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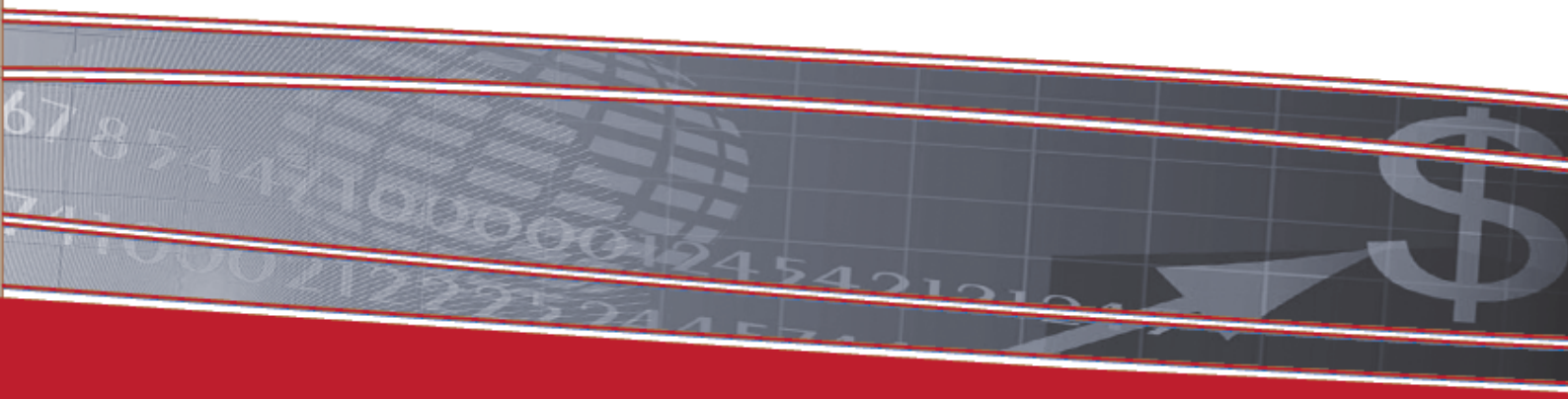

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ARTICLE

ESCAPING FROM DEVELOPMENT TRAPS: INDUSTRIALIZATION AND RACING FROM THE BOTTOM

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Abstract

For development economies, escaping costly development traps an industrialization policy is likely to be gradual rather than take a "big push" form and becoming more balanced over time. Under certain conditions the optimal industrialization policy should be more unbalanced the weaker are the sectorial linkages, the stronger are increasing returns, entrepreneurial resources, and the smaller are the domestic market size and the lesser the degree of dynamic competition. We show how to make tradeoffs at different levels of development and from the perspective of the industrialization debate in a historical context of modern development policies.

Key words

Development traps; Tradeoffs; Industrialization.

INTRODUCTION

The cumulative literature on industrialization has formalized the long-standing idea that development traps are the result of a failure of economic organization rather than a lack of resources or other technological constraints. The so-called "big push" models of industrialization have shown how, in the presence of increasing returns, there can exist preferable states to advance the economic states of countries in contest with other countries. Such a view not only provides an explanation for the co-existence of industrialized and less industrialized economies, but also a rationale for government intervention to coordinate investment in a "big-push" toward industrialization. Moreover, unlike competing theories, these models emphasize the temporary nature of any policy. Thus, industrialization policy involves facilitating an adjustment from one equilibrium to another rather than any change in the nature of the set of equilibria per se.

While recent formalization makes clear the possible role for the government in coordinating economic activity, little has been said about the form such policy should take. Is there a conceptual model to analyze the question: what precise form should the "big push" take? It should be part of mechanism design for economic development (Gottinger, 2014). It is argued that while many different industrialization policies can be successful in generating escapes from development traps, the form of the policy that minimizes the costs of this transition depends on the characteristics of the economic situation at hand. Factors such as the strength of the complementarities, externalities and increasing returns, among others, all play a role in influencing the nature of a "getting-ahead" industrialization policy. Such ideas were already present in the debates in development economics in the 1940s and 1950s regarding the form of industrialization policy. The models underlying these less formal debates inspired the recent more formal research but the policy elements of these have not been addressed, to date, in any substantive way.

The paper proceeds as follows. We first give a brief history to recall different development strategies proliferating in the literature, in Section 2. Then we show how the increasing returns debate on industries impact structural change and development paths, in Section 3. Section 4 gives the industrialization policy-development context in an optimization framework. Conclusions follow in Section 5.

A BRIEF HISTORY OF MAJOR DEVELOPMENT STRATEGIES

Principal among the earlier policy debates was that surrounding the efficacy and costs involved in the alternative strategies of "balanced" versus "unbalanced growth." Rosenstein-Rodan (1943, 1961) and Nurkse (1952, 1953) provided the rationale for the notion that the adoption of modern technologies must proceed across a wide range of industries more or less simultaneously. It was argued that the neglect of investment in a sector(s) could undermine any industrialization strategy.

Reacting to this policy prescription was the "unbalanced growth" school led by Hirschman (1958) and Streeten (1956). They saw the balanced strategy as far too costly. The advantages of multiple development may make interesting reading for economists, but they are gloomy news indeed for underdeveloped countries. The initial resources for simultaneous developments on many fronts are generally lacking. By targeting many sectors, it was argued that scarce resources would be spread too thin- so thin, that industrialization would be thwarted. It seemed more fruitful to target a small number of "leading sectors" (Rostow, 1960). Then those investments would "….call forth complementary investments in the next period with a will and logic of their own: they block out a part of the road that lies ahead and virtually compel certain additional investment decisions" (Hirschman, 1958: 42). Thus, the existence of complementarity between investments (in particular those involving human capital) and increasing returns motivated an unbalanced approach (Easterly, 2002). Curiously, at the same time, "[c]omplementarity of industries

provides the most important set of arguments in favor of a large-scale planned industrialization"(Rosenstein-Rodan, 1943: 205). Further, one of the first to preview the connection between Big Push, Poverty Traps and Takeoffs was the essay by W. Easterly (2005) who integrated historical sources with present day modern development strategies. Both sides appeared to have agreed that a "big push" was warranted, but they disagreed as to its composition. Our purpose here is to use the guidelines provided by the more recent formalization of the "big push" theory of industrialization to clarify the earlier debate of the appropriate degree of focus for industrialization policy. After all, the more recent literature has stressed the roles of complementarities and increasing returns that both schools saw lying at the heart of their policy prescriptions.

The seminal article formalizing the "big push" theory of industrialization is that of Murphy et al, (1989). In their model, firms choose between constant returns and an increasing returns technology based on their expectations of demand. However, these choices spill over into aggregate demand creating a strategic interaction among sectors in their technology adoption decisions. Thus, under certain conditions, there exist two equilibria: with all firms choosing the constant returns or all choosing the increasing returns technology. Clearly, in the latter equilibrium, all households are better off.

While the Murphy et al, (1989) model shows how increasing returns (and a wage effect) aggregate to strategic complementarity among sectors, it does not lend itself readily to the debate concerning the degree of balance in industrialization policy. First, the static content leaves open the question of whether the intervention should take the form of anything more than indicative planning. Second, the most commonly discussed policy instrument in the industrialization debate is the subsidization of investments. However, in the Murphy et al, (1989) example, use of this instrument biases one toward a more unbalanced policy. To see this, observe that it is the role of the government to facilitate a move to the industrializing equilibrium. This means that the government must subsidize a sufficient amount of investment to make it profitable for all sectors to adopt the modern technology.

Given the binary choice set, there then exists some minimum critical mass of sectors that must be targeted to achieve a successful transition. A greater range of successful industrialization policies might be more plausible, however, if firms had the choice of a wider variety of technology to choose from (Gottinger, 2006; Gottinger & Goosen, 2012). One might suppose that targeting a large number of sectors to modernize a little and targeting a small number of sectors for more radical modernization might both generate a big push. Thus, to consider the balanced approach properly, a greater technological choice space is required.

INCREASING RETURNS, STRUCTURAL CHANGE AND DEVELOPMENT PATHS

What would be the choice variables available to the government provided it would be able to pick up what is likely to be increasing returns industries in the future? First, in each period, the government can choose the set of firms that it targets for structural change. Second, for each targeted firm, the government can choose a target level for 'increasing returns industry' modernization in the period. Along this vein, the government could choose to target the same number of firms in each period but induce those firms to modernize gradually over time. Or in contrast, the government chooses a single level of modernization to occur across all firms and all periods. It then targets a mass of firms each period for entry and modernization. This means that industrialization policy is solely characterized by the critical mass of sectors targeted, and the target level of modernization. The level of modernization could be sequentially expanded by infrastructural upgrading across the board to benefit all major sectors as suggested by the Chinese economist Justin Yifu Lin (2013).

Given a parameterized development path, the most significant parameter represents the strength of increasing returns in the technology adopted by industrial sectors, which generates a rationale for "big push" intervention. A "big push" can be activated if the economy is stuck in a "development trap" from which an escape could be made through sufficient coordination of decisions by input producers. For a developing economy in its early phase a "poverty trap" is a special case of a "development trap" defined by Barro and Sala-i-Martin (1995: 49) as a stable steady-state with low levels of per capita output and capital stock. This is a trap because, if agents attempt to break out of it, the economy has a tendency to return to the low-level steady-state. Only by a very large change in their behavior, can the economy break out of the poverty trap and move to the high-income steady state. To evaluate the economic characteristics, i.e., the strengths of complementarities and increasing returns, would affect the government's policy choices and industrial policies (Gans, 1994).

Big Push theories of industrialization could lead to 'development traps' if sequential industrialization would add more diminishing returns than increasing returns industries which could be a result of government's coordination failure. This would point to deficiencies in institutional quality as outlined by North (1990) impacting economic performance. They could give explanations for decade long lackluster performance of Latin American economies (Fukuyama, 2008). When a development trap is purely the result of coordination failure, to escape from the trap, would technically require the government to synchronize the expectations of individual agents (entrepreneurs) with targeting investment in industrialization activities. If a government were to announce that firms should modernize to a

certain degree, even if this were believed perfectly by individuals and firms, each firm might still have an incentive to wait before investing. In that case, the optimistic expectations by the government would not be realized and the policy would be ineffective. Irreversibility and the time lag of production mean that history rather than expectations matter (Krugman, 1991). The previous level of industrialization determines what path the economy will take in the future. This is why it is difficult to characterize the industrializing paths of the economy. There is econometric evidence that a contributing factor toward the emergence of development traps is the lack of surpassing some threshold of technological integration in the industrializing (manufacturing) sector (Ortiz et al, 2009).

INDUSTRIALIZATION POLICIES AND DEVELOPMENT

In the context of a big push development strategy the government faces a tradeoff between the number of sectors it targets and the degree to which it wishes them to modernize, that is, it chooses the critical mass of sectors that must be targeted at any point in time in order to generate an escape from a development trap and to achieve increasing returns. Let's take a simple case where the industrialization policy takes the form of a "big bang", that is intervention occurs for one period only granting that the resources exist in that period to allow for such a policy. This means that the industrialization policy is solely characterized by the critical mass of sectors targeted s^* and the target level of modernization f.

Suppose naturally that individual transition costs are non-decreasing in f, the optimal critical mass in terms of f can be described by the path

$s^*(f,\phi) = (f+1)^{\theta(1-\sigma)}\,[\,((1-\delta)(\sigma-1)/\,L\,\bar{\lambda})^{(1-\sigma)/(\sigma-1-\sigma)} - s_I\,)]\, + s_I$ with s_I as the basic input varieties of the industrial economy.

Substituting this into the objective function with cost $c\,(f,1;\, s_I,\, \phi\,)$, the 'big bang' industrialization policy problem becomes

$$\min_f\ (f+1)^{\theta(1-\sigma)}\ [\,((1-\delta)(\sigma-1)/\,L\,\bar{\lambda})^{(1-\sigma)/(\sigma-1-\sigma)} - s_I\,)]\ \ c\,(f,1;\, s_I,\, \phi\,)$$

where use is made of the symmetry of the cost functions and the fact that $s^* - s_I$ firms are targeted. ϕ could represent any given exogenous parameter, i.e. $\sigma,\theta,\delta,\alpha$, or $L\,\bar{\lambda}$ a given parameter linked to L

In designing an optimal industrialization policy it shows that a cost minimizing policy in the industry transition entails setting certain development model (exogeneous) parameters such as labour productivity improvements (θ), upstream firms discount future earnings (δ) the fixed size of the labour force ($\bar{L}$), the number of basic industrial sector varieties (s_I) , the product linkages between intermediate input producers (σ), and the use of the intermediate input composite (α), the latter two showing a certain degree of interaction referring to as the returns to

specialization (Romer, 1986). Discussing these parameters qualitatively in terms of comparative statics would indicate industrial change. Raising any of these parameters θ, δ, $\bar{L}$, and s_I increases the marginal returns to upstream firms in both their entry and modernization decisions.

Raising θ means that sunk costs are translated into labor improvements more effectively. Similarly, since the costs of modernization and entry are carried today and most of the returns occur in the future, the more likely they are to undertake those actions. A large market, a higher $\bar{L}$, also raises the marginal return to entry and modernization. Finally, more industrial varieties mean that the past level of industrialization is greater, thereby, reducing the marginal costs of inducing firms to adopt more modern technologies. Given this, the responsiveness of firms to inducements by the government is enhanced when any of these parameters is raised. Therefore, the higher are these parameters, the fewer firms need to be targeted to facilitate an escape (from a development trap). Of these parameters θ has probably received the most discussion. In many ways, this parameter represents the strength of increasing returns in the technology adopted by upstream producers. This is because higher levels of θ imply that, when they choose to modernize, upstream firms will choose technologies involving greater sunk (or fixed) costs. Therefore, while one requires some degree of increasing returns or economies of scale in production to generate a rationale for a "big bang" intervention, the stronger are those increasing returns to support a more unbalanced industrialization policy. This relates back to arguments made on balanced vs. unbalanced growth. Of the three other parameters, only the discount rate δ seems to have been given a potential role in the past debate on industrialization policy. Matsuyama (1992) interprets the discount rate as measure of effectiveness of entrepreneurship in coordinating investment, with a low discount rate indicating existence of greater entrepreneurial resources. If so, then the above result seems to imply that with a relative scarcity of entrepreneurial talent a more balanced approach should be followed.

The comparative statics results for α and σ require more restrictions because each of these has two effects. On the one hand, lowering σ and increasing α raises the strength of strategic complementarities among upstream sectors. This tends to favor a more balanced growth approach. On the other hand, α and σ each affect the marginal returns to entry and modernization of firms. The second effect reinforces the first and leads to more balanced strategy that is, lowering σ and lifting α increase the marginal returns to entry and modernization. A lower σ also implies stronger technical complementarities. This effect is sometimes referred to as the returns to specialization (Romer, 1987). The consequence is that a lower σ raises the marginal returns to employing greater variety of inputs in production. The higher is σ the weaker linkages among intermediate input sectors. Conversely, stronger linkages between sectors raise the marginal return to targeting an additional sector for change supporting the arguments of the balanced growth strategy.

Looking at α, it is a measure of the appropriability of the returns from supply as an additional intermediate input. As Romer (1994) discusses, the larger is α , the greater is the surplus gained by intermediate input producers from the employment of their product in final goods production. Therefore, producers of inputs targeted in an industrialization policy are more likely to react positively (in terms of adopting better technology) when the appropriable returns from the introduction of their variety is larger. This effect would tend to favor a more unbalanced approach as α increases.

Summarizing, we have outlined the role of several parameters in influencing the kind and degree of balance in industrialization policy. Factors addressed in the earlier literature such as strength of linkages, increasing returns and entrepreneurial resources all influence the composition of the 'big push'. By considering a 'big bang' policy, some results are possible. For instance, strong increasing returns in conjunction with weak sector linkages tend to favor a more unbalanced approach in order to minimize costs.

CONCLUSIONS

A major problem of the industrialization debate is the timing of the industrialization policy and its degree of focus is complex and dependent on the characteristics of the case specific economy. A 'big push' perspective on industrialization does not imply that transition can be a simple matter of coordinating expectations via some kind of indicative planning. Nor does it mean that policy must be balanced and take a 'big bang' form in order to be successful. A wide variety of industrialization policies can generate a 'big push' and the choice between them is therefore a matter of costs.

In a dynamic model, however, this wide variety of industrialization policies makes a characterization of the optimal policy quite difficult. To take advantage of full marginal modernization and entry costs, a gradual policy is always optimal.

Moreover, in a policy of gradual entry, the number of sectors targeted in each period is rising over time. However, pairwise interactions between choice variables and exogenous parameters tend to be qualitatively ambiguous in a dynamic setting. For instance, strong increasing returns accompanied by weak sector linkages tend to favor a more unbalanced approach in order to minimize costs. The former effect favors the arguments of the balanced growth school, while the latter was part of the intuition of the unbalanced growth school.

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OPEN ACCESS ARTICLE

ANALYSIS OF THE COMPETITIVE LEVERAGE OF PROTECTIVE TARIFFS

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Abstract

This paper offers a theoretical model to lend further support to previous studies used to call for the need to remove protective tariffs. When the United States imposed a 15% tariff against imported steel and some other products in 2002 (which was later removed after 2 years), the measure was seen as a clear means of protecting jobs in the steel and allied industries, which have been faced with stiff competition from foreign producers. However, whether or not the move really proves to be ultimately helpful to the US economy is quite a different matter that needs to be addressed and verified. When countries implement tariff protection for their domestic firms, the most common reason given is to ensure that workers' jobs are not jeopardized by "unfair" foreign competition. This excuse sounds reasonable, except that it is also economically flawed. While the short-run impact of such a measure might be appreciated, its long-term effect is less than favorable, and may, in fact, be damaging to not only the economy's competitiveness but also the economic state of being of the workers whom the measure sought to protect. This paper offers an analysis of these impacts and their policy applications.

Key words

Competitive leverage; Optimum tariff; Protectionism; Infant industries; Cost-Benefit ratios.

INTRODUCTION

During the turn of the millennium, the United States imposed a 15 percent tariff against imported steel and some other products as a means of protecting jobs in the steel and allied industries, which had been faced with stiff competition from foreign producers. However, whether or not the move really proved to be ultimately helpful to the U.S. economy is quite a different matter that needs to be addressed and verified. Protectionism arises as countries adopt various trade restriction measures to protect their domestic markets on behalf of domestic producers, against foreign competitors. The tariff is a tax on imported goods deemed to raise their prices to par with those of domestic producers. Besides being a revenue source for the

government, a tariff effectively gives a competitive edge to domestic (import-competing) producers of similar goods.

This paper explores the ultimate impact of a tariff regarding whether or not it actually "protects" workers' jobs and economic well-being. It examines whether or not the kind of competitive edge - *the competitive leverage* - that tariff protection gives to domestic producers is really effective. This is important in several respects. As a tariff effectively shields domestic firms against competition from international firms, it can allow them to operate with high-cost margins and yet remain in business. It also means that consumers pay higher than necessary prices for the product, while the economy suffers loss of the benefits of lost goods. The jobs in these firms are "protected" as a result of the measure. However, two questions, at least, arise as to how long these jobs could be "protected" through such an interventionist approach; and at what ultimate costs to the economy are these jobs protected.

That protectionism introduces distortions in the pattern of international production is not a new assertion. Weidenbaum and Munger (1983) had estimated ratios of costs to benefits (CB ratios) of protective tariffs in various industries and found that it costs the nation $4 of deadweight loss for every $1 of saved job in the automobile industry (Thompson, 1993). These losses were found to be even greater in other industries such as footwear (CB = 9/1), television (CB = 6/1), steel (CB = 5/1), apparel (CB = 7/1), and compact radios (CB = 10/1). Consumers and the general public are generally not aware of the costs imposed by protective tariffs.

In assessing the potential gains from an economic policy measure such as imposition of a trade tariff, greater attention need to be given to its overall and long-term impact effects rather than the short-term results. It is in this regard that this paper assesses how far a tariff succeeds. The next section gives a survey of tariff protection and a discussion of its effects on international trade and competitiveness. Section 3 presents an expository model of competitive leverage and examines the place of trade tariffs in enhancing or inhibiting the ability of a domestic firm to sustain its *dispositional stance to* competitive leverage in the global international trade environment. Section 4 offers some policy analysis and concluding remarks of the study.

WHY PROTECTIVE TARIFFS

There is always a degree of vulnerability to which a country's economy is subject as it opens its borders to international trade. This would indicate how far, and with what level of ease, its trading partners could effectively reach its markets. An index for measuring the degree of an economy's vulnerability to foreign competitors is the country's *import penetration* index (IP). *Import penetration* may be defined as the ratio of the total volume of imports to the total volume of goods and services transacted

within the economy during a given time period (say, one year). Using the Gross Domestic Product (GDP) as a proxy for the total volume of transacted goods and services over one year, a country's import penetration index may be depicted as:

$$IP = \frac{V_M}{Y}$$

where V_M = total volume of imports, Y = GDP.

This expression indicates that a country's import penetration would rise or fall with the relative size of imports in GDP. Thus, it is not the absolute volume of imports *per se,* that a country should be concerned with. Rather, it is the size of imports relative to the GDP that should be watched in deciding whether or not a country has a high or low import penetration and therefore does or does not need protection for its domestic firms. A high *IP* level would mean that the country's import-competing firms are relatively uncompetitive, so that in a free-trade regime the economy would suffer unemployment and subsequent balance of payments adversity. This appears to provide justification for adoption of protective tariffs. Nevertheless, this is only a short-run justification. Besides, the above equation suggests that the best way to maintain low *IP* in the long-run is to raise the GDP, Y. However, other arguments that are advanced to support tariff protection include:

1. *Optimum tariff* -- this argues that a country suffering from an unfavourable balance of trade could improve its balance of trade by imposing a tariff in order to restrict the volume of imports. Such an outcome is supposed to allow sufficient time for the country to adjust its balance of trade situation. However, there is no means of determining any time limits for the duration of the "optimum tariff", nor could a country be expected to voluntarily assign terminal time periods for the duration. Therefore, the optimum tariff argument is frequently used to justify perpetual imposition of trade tariffs by countries.
2. The *Infant industry argument* for protectionism is advocated for measures to "protect" supposedly newly established (infant) industries which are not able to compete with well-established and mature foreign producers. It argues that these infant industries have not reached their maturity stages where they could reap scale economies and compete effectively. Again, how to determine the maturity period remains a problem in applying this position.
3. *Anti-dumping measure* -- the most often used argument for tariff protection –- is advocated as a legitimate response to what is labelled as the unfair trade competition practices of foreign producers. These producers are said to "dump" their products -- temporarily sell below cost -- in order to drive out the competition in the markets of their trading partners. Presumably, the

foreign firm would plan to reap profits later after eventually driving out the import-competing rivals.

These arguments seem tenable, except that they do not provide sufficient justification for the enormous tradeoff the economy absorbs by way of the deadweight loss in economic welfare. Evidence of this deadweight loss is be verified by applying *International Financial Statistics* data following the approach from a 1986 case study of the effects of protectionist legislation in the United States, over intermittent periods between 1891 and 1977.[1] Sixteen protected industries were studied from their various dates of implementation according to the *Market Price Effects (MPE)* and *Cost-Benefit Ratios (CBR)* of protective tariffs. The MPE measures the estimated increase in market price of the product over what the price would be without protection. The CBR is the estimate of what consumers must pay to save a job in that industry. We computed similar results by applying data on the same products, covering intermittent periods between 1980 and 2012. Table 1 provides a summary of the Hufbauer et al, (1986) findings, and Table 2 gives the results of the present study.

TABLE 1. SUMMARY OF HUFBAUER ET AL, (1986) FINDINGS

MPE and CBR Calculations on Protectionism, 1891-1977			
Industry	Date	MPE	CBR($)
Books	1891	+0.4	100,000
Glassware	1922	+0.19	200,000
Rubber Shoes	1930	+0.42	30,000
Ceramics	1930	+0.14	47,500
Ceramic Tiles	1930	+0.21	135,000
Orange Juice	1930	+0.44	240,000
Canned Tuna	1951	+0.13	76,000
Textiles	1957	+0.30	42,000
Steel	1969	+0.30	750,000
Autos	1981	+0.11	105,000
Maritime Goods	1789	+0.60	270,000
Sugar	1934	+0.30	60,000
Dairy	1953	+0.80	220,000
Peanuts	1953	+0.28	1,000/acre
Meat	1965	+0.14	160,000
Fish	1977	+0.10	21,000

Source: Adapted from Thompson (1993)

The data in Table 1 reveals the magnitude of the inefficiency and resource misallocation imposed on the economy through protectionism. It indicates, for

[1]The study by Hufbauer, Berliner, and Elliot (1986) covered the effects of protective tariffs, trade quotas, and other nontariff barriers over a given time span. See Thompson (1993) for discussion of the broad methodology of the study.

example, that since 1997 from which date a tariff was imposed to protect the fish industry, the average retail price of fish has been 10 percent higher than necessary (*MPE = +0.10*), while it had cost fish consumers $21,000 *(CBR = $21,000)* to sustain each job in the industry. The most costly industries are dairy products (MPE=80%, CBR=$220,000), maritime goods (MPE=60%, CBR=$270,000), orange juice (MPE=44%, CBR =$240,000), steel (MPE=30%, CBR=750,000), and books (MPE= 40%, CBR=$100,000), among others. Table 2 reveals that this trend has only worsened over time until date.

TABLE 2. RESULTS

MPE and CBR Calculations on Protectionism, 1980-2012			
Industry	Date	MPE	CBR($)
Books	1980	+0.51	108,000
Glassware	1982	+0.22	219,000
Rubber Shoes	1985	+0.79	71,000
Ceramics	1987	+0.28	62,900
Ceramic Tiles	1988	+0.48	221,300
Orange Juice	1990	+0.59	323,000
Canned Tuna	1993	+0.32	101,000
Textiles	1994	+0.69	68,000
Steel	1998	+0.46	932,000
Autos	2000	+0.23	118,000
Maritime Goods	2003	+0.81	436,000
Sugar	2005	+0.37	84,000
Dairy	2008	+0.93	344,000
Peanuts	2010	+0.36	1,720/acre
Meat	2011	+0.39	202,000
Fish	2012	+0.24	76,000

Source: Computed from *International Financial Statistics* data, 1980-2012.

Yet, protective tariffs remain, and new ones are imposed on imports of various products. The main reason for this is far from the desire for enhanced economic performance of the country. It does have everything to do with the *rent seeking* agendas of agents in the US industrial economy. This is because protection yields significant gains to the domestic industries covered. As the US Congress is the body that enacts all trade legislation, and as Congressional representatives are elected from relatively small districts often having one single large firm and employer, voters in any district would normally elect a representative that would advocate and vote for measures designed to "protect the industry and jobs" of their district. Therefore, firms located in such districts tend to spend resources to have elected those representatives who would support their causes. Thus, industries tend to hire lobbyists in Washington who pressure Congressional members continuously to implement protectionism. This is rent seeking activity; rent seeking is the factor behind the persistence of protective tariffs despite its proven massive net losses imposed on the country's economy. It is important to provide thorough examination

of this problem to further highlight the urgency with which it needs to be addressed. To this end, the concept of competitive leverage is applied to explore the theoretical underpinnings of how protective tariffs disrupt economic efficiency and sustain deadweight losses upon the economy.

THE COMPETITIVE LEVERAGE MODEL

A protective tariff simply gives a domestic producer the competitive edge in terms of providing it with a cost-price *shelter domain* over which to compete with international rivals. The cost-price shelter provides the firm with a *competitive leverage* - the ability to absorb a negative price shock and yet remain in business (allowing it to capture greater market share). A firm's competitive leverage is measured as the ratio of its *shelter domain* to the market price - indicating the degree of leverage a firm has to maneuver within its global competitive environment. Denoting firm i's competitive leverage as ξ_i, we can write:

$$\xi_i = (p^*-c_i^*)/p^*, \quad (1)$$

where:

$\xi_i=0$, *under breakeven conditions for the firm;*

$\xi_i<0$, *under conditions of a loss making firm; and*

$1>\xi_i>0$, *under the normal circumstances of a profit-making firm;*

p^* = *market (equilibrium) price of output;*

c_i^* = *unit (average) cost of output.*

Denoting firm i's marginal cost of output as m_i, the firm's competitive leverage can be expressed as a function of production cost and efficiency parameters as

$$\xi_i = 1 - (m_i/p)(1- \delta_i q_i) \quad (1a)$$

where: m_i = firm's marginal cost, and $\delta_i = \partial c_i/\partial q_i$ = firm's cost-efficiency parameter.[2]

Then, the relationship between a firm's competitive leverage and market price it can charge for its products is

$$\partial p_i/\partial \xi_i = p_i^2/m_i(1- \delta_i q_i) < 0. \quad (1b)$$

This relationship will enable us explore further into how this leverage, or lack of it, could impact the operational disposition of a typical firm under the overriding profit-maximizing objective of such a firm. How would tariff protection affect the immediate (short-run) objective of the firm, as well as the overall long-term policy of sustaining operational productivity at the level that would ensure a non-negative

[2]Given total cost: $C_i = c_i.q_i$, *the firm's marginal cost is* $\partial C_i/\partial q_i = c_i^* + q_i \partial c_i/\partial q_i$; from which $c_i = \partial C_i/\partial q_i - q_i \partial c_i/\partial q$.

steady-state growth rate of desired (or projected) profit level? To pursue these questions, we apply a simplified model of the usual production and supply under optimization constraints.

The scenario is that the output of each firm depends on the (market) output of all the other firms competing in the market - including foreign firms. Assuming n firms, with inverse market demand function: $p = p(Q)$, where p is market price, and Q is market output defined as $Q = \Sigma_1^n q_i$, where q_i is firm i's market output, $i = 1, 2,...n;$ and assuming all firms face similar cost conditions,[3] $c = c(q_i)$, with the overriding objectives to maximizes their respective profits:

$$Max\ \pi_i = q_i p(Q) - c(q_i) \qquad (2)$$
$$(q_i)$$

The first-order requirements for operational maxima are:[4]

$$q_1 \frac{dp}{dQ}(1 + q_{21} + q_{31} + \ldots + q_{n1}) + p - \frac{\partial c}{\partial q_i} = 0$$

$$q_2 \frac{dp}{dQ}(q_{21} + 1 + q_{23} + \ldots + q_{2n}) + p - \frac{\partial c}{\partial q_i} = 0 \qquad (3)$$

$$q_3 \frac{dp}{dQ}(q_{31} + q_{32} + 1 + \ldots + q_{3n}) + p - \frac{\partial c}{\partial q_i} = 0$$

.

.

$$q_n \frac{dp}{dQ}(q_{n1} + q_{n2} + q_{n3} + 1 + \ldots + q_{nn}) + p - \frac{\partial c}{\partial q_i} = 0$$

where

[3]Although all domestic firms face similar cost conditions, the foreign competitors may face different cost structures given the resource market conditions of their respective countries. However, with $c=c(q_i)$, the nature of the individual marginal cost of each firm: $c'(q_i)$, accounts for and captures any peculiar circumstances under which such a firm operates.

[4]The firm's operating target parameters include its output level, resource (including labor) employment levels, marketing (supply and sales), plant size, etc. The firm produces and markets its operational output target with the overall objective of achieving and sustaining these other target maxima. To what extent the existence of a protective tariff distorts these targets is a key question we seek to verify in the present inquiry.

$$q_{ij} = \frac{\partial q_i}{\partial q_j}.$$

The term q_{ij} defines firm i's *competitive stance. It* measures the domestic firm's disposition to respond to a foreign rival, such that:

1) $q_{ij} \circledcirc 0$, implies a protective tariff market in which domestic firms have little or no incentive to react to foreign competition.
2) $q_{ij} > 0$, implies competitive free-trade market situation in which domestic firms are apt to match any foreign competitors with appropriate responses.

However, under tariff protection, we substitute $q_{ij} = 0$ into the above equation systems and obtain the reaction functions:

$$\begin{aligned} q_1 &= f(q_2, q_3, ..q_n) \\ q_2 &= f(q_1, q_3, ..q_n) \\ q_3 &= f(q_1, q_2, ..q_n) \\ &. \\ &. \\ q_n &= f(q_1, q_2, q_3 ..q_{n-1}) \end{aligned} \qquad (4)$$

Thus, the reaction function of a typical domestic producer is independent of its expected and supposedly *dispositional stance* to foreign competition. This is a clear uncompetitive stance and would be potentially quite costly to the country's economy.

To determine the firm's competitive disposition toward tariff protection, we extend the standard model by assuming a linear market demand curve for the economy and that each firm sets out to maximize its own profit as indicated by equation (2): $p=p(Q)$, $dp/dQ<0$, $d^2p/dQ^2=0$. Further, we assume technology of linear cost functions; that is: $c=c(q_i)$, $\partial c/\partial q_i>0$, $\partial^2 c/\partial q_i^2=0$.

We cast the scenario in a standard oligopoly setting whereby an individual firm's *dispositional stance* affects (determines) how it reacts to foreign rival entry or lack of entry in the face of protective tariff. It is under this setting that each domestic firm realizes the inherent interdependence between itself, domestic rivals, and foreign rivals in the market; in that the performance (profits) of any one firm depends on the actions of the others - firms are likely to negatively affect each other's profits by their own share participation in the competition. But then, in a protective tariff environment, this recognition is effectively negated, as a domestic firm's *dispositional*

stance is *nullified*. The solution of this problem under the *null stance* environment allows us to verify how a typical domestic firm is able to sustain *competitive leverage* while operating inefficiently:

$$Max\ \pi_i = \Sigma_1^n \pi_i$$
$$= \Sigma_1^n [q_i p(Q) - c_i(q_i)]$$
$$= Qp(Q) - \Sigma_1^n c_i(q_i)$$

The first order condition for firm *i* would be:

$$q_i \frac{dp}{dQ}(q_{1i} + q_{2i} + q_{3i} + \ldots + q_{ni}) + p - \frac{\partial c}{\partial q_i} = 0$$

from which

$$q_i^* = \frac{(\partial c / \partial q_i) - p}{(dp/dQ)[1 + \sum_2^n q_{ij}]},$$

and substituting the firm's competitive leverage (equation (1a)), we have

$$q_i^* = \frac{-m_i \delta_i q_i}{(dp/dQ)[1 + \sum_2^n q_{ij}]} \tag{5}$$

and further, substituting $\Sigma_2^n q_{ij} = 0$ under *protective tariff* conditions, we have

$$q_i^* = \frac{-m_i \delta_i q_i}{(dp/dQ)} \tag{6}$$

Equations (5) and (6) show a typical firm's operational output as a function of the total output levels of its market rivals (both domestic and foreign), as well as the firm's belief about the reactions of those rivals to its own actions, and competitive leverage. It is this disposition that drives competitive innovation into Research and Development (R&D) initiatives, investment expansion, upgrading, reengineering, and efficiency enhancement programs in firms and industries. The results also indicate the effects of cost-efficiency and competitiveness (such as role of technology), demand conditions, and elasticity of demand parameter as important factors that determine the domestic firm's competitive output.

Differentiating equation (6) with respect to q_j to obtain the firm's disposition to react to international rivals:

$$\frac{\partial q_i}{\partial q_j} = q_{ij} = -\left(\frac{\partial m_i}{\partial q_i} q_i \delta_i + m_i \delta_i \frac{\partial q_i}{\partial q_j} + m_i q_i \frac{\partial \delta_i}{\partial q_i}\right) \frac{1}{dP/dQ} \tag{7}$$

Simplifying and substituting $q_{ij} = \partial q_i / \partial q_j$, we obtain

$$q_{ij} = -q_i (dP/dQ + m_i \delta_i)\left[\delta_i \frac{\partial m_i}{\partial q_i} + m_i \frac{\partial \delta_i}{\partial q_i}\right] \tag{8}$$

Under tariff protection, the typical firm has little or no incentive for pursuing cost efficiency, thus:

$$\partial m_i / \partial q_j = \partial \delta_i / \partial q_j = 0,$$

and substituting into (8) we have

$$q_{ij} = -q_i (dP/dQ + m_i \delta_i) \tag{9}$$

Given that $dP/dQ < 0$, equation (9) shows that the competitive stance of a firm would depend on the firm's attitude about δ_i, namely, the magnitude of its cost-efficiency parameter.

- *Case 1:* Under no tariff protection, the firm's survival depends on its ability to maintain a high δ_i, with the result that $q_{ij} > 0$; indicating high efficiency of operation.
- *Case 2*: Under tariff protection, however, the firm has no incentive to pursue a high δ_i, with the result that $\delta_i < -\infty$, so that $q_{ij} < 0$. This indicates the firm's inefficient operational disposition under tariff protection.

POLICY ANALYSIS AND CONCLUSION

The current understanding within international trade policy circles seem to be pointing in the direction of unfettered efforts to impose and maintain protective tariffs as a way of protecting jobs. Despite consistent opposition by economists backed by several industry-specific case studies, the forces in favor of tariffs seem to always prevail. In searching for ways to provide further support to the view that protective tariffs tend to hurt the economy more than it helps it, this study has offered a model that addresses the problem from the standpoint of how it impacts the economy's competitive leverage. The model is applied to demonstrate how a

firm's competitive stance is ordinarily compromised by the existence of tariff protection.

Implied in the standard neoclassical case for free trade is that trade restriction inhibits the availability of goods to consumers and limits the potential for consumers to access greater diversity of products. Also implied is that uninhibited trade provides a country with these potentials as well as the potential for greater efficiency in production. Consumers are generally unaware of the extent to which protective tariffs raise prices of products and cut their real incomes. Nor are they generally aware of the extent to which tariffs impose operational inefficiencies in firms and businesses. These economic costs are spread across the entire economy; the deadweight losses impose significant welfare losses; the nation's state of competitiveness is impaired.

Even if there is sufficient public awareness of the costs imposed by tariff protection, there are bound to be strong sentiments in favor of their maintenance. Business, industry, and labor union power are apt to work against any policy moves for removal of protective tariffs in their various units. Thompson (1993) points to the difficulty of organizing and lobbying against protection granted to a local industry that employs friends and relatives, especially if those friends and relatives stand to lose their jobs and/or forced to retrain or relocate. Although it may sound unjust at first glance, this is essentially the sort of restructuring that are periodically required for industrial organizations in any free-enterprise economy that must maintain a degree of efficiency and competitiveness.

Inefficient firms need not be propped up by artificial "tariff walls" that only promote their degrees of inefficiency. Any short-term job losses that occur as a result of dismantling protective tariffs would be regained and even exceeded through enhanced efficiency and competitiveness that result from the removal of deadweight losses. Workers are also consumers; and as such, lower consumer prices of products and greater variety of goods confer much larger benefits to them as much as they confer to the general consumer public, so that overall social welfare is raised.

There is a need for a determined policy for phasing out protective tariffs completely. Tariff protection is inconsistent with the free-market regime of industrial policy. Protectionism not only introduces distortions in the pattern of resource allocation and distribution, it also penalizes consumers to the extent that the resulting deadweight losses outweigh any short-term employment gains that may have resulted. This conclusion has been supported empirically by studies such as Hufbaur et al, (1986) or Weidenbaum and Munger (1983). It is time that international trade policy makers should decide and choose whether to be guided by the desire for long-term positive economic gains or short-term politically expedient trade measures whose outcomes are less than favorable to the economy.

Note

5. We make this assumption only to simplify the analysis; although assuming that firms operate a (usual) technology of rising marginal cost may not significantly alter our purported results beyond complicating the solution of the model.

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OPEN ACCESS ARTICLE

INTERNAL EXCISE TAX IN ALBANIA – A COMPARATIVE STUDY OF THE REGION

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Abstract

We have chosen to treat this topic to get deeper knowledge in this field that has undergone numerous changes since its first time of application in Albania in 2012. From 2012 profound changes have occurred in the area of this kind of tax and at the status of Albanian integration to Europe. There have been created many opportunities for entities that trade in products that consistently pay the excise tax. This tax is considered one of the most important taxes that create high rate of income in the budget of the country. This is a tax paid from the customers for the luxury goods, they usually buy. Luxury goods are those kind of goods that are not, necessarily irreplaceable or necessary for every day lives of the persons. It is common that the excise tax is related to some behavior of the people, so it tries to stop some damaging phenomenons that are related to beverages, tobacco, coffee, etc. (Bundo, 2012). This study tries to conduct a research on a certain level trying to give an explanation to this specific tax. To this, the paper addresses theoretical and practical point of view, the comparison of some indicators applied in Albania compared to indicators of countries' of region.

Key words

Excise tax; Beverages; Tobacco; Coffee operators.

INTRODUCTION

The excise tax is an indirect tax – aplied to all the luxury goods in the republic of Albania. It is a tax applied to special goods sold, or a tax on a good produced to be sold in our country or abroad. Excise tax is distinguished form custom duties, such as taxes on import. in every day terminology (but not necessary in the law), the excise is applied to a tightly range, usually at a higher rate, making a bigger part of the retailing price of the product. It is usually a tax per unit of the product purchased, that means an estimated rate per product capacity or per unit of the product.

Judicial relations obn excise tax through businesses are ruled by law no. 61/2012 "For excise taxes in the republic of Albania", that has been changed. This law rules the judicial relation between the operators and the ta office administration, that are subject of excise tax. From 1 October, 2012 the excise tax administration has been transferred from tax administration offices to custom administration. This new and improved law, tries to follow the european union law on excise tax, not only for the procedures of implementation, but also for the structure of the products that are part of the excise tax application. Usually theoritically speaking, the excise tax is applied to the harmful products, to the products that create pollution, and those products that are considered luxury products.

In Albania, the group main items on which excise placed are:

- By-products of oil;
- Beer, wine, alcohol and alcoholic beverages;
- Tobacco and its derivatives; and
- Coffee and energy drinks.

Excise is considered an indirect form of taxation because the government does not apply the tax directly. A mediator, for example manufacturer or seller shall be liable to pay this tax for the government budget. This makes the provider, which the government pays the excise, to try to recover it by shifting the tax to the buyer by raising the price of the product – so finally it is the consumer that pays it. From the new fiscal package since January 1, 2014 implemented in Albania, changed the excise duties and / or taxes on products such as fuel, cigarettes, alcoholic beverages and energy involved.

The purpose of this paper is:

- To understand the way the customs' office works in Albania;
- How does the fiscal law on excise work in Albania;
- How does this kind of tax influence the increase of the Albanian gross domestic product; and
- Are the actions against this payment due tax eficient in reducing the payment evasion of this tax?

Metodology (Hypothesis): Domestic excise tax increase domestic production enabling payment in order to reduce the actions of the businesses that try to avoid this tax.

LAW DESCRIPTION ON EXCISE TAX IN ALBANIA

Legal basis

The excise tax collection, is ruled by law no. 61/2012 "For tax excises in Albanian Republic", changed, to be applied on the energic beverages, alcoholics and tobacco. On these products group, the due to pay the xcise tax, begins at the moment the product is being sold in Albanian territory, by including in it the goods imported

and vendor produced, such as: beer, wine, alcoholic drinks, oil and tobacco. Excise duty paid on goods begins when the products come from an excise duty suspension regime.

Products exempted from of excise duty happens when they are intended for use by accredited diplomatic missions in Bangladesh, International organizations, NATO forces, limited quantities in travelers' personal luggage, the products are exported, goods are located in the customs suspension regime, energy products (mainly fuels) used in technological processes in search of shale development, fuels etc. for fishing needs. But exemption from excise duty comes after the approval of an authorization exception. The Council of Ministers shall determine the form and content of the authorization of the exemption.

Products which apply on excise

Coffee market

Coffee is one the most consumed products in the world. Albania imports all the coffee quantity, without producing.

TABLE 1. IMPORTED COFFEE

Product	Market part
Not roasted coffee	72.8%
Roasted coffee	27.2%

Source: General customs directory.

From Table 1 we can judge that the most part of this product is not roated coffee coming from abroad, that is sold to the subjects that make its ellaboration.

TABLE 2. COMPARISON OF EXCISE TAX SYSTEM IN ALBANIA TO NEAREST NEIGHBORS

Category / State	Excise Taxing scale			
	Albania	Kosovo	Montenegro	Macedonia
Not Roasted coffee	0	42 All/kg	20% of the good monetary value and value custom dutie payments	No excise is applied
Roasted coffee	60 All/kg	84 All/kg		
Skin, peel of the coffee	50 All/kg	140 All/kg		
Extracts, coffee essences	250 All/kg	140 All/kg		

Source: General custom directory

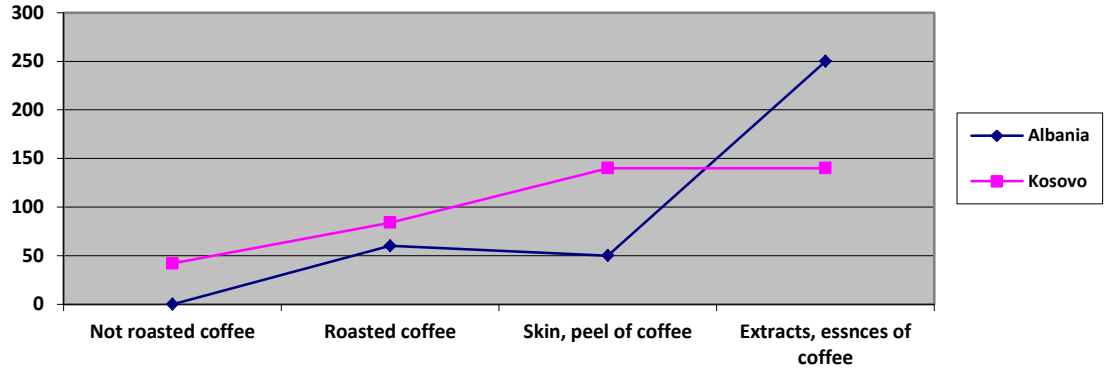

FIG 1. COMPARISON OF INDICATORS BETWEEN KOSOVO AND ALBANIA
Source:General custom directory

There is a noticeable difference between excise duty applied by countries in the region compared with the excise duty applied by the Republic of Albania. For the excise tax on roasted coffee, we can see that it is not applicable in Albania, but Kosovo this is converted to 42 All / kg. Montenegro applies this tax to the extent of 20% of the amount of the value of goods and the value of customs duties and this applies not only to not rosted coffee but for all products of coffee. Macedonia does not apply excise tax on coffee. Albania and Kosovo apply to any of coffee sub-product different levels of taxation. Tax excise applied in Albania to not roasted/roasted coffee, and to skin/peel of coffee is lower compared to the values of this same tax in Kosovo, on the other hand for extracts/essences it is applied a higher tax compared to the same tax in Kosovo.

Energy drinks market

The energy drink is any drink that contains high percentage of sugar, caffeine and other stimulants (mainly taurine and various vitamins) which are consumed to overcome fatigue to mental and physical overload periods.(Health directory annual report in Shkodra, 2012). Referring to the law changed on 2014 for excise tax, this kind of group products, is taxed for 50 All/litre, from 0 % rate before applied.

As prescribed from Figure 2, we see that at the quanity imported the main important part is available to the: First label, second label, third label and the fourth label. The third label has the most expensive price, that is related to its "good name of label".

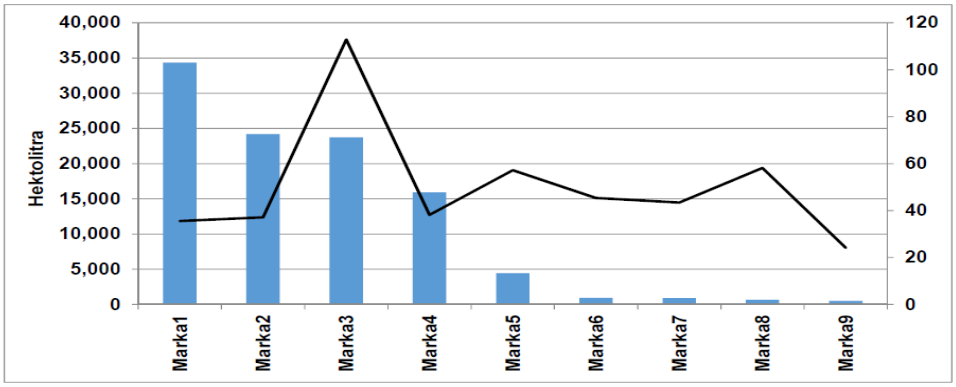

FIG 2. RATIO OF IMPORTED QUANTITY/TO THE AVERAGE PRICE FOR ENERGY DRINKS, 2013

Beer market

Beer is an alcoholic beverage made from the fermentation of various grains coupled with a little bitter taste. Beer is a drink that is produced or imported in Albania, but the beer produced in Albania (some brands) are exported to foreign markets by increasing values Albanian products in the rank a wider area.Many countries apply different taxes on beer. Offers for beer in the Albanian market is provided by two sources: domestic production and imports of popular brands from the region and the world. For 2013, domestic production occupies 93% of the total supply of beer (the calculations are performed on the annual amount in liters of beer production and import) and imported beers occupies only 7% of the annual totally.

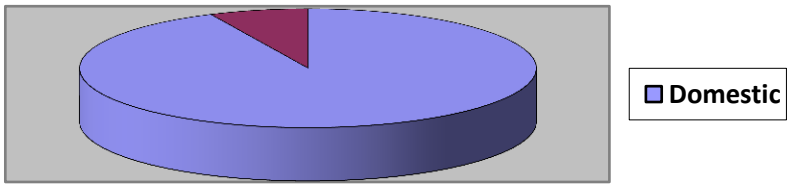

FIG 3. DOMESTIC PRODUCTION AND IMPORT OF BEER IN ALBANIA

Domestic production is low at a rate of 7%. Albania mostly imports its beer.

The excise tax on beer, in Albania compared to other countries‘ of region is the lowest for the quantity of 200,000 hektoliter. The past law on excise tax on beer, had another separation of 6 categories, for domestic prodecera or importers as per beer capacity of producing, ao the quantity of 70 000 HL had the excise of 1000 All/HL (≤6% alcohol) and 1200 all/HL (>6%alvohol), from 70 001 HL to 200 000 HL with excise 1200 all/HL (≤6% alcohol) and 1440 all/HL (>6% alcohol), from 200 001 HL to 300 000 HL with excise 1500 All/HL (≤6%alcohol) and 1800 All/HL (>6% alcohol), and over 300 000 HL excise tax of 3000 All/HL (≤6%alcohol) dhe 3600 HL (>6%

alcohol). Excise for year 2014 has been reduced, becaming comperative to other countries'of region.

Category / State	Excise			
	Albania	Kosovo	Montenegro	Macedonia
Beer produced by malt - from producer Domestic and foreigner at the quantity of 200,000 HL	360 All/HL or 3.6 All/Liter	500 Euro/HL abs,alk.100% in 20oC or 5 Euro/ Liter (700 All/Liter)	5 Euro/Liter (700 All/Liter)	3 Den/Liter Ose 0.05 Euro/Liter (7 All/Liter)
- from producers Domestic or foreigners at a quantity more than 200 000 hektolitra Per year	710 All/HL or 7.1 All/Liter			

TABLE 3. EXCISE TAX IN ALBANIA ON BEER COMPARED TO THE COUNTRIES' OF REGION

Source: General customs directory

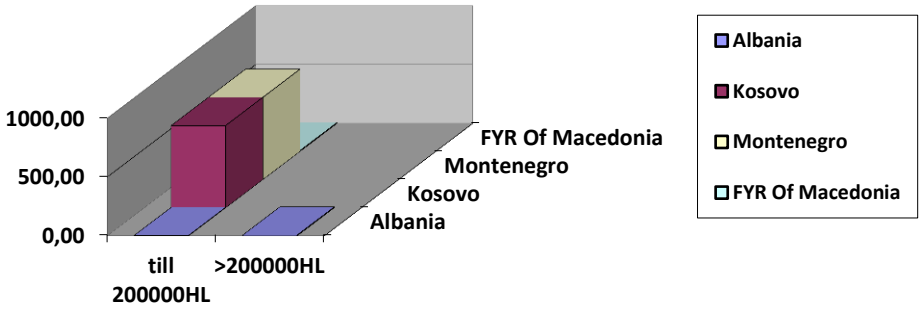

FIG 4. ANNALYZE OF EXCISE TAX ON BEER TO OTHER COUNTRIES' OF REGION

Wine market

Wine is an alcooholic drink made from grape and other fermented fruit. Its cimical natural balance of graperfruit permits its fermentation without need for sugar adds, enzimes or any other artificial material. Champaign has as its unique resuorce importing from abroad, on the other hand other types of wine, in our country, ar imported as well as domestic produced. During 2013, 68% of demand on common wine is assured from imports, and 32 % form domestic production.

Excise tax in our country is various, depending on the domestic production and imports. The quantity domestic produced and imports, of over 10,000 HL per year, has an excise tax of triple rate higher than the quantity produced lower than 10,000 HL per year. Excise for champaign is 5,200 All/HL. Compared to the countries' of region, it is the same to Montenegro, but for the common wine, this country doesn't apply no excise. FYR of Macedonia doesn't apply no excise tax on wine, while Kosovo applies the highest rate of excise tax in the region for wine and champaign (500 Euro/HL).

TABLE 5. EXCISE TAX IN THE COUTRIES' OF REGION AND ALBANIA

Category / State		Excise tax scale			
		Albania	Kosovo	Montenegro	Macedonia
Common wine	< = 10 000 hektoliter/year	3000 All/HL for wines with alcoholic voltage of 12,5 % dhe 4000 All/HL,for the wines with alcoholic voltage of 12,5%	500€/HL	0	0
	quantity>10000 hektoliter/year	10000 All/HL for wines with alcoholic voltage of 12,5 % and 12000 All/HL for the wines with alcoholic voltage of 12,5 %			
Champaign		5200 All/HL	500€/HL	35€/HL	0 den

Source: General Customes Directory

Category / State	Excise tax scale			
	Albania	Kosovo	Montenegro	Macedonia
Alcoholic beverages in process	5 200 All/HL (37€ per HL)	500€ per HL	35€ per HL25 (1.2-15% alcoholic) 100€ per HL	500€ per HL
Ethylic Alcoholic not natural	45000 All(320€) per HL Alcoholic	500€ per HL	650€ per HL	500€ per HL
Grape beverages as per law description No. 66	20 000 all (140€) perHL alcohol			
Other products	45000 All (320€) per HL alcohol			

Alcoholic beverages market in Albania

Source: General Customs Directory

According to the excise tax rate,the highest rate in Albanian Republic have the highest alcoholic voltage beverages , that appears to be higher than in Kosovo and Macedonia. Other excise tax on beverages is lower in Albania. Higher the alcoholic voltage – higher is consumer' risk, higher the excise rate tac in Albania.

PROCEDURES AND NOVELTIES OF LAW CHANGES

Main novelties

- The moment of due on excise payment is the moment when the product is being sold in the market;

- Accompaigning all the procedures of declaration through the administrative accompaigning document;
- Installing the control units near the fiscal stores of produce;
- All the subjects that produce and trade products subject of excise tax, is obligative to take the status of approved depositor (fiscal store); and
- Online and payment declaration through the computing module installed nearby the market operators.

The due to pay the excise tax, comes up at the moment the product is added to the market.

- Production, processing and maintaining the suspension of excise products; and
- Production, processing and holding of excise goods in duty suspension regime carried out in a warehouse fiscal. Warehouse production, processing, holding excise products in duty suspension regime are divided into two types:

  a) Fiscal Warehouse production and processing; and
  b) Fiscal warehouse storage / the storage in the absence of any kind of production and processing of products.

Authorization

1. Fiscal warehouses are subject to customs supervision and control; and

2. The customs authorities approve the authorization for opening and use of a fiscal warehouse. Depository approved equipped with a specific fiscal code.

Operator of excise annalyze - Data on excise operators

From the data obtained from Shkodra excise office, is noted that in 2013 the largest amount of excise products that carry manufactured, imported and processed production is coffe. This reduction amounts in money, recognized from January to March and in April came to the same extent as coffee market was extending. The same extension as coffe has tobacco, considering in this way, the two main products that generate the highest income for internal excise on products. Beverages have the lowest level of excise that, shows a low level of production and consumption as the amount of products which excise is paid pro rata share of the amount of dumped on the market for consumption.

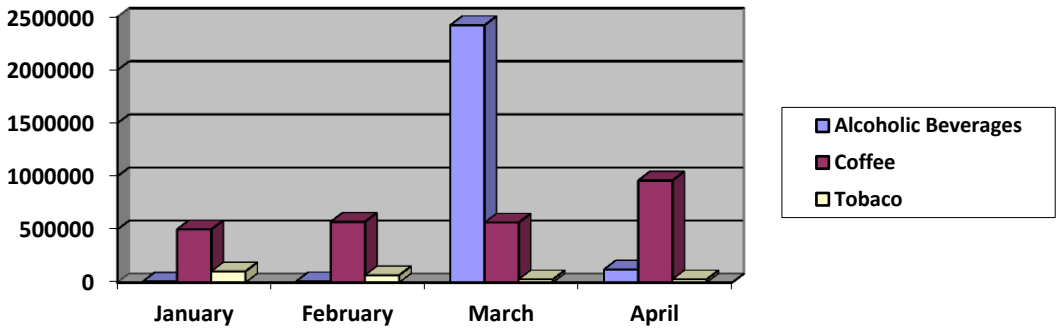

FIG 7. DATA FOR 2014

TABLE 7. VENDOR OPERATORS REGISTERED ON EXCISE OFFICE IN SHKODRA

		Country Operator	January	February	March	April	4-month	January	February	March	April	4-month
1	Mark 1	Alcoholic drink Producer	0	0	0	21900	21900	0	0	0	42048	42048
2	Mark 2	Alcoholic drink Producer	0	0	0	0	0	0	0	2400000	0	2400000
3	Mark 3	Alcoholic drink Producer	14250	32610	28950	24000	99810	0	0	16500	14250	30750
4	Mark 4	Alcoholic drink Producer	0	0	13500	20520	34020	0	0	0	21450	21450
5	Mark 5	Alcoholic drink Producer	1800	7200	16050	8370	33420	0	9450	0	19500	28950
6	Mark 6	Alcoholic drink Producer	0	0	0	0	0	0	0	0	0	0
7	Mark 7	Alcoholic drink Producer	25650	15650	20800	24650	86750	9300	3600	6000	15250	34150
8	Mark 8	Alcoholic drink Producer	0	0	21000	0	21000	0		0	10440	10440
		Total	**41700**	**55460**	**100300**	**99440**	**296900**	**9300**	**13050**	**2422500**	**122938**	**2567788**
1	Mark 2	Importer, Coffee Layer	325377	296217	61479	4471	687544	0	223560	515317	504804	1243681
2	Mark 1	Coffee Layer	0	0	179820	422820	602640	500580	336798	43740	447606	1328724
3	Mark 3	Coffee Layer	0	0	0	0	0	0	11664	0	0	11664
4	Mark 4	Coffee Layer	0	0	0	0	0	0	0	0	0	0
5	Mark 5	Coffee Layer	0	0	0	0	0	0	0	0	0	0
6	Mark 6	Coffee Layer	0	0	0	0	0	0	0	0	0	0
7	Mark 7	Coffee Layer	0	0	0	0	0	0	0	0	2916	2916
8	Mark 8	Coffee Layer	0	0	0	0	0	0	0	5832	5832	11664
		Total	**325377**	**296217**	**241299**	**427291**	**1290184**	**500580**	**572022**	**564889**	**961158**	**2598649**
1	Mark 1	Tobacco Shredders and Packer	150000	150000	0	75000	375000	0	0	0	0	0
2	Mark 2	Tobacco Shredders and Packer	0	0	0	75000	75000	45000	0	0	0	45000
3	Mark 3	Tobacco Shredders and Packer	24000	15000	30000	15000	84000	30000	30000	30000	30000	120000
4	Mark 4	Tobacco Shredders and Packer	19500	21000	30000	37500	108000	30000	39000	0	0	69000
5	Mark 5	Tobacco Shredders and Packer	15000	15000	30000	30000	90000	0	0	0	0	0
6	Mark 6	Tobacco Shredders and Packer	0	0	0	0	0	0	0	0	0	0
7	Mark 7	Tobacco Shredders and Packer	0	0	0	0	0	0	0	0	0	0
		Total	**208500**	**201000**	**90000**	**232500**	**732000**	**105000**	**69000**	**30000**	**30000**	**234000**
		Total	**575577**	**552677**	**431599**	**759231**	**2319084**	**614880**	**654072**	**3017389**	**1114096**	**5400437**

Source: Excise office in Shkodra

From Figure 7 is noted a big difference from year 2013. The level of internal excise collection paid from the subject that exercise their activity in this field. This means a reduction on informality on ezcise payments. In march qe have a noted increase of the excise on beverages, that the most considerable excise is that on energic drinks. This type of excise increased the amount collected on this tax. Since October 2014, by law this excise was cut for the energic beverages. The excise collected on tobacco is decreasing from month to month, that means a positive effect that has resulted on

excise of this damaging product, talking about internal excise regime and not on importing excise. (not including the products which excise is paid in the moment the product is imported in the custom duty offices).

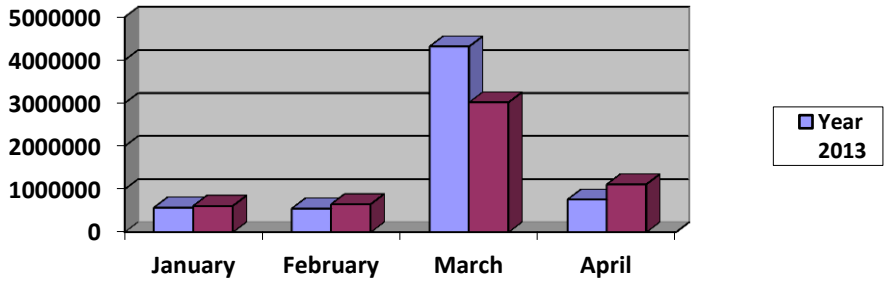

TABLE 8. ACTIVITY OF THREE DIFFERENT MARKS

Year	Month	Mark	Sum	Product	Activity	Im/Ex
2013	June	Mark 1	332424	Immature coffee bean	Coffee Layer	
	June	Mark 2	116251	Immature coffee bean	Importer, Coffee Layer	
	July	Mark 1	133650	Immature coffee bean	Coffee Layer	
	July	Mark 2	67068	Immature coffee bean	Importer, Coffee Layer	
	August	Mark 1	121500	Immature coffee bean	Coffee Layer	
	August	Mark 2	67068	Immature coffee bean	Importer, Coffee Layer	
	September	Mark 2	71539	Immature coffee bean	Importer, Coffee Layer	
	October	Mark 1	324648	Immature coffee bean	Coffee Layer	
	October	Mark 2	55890	Immature coffee bean	Importer, Coffee Layer	
	November	Mark 1	131706	Immature coffee bean	Coffee Layer	
	November	Mark 2	67068	Immature coffee bean	Importer, Coffee Layer	
	December	Mark 1	38394	Immature coffee bean	Coffee Layer	
	December	Mark 2	857741	Immature coffee bean	Importer, Coffee Layer	
2014	January	Mark 1	500580	Immature coffee bean	Coffee Layer	
	February	Mark 1	336798	Immature coffee bean	Coffee Layer	
	February	Mark 2	223560	Immature coffee bean	Importer, Coffee Layer	
	March	Mark 1	43740	Immature coffee bean	Coffee Layer	
	March	Mark 2	515317	Immature coffee bean	Importer, Coffee Layer	
	March	Mark 3	2400000	Energy drink	Energy drink Producer / Ex	
	March	Mark 3	1080000	Energy drink	Energy drink Producer / Ex	
	April	Mark 1	4476006	Immature coffee bean	Coffee Layer	
	April	Mark 2	357696	Immature coffee bean	Importer, Coffee Layer	
	April	Mark 3	1080000	Energy drink	Energy drink Producer / Ex	
	April	Mark 3	31497000	Energy drink	Energy drink Producer / Ex	
	May	Mark 1	454896	Immature coffee bean	Coffee Layer	
	May	Mark 2	597780	Immature coffee bean	Importer, Coffee Layer	
	May	Mark 3	6000000	Energy drink	Energy drink Producer / Ex	
	June	Mark 2	291600	Immature coffee bean	Importer, Coffee Layer	
	June	Mark 3	4550000	Energy drink	Energy drink Producer / Ex	
	June	Mark 2	58320	Immature coffee bean	Importer, Coffee Layer	

Source: The excise office in Shkodra

Comparing the data of first 4 months of two years (2013 and 2014) shows us an increase in income from excise from month to month. The economic figures are higher in 2014 than in 2013.

Mark 1 is coffee ellaborator the excercises its activity in Shkodra city. This subject is registered at excide office in Shkodra.

Mark 2 is ellaborator and importer of coffee that excercises its activity in Shkodra city and is registered in the excise office of Shkodra. This subject till may 2014 has exercised its activity only in coffee collaboration and its market, from june 2014 this subject was concentrated in coffee importing.

Mark 3 is producer of energic drinks. It exercises its activity in the city of Shkodra and produces energic beverages. This new law since october 2014 is changed again – by cutting the excise on energic beverages.

CONCLUSIONS

- **Variations on the new excise law** has brought many facilities for operators in the Office of excise. The businesses registered under this law have over the collection of excise duty facilities that is offered from this office. It was created the possibility that registered entities created tax warehouses in which there is an excise products that carry up to the time of sale.
- **Electronic data exchange** between customs offices, vendors and buyers is an important element that has improved the quality of service, because the information passes in real time to all electronic parties. The exchange tooth to some extent has managed to reduce the avoidance from payment of taxes for the completion of Excise office's need to decide the number of the invoices of sale of goods that pay excise.
- **Registered operators should approach to the rules and report in a periodic manner on invetory state.**
- **Coffee market**:
    - Variations on law no. 180/2013 "For excises on Albanian republic" did not bring variations of excise on coffee proction for year 2014; and
    - Mostly the imported coffee bean, is allaborated, packed and traded within Albanian territory.
- **Alcoholic energic beverages**:
    - The law no. 180/2013 "for excise in Albanian republic" took for the first time excise on the products of these categories – 50 All/ liter. This law improvement is present only in Kosovo legislation, according to the region; and
    - For energic beverages, the competition and the variety of prices between different marks is remarkable. From October 2014, though the income of excise from this category was very high, this tax was cut for this category.
- **Alcoholic beverages market**:

  - Comparing the Albanian law on excise tax to the other countries of the region, in the Albanian legislation we have a scale of this tax according to the product, and volume production, from factory producers. The highest rate of excise tax in Albanian Republic, is for the strong beverages, that are higher than in Kosovo and Macedonia; and
  - The beverage alcoholic market is made of vendor businesses, as well as from importing businesses.
- Variations on the excise tax law have influenced the producing, by cutting the importing.
- The exportet products do not pay excise in Albania but abroad. The exporting of the vendor products is value added for Albania.

RECOMMENDATIONS

  - Procedures shortage, to take the authorization to exercise the activity on excise operators, and to utilize the facilities, offered from the excise payment based os sales and not to total production or exported goods.
  - Different levels of tax need to be applied. Lower excise level should be applied to the products produced in Albania than to the products imported. This would motivate mostly the vendor producers to produce most and extend their market.

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Resuming reports from general customs directorate.


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EMPIRICAL RESEARCH ON IPO AUDIT FEE IN CHINA

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Abstract

The question of audit fee always is the matter of concern in the audit research area. This article has chosen for the first time a brand-new research area - the audit fee of initial public offerings. We have selected the IPO samples from 1999 to 2006 and examined the determining factors of IPO audit fee through the establishment of IPO audit fee model conforming to the condition of China. The result has further proven the correctness of the traditional audit pricing model. We may see from the return result, IPO audit fee still is influenced by the asset scale of the client, and the scale of auditors. In addition, through analysis of the unique factors of IPO, we can obtain some conclusions different from audit fee of the annual report, the significant purchase, sale, or the replacement of asset in IPO period usually can cause IPO audit fee to increase; in the situation that the auditor simultaneously provides the IPO audit with the verification of the capital, the IPO audit fee is higher.

Key words

IPO; Audit Fee; Audit Risk

INTRODUCTION

The question of audit fee always is the matter of concern in the audit research area. However, the audit fee of initial public offerings (IPO) is touched by few people. This article chooses the audit market of IPO - a brand-new research area, and conducts the system research on the audit fee of IPO. Why do we choose the audit fee of IPO as the object of our study? Unlike the audit of annual report, the audit market of IPO is a market full of intense competition. The audit fee of IPO is much higher than that of annual report, moreover, once a firm participated into IPO audit of a company, it is very easy for the firm to establish long-time cooperation with the

company, therefore, each auditor takes great emphasis on this market. In addition, in the audit market of annual report, the client needs to consider the switch cost when choosing the auditor, but IPO audit is the firm's primary cooperation with the client, the client need not consider the switch cost when choosing the auditor, therefore competition degree of the IPO audit market is higher than annual report audit market. The behaviour of auditor will become more obvious in such a competitive market, which enables us to examine our theory more powerfully.

LITERATURE REVIEW

There is little literature about the IPO audit, which mainly concentrates in the relation between the auditor's reputation and the under-pricing of IPO. Beatty (1989) and Balvers et al. (1988) proposed that the under-pricing of IPO, the difference between the IPO price and closing price of the first day, is the function of the *ex ante* uncertainty of the issue price; Hiring prestigious auditor will reduce this uncertainty. Beatty (1989) discovered in the IPO market, the return of the client of "big eight" is higher than that of "non-big eight". Beatty (1989) found that the under-pricing of the companies which hiring the prestigious auditor is less, that is, the big firm can reduce under-pricing of the IPO companies. Stein et al, (1994) discovered that many famous dealers advice its clients to hire "big eight" firms, moreover, the market performance of these companies hiring "big eight" is good. Beatty (1993) examined the determining factors as well as the influence of the legal liability on IPO audit fee, and discovered that the determinant factors of the IPO audit fee are related with those of the traditional annual report audit, and accounting firm has considered the legal liability and the audit risk. Brian and Wilkins (1990) used the IPO audit fee to appraise the industry specialization strategy of the accounting firm and discovered when there is not obvious profession leader, audit fee will reduce with the increase in the profession market shares, however, when the market share of accounting firm was obviously higher than that of competitors, it will earn higher audit fee compared to other firms. Different from the former literature, this article is aimed to study the determinant factors of the IPO audit fee, and hopes to update Siminic's audit fee model in relation to IPO in emerging market.

STRUCTURE OF IPO AUDIT MARKET

First we study IPO audit market share in recent years to understand the IPO audit market overall. Table 1 describes market share of first 4 and first 8 accounting firms from 2002 to 2006. Market share is listed according to IPO company's gross asset and company number of each accounting firm. In 2002, the total of IPO company is altogether 71, in 2003 IPO company altogether 67, 2004 altogether 100, 2005 altogether 17, in 2006 altogether 66 (data from the Sinofin database). The data from Table 1 shows that IPO audit market in recent years is a concentrated market either

based on the IPO company asset or on company number, which is different from annual report audit market. Table 2 shows IPO audit market share of international "big five" from 2002 to 2006 is quite high, which is same with the annual report market. However their market share decreases progressively year by year.

TABLE 1. IPO AUDIT MARKET SHARE OF FIRST 4 AND FIRST 8 ACCOUNTING FIRMS (2002-2006)

		2002	2003	2004	2005	2006
based on the IPO company's asset	CR4	89.17%	81.51%	43.24%	41.51%	40.72%
	CR8	94.21%	90.41%	56.73	58.49%	54.36
based on the IPO company number	CR4	19.72%	26.87%	24%	25.60%	23.89%
	CR8	32.39%	40.3%	38%	41.22%	37.54%

TABLE 2. IPO AUDIT MARKET SHARE OF INTERNATIONAL "BIG FIVE" (2002 -2006)

	2002	2003	2004	2005	2006
based on the IPO company number	12.68%	7.46%	6%	5.92%	5.79%
based on the IPO company's asset	89.17%	13.93%	19.41%	18.68%	18.55%

THEORY CONSTRUCTION AND VARIABLE SELECTION

In China, when going to the public for the first time, company must provide audited financial report of past three years. For convenience, we called the financial reporting period, which is disclosed in the stock offering instruction booklet, IPO period[1]. We definite audit fee charged by accounting firms during the IPO period as IPO audit fee (not including the fee of other service, for instance the fee of capital verification, and so on).

In order to examine the influencing factors IPO audit fee in China, We begin from the audit fee model of Simunic (1980) to discuss variables affecting the IPO audit fee. From the research paper of Simunic, we can find that its audit fee model is as follows:

$$E(c) = cq + E(d)\,E(\theta)$$

[1]IPO period is the period covered by the IPO audit report, usually 3 years.

In the formula, E (c) is the audit fee; c is unit audit resource consumed, including unit audit opportunity cost and normal profit. Q is the resources which the audit consumes. E (d) is anticipated loss due to audit report issued by CPAs. E (θ) is the possibility the anticipated loss due to audit report issued by CPAs.

According to the above audit fee model, audit fee consists of cq and E (d) E (θ). And cq is positively related to the audit work load. E (d) E (θ) is the reversely related with the audit effort. And E (θ) is not related with the audit effort. E (d) =f (q) is a strict decreasing function. If we put E (d)= f (q) into the Simunic audit fee model, then we can get:

$$E(c) = cq + f(q)\,E(\theta) \tag{1}$$

$$\frac{\partial E}{\partial q} = c + f'(q)E(\theta) \tag{2}$$

$$f'(q^*) = \frac{-c}{E(\theta)} \tag{3}$$

From equality (3) we can see in the perfect competitive market, as rational person CPA will certainly first carry on the appraisal of the anticipated loss; Then CPA will balance audit consumption and the audit effort, which can reduce anticipated loss (Pratt & Stice, 1994).

$$f(q^*) = -\int \frac{c}{E(\theta)} dq + k \tag{4}$$

From (4) we know, the audit work load is decided by probability distribution function of the anticipated loss. It is influenced mainly by the exterior legal environment and the characteristic of the company. In certain exterior legal environment, the audit risk is mainly decided by the characteristic of the company, including: the scale, the complexion degree and the capital structure of company and so on (Simunic, 1980). In addition, the consumption of audit resources is influenced by the scale of accounting firms, audit product curve and so on.

Besides the above traditional variable, some other variables will have the influence on IPO audit fee. Compared to the audit of annual report, the IPO audit has its own characteristic: first, the IPO audit includes the auditing of financial reporting, moreover IPO companies usually carry on the asset restructure before going to public (Lidongping, 2005). Therefore, the IPO audit work load and the complex degree are higher than the annual report audit. Second, IPO Company usually carry on the earnings management to meet requirements of listing (Lixian & Niejieli, 2006), therefore its audit risk usually is also higher than the annual report audit.

TO manifest the IPO audit the characteristic, this article has established the following experiment variable:

1) The mode in which the company goes to public. The IPO companies usually carry on the asset restructure before going to public to improve performance and meet requirements of supervisory department. But CPAs usually participate in the company asset restructure and help the IPO company to establish the accounting entry and the corresponding financial reporting[2]. Simultaneously asset restructure is also an important means of financial package. Therefore the audit work load and the risk of the companies which carry on the asset restructure in IPO period is higher than that of the other companies.

RESTRUC=1, if companies in IPO period carry on the asset restructure; =0, no.

2) Whether the IPO company has behaviour of the significant purchase, the sale, the replacement of asset in IPO period. Some companies may have behaviour of the significant purchase, the sale, the replacement of asset in IPO period. According to the requirement of Chinese Securities Supervisory Association, if IPO company has behaviour of the significant purchase, the sale, the replacement of asset in recent three years of IPO, financial situation and the operating of the asset purchased, sold, or the replaced should be audited by the accounting firm[3]. This will increase work load and the risk of IPO audit.

BIGCHANGE=1, if the IPO company has behaviour of the significant purchase, the sale, the replacement of asset in IPO period; =0, other.

3) The work load of audit. Because the IPO audit usually includes audit of financial report three year, its work load must be bigger than the annual report audit. Because the asset is accumulated through long-term period, therefore the difference between the asset at the end of the IPO year and the asset after IPO year will not be big, thus it is unable to represent well the difference of audit work load of IPO audit and the annual report audit. But the income usually increases along with the expansion of company. And the audit of income cycle and cost cycle is the emphasis of audit work, so the income in IPO period and the income of annual report represent the difference of audit work load in the IPO audit and that of the annual report

[2]In China, several companies may put some of the assets together to establish an IPO company. CPAs may helps the IPO company to establish its own account. To meet the requirements of listing the sponsor company will put the best assets into the IPO company.

[3]Chinese Security Regulation Committee requires that if the asset purchased or sold is over 70% of the company asset, the purchase or the sale of the asset is significant and should be audited separately.

audit. Therefore, we use the income of IPO period divided by total asset at the end of the IPO period, to represent the work load of IPO audit.

TURNOVER= income of IPO period / total asset at the end of IPO period.

In selection of controlling variable, this article continues to use client scale, audit complex degree, financial situation as well as financial result according to the former audit the fee model. In addition, we also choose some new variables to reflect the characteristic of IPO audit:

1) The client scale. The bigger the client scale, the higher the anticipated IPO audit fee (Simunic, 1980). We use the natural logarithm of gross asset at end of the IPO period to reflect the client scale.

LNTA= the natural logarithm of gross asset at end of the IPO period.

2) The complex degree of audit. The higher complex degree of audit, the higher the anticipated IPO audit fee. We use the square root of total subsidiary companies to represent the complex degree of audit.

SQSUBS= the square root of total subsidiary companies.

3) Financial situation. ARTA= account receivable/ gross asset ×100%, AVARTA is the mean of ARTA during IPO period; INVTA= Inventory/gross asset ×100%, AVINVTA is the mean of INVTA during IPO period; CURRATIO= current asset/current debt, AVCURRATIO is the mean of CURRATIO during IPO the period. LONGDEBT= long-term debt/ gross asset ×100%, AVLONGDEBT is the mean of LONGDEBT during IPO period.

4) Operating result. The higher the income, the lower the audit risk, and the lower the anticipated IPO audit fee. Considering the IPO companies usually use the non-operating profit to carry on the earnings management, we use adjusted ROA to weigh operating result.

ROA= (operating profit - other profit)/ gross asset ×100%.

AVROA is the mean of ROA during IPO period.

5) Indicator of earning management. The indicator of earning management is an important aspect affecting audit risk, we refer to Teoh (1998) and we use asset-adjusted discretionary accrual to represent the IPO earnings management. The bigger the discretionary accruals, the more the earning management. We use modified Jones model, and compute the nondiscretionary accrual using the following equation:

$$NDA_t=\alpha_1(1/A_{t-1})+\alpha_2(\Delta REV_t/A_{t-1})+\alpha_3(PPE_t/A_{t-1}) \quad (5)$$

In the above equation, NDA_t is non discretionary accruals of t period adjusted by the asset of t-1period, ΔREV_t is the difference between the revenue of t period and the

revenue of t-1 period, PPE_t is the fixed asset of t period, A_{t-1} is the total asset of t-1 period, α_1, α_2, α_3 is the parameter of different industry in different year, the estimated values of these parameter is computed according to the following model:

$$TA_t/A_{t-1}=a_1(1/A_{t-1})+a_2(\Delta REV_t/A_{t-1})+a_3(PPE_t/A_{t-1})+\varepsilon_t \quad (6)$$

In the above equation (6), a_1, a_2, a_3 is OLS estimated value of α_1, α_2, α_3, TA_t is the total accruals of t period, ε_t represents discretionary accruals

DAC= discretionary accruals in IPO period / total asset at the beginning of IPO period

6) Characteristic of auditors. The scale of auditor or the reputation of auditor will influence the audit fee. The audit quality of well-known auditor or large-scale auditor is relatively high and their negotiation ability is strong, therefore, its anticipated audit fee is also high (Lishuang, 2003). We divide the auditors who audit IPO market into two kinds: Large-scale auditors and other auditors. The large-scale auditors include international "big five" and the first 8 accounting firms of IPO market calculated by their client quantity in corresponding year.

BIGAUD=1, IPO auditor is the large-scale accounting firm; =0, IPO auditor is other accounting firm.

7) Other services. The accounting firm may provide the profit forecast service and capital verification service to IPO company besides the audit service. Can these services affect the IPO audit fee? Therefore, we have designed the following two dummy variables:

FORCAST=1, the accounting firm may provide the profit forecast service to IPO company besides the audit service; =0, other.

VERIFY=1, the accounting firm may provide the profit capital verification service to IPO company besides the audit service; =0, other.

8) The time the IPO company has established before going to the public.

EXISTIME= the time IPO company have established. (9) Stock exchange. EXCAHANGE=1, the IPO company is listed in Shanghai stock exchange; =0, the IPO company is listed in Shenzhen stock exchange.

9) The listed year. The guaranteeing and recommending person system is put into practice in 2004; this will influence the audit fee. We have set dummy variable YR1=1, if the IPO company is listed before 2004; =0, if the IPO company is after 2004. The requirement of listing changed in 2001, we have established dummy variable YR2=1, if the IPO company listed before 2001, went on the market; =0, if the IPO company listed after 2001.

10) The province of the listed company. Considering the economic level is different in different province, we refer to Liu Bin (2003) and divide the IPO company into two categories, PROV=1, if the company is located outside Guizhou, Gansu, Qinghai, Ningxia, and Shanxi province; =0, if IPO company is located in Guizhou, Gansu, Qinghai, Ningxia, or Shanxi province. We anticipated that IPO audit fee can be higher in developed area than undeveloped area.

DATA COLLECTION

We collect data of the IPO audit fee, the branches of auditor, the way of going to the public, and the data whether the auditor provide other service during besides audit service from the offering booklet from1999 to 2006. We get the financial data and other correlation data for the sinofin database. We use the SPSS 11.0 statistics software to carry on the data analysis. During the process of data collection, we have rejected the following observation value:

1) The observation, which has not disclosed the IPO audit fee.
2) The observation, which discloses the mixed fee of different service. In the information disclosure, certain observation has disclosed the mixed fee of IPO audit, capital verification and the profit forecast service. Regarding such observation, we cannot find suitable variable to control work load of other service in audit fee decision model, so we deleted these observation.
3) The observation of financial listed company. Because the financial listed company is different from other listed in company in the aspect of business and the risk, therefore we have deleted these observations.
4) The observation of company which simultaneously has B share or H share besides A share. Because this kind of companies have the different investors, and are faced with different supervision environment and market pressure, we delete these observations.

After the following procedure, we have selected 254 example samples (Table 3).

TABLE 3. IPO AUDIT FEE SAMPLE IN DIFFERENT YEAR

Year	1999	2000	2001	2002	2003	2004	2005	2006
Sample number	14	12	9	52	39	55	14	59

MODEL ESTABLISHMENT

The linear regression model is established as following according to the above dependent variables, experiment variables as well as controlled variables:

$$LNAF=b_0+b_1LNTA+b_2SQSUBS+b_3AVARTA+b_4AVCURRATIO+b_5AVROA+b_6DAC+b_7BIGAUD+b_8RESTRUC+b_9BIGCHANGE+b_{10}AVINVTA+b_{11}FORCAST+b_{12}VERIFY+b_{13}EXISTIME+b_{14}EXCHANGE+b_{15}YR1+b_{16}YR2+b_{17}PROV+b_{18}AVLONGDEBT + b_{19}TURNOVER$$

DESCRIPTIVE STATISTICS

Table 4 shows the descriptive statistics of the model. Table 5 demonstrates the mean of the IPO audit fee is 1,689,500 Yuan (the currency ratio between Yuan and EUR is 770.80 on Oct. 12, 2014).

TABLE 4. DESCRIPTIVE STATISTICS OF MODEL

Variables	Mean	Std.	Median
ASSET（Ten thousand Yuan）	179476.846	889974.586	168263.247
AF（Ten thousand Yuan）	168.951	351.774	953.000
AVREVENUE（Ten thousand Yuan）	7296.562	9913.854	5693.114
SQSUBS	1.139	1.324	1.020
EXISTIME	3.743	1.426	3.9
ARTA	0.192	0.129	0.236
AVINVTA	0.187	0.144	0.218
AVCURRATIO	1.411	0.902	1.653
AVROA	0.138	0.104	0.185
AVLONGDEBT	0.115	0.162	0.252
TURNOVER	3.177	2.191	2.995
DAC	0.248	0.441	0.332
RESTRUC	0.496	0.503	1.000
FORCAST	0.391	0.417	0.000
VERIFY	0.567	0.458	1.000
BIGCHANGE	0.538	0.501	1.000
PROV	0.675	0.502	1.000
BIGAUDIT	0.315	0.592	0.000
YR1	0.312	0.472	0.000
YR2	0.326	0.461	1.000

In addition, the mean of current ratio is 1.411, the mean of long-term debt asset ratio is 11.5%, the mean of the operating ROA is 13.8%. From these statistics, operating result of IPO company is quite good, and the risk is also quite low. The mean of

RESTRUC is 49.6%, which indicates 49.6% of the samples have the asset restructure during IPO period. The mean of the BIGCHANGE is 53.8%, which indicates approximately 53.8% of our samples have IPO company has behaviour of the significant purchase, the sale, the replacement of asset in IPO period.

ASSET= total asset (unit: Ten thousand Yuan).

AF =IPO audit fee (unit: Ten thousand Yuan).

AVREVENUE= the mean of income during IPO period (unit: Ten thousand Yuan). RESTRUC=1, if companies in IPO period carry on the asset restructure; =0, other.

BIGCHANGE=1, if the IPO company has behavior of the significant purchase, the sale, the replacement of asset in IPO period; =0, other.

TURNOVER= income of IPO period / total asset at the end of IPO period.

LNTA= the natural logarithm of gross asset at end of the IPO period

AVROA is the mean of ROA during IPO period.

ARTA= account receivable/ gross asset ×100%, AVARTA is the mean of ARTA during IPO period; INVTA= Inventory/gross asset ×100%, AVINVTA is the mean of INVTA during IPO period; CURRATIO= current asset/current debt, AVCURRATIO is the mean of CURRATIO during IPO the period. LONGDEBT= long-term debt/ gross asset ×100%, AVLONGDEBT is the mean of LONGDEBT during IPO period.

DAC= discretionary accruals in IPO period / total asset at end of IPO period

BIGAUD=1, IPO auditor is the large-scale accounting firm; =0, IPO auditor is other accounting firm

FORCAST=1, the accounting firm may provide the profit forecast service to IPO company besides the audit service; =0, other.

VERIFY=1, the accounting firm may provide the profit capital verification service to IPO company besides the audit service; =0, other.

EXISTIME= the time IPO company have established.

EXCAHANGE=1, the IPO company is listed in Shanghai stock exchange; =0, the IPO company is listed in Shenzhen stock exchange.

YR1=1, if the IPO company is listed before 2004; =0, if the IPO company is after 2004. YR2=1, if the IPO company listed before 2001, went on the market; =0, if the IPO company listed after 2001.

PROV=1, if the IPO company is located outside Guizhou, Gansu, Qinghai, Ningxia, and Shanxi province; =0, if IPO company is located in Guizhou, Gansu, Qinghai, Ningxia, or Shanxi province.

COMPARING ANNUAL REPORT AUDIT FEE AND IPO AUDIT FEE

Table 5 shows descriptive statistics of annual report audit (Lishuang, 2003) and that of IPO audit. We may see that the mean of IPO audit fee is higher than that of the annual report audit, which is related to the heavy workload of IPO audit. The mean of current ratio of IPO audit sample is lower than that of the annual report; the mean of the long-term debt ratio of IPO audit sample is higher than that of the annual report audit sample, which shows that the risk of IPO audit is a little big. The mean of revenue of IPO company is also lower than that of the annual report sample. And ROA of IPO company is higher than that of the annual report sample.

TABLE 5.COMPARISON OF ANNUAL REPORT SAMPLE AND IPO SAMPLE

(unit: Ten thousand Yuan)

VARIABLE	annual report sample（N=1215）	IPO sample （N＝254）
LNASSET	11.544	12.0978
AUDIT FEE	30.239	171.951
SQSUB	1.952	1.139
CURRENT RATIO	1.570	1.411
LONG-TERM DEBT ASSET RATIO	0.048	0.115
REVUNE	73218.200	7296.562
ROA	3.3%	13.8%

MODEL REGRESSION

We carry on the multi-dimensional linear regression to the sample. The F statistics of regression model is significant under 1% levels, and the adjusted R^2 is 0.528, so the explanation of the model is good. The collinearity diagnosis showed that there is not independent variable and the VIF value does not surpass 10.0, thus indicated after the model does not have the multiple collinearity problems. Regarding the cross-section data, the WHITE heteroscedasticity examination demonstrates that the residual heteroscedasticity of regression mode is not significant.

Table 6 demonstrates that the regression coefficient of the experiment variable RESTRUC is 0.089, and it is not significant. The regression coefficient of experiment variable BIGCHANGE is 0.181, and is remarkable under 5% level, which indicates the significant purchase, the sale, the replacement of asset in IPO period usually

cause the audit fee increase. The coefficient of TURNOVER is 0.016, but it is not significant.

TABLE 6. RESULT OF MODEL REGRESSION （N=254）

Variable	Expected	Parameter	T-Value	P-Value
（CONSTANT）	?	-0.613	-0.698	0.574
LNTA	+	0.291***	7.021	0.000
SQSUBS	+	-0.021	-0.411	0.587
RESTRUC	+	0.089	1.007	0.426
FORCAST	?	-0.203	-1.294	0.199
VERIFY	?	0.132*	1.943	0.071
BIGCHANGE	+	0.181**	2.113	0.035
EXISTIME	?	-0.033	-1.279	0.235
PROV	+	-0.039	-0.611	0.793
BIGAUDIT	+	0.299***	3.649	0.001
YR1	?	-0.398	-1.194	0.188
YR2	?	-0.726***	-5.013	0.000
TURNOVER	+	0.016	0.986	0.473
DAC	+	0.069	0.703	0.498
EXCAHANGE	?	0.319**	2.311	0.019
AVARTA	+	-0.384	-1.210	0.238
AVINVTA	+	0.231	0.795	0.439
AVCURRATIO	-	0.002	0.062	1.014
AVLONGDEBT	+	-0.914**	-2.701	0.017
AVROA	-	0.051	0.123	0.902
F		11.502***		
R^2		.576	Adj-R^2	.524

***, **, *represent respectively significant under 1%, 5%, 10% level.

Table 6 shows, that among the controlled variables, the coefficient of the client scale and IPO audit fee is significant under 1% level, which is consistent with the traditional audit price research. However, SQSUBS is not significant under 10% level. The coefficient of AVLONGDEBT and DAC is also not significant under 10% level. The coefficient of BIGAUD is significant under 10% level. This indicates the international "big five" and domestic big auditors earn audit premium, in IPO audit market than the other auditors. The coefficient of variable VERIFY is positive and significant under 10% level. This indicates that when the auditors simultaneously provide capital verification and IPO audit service, the audit fee price is higher. The coefficient of variable EXCAHANGE is positive and significant under 1% level. This indicates that the audit fee of IPO company listed the Shanghai stock market is higher. The year variable YR2 is negative and remarkable under 1% level. This indicates that, the IPO audit fee before 2001 is lower than that after 2001.I think it reflects the changes of the listing requirements.

CONCLUSION

We use the revised audit fee model to conduct the research on IPO audit fee. The explanatory ability of the model is good, and the adjusted R^2 is 0.54. We may see from the regression result, which is consistent with the traditional audit fee model. IPO audit fee is affected by the client scale and the auditor scale. When the auditors simultaneously provide capital verification and IPO audit service, the audit fee price is higher. The audit fee of IPO company listed the Shanghai stock market is higher than that of Shenzhen stock market. Our regression result has further proven the traditional audit fee model. In addition, we analyse the unique factor of IPO, and obtain some conclusions different from the annual report audit. the significant purchase, the sale, the replacement of asset in IPO period usually cause the audit fee increase; when the auditors simultaneously provides capital verification and IPO audit service, the audit fee price is higher.

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OPEN ACCESS ARTICLE

COMPARATIVE ANALYSIS OF SECTORIAL CIVILIAN AND MILITARY GOVERNMENTS EXPENDITURES ON ECONOMIC GROWTH IN NIGERIA: ARDL APPROACH

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Abstract

This study empirically compared the impact of government expenditures on adjudged critical sectors on economic growth between the military and civilian period in Nigeria. It employs quantitative analysis by the use of Auto-Regressive Distributed Lag model to estimate both short-run and long run impact of Government expenditures on economic growth between these periods with the aid of E-View 7. The study reveals that during the military era government expenditures on Education, Agriculture, Defense have positive and significant impacts on the economic growth in the long-run. Government expenditures on Defense and Agriculture were retarding the growth in the short run. While, during the democratic system, Government expenditures on Agriculture and Transport/Communication sectors promote growth in Nigeria both in the long run and short run. The government expenditures on Education and Defense have significant negative impacts on the economy in the long run. The study concludes that the reason for the failure of public expenditures to achieve the fiscal objectives is not unconnected to the fact that the level of corruption is outrageous to the extent that if it is not at par with corruption during the military regime it surpasses it. Consequently, the study decries a policy prescription that the government expenditures on these sectors should be increased except in the education sector to meet the UNDP recommendations. The government should avoid the proliferation of anti-graft agencies but strengthen the available ones to carry out their functions diligently without political interference.

***Key words**:*

Sectorial Government Expenditures; Civilian and Military Regime; Economic Growth; Auto-Regressive Distributed Lag (ARDL) Model.

INTRODUCTION

The public spending in Nigeria has been rising astronomically due to the quest for economic development it engenders through increasing the growth rate of the economy, providing more employment opportunities, raising income and standard of living and reducing inequality of wealth and income as opined by Jhingan (2009) in

one hand, and the increasing in the expansive roles of the government which involve protective functions, welfare functions and provision of social services on the other hand. The volume of public spending has been increasing in Nigeria since the military regime at the slower rate relative to what is obtainable in the current civilian regime. Despite this, the country has not experienced any meaningful development during the Civilian period as Nigeria still falls among the world poorest which is more pronounced during the democratic period. In spite of the well coordinated structure and policy of the Nigeria public expenditure which is expected to set the economy on course and ensuring that economy is not only at equilibrium but also promoting the growth in the output of the economy. According to Jhingan (2009) government expenditure policy involves decisions which influence the flow of funds from government into private economy with the view of achieving economic stability, employment generation and economic growth. It is expedient to determine the effect of this government expenditure on the adjudged critical sectors of the economy on the economic growth.

Consequently, there are sectors that are seen as being critical and productive like Agricultural, Education, Transport and Communication, defence that have potentials of contributing to the performance of the economy (Adesoye et al, 2010). Therefore, the public expenditure that is directed towards increasing the agricultural productivity to meet growing demand for foreign exchange, foods, raw materials, increasing supply of consumer goods and encourage expansion of small industry which will stimulate economic growth in Nigeria. More so, public expenditures on social services like education which is one of the core strategies of human capital development that is necessary to promote and achieve sustainable economic growth. Anyawu et al (2012) argues that defense expenditure contributes to security of lives and property, growth & development. The public expenditure on the defense, maintenance of law and orders which promote serenity, sanity and the conducive atmosphere for viable investment which will stimulate the local investment, foreign direct investment and green-field investment that ultimately promote sustainable growth and development of the nation. In addition the public expenditure on transportation and communication cannot be relegated because of the critical role it contributes to the industrialization and commercial activities of any economy. Hence, public expenditures on these sectors are considered critical by this study.

Intuitively, civilian rule is considered to be economically viable and prosperous to the citizenry than the military regime, though, empirical evidence of this is yet to be established. The government spending on various sectors have different efficacy to the economic growth between the military and civilian regimes. Mean while, the two divergent views on the discourse of government spending as stipulated in fiscal policy need to be mentioned. The functional finance as advocated by Keynes and Lerners

which opined that government has to play the positive role by manipulating public expenditure to produce desirable effects and avoid undesirable effects. This view is generally adopted by both the military regime and the civilian regime in Nigeria as the government cannot remain a silent spectator of the miseries of the Nigerians. Contrarily, the traditional thinking (Classical) does not subscribes to this increasing trend of public expenditure because it rated market mechanism as a better guide to promote efficient resources allocation and economic growth. Therefore, government should restrict her activities to the barest minimum. Hence, government should spend little or nothing (Bhatia 2002).

It is noteworthy to observe that government expenditures on various sectors seem to have contributed to the economic growth at the different rate between these two regimes in Nigeria. Owing to the diverse feelings on the above, the argument has been inconclusive on whether or not these critical sectors contribute more significantly to the economic growth during the civilian dispensation than the military period. To the best of the researchers' knowledge, the comparative analysis of the sectorial impacts of public expenditure on economic growth as regards civilian and military eras has scanty or no documentation. This is not to say it has not been receiving any attention, the very few studies that focus on the discourse limit their variables of study to one variable e.g. Each one focuses on agriculture expenditure and defense expenditure performance. While, those that focus on the impact of the sectorial public expenditure performance on economic growth do not compare the discourse on the basis of military and civilian regime. The available related papers like Egbetunde & Fasanya, (2013); Nworji et al, (2012); Ogbulu & Tobira (2012), Ebiringa & Chalse-Anyaogu (2012); Okoro (2013); Chude & Chude, (2013); Shengen & Saukar (2010); Adesoye et al (2010); Adewara & Oloni,(2012); Darma (2014); Usman et al (2011), etc. only treated the impact of government expenditure on economic growth without comparison of the prominent two administration eras we experienced in Nigeria. Adesoye (2013), Abu & Abdullahi (2010) also researched on disaggregated government expenditure without comparison of these two eras. Ehiaiamusoe (2012) researched on comparative analysis between the military and civilian but restricted the study to agricultural analysis. While Anyawu et al (2013) worked on comparative regime analysis of trend of military expenditure. In view of the foregoing, this research is unique and differs to others. The objective of this paper is to compare the impacts of the public expenditures on these critical sectors on economic growth between the military and the civilian regime. However, to what extent the civilian rule can learn from the military administration if at all there is any model worthy of copying from it. More so, the paper will draw conclusion and make recommendations that will be useful for policy makers by serving as reference from where they can adopt ideas. All these justified the attention being paid to this paper. The remaining part of this paper is organized as follows; section two reviews the related literature, section three focuses on

methodology, and section four pays attention to empirical analysis (evidence) while the last section concludes the paper and outlined the recommendations.

LITERATURE REVIEW

This section reviews the relevant literatures ranging from theories to empirical studies that are related to the study. The comparative analysis of the sectorial impacts of government expenditures on economic growth as regards civilian and military eras has scanty documentation. This is not to say it has not been receiving any attention, the very few studies that focus on the discourse limit their variables of study to one variable e.g. each one focuses on agriculture and defense. While, those that focus on the impact of the sectorial public expenditures on growth do not compare the discourse on the basis of military and civilian regime. Consequently, the empirical review will be limited to the available related studies.

Conceptual Issues

Government Expenditures are the expenses, which a government incurs for: (i) Its own maintenance; (ii) Society and the economy; and (iii) Helping other countries (Bhatia 2002). Public Expenditure represents the total government spending to attain the predetermined macro-economic objectives. Governments have recorded a continuous increase over time in almost every country. Despite the fact that there is continuous increase in government expenditure and in spite of its growing role and importance in national economies the area of public expenditure remains relatively unexplored unlike the attention on the theory of taxation. However, the classical have unfavorable thinking towards increasing public expenditure, positing that Governments lack capacity to decide and judge economic interests on behalf of others, hence it should limit it spending. The followings are the kind of Public expenditure:

i. ***Productive and Unproductive Expenditures*:** Productive expenditures are in the nature of investment which help the economy in improving its productive capacity while the unproductive version some expenditures that are in form of consumption. The productive ones are those that are committed to incur and maintain social overheads. The expenditures on administration, defense, justice, law and order and maintenance of state are unproductive (Bhatia, 2002).

ii. Government expenditure is usually classified into ***Capital and Recurrent Expenditure*:** Recurrent expenditure is the expenditure that is incurred yearly for implementation of the various functions of government. It includes general administrative expenses on defense, social and economic services. Capital expenditure refers to the expenditure earmarked for specific projects that can last for many years. It includes investment in buildings, roads, airport, petrochemical project etc.

iii. ***Transfer and Non-Transfer Expenditures*:** Pigou champions this classification as a transfer expenditure which is a payment without corresponding receipt of goods and services by the state eg. interest payment on the acquired debt, old-age pensions, unemployment benefit and benefit/allowance paid to the disaster displaced people etc. the non-transfer expenditure is that by which the states pays for its purchases or use of goods and services. Expenditures on **Defense, Education, agriculture, transportation and communication** and such like are all of non-transfer expenditure.

THEORETICAL ISSUES

The following theories of public expenditure are given attention in this study:

Theory of Increasing Public Expenditure: Wagnerian Law of Increasing State Activities

A German economist, Adolph Wagner propounds the law of increasing state activities. He postulates inherent tendencies of the activities of government to increase both intensively and extensively. The theory emphasized the functional relation between the economic growth and government activities with the effect that government sector grows rapidly relative to the economy. According to Wagner the reasons for the increasing tendency for public expenditure are categorized below: ***Administrative and protective Obligations***: under this function defense became increasingly more expensive. Administrative roles kept increasing in coverage and intensity. Justice, law and order, maintenance of state machinery and social overheads continue to be expansive and expensive. ***Welfare and equitable income distribution roles:*** this covers the activities involve in enrichment of cultural life of the masses and provision of social security to people. Old age pension, subsidies payments direct provision of merit goods items and services feature prominently here with the tendency of expanding and expensive as the economy grows. These above roles bring about distributive justice by mitigating the harsh effects of wealth and income inequalities in the society. ***Provision of public goods and services roles:*** The governments also direct its activities to areas where there are market failures, which necessitate the expansion of investment activities of the governments (Bhatia, 2002).

Wiseman-Peacock (Displacement) Hypothesis

This hypothesis was put forward by Peakcock and Wiseman in their empirical investigation of public expenditure of UK. The quest for increase public expenditure resulting from the unanticipated social disturbance and inadequacy of the available revenue brings about new level of government expenditure, which necessitates higher taxation. The phenomenon is known as ***displacement effect***. Comparison of inadequate available revenue and public expenditure required to carry out government activities brings about ***Inspection effect***. The adaptation of the citizens to this higher level of revenue obtained through taxation to carry out the required public

spending is view as ***Tax tolerance***. The combination of macro factors like population upsurge, urbanization, administration, welfare roles, defense expenditure and ever increasing awareness of government responsibilities and the micro factors resulting from increasing in price level which tends to increase the cost of public activities in one hand is the cause of ever increase public expenditure.

Musgrave Hypothesis: Private Goods, public Goods and Per capita Income Nexus

Musgrave made attempt to explain the growing public expenditure on the basis of private goods that required public goods in order to be able to put into use. Meanwhile, the private acquired goods depend on the level of per capital income. In view of the foregoing, Musgrave maintained that increasing demand of private goods necessitates a corresponding demand for public goods (Bhatia, 2002). He opined that increase in per capital income leads to increase in privately owned goods which tend to require more provision of public goods i.e. there is ***complementarities link*** between the two set of goods as there is increase in per capital income. The Nigeria economy is not an exception as there is increasing growth in the economy resulting from the new emerging sectors like communication, entertainment and the political zeal on the part of political office holders to prove their mettle that they are capable of improving the living standard of the citizenry in accord with the yelling of the international polity.

THEORETICAL UNDERPINNING: PUBLIC EXPENDITURE AS A COMPONENT OF FISCAL POLICY

Classical view: this is laissez-fair oriented economists. They are of the conception that market force can freely operate to achieve desirable objectives in the economy like full employment, optimum allocation of resources, economic growth. They believe that economic objectives can be attained automatically without interference by government. In addition, they are of strong belief that government is exogenous to the economy, therefore, the government productivity in various services is nil. This school of thought opines that the government should undertake minimum essential functions of protecting life and property. The principle embraces the principle of balance budget by the government. Hence, government should spend little or nothing, because the expenditure by them is unproductive. This is known as principle of Sound finance (Jhingan, 2009). The opinion of this school of thought is not well embraced by the major Nigeria economic actor, as the governments believe that the opinion is only applicable to the unambitious governments that do not take the advancement of his citizenry as serious political business.

Keynesian (Modern Concept) view: this opines that Government must play a positive roles in order to regulate the economy by government spending and revenue in the most desirable manner. This school of thought discredits the belief of classical that

supply creates its own demand and the automaticity of the economic system to generate full employment and growth by itself without interference. Keynes believes that the propensity to consume reduces as income increase and the propensity to save increase as income increase. This will bring about disequilibrium in the economy as consumptions (aggregate demands) do not grow proportionally with savings when income is rising. Thus, to maintain income, employment and growth it is necessary to off-set the effects of reducing demand for outputs by a corresponding increase in public expenditure. Hence, if undesirable economic conditions are to be avoided the gap between the income and expenditure must be filled either by increasing propensity to consume in the economy or by increasing government expenditure. This principle is refers to as functional finance by Prof. Abba and P. Lerner.

EMPIRICAL REVIEW

The link between public expenditures and economy performances has attracted the attention of the researchers and scholars. The approaches of the examination of this topic have been taking different dimensions by different scholars. Many scholars examined the discourse on the basis of the structure of public expenditure i.e. capital and recurrent expenditure by the government. Others focus on the government expenditure holistically. However, this study focuses on the impact of public expenditure on economic growth on the sectorial basis. The issue under review is a vital subject that should be subjected to painstaking empirical review in order to keep abreast with the positions of the concerned researchers and scholars on this subject and to determine the literature gap inherent in the earlier related studies.

Empirical work on government expenditure and economic growth in Nigeria 1970-2008: Laudau (1986) the modified version of his 1983 study titled government expenditure and economic growth, where the study included human and physical capital expenditure, political, international condition and three year lag on government expenditures which was disaggregated to include investment, education, defence the findings reflect the result of the earlier study.

A Disaggregated Analysis was carried out by Abu and Abdullahi (2010), using the co-integration and error correction methods, the study has its basis on the Keynesian and endogenous growth models. The result reveals that government total capital expenditure, total recurrent expenditure and government expenditure on education have negative effect on economic growth while, government expenditure on transport and communication and government expenditure on health result to an increase in economic growth.

Adesoye A. B. et al (2010) investigated dynamic analysis of government Spending and economic growth in Nigeria used time series data covering 1977-2006 to analyze the RAM model. The study employed three variants of Ram model were developed to regressed Real GDP on private investment. The empirical result showed that private and public investments have no significant effect on economic growth. However, the

study shows that long run relationship between public expenditure and economic growth.

Usman et al (2011) empirically examined the public expenditure and economic growth in Nigeria. The study adopted augmented Solow model is specified in Cobb-Douglas. The study focuses on sectorial government expenditure which are decomposed to three streams; expenditure on building human capital- public expenditure on education and health, expenditure on building infrastructure-public expenditure on transport and communication, and other social services, and expenditure on administration to study the impact government expenditure on economic growth. The result shows that public spending doesn't has impact on growth in the short run, however there is long run relationship between public expenditure and economic growth.

Ehigiamusoe (2012) in his study titled 'A comparative Analysis of Agricultural Performance between the Military and Civilian Regime in Nigeria' the papers adopt descriptive approach in its study. The research work compares the proportion of public expenditure on agricultural with the allocation to other sectors of the economy such as education, health and transport. The study reveals the agricultural sector received more percentage of public expenditure during civilian regime but the contribution of agriculture to GDP during military regime is greater than the civilian regime.

Adewara and Oloni (2012) in Composition of Public Expenditure and Economic Growth in Nigeria analyzed the relationship between public expenditure compositions from 1960 to 2008 on economic growth using the Vector Autoregressive Model (VAR). The study finds out that expenditure on education has failed to enhance economic growth due to the high rate of rent seeking in the country and high rate of unemployment. The study also recommends that expenditure on health and agriculture should be encouraged due to their positive contributions to growth.

Ben-Caleb and Godwyns (2012) researched on Budget discipline in Nigeria: A critical evaluation of military and civilian regimes. The paper juxtaposes military and civilian regimes with respect to adherence to budgetary estimates. The study employs descriptive statistics, simple variances and percentages with the help of independent T-test of difference of variances. The paper reveals that budget indiscipline under democratic regime is higher than the budget indiscipline under democratic regime by analyzing budget expenditure variances between the two regimes.

Anyanwu et al (2012) in their Comparative Regime Analysis of the Trend and Structure of Military Expenditure in Nigeria, the study covers from 1980 to 2010 where the descriptive statistical tool employed in the analysis ironically shows civilian administrations spend more for defense purposes than military and that recurrent

defense expenditure takes a higher proportion of total allocation for defense in Nigeria.

Ebiringa and Chalse-Anyaogu (2012) investigated the Impact of Government Sectorial Expenditure on the Economic Growth of Nigeria. He opined that government expenditures remain the bedrock of Nigeria's economic growth. The work adopted the ECM method to analyze the long run effect of selected macro-economic variables on growth. The findings of their work shows that expenditure on telecommunication, defense and security, education and health sectors have positive effect on Nigeria economic growth. However, transportation and agricultural expenditures have impacted negatively on the economic growth.

Ogbulu and Torbira (2012) carried out empirical study on Budgetary Operations and Economic Growth: The Nigerian Perspective. The study adopted the linear OLS mechanism in the analysis of budgetary economic growth model patterned after multivariate regression model of linear formation. The ECM was used to indicate how the departure from the long-run equilibrium is corrected. The study reveals that five budgetary items: non-oil revenue, economic, administrative, social and transfer expenditures exerted a significant effects on the GDP.

Nworji et al (2012) worked on the Effects of Public Expenditure on Economic Growth in Nigeria: A Disaggregated Time Series Analysis from 1970-2009. The study use the OLS multiple regression model. The result of the analysis shows that capital and recurrent expenditure on economic services have insignificant negative effect on economic growth; capital expenditure has insignificant positive effect on growth. While capital and recurrent expenditure on social and community services and recurrent expenditure on transfers has significant positive effect on economic growth.

Chude and Chude (2013) examine the Impact of Government Expenditure on Economic Growth in Nigeria between the period of 1977 to 2012. The study focuses on the sectorial expenditures analysis. The study employed Ex post facto design and Error Correction Model in its analysis. The study reveals that total expenditure education is highly and statistically significant and has positive relationship on economic growth in Nigeria in the long run.

Oyinlola and Olusijibomi (2013) investigated public expenditure and economic growth nexus: Further evidence from Nigeria during the period of 1970 to 2009. The study employed disaggregated public expenditure using the structural breaks co-integration technique. The result of the research confirms Wagners law in two models in the long run, the result also shows that economic growth and development are the main objectives of government expenditure, especially investment in infrastructure and human resources all of which falls under social and community services.

Egbetunde and Fasanya (2013) delve into the Public Expenditure and economic Growth in Nigeria: Evidence from Auto-Regressive Distributed Lag Specification

during the period 1970-2010. The Bounds approach to cointegration was used in the analysis to examine the long run and short run relationships between public expenditures and economic growth. The ARDL approach signifies that the variables are bound together in the long-run. The study reveals that recurrent expenditure has significant impact on growth; total public spending has negative effect on growth.

Okoro (2013) explores Government Spending and Economic Growth in Nigeria covering 1980 to 2011. The study used Error correction mechanism and Granger causality test in its analysis. The findings reveal that there exist a long run equilibrium relationship between government spending and economic growth in Nigeria.

Nazifi (2014) researched on the capital expenditure and its impact on economic growth in Nigeria: 1980-2010. The multiple regression model of Ordinary Least Square was used to analyze the data. The findings of the study shows that total capital expenditure, capital expenditure on administration, capital expenditure on social community services and capital expenditure on transfers have positive impact on economic growth in Nigeria.

It is evidence from the empirical review carried out that there are diverse result by various studies, where some studies found that public spending has negative and insignificant effect to economic growth (Egbetunde & Fasanya 2013; Chude &Chude, 2013; Adewara and Oloni, 2012; Laudau, 1983;1986). Similiar studies reveal that there exist positive significant relationship between government expenditure and economic growth (Nazifi, 2014; Okoro, 2013; Oyinlola & Olusijibomi,2013; Ogbulu and Torbira, 2012; Ehigiamusoe, 2012 (reveals that government expenditure on agriculture contribute more to growth during the civilian than military regime). Some studies found out that part of government spending when decomposed have positive, significant effect on economic growth while others have negative and insignificant effect on growth (Nworji et al, 2012; Abu and Abdullahi 2010, Ebiringa and Chalse-Anyaogu, 2012; Usman et al, 2011, Adesoye A. B. et al, 2010 shows that public expenditure has no significant impact on growth in short run but has significant impact on growth in the long run). The reason for these diverse findings are not unconnected to the difference in methodology adopted, diversity in the choice of data used to capture the variables of study, variation in the time period which the study focused on.

BUDGETARY PROCEDURES DURING CIVILIAN REGIME IN NIGERIA

In Nigeria, government expenditures on various sectors need to pass through the budgetary procedures to ensure prudent and optimum utilization of scarce public resources through different ministries, departments and agency of the various sectors of the economy. These procedures occur in three phases are: (i) Preparation at

Ministerial Phase; (ii) Executive Council Phase; and (iii) Legislative Phase (Afuape & Oyebolu, 2013).

***Preparation / Ministerial Phase*:** The ministry of Budget and Planning will first receive the budget policy from the presidency. In addition, then prepare the budget guidelines that would be sent to various ministries. On receiving this guideline in form of circular, the various ministries and extra ministerial would set up departmental committee on budget estimates.

The ministries will submit their estimates to the ministry of budget and planning for approval. The ministry of budget and planning will then set up a committee called draft estimate committee to review the estimates submitted by various ministries. These various ministries would through their representatives defend their proposals. If the ministry of budget and planning satisfies with the proposals of various sectors the department would aggregate and consolidate the estimates of revenue and expenditure. This is would be passed to the presidency for his approval.

***Executive Phase*:** on receiving the budget proposals from the ministry of budget and planning by the Presidency, the president presents the draft estimates before his cabinet members for further consideration and approval. The cabinet reviews the proposed estimates according to the socio-economic and political priority of the government. If the cabinet is satisfied with the proposed estimates, the president will give his executive approval of the draft estimate and present it to the national assembly in form of Appropriation Bill.

***National Assembly Phase*:** The president in person or by proxy presents the draft estimate in form of Appropriation Bill to the joint session of National Assembly. After thorough scrutiny in the assemblies by the appropriation committee, the draft estimate or the bill will be considered and reconciled in line with national economy and sectorial priorities. In case there is disagreement on the Bill the finance committee will be set up to mediate and its resolution is final. After the final approval by the National Assembly, the appropriation Bill will be presented to the President for his final assent and becomes the Appropriation Act.

Frankly, the budgetary procedure that scrutinizes the estimated government expenditures on various sectors in line with the economic objectives to be achieved is rigorous, hence, nothing unproductive should be expected to come out of these administrative and political routine. Well, at the end of this research, the study will unravel if this routine makes a significant difference and promote the judicious government expenditures towards the accomplishment of the various economic priorities most especially growth objective which this study has as its focus.

METHODOLOGY

This section discussed the theoretical framework of the study, model specification, sources and characteristics of data, techniques and model estimation procedure, employed in the study of Sectorial Impact of Public Expenditure on Economic Growth.

This study is anchored on the theoretical framework of Robert Solow who in his celebrated work of the core factors influencing economic growth isolated a key exogenous factor which significantly impact growth potential among economies. However, the Solow version of Neo classical is more suitable for this study due to its dynamism. The Solow model focuses on four variables: Output (Y), Capital (K), Labor (L), and "knowledge" or the effectiveness of labor (A). At any point, the economy has some of amount of capital, labor and knowledge Romer (2012). These are combines to produce output. The production function takes the form:

$$Y(t) = f(K(t), A(t), L(t)) \quad (3.1)$$

A Baseline Case: Economic Growth, Government Expenditure on Selected Sectors

The analysis is extended to incorporate the Government expenditure on critical sectors as they affect economic growth.

Thus the production function 3.1, becomes

$$Y(t) = K_{(t)}^{\beta}\ GeE_{(t)}^{\lambda}\ GeA_{(t)}^{\theta}\ GeD_{(t)}^{\delta}\ GeTC_{(t)}^{a} \quad (3.2)$$

Whereas:

$Y_{(t)}$ is economic growth proxy by GDP Per Capita Constant 2000 US Dollar

$K_{(t)}$ is Capital at period *t* proxy by Gross Capital Formation

$GeE_{(t)}$ is Government Expenditure on Education (Dual purpose in the model)

$GeA_{(t)}$ is Government Expenditure on Agriculture

$GeD_{(t)}$ is Government Expenditure on Defense and Security

$GeTC_{(t)}$ is Government Expenditure on Transport and Communication

Log both sides of the equation 3.3

$$Y(t) = \beta K_{(t)} + \lambda GeE_{(t)} + \theta GeA_{(t)} + \delta GeD_{(t)} + a GeTC_{(t)} \quad (3.3)$$

Therefore, the extended version of the Solow growth model indicates that growth rate of Government expenditure on education, Government expenditure on Agriculture, government expenditure on transport and communication and government expenditure on defense/security are determinants of output with positive relationships.

For the purpose of the research, the relationship among the dependent and independent variables is presented as follows:

PCGDP = f (GCF, GeE, GeA, GeD, GeTC, u) (3.4)

Having indicated from the extension version of Solow growth model that the government expenditure on selected sectors are determinant of economic growth, hence in order to determine the long run impact of the variables of interest of the study on the PCGDP and the short run dynamics of the model, the study employed the Bound Test known as Autoregressive Distributed Lag (ARDL). The reason for adopting this technique are not unconnected to the facts that it is simple to estimate because the stationary test is not required; as long as the variables are I(0) and I(1) the Bound test is applicable; it is capable of estimating both long run and short coefficients of the model. The assumption of the time series used in this study is that all the variables are I(1). More so, Schwarz Information Criteria (SIC) is used to select the appropriate lag by the study.

The Auto Regressive Distributed Lag Model (Bound Test Approach) specified the model below:

$$\Delta RGDPt = \alpha + \delta_i \Delta RGDP_{t-1} + \beta_i \Delta RGCF_{t-1} + \gamma_i \Delta GeE_{t-1} + \lambda_i \Delta GeA_{t-1} + \theta_i \Delta GeTC_{t-1} + \mu_i \Delta GeD_{t-1} + \pi_1 RGDPt\text{-}1 + \pi_2 GCF_{t-1} + \pi_3 GeE_{t-1} + \pi_4 GeA_{t-1} + \pi_5 GeTC_{t-1} + \pi_6 GeD_{t-1} + \varepsilon_t \quad (3.5)$$

Whereas:

RGDP is the Real Gross Domestic Product

GCF is the Gross Capital Formation

GeE is the Government Expenditure on Education

GeA is the Government Expenditure on Agriculture

GeTC is the Government Expenditure on Transport and Communication

GeD is the Government expenditure on Defense/Security

α = Constant term, δ= RGDP coefficient, β = Capital coefficient, γ = GeE coefficient, λ = GeA coefficient, θ = GeTC coefficient, μ = GeD coefficient, Δ = first difference of the variable, ε = white noise disturbance error term.

TECHNIQUES AND MODEL ESTIMATION PROCEDURE

The independent variables in the models are integrated of order zero and one i.e. I (0) and I (1). The Bound test is used to determine the existence of co-integration among the variables base on the WALD test (f-stat) by accepting the null hypothesis of no co-integration among the variables, which is specified as follows: H0: = π1= π2= π3= π4= π5 = π6 = 0

If the WALD test calculated (f-stat) is compared with the Peseran and Peseran (1997) tabulated critical value and falls below the lower bound value I (0). Contrarily, if the

computed f-stat exceeds the upper bound value of I (1), then the null hypothesis of no co-integration will be rejected. Hence, there is long run relationship among the variables. Having confirmed the existence of long-run relationship among the variables, the study will estimate long run and short run parameters by general to specific procedure ARDL model and normalized the result.

SOURCES OF DATA

The nature of this study requires that data collection will be based on quantitative secondary data covering both the military and civilian regime (1984-2013). The data are sourced from Statistical Bulletin of the Central Bank of Nigeria (CBN). The data of interest here are GDP to proxy Economic Growth, Gross Capital Formation to proxy Capital, Government Expenditures on Agriculture sector, Education sector, Transportation/Communication sector and Defense sector. The Sectorial Government Expenditures were chosen based on its assumption that they are critical to the economic growth and development of the nations and base on the data availability on these adjudged critical sectors.

EMPIRICAL ANALYSES

Military Era Analysis

From the ARDL model, the coefficient of GDP has the expected negative sign, but with the probability value of 36%, which indicates that the variable is not significant. To further confirm if the variables are jointly significant. The study conducts the WALD test and compares the f-stat computed value with the upper bound value I (1) of Peseran & Peseran (1997) ARDL table.

TABLE 1. WALD TEST RESULT (MILITARY REGIME)

Test Statistic	Value	Degree of freedom	Prob	'K' number of regressors	Bound Value (Intercept and Trend)	
F-statistic	77.73	(6, 2)	0.0128		1% significant level	
				5	I(0)	I(1)
Chi-Square	46.45	6	0.001		4.011	5.331

The WALD test is conducted by checking if the levels lag Variables (coefficients) are equal to zero or not. Base on the probability value of 1.28% which is less than 5% level of significant the study rejects the null hypothesis that the variables are jointly equal to zero. The computed f-stat of 77.73429 is greater than the Upper Bound table value 5.331 where K =5 at 1% level of significant. This is interpreted as there is long-run relationship among these variables. To confirm the existence of the long-run and short run effect among the variables the study conducts the **specific** ARDL model from **general** ARDL model (see appendix 1.1). The result is normalized in Table 2.

TABLE 2. MILITARY REGIME ARDL SHORT-RUN AND LONG RUN ESTIMATES (cont.)

GDP	GCF(-1)	EDEX(-1)	AGEX(-1)	DEFEX(-1)	d(GDP(1))
coefficients	-1.3210.5	523.7785	215.3098	733.1078	-0.59755
Prob	0.0420	0.0124	0.0273	0.0381	0.0499

GDP	d(EDEX(-1))	d(AGEX(-1))	d(TCEX(-1))	d(DEFEX(-1))	C	@Trend
coefficients	204.0457	-103.7982	66.445	-434.31	47854.75	-24582.3
Prob	0.0138	0.0298	0.0333	0.0333	0.0871	0.0062

The above first lagged variables coefficient measures the long-run effects of the variables on the GDP and the difference of first legged variables measure the short run effect of the variables on the GDP.

The ARDL model reveals that during the military era government expenditures on Education, Agriculture and Defense have positive significant long-run effects on the economic growth with the coefficients of 523.78, 215.31, and 733.11 respectively. Meanwhile, Government expenditures on Transport & Communication during this era has no effect on the economy in the long-run. It is glaring from the above model that government expenditures on Education and Transport & Communication have short-run effects on the economy with the coefficients 204.04 and 66.45 respectively. The effects of Defense and Agriculture during this era have significant negative impacts on the economy in the short run.

Summarily, government expenditure on Education, Agriculture, Defense have positive and significant impact on the economic growth in the long-run while the Transport and Communication has no impact on economy in the long run. Government expenditures on Education and Transport & Communication have positive impacts on the economy while government expenditures on Defense and Agriculture have significant negative impacts on the economy.

Civilian Era Analysis

From the General ARDL model (Appendix 2) the coefficient of level lagged variable of GDP has the expected negative sign, but with the probability value of 28.45% which doesn't really determine the significance of the model now. To further confirm if the variables are jointly significant. The study conducts the WALD test and compares the f-stat computed value with the upper bound value I (1) of Peseran & Peseran (1997) ARDL table.

The WALD test is conducted by checking if the levels lag Variables (coefficients) are equal to zero or not. Base on the probability value of 0.1% which is less than 5% level of significant the study rejects the null hypothesis that the variables are jointly equal to zero. The computed f-stat of 28.30 is greater than the Upper Bound table value 5.331, where K =5 at 1% level of significant. This is interpreted as there is long-run relationship among these variables.

TABLE 3. WALD TEST RESULT (CIVILIAN REGIME)

Test Statistic	Value	Degree of freedom	prob	'K' number of regressors	Bound Value (Intercept and Trend)	
F-statistic	28.30	(6, 7)	0.001		1% significant level	
				5	I(0)	I(1)
Chi-Square	169.80	6	0.0001		4.011	5.331

To confirm the existence of the long run and short run effect among the variables the study conducted the **specific** ARDL model from **general** ARDL model. The result is normalized in Table 4.

TABLE 4. CIVILIAN REGIME ARDL SHORT RUN AND LONG RUN ESTIMATES (cont.)

GDP	GCF(-1)	EDEX(-1)	AGEX(-1)	DEFEX(-1)	TCEX(-1)
Coefficients	-	NLRE	351.21	-787.02	14.09
Prob	-	-	0.0001	0.0381	0.0052

GDP	d(EDEX(-1))	d(AGEX(-1))	d(TCEX(-1))	d(DEFEX(-1))	C	@Trend
Coefficients	NLRE	189.15	7.77	NSRE	-8710249	1600729.35
Prob	-	0.0000	0.1003	-	0.0002	0.0018

The above first lagged variables coefficient measures the long-run effects of the variables on the GDP and the difference of first legged variables measure the short run effect of the variables on the GDP.

The ARDL model reveals that during the civilian era government expenditures on Agriculture and Transport & Communication have significant long-run effects on the economic growth with the coefficients of 351.21, and 14.09 respectively. Meanwhile, Government expenditure on Defense has negative impact on economy in the long run. During this era, government expenditure on education has no significant impact on the economic growth in the long run. The study also found that government expenditure on agriculture, Transport and Communication has significant impact in the short-run on the economic growth in Nigeria. Both government expenditure on Education and Defense has no short run effect on the economic growth of Nigeria.

Summarily, the duo of Government expenditure on Agriculture and Transport & Communication sector have positive significant effects on the economic growth in Nigeria both in the long run and short run. While, government expenditure on education has significant negative impact on the economy in the long run; it has no effect on the economy growth in the short run.

RESIDUAL DIAGNOSTIC TESTS

These tests are conducted to determine the efficiency of the model (Table 5).

TABLE 5. RESIDUAL TESTS TABLE

TESTS	Jacque Bera	Probability	
Normality	3.738905	0.154208	
	Prob. Chi-square value	f-stat	Prob. F stat
ARCH Test	0.2881	1.094609	0.3044
Breusch-Godfrey LM Test	0.1433	0.0905	2.831186

Normality Test

H_0: Residual is multivariate normal **H_1**: Residual is not multivariate normal

Jacque-Bera stat with value 3.738905 and prob. Value of 0.154208, which is greater than 0.05 levels. Hence, the study accepts the H_0 that specified that the residual is normally distributed.

Heteroscedasticity Test

Autoregressive Conditional Heteroscedasticity (ARCH) has autoregressive structure, it may be observed over different periods.

H_0: there is no ARCH effect

From the table above, the prob. chi-square value of 0.2881, which is greater than 0.05 level of significance. Hence, the study accepts the H_0, which specifies there is no ARCH effect.

Test for Residual Auto-Correlation

Breusch-Godfrey Serial Correlation LM Test.

H_0: there is no serial correlation.

From the above table, considering the prob Chi- square value of 0.1433 which is less than 5%. Hence, the study accepts the H_0, which specified that there is no serial auto-correlation.

Conclusively, the above residual tests of the study conducted are all desirable, considering the normality test of the residual, ARCH effect (heteroscedasticity) test and serial correlation test of Breusch-Geofrey. This model can be used for policy making and other economic purposes as the tests conducted indicated that it is highly reliable.

DISCUSSION OF FINDINGS

Remi & Enemuo (1999) documented that the military by virtue of its discipline and patriotism is well placed to guarantee the stability and national development. This specifically buttresses the result of this analysis.

The study revealed that government expenditures on these adjudged critical sectors contributed significantly to achievement of growth objective in the long run during

the military regime except the Transport and Communication sector that has no long run effect on the economic growth.

TABLE 6. TABULAR PRESENTATION OF THE NORMALIZED SPECIFIC ARDL ESTIMATES OF MILITARY AND CIVILIAN REGIME SECTORAL GOVERNMENT EXPENDITURE PERFORMANCE ON ECONOMIC GROWTH

MILITARY REGIME			CIVILIAN REGIME		
	SHORT RUN IMPACT	LONG RUN IMPACT		SHORT RUN IMPACT	LONG RUN IMPACT
Government Expenditure on Agriculture	-103.7982	215.3098	Government Expenditure on Agric.	189.15	351.21
Government Expenditure on Education	204.0457	523.7785	Government Expenditure on Education	-	-
Government Expenditure on T&C	66.445	-	Government Expenditure on T&C	7.77	14.09
Government Expenditure on Defense	-434.31	733.1078	Government Expenditure on Defense	-	-787.02

The communication sector witnessed an unprecedented growth after the reform that was introduced at the inception of the civilian (Obasanjo's) regime when the sector was given the required attention and ushered in private participants from both the local and foreign investors. Both the government expenditures on Agricultural and Defense sectors that have negative impact on the economic growth in the short run turn out to contribute significantly to the economic growth in the long run. During the military period, attention has not been shifted away from agriculture totally unlike in the present dispensation that the Nigeria economy is characterized as monoculture economy.

The Education and Agricultural sectors were working effectively during this period as indicated by the positive coefficients of the parameter in the results. This period was when the Nigeria economy was competing with the Newly Industrialized Countries (NICs) like Malaysia, Singapore, China, Brazil, and Indian (Yusuf, 2014). The Education sector was producing more than enough brains (human capital development) required facilitating the economic growth and development. While the Agriculture sector was contributing significantly in meeting the foreign exchange needs of Nigeria. This is not to say that the military is sacrosanct. The level of corruption in the country was limited to the few ruling Khaki men when there was no multiplicity of democratic institution where the political office holders occupy the offices to satisfy their personal interest at the detriment of the nation's interest (Ogbeidi, 2012). The agricultural reforms during the civilian era have positive impact

on the economic growth. This is supported by the facts that billions of Naira have been saved from reduction in importation of agricultural products (food items) by the Agricultural Transformation Agenda (ATA) of the present administration that robustly focus on agricultural sector have significant impact on the economy. That is not to say that the sector is presently optimizing its potential on the economy.

Considering the fact that this sector was the mainstay of Nigeria economy before, it still has capacity of sustaining the economy and contributing significantly towards the achievement of full employment, foreign exchange need of the nation, growth and development objectives. Lately, the education sector has been a controversial sector in Nigeria as the federal government fails to provide the required adequate expenditure - 26% budgetary allocation to ensure the sector engenders the necessary human capital development that will promote economic emancipation of the nation (Yusuf, 2014). Furthermore, Government expenditure on Defense sector is retarding the economic growth in Nigeria. This is indicated by the coefficient of the parameter in the result of ARDL analysis. This is further corroborated by the failure of the Government and its military forces to contain the excesses of insurgence (terrorism) in Nigeria which is responsible for the destruction of lives and properties in the country despite the huge budgetary allocation committed to the sector. The anomalies in the economic operations of the various parastatals, departments and ministries of government as regards the fiscal indiscipline by the political office holders, like Stella Oduah N255 Million car scandals in aviation - a section in transport sector, $5.7m cash-for- arms scandals – seizures of Nigerian arms money by the South African Authority and other corrupt practices which this civilian regime is coddling are bane to the fiscal potency to accomplish growth and developmental objectives of the nation.

CONCLUSIONS

Base on the on the above, the study reveals that public expenditure during the civilian regime have not performed well to the expectation in promoting the economic growth. The general intuition that the civilian government is more popular than the military government hence it will be economically more viable and allocate the nation's scarce resources efficiently towards the achievement of the growth objectives. Contrarily, government expenditures on the Education and Defense sectors during the civilian period have failed to promote the economic growth during the civilian era. The reasons for these are not unconnected to the fact that the level of corruption of the civilian regime is outrageous to the extent that if it is not at par with corruption during the military regime it surpasses it. The failure of the government officials to be committed to the course of national interest and welfare through the fiscal indiscipline, embezzlement and diversion of public resources for their personal use have really caused these sectors, Defense and Education to be retarding economic growth in Nigeria.

RECOMMENDATIONS

This study decries a policy prescription that the Government expenditures on these sectors should be increased except in the education sector to meet the UNDP recommendations. The following recommendations are proffer by the study:

The machinery for the independent appraisal functions of the government fund (resources) allocated to be expended on these sectors should be strengthening; evaluation of the budgetary procedure to the point of spending by the government officials and political office holders, deviation in the budgeted spending should be reported and accounted for by the accounting officers without immunity conferred on any accounting officers. Corruption in whatever manner (percentage procurement on public contracts / expenditures, contracts splitting etc.) must be mitigated to the barest minimum by value reorientation of the government officials and political office holders on the management of the public resources towards the accomplishment of the objectives. The political office holders must be personalities of high integrity, probity, honesty and accountability that will not compromise any of these while in the office. The government should avoid the proliferation of anti-graft agencies as proposed by the president Jonathan who just realized that corruption is a cancer-worm which has eaten deep into the fabrics of the nation (Sotubo, 2015), the government should strengthening these anti-graft institutions by necessary legislation to carry out their functions diligently without unnecessary interference. If the aforementioned public expenditure principles are observed the sectorial public expenditures will contribute in no small measure to the achievement of fiscal objectives and accelerate the economic growth of the nation.

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