

**AFRICAN TRADE, INVESTMENT AND EXCHANGE RATE
REGIMES AND INCENTIVES FOR EXPORTING**

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INTRODUCTION

Many African countries began the process of reforming their trade, investment and exchange rate regimes around the mid-1980s; this process gathered pace through the 1990s as the reforms both widened in terms of country coverage and deepened in several countries. These reforms constitute a reflection, in most cases, of a shift from an inward-looking and import-substituting industrialization strategy to an outward-oriented and export-led development strategy. Correspondingly, the primary focus of policy gradually began to reflect increased concern for raising the profile of the export sector and, more specifically, for achieving the goal of significantly expanding and diversifying African exports. In this context, the emerging strategy appears to have at least two components, i.e., seeking improved external market access for a much wider range of African's export products, as well as seeking ways to eliminate the export supply response constraints which have hindered the growth and diversification of the region's export basket. An integral part of this second component of the strategy consists of measures aimed at improving the incentives for exporting activities.

In its analysis of export incentives, this paper suggests that such incentives can be direct and explicit when they take the form of

autonomous, complementary and / or compensatory measures which are specifically targeted at promoting exporting activities; and that they may also be indirect and implicit – and often largely unintended – when they are derived as by-products of policies targeted at other objectives. Hence, a comprehensive analysis of an economy's incentives for exporting should cover both of these two broad categories so that the extent to which they reinforce or cancel each other out, partially or fully, with respect to different export product groups can be examined. The paper identifies three broad sources through which implicit or indirect incentives for exporting activities can be generated in an economy. These include the trade, investment and exchange rate regimes.

The rest of this paper is organized as follows. Section II explores how the trade regime induces implicit or indirect incentives and disincentives for exporting activities; section III examines an economy's investment regime from the same perspective; and section IV completes the trilogy with an analysis of the incentives and disincentives for exporting activities that may be generated by the economy's exchange rate regime. More explicit and direct export incentives are discussed in section V, paying particular attention to the extent to which any of these may be autonomous, complementary to other indirect incentive measures, or compensatory in the sense of being aimed at eliminating the unintended

anti-export bias generated by the economy's trade, investment, and exchange rate regimes. The emerging research issues are identified in the next section; and a discussion of the relevant methodological approaches for researching these issues follows in section VII. The paper concludes in section VIII.

II. The Trade Regime and Export Incentives

Prior to the gradual reform of their trade regimes, many African countries maintained complex structures of import tariffs, export taxes and quantitative trade restrictions. These restrictive trade regimes reflected a development strategy which sought to promote industrialization via import substitution by promoting import-competing economic activities from international competition and/or to protect the balance of payments in the context of a fixed exchange rate. Subsequent trade policy reforms have been justified on the grounds that more often, more liberal trade regimes would foster a more competitive environment, ensure greater efficiency in the allocation of resources that would be better aligned to the comparative advantage of the reforming countries, and enhance access to the international pool of knowledge thus facilitating the adoption of superior production and managerial practices.

The idea that a country's trade policy influences the level and structure of its economy's production incentives and that these, in turn, determine the intersectoral flow of resources has a strong analytical basis in a simple model of a small open economy which produces three goods; i.e., exportables, importables, and home goods. Dornbusch (1974) and Sjaastad (1980) show that, in the context of this model, trade policy directly affects the domestic price of each tradable good in relation to the other and, through general equilibrium interactions, also the domestic prices of importables and exportables in relation to home goods. Because of these general equilibrium interactions, the real effects of trade policy may differ from those intended by policy makers when viewed from the perspective of their impact on relative rather than nominal prices. In particular, it can be shown analytically, that protecting any one sector through trade policy penalizes other sectors and that the degree of damage imposed on these other sectors depends on the substitution relationships in production and consumption.

Thus, an attempt to protect an import-competing sector through import tariffs and other import restrictions may generate significant and unintended negative incentive effects on the unprotected sectors. Bautista (1993) offers a simple formula for estimating the extent to which trade is

biased in favour of or against a particular sector in the form of the overall trade bias (OTB):

$$OTB = (P_x / P_m) / (P_x^* / P_m^*) = 1 + t_x / 1 + t_m$$

Where P_x and P_m are the domestic prices of exportable and importables respectively; P_x^* and P_m^* are their respective foreign (border) prices, and t_x and t_m are the implicit export tax and import tariff rates respectively. When OTB is less than 1, the trade regime promotes the production of importables over exportables; an OTB which is greater than 1 implies that the trade regime discriminates in favour of export production and against import substitution; while an OTB which equals unity shows a neutral trade regime.

Tokarick (2006) argues that import restrictions act as tax on exports through at least two key channels. First, import restrictions create a disincentive to exporting activities by directly raising the domestic price of imports relative to that of exports or by reducing the price of exports relative to imports. Second, import restrictions discourage exports by raising the price of imported inputs and domestic intermediate inputs that are used in the production of export products. This second channel may be further elaborated as follows. Tariffs on imports result in negative rates of protection for exports since the nominal rate of protection for their output

is typically zero, while the protection applicable to imported intermediate inputs is usually positive. Thus, for a given domestic export price, tariffs on imported intermediate inputs increase the cost of producing export goods and, therefore, will reduce the profitability and tend to decrease the output of exportables.

Rajapatirana (1995) found empirically that the negative impact of import restrictions on manufactured exports was much more significant through the second channel. In particular, import restrictions negatively affected the availability of imports that were often critical to the production of manufactured export products. Hence, in general, it was found that import restrictions had a significant negative effect on manufactured exports while their liberalization had a positive effect.

An analysis of the evolution of the trade regimes of African countries may, at the aggregate level, seek to determine the extent of anti-export bias and how this has behaved over time, noting in particular whether and the extent to which the measure of anti-export bias may have been reduced in the process of trade policy reforms. It may also be useful to differentiate among the key trade policy reform elements as a means of demonstrating the relative impact of the different elements on the anti-export bias measure. At more disaggregated levels, similar issues may be examined in relation to various categories of export product groups as a

means of determining the extent to which different degrees of reliance on imported inputs affect the negative impact (or disincentive) imposed by various levels and types of import restriction.

At both levels, in addition, it may be useful to examine, through simulation, what could be the implications of further trade policy reform for the implicit incentives and disincentives for exporting activities.

III. Export Incentives Implicit in the Investment Regime

By fostering efficient allocation of worldwide savings and promoting inter-temporal optimization of consumption, free movement of capital contributes to economic growth. In addition, foreign direct investment (FDI) can play a significant role in promoting economic development in low-income countries by serving as a mechanism through which superior technology and managerial know-how are transferred to such countries. Hence, the literature suggests that, unless there are specific distortions and externalities associated, capital (including FDI) should move freely across national borders. In reality, however, capital flows are virtually everywhere subject to a mix of restrictions and incentives. Hence, an incentive framework is embedded in the incentive regime of a typical country which has implications not only for the allocation of savings but also for exporting activities generated by the FDI flows.

National investment regimes have exhibited considerable variation over time and space (Hoehman and Saggi, 1999). This variation appears to reflect the clash between two considerations; on the one hand, it is recognized that freedom of capital movements offers some concrete economic benefits, while on the other hand FDI is associated with concerns about possible loss of national sovereignty and other adverse consequences (Golub, 2003). This latter concern was probably more significant in the era of import-substitution industrialization when FDI was typically not allowed or multinational firms which brought in foreign investment were required to operate under severe restrictions. The world has witnessed significant changes with regard to national investment regimes since the 1980s, as many countries have adopted and implemented more liberal policies towards FDI in particular and capital flows in general. The increasing acceptance of FDI has also been accompanied by explicit incentives to encourage it. As the investment policy pendulum appears to have shifted to the other extreme, there is now some concern that low-income countries may be in danger of engaging in excessive and wasteful competition in their efforts to attract investment. Hence, the emergence of a more liberal and internationally uniform investment regime may need to be balanced by a harmonization

of rules which not only reduce discrimination against foreign investors but also limit competition for the investment.

The general and worldwide trend towards more liberal investment regimes is also broadly reflected in Africa (Pigato, 2001; Moss et al, 2004). Thus, the investment regime was substantially liberalized throughout much of Africa during the 1990s. General economic reform implemented across the region led to sharp reductions in explicit legal restrictions on foreigners and their investments. Most of the countries in the region have concluded various bilateral investment treaties (BITs) and signed on to the key multilateral investment guarantee and protection arrangements which have strengthened the security and fair treatment of foreign investment. In addition, harmonization of investment laws and incentives has been intensifying across the region. But in spite of the obvious change in attitude to FDI, the investment regime in the typical African country continues to feature both elements that restrict and items that provide incentives.

Harrold et al (2000) argues that investment regimes in African countries lay a relatively greater emphasis on investment codes or regulatory mechanisms rather than on investment promotion. The investment codes are thus intended to ensure particular patterns of foreign investment. In general, the main restrictions on FDI can be classified into

several broad categories (Golub, 2003). One of these relates to foreign ownership and includes prohibition of any foreign ownership in specific sectors and/or limitation of foreign share of equity capital. Obligatory screening and approval procedures constitute another. These may include stipulations that foreign investors must show economic benefits. Other formal restrictions include constraints on foreign nationalists in relation to managing their investments as well as operational controls of their businesses. In particular, there may be stipulation with respect to the presence of nationals on the Board of Directors and senior management, rules that restrict employment of foreigners, as well as input and operational restrictions, including domestic content requirements. Pigato (2001) argues in this context, that there is considerable variation in FDI entry procedures and requirements across Africa. For instance, certain areas in many countries are reserved for local investment; some foreign investments must satisfy criteria on capital adequacy, technical skills, and economic benefits to the host economy; while some strategic sectors (e.g. petroleum and minerals) are often placed under special approval regimes. Moss et al (2004) adds that most African stock markets have legal limits on the amount of equity that can be owned by non-resident foreigners, while many also have linked legal performance requirements (e.g. local

employment, partnership and inputs) to the approval of foreign investments.

As suggested earlier, incentives to attract foreign investment may be justified if it can be shown that such FDI is associated with positive externalities. It is often hoped, for instance, that FDI will generate technological spillovers and managerial enhancement for local firms and employees thereby making them more efficient in the use of resources. Tax incentives are the most widely used as an instrument for promoting investment. Doubts have been raised in the literature regarding the efficacy and cost effectiveness of tax concession schemes (see, for instance, Sosa, 2006). But some evidences suggest that such incentives may have an effect on location decisions, particularly of export-oriented FDI (Hoekman and Saggi, 1999). In addition many countries across the world have signed BITs as a way to attract foreign investors to their shores. BITs give assurance to foreign investors that property rights are protected and they embody various principles regarding treatment, transferring funds, expropriation, and mechanisms for dispute settlement (Hallward-Driemeier, 2003).

Harrold et al (2000) is critical of African investment codes which place heavy reliance on fiscal and other incentives which may be largely ineffective in attracting FDI and are at the same time quite costly in terms

of lost revenue. It is suggested that the value of investment incentives in many African countries is limited to the extent that both the granting and the nature of the investment incentives granted are variable and discretionary (Pigato, 2001). Thus, while the investment incentives provided are often generous, the associated restrictive provisions and bureaucratic procedures may significantly erode their effectiveness.

In assessing the impact of the investment regime on incentives for exporting, it is necessary first to determine the net incentive that the regime provides for investment and, second, to determine what proportion of the investment which receives this net incentive is focused on exporting activities. It is reasonable to argue that investors are ultimately motivated by their expected risk-adjusted returns (Christiansen, 2004). Hence, in principle, multinational firms may be expected to choose where to produce according to the costs and benefits of alternative locations. Measures directly intended to influence corporate decisions on FDI can, therefore, be categorized broadly into positive and negative incentives, according to their direct impact on the return on investment. Clearly, fiscal financial and non-financial incentives usually offered to attract FDI fall under the positive category. Similarly, the negative incentives category would capture all types of barriers and restrictions to FDI which raise the costs of foreign investment.

An analysis of the impact of the investment regime on exporting activities may therefore embrace a two-step process. The first is a cost – benefit analysis which is aimed at determining the net incentive for investment generated by the investment regime. The second step consists of determining what proportion of this net incentive is attributable to investment on exporting activities. It is obviously unclear, *a priori*, what the sign and magnitude of the net incentive generated by the investment regime for exporting activities will be in different African countries over various time periods and across a number of export product groups. Whatever they may be, an important part of this research project is their use, through appropriate simulations to draw inferences regarding future directions of policy reform with respect to the national investment regime.

IV. Exchange Rate Regime and Export Incentives

There are strong indications in the literature which link exchange rate policy to export performance. For instance, Qian and Varangis (1992, p. 30) conclude that “maintaining realistic exchange rates is one of the key components of a rational export regime”. In the specific case of a set of African countries, two studies also link the performance of exports to the exchange rate regime. De Rosa and Greene (1991, p. 34) suggest that “allowing exchange rates to adjust to more realistic levels could lead to

significant increases in the production and export of such items as high-value horticultural products and light manufacturers, for which many African countries may have an underlying comparative advantage". In the same way, Elbadawi (1997, p. 34) affirms that "an equilibrium depreciation or a reduction in real exchange rate overvaluations should enhance exports relative to GDP". Implicit in these results is the analytical insight that overvaluation of the domestic currency acts as a tax on exports and thus represses their prices (in domestic currency) relative to the prices of home goods. This distortion in the incentive structure penalizes exporting activities and hence makes their production relatively less attractive than that of home goods. The implication is that the depreciation of the domestic currency should enhance the incentives for exporting activities and expand the production of export goods.

From the policy perspective, however, it is important to establish the key determinants of the real exchange rate and show how each of these contributes to changes in the real exchange rate which, in turn, impacts upon the incentives for exporting. In general, changes in the real exchange rate may be triggered by policy changes in various areas, especially trade, fiscal, monetary, capital movements, and the nominal exchange rate, as well as through autonomous shifts in the terms of trade.

Which of these constitutes the dominant factors may, obviously, vary across countries and within a country overtime.

Beyond its direct effect on the incentives for exporting (discussed in section II above), trade policy also indirectly influences the real exchange rate. In the context of the small 3 – good open economy model of Dornbusch (1974) and Sjaastad (180), it is shown, that import and export restrictions influence the real exchange rate by changing the domestic demand for and supply of tradable (i.e. importable and exportable) and non-tradable goods. In particular an increase in import restrictions raises the domestic price of importables in relation to those of exportables and home goods. As a result, the demand for these goods rise. To restore equilibrium in the market for home goods, their price must rise in relation to the price of exportables and the new post-tariff price of importables. This means that the real exchange rate appreciates. Expressed differently, import restrictions act as a tax on imported goods, thus reducing the demand for these goods and lowering the domestic price of foreign exchange. An export subsidy has the same effect; by shifting domestic demand from exportables to importables and home goods, equilibrium in the market for home goods can only be restored through an increase in its domestic price in relation to those of importables and exportables which in turn forces the real exchange rate to appreciate. Export taxes and import

subsidies have the opposite effect. In summary, import restrictions and export subsidies lead to an overvaluation of the exchange rate relative to its free trade value; while import subsidies and export taxes have the effect of undervaluing the exchange rate relative to its free trade value.

Beyond what the analytical insight discussed above demonstrates, there is also a practical side to trade and exchange rate policies. Experience shows that major trade policy reforms in many developing countries are often closely associated with corresponding reforms of exchange rate policy. In particular, trade liberalization is typically preceded by or directly associated with devaluation. As Rajapatirana (1995, p. 12) asserts, "it is inconceivable that substantial trade liberalization would be possible without some flexibility in exchange rates"

The real exchange rate is also influenced by an imbalance in a country's external accounts. For example, when a country's current account deficit is financed by drawing down its international reserves, or by borrowing and other forms of capital movements influenced by macroeconomic policies, the exchange rate becomes overvalued in comparison with what it would have been without the need to accommodate the unsustainable imbalance.

Similarly, changes in the external terms of trade can have significant effects on the real exchange rate. Expressed as the ratio of the world price

of export goods to the world price of import goods, changes in the external terms of trade will clearly affect the prices of tradables relative to those of non-tradables. There are two channels through which the effects can be manifested. There is, first, a direct impact on prices. For instance, a worsening of the terms of trade, which occurs through an increase in the world price of importables, all other things being equal, raises the domestic price of importables, increases the demand for and raises the price of home goods, and thus generates an appreciation of the real exchange rate. The opposite occurs when there is an improvement in the terms of trade. Second, there is an income effect. A worsening of the external terms of trade of the type described above leads to a reduction in the purchasing power of the country's export earnings and real income. The effect of this income change on the relative demand for tradables and home goods is determined by the varying income elasticities of the demand for these categories of goods. *A priori*, the net effect on the real exchange rate is indeterminate. But it is expected, typically, that the income effect will outweigh the substitution effect and, hence, that a worsening of the terms of trade will require a real exchange rate depreciation to restore external balance.

Finally, the real exchange rate is also influenced by capital flows. For instance, inflows of capital in the forms of workers' remittances, foreign

aid, and long term debt can generate an appreciation of the real exchange rate to the extent that they are spent largely on home goods whose domestic price will therefore rise relative to the price of tradables. Similarly, a temporary boom in one tradable goods sector (e.g., oil, minerals, etc) places an upward pressure on the real exchange rate through both the spending and resource movement channels (for further elaboration see Corden and Neavy, 1982; Edwards and Aoki, 1983; and Oyejide, 1993)

The discussion so far has identified the main determinants of changes in the real exchange rates and shown the primary channels through which they bring about the changes. Changes in the real change rate, in turn, have important implications for an economy's incentives for exporting activities. In particular, when a country's domestic currency is overvalued, the structure of its incentives is biased against the production of export goods. Hence, ensuring that the exchange rate adjusts to more realistic levels is a means of enhancing the economy's incentives for exporting and could lead to increases in the production of export products.

In addition to the impact that the real exchange rate has on the incentives for exporting, its volatility can also affect a country's volume of trade. In particular, since exchange rate volatility increases the risk and uncertainty in international transactions, it tends to discourage trade. More

specifically, the export supply curve of the risk adverse firm will shift to the left in the presence of exchange rate volatility. In other words, for any export quantity supplied, the corresponding price will be higher under exchange volatility (and, hence, risk) than in its absence. Qian and Varangis (1992) suggest that using forward or futures markets to hedge against foreign exchange risk is an imperfect and costly method of avoiding it. They find further that the problem associated with exchange rate volatility is likely to be more acute in developing countries for two main reasons. One is that their exports are generally invoiced in other than the local currency; and the other major reason is that currency hedging instruments are little used in these countries. In his analysis of a number of African countries, Elbadawi (1997, p. 34) obtains two important results that are relevant here; i.e., "that predicted real exchange rate (RER) variability as well as RER risk (unpredictable variability) have deleterious effects on exports", and "that avoiding RER disequilibrium is critical for export competitiveness, but may not be sufficient under conditions of high RER risks or substantial RER instability". Therefore, exchange rate volatility negatively affects an economy's incentives for exporting activities

A cross-country study of African countries which focuses on an analysis of the impact of the exchange rate regime on the incentives for exporting may need to carry out several inter-related tasks, including:

- An analysis of the real exchange rate in each country over time
- An analysis of the determinants of the real exchange rate and the relative contributions of each of the major factors, as well as changes in these over time
- An analysis of the export-incentive effects of the real exchange rate attributable to each of the main factors over time.

On the basis of the indicators derived from this series of analysis, the study could make cross-country as well as within-country comparisons of the impact of real exchange rate on incentives for exporting. In addition, based on appropriate simulations, the study could examine the likely consequences of further reforms of the exchange rate regime for export incentives.

V. Explicit Export Incentives

In principle, export incentives can be grouped into three broad categories, for analytical convenience. One group consists of export incentive measures that are essentially *autonomous*. A second group consists of export incentive measures which are *compensatory* in the sense that they are aimed at eliminating, partially or fully, the anti-export

bias that may be generated by the trade, investment, and exchange rate regimes. The third and final group contains export incentives that are **complementary** to the extent that they provide additional support for the measures grouped under the first two categories indicated above. The discussion in this section focuses on these three broad types of explicit export incentives. However, it turns out to be more realistic to treat **compensatory** explicit export incentives together in a sub-section below; and to examine **autonomous** and **compensatory** explicit export incentive measures under a second sub-section.

(a) **Compensatory Measures**

An important objective of explicit export incentives which are targeted at compensating for some disincentives generated by an economy's trade, investment and exchange rate regimes is to eliminate these disincentives by assuring equal footing with foreign competition in terms of access to inputs at world market prices. This type of compensatory scheme can take several different forms. In other words, free trade status for export activities can be achieved through the creation of free trade zones, establishment of bonded manufacturing warehouses, as well as the establishment of duty exemptions and duty drawback

schemes. The last two are economy-wide schemes while the first three represent “set-asides” or enclaves that do not cover the entire economy.

In a duty exemptions system, exporters are exempted from paying duties or indirect taxes on imports used in the production of goods that are subsequently exported. By comparison, a duty drawback scheme refunds to exporters the duties and indirect taxes that were paid on imported inputs used in producing the exported products. These two arrangements are clearly closely related; the primary difference relates to timing, sequence and whether payments on input taxes are made by exporters or not. In other words, when a firm imports an input which is used in the production of an export product, the payment of applicable import duties and indirect taxes on the imported input is either waived (in which case duty exemption applies) or refunded to the exporter once the final product is exported (in this case, the applicable scheme is duty draw back or rebate).

Export processing zones (EPZs) constitute a specific and popular form of the more generic free trade zone. EPZs ensure the quickest access to free trade to exporters within designated areas. In general, they combine the provision of free trade status with other “equal-footing” incentive measures to export producers (Madani, 1999). Hence, EPZs are designed to off-set the disincentives generated by restrictive trade,

exchange rate and investment regimes. The policy measures built into the typical EPZ include realistic exchange rates, free access to raw materials, inputs and capital goods at world prices, easy access to investment licensing and financing for the creation of export production capacities, generous and long-term tax holidays and concessions, as well as no limitation on foreign ownership of the firms or on the repatriation of profits. In effect, EPZs are enclaves within which restrictions imposed on the rest of the economy by the trade, investment and exchange rate regimes do not apply.

(b) **Autonomous and Complementary Measures**

Autonomous and complementary measures are aimed at providing special incentives for exporting activities that are not necessarily related to any disincentive that would be associated with the prevailing trade, investment and exchange rate regimes. Key among these are special export financing schemes that may be needed to assist exporters in low-income countries which lack well developed financial systems (Demirguc – Kunt and Erzan, (1991); Harrold et al, (1996).

One form of such special export financing schemes is the provision of easy access to financing at affordable interest rates for exporting activities. The need for this arises from the lack of modern banks and

trading companies that are able to internalize the risk-taking involved. Hence, a bank-loan-based financing system may require special support in the form of transaction-based, self-liquidating mechanism for trade financing which typically includes rediscount mechanism at the country's central bank.

In addition, special institutions may need to be created for helping exporters cope in respect of the risks associated with non-payment by their foreign buyers, as well as their own failure to deliver goods ordered. These risks are typically covered, respectively, by institutions that provide export credit insurance and guarantee services, and pre-shipment export finance guarantee services. These may be provided by official export credit agencies (ECAs) whose services often include direct credit, refinancing, interest-rate subsidies as well as insurance or guarantee. ECAs may subsidize export-related credit either by advancing loans to exporters at below market rates or through guarantee and insurance schemes. The latter can take the form of self-insured repayment of direct loans to exporters or giving coverage to the financial institutions which provide the funds to exporters.

(c) Limitations of Explicit Export Incentives

Any analysis of the incentive content of the explicit export incentive schemes in many African countries must pay particular attention to their inherent limitations. Experience suggests that many of those that require sophisticated institutions, instruments and mechanisms typically do not function well. For example, the implementation of duty exemptions and drawback schemes in many African countries appear to be seriously flawed. The same problem may be responsible, at least partly, for the poor performance of the EPZs in some African countries. It seems also to be the case that many of the export incentive measures that must be implemented through explicit cash payments to qualified exporters tend to become redundant due to inadequate funding. Similarly, incentive schemes whose implementation inevitably reduces government revenue such as the duty draw-back or exemption scheme often suffer the same fate in a number of African countries. In addition, as Tokarick (2006) argues, compensatory measures such as duty drawback schemes often do not completely remove the bias against exports completely, partly because they do not reverse the decline in the relative price of exports or the higher price of domestic inputs generated by import restrictions.

Beyond these limitations of explicit export incentive arrangements, it is important to note that direct intervention by governments to boost

exports is being increasingly restricted by the rules of the World Trade Organisation (WTO) (Bora et al, 2000). In particular, the WTO Agreement on Subsidies and Countervailing Measures and the Agreement on Trade-Related Investment Measures make questionable, a range of export and investment incentives currently provided by many African countries. Hence, care must be taken in deciding which of these is likely to be sustained over the long-term, and therefore can be taken into account in simulations relating to future reform directions.

VI. Emerging Research Issues

At the end of each of sections II to IV of this paper, an attempt has been made to identify the emerging research issues pertinent to each of these sections. Thus, a statement of such research issues in relation to the trade regime, the investment regime and the exchange rate regime appears in the relevant section. In this section, what is added is essentially a summary and overview.

In general, the main research issue is an analysis of the extent to which the trade, investment and exchange rate regimes, as well as the explicit export incentive schemes in the case-study countries may have impacted (negatively or positively) on incentives for exporting activities in broad terms, and differentially on various categories of exports over time,

and the implications for policy reform in the context of the shift towards an outward-oriented, export-led development strategy. Of particular relevance, in this context is an analysis of the extent to which (dis)incentives for exporting generated by each country's trade, investment, and exchange rate regimes may have cancelled out the explicit incentives provided for exporting activities, again both generally and with respect to specific export categories. This requires a comprehensive description of the trade, investment, and exchange rate regimes as well as the various explicit export incentives in each case study country; and an analysis of their evolution over identified sub-periods which are carefully selected to reflect significant turning points in terms of development strategy or policy focus. There should, in addition, be a forward-looking component to this research. This requires the simulation of the likely effects on incentives for exporting activities, both in general and with respect to specific export groups, of selected future reforms of the country's trade, investment and exchange rate regimes as well as its explicit export incentives schemes. This should obviously be based on the estimates obtained from the previous series of impact analysis and on the effectiveness of the explicit export incentives either currently existing or that may be proposed for adoption and implementation.

VII. Methodological Approaches

The need for comparability across countries and over periods within the same countries can be met essentially through the use of a common and consistent methodological approach. Such an approach which is recommended for this study is described below.

The theoretical foundation of this methodological approach is the simple general equilibrium model of a small open economy that produces three types of goods, i.e., importables, exportables and home goods (Dornbusch, 1974; Sjaastad, 1980). Restrictions or distortions generated by the country's trade, investment and exchange rate regimes directly affect the domestic prices of each type of these goods in relation to the others through general equilibrium interactions. At the most aggregate level, the extent to which these policy regimes discriminate in favour of, or against, the production of exportables in comparison with importables can be captured in an overall measure of bias (OMB):

$$\text{OMB} = (P_x / P_m) / (P_x^* / P_m^*) \quad \text{----- (1)}$$

where P_x and P_m are the domestic prices of exportables and importables, respectively; and P_x^* and P_m^* are their respective world prices.

If OMB is less than unity, it implies that the policy regimes are biased in favour of importables and against exportables; an OMB which is greater than unity implies the opposite; while an OMB which equals unity indicates that the policy regimes generate a neutral environment for both importables and exportables.

This aggregate level overall measure of bias of the policy regimes conceals possible differences in the effects on various groups of export and import-competing products. To reveal these, what is required is an indicator of the sectoral incentives generated by the policy regimes. This is the effective exchange rate (EER) i.e., the number of units of domestic currency actually received by exporters per unit of foreign exchange, including the implicit taxes and subsidies. The EER is defined as:

$$EER_i = P_i / P_i^* \text{-----} (2)$$

where P_i and P_i^* are the domestic and world prices of product i respectively. The computed EER_i over time can be compared as a means of showing the extent and direction of relative price discrimination among different groups of export products.

Similarly, one can examine the implicit incentives for investment using the marginal effective tax rate (METR) approach (Sosa, 2006). The METR is defined as the wedge between the expected pre-tax real rate of

return on a new marginal investment project, net of true economic depreciation (d) and the after-tax real rate of return (r), typically expressed as a percentage of the pre-tax rate of return:

$$\text{METR} = (d - r) / d \quad \text{-----} \quad (3)$$

Computed METRs can be used to analyze the effective incentive for investment provided by different types of tax concessions.

The effective exchange rates for imports and exports determine the nominal prices of traded goods in the domestic economy. But to reflect the changes in the domestic price of traded goods in relation to the price of non-traded or home goods, one must use the real exchange rate (RER) which is defined as the relative price of tradables to home goods; i.e.:

$$\text{RER} = e (P_t^* / P_h) \quad \text{-----} \quad (4)$$

where P_t^* is the world price of tradables, P_h is the domestic price of home goods, and e is the nominal exchange rate.

In general, import restrictions and other distortions generated by the trade, investment and exchange rate policy regimes which lead to an increase in the domestic price of imports cause, in turn, an increase in the demand for, and price of, home goods. The extent to which this occurs is measured by the incidence parameter (w) which is defined as the percentage change in the RER for exportables (P_x / P_h) in response to a

given percentage change in the domestic price of importables in relation to exportables (P_m / P_x). In effect, the incidence parameter measures the extent to which policy-regime induced import restrictions intended to protect an import-competing activity may be shifted in part into a disincentive against the production of exportables. A simple technique for estimating the incidence parameter (w) is to run the following regression equation:

$$\ln(P_h / P_x) = \text{constant} + w \ln(P_m / P_x) + \text{error term} \quad \text{-----}(5)$$

The estimated value of the incidence parameter (w) lies between zero and unity; high w values imply that the real incidence of an import restriction derived from the policy regimes falls largely as a disincentive on the producers of exportables.

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