Oil and Challenges of Trade Policy Making In Sudan in a Globalizing Arena

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Abstract

The purpose of this study is to examine the potential impact of oil revenues on the economy of Sudan and the challenges facing the Government in policy making, particularly trade policy and allocation of oil revenues for long-run development and diversification of the production and export structure of the economy. The exploitation of oil resources has been accompanied by impressive liberalization of the economy by the Government of Sudan. Since then the country has been integrating into the world economy rapidly based on oil revenues. Yet, little has been achieved so far in integrating various sectors of the domestic economy despite relatively rapid GDP growth based on oil revenues. Rapid economic growth and diversification of the economy are among the main objectives of the Government. Therefore, the challenge facing the Government is to design and implement a long-term development strategy in order to build up a solid industrial and agricultural sector for sustainable development and expansion of non-oil exports. In such a strategy the design, and implementation, of trade and industrial policies and the way oil revenues are allocated, takes, *inter alia*, importance.

Developing a conceptual framework of analysis, the author will argue that while export of petroleum provides financial resources for the acceleration of investment and growth, prospects for sustained growth and diversification will be still limited by some physical and institutional bottlenecks which can not be easily overcome by ample oil revenues. Trade in oil itself may have some detrimental socio-economic effects, including the attitude and policies of the Government, on the prospects for development and diversification of the economy in the long-run. Therefore, the Government policies, particularly trade policies, and the way oil revenues are allocated may not be necessarily conducive to long-run development and diversification of production and export structure. Proposing an alternative long-run trade and industrial policy for the country, the author will also outline the practical problems of its implementation under current international trade rules.

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Introduction

The purpose of this study is to examine challenges facing Sudan as a low income country with the aspiration of rapid economic growth, diversification and improving the wellbeing of the population in a globalizing world economy. The country is privileged with the discovery of some petroleum resources, and it is attempting to undertake economic liberalization and to integrate into the world economy. How do oil revenues and their allocation by the Government will affect the prospects for fulfilling that aspiration? What is the role of other Government policies, particularly trade and industrial policies, in that respect? In this paper we will try to shed some light on these questions.

We will argue that an appropriate long-run trade policy takes more importance in Sudan than in many other developing countries because the exchange rate loses some of its usefulness as a policy tool due to the Dutch Disease. Nonetheless, trade policy will not be an effective policy tool on its own. A host of other physical and institutional factors as well as availability of skilled manpower etc. are also important which require appropriate Government policies. Trade in oil has positive effect on development but at the same time it may play an inimical role in the process of acceleration of growth and long-run development diversification of the economy. It may do so not only directly but also indirectly through its impact on the attitude and policies of the Government. In other words, export of petroleum provides financial resources for accelerating investment and growth. Nevertheless, prospects for sustained growth and diversification will be still limited by some physical and institutional bottlenecks which can not be overcome by trade easily. In fact, trade in oil itself may have some detrimental effects on the prospects for diversification of the

economy in the long-run: It renders the relative role of trade and policy in industrialization and development more important than in the absence of oil. Yet, trade policy will not be effective in achieving development objective without consideration, *inter alia*, of the inimical role which oil could play in the process of development, including its impact on the attitude of the Government and its policies on allocation of oil revenues. Further, international trade rules will restrict the policy space of the Government as the country is in the process of accession to WTO.

To proceed, we will first outline briefly the main characteristics of the economy of Sudan and the development objectives of the Government. Subsequently, we will provide an analytical framework for the study before analyzing the impact of oil and the role of Government. The trade policy of the country will be subject of a separate section followed by our proposal for alternative trade and industrial policies. In this section we will also discuss possibilities and practical problems of implementation of the proposed policies as the country accede to WTO. The final section concludes the study.

I. Main characteristics of the Sudanese Economy and Government Objectives

Sudan is a low-income and least developed country with a population of over 35 millions; it depends on production and exports of primary commodities; it still suffers from international sanctions and regional conflicts, which drag on its resources necessary for investment and development. The government has undertaken economic liberalization, particularly of its foreign trade regime, during the last 15 years. Furthermore, in recent years, it has become an oil exporting country. Availability of petroleum, together with trade liberalization, has allowed Sudan to begin integrating into the world economy rapidly. The

X/GDP and M/GDP ratios of the country have increased from 3 and 7 in 1995, to 15 and 19 in **2003**, respectively (UNCTAD,2005:table 7.3). The country will be going further into oil in its output and export structure. Although no accurate data on oil reserves are available, the *probable* reserves seems to be immense the life of which may be as long as 20 to over 60 years[1].

While integrating into the world economy rapidly, the Sudanese economy shows little sign of integrating various sectors and regions of the domestic economy and provision of employment in the modern sector. The oil sector provides little prospects for employment directly. The unemployment rate is high and the need for employment creation is immense, particularly in the urban areas where the rate of population growth may exceed four per cent a year and the Manufacturing sector employs only a small number of the workforce.

Government development objectives and strategy and its growth requirements

The Comprehensive National Plan of 1992-2002 was drawn with a very clear vision and priorities. There has been interruption in the formulation and implementation of a development strategy because of the war. Nevertheless, some attempts have been made recently for formulating a 25 year development strategy by the Strategic Development Council. According to the Sudanese authorities, the long-run development planning is based on the vision/mission of attaining a status of a unified, secured, and civilized [modern] and advanced nation by 2031. While there will be sectoral objectives for which five year plans will be drawn based on Joint Assessment Mission (JAM), the overall strategic development objectives include, *inter alia*, to:

- achieve sustained rapid growth and reduce poverty;

- to increase value added and to diversify the structure of output and export out of primary commodities;
- to use trade as a means of development by integration of the Sudanese economy into the world economy through accession to WTO and joining other trade agreements.

Although it is not sufficient, the acceleration of the pace of growth is a necessary and important condition to achieve the main objectives outlined above. For example, to reduce poverty by 50 per cent in 2015, the overall Sudanese GNP need to grow, on average, by about 10 per cent a year (JAM, 2005, Volume I: 32); a more conservative estimate requires an average growth rate of GDP of about 8 per cent for the whole country and 31 per cent for the South (table 1). As is shown in the same table, the I /GDP ratio is significant as compared with the actual ratio of about 17 percent in 1999-the fist year when oil was exported (see table 2).

Insert table 1 here

Growth of agriculture is regarded, by JAM, important for poverty reduction in rural areas and the Government is considering a programme of "rehabilitation" for this sector. Nevertheless, achieving a status of advanced economy also requires acceleration of growth of manufacturing and services sectors. In fact, according to the authorities of the Ministry of Industry, in the 2007-11 Plan, it is proposed that development of this sector should be given priority in order to accelerate its growth, to raise its share in GDP (implying its growth should exceed growth of GDP), to enhance value added in manufacturing exports and increase contribution of the sector to employment.

While the government objective are divers, in this paper we will concentrate on the question of growth and diversification of the production and export structure as they are necessary conditions for long-run development of the country.

II. Analytical framework: oil and acceleration of development[2]

In order to accelerate the rate of growth of production capacity of the country, without an Inflationary pressure, and diversify the structure of production and exports, there will be a need, *inter alia*, for the acceleration of investment outlays. To do so, in the absence of oil, there is a need to raise the propensity to save, via taxing the well-to-do, or by other means, given the possibility of external financing. The possibility of raising the propensity to save will be, however limited in the absence of oil, due to the low level of per capita income. Nevertheless, even if the necessary funds for investment became more available by higher savings the capacity to invest would be limited, by "supply-determined" industries and factors such as the supply of physical resources, the supply of skilled human resources and by institutional and organizational factors.

Physical resources include infrastructure, capital goods, intermediate goods, raw materials, and consumer goods. Infrastructure is complementary to other resources. Consumer goods may be divided into necessities (basic needs), and non-essentials (luxury). The increase in investment raises the demand for necessities (including food) because of the rise in employment and income, particularly in urban areas. The supply of capital goods is limited mainly because of inflexibility in the production capacity of investment goods due to the scarcity of technological know-how. The possibility of expansion of raw materials and

some necessities, namely foods, is limited because they are among 'supply determined industries'. Supply determined industries are those activities whose long-run rate of growth is limited by natural, technical and organisational and/or institutional barriers, "so that even a considerable increase in capital outlays will not help to raise their output at a high rate" (Kalecki, l955)[3]. Food is supply determined mostly because of institutional obstacles to development of agriculture including the lack of finance, land ownership, technical services, agricultural infrastructure, and above all marketing facilities. Organizational factors are related to the scarcity of "decision making ability" of the bureaucratic machinery of the government and shortage of modern entrepreneurs.

Trade acts as a "joker" of growth by increasing the supply of goods and easing the inflationary pressure. Trade in oil, in particular, contributes to growth not only directly but also indirectly through its financial and "supply effects". Oil revenues provide the means of financing investment thus allowing higher I/Y ratio without a need for substantial increase in taxes. Further they provide foreign exchange directly and indirectly through increases in the credit worthiness of the country in international financial markets and the expansion of FDI. The increase in the price of oil, thus the improvement in the terms of trade, is, in particular, advantageous. It accrues to the economy without sacrificing extra resource. Further, it does not involve repayments of debts, necessary in the case of foreign borrowing, or remittance of profits, in the case of FDI. Moreover, unlike grants there is no conditionality attached to it.

Through its "supply effects", oil revenues increase the ceiling on the rate of growth of "supply determined" products and ease the inflationary pressure through enhancing the supply of wage goods by providing foreign exchange for imports. In other words, a

favourable growth in oil revenues will allow bridging of the gap between the rate of growth in the demand for necessities and industrial inputs, and the rate of growth of their domestic supply. Consequently higher rates of growth of industrial production and GDP should become attainable depending on the allocation of foreign exchange.

Nevertheless, the contribution of oil revenues to growth should not be exaggerated. First of all, the contribution of imports to growth of industrial capacity and non-oil GDP is limited. The higher the rate of growth in investment, the more rapidly does the demand for imports of capital goods, raw materials, and semi-manufactures increase. So does the demand for necessities. In other words, the marginal propensity to import is an increasing function of growth of GDP; it will tend to unity. For a given growth in export earnings it becomes progressively more difficult to increase imports of necessities (wage goods) because of growing demand for imports other than necessities.

Secondly, the acceleration of growth will be limited due to the inhibiting role of complementary factors, required for development, such as infrastructure, supply of non-traded supply determined goods (e.g. utilities) and services, skilled labour, and organizational as well as institutional factors.

Thirdly, the oil boom has detrimental impact on the structure of incentives both in the public and in the private sectors (Seers 1964, 1969 and 1978) and develops “rentier” mentalities (Mahdavi, 1970, Beblawi and Luciani, 1987, Karl, 1997, Shafaeddin, 1980 and 2003) and resource curse (Gelb, et. al (1988, Auty1993 and Ghosh and Berg, 2001). With respect to the Government, the problem is partly institutional related to the socio-political and economic impact of oil. Oil revenues accrue to the state and the way they are spent and channeled to the economy, in turn, affects the growth of productive activities. In theory, the

government machinery may choose to channel the oil revenues partly through the banking system, e.g. through development banks and partly directly. The vested interest of the bureaucratic institutions in all oil exporting countries has tilted in favour of using oil revenues for financing Government budget; and often current expenditures have increased much faster than development expenditures. In particular, the people in the government machinery tend to snatch on the “rent” by different means including increasing their own salaries.

Apart from the allocation of oil revenues between current and capital expenditures, the oil revenues affect the pattern of investment and production against the tradable sectors of the economy limiting prospects for the expansion of non-oil production and exports. The experience of oil exporting countries shows first of all that the ease of financial resources provided by oil reduces the need for attention to the agricultural sector and non-oil exports by the government. Moreover, the appreciation of the local currency, and the so-called Dutch disease (Corden, 1984, Davis,1995), changes the price structure in favour of non-tradable goods and against tradable products, and within tradable as against non-oil exports. There are both "push" and "pull" factors in operation against tradables and in favoure of non-tradables. Normally, the export prices of agricultural products, and other primary commodities (except oil) are demand determined (unless a country is a large producer) and those of manufactured goods are cost determined. In other words, prices of agricultural products are determined in international market, thus a change in the cost of production can not change the international price of the product; and for a given international price, the change (appreciation) in exchange rate affects (reduces) the price received by exporters and producers. By contrast, normally price of manufactured goods are cost determined, so an

increase in domestic cost of production is reflected to its export price. As the manufacturing exports are highly import intensive, an appreciation of the currency would reduce the cost of imported inputs, but at the same time would lead to higher (output) export price thus a decline in demand for exports. Nevertheless, many light manufactured goods have become "commoditized" and the change in exchange rate affects them the same way it affects primary commodities; thus an appreciation of the currency affects the price received by the producers putting pressure on the profit margin and return on investment in the manufacturing sector. By contrast non-tradable goods are not directly affected by the appreciation of the currency; the relative return on investment will change in favour of non-tradables. Further, the risks in investment in non-tradables are smaller as they do not face international competition and their gestation period is usually shorter. In such a situation, liberalization of imports puts competitive pressure on domestic production of manufactured goods, which are often at early stages of infancy reducing the incentive to invest in this sector as compared to non-tradables such as real estates. The demand for non-tradables, particularly the real estates increases due to the enhanced income of the bureaucratic class and speculative demand as risk of investment in these areas are also lower, compared to investment in the manufacturing and agricultural sectors. All in all, prospects for productive activities, particularly non-oil exports will be adversely affected.

III. The development process since the discovery of oil

Unfortunately, we can not provide empirical evidence for all points made in the analytical framework due to the lack of data and information. Nevertheless, an attempt will be made to substantiate the main points with the help of available data.

Oil revenues, which were nil in 1998, mounted to over 14 per cent of GDP in the same year (table 3). In the absence of oil, contribution of trade to remedying some of the physical constraints to growth, outlined above, would have been extremely limited because of the limited availability of imports due to the small size of exports, net foreign exchange earning from grants and loans, and the debt burden of the country. In 1995, before the discovery of oil, total imports and exports of goods and services of the country were less tan $1.2 b. (7% of GDP) and $682b (3 % of GDP), respectively. As late as 2005, total non-oil exports of Sudan was less than $650 million and the non-oil export (goods and services)/non-oil GDP ratio was only 3 percent.

As is shown in table (1) the required investment/GDP ratio to achieve a conservative estimate GDP growth rate of 7.9 per cent between 2005 and 2015 is extremely high, particularly for the South, compared to the actual investment/GDP ratio of 20 in 2003 for the country (UNCTAD, 2005: table7.3). According to the same table, even if one extent the target of poverty reduction by half to 2020, the required investment/GDP still remains very high.

Since the beginning of exportation of oil in 1999, investment has increased, but contribution of oil to current expenditure has been far greater. In fact, the increase in oil revenues has been accompanied with increases in investment without much need to increase taxes. While the investment/GDP ratio of Sudan increased from about 16.8 in 1999 to over 23.3 per cent in 2005 (table 2), the share of taxes in GDP increased only by 1.6 percentage points from 5.9 to 7.5 (World Bank, 2006.a: Figure 2 and World Bank, 2006.b: table 2). Nevertheless, despite the increase in the ratio of oil revenues to GDP, the increase in I/GDP ratio was almost entirely due to the increase in FDI (foreign savings), rather than the result

of national investment. When FDI is excluded national investment shows hardly any increase (tables 2 and 3). The discovery of oil in particular contributed to increase in FDI (table 2) and the increase in credit worthiness of the country in the international market. The stock of debts of the country increased from $19.4 billions in 1999 to $ 27.7 billions in 2005; yet as a percentage of GDP declined from 192 to 100 over the same period. Similarly the debt service ratio declined from 12.2 to 5.6. (World Bank, 2006.b: table 7.1).

Insert tables 2 and 3 here

The Government so far has chosen to channel the oil revenues into the economy directly through Government budget. The more it is allocated to unproductive activities (mostly current expenditures), the less will be available for productive investment. Moreover, allocation of financial resources to those activities also deprives productive activities scarce real resources such as skilled labour, infrastructure etc. According to table 3, the increase in oil revenues is almost entirely allocated to increases in current expenditure by the Government. Therefore, it is not surprising that domestic investment/GDP ratio has not increased after the discovery of oil.

The increase in current expenditures is partly understandable as the country is engaged in a military conflict. Nevertheless, it is not the whole story. The Government employees were one of the main beneficiaries of the increase in Government current expenditure. For example, during 2002-2006, the government salaries and wages increased 2.5 times, almost equal to the percentage increase in capital expenditure of the Government. Over the same period, the incremental percentage ratios of Government wages and salaries to GDP (11.4) exceeded the incremental ratio of oil revenues to GDP (9). In 2006, wages and salaries accounted for over one fifth of Government expenditure (Based on IMF, 2006:

table 2)[4]. To what extent the increase was the result of an increase in the number of government employees, or in unit wages and salaries, is not clear in the absence of data.

Although no data are available on the distribution of Government expenditures in Khartoum and provinces, it is believed that about 60 to 70 per cent of the budget is spent in Khartoum with its impact on the pattern of imports in favour of consumer goods including consumer durables (see tables 4 and 5). While the growth of imports of Machinery and transport equipments looks impressive, the figure contains imports of passenger cars. For example, between 2002 and 2005, for which data are readily available, the share of passenger cars, in total imports of transport equipments increased noticeably while that of capital equipments declined (table 5).

Insert tables 4 and 5 here

Serious bottlenecks have already appeared in infrastructure including electricity and water supply and transports, and organizational weakness showed themselves, e.g. in port facilities[5] and transport, leading to delay in inland delivery of goods. Further there have been weaknesses in institutions of trade promotion (IMF, 2006: 6**).** Moreover, inflation has picked up to 16.5 per cent at the end of 2006 as compared with 5.6 for the end of 2005 and average of 8 per cent for 2006.

Weakness in organization and a fire-fighting approach, rather than foresight, often leads to waste of resources and dissatisfaction of the stakeholders involved. One example is the way the Government handled the bottlenecks in transport services caused by the shortages of trucks. After some pressure from the private sector, the Government attempted to remove restriction on imports of trucks. As the decision was not based on a careful analysis, it subsequently led to significant over capacity of about 30 per cent in the supply

of tucks and the consequent losses for the private sector and inefficient use of foreign exchange.

There is clear evidence that Sudanese Dinar has appreciated considerably by 17 per cent between 1998 and 2005 and another 18 per cent in 2006)[6]. Significant appreciations of the currency no doubt will have a strong detrimental effect on both exports and domestic production through its price incentive effects as exporters will earn considerably less and producers face competition from cheap imports. As a result, both exporters and producers will be "pushed" out of tradable goods. There is in fact, some evidence on such a tendency. The non-oil export has increased little since 2000, and in 2005 it was less than its level in 1995(table A.1). More importantly, exports of manufactured goods, which picked up in the second part of 1990s, have drastically declined afterwards (table A.1). On the basis of the UN definition of manufactured goods, leather remains the only noticeable exports of manufactured goods (see table A.2).

Of course, in addition to exchange rate appreciation, the manufacturing sector has faced competition from imports due to the significant import liberalization during the last 15 years (see the following section). Considering the structure of production in the manufacturing sector, it is very likely that exports of manufactured goods may disappear altogether, perhaps with exception of petroleum based products, if present policies continue. Five industries together account for over 85 per cent of manufacturing production (food processing and beverages: 55 %; tobacco, 5%, chemical products 4.3%; petroleum based products, 17% and motor vehicles assembly operations, 3.6%). With the exception of petroleum based products, all are geared to the domestic market; and the vehicle industry enjoys significant protection.

Production of traditional industries has not been particularly promising. Clothing and textile are the only other important industries of the country; but they operate with extremely low capacity. In fact, the clothing industry has almost vanished (Table 6) under the pressure of competition from imports, the lack of modernization, due to the lack of resources and incentives. Indeed, half of manufacturing industries for which data are available have been working between zero to fifty per cent capacity (see table 6). Low capacity utilization of course implies existence of low productivity and high average cost**.** While both currency appreciation and import liberalization may have influenced, *inter alia*, the performance of export and production of the manufacturing sector. The relative impact of each is not however clear. There is a need for a detailed study of the issue.

Insert tables 6 and 7 here

The urban investors and industrialists, unlike farmers, have attractive profit opportunities outside of manufacturing activities. Non-tradables, e.g, trade related services, and construction activities, provide favourable opportunities for them. The annual average growth rates of all non-tradables item are higher than those of agriculture and manufacturing sectors for the 2000-5 period (see table 7); thus the non-tradables have gained considerable shares in GDP since 2000 (Figure 1). “Other services”, shown in the figure, include Government services. The figure on construction activities includes infrastructures and factory buildings. Data on growth of real estate is not available. Nevertheless, the experience of other oil exporting countries would indicate that in Sudan also real estates must have expanded fast despite the fact that financing facilities for real estates have not been ample in the country. Until 2000, no financing facilities for the sector were available, since then the real Estate Bank provides some short-term loans.

Agriculture has suffered from both currency appreciation and import competition. Between 1998 and 2005 imports of foodstuffs increased by 2.4 times from $263.7m. to $ 628m. However, the operation of push and pull factors are somewhat different in the agricultural sector than in the manufacturing one. In the short-and medium-terms, farmers may resist going out of agriculture despite the decline in their income. First, land is the only means of living for them and have little other opportunities in the rural areas. As their income is affected negatively, they continue cultivation for a while, but do not make effort to put extra resources in land to improve yield. The data on yields are extremely unreliable as estimation of area under cultivation and harvest are based on guess-estimates rather than scientific methods. Further, changes in yields are severely affected by vagaries of nature thus a firm judgement can not be made on changes in yield in the short-to medium-run. Nevertheless, the spectacular increase in yield in wheat cultivation, as compared with other crops, during recent years is telling and can be attributed to the incentives, cheap **finance** and services provided by Government. During 2000-04, yield, area under production and production of wheat increased by 18%, 89% and 120%, respectively. In most other main crops, for which data are available, yields declined (EIU, 2006:57). After the food shortage of 2001, the government paid more attention to wheat production. By contrast, low, and in some cases declining yields in some other products can be attributed, *inter alia*, to the lack of incentives and shift of resources to wheat production.

Another reason for the farmers to delay shifting to other activities is the illusion and hope for improvement due to the lack of appreciation of the reasons for changes, the lack of opportunities in rural areas and the socio-cultural resistance to a quick migration to cities. Nevertheless, after a lag, farmers, particularly the younger ones, will leave villages heading

to the cities in search of jobs in the construction activities or informal sector. It is perhaps early to witness such a development in a large scale in the case of Sudan.

Nevertheless, Sudan would witness in the next decade a significant migration to cities and loss of cash crops unless some policies are adopted in favour of Agriculture. After all, both Venezuela and Algeria were significant coffee producers and exporters before discovering oil, but these produces have been wiped out. Such outcome is not, however, inevitable. For example, Indonesia used oil revenues and adopted favourable policies to boost production of rice (Shafaeddin, 1988). We understand the Government is considering preparation of a "rehabilitation programme" for agriculture.

Comprehensive disaggregate data on investment for various sectors are not available. Judged by the available data, shown in table 8, however, the prospects for tradable sectors do not seem promising, investors, particularly national ones, favoured investment in services. And the agriculture sector, which account for the bulk of GDP, is favoured the least. Although the breakdown of investment in the industrial sector is not available, it is very likely that the share of manufacturing in total will be small. The data on this sector includes investment in mining (including gold which has been the fifth biggest item in non-oil exports), utilities and construction.

Insert table 8 here

Currency appreciation and trade liberalization are not the only reason for the stagnation of non-oil exports**.** The exporters and producers have also suffered from detrimental impacts of other Government policies**,** particularly those which contributed to increasing costs of production and transaction. For example, the manufacturing sector,

which requires long-term investment, suffers form high cost of interest, particularly as a result of the increase in the cost of borrowing since the introduction of Islamic banking, as well as the way interest is calculated by Banks in Sudan. The borrowers pay interest on full loans till the end of the contract despite their amortization in the interval. There are numerous taxes, charges and fees on, inputs (thus the lack of a decrease in costs of imported inputs despite trade liberalization and currency appreciation), production and exports as will be mentioned shortly. The allocation of financial resources has also been increasingly favourable to local trade, rather than exports, and considerably in favour of "other activities" rather than Industry and Agriculture. In 2005 the share of "other activities" was over 31per cent of the total flows to all sectors. By contrast, Exports, Industry and agriculture received 8.2%, 11.9% and 4.9% of the total flow, respectively. In the same year the flow of funds to "other activities" increased by nearly 88 per cent, while that to the export activities declined by about 26 per cent (Central Bank of Sudan, 2005:91). "Other activities" include energy, mining, real estate and some unspecified sectors (Central Bank of Sudan, op. cit.).

Agriculture has suffered from declining credit provisions, except for wheat which also has enjoyed subsidized credit; as debt-ridden farmers were unable to repay their debts the banks cut back on credits (EIU, 2006:39). Extension services were lacking and deteriorated due to "the privatization of some services to the collective irrigation projects" (loc. cit). After all, both the agricultural and manufacturing sectors were subject to the competitive pressure from trade liberalization as will be explained below.

IV. Trade Policy

For Sudan, as an oil exporting country, trade policy takes a much more important role than in many non-oil exporting countries for three main reasons. First, due to the appreciation of the currency, the foreign exchange loses its importance as an instrument of trade and industrial policy. In fact, unlike cases where trade liberalization is partially offset by compensatory devaluation, in the case of Sudan one needs to resort to other policy instruments, including trade policy, to compensate for the appreciation of the local currency. Secondly, main agricultural export and import products of Sudan are subject to a high degree of subsidization by main developed country exporters, notably the USA and EU with, their negative influence on international prices of these products. Thirdly, the country is at early stages of industrialization and trade policy in general should help development of its industrial capacity in the long-run, based on the principle of dynamic comparative advantage.

Therefore, the process of trade policy of the country, including its trade liberalization, should be envisaged in this context. In other word, to succeed, trade policy in general, including trade liberalization, should be based on a clear long-term strategy. Both industrial support and liberalization should be selective and flexible accompanied with capacity building for provision of a host of other supplementary measures necessary for industrialization and growth. Otherwise, the experience of trade liberalization in other developing countries, particularly low income ones, shows that pre-matured and across-the-board trade liberalization could lead to locking the country in production and exports of primary commodities and at best some assembly operations and simple labour intensive industries (Shafaeddin 2006.a).

Some effort is being made by the Government authorities to formulate trade policy of the country while the country is preparing for the accession to WTO. Nevertheless, Sudan is facing two main challenges in organization and design of trade policy making. First it needs to design and formulate a long-tem trade strategy integrated into development strategy. Second, it needs to remedy fragmentation in policy making in order to: overcome the lack of coordination among policy makers involved; avoided inconsistencies between trade policy and other government policies; take appropriate supplementary policies and measures necessary for industrialization and development.

To begin with, the country needs a consistent long-term trade policy integrated into development strategy. Currently this is lacking. Tariffs are set by the High Custom Committee with the participation of the representatives of the Ministries of Trade, Industry and Agriculture. Nevertheless, the Committee functions under the guidance and control of the revenue department of the Ministry of Finance. Tariffs serve basically as a fiscal instrument, i.e. to raise revenues although its protective function is not ignored entirely.

The Government has liberalized the trade regime of the country significantly with the introduction of National Economic Salvation Programme in 1990, and the introduction of Comprehensive National Plan of 1992-2002. However, tariffs were still high until 1998 when the Government liberalized the trade regime further with recommendations received from IMF in 1997. It seems, however that in the new trade regime, the development dimension of tariffs was neglected by the Government. By 2002, the average tariffs rate of the country was reduced considerably to 24.3, and the number of import tariff bands and the tariff band range were reduced to 4[7](from 15 in 1989) and 0-40 (from 0-1000 in 1989), respectively. Later on in 2002, the highest band was increased to 45 for revenue reasons. In

2003 a new band (3) was introduced and the average tariff rate was reduced to 22.7; the tariff bands comprised of: 0 (244 lines), 3 (715 lines) 10 (1422 lines), 25 (362 lines) and 45 (1547lines). Subsequently in 2004 the band 3 was again eliminated, and in 2005 the average tariff rate was further reduced to 21.7 per cent.

The tariff reform of 2005, in particular, was substantial when 306 tariff lines were reduced as follows:

- 130 tariff lines from 30 percent to 10 per cent (mostly inputs);
- 116 lines from 25 per cent to 3 per cent (again mostly inputs);
- 22 lines from 10 per cent to 0 per cent (machinery and equipments);
- 16 lines from 45 per cent to 25 per cent (Intermediate goods e.g. cement and iron product);
- 3 lines from 25 per cent to 0 per cent (agricultural products: plants and trees).[8]

The upper tariff band was reduced to 40 in 2006 leading to further reduction in average tariffs. Currently the agricultural sector is subject to average simple tariff rate of 31 per cent and manufacturing 18.4 per cent. However, the import weighted average for all products is believed to be 11 percent as many investors are exempted from tariffs for imported inputs and machinery under the Investment Encouragement Act. Export duties (but not internal taxes and charges) on all export items, except for hide and skin, have been removed.

The tariff band structure has some elements contributing to protection of infant industries. Generally speaking, tariffs on heavy machinery, imported raw materials and inputs to manufacturing, agriculture and animal husbandry are zero or low (e.g 10 per cent for tools and equipments). Moreover, the tariff structure seems to benefit from tariff

escalation with the degree of processing to promote and protect value added (TRADES, 2004:36-7).

Luxury products are subject to higher tariffs, for revenue purposes, and for saving foreign exchange. Similarly, there is a high tariff on sugar, the nominal international price of which has been falling continuously (by an annual average rate of over 4 per cent during 1988-2004 (UNCTAD.2005: table 8.5), influenced by subsidization by developed country producer and exporter.

The tariff structure, so designed contributes to establishment of various industries, based on domestic raw materials and imported inputs and assembly operations in luxury goods (cars, TV, refrigerators, etc.). The tariff structure, as well as trade liberalization, does not seem to be, however, linked to a clear industrial strategy where specific industries are chosen for support and development-except for a few luxury one-such as the car industry which also enjoys high tariffs. Even in these cases the high tariff seems to be imposed for revenue purposes rather than as an element of industrial strategy.

Generally speaking, the reform of the tariff structure does not seem to have been based on any research and analysis or on a clear industrial strategy. And the results do not seem to have been satisfactory. The liberalization of 1990s, before the oil boom when the impact of the Dutch Disease was not present, was not conducive to growth of manufacturing sector as judged by the rate of growth of 2.4 per cent for the sector over 1990-98 as compared with 3.4 per cent for 1980-90 period[9] (World Bank, 2000: table 41.1). As mentioned earlier, for the period after the oil boom, although the MVA has picked up, it has been accompanied with sever fluctuation and declining exports; moreover, the capacity utilization is still low in most industries and the investment in the manufacturing sector, as

well as the Agriculture, has not been promising. Paradoxically, even where some industries were subject to relatively high tariff (e.g. clothes and shoes benefited from the highest tariff band), they did not performed satisfactory: the first is vanishing as mentioned earlier, and the second is operating at 40 per cent capacity-although it is true that these two products are subject to sever competition from imports from China. In other words, both liberalization and application of high tariffs have failed. Thus, the failure of tariff reform to promote exports seems, *inter alia*, to be also due to some other shortcomings than the trade policy making and implementation. We have already mentioned some of these problems in the previous section.

Another shortcoming of the trade policy mechanism of Sudan is that it is too fragmented. Many players are involved with little coordination. In principle, the Ministry of Foreign Trade is supposed to be responsible agency for trade policy. Nevertheless, in practice, its involvement is minimal. The Ministry of Finance sets tariff, the Ministry of Trade is responsible for licensing , the Ministry of Investment provides duty exemptions to investors; some other Ministries, e.g. Ministries of Agriculture, Livestock or Industry, set various charges and fees (and even sometimes restrict, or allow, imports) and the Ministry of finance imposes taxes; the WTO Accession Commission (WTOAC), which is responsible for issues related to the accession, operates independently in the presidential office ; the Ministries of Trade and International Co-operation deals with other multilateral trade agreements.

Moreover, as a result of the lack of coordination, there are often contradictions between trade policy and other Government policies including fiscal measures. While trade liberalization, i.e. reduction in import duties, put competitive pressure on domestic products

and reduces bias against exports, a host of other charges and taxes put cost pressure on production and offsets the anti-export bias of tariff reductions. Despite the fact that a number of taxes and charges (numbered around 50 in 20049)**-WT/ACCC/SDN/17)** [10]have been omitted, or reduced, still many of them remain, and sometimes new ones are introduced. In some cases taxes and charges account for 20 per cent of cost of production. For example, taxes imposed on sugar, which is an important input to the food processing and biscuit industry constitute 34.8 per cent of the factory gate price. Apart from increases in production cost, the contradictory measures taken by various players lead to unpredictability and uncertainty of investors. The fluctuation in growth of MVA could be partly attributed to this issue.

Finally, trade policy on its own can not make miracles. Trade policy has not been backed by other measures necessary for diversification of the production and export structure. For example, the lack of attention to development of marketing and distribution channels is also a contributing factor to high market prices, particularly for such agricultural products as live stocks and sesame. A World Bank DTSI study on Agricultural sector concluded that the margin of taxes and marketing costs together add about 100 per cent to farm gate price of cattle in Dafur before reaching Omdurman market.

VI . Some suggestions on trade policy structure and challenges of policy making

Achieving the level of an advanced economy is an objective of the Government as mentioned earlier. To achieve this objective, requires moving up the ladder of industrialization by continuous upgrading of the industrial structure. The design and structure of trade policy should, therefore, serve this long-term objective. Unless this

"challenge" is faced appropriately, the country will continue specializing in oil and other primary commodities. In an ideal situation, free of external pressure and obligations imposed by WTO, the structure of tariffs should be flexible, mixed, dynamic and predictable accompanied with a long-term industrial strategy. It should be flexible because at any point in time different industries need different degree of support, or liberalization. It should be dynamic because over time tariffs are raised on some products and reduced on others until the industrial sector is built-up and all restrictions on trade are removed. Such a dynamic tariff structure also has implications for negotiation in WTO on binding tariffs.

The scarcity of resources, both financial and skilled human resources; the lack of experience; the existence of market failure; different externalities, linkages and learning effects –all imply that the country cannot develop various industries at the same time. The experience of industrialized countries show that industrialization proceeds on selective basis. The country may choose some light industries to begin with. As a group of industries are selected for development, the inputs for these industries should be free of duties, if imported, or free of taxes and charges if domestically produced. Nevertheless, the experience of developing countries shows that to avoid rent seeking and inefficiencies, any support provided to an industry should be accompanied with "performance requirement" (Amsden,1989 and Shafaeddin, 2006.b). The enterprises should also know in advance that the support would be temporary. Pressure should be put on the enterprises first through domestic competition and then by gradual removal of tariffs and other supports as the industry reaches near the stage of maturity. At this stage all measures should be taken to back-up the firms concerned to enter quickly into the international market. Provision of information on market and marketing channels is essential for this purpose. The WTO rules

do provide some policy space for subsidization of exports in the case of LDCs (Rodrik, 2004). As these industries become subject to liberalization, a second group are chosen, again on selective basis, for development. This group may include some other consumer industries and/or input to some of industries in the first group. As the second group matures, the process of, liberalization/industrial support etc. continues until some machinery can be produced in the country[11].

Table 9 provides the evolution of a hypothetical dynamic and flexible tariff structure for the purpose of illustration. Accordingly, in each phase of industrialization, some industries are supported and others benefit from free trade; any support would be temporary and liberalization should be gradual. Such a flexible tariff structure should be based on an industrial policy. One feature of this tariff structure is that although the tariffs change for each group of products over time, the average tariffs is not necessary high; in each phase some industries enjoy relatively high tariffs, while others are subject to zero or low tariffs.

Insert table 9 here

It is often argued by neo-liberals that the low capacity of the government for policy making and implementation in low income countries would be an impediment to selective industrial development; it would not be easy for the government to implement such a strategy. Further, as a host of other infrastructural, organizational and institutional factors impede industrial development, and trade policy alone can not lead to industrialization (e.g. Krueger, 1980). Neither of these arguments are necessary valid. The lack of ease and government capacity is not an argument in favour of lethargy; what is needed is to develop the capabilities of the government. It is true that a host of other policies and measures are essential for industrial development, but this is not an argument for the lack of a flexible

trade policy. In fact, when an industry is supposed to be developed in an unfavourable environment, the environment, including market failure, should be corrected and at the same time the industry be provided with support. After all, the results of empirical analysis are not conclusive in favour of a rigid tariff structure and uniform trade liberalization **(**Shafaeddin, 2005.a, Stiglitz, 2005, Rodrik, 1997)[12].

The flexible tariff structure proposed above has an important implication for the way tariffs are bound. If individual tariff lines are bound at a low rate, the country will lose flexibility of trade policy as a tool of industrialization and development. If on the other hand, the average tariffs, not individual tariff lines, are bound, the country could benefit from the flexibility in its tariff structure on the line proposed above.

In fact, in the above illustrative example, the average bound tariffs necessary for achieving the proposed flexible tariff structure is 25 which is less than the case where sectoral tariffs rates are bound. In other words, in the latter case, if the country is at phase I, it has "to bind its sectoral tariffs at the maximum rates, ending up with an average bound tariff of 37.5 per cent [(20+40+50+40)/4. If it is in phase II the necessary average bound rate would be (10+40+50+40)/4=35[13]]" (Akuze, 2006:26-7).

In practice, negotiating such a tariff structure in WTO is an important challenge. In spite of the fact that the WTO rules provides some leeway for LDCs (Rodrik, 2004), the experience of other acceding countries would indicate that Sudan will also be under the pressure to accept "WTO plus" conditions. It may come under the pressure to opt for more uniform tariff rates, to reduce applied tariffs, and to bind tariffs at the reduced applied rate. To what extent the country would succeed would depend not only on the skill of negotiation but also on the beliefs and stands of the Sudanese negotiators regarding the type of trade

policy needed for the country. There are a few points in favour of resisting binding all tariffs, particularly at low rates. First, the July package, confirmed in the Honk Kong meeting, exempts LDCs from binding tariffs-although the July package refers to the contracting parties not acceding countries. Second, currently, for LDCs, the difference between bound tariffs and applied tariffs is large as compared with other developing and developed countries. For LDCs, the averages are 46.3% and 12.6%; for other developing countries they are 29% and 11.1 per cent and for developed countries they are 5.7% and 4.7%, respectively. (Page &Kleen, 2004:34). Similarly, LDCs also benefit from tariff escalation more than other developing countries (loc. cit). Third, other acceding countries were made obliged to bind some tariff lines, not all. Fourth, the Doha Round and subsequent Sub Committee on Least Developed Countries (see e.g.WTO: WT/COMITD/LDC/11-2002), recommended facilitation of the accession of LDCs-although did not specifically refer to the issue of binding. Finally, the on going negotiation on the question of the choice of coefficient, under the Swiss Formula, under NAMA officially exempts LDCs from binding their tariffs.

Yet, the country may not be able to avoid binding some tariffs. Hence, it should be well prepared in advance to know which tariff lines it is ready to bind and which ones it should avoid. Such a preparation would require a long-term trade and industrial policy. Sudan should also be alert that the tariff lines it binds would not conflict with its current, or future, commitments under regional trade agreements. In other word, it does not bind those tariff lines below those, e.g. agreed, or to be agreed, tariff lines under COMESA. Another challenge for Sudan is to avoid “WTO plus” conditions under EPA (Economic Partnership Agreement) under pressure from EU. This issue requires a separate paper.

VII. Conclusions

We have attempted to analyse the impact of discovery of oil on economic development of Sudan, as a low income country, and the prospects for its long-run development and diversification of its production and export structure. Developing a framework of analysis we have shown that while rapid and sustained development and diversification are among long-run objectives of the Government and oil can contribute to achieving theses objectives through its "financial effects" and "supply effects". Whether or not it does, will depend, we have argued, on the Government policies and the way oil revenues are allocated. In fact, the contribution of the oil sector to development and diversification will be hampered by some physical, institutional and organizational factors including the socio-economic impact of the oil sector itself on the economy as well as the attitude of the Government. We have shown that acceleration of GDP growth of Sudan has become possible since the discovery of oil without much increase in taxes and domestic savings. The increase in the I/GDP ratio of the country was, however, almost entirely due to increases in FDI and credit worthiness of the country in international market. Otherwise, the increase in oil revenues has almost entirely been allocated to current expenditures by the Government. The Government employees have been the main beneficiaries. For example, during 2002-6 the incremental percentage ratio of wages and salaries, received by Government employees, to GDP exceeded the incremental ratio of oil revenues to GDP. Growth and diversification were also faced with such bottleneck as shortage of electricity, water, transport facilities as well as organizational factors. The non-oil exports have increased little since 2000 and in 2005 they were lower than their level in 1995. Manufacturing export, in fact, declined. It declined not only due to the so-called Dutch disease and import liberalization, but also because of the inconsistent

Government policies which contributed to increasing cost of production. They together reduced incentive for investment in production and exports activities in agriculture and manufacturing sectors as compared with non-tradable activities.

We have argued that in Sudan, as an oil exporting country, long-term trade policy strategy more importance than in other developing countries. Yet the existence of oil revenues itself reduces the need for formulating an appropriate strategy. We have reviewed the process of trade liberalization of the country which started in early 1990s and showed that the trade policy of the country is not geared to a well-thought and clear industrial strategy. The tariff system of the country functions basically as a tool of fiscal measures rather than a tool of industrial policy. Not only the trade policy making is fragmented, but also there are inconsistencies between trade policy and other policies and measures taken by the Government.

We have also proposed a dynamic and flexible long-term trade and industrial policies for the country. We have, however, added that implementing such a policy is a challenge for the Government despite the fact that the WTO rules envisage some flexibility for LDCs. It is a challenge, because of the limitations which may be imposed on the country in the process of negotiation for the accession to WTO. In order to prepare for facing that challenge there is a need for formulating comprehensive long-term trade and industrial policies integrated into the development strategy of the country-let alone the need for the knowledge, information and skill of bargaining. The problem is that the availability of oil revenues reduces the urgent need for such a strategy. As long as oil revenues are available such a need will not be felt; when oil revenues exhaust, it will be too late. This is the main dilemma of an oil exporting country.

Table 1: Required growth rates of GDP and I/GDP ratio for reducing poverty by half starting (2005)

	All Sudan	North	South
By 2015:			
GDP (An. Av. Growth rate)	7.9	6.8	31
I/GDP ratio	34.2	24.6	227.1
By 2020:			
GDP (An. Av. Growth rate)	6.2	5.5	21.3
I/GDP ratio	26.4	19.9	157

Source: Abdel Gadir Ali (2006): 145-7

Table 2: Investment, savings and FDI as a ratio of GDP
(Sudan 1999-2005)

Year	FDI $m	S	I	(I-S)	FDI	I-FDI
		% of GDP				
1) 1999	223	7.7	16.8	9.1	2.1	14.7
2) 2005	2355	13.3	23.3	10.0	8.5	14.8
Changes: 2-1	2132	5.6	6.5	0.9	6.4	0.1

Sources: Based on IMF (2006.a:table2) and World Bank (2006.b: tables 3, and 6)

Note: The figures on FDI also include portfolio investment.

Table 3: Oil revenues and Government current expenditure as a
Percentage of GDP (Sudan, 1999-2005)

Year	Oil revenues	Current expenditures
1) 1999	0.6	7.2
2) 2005	14.3	20.6
Changes: 2-1	13.7	13.4

Sources: Based on World Bank (2006.a table 2 and 2006.b: table 4)

Note: the figures on FDI also include portfolio investment.

Table 4: Main groups of imports of Sudan in 1998 and 2005

	1998 (1)	2005 (2)	Ratio (2) :(1)	An.Av. Growth rate
Total imports: of which:	1664	5946	3.57	19.9
Foods	264	628	2.37	13.2
Light Manufactured goods[b]	625.2	1261	2.01	10.5
Machinery and transport equipments	482[a]	2417	5.01	35.9

Sources: World Bank (2006.b:19-20 and 2006.a table 3) which in turn is Based on IMF sources for Balance of Payments Accounts.

a: The figure relates to year 2000

b: Excludes textiles

Table 5: Share of main items in imports of transport equipments of Sudan (2002-5)

Year	Passenger cars &parts		Busses, truck & Railway equipment	
	Value ($m)	Share (%)	Value ($m)	Share (%)
2002	91.7	35.8	97.6	38.2
2005	475.2	41.3	360.6	31.3

Source: Based on Central Bank of Sudan (2005: table XVI-B).

Table 6: Capacity utilization ratio in some industries of Sudan in 2005

Industry	%	Industry	%
Sugar	108.5	Leather	50.0
Printing	75.0	Refrigerators	49.5
Juice	80.0	Liquid battery cells	42.5
Matches	77.8	Paints	40.0
Soft drinks	72.0	Shoes	40.0
Confectioneries	70.0	Flour miles	39.0
Biscuits	66.7	Vegetable oils	25.0
Pharmaceutique (average):	66.7	Textiles	8.3
Dry battery cells	66.7	Yarn	14.0
Jam	54	Ready made clothes	0.0[a]

Source: Central Bank of Sudan (2005:52-8

a. 7.7 in 2004

Table 7: Annual average growth rates of main non-oil sectors of Sudan (2000-5)

Sectors	Growth rates			
	1980-90	1990-98	1999-2005	2000-5
Agriculture	0.6	15.3	2.5	2.8
Manufacturing	3.4	2.4	4.2	4.7
Transport and communication			5.3	5.4
Trade, restaurant and hotels			7.2	8.25
Construction			3.8	7.3
…				
Other services (including public sector)			7.7	8.2
All services	1.7	3.0		

Source: based on World Bank (2006.b: table 2) which is in turn is based on IMF sources except those of 1900-98 which are based on World Bank (2000: table 4.1).

Table 8: Investment in various economic sectors of Sudan (total 2000-4)

Sector	National Value	%	Foreign Value	%	Total Value	%	Share of national (%)
Industry	3921	38.1	764	48.3	5687	41	68.9
Services	6222	60.5	653	65.3	7878	56	78.9
Agriculture	131	1.3	230	6.3	361	3	36.2
Total	10276	100	3650	100	13926	100	73.8

Source: Ministry of Industry of Sudan

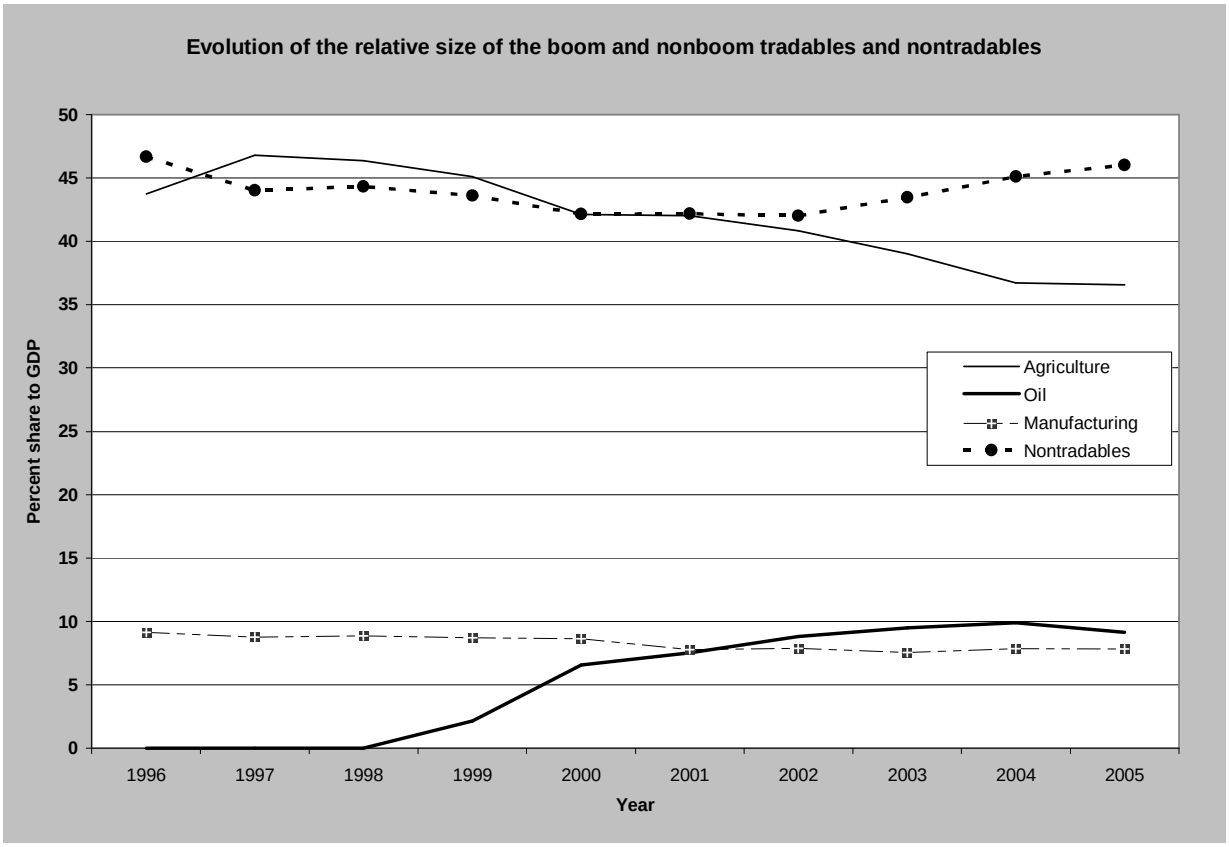
Table 9: Hypothetical evolution of average tariffs for various groups of Industries at different phases of industrialization

Phase	RB&LI	LT	MT	HT	Manufactures (Average)
I	20	0	0	0	5
II	10	40	0	0	12.5
III	0	30	50	0	12.5
IV	0	20	40	40	25
V	0	10	30	40	20
VI	0	0	15	25	10
VII	0	0	5	15	5
VII	0	0	0	0	0

Source: Akyuz (2005: 27)

Notations:
RB: Resource-based industries
LI: Labour -intensive industries
LT: Low-technology-intensive industries
MT: Medium technology-intensive industries
HT: High technology-intensive industries

Figure 1: Value-added of non-boom tradable and non-tradable as % of GDP



Source: World Bank (2006.a:11).

Table A.1: The Structure of Sudan's Exports (1995-2005)

	Value ($m.)				Share in Non-oil X (%)			
Export groups	1995	2000	2003	2005	1995	2000	2003	2005
Total	685	1631	2481	4355	100.3	300.4	485.5	714.3
Oil	2.1	1088	1970	3745	0.3	200.4	385.5	614.2
Non-oil, of which:	685	543	511	609.7	100	100	100	100
Agriculture	613	348	395	505	89.7	64.1	77.2	82.8
Food	297	271	246	296	43.5	49.9	48.1	48.5
Ag. Raw materials	316	77	149	209	46.2	14.2	29.1	34.2
Manufactured goods	43	124	37	4.4	6.3	22.8	7.3	0.7
Ores and metals*	2.7	8.2	9.9	17.4	0.4	1.5	1.9	2.9

Sources: Based on *UNCTAD Handbook of Statistics* (2005and 2006-7): table 4.1.A and 3.1, respectively.

* Excludes gold

Table A.2: Main exports of manufactured and semi-processed goods of Sudan in 2003($1000)

SITC	Product	Export
611	Leather	29900
582	Plastic products	74.0
Semi-processed:		
342	Liquid propane, butane	15594
571	Polymers of ethylene	5717
122	Tobacco, manufactured	91.0
675	other plastic, raw	2437
Others (including re-export):		
282	Ferrous waste and scrape	5161
288	Non-ferrous waste & scrape	3844

Source: UN, COMTRADE database

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[1] According to one estimate, the proven reserves of oil are about 600 to 800 m. barrels (Economist Intelligent Unit, 2006:43-4 and www.eia.doe.gov/emeu/cabs/Sudan). However, the estimate of recoverable reserves range between 2.5 to 5 bn barrels according to the same sources; the IMF Article IV gives an estimate of to 10 to 15 bn barrels. If one assumes that that annual output will not exceed that of 2006, which is estimated to be about 210 m/bs (575 000 b/d), the life of proven reserves would be very short-about 4 years. However, the Government expects production of 1.15m b/d in 2010 (Economist Intelligent Unit, Ibid). In such a case the life of the reserves would be even shorter. Nevertheless, on the basis of the estimates of probable reserve, their life could be extended to over 20 to 68 years, if current production level is maintained or up to 35 years if it is increased to 1.15 m b/d.

[2] This section is formulated and developed mainly on the basis of various writings of M. Kalecki (see the references) and the earlier work of the author (1980 and 2003).

[3] By contrast, demand determined industries are supply elastic, their output can be increased in the short and medium run considerably more easily than that of the supply-determined industries.

[4] The figure for 2006 are estimates

[5] According to the World Bank the delays reaches 83 days; the estimate by the Federation of Chambers of commerce is 53 days). Even if one assumes an average of 30 days delays, it would imply a delay of a month for the total imports of the country ($6.8b.in 2005) to reach its destination. The direct cost, in terms of cost of foreign exchange locked in and the interest rate paid for financing imports, for such a long period is considerable let alone its indirect cost in terms of disruption of production and supplies. A more efficient organizational arrangement could reduce the number of days at least by 50 per cent.

[6] Based on Central Bank of Sudan sources

[7] In 2002, the number of tariff bands, which had been reduced to 4,were increase to 5 temporarily.

[8] WTO document: WT/ACC/SDN/20:5).

[9] The annual average growth rate increases to 5.1 for the period 1978-91 (Based on UNDP, 2005: table 2.2.

[10] WTO, document: WT/ACCC/SDN/17).

[11] See Shafaeddin, (2005.b) for details and an example.

[12] For other references and different results and views see Shafaeddin (2006.b).

[13] Only at phase IV, the average necessary bound tariffs would be equal (25) in the two cases.