CSCanada
International Business and Management
Vol. 8, No. 2, 2014, pp. 84-91
DOI:10.3968/4796

ISSN 1923-841X [Print]
ISSN 1923-8428 [Online]
www.cscanada.net
www.cscanada.org

Macroeconomic Policies and Agricultural Development in Developing Countries: Lessons from Emerging Economies

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Received 6 March 2014; accepted 11 May 2014

Abstract

This paper brings to the fore the macroeconomic policy issues in emerging and developing countries with respect to agricultural development. By exploring theoretical and empirical evidences, it describes the macroeconomic tools that have been deployed by various governments of selected emerging and developing nations especially between 2000 and 2010. The major findings are that emerging countries like Brazil, China and India have systematically manipulated macroeconomic tools in either jumpstarting or fast-tracking their economic development. It recommends that in order to foster development, developing countries need to learn to manipulate macroeconomic policies relating to taxation, trade, government expenditure and exchange rate.

Key words: Macroeconomic policies; Agricultural development; Descriptive; Developing countries; Emerging economies

Obasaju, Barnabas Olusegun, Oloni, Funlayo Elizabeth[c]; Obadiaru, Eseosa David, Rotimi, Mathew Ekundayo (2014). Macroeconomic Policies and Agricultural Development in Developing Countries: Lessons from Emerging Economies. *International Business and Management, 8*(2), 84-91. Available from: http://www.cscanada.net/index.php/ibm/article/view/4796
DOI: http://dx.doi.org/10.3968/4796

INTRODUCTION

Traditionally in economic development, agriculture is assumed to play a passive and supportive role such that as an economy develops, the relative importance of agriculture gets smaller.

However, Gunnar Myrdal, a Nobel laureate in economics opined that the battle for long-term economic development will be won or lost in the agricultural sector.

Another Nobel laureate, Simon Kuznets, identified four main contributions of agriculture to economic development: (i) The product contribution of inputs for industry such as textiles and food processing (ii) The foreign exchange contribution in which the export revenues from agricultural products are used to finance the import of capital equipment (iii) The market contribution of rising rural incomes creating more demand for consumer products (iv) The factor market contribution in terms of (a) labour contribution – converting workers not needed in farms (after agricultural productivity was raised) into industry workers. (b) Capital contribution by first investing in agriculture and later reaping the profits that would be partially reinvested in industry.

According to the Food and Agricultural Organisation (FAO, 2009), in Sub-Saharan Africa, agriculture is the backbone of overall growth for most of the countries in this region and essential for poverty reduction and food security. In addition, in a report by the World Bank (2012) on the issue of supporting agriculture and food security, 75% of the world's poor live in rural areas and are mainly involved in farming. Hence, supporting agriculture remains a fundamental instrument for achieving economic growth, poverty and food security especially in Africa.

The Food and Agricultural Organisation (FAO) in 2009 as cited in Todaro & Smith (2010) also remarked that over 1 billion people did not have enough food to meet their basic nutritional needs. Recently, many people have come

to admit the fact that if a self-sustaining development is to take place, rural areas have to be included and the agricultural sector in particular.

Today, most development economists have reached a consensus that the agricultural sector must play an indispensable part in any overall strategy of economic progress especially for the low-income developing countries and at the early stages of development.

However, paying adequate attention to the development of agriculture has proved to be worthwhile for some emerging economies. 'Emerging economies' here refer to the BRICS – Brazil, Russia, India, China and South Africa. Among these countries, Brazil, China and India have now become forces to be reckoned with not only in realms of population, food production and economic strength but also on their impacts on the development and food security of other developing countries is not in any way inconsequential. These impacts are made possible via the paraphernalia of the manipulations of macroeconomic variables such as investment, aids and (international) trade.

Indeed, for any meaningful agricultural development, there is need for macroeconomic adjustment.

An economic adjustment programme involves two main components: (i) Macroeconomic adjustment programme and (ii) Structural adjustment programme. The former is mainly designed to be a short – term remedy for problems and it influences the demand side of the economy unlike the latter which is designed to influence the supply side of the economy and to forestall long-term disequilibria which would require stabilization.

A typical programme includes the devaluation of the exchange rate, increase in taxation, reduction in government expenditure, restructuring of foreign debt, elimination of subsidies, decreasing of wages, restriction of domestic credit and government financing through the market (instead of through the Central Bank).

In this study, our focus will be the macroeconomic component. Importantly, macroeconomic adjustment which is sometimes called stabilization policy refers to policy changes mapped out to minimize or eliminate budget disequilibria.

With respect to the emerging economies, our emphasis will be Brazil, China and India while references will be made to a number of developing countries like Nigeria, Zimbabwe, Ethiopia, Ghana etc.

The rest of this work is structured thus: Section 1: Theoretical Framework; Section 2: Empirical Evidences; Section 3: (a) Macroeconomic policies, agriculture and emerging countries. (b) Macroeconomic policies, agriculture and developing countries; Section 4: Lessons from the emerging countries and the last section: Conclusion.

1. THEORETICAL FRAMEWORK

According to the International Food Policy Research Institute (IFPRI), the three major types of macro-policy instruments that influence agriculture are (i) Trade and exchange rate policies (ii) Public expenditure and (iii) Taxation.

The interaction between product and input markets is reflected in part by the need for factor services in both agricultural and non-agricultural production. Agricultural production and exchanges take place in the product markets and the product markets are influenced by:

Trade Policy – This could be through export taxes, import tariffs and other restrictions on trade. These have a direct influence on product markets.

Changes in the real exchange rate (the price of foreign exchange) – This has an indirect influence on the product market.

Taxes – Especially in the case of many developing countries, relative agricultural prices are lowered artificially by (a) export taxes on farm products (b) heavy import–protection of domestic industries.

With liberalization comes substantive reduction in barriers to foreign trade thereby paving the way for benefits for agricultural producers.

Gains could also accrue to agricultural producers through the instrumentality of a depreciated real exchange rate which raises the domestic prices of agricultural (and non-agricultural) tradable goods.

The National Agricultural Policy Center also established the links between the macroeconomic environment and agriculture: Through sector-specific measures, governments influence agriculture directly. These measures include tariffs, input and credit subsidies, price controls, quantitative restrictions, government expenditures and taxes.

On the flip side, government policies could have indirect and unintended consequences on agriculture. These policies could concern industrial protection, interest rates, and exchange rates, fiscal and monetary policies.

For instance, industrial protection penalizes agriculture because its term of trade with industry is negatively affected. An overvalued exchange rate also penalizes agriculture due to the fact that most agricultural goods are tradable. For many developing countries, before they started making adjustments, a combination of industrial protectionism and exchange rate overvaluation was common and this scenario of economic policy typified a 'macroeconomic bias' against agriculture.

At the end of the eighties when agricultural price incentives were studied, it was revealed that direct price incentives taxed agricultural exports generally and protected import substitutes such as cereals. The effects

of combining industrial protectionism and exchange rate overvaluation was a stronger negative protection of traditional agricultural exports and a reasonable decrease in the positive protection to import substitutes.

Now, adopting a general equilibrium framework, incentives to agriculture could be defined in terms of the relative price of agricultural to non-agricultural products.

The two types of goods can be divided into tradable (represented by T) and non-tradable (home, represented by H).

Arithmetically:

$$\frac{P_A}{P_{NA}} = \frac{\beta P_{AT} + (1-\beta)P_{AH}}{\alpha P_{NAT} + (1-\alpha)P_{NAH}} \quad (1)$$

$\alpha, \beta < 1$

Where

P_A = Agricultural Sector Price

P_{NA} = Non-agricultural Sector Price

The value of β is usually taken to be very close to one because most agricultural goods are tradable.

Hence, equation (1) becomes:

$$\frac{P_A}{P_{NA}} = \frac{P_A}{\alpha P_I + (1-\alpha)P_H} \quad (2)$$

Where PI and PH have been used to denoted the industry price (non-agricultural tradable) and home (non-tradable) price respectively.

Dividing the numerator and denominator of equation (2) by PH we have:

$$\frac{P_A}{P_{NA}} = \frac{P_A / P_H}{\alpha P_I / P_H + (1-\alpha)} \quad (3)$$

Equation (3) signifies that the price of agricultural goods relative to non-agricultural goods depend on price of agricultural goods, price of non-agricultural tradable (industrial) goods and price of home goods.

The following can also be deduced from the above:

(i) An increase in the price of non-agricultural goods as a result of industrial protection using tariffs or other forms of restrictions will bring about a lowered relative price of agricultural products.

(ii) Industrial protection might also lead to higher prices of agricultural inputs like fertilizer consequently reducing the value added of agriculture.

(iii) An increase in the relative price of home goods will affect the relative price of agriculture to non-agriculture adversely (that is the value of the numerator will be reduced more than that of the denominator in equation 3 since the value of α is usually significantly less than 1).

The foregoing shows that governments' macroeconomic policies either affect agriculture directly or indirectly.

2. EMPIRICAL EVIDENCE

Vogel (1994) as cited in Derek et al. (2005) used Social Accounting Matrices for 27 countries while examining the strength of the linkages that exist between agriculture and the rest of the economy at different stages of development. The backward linkages were strong at the early stages of development while the forward linkages were much weaker.

In studies by Krueger, Schiff and Valdes (1988), the taxation of agriculture via sector-specific price interventions, trade, exchange rate and other macroeconomic policies was assessed for a large number of developing countries; this influenced, to a great extent, the thinking about the relationship between agriculture and the macroeconomic environment and on agricultural policy. Some of their conclusions are itemized below:

*Most countries protected importables. On average, the direct protection of importables was about 18 per cent, and the direct taxation of exportables about 16 per cent, for an average impact (on the relative price of importables to exportables) of about 40 per cent. These distortions within agriculture increased between the early 1960s and the mid-1980s.

* The indirect tax on agriculture from industrial protection and macroeconomic policies was about 22 per cent on average for the eighteen developing countries studied during1960-85, nearly three times the direct tax from agricultural pricing policies (which was about 8 per cent). The total (direct plus indirect) was thus 30 per cent.

* Direct price policies stabilized domestic agricultural prices relative to world prices, with an average reduction in variability of 25 per cent, and even more when world prices were highly volatile. Indirect policies contributed little, if anything, to price stability.

* Industrial protection policies taxed agriculture more than did real overvaluation of the exchange rate.

* Public investment in agriculture did not compensate for adverse price policies.

* High taxation of agriculture was associated with low growth in agriculture, and low growth in the economy.

* The effect of removing agricultural price interventions was not regressive. In most countries, removing direct (or total) interventions changed the real incomes of the poorer urban and rural groups by less than 5 per cent (up or down). More often than not, the rural poor gained from removing the interventions.

In another study conducted by Nicholas and Constanza (2012), it was hypothesized that Brazil's agricultural development is a result of sustained investments in science and technology. The study, premised on the fact that the Brazilian government policies were embedded in an environment of macroeconomic stability and economic liberalization, provided farmers with the incentives to increase the efficiency of farm and production and reveals, among others, that: (i) Brazil's national average

farm Total Factor Productivity (TFP) – (ratio of total output to total inputs employed in production) increased at an annual rate of 2.55% between 1985 and 2006. (ii) The most efficient producers achieved rapid TFP, enabling these farms to produce 138% more in 2006 than in 1985 while maintaining the previous input level.

According to Pal et al (2005) as cited in Suresh et al. (2012), a strong empirical evidence shows that agricultural sector in India benefitted reasonably from past government investments in agricultural research and development.

Udensi et al. (2012) studied the determinants of macroeconomic variables that affect agricultural production in Nigeria between 1977 and 2007. The study found out that total government expenditure on agriculture, nominal exchange rate, interest rate and total credit accessed by farmers from commercial banks were all positively related with the index of agriculture production and were all significant at 1% level of significance. Government expenditure on agriculture was found to be the most important estimated macroeconomic variable required to cause growth and development in the agricultural sector in Nigeria.

3. MACROECONOMIC POLICIES AND AGRICULTURE

3.1 In Emerging Economies

Among other countries qualified to be called emerging, Brazil, China and India have now become forces to be reckoned with not only in realms of population, food production and economic strength but their impacts on the development and food security of other developing countries is not in any way inconsequential. These impacts are made possible by international trade, aid and investment.

China adopted an approach which started with the agricultural sector and later moved to manufacturing and services. This spurred private investments and nonfarm growth and employment in rural areas. Following her agreement with the World Trade Organisation, China introduced a more liberal and export-oriented trade system that reduced barriers to agriculture.

In the case of India, a top-down reform process was employed beginning with macroeconomic policies and the service sector and then moving to manufacturing. With respect to agriculture, partial policy changes focused basically on agricultural trade liberalization were put in place.

For Brazil, policies that promote deregulation of the market, restraint in budget and an increasingly export-oriented economy were embarked upon. Brazil's large-scale commercial farms benefitted from these reforms much more than the small-scale farms. Thus, economic liberalization policies have been enhanced by expanded and better targeted social protection programmes to combat food insecurity and extreme poverty.

These three countries have had strong economic growth which consequently places them in more dominant positions in the world economy. In fact, all three have been among the top 10 largest economies in the world since the 1990s and it is predicted that their share of global gross domestic product (GDP) will increase in the coming years especially in China which is getting very close to the prestigious position held by the United States.

3.1.1 More on Brazil Macroeconomic Policy Issues

In order to finance crop and livestock production as well as capital investments in agricultural infrastructure and equipment, agricultural credits have been made more available. Machinery for planting, harvesting and processing of livestock products and expansion of pasture land have been parts of capital investments. Between 1985 and 2006, more than three-quarters of the investment credit have been released to the livestock sector; this boosted livestock's credit investments by 4.7% annually (BACEN, 2009).

3.1.2 More on India Macroeconomic Policy Issues

Broadly, agricultural taxation includes taxes that are directly paid by the agriculturists and those borne indirectly by them. The direct taxes consist mainly of land revenue, cesses and surcharges on land revenue, cesses on crops and taxes on agricultural income.

The state governments levy and collect taxes on land. Land tax is the oldest type of tax. The amount raised from it increased from Rs. 48 crores in 1951 – 52 to Rs. 1400 crores in 1997 – 98. Land revenue amounted to 17% of total sale tax revenue but reduced to 1.3% between 1997 and 1998.

For agricultural income tax, it is collected and levied by the states. As at 2010, the states which levied this tax are Assam, West Bengal, Bilhar, Rajasthan, Orissa Karnataka, Tamil Nadu and Kerela. This tax has not been significant in India; it was just a little more than 1% in 1951-52 and 0.1% of the states' tax revenues in 1997-98.

According to Suresh et al (2012), strong government commitment has led to nearly a 100% increase in public investment in agricultural research and development (R & D) since the mid-1990s. R & D in public agriculture is almost completely funded by the federal and state governments.

According to Beintema and Stads (2010), India, China and Brazil have become major forces in the global agricultural economy. Between 2000 and 2007, India's expenditure on agricultural R & D was impressive at 25% but did not even match up with that of China which almost doubled her expenditure on agricultural R & D during the same period. Brazil has one of the most well-established and well-funded research systems in the developing world despite that expenditures have fluctuated over the past two decades. Rapid growth, especially in China, has pointed to

the fact that investments by the three countries combined accounted for at least half of the developing world's total public investment in agricultural R & D in 2000.

3.1.3 More on China Macroeconomic Policy Issues

In achieving food security and reducing poverty, agriculture has played a crucial role in China's success. Agricultural outputs are on the increase in recent years. Grain production increases and modern hybrids have boosted yields of major crops such as rice and maize. These developments in agriculture are not unconnected to a series of policy reforms, infrastructural improvements and investments in agricultural research and development.

Total public investment in her agricultural R & D doubled between the years 2001 and 2008 and amounting to 14.0 billion yuan or 40 billion dollars (purchasing power parity).

Table 1
Public Agricultural R & D Spending and Intensity Ratio, 2000 and 2008

Countries/ regions	Public agricultural R&D spending			
	2000	2008	2000	2008
	(billion 2005 PPP prices)		($ per $100 of AgGDP)	
lndia	1.5	2.3	0.36	0.40
Brazil	1.2	1.3	1.86	1.80
China	1.7	3.4	0.38	0.50
Australia	0.8	0.6	4.57	3.56
Japan	2.6	2.7	4.06	4.75
South Korea	0.6	0.7	1.60	2.30

Source: Adopted from Suresh et al. (2012)

3.2 In Developing Economies

Some examples of the responses of agricultural export crops to trade liberalization in developing countries:

According to Suresh et al. (2012):

Uganda dismantled its coffee, tea, and cotton marketing boards, and the share of farm-gate prices for coffee increased from less than 30 per cent to over 80 per cent. Since coffee is grown by a large number of households, elimination of the marketing board was a major factor in the rapid decline in rural poverty in Uganda in the 1990s, until world coffee prices fell late in the decade.

In Ghana, devaluation and reduction in export taxes on cocoa stimulated increased cocoa production and a sharp decline in poverty among cocoa farmers – but they make up only 15 per cent of farm households and have considerably lower poverty levels than households that grow food crops.

In Burkina Faso, cotton production expanded by 250 per cent from 1994 to 2003 in response to devaluation. Poverty among cotton-producing households fell by 25 percentage points, and the share of farmers producing cotton expanded from 11 to 19 per cent.

In Zambia, devaluation and liberalization led to a major expansion in cotton exports. However, this expansion was confined largely to areas with reasonable market access and to medium-scale farmers.

In Vietnam, devaluation and removal of price controls on rice resulted in rapid growth of rice exports as well as coffee and other exports. These gains were shared by millions of small-scale farmers, but less so in the more remote uplands.

According to Derek et al (2005):

Indonesia as a case study

The Indonesia case study describes the trade-off that the government made between protecting the incomes of its rice farmers and fostering faster growth (as seen in Thailand's more open economy). In Indonesia, tariffs protect the incomes of rice farmers who make up a large proportion of the rural poor, but they tax consumers. Using household surveys, it is estimated that every 10 per centage points of import tariff on rice pushes an additional one million Indonesians below the poverty line. The cost of this policy is high: efficiency is undermined, since a tariff may hold back the sector's ability to diversify and exploit increasing domestic demand for high-value products generated by income growth. If the higher rice price also has net costs to Indonesian farmers, which now appears likely in view of the evolving production structure, then it is likely to have an unambiguous and unmitigated negative impact on poverty reduction.

In developing nations especially where food market reforms were more widely implemented, the decline in the support of state to inputs and product marketing of products affected staple foods negatively at least in the short term.

Also according to Derek et al (2005), in Africa, allocation of public expenditures to the agricultural sector was in its ebbs long before countries were able to invest in agricultural R & D.

In Zambia for example, where subsidies accounted for 50% of the value of the production in 1980s, the removal of pan – territorial supports and input subsidies reduced maize production sharply in remoter areas.

Table 2
Trends in Public Expenditure for Agriculture in Selected Developing Countries

	Agricultural expenditures as % agricultural GDP			Agricultural expenditures as share of total expeuditures		
	1980	**1990**	**2000**	**1980**	**1990**	**2000**
Burkina Faso	2.1	2.8	4.4	5.5	5.8	7.2
Ghana	2.3	1.2	2.0	12.2	4.1	2.5
Uganda	2.8	0.9	0.7	7.0	3.9	1.5
Zambia	60.8	4.4	6.2	23.0	2.9	5.1
Bangladesh	1.9	4.5	6.6	13.0	6.5	12.2
India	9.9	1.20	11.2	27.8	20.7	15.2
Indonesia	9.9	7.5	3.0	10.8	8.3	2.3
Bolivia	28.2	2.4	5.4	33.9	2.2	3.0
El Salvador	2.6	3.5	5.7	7.3	4.0	5.4
Developing country average	9.6	8.0	9.0	11.8	9.8	8.3

In Ghana, food production has expanded: the government direct intervention in food markets was relatively minor before the reforms and prices of imported food were raised sequel to devaluation.

In respect of Table B, for export crops especially, shocks in global commodity prices were more important in the 1990s as farmers had more exposure to world prices under liberalization and with the movement away from fixed exchange rate policies. The drop in prices of commodities in the late 1990s reduced agricultural growth in countries that are greatly dependent on export crops. Countries like Burkina Faso, Ghana and Indonesia maintained marketing boards in efforts to stabilize prices.

Ethiopia enjoyed significant macroeconomic stability for over 20 years particularly in the 1990s. However, this is not the case in more recent years as agriculture and food security haa suffered from two incidences of macroeconomic instability. The first incidence was a period of high domestic inflation in 2007 – 2009 which affected prices of major staple foods. The rate of food inflation increased from just 2% during 2003 / 04 fiscal year to 78% during 2007/08. The second incidence was a shortage of foreign exchange in 2009 -10 which caused foreign exchange rationing, major disincentives to production of agricultural export crops and a reduction of real incomes for farmers.

Through fiscal and monetary measures that comprised sharp restrictions on domestic credit and a gradual devaluation of the Ethiopian birr relative to other currencies, Ethiopia was able to restore broad macroeconomic stability by late 2009. However, in 2010, domestic inflation increased again as credit increased rapidly.

One factor militating against a very remarkable development in Ethiopia is the land policy of its government for almost 40 years. All land is owned by the government; this discourages private investments in agriculture.

In Nigeria, the neglect of agriculture and reliance on crude oil has not been beneficial to most of her citizens. To address this drift and its adverse effects, Nigerian government became directly involved in production of food crops in commercial quantity. Many large scale agricultural projects that specialize in the production of grains, livestock, dairies and animal feeds among others were established (Fasipe, 1990) as cited in Olukoya (2007). As part of government's effort to inject oil wealth into the agricultural sector by making credit facilities available to support agriculture and agro-allied businesses, the Nigerian Agricultural and Cooperative Bank (NACB) was established in 1973 (Olagunju, 2000) as cited in Olukoya (2007). Other programmes introduced by the various governments included Operation Feed the Nation, Agricultural Credit Guarantee Scheme, National Accelerated Food Promotion Project etc.

However, these efforts were short-lived as Nigeria became a net importer of various agricultural products as from the mid-70s. For example, she imported 153,000 mt tons of palm oil that amounted to 92 million USD (Alkali, 1997) as cited in Olukoya (2007). Between 1973 and 1980, a total of 7.07 million tons of wheat, 1.62 million tons of rice and 431,000 tons of maize were imported. So, the cost of food imports rose from N478 million in the 60s to N88.2 million in 1970 and then to N1,027.0 million in 1988 (Alkali, 1997). Since the 1990s and until the ban on importation of rice around 2007, Nigeria spent an average of 60 million USD on the importation of rice annually. However other efforts by the government at fostering agricultural development in Nigeria such as the reformation of the lending policies of the Agricultural Credit Guarantee Scheme (ACGS) for easier access to agricultural credit schemes, Calabar Export Processing Zone (EPZ) and Enugu, Kaduna, Jos and Lagos EPZs were bedeviled by the factors such as "corruption in high places" and lack of commitment by those saddled with the responsibility of implementing such government's agricultural policies.

4. LESSONS FROM THE EMERGING COUNTRIES

The Nigerian government for instance needs to increase the provision of agricultural subsidies for fertilizer, farm equipment and implements in order to boost agricultural production. More so, there is need for agricultural tariff regime to be put in place to protect Nigeria's agricultural produce from unhealthy competition with imports.

In addition to the above, there is need to discourage the massive importation of agricultural (and non-agricultural products) in Nigeria as this has led to capital flight and competition of foreign goods with local ones which tends to lower aggregate demand for local products. Moreover, production and exports should be encouraged as is the case with Brazil which is one of the world's top producers of no fewer than twenty-eight different agricultural products like coffee, orange, sisal, cassava, banana etc. and the world's largest exporter of Soybean oil, second in the exports of whole soybean and a major exporter of poultry, tobacco, beef product etc.

Another lesson for most developing countries is the need to encourage agriculturists and enhance their revenues by subsidizing the prices of agricultural inputs. In 2007, Brazil, the world's biggest producer of coffee, spent about 300 million reais ($175million) in order to bolster prices for growers of Arabica beans. The time of rising prices of fertilizer and other costs meant that Brazilian growers spent as much as 310 reais to produce a bag of coffee, about 50 reais more than domestic prices, according to the National Agricultural Confederation of Brazil. To cushion the effects of the rising input prices, the government of Brazil decided to hold four subsidized coffee auctions to make sure that growers received 300 reais per bag.

In the case of India, in 2008, she subsidized the cost of processing more coffee domestically and also aimed at paying 25% of the cost of equipment including transportation and duties in order to build roasting capacities.

Furthermore, stating that China has achieved remarkable and unequivocal economic and agricultural growth over the past three decades is no longer news. But this success is undoubtedly rooted in the long-term investment and capacity patterns in agricultural research and development. It is common knowledge that no country can grow beyond the level of its investments in research and development. For many developing countries, their expenditures on agricultural research and development are often insignificant. The Chinese government's investment in agricultural R & D doubled between 2001 and 2008 and this ended the period of stagnation of the 1990s.

CONCLUSION

In this paper, we examined macroeconomic policy issues in emerging and developing countries and how they can (and have) influence (d) agricultural development. We first attempted to illustrate the import of agriculture especially in the early phase of development of an economy as it helps to jumpstart the growth and development of other sectors like industry and service. We also reiterated why the agricultural sector is indispensable for developing countries.

This study also shows how countries like Brazil, China and India through giving due (and not lip-service) commitment to agricultural development have been able to carve a niche for themselves and are now distinguished from other developing countries and regarded as 'emerging countries.' We also examined some macroeconomic policies of developing and emerging countries and why a favourable macroeconomic environment is crucial if there must be any meaningful development in agriculture. Inter alia, macroeconomic policies that deal with taxation, trade, government expenditure and exchange rates were shown to impact directly or indirectly on the level of agricultural development in a country.

Developing countries like Nigeria, Ethiopia, Zimbabwe, Indonesia etc. have many lessons to learn from emerging countries particularly in the area of the management of their macroeconomic policies.

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