, what factors seem to account for such variations?

In this regard, Looney and Fredericksen sought to determine if the availability of external and internal resources affected the relationship between military spending and economic growth in 61 developing countries during the 1970s and early 1980s. Although they discerned no statistically significant relationship between *milex* and growth for the entire sample, the relationship was positive in countries with relatively unconstrained resources and negative in resource-constrained countries.²⁰ Looney then investigated whether *milex* had contributed to public debt accumulation in 77 Third World states up to 1982. Again he found no global pattern, but resource-constrained and non-arms-producing countries did accumulate higher external indebtedness.²¹ His later study of Africa, which controlled for the effects of conflict, revealed that non-conflict states enjoyed greater access to international credit (ie, higher debt) than conflict states, while the latter relied more on domestic resources and incurred greater socioeconomic costs as military spending rose.²²

The arms-related debt of the Southern Cone of South America (Argentina, Brazil, and Chile) has also been studied. Milman argued that increasing military spending and arms imports in those three countries during 1971–1983 raised foreign debt by producing negative balance of payments and driving up national budget deficits. Using simple least square regression, he found that nearly 90 per cent of their foreign debt increase was explained by variations in *milex*.²³ Recently, however, Dunne, Perlo-Freeman and Soydan (2004) used more sophisticated techniques to investigate the impact of *milex* on external debt in the same subregion in the 1980s. They found no evidence of such effects in Argentina and Brazil, but some evidence of rising debt in Chile, which was the least affected among the three countries by debt-related problems.²⁴

In the Middle East, Alami showed that Arab states' military debt – which in 1990 ranged from US\$45 billion to US\$90 billion (or 40 per cent of total debt, three-fourths of official debt, and more than two-thirds of public external debt) – was a major factor in six of the nine highly indebted Arab states studied, and also impacted civilian credit markets and the ability of these states to service and repay debts.²⁵

We can now offer tentative answers to the two questions posed at the beginning of this section, based on empirical research results:

Question: On balance, does *milex* have a positive or negative effect on the international debt of Third World countries?

Answer: With the possible exception of more highly militarised states (eg those in the Middle East), the effects of *milex* on external debt are not pronounced, may be both positive and negative, and the mix varies across countries.

Question: To the extent that the debt-related impact of defence spending varies across developing countries, what factors seem to account for such variations?

Answer: The debt-related effects of military spending vary by levels of economic poverty/prosperity, political (in)stability/conflict, and possibly arms production capability. In general, states with more resources and political stability experienced more positive effects of milex, whereas resource-constrained, conflicted, and non-arms producing countries experienced more negative effects including higher external debts. Presumably, other yet-to-be-hypothesised intervening factors will also prove to be determinants of milex-indebtedness patterns among Third World countries.

Milex and economic growth in Africa

Having surveyed the literature and drawn some conclusions about the economic effects of milex in developing countries at large, we now turn to Africa to see if the same or different relationships obtain. As previously, here we seek to answer two basic questions:

- On balance, does milex have a positive or negative effect on economic conditions in Africa?
- To the extent that the economic impact of defence spending varies across African countries, what factors seem to account for such variations?

Africa remains relatively understudied in the defence burden—economic growth debate. For example, a substantial bibliography on the economic aspects of global ‘disarmament and [defence] conversion’ listed 41 *pages* of ‘cross-national’ studies on defence spending and its economic effects, but just 46 *titles* on Africa (one-half of which were on South Africa!). Moreover, only a portion of these related specifically on defence spending!²⁶ Nevertheless, as the research summarised below demonstrates, the results of empirical evaluation of the socioeconomic effects of milex in Africa mirror the larger body of Third World studies.

Nabe conducted a cross-sectional analysis of the impact of defence spending on industrialisation in 26 African states during 1967-1976. Although he found a positive relationship between GDP manufacturing and social and economic factors of development, there was no direct relationship between defence spending and industrialisation. Furthermore, military expenditure exhibited a negative relationship to GDP manufacturing through both social and economic development factors. Ten of 11 analyses showed no significant covariation between milex and development, whereas all analyses showed positive relationships between economic and social development factors

and economic development. In short: military expenditure had neither notable positive nor negative effects on economic development.²⁷

As in earlier sections, Looney's work is of particular significance for distinguishing between conflict states and non-conflict states in Africa. However, rather than using indicators of political violence or armed conflict, his criteria related primarily to government legitimacy and effectiveness. Non-conflict states consistently displayed lower military burden and better socioeconomic performance than conflict states. Interestingly, only in the former category was military spending positively and significantly related to quality of life measures, showing that the socioeconomic effects of *milex* vary with regime characteristics. But even in conflicted states, the relative defence burden produced a mix of positive and negative outcomes for socioeconomic development indicators.²⁸

The distinction between conflict and non-conflict states also mattered in Looney's analysis of external debt, with non-conflict states relying more heavily on external public debt to cover military needs while conflict states more typically absorbed military costs internally at the expense of domestic social programmes. Finally, while non-conflict states consistently imported arms in direct proportion to their ability to pay for them, their conflicted counterparts tended to buy weapons without regard to current economic conditions, thereby imposing additional burdens on their people especially during times of austerity. In concluding, he argued that this "demonstrates the futility of attempting to generalize about the costs of military expenditures in the Third World" and in the case of Africa, "the level, composition, and ultimate socio-economic impact of military expenditures are greatly influenced by internal conditions, notabe [sic] the effectiveness of a government in either meeting or containing the demands of citizens, and the degree to which it can count on them to comply voluntarily with its policies".²⁹

In an extension of this work, Looney later analysed the effect of military spending on the socioeconomic performance of 33 African states during 1970–1982. Again the distinction between conflict and non-conflict states proved significant: the former experienced almost uniformly negative linkages between military expenditures and socioeconomic indicators, while in the latter group of countries the pattern was reversed.³⁰

Ghanaian scholar Gyimah-Brempong, using a sample of 39 African states 1973–1983, examined the effects of an increased defence burden on GDP growth rate, the mechanisms by which *milex* affected economic growth, and whether it influenced economic growth directly and independently. His results indicated that defence spending affected economic growth through its effects on investment rate and skilled labor supply to the civilian sector, military spending did not have any significant direct effect on economic growth, and overall, the effects of the defence burden on economic growth are "significantly negative".³¹ In a later study Gyimah-Brempong, this time with a sample of 40 African states 1967–1987, found a peculiar pattern in which governments

in every geographical region, and regardless of their oil-exporting or -importing status, tended to reduce defence spending when overall budget resources are increasing but to increase military spending in times of austerity. When constrained, such spending raised the defence burden when governments and their citizens were least able to afford it.³²

Taking a different approach, Mbaku investigated relationships among democracy, military spending, and economic growth in Africa during the 1980s. He found that democracy fostered growth, but defence spending retarded it. In other words, the military has larger claims on resources in dictatorships (both military and civilian), which frustrates economic development.³³

Dunne and Mohammed studied the determinants and effects of defence expenditure on a sample of 13 (supposedly) relatively homogenous sub-Saharan countries during 1967–1985. Analysing this group of countries as a whole, using different statistical techniques, they found no indication that military spending had positive economic effects, but both aggregate and individual country results showed substantial negative impacts, especially on growth, trade balance and investment.³⁴

In their literature survey on the impact of African military spending on economic growth and development, Mohammed and Thisen reviewed studies that found both positive and negative direct effects, but the overall impact was negative when indirect effects on human resources, investment, and foreign trade balance were included; no studies reported uniform or overall positive effect on economic growth. Their own modest statistical test involving 23 African countries for which consistent data were available for 1970–1991 also produced mixed results, with 44 per cent of the sample experiencing negative impacts and 30 per cent insignificant effects. In addition, countries with high and rising millex incurred substantial economic costs, those with moderate military burdens had insignificant effects, and countries with low military burdens enjoyed overall positive effects.³⁵

Another review of the African literature by Olaniyi generated the sweeping judgment that “[t]he conflicting theoretical conclusions and empirical results suggest that the demand and supply of military spending depend on and generate a complex web of sometimes opposing relations among various economic and non-economic variables within an economy. The direction and magnitude of these relationships depend on divers endogenous and exogenous factors that generate primary and secondary effects contingent on the historical realities of each country.”³⁶ He went on to apply a supply-side model to 25 African countries 1993–1994, distinguishing between substitution and externality effects of defence spending, and between agricultural economies and industrialising/mineral-exporting economies. The results showed that defence outlays had negative but statistically insignificant effects on economic growth regardless of a country’s economic basis.

In addition to the cross-national studies cited above, several empirical case studies have been conducted. Not surprisingly, South Africa has attracted the lion's share of the attention. McMillan's statistical analysis of the relationship between economic growth and defence spending in South Africa during 1950–1985 produced a mix of positive and negative effects.³⁷ A few years later Roux used a four-equation model to analyse the effects of *milex* on South African economic growth 1960–1990. He also found mixed results, but overall the military burden negatively affected economic growth.³⁸ Even more emphatic are the results obtained by Dunne and Vougas, who used causality techniques that recognise the long-term relationship (co-integration) between military spending and economic growth. Their work revealed that defence spending had a “significant negative impact” on economic growth in South Africa during 1964–1996.³⁹ Finally, Birdi and Dunne, after reviewing the various models and results embodied in the literature on *milex* and growth in South Africa, used cointegrating vector autoregressive (VAR) techniques to obtain, yet again, mixed results, consistent with several other reports showing that *milex*, on balance, had somewhat negative or insignificant effects on growth.⁴⁰

Finally, in another African empirical case study, Oyinlola's econometric analysis of Nigerian defence spending also yielded mixed outcomes. More precisely, he concluded that “the Nigerian defence sector contributes positively to real growth in gross domestic product, it has a progressive distributional effect and a dampening effect on inflation. However its impact in these respects are [sic] very low and insignificant. On the contrary, the impact on importation where defence has a negative effect on the economy, is significant.”⁴¹ It is therefore fair to conclude that the net economic impact of military spending in Nigeria has been negative.

We can now offer tentative answers to the two questions posed at the beginning of this section, based on empirical research results:

Question: On balance, does *milex* have a positive or negative effect on economic conditions in Africa?

Answer: Like the Third World as a whole, most studies have found that *milex* in African states produced a variety of positive and negative effects (varying by country), but its modal overall socioeconomic impact was somewhat more negative.

Question: To the extent that the economic impact of defence spending varies across African countries, what factors seem to account for such variations?

Answer: Little research has been conducted along these lines, but based on Looney's work, the economic effects of military spending in Africa vary by levels of regime legitimacy and effectiveness, and the incidence of conflict. Presumably, other yet-to-be-hypothesised intervening factors will also prove to be determinants of *milex*-growth patterns among African states.

Before proceeding to summarise and draw some implications from our review and analysis of the empirical literature, we need to digress momentarily from the central question of this paper by asking not how defence spending affects development, but to pose a prior question: *What determines levels and patterns of military spending in the Third World and Africa?* The answer turns out to be straightforward. The declared purpose of armed forces is to provide security, so it is not surprising that McKinlay found that security and military-related factors determined Third World military spending.⁴² The same is true of Africa, as shown in Dowdle's analysis of military spending patterns of 24 sub-Saharan states. In this region, *milex* varied in accordance with the nature and immediacy of perceived security threats to the regime and state, and internal security threats (particularly civil war) drove up defence allocations more than actual and potential external threats.⁴³ Likewise, Mohammed investigated the determinants of military spending in 13 sub-Saharan states from the mid-1960s through mid-1980s, using time series, cross-section, and pooled cross-section analyses of several political, military, and economic factors. He too found that security-related political and military factors were the major determinants of military spending, with economic conditions (especially resource constraints) accounting for most of the variations across countries.⁴⁴ Having established that security conditions are the main drivers of defence burdens borne by developing/African countries, we can now elaborate our principal conclusions about *milex*–development relationships and deduce some of their implications.

Conclusions and implications

This paper has sought answers to fundamental questions relating to whether and how military spending determines socioeconomic conditions in developing countries, with special reference to Africa. Notwithstanding the apparently contradictory and confusing empirical research results about relationships between defence expenditure and economic development in developing countries, we can state the following conclusions with reasonable confidence:

- The defence burdens of African and Third World states generally correspond to the political, security, and economic realities they face.
- African states invest in their defence at low levels by global standards.
- Military spending–development relationships cannot be characterised in terms of universal empirical regularities governing large heterogeneous groups of countries such as the Third World or Africa.
- Rather, such relationships are elusive, complex, and variable.

- Nevertheless, these variations can be explained substantially by controlling for key economic, political, and security factors.
- Among the differentiating national attributes or conditions that have been shown to affect socioeconomic development systematically are regime legitimacy, stability, and effectiveness, the presence or absence of conflict, arms production capacity, and availability of economic resources.
- Further research will likely show that other theoretically relevant variables will also prove to be partial determinants of millex-growth patterns among Third World and African states.
- Defence spending produces a variety of both positive and negative effects.
- The precise mix of such effects varies across countries.
- The overall effects, whether positive or negative, are usually not pronounced.
- The modal socioeconomic impact of defense spending is slightly negative.
- In Africa, such negative effects seem to be somewhat wider and deeper.
- Negative relationships between millex and development tend to be most evident and severe in countries experiencing legitimacy/security crises and economic/budgetary constraints.

These findings convey both good and bad news. The good news is that Third World and African military spending patterns reflect rational adaptations to ‘conditions on the ground’, are explicable in terms of specific sets of political, economic, and security variables, and typically do not impose undue socioeconomic costs, especially if the public security/defence benefits are included in the balance sheet. The bad news is that generations of analysts and policymakers too often have been barking up the wrong tree on the dual assumptions that military spending is wasteful – if not detrimental – to development and that its reduction or reallocation to social and economic programmes will be beneficial. Furthermore, their chimerical quest to discover global millex–development relationships has produced more cacophony than coherence. The absence of clear, uniform relationships between military spending and development means that ‘one size fits all’ assumptions, theories, models, measurements, judgments, and policy recommendations on guns versus butter issues are bound to be problematic at best and likely to fail. Analysts and policymakers need to see millex-development issues as more complicated and convoluted than they have before. Research and policy designs need to identify and take into account key factors that determine the nature, level, and distribution of positive and negative effects of national defence burdens.

The above findings also reveal a bitter irony or paradox: states that enjoy relative peace and plenty seem to reap more economic benefits from defence spending, while those suffering from conflict and poverty pay higher economic costs for their defence. The implications of this dualism are not comforting, analytically or policywise: states afflicted by legitimacy crises or armed conflicts, especially civil wars and other security crises that threaten incumbent regimes, are unlikely to heed pleas to reduce military spending, nor will such appeals resonate strongly in relatively placid and prosperous states. Hence in the larger scheme of things, conflict- and poverty-reduction efforts will likely produce more beneficial linkages between defence and development than well-intended calls to reduce military spending in favour of development.

Note

- 1 US Arms Control and Disarmament Agency (ACDA), *World Military Expenditures and Arms Transfers 1990*, US ACDA/US Government Printing Office, Washington, DC, November 1991, p 2.
- 2 US Department of State, *World Military Expenditures and Arms Transfers 1999–2000*, Washington, DC, June 2002, pp 2–3.
- 3 I use the terms military and defence spending/expenditure/outlays/budget/burden interchangeably, as well as ‘milex,’ the common shorthand for military expenditure. Likewise, economic growth and (socio)economic development are alternative terms.
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