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*by Ousmane Badiane**

Introduction

Regional integration among West African countries has been largely understood as a component of national industrialization strategies. As such, it has strongly reflected the anti-agriculture bias inherent in the primarily inward-looking national strategies. This raises the question of whether, in the context of inward-orientation and neglected agriculture, regional markets can effectively be integrated and whether regional integration can have a significant impact on economic growth in individual countries. To answer these questions, the present paper begins with a discussion of the relationships between agriculture, industrialization and economic development in its first two sections. It then turns to the general linkages between trade and the role of the agricultural sector in the growth process. The last section focuses on the need, as well as the potential to redirect regional integration endeavors toward the agricultural sector.

1. Economic development and the agricultural sector

The different treatments of the relationships between agriculture and the growth process in theories of economic development follow from the various interpretations of four basic characteristics of agriculture: (i) the dominance of food production for consumption in traditional agriculture, (ii) agriculture's importance as a source of income and as an employer of low productivity resource, particularly labor, (iii) the progressive long-term decline in its share in the global economy, and (iv) the relatively slow expansion of international demand for primary commodities. In the early models of economic development much emphasis was put on the need for industrialization, and little or no emphasis was put on agriculture, which was seen primarily as a reservoir of low productivity labor (35; 22). The supply of "surplus" labor coming from agriculture is assumed to be "unlimited" and the pace of transformation to be constrained mainly by the demand for labor in the non-agricultural sector, which depends solely on the rate of capital accumulation in that sector. The increase in the capital stock in the modern sector is, therefore, seen as the main source of growth (19; 26). The above treatment of the agricultural sector implies that agricultural growth is not affected by the process of industrialization, and has no significant impact on that process since labor is already in surplus and flows freely from the declining

agricultural sector. It also implies that the emerging industrial sector creates "its own additional market" through wages spent on additionally hired labor (36, p. 206). The bias against the agricultural sector was exacerbated by the theory of import substitution, which recommends a shift out of agriculture into industry due to declining export demand and to long-term deterioration of international terms of trade for that sector. The attempt of these strategies that de-emphasize the role of agriculture to raise the capital stock in order to accelerate labor absorption or to promote import-substitution in general favors capital-intensive production processes. Such strategies are very likely to result in sharp disequilibria in factor markets, increased unemployment and slow economic growth.

As early as the end of the 1950s the need for increased agricultural production and supply of food, as a wage good to sustain the industrialization process, became apparent and was reflected in the findings that "industrialization depends upon agricultural improvements"; "industrial and agrarian revolutions always go together"; and that "economies in which agriculture is stagnant do not show industrial development" (22, p. 173). Agriculture-oriented development strategies have also received substantial support from the development debates of the 1980s (26; 1; 2; 40). Reconsidering the role of agriculture in economic growth and its relationship to the process of industrialization can help in understanding the lack of success of regional integration efforts focused primarily on industry. It would also help to better appreciate the potential contribution of agricultural markets to the objectives of regional trade and economic growth. If agriculture is to lead the development process then ongoing integration arrangements in Western Africa raise two sets of questions: the first, given their strong focus on industry, can existing integration arrangements effectively contribute to economic development in the member economies? and second, would not the bias against agriculture retard industrialization and impede efforts to encourage inter-country trade geared toward industrial commodities?

2. Agriculture, structural transformation, and growth

During the process of growth, progressive specialization, changes in factor intensities, and the income-inelasticity of demand for agricultural commodities induce a gradual transfer of labor from the rural, agricultural sector to the urban, industrial sector.¹ Eventhough the view that modernizing industrialization is the engine of sustained growth finds support, there is much dissent in theory, as well as in practice, about how best to industrialize: through biased industrial promotion or agriculture-led industrialization; through inward-looking import-substitution or trade-led strategy.

In answering the above questions it is useful to note that, even if the most labor-intensive production techniques are employed, it is unlikely that agriculture will provide the rates of growth necessary to absorb the growing labor force (26). The analysis of long-term industrialization in 100 countries has shown, for instance, that the growth rate of value added and input use in agriculture is about 40 to 50 percent less than

that in manufacturing (37). Consequently, the ultimate goal of the best agriculture-oriented development strategy must be to foster non-agricultural growth as well. Agricultural growth can lead the overall growth process by way of the following mechanisms: first, by raising the supply of food through domestic production and generating the foreign exchange necessary to finance the excess demand for food, the real wage rate is prevented from increasing to levels that would constrain growth in the non-agricultural sector. Second, the associated expansion of rural incomes creates demand for inputs and consumer goods and services, thereby stimulating production outside of agriculture. Third, productivity-induced growth in agriculture eases the transfer of resources needed in the rest of the economy.

Available evidence clearly supports the strong positive interrelationship between agricultural development and overall economic growth (see estimates in Table 1). A study of the relative growth of selected developing countries that have more than a 20 percent share of agriculture in total GDP during the decade of the 1970s has shown that in 17 of 23 countries where the agricultural rate of growth exceeded 3 percent, overall GDP growth rates were higher than 5 percent. Moreover, 11 of the 17 countries with GDP growth rates below 3 percent displayed agricultural growth rates below 1 percent (40). Similarly, results obtained by Hwa, which were based on data for over 60 developing and developed countries, show that a 1 percent increase in the rate of agricultural growth raises the growth of industrial output by 0.5 to 0.7 of 1 percent (15). In addition, growth accounts for nearly one fifth of the part of GDP growth among developing countries not explained by differences in growth of factor inputs and exports and in the rate of inflation. Furthermore, adding the growth rate of agriculture to exogenous variables to explain differences in the rate of industrial growth among the same sample of countries raises the coefficient of determination by 30 to over 100 percent. Also, the works of Ahluwalia et al. and Rangarajan on India suggest strong linkages between agricultural and overall growth (3; 34).

A major criticism against agriculture-led growth strategy is that it emphasizes the role of domestic demand and neglects the potential contribution of foreign trade to growth. What are the implications of the open economy environment for the role of agriculture in the process of growth? Does the access to foreign markets as a potential source of food supply and of demand for output from the domestic non-agricultural sector reduce the contribution that the agricultural sector can make? Answering these questions represents a first step toward looking at regional integration among agrarian economies not as a means of collective, import-substituting industrialization, but as one of exploiting the potential of regional agricultural markets to strengthen national development strategies.

Table 1: Estimates of source of growth*

Authors (sample)	Endogenous variable	Exogenous variables	
		Agric. output	Total exports
Bautista 1988 (34 LDC) ¹	Non-agric. value added	1.3 ^a (8.70)	
Riedel 1990 (All LDC) ²	Real GDP		0.22 (6.52)
Pachamukhi et al. 1989 (92 LDC) ³	GDP rate of growth		1.8 ^b (1.28)
Hwa 1989 (63 LDC/DC) ⁴	Industry rate of growth	0.49 ^c (2.1)	
Hwa 1989 (87 LDC/DC) ⁵	Industry rate of growth	0.72 ^c (4.1)	
Hwa 1989 (42 LDC) ⁴	GDP rate of growth	0.62 ^c (4.2)	0.23 (5.1)
Hwa 1989 (69 LDC) ⁵	GD rate of growth	0.38 ^c (4.2)	0.23 (5.1)
Ahluwalia et al. 1990 (India) ⁶	Total value added	0.43 ^c (22.3)	
Rangarajan 1982 (India) ⁷	Output in consumer good sector	0.45 ^c (3.94)	
Balassa (10 NIC) ⁸	Total output		0.04 (3.57)
Lächler 1989 (67 LDC)	GDP-rate of growth		0.05 ^d (2.8)
Lächler 1989 (46 LDC)	GDP share of manufacturing		0.15 ^d (2.7)

Notes: Time period for estimations:

1: 1961/84; 2: 1965/86; 3: 1970/84; 4: 1960/70; 5: 1970/79; 6: 1960/61-1979/80; 7: 1961/72; 8: 1960/73.

* Figures are regression coefficients and t-value in parentheses.

a Agricultural value added.

b Exogenous variable is ratio of total exports to GDP.

c Rate of growth of agricultural output.

d Change in share of exports in GDP between 1987 and 1965.

3. Trade and agriculture's contribution to economic development

In theory, countries can rely on food imports to ease the wage good constraint. In practice, however, the resources for increased food imports in an agrarian economy must come from the agricultural sector. This dual role of agriculture as a primary supplier of food and foreign exchange makes trade only a limited alternative to accelerated domestic agricultural growth in raising the supply of wage goods. From this duality it follows that, rather than conflicting with each other, trade orientation and agriculture-based development strategies are actually complementary, especially if one notes the potential contribution of trade to growth in the agricultural sector and, thereby, to the transformation of the domestic economy. Moreover, there is some evidence that the contribution of foreign demand to internal growth is a function of the level of development of the domestic economy. For instance, Michaely found in his analysis of the relationships between trade and development in 41 developing countries a strong positive correlation between the growth of the share of exports in total output and per capita GNP growth for high-income (greater than US\$ 300 per capita) sub-set countries, whereas for countries with lower income levels no correlation could be identified (28). Similar results are also obtained by Heller and Porter (14). An investigation by Balassa of the relationships between export and economic growth of 11 industrializing countries during the 1960s and the 1970s yields correlation coefficients that are generally higher for the last period with strongly higher degrees of statistical significance, both with respect to manufactured and total exports (7). The conclusions from the studies above are that "a minimum threshold of development is needed before export growth and economic growth are associated" (14, p. 192), and that the weak relationship between these in the early period of development is due to the "relatively low level of manufactured exports in several countries" (7, p. 183). On the other hand, the analysis of the relative contributions of domestic and foreign demand to economic growth by Urata shows a much stronger contribution of domestic absorption at lower levels of economic development (39). If the above conclusions are correct and the effective contribution of external demand to domestic growth requires the existence of a minimum industrial base, then at lower levels of development, the stimulus for growth must come from internal demand. The acceleration of growth in the agricultural sector (the main source of income) and the expansion and integration of domestic markets then become crucial elements of development strategies. This implies the need for regional trade and integration, especially in West Africa, a region with extremely narrow local markets and highly instable agriculture.

4. The need for increased integration of agricultural markets and the potential to achieve this goal

A consistent finding among studies of existing regional integration arrangements among developing countries is the lack of impact that participating economies have

Table 2: Changes in TCR rates between 1976-1978 (percentage points) for selected products

Products	Burkina Faso	Côte d'Ivoire	Mali	Mauritania	Niger	Senegal
Dry biscuits	0 ⁰ (37)	27	35	12	15	15
Beer	0 ⁰ (67)	24	60	27	31	19
Soap	39	-	30	12	41	17
Lubricating oil	0 ⁰ (35)	27	0	12	28	20
Plastic tubes	0 ⁰ (15)	27	0	12	28	20
Bags	0 ⁰ (50)	-	-9	12	29	17
HH utensils	0 ⁰ (50)	-	37	18	29	17
Cycle inner tubes	0 ⁰ (18)	27	30	2	29	17
New cycle tyres	-	24	30	1	16	9
Leather & travel	27	-3	31	12	27	-
Polywood goods	0 ⁰ (23)	-	17	12	28	18
Paper/ cardboard	0 ⁰ (37)	37	10	14	29	14
Cotton thread & others	0 ⁰ (40)	18	32	12	29	5
Unbleached cotton cloth	0 ⁰ (0)	24	30	7	14	26
Clothing	-32	24	39	12	28	19
Leather shoes	41	-15	37	12	29	17
Plastic shoes	0 ⁰ (24)	30	34	24	14	15
Vehicles parts & cycles	0 ⁰ (18)	24	16	12	19	9
Vehicles parts & others	-5	18	31	12	29	9

- Countries are exporters or did not import from other CEAO-members.
* Where no changes occur, initial tariff (TCR) rate are in parenthesis.
Source: (4)

had on growth (4; 20). In the case of West African countries, one of the main reasons may be the strong focus on industry, which reflects the anti-agriculture bias in national development strategies. Inward-looking national industrialization strategies are very likely to be incompatible with the objective of integrated regional markets. They primarily pursue specific domestic objectives that can hardly be regionalized and, therefore, offer limited scope for sustained trade expansion through mutual tariff concessions. Such a conflict is exemplified by the *Taxe de Coopération Régionale* (TCR), a system of preferential intraregional tariffs on manufactured products instituted by the West African Economic Community (CEAO), which is obviously motivated by national industrialization objectives. Just two years after the inception of the system in 1976, TCR rates applied by individual members on intraregional imports were raised substantially, as shown in Table 2. Fearing their eventual escalation during later revisions, it was decided that the TCR rates should be frozen at their 1978 levels, which are still substantial. Besides their tendency to discourage tariff concessions, trade-biased industrialization strategies also encourage high-cost production and, therefore, reduce the willingness to import from regional sources.

Moreover, efforts to promote regional integration and trade within the framework of inward-looking industrialization strategies are likely to fail given the impact of latter strategies on the potential of integrating countries to maintain demand and supply in regional markets. As the last column of Table 1 and Figures 1 to 4 seem to indicate, there is a strong positive relationship between trade orientation and global economic performance. Figures 1 through 4 present the correlation between sectoral and overall growth on the one hand, and agricultural and total export growth on the other for a sample of 42 African countries. Gross domestic product in Figures 2 and 4 are net of total and agricultural exports, respectively. According to the information in Table 1 and in Figures 1 to 4, regional integration in an inward-looking policy environment is likely to suffer from the impact of the anti-trade bias on overall growth rates and, therefore, on the expansion of intraregional demand.

Anti-trade biased strategies may also be detrimental to the competitiveness of regional exporters on regional markets through their effect on the performance of the agricultural sector - the main export sector in West African countries. Evidence that inward-looking trade policies are highly detrimental to agriculture is supported by recent studies at the International Food Policy Research Institute in several countries: Colombia (13), Argentina (12; 29), Nigeria (31), Zaire (38), and The Philippines (10). In the case of African countries, results compiled in Oyejide (30), for instance, reveal that over 80 percent of industrial protection throughout the seventies resulted in an effective tax on agricultural exports in Côte d'Ivoire, Nigeria and Mauritius. The same was true for 41 percent of industrial protection in Zaire, and between 25 and 60 percent in Sudan. For Zambia, Jansen found that prices for major agricultural products in the 1970s and 1980s were 44 to 58 percent lower due to the appreciation of the real exchange rate induced by existing trade regims (17). In a recent study of

Relationship Between Agricultural Growth and
Export Growth in African Countries (1970-1987)

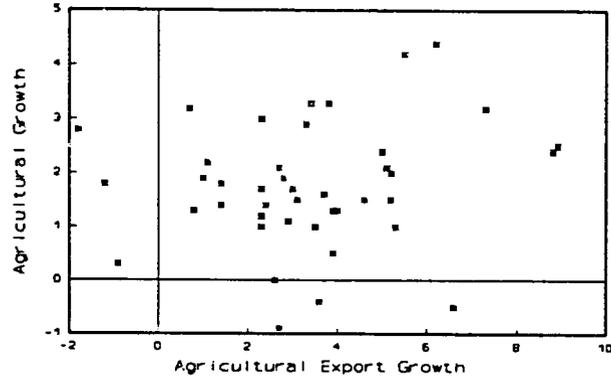


Figure 1

Relationship Between GDP Growth and Total Export
Growth in African Countries (1970-1987)

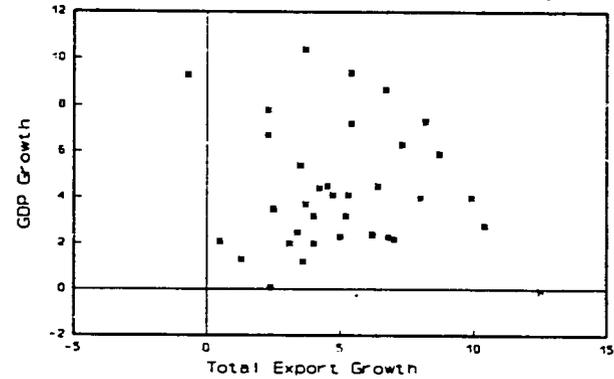


Figure 2

Source : IFPRI Database

Relationship Between Industrial Growth and
Agricultural Exports in African Countries (1970-1987)

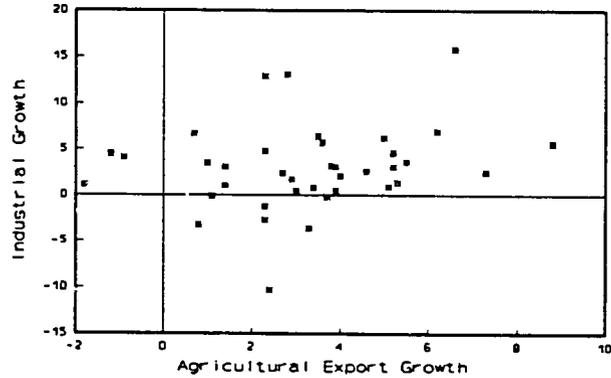


Figure 3

Relationship Between GDP Growth and Agricultural
Export Growth in African Countries (1970-1987)



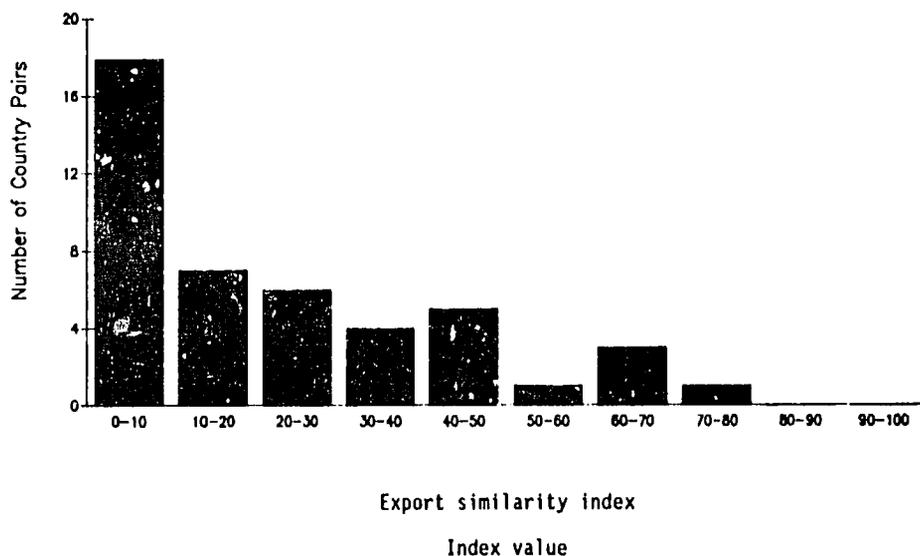
Figure 4

16 developing countries, Krueger et al. showed that prevailing commercial policies taxed agricultural exports by 25 to 30 percent.

The foregoing discussion points out the importance of trade orientation and the need for sustained agricultural development for the process of economic growth. It indicates that regional trade and integration arrangements among low-income developing countries are most likely to yield the expected benefits if national development strategies are outward-oriented and do not heavily discriminate against agriculture². That outward orientation and agriculture-based strategies reinforce each other and should contribute to effective regional integration is true for two reasons. First, inward-looking trade regimes frequently resort to foreign exchange control mechanisms, such as import licensing and foreign exchange rationing, which unavoidably disrupt cross-border trade. Second, because of its high degree of tradability in general and its role as leader in the export sector in particular, agriculture is especially sensitive to domestic trade regimes. Furthermore, trade regimes have a strong bearing on the overall rate of economic growth and, consequently, on the expansion of regional demand, which has a large agricultural content.

The present article stresses the necessity to eliminate the bias toward industry and refocus regional integration efforts on the agricultural sector. This requires, however, that there is scope for specialization in production and trade in agriculture among the integrating countries. Table 3 and Figure 5 give an idea of the prevailing patterns of trade and production among West African countries. An index of export similarity is used to carry out a pairwise comparison of trade structures between West African countries (see Figure 5). The indicator has a maximum value of 100, which means a complete degree of similarity and which decreases with the degree of specialization between the two considered countries. Indicator values around and below 50 are interpreted as indicating patterns of specialization that are compatible with higher degrees of trade. Figure 5 shows index values well below 50 for the majority of West African countries, indicating fairly dissimilar patterns of trade across countries. Table 3 presents the commodities for which individual countries' performance in trade and production have historically been the highest. The differences in the set of commodities again shows the disparity of specialization patterns, especially between coastal and interior countries. Additional scope for intercountry agricultural trade stems from the uneven cross country distribution of production fluctuation, as shown in the last column of Table 3. Especially in the context of narrow and fairly unstable markets that characterize West African agriculture, effective use of regional trade as a stabilizing device is essential to foster that sector's contribution to overall development. The above results indicate that existing national patterns of production and consumption do offer scope for successful integration of agricultural markets. Redirecting development and integration strategies toward the agricultural sector will not only encourage freer regional trade, but would enable countries to achieve higher levels of supply and demand on regional markets, and help increase the potential contribution of regional trade to national development objectives.

Figure 5: Similarity of trade patterns among West African countries



Note: The higher the index value for a given pair of countries, the more similar are their patterns of trade. Values of zero or 100 mean, respectively, complete dissimilarity or similarity of trade structures between the two countries. Values around 50 are conventionally interpreted as being compatible with higher level of trade between the considered countries. For calculation of indicator see Badiane 1988.

Table 3: Patterns and stability of agricultural production in West African Countries

Country	High performance products*	Instability** indicator (1961-86)
Benin	Cotton, palm oil, maize	13.34
Burkina Faso	Cotton, cattle, cereals, pulses	15.61
Chad	Cattle, cotton, cereals	18.02
Côte d'Ivoire	Cacao, coffee, palm oil, fruit and vegetables	8.07
The Gambia	Groundnuts, oilcakes, cereals	20.00
Ghana	Cacao, palm oil, fruits and vegetables	23.68
Guinea	Cattle, palm oil, coffee, rice, fruits and vegetables	8.93
Liberia	Cacao, palm oil, coffee, rice, fruits and vegetables	6.54
Mali	Cotton, cattle, cereals, groundnuts	14.28
Mauritania	Cattle, cereals	34.60
Niger	Cattle, pulses, cereals, groundnuts	17.70
Nigeria	Cacao, palm oil, cereals, cotton	15.90
Senegal	Groundnuts, fertilizers, cereals	23.62
Togo	Fertilizers, cacao, palm oil, cereals, coffee, maize	14.34
		(Region 14.73)

* Products with highest production and export performance indexes (for explanation and calculation see Badiane 1988); ** Cereal production.
Source: (6)

Summary

Regional integration arrangements among West African countries have generally reflected the anti-agriculture bias in national development strategies. The strong focus on industry in the context of nationally inward-looking industrialization strategies has been a major obstacle to the effective integration of regional markets. First, increased regional trade is perceived as a threat to domestic industrialization strategies. Second, inward-looking policies encourage high-cost production in the industrial sector and discourage production in the (exporting) agricultural sector. As a result, there is a reduction in the competitiveness of regional exporters. Furthermore, they slow down the overall growth rate of member economies and depress demand on regional markets. The key role played by agriculture in the process of growth, the much larger potential for intraregional trade in agriculture, and the need for increased intercountry trade to stabilize the extremely narrow and volatile local agricultural markets all call for a refocusing of regional integration efforts in that sector. Furthermore, redirecting development and integration strategies toward the agricultural sector will not only raise the willingness to trade, but would also increase the potential to achieve higher levels of supply and demand on regional markets, and help exploit the potential contribution of regional trade to national development objectives.

Zusammenfassung

Die regionalen Integrationsbemühungen in Westafrika spiegeln im allgemeinen die in nationalen Entwicklungsstrategien zu verzeichnende Vernachlässigung des landwirtschaftlichen Sektors wider. Die Beschränkung der Integrationsbemühungen auf den industriellen Bereich im Rahmen grundsätzlich inwärtsorientierter nationaler Industrialisierungspolitiken ist als eines der Haupthindernisse zur tatsächlichen Integration der regionalen Märkte anzusehen. Erstens, weil eine Ausweitung des regionalen Handels als Gefahr für die inländischen Industrien angesehen wird. Zweitens, wegen ihrer Förderung ineffizienter Industrieaktivitäten und ihres besteuernenden Effektes auf den landwirtschaftlichen Exportsektor, vermindern inwärtsorientierte Politiken die Wettbewerbsfähigkeit der Region auf den lokalen Märkten. Darüber hinaus verlangsamen sie den Wachstumsprozeß in den nationalen Volkswirtschaften und reduzieren hierdurch die Ausweitung der Nachfrage auf den regionalen Märkten. Die zentrale Rolle des Agrarsektors im Entwicklungsprozeß, das höhere regionale Handelspotential in der Landwirtschaft sowie der potentielle Beitrag des regionalen Güterausstausches zur Stabilisierung der erheblich engen und instabilen lokalen landwirtschaftlichen Märkte machen die Ausrichtung der Integrationsbemühungen auf diesen Sektor unerlässlich. Eine solche Umorientierung würde nicht nur den Willen zum regionalen Austausch steigern. Hierdurch würden ebenfalls das Angebots- und Nachfragepotential auf den regionalen Märkten sowie der Beitrag des regionalen Handels zu den nationalen Entwicklungszielen steigen.

Endnotes

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- 1) For recent estimates of the patterns of structural transformation see Syrquin, M. (1989), and Panchamukhi, V.R. et al. (1989).
- 2) Outward orientation means strategies that do not heavily discriminate against exportables in favor of (industrial) importables.

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