

GHANAIAN STRATEGIC AND ANALYTICAL PROBLEMATIC:

Notes Toward a Growth Exercise

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By Reginald Herbold Green

On a cloth untrue
With a twisted cue
And elliptical billiard balls.

- Gilbert and Sullivan

Prolegomenon

At one level it is apparently absurd to argue that Ghana has not entered into sustained recovery and development. From 1984 onward GDP growth (which is unlikely to be grossly overestimated¹) has been 5% or more annually averaging 6%. In real terms output (albeit definitely not per capita output) is at record levels and by the end of 1989 should be 20% above 1980-81 (still 7 to 10% below per capita if natural population increase is about 3% and 15 to 17% below if net returning migrants really have numbered 1 million²). Real exports (even on reasonable estimates of falls in smuggling) are rising; real consumer food prices are falling; real wages are well above 1983 - albeit stagnant since 1985; import capacity crises have been averted.

However, it is not as simple as that. The per capita figures suggest that regaining 1972 levels (before the non-coherent economic policy limbo of the Acheampong-Rawlings First Landing-Liman years) let alone late 1950s-early 1960s peaks is still far in the future even at sustained 5 to 6% growth. The import capacity growth has depended on rising real resource transfers (including IMF debt juggling) to offset rising goods/services trade deficits. The export growth is running into terms of trade and physical barriers which raise doubts as to its sustained viability or even feasibility. Falling real consumer prices for food - given free albeit highly imperfect food marketing systems - implies falling real grower returns. The assumption of surplus capital capacity available from either additional operating inputs alone or

with those plus high payoff rehabilitation is probably no longer valid. Personal consumption per capita has - apparently - not risen significantly since 1984/85. While for most households and sectors social disintegration was halted and partially reversed beginning in 1984, two caveats apply - significant groups have benefitted primarily from real food price falls (not increased empowerment to produce or higher real wages measured against non-food items) and the rehabilitation for the vast majority of households and social sub-sectors is partial.

Perhaps more alarming is the absence of a coherent long (or medium) term strategy to focus on parametric constraint loosening whether to lengthen the sustainability of the present structural adjustment with growth and measures to mitigate social disasters (of adjustment or of prior non-adjustment³) approach. Without such a strategy Ghana is growing on good weather, external vested interests in the survival of a showcase programme in which they have invested massive resources and credibility, tight fiscal and monetary policies and luck. Those may not be enough.

Most alarming is the absence of data, dialogue or data development for articulating such a strategy efficiently (in resource cost per unit of constraint loosening terms) or of concretising it in a way that would be fully internally consistent let alone efficient in relative weights (in terms of scarce resource allocation) of different projects, policies, components. Macro external account trade GDP, urban cost of living and fiscal data are moderately available and reliable. Beyond that one enters a terrain of gaps and uncertainties (or even flat contradictions⁴) that are severe by Sub-Saharan African standards and represent one of the aspects of Ghana 1989 not yet having clawed back fully to the levels of Ghana 1959-61 or 1969-72.

An Heuristic Applied Growth Exercise

Heuristically it is possible to construct a model which is not without analytical bite and applied relevance. Ghana - as opposed to many key magnitudes - is by no means a social science terra incognita. For applied purposes it is useful to set the model up in terms of key constraints or

parameters. Of these there are six: food availability; import capacity; useable human capital stock; adequate working capital stocks and social/political viability.

Food Availability

Food availability over time can be represented for present purposes by trend growth of food production. Food imports other than food aid are constrained by import capacity and while food aid boosts to deal with weather crises are probably realistically projectable increases (or even constant) per capita levels of other food aid.

To avoid increases in macro inadequacy of nutrition the trend food production growth must be of the order of 3%. To reduce them (which also requires broadening "entitlements" including empowering small farmers to grow more own food and/or crops for sale and/or raise non-crop production earnings⁵) a 4% rate would be needed.

Three main avenues exist to achieving or sustaining (the present data can be read as showing a growth trend anywhere between 2% and 4%) the level of growth needed to avoid a food supply parametric constraint:

First, improved infrastructure. Physical infrastructure especially transport to make movement of crops physically more practicable and also financially more attractive to producers and commercants is one aspect. Improved commercial infrastructure (institutional/enterprise plus physical storage and vehicles/vehicle repair) is another. The imperfection of the market is illustrated by the fact that no enterprise or government agency can provide a reliable year-long regular monthly supply contract for basic foods even at a current market price-linked payment formula.

Second, non-producer price incentives turn on unit cost reduction (primarily output raising with less than proportionate resource input cost growth). One such input is applicable knowledge, another accessible "fair price" (in the sense of cost plus moderate commercial margins) inputs.

Third, price incentives which are not readily provided within the present basically free market structures. The nominal "last resort" food purchasing enterprise does serve some areas of the private commercial sector's beaten paths but it does not have the financial, physical or institutional capacity to fill that role fully let alone buy up the whole surplus in a good year to make a minimum price guarantee real. The two practical routes are cost reduction post farm (e.g. lower transport from better infrastructure and/or more vehicles and repair facilities) to raise producer prices at any output level and farm unit cost reductions to raise the net from any price.

Import Capacity

This way of putting the forex constraint is chosen because the key limit on overall levels of economic activity in the short and medium term is real import availability. Achieving balance by contractionist routes would in a sense act on "forex shortage", an alternative formulation, but not in a way consistent with sustaining structural adjustment with growth.

Ghana at macro GDP level is not particularly import intensive for a small economy. This macro fact masks the fact of very real sub-sectoral (even more than sectoral) disparities. It rests on very low import intensity in small scale agriculture (even much of cocoa), most informal production and some services. The countervailing influences are some (by no means all) manufacturing, transport and communications, energy, mining, some 'modern' farming (notably mechanised, irrigated where at border prices import intensity may exceed 100%) and all formal Gross Fixed Capital Formation plus most maintenance.

Some reductions of import intensity are possible, indeed highly prudent. But structural adjustment if it means a broadening of the production base and sustained small scale agricultural and informal producer increases in productivity will have the opposite effect. At best import growth will need to parallel that of GDP if a 4 to 6% GDP growth trend with structural deepening and broadening is to be sustained.

Exports have macro GDP and sectoral GDP importances beyond providing import capacity per se. They raise the quality of import capacity because they are

(probably) less volatile and certainly more fungible than net external resource transfers. More directly they provide incomes for small agricultural producers, exportable⁶ enterprise employees and exportable enterprise surpluses. And on a multiplier basis they affect the incomes of other sectors which sell directly or indirectly to exportable producers.

Export growth is constrained physically, e.g. there is little room for sustainable increases in logging; at present prices the foreign funding for much of the potentially plausible gold mining expansion will be lagged or unavailable. Its value in import capacity terms is constrained by price trends. Ghana may export twice the cocoa it did in 1984 in 1994 but will probably receive less import capacity for it. As its share of world trade is arguably above and almost certainly approaching the short-run price elasticity of cocoa the whole cocoa output expansion (or more accurately delayed rehabilitation until 450,000 tonnes is reached versus about 300,000 now) is, at best, problematic.

These constraints suggest a need (indeed an urgent, broad front need) for identifying viable export deepening (e.g. more pre-export processing) and broadening (new exports whether agro, other natural resource or industrial). The size of that need depends on how severe the physical and import capacity constraints on the timber-gold-cacao triad are likely to be.

Grants and very soft aid have macro GDP impact broadly - but not wholly - analogous to exports. They are of lower quality - marginally less certain, controllable and predictable; usually giving less import capacity per SDR than exports because of imperfections in sourcing; less fungible by use; higher import intensity of approved uses. Sectorally they have very different initial impacts - pro-construction, government and perhaps manufacturing and large scale commerce; anti-producers of exportables and those whose sales are concentrated on exportable producers. It is very unrealistic to expect much compensation to go to the losers nor to suppose that most are in a position to shift output except with high real income losses.

Hard (6% or over interest, under 5 years grace and/or under 20 years effective grace plus repayment including quasi-automatic rollovers) funding has different implications beyond the short term because of the future stream of subtractions from import capacity. This is the inflow side of the debt burden

problem while rescheduling (including juggling such as converting hard Fund facilities into ESAF which is in fact soft because likely to be able to be rolled over) is one outflow aspect and running down the net stock by repayment the other. Debt burden costs - especially in Ghana - may be ex ante psychological ("animal spirits" of decision-takers to borrow from Keynes) as much as ex post financial. The belief Ghana was about to enter a debt service crises has led to massive scarce resource (key personnel time) allocations to avert it by complex methods leading to ad hoc stopgaps and arguably has also led to imprudent caution on human and physical capital rehabilitation and to private enterprise investment decisions.

Useable Physical Capital Stock

Structural adjustment with growth strategies have assumed that significant leeway for expanded production existed within the existing capital stock. In simple versions the perspective was that import capacity for more operating inputs and spares and/or price induced boosts in domestic raw material supplies would yield substantial output increases. In more complex ones allowance has been made for deferred maintenance/rehabilitation investment (and consequential output gain time lags) but low incremental capital output ratios and rapid productive capacity utilisation ratio boosts are still assumed to be possible. These perspectives have been held in relation to Ghana.

To date these assumptions have not been wrong on the face of it with a 1983-89 recorded ICOR about 2.0 (perhaps 2.5 adjusted for tree crop and other unrecorded investment and 'instant' resumption of over 5% plus growth within a year of instituting stabilisation/structural adjustment.⁷ The rehabilitation and replacement cost has been above estimate because a good deal of capital stock had become junk from non-maintenance; financial system and credit ceiling constraints did block some capacity utilisation growth which import capacity and physical plant capacity would have allowed; but by and large higher output expansion with lower GFCF levels than under normal growth have been attainable.

It is time to query how long this pattern can last. The large NCF estimates are artifactual. They were first achieved by artificially cutting nominal

depreciation estimates by half in 1985 and then sustained by continuing to base depreciation on historic cost - not the obvious accounting formula choice in a context of 25% annual inflation. Further, the recorded data exclude non-cash (and some 'informal' cash) investment which is crucial in respect to land development and - a fortiori - tree crops.

As a result it is not clear whether the probable pattern capital stock decline to 1985 and slow rise thereafter combined with six years of 5% or more growth of output as of the end of 1995 has almost totally wiped out relevant spare capacity. Arguably Ghana's overall capacity utilisation (excluding technical or economic scrap) is near 90%. If so, much higher GFCF (say 25%) may be needed to sustain 5% growth unless general factor productivity increases on existing (as well as new) capital can be achieved on a trend basis.

The need for sharply higher GFCF as a share of GDP to preserve 5 to 6% growth would have two implications. First, because the total import intensity of recorded GFCF is 60 to 70% more import capacity would be needed for any level of GDP and, second, more domestic savings would need to be mobilised at the cost of the share (and except in a 6% plus growth context the absolute per capita level) of personal consumption and/or of public recurrent expenditure in GDP declining.

Useable Human Capital Stock

There is no doubt that non-adjustment and the initial consequences of stabilisation austerity played havoc with Ghana's health and education services. Non-adjustment and drought did the same for average nutritional levels.

It is hard to quantify the meaning of these losses in terms of useable human capital (per person productivity). But it is even harder to suppose them to be negligible especially if physical capital utilisation at constant present productivity is near the full capacity range.

How much rehabilitation of health and education there has been is contentious partly because empirical specification is hard either as to quality or quantity but even more because neither useable real input (health and

education real resource input) nor crude physical output (cases treated, years of education completed) data has been collected, tested and analysed systematically. There are recoveries, there are new initiatives but there are perhaps unnecessarily severe financial constraints, continued deterioration of some surviving bits of the old structures and a time diverting, socially and politically disruptive, ultimately fiscally marginal or sterile shauri (a Swahili term embracing debate, row and near riot as possible meanings - all three of which apply) over fee systems and levels. For nutrition there is evidence of average recovery above 1979-81 levels but with regional and probably social and occupational sectoral exceptions so that how general the enhancement of capacity to work long and hard has been is unclear.

A related problem is access of human capital to physical capital (and/or land and time). This is a not inconsiderable constraint in much of small agriculture and the informal sector which lowers actually achievable output (and in wholesale commerce and transport constricts the growth of competition). In the case of women it interacts with total work overloads which have not been seriously conceptualised much less addressed.

Adequate Working Capital Stocks

Logically real working capital stock should ceteris paribus bear a fairly constant ratio to output and to utilised physical capital. When capacity utilisation is rising, working capital should probably rise relative to fixed capital. When shortages of forex/finance have resulted in just too late (as opposed to the fashionable neo-Japanese/post-Fordian just in time) inventory policies, return to efficient operation would probably posit a rising working capital/output ratio as well.

In principle, it is possible to quantify real working capital needs, to project them and to convert them to future current prices given macro and sectoral output and price assumptions (including the forex price as a sector for the latter purpose). In practice at least approximations should be practicable. From these less internal resource generation estimates the level of enterprise credit stocks (and flows) required can be derived and 'allocated' among external commercial, domestic informal and domestic banking system sources. If this is not done macro monetary credit ceilings can force

capacity non-utilisation which is inefficient in real output, surplus generation and potentially price stability as well as human welfare terms.

Whether a significant macro-monetary/sectoral real - conflict of policy goals/instruments has characterised Ghana is debated. Almost nobody (including involved IMF personnel) deny its micro reality; the argument is over breadth (of firms or enterprises impacted) and depth (total output needlessly lost) and over the costs and/or risks of macro imbalance or of inefficiency of resource allocation worsening from using a demand/requirement check on leading to modification of macro monetary 'safe' supply side credit ceilings whether these are with or without sectoral allocation/incentive-disincentive elements.

At first glance, the record of falls in real enterprise bank credit relative to real output suggests that the real output losses must have been serious. But questions arise as to how much credit through non-banking channels was or could have been taken up and as to whether institutional problems (in both borrowers or financial institutions) were the key constraint on enterprise real working capital stock levels rather than 'safe' supply macro-monetary ceilings.

Social/Political Viability

"The operation was a success but the patient died" is an epitaph traditionally applied to medicine. But it can be applicable to economic and political economic strategy evaluation/projection too.

That social disintegration in Ghana has - overall - been halted and partially reversed seems a reasonable starting point looking at most physical data. But in the absence of useable household budget or income distribution studies and of near constancy of per capita consumption from 1984 (admittedly on rather tenuous estimates) it could be a wrong starting point and at best is probably not universally applicable.

Political disintegration can come from gains perceived as inadequate or too costly ("structural adjustment fatigue") or from incendiary even if not dramatic in real impact policy miscalculations or mischoices. Ghana is not

disintegrating politically - at least not openly as in late 1980 and 1981 - but the degree of political alienation expressed openly by many trade union national leaders and implicitly in urban (but not most rural areas nor many small towns) disinterest in local elections (the first nationwide election cycle in a decade) could be taken as evidence of serious dangers (more serious ultimately than the September security service elements coup attempt).

This constraint pair are not reduceable to normal macroeconomic data nor, probably, even to econometrically specified/approximated quantitative analysis. But they are real - real enough to have overturned several SSA country SA programmes (and at least one polity) albeit none as long running and macroeconomically successful as Ghana's.

Heuristics And Useabilities

The foregoing model, even if constructed on logic plus overall directional change data and micro jigsaw puzzle hard information together with micro and macro observational data from Ghana, is not devoid of operational as well as more detailed analytical use. Some fleshing out and implications are possible before going to a rather more daring (and possibly both less precise and less accurate) statistical force fitting exercise. This can be done on the same six constraint/potential for parameter loosening categorisation.

Food Availability

The trend rate of growth of food output in Ghana since 1980 or 1984 is 2% to 4% and is projected to remain so. Given a 3% odd population growth rate and a continuing import capacity constraint, that range of imprecision is potentially disastrous.

GDP data indicate a 2% trend; a position also taken by the World Bank in projections. Ministry of Agriculture main crop series (which have decreased in number of crops covered and inherent plausibility of data contained) suggest 2% to 3%, while district and regional data (nominally the sources of national data but apparently 'edited') appear to suggest 3% but with annual average scatter from -1% to 5% (excluding the 1981-3 drought and 1984 recovery

years) and wide regional scatter within years (e.g. as of 1986 the Northern and Upper regions were at best back to 1980 levels suggesting severe deterioration of the food supply position in the country's least nourished zone). The Ministry of Agriculture projects trend output growth at 4% (with no indication of how drought years are handled).

4% or at least 3.5% to 4% is a plausible estimate of the post 1983 trend. Real urban consumption has risen perhaps 5% a year (with population) from 1984. Real food prices (relative to COL) fell not only in the post drought recovery years of 1984 and 1985 but also in 1986, 1988 and 1989. They were static in 1987 which was a poor climatic year. As of 1989 they are the lowest in over 20 years. This is in a context with no significant market intervention and a decline since 1984 in per capita food aid. As there is no evidence rural households are eating less than in 1984, the conclusion that food production is rising slightly faster than population is the most reasonable one.

Whether it will continue to do so is less clear. Production costs have not been falling in real terms, au contraire for tools and inputs so 'modern' agriculture is presumably less profitable (as its practitioners complain). Ghana is not uniformly land short, but most of what remains 'unused' of cultivatable land is either marginal or far from transport routes. The forest cutting frontier is retreating and will be gone by or before 2000. The increasingly short fallow time possible on land near towns and in heavily populated rural areas threatens yields over time because the traditional long rotation/low direct fertiliser input system has been modified as to rotation but not inputs. One probable factor in the mid- to late 1980s growth has been the restoration of much of the road system (nearly defunct in 1983, again above African average in late 1988) - increasing physical accessibility and merchant interest in collection and raising grower price (15 kilometres off a motorable road means at least 20% lower food prices). This can continue in respect to several regions (notably the Northern savannah zone and around Lake Volta) but probably not in the Eastern Region which over 20 years has converted derelict cocoa land (disease swept) and logged areas into Accra's breadbasket - with very positive results on rural household welfare judging by 1960s post cocoa disease versus 1988 post agricultural shift visual

impressions of houses and shops and by provincial income, services and quality of life empirical estimates. It now has next to no forest land to clear while the remaining cocoa is profitable again.

The entry points for sustaining trend food availability appear to be:

- a. regionally (zonally) articulated development of tested, small grower friendly, moderate input permanent or short fallow cultivation schemes which raise output per person year (women in particular have no 'spare' time at peak cropping seasons) and also increase the cash yield on saleable (beyond household needs) output more than the total (sold and self-provisioning crop use) cash input and tool cash cost increases;
- b. in particular developing and testing labour intensive, medium input (including animal power), small scale, simple pump/small check dam/seasonal irrigation package rooted rice growing (analogous to successes - on peasant initiative - in Tanzania);
- c. studying road location/grower price/commercialised output relations systematically and devising labour intensive feeder road/track construction and maintenance packages linked to main road and lake transport gap filling to extend the Accra and Kumasi breadbaskets, create one in the Western Region and raise real producer prices (by transport/commerce cost reduction) in the Northern savannah zone;
- d. develop a data collection and monitoring as well as a policy and programme design capacity capable of comprehending and acting to influence the sector - de facto now totally lacking at Ministerial level.

Food production trend growth at least equal to population is essential to 5 to 6% GDP trend growth because the import constraint and the real wage constraint (in the Ricardian sense) are both binding. To achieve it with growing population/land ratios, distance to market increases and a vanishing forest frontier and without either sharply raising real food prices, depressing real farmer net incomes or massive subsidies requires tested infrastructure improvement, output increasing/unit cost reducing programmes based on data, analysis and programme design. As of 1988 no ministerial capacity existed nor - judging by financial and evaluation report/expert time allocations - did

either Ghana or the Bank see it as a priority. So bad were the data that the divergence between 2% (Bank) and 4% (Ghana) food production trend growth was not even seen as worth serious restudy and dialogue despite the sharply divergent implications of scenarios embodying one from the other projection.

Import Capacity

Overall Ghana's import capacity has grown about 6 to 7% a year if measured by real import growth as a proxy. As arrears have been cleared (more accurately converted into IMF drawings now being converted into SAF/ESAF) and moderate working reserves built up, that method of deriving the 1982-89 trend appears plausible ex post. The issue is whether this trend is sustainable - as it needs to be to sustain 5 to 6% GDP growth on both World Bank and Ghana projections and also on any plausible evaluation of probable changes in import intensity from structural deepening and broadening and increases in GFCF relative to GDP.

The trend has been maintained so far by luck and ad hocery almost as much as by prudence and export expansion. In 1984 and 1986 oil prices plummeted while 1984-85 saw a mini cocoa boom. In 1983-84 very high IMF drawings kept the import programme going despite bilateral donors' lag in coming forward while over 1984-86 quasi-commercial (especially export credit) borrowing played a similar role. When the bulge in IMF repurchase obligations threatened the programme, SAF and ESAF came into force (not totally coincidentally) to salvage it. And in 1989 - with cocoa plummeting toward the lowest real levels in 50 years reached late in the year - the Bank backed and largely secured an additional \$100 million of Consultative Group soft money. Together with quantitative near doubling of cocoa and timber/products exports and a more than one-quarter rise in gold exports, these special prices of luck and bailing out have seen Ghana through today. But projecting luck/bailouts is imprudent (as opposed to projecting gaps as a spur to identifying how to fill them) and projecting continued high rates of traditional export growth is problematic.

Terms of trade prospects are distinctly gloomy. Ghanaian/Nigerian output recovery and Malaysia's ill-judged, worse timed entry as a major cocoa player have knocked the bottom out of the basically stagnant (at constant real

prices) market of 1975-85. The two-thirds nominal price fall from 1985 peaks to October 1989 will not be clawed back in the foreseeable future and further falls are quite likely.

Ghana's share of world cocoa trade at slightly under 20% (assuming 300,000 tonnes annual exports from 1989/90) is near or even above probable short term price elasticity (estimates vary from -0.1 to -0.3 clustering near -0.2). There is, therefore, reason to query the net forex gains of further expansion (rehabilitation) of output.⁸

Output recovery from about 275,000 tonnes 'trend' in 1983/84 (160,000 official, 75,000 smuggled, 40,000 abnormal drought and bush fire losses) to 315,000 in 1989/90 (300,000 official and 15,000 smuggled⁹) is real but not spectacular (about 2½% a year). It relates largely to better (more labour and input intensive) practice in response to post 1985 (and also 1982) real price boosts. Fill-in planting resumed about 1985 (after up to 10 years near halt) and new or full replanting from about 1986 (after a quarter century's virtual hiatus). That suggests that 400,000 tonnes trend output by 1995 is quite likely (on trees in the ground by 1990) unless falling real grower prices reverse cultivation intensification. To keep grower real prices constant (even so ending the 1984-1989 upward trend) will require either radical pruning of marketing costs or of government revenue. The semi-traditional one-third - one third - one-third split will no longer be viable barring a scenario of massive devaluation well ahead of domestic inflation which would be deflationary and, as an attempt to bolster cocoa, would be a device to block or reverse world market signals.

Gold output may well be doubled by 2000. Work in hand or near financial backing allowing early action should guarantee a 25% rise by 1995. Beyond that the present gold price slump - unless investors expect its reversal - is likely to limit entry of new private producers and firming up of finance for full physical structural adjustment of State Gold Mines' archeological museum plant, equipment and shaft/stope patterns.

Logging today is at or near the level of 1 million cubic metres which could be sustained from quasi rotational¹⁰ management of "closed" (government) forest reserves. In fact 60% of it is from these reserves (allowing time for implementation of improved forest management systems which are being/have been

articulated). The other 40% from "stool" (chiefly) reserves is a wasting asset. These lands will be logged out and field cropped or planted to economic trees with no realistic way of halting that trend available.¹¹ 10 to 15% increases in cut¹² by 1995 might be just prudent (followed by declines back to present levels by 2005¹³) but any further increase motivated by short term balance of payments considerations would be likely to be eating seed corn.

The step by step policy now existing of banning of raw log export and the incentives for upgrading from rough cut to finished lumber-veneer-plywood-furniture parts is the realistic way to sustainable increases in earned import capacity from forestry. It could raise exports of the sector 10 to 15% by 1995 and ultimately double them. A similar - albeit less dramatic, in that the gain would probably be 30% to 50% - potential exists in pre-export processing of cacao beans into cocoa intermediates (butter, paste, oil, mass, powder). As the major chocolate producers are moving out of these products (i.e. buying versus producing themselves) there is a market window of opportunity. Investment in further processing - unlike that in more cacao bean production would not further depress the world price.¹⁴ Ghana's three very old, badly laid out plants are not a good test of viability, nor is Cocobod possessed of intermediates marketing expertise but, if viability is established, new plants and marketing expertise could be secured. Unfortunately opposition - led by the World Bank - has meant that serious pre-feasibility studies are only now beginning despite suggestions and arguments dating back at least to 1960 (and indeed before given the vintage of the three extant plants).

But even with processing gains the plausible output and price trends on dominant (over 90%) exports will not yield more than a 5% trend rate of export increase in import capacity terms, i.e. the trade gap will widen at 5 to 6% GDP growth. World Bank and Ghana Government projections (which underestimate possible processing gains but overestimate probable cocoa prices) come to the same conclusion. In the past, except for 1984-85 these projections have tended to be too optimistic.

The implication is that a systematic review (not an ad hoc washing list of bits and pieces ranging from the valid albeit small, e.g. rubber and shea nuts, to the problematic because of production cost, e.g. palm oil to the

ridiculous at macro, and perhaps even micro, level, e.g. ginger) of export potential and the least cost route to a 6 to 8% growth trend providing an export mix less subject to the extreme volatility characteristic of cocoa prices is (and for five years has been or rather ought to have been) a priority. Non-traditional exports are rising. At the margins (especially in manufacturing) and in relation to the obvious and the low entry/exit cost items freeing the market does work. Its capacity to achieve structural breakthroughs in exports (as opposed to its importance in creating a foundation on which to build them) is much less evident - the South Korean, Taiwanese and Brazilian cases suggest the reverse.

The second aspect of exports - domestic income and demand generation - is likely to track the import capacity results. However, a shift away from raw cocoa - and to a lesser extent from raw logs or timber - output growth to more processing and field crops or mining would alter income distribution by region and from small family farmers to wage earners. This can be overstressed - new tree crop exports and more food production (especially in the context of growth in GDP and real wage bill) are practicable shifts for cocoa growers and some forest workers. They might not entail high costs even in the short term so long as cocoa and log output did not fall and real domestic cocoa producer prices and forestry wages held up.

Soft resource transfers are unlikely to fall in real terms so long as Ghanaian real output rises and its policy package is one the World Bank will agree to back. Too much has been invested by outsiders in the success of the Ghana 'experiment' for them to resile easily. What "aid fatigue" might do is halt real increases even though the trade gap at 5 to 6% GDP growth is still rising. Commodity aid is likely to decline because food aid availability is becoming tighter (physically) and Ghana is not a nutritional or economic catastrophe case. If a small scale rice production dynamic can be phased in rapidly and food aid focussed on wheat, gradual cuts by up to 50% would be manageable. Because faster falls in food aid are likely, there is a sub-priority to see whether PAMSCAD inputs in kind (e.g. steel and some parts for tools and pumps, basic drugs, steel or aluminium for corrugated sheet, paper for educational publishing) can be up to free forex for wheat-rice-sugar imports.¹⁵

If hard money is used the need for debt relief will become acute. If lenders perceive that, hard money will not be forthcoming. Thus the limits on the use of hard loans beyond selected economic sector prospects seems very limited. 'Rebuilding' payments arrears on commercial imports could buy a few months time only and at the cost of higher prices (to offset risk and waiting time) reversing the image/credit access gains from 1983-85 arrears elimination.

Usable Physical Capital Stock

The very long period of capital stock quality decay and ultimately quantity erosion makes capital stock estimates very problematic for Ghana. However, it seems reasonable to estimate about a 3 to 1 capital/output ratio (including tree crops) at macro level and a depreciation rate of 3 to 3.5 per cent i.e. a depreciation to GDP ratio of 10 per cent at or near full capacity utilisation.¹⁶

On that basis the following matrix results:

| | <u>1980-81</u> | <u>1985-86</u> | <u>1989-90</u> |
|---------------------------|----------------|----------------|----------------|
| Capital Stock (80-81=100) | 100 | 85 | 90 |
| \bar{Y} | 33 | 28 | 30 |
| Y | 22 | 21 | 26.5 |
| Utilisation Ratio | 67% | 75% | 88% |
| Depreciation | 3.3 | 2.8 | 3 |
| Depreciation/Y | 15% | 13% | 11% |
| GFCF/Y | 7 | | 15 |

Using these and not the juggled historic cost depreciation estimates, suggests that at least until 1985 Net GFCF was negative i.e. capital stock was shrinking and that the recovery of the stock through 1989 has been limited. Indeed by 1989 it is arguable that capacity utilisation is approaching 90 per cent on average - a level implying serious sectoral and sub sectoral bottlenecks (full or overfull utilisation) already exist.

For infrastructure and construction that picture is true, e.g. in respect to electricity Ghana will need a new major hydro plant by 2000 - the 25 years provision of full national grid needs by Akosombo/Kpong on the Volta is not extendible more than another decade. In agriculture - given technology and

infrastructure stock and abstracting from weather as 1980 and 1989 were both reasonable to good crop weather years - again output is near capacity. For some services e.g. transport full or overcapacity conditions prevail. In the case of commerce there is a conceptual problem especially for small shops and capacity utilisation is well above the 1981-83 period but some slack clearly exists with respect to physical selling space. However, the key question mark is over manufacturing. If - as widely believed - 1980-81 output was about 40 per cent of capacity what is the situation now. Total capital stock has probably declined 10 to 15 per cent (non renewal and non-maintenance outpacing rehabilitation for the whole period). Output is up about 30 per cent. This suggests a 1989-90 utilisation rate of 60 per cent or slightly above.

That seems low but is not implausible. Lack of raw materials have kept much textile capacity idle while de facto free trade in garments has idled much of that sector's capacity. Sugar milling is near idle because of plantation near demise while the metal products sub-sector suffers from imported material limitations, partial rehabilitation and - perhaps - a partial product capacity/domestic product demand mismatch.

An additional possibility - true at micro level but of uncertain importance sectorally - is that high nominal (even if mildly negative real) interest rates, 30 per cent premium and small lots of "second tier" quasi-official forex and financial system biases, as well as 1973-83 profit and loss patterns, discriminate against manufacturing in favour of shorter turnover, more liquid asset, better past profit commerce.

Usable Human Capital Stock

The post 1980, let alone the post 1970 or 1960, deterioration of the health and education systems has not been made good. Quantitatively this is clear for health, less so for education - qualitatively it leaps to the eye and in real resources used terms (and the growing imbalance between personnel and others that emerged after the mid-1970's) it is readily (if not very precisely¹⁷) derivable from budget data.

Reconstruction and restructuring have begun with a somewhat uncoordinated melange of external and domestic initiatives which may or may not be basically congruent. To project them is not yet practicable given their genesis after 1985 and even partial implementation beginning in or after 1987. It is clear

that fees - at best potentially yielding 10 per cent of Ministerial Budgets and 2 to 3 per cent of total recurrent spending - are causing a disproportionate amount of social resistance, administrative overloading and analyst-decision take time diversion for few tangible gains and a significant national human capital (as well as human at personal and family level) cost through continued exclusion (now for charge reasons) of absolutely poor people. They are also an obstacle to decentralisation's effective implementation and to serious community based and guided participation in programme design and resource mobilisation because both the World Bank and Ministry of Finance see them as centrally set in cash terms and at least substantially returning from local collectors to the central Treasury.

Nutritional improvement (a priority need for perhaps 30 per cent of the population and 20 per cent of the labour force - two thirds rural and one third urban) depends largely on non-agricultural real wages and women's (especially rural women's) workload reduction. The government strategy on the former - after a 1983-86 doubling of real minimum wages to cover about half basic household needs and a 1986-88 increase in the ratio of public sector top salaries to minimum wages from 1.8 to 1 to 5 to 1 in government and somewhat more in public enterprises - is laissez faire or negative. Only export oriented firms can in fact secure permission to raise real wages even when they believe profits would allow and productivity considerations justify doing so. The nominal defense of this line is that such wage increases would be inflationary. Women's work overload is half accepted as a reality but its reduction is not targeted, much less articulated, as a priority. Yet unless women's working, watering and tending the sick time burden is reduced, how they can expand directly productive activity is unclear. Moving to universal primary health care and broadening/keeping repaired rural water systems (largely boreholes) would appear to be the most feasible approaches with major time saving potential now identified but more study (especially on productivity raising in income generating activities such as food processing) is needed.

Working Capital Stocks

Ghana since 1983 has accepted¹⁸ tight domestic credit targets and held to them. Because they were below projected output growth times expected inflation times base credit levels and because actual inflation - except for

1985 and then only for domestic food - has outrun projected they represent a steady compression in real working capital extended from the banking system to all borrowers.

To limit the squeeze on the enterprise sector (somewhat misleadingly referred to by the IMF as "private" but including state owned enterprises) the government has eliminated net new bank borrowing and begun to reduce the base levels. Even so real working capital stocks financeable by bank credit have declined for the enterprise sector.¹⁹ To what extent profit flows (margins have risen in construction, manufacturing and - probably - transport and large scale commerce but have declined for commerce as a whole at both wholesale and retail levels), informal domestic credit and external supplier commercial credit (especially to branches, subsidiaries and affiliates of foreign groups) have offset this is unclear since neither overall nor analysed enterprise statistical data and even less empirical analyses in depth exist. Probably the results are uneven and favour the enterprises (public or private) with good external connections. It is fairly clear some enterprises have been unable to raise output as much as demand and marginal cost would have justified (especially if a deferred maintenance component front end loaded the credit need and back end lagged the resultant cash flow) but whether this is sectorally (especially in manufacturing) or macro significant is hard to evaluate. To suppose a cumulative GDP level loss of 1 to 3 per cent (i.e. 1 per cent in 1984 rising to 3 per cent in 1989) may be plausible with up to 5 to 7.5 per cent in manufacturing, but higher guesses such as 10 per cent to 15 per cent overall and 25 per cent or more for manufacturing are unlikely to be even approximately valid.

While Ghana's financial system is weak (cost inefficient, solvent but bankrupt if probable bad debts were written off and conservative/trade oriented)²⁰, this fact has probably not much hampered overall production response to date. It has hampered those firms with weak historic cost based balance sheets (past losses and/or no external guarantor) relative to ones which looked 'safer' which probably has been at least marginally less than efficient if only because commercial balance sheets in general looked better than industrial.

The practical priority for policy cross-checking would seem to be construction of a rough real (then converted to correct/projected price) bank credit needed to allow the enterprise sector to expand consistent with growth targets (and price increases) as discussed earlier. IMF opposition on grounds this would

license unlimited or wildly inflationary expansion appears somewhat obscurantist or needlessly pessimistic especially if it were done in parallel with the more traditional macro allowable nominal bank credit supply estimation process.

Social/Political Stability

Social disintegration was halted and partly reversed by the post 1983 fall in real food prices, the 1984-6 real wage increases (and to a degree subsequent ones in real salaries) and the belief based on government action (especially in 1982) that Ghana once again had a government with public concerns, policies and some capacity to relate the public good policies and resource allocation and that, therefore, renewed personal, household and community effort was worthwhile. That base still exists and is - on balance - strengthening. There is "adjustment fatigue" because gains have been slow (and indeed for many were concentrated in 1984-86 with little since beyond marginal actual and projected public service improvements) but this appears to act on political perceptions (and withdrawal) more than social relations and efforts.

The political viability of the government is not currently in doubt - except from a moderately unlikely well planned, externally assisted military coup.²¹ This is not to say it enjoys mass urban or even professional understanding of - let alone active support for or desire to contribute to - its policies. The apathy in most main towns when 1989 brought elections for fairly significantly empowered local councils was very heavy. Rural perceptions - at least on this test - are much more positive in a majority of districts. While failure to regain the "Golden Age" of the late 1950's (probably even more golden²² as they retreat further into the mists of memory and oral tradition) is likely to continue to limit active support, even slow and uneven progress (in stark contrast to 1972-81) combined with a serious, public purpose oriented top leadership will command some active and a good deal of passive support with few eager to rock the boat.²³

The political viability projection is probably dependent on the economic. If GDP growth falls below that of population, real access to basic services does not improve and - especially - if real food prices explode, then political viability will implode and social disintegration resume.

Some General Implications

Structural adjustment has become more complex in Ghana (as elsewhere) with partial recovery achieved and the most urgent breakdowns corrected. The need for more complex analysis to identify key parameters and how they can be loosened is greater than in 1983 when "more food or we starve/more imports or the economy grinds to a halt/more exports or we cannot import" was arguably an adequate working answer for initial programmatic use.

This is especially true as Ghana (in common with several other relatively successful SSA SA programmes) seems to have turned the criticism of many 1970's IMF programmes "stabilisation without adjustment" on its head by achieving significant structural adjustment without stabilisation. In the earlier scenario external balance was sustainable only so long as output/demand were repressed while in Ghana's case output/demand recovery and growth is sustainable only so long as soft external resources plug a growing trade (goods and non-factor services) deficit.

The list of parametric constraint threats to sustained structural adjustment with growth and attention to basic needs and production by poor people is not atypical of serious SSA SA programmes e.g. Tanzania, Mozambique, Zimbabwe albeit each (including Ghana) has special features and different degrees of freedom (or lack thereof) on the common ones. All appear to be cases in which pure market mechanisms or the collective result of isolated enterprise decision, cannot be expected to produce satisfactory results. Market mechanisms, aid, public investment and weather (the first three in reality a take it or leave it package for Ghana in 1982/3) got Ghana where it is in 1989. In contrast to 1983 that is no small achievement. But on a 1959-60/1983 continuum Ghana in 1989 is perhaps halfway back in per capita income and service access terms. The factors that have taken Ghana halfway seem inadequate to go the rest of the way unless augmented by strategic planning backed by policies and by resource allocations (whether statal or enterprise/individual allocations influenced by statal policy measures).

But Ghana has at the best only begun to build a strategic planning capacity and, partly as a consequence, has neither the data series nor the analytical studies and experience to develop sub-macro, sectoral and regional strategic

selection. If the strategic planning approach is adopted, the demand for data and analysis will probably be backed by resources and begin to produce a supply (as is happening in Mozambique and Tanzania). Without them, the planning especially when articulated to policy and project level will remain dangerously vague, qualitative, unsystematically selective and non-empirical.

NOTES

1. The methods of estimating 'informal' and 'subsistence' activity certainly do not lead to accuracy but do limit bias. Smuggling decline's upward bias on open GDP growth is arguably more than offset by apparent systematic underestimation of non-tree crop agricultural growth.
2. The official 1983 and 1985 estimates of 1 million and 0.3 million from Nigeria alone are suspect. There are estimates of 0.5 million for 1983 and of 0.2 million returning to Nigeria before the second round of forced repatriations. There is still probably a small positive emigration to non-West African destinations. On balance 0.5 to 1.0 million net returnees over 1983-1989 seems plausible albeit highly imprecise.
3. The programme title is Programme To Mitigate The Social Consequences Of Adjustment (PAMSCAD). The retraining/economic rehabilitating of "redeployed" (the obscene World Bank euphemism for sacked, fired, made redundant or terminated) persons is just that. But the broader labour intensive employment, vocational, primary and adult education, small scale infrastructure and primary health components really address poverty and productive empowerment generally largely with relevance to the costs of halted development and actual deterioration from non-adjustment after 1972 (or arguably 1960 or 1962 albeit that is much more debatable).
4. The GDP and various Ministry of Agriculture series give incompatible food output growth data estimates. All appear to conflict with the real price of food as reported in the (more accurate) Cost Of Living series.
5. These issues are broader than food production but include it and relate to households who are predominately own food producers.
6. Exportable as used here means a product which actually is in large part (say 40% to 99%) exported. It might easily be broadened to include products which could be exported at only nominally lower producer returns than on domestic sales, but not those products which are semi-structurally domestic market tied. In practice the dominant exportables (timber-cocoa-gold) have no significant shiftability to the domestic market nor, except for cocoa and a few timber enterprises, could the producers alter their output mix to domestic market items. Cocoa producers can do so (have done so) but at significant real income loss costs.
7. At the time 1983 was seen to mark the beginning of structural adjustment. The argument that until 1985 it was only stabilisation and that 1985/86 is in fact the first SA year is consistent with Bank loan terminology but not with 1983-87 perceptions. In fact it was adopted as the Bank realised its initial 3-5 year target for SA was (especially on external account) hopelessly optimistic and sought to gain longer flows from donors by stretching out SA to 5 to 7 (or even 10) years and arguing it only began after basic stabilisation was completed or at least in full swing.

8. The case for a cartel may well be sound but the means to constructing one do not exist. The idea that Ghana should welcome a price war to drive out 'high cost' Brazil and Malaysia rests on two misconceptions. Malaysia is probably the low cost producer and Brazil may be lower cost than Ghana. Further, in practice financial muscle and overall economic resilience count far more in price wars than 'real' low cost considerations. In those terms both Brazil and Malaysia could eat Ghana for breakfast and spit out the bones before the sun was above the tops of the cocoa trees.
9. Price differentials (using the second tier free rate for the cedi against the CFA franc) with Cote d'Ivoire producer (i.e. agent's buying) price narrowed until 1988 and after mid-1989. In the interim high Cote d'Ivoire caisse price there were in fact sellers' queues and little buying so that purchases of Ghana cocoa virtually ended.
10. Quasi because a high, closed, mixed tropical forest - unlike some near single basic tree temperate ones - cannot be clean cut and recreated. Selective logging and repeated filling-in replanting is practicable.
11. In theory the state could 're-acquire' them and put them in the "closed reserve" pool. Given the nearly century-long history of vehement to violent opposition to tampering with chiefly and individual land rights, before which the Imperial Governor and Osagyefo Nkrumah alike retreated in some disorder, no Ghanaian government is at all likely to pursue that 'option'.
12. Excluding small tree and bush cut (largely outside forests) for fuel and pole wood.
13. Assuming an end to "stool" land cutting, full implementation of known forest management practices on "closed reserves" and no major technical/managerial breakthroughs allowing higher sustainable yields. The first assumption is 99% probable, the second over 50-50, the third unclear as more data and practice adoption might raise sustainable yield from a conservative present estimate of 1,000,000 m₃ to 1,400,000.
14. Intermediate cocoa product prices are likely to track those of raw cocoa once their production is largely independent of final product producers. The statement on investment does elide the fact that at least half of the cocoa plantation investment cost is non-cash, i.e. owner's embodied labour and waiting time (interest on the embodied labour) so can only be shifted to other agriculture in general and other tree crops in particular.
15. These are three of the five significant and broadly consumed food imports. The fourth - vegetable oil - can be import substituted out of existing potential palm fruit yield (i.e. not all now plucked) if the mismatches between demand, processing/distribution and smallholders are closed. The last - livestock - is predominantly barter trade. Luckily (since it is nearly impossible to control), it does not seem to pose serious macro or sectoral economic problems.

16. This is in large part an importation from analysis for Zimbabwe which has much better data. The immediate objection that Zimbabwean agriculture is more capital intensive is probably of limited validity because of the very large tree crop sub-sector in Ghanaian agriculture.
17. No sectoral deflators exist and given wage lags COL is a bad overall proxy and one which understates the fall in real resources other than staff relative to staff. Staff figures are suspect because from 1975 to the 1986-89 exorcism exercise "ghost workers" were a rapidly growing category quite aethereal as to work done albeit quite veridical as to their pay being claimed by their 'familiar'. Audited accounts are over 10 years in arrear and semi-agreed Estimated Actual Expenditure data are neither readily available by sub-category nor necessarily reliable when they are because of the collapse and non-revival of the budgetary process both in most spending ministries and in finance.
18. Accepted in the sense that actual levels have been IMF imposed, albeit after negotiation. The government is monetarily conservative but, left to its own decisions, would have set at least somewhat high enterprise sector credit levels.
19. For this purpose "dead" credit (funds already lost) do not distort. They do if needed credit expansion is calculated on a base with a significant proportion of "dead" credit.
20. A sectoral reform was instituted as a priority in 1988.
21. A less than expert and apparently not foreign linked attempt failed totally in September 1989.
22. But also much better than 1989 let alone 1985 and most of all 1983 as the author, who was there and did analyse and write in 1960-61 and 1963-65 as well as 1985-89, can testify.
23. The PNDC (Provisional National Defense Council) does not welcome public dialogue and criticism except within parameters it sets. (Within the public sector technical and quasi-political economic dialogue is accepted and exists within rather wider parameters.) But that was even truer of the last three years of the Nkrumah government and then one could not go very far or talk to very many acquaintances without hearing a chorus of despairing to vituperative criticism which is notable not the case in 1989 (nor was it in 1985). National TUC rhetoric is so sharply divergent from enterprise level union leaders' formulations (made in the absence of managers and state officials) as to lead to doubts that it in any literal sense expresses union member views other than as a symbolic (over)statement of their discontent with the limited, lagged improvements meted out to them (or allowed for them) by the government.