

Comparative Performance of Agricultural Export Trade: During and Post- Agricultural Diversification Project in Ghana

ABSTRACT

This study compares export performance for seven agricultural commodities prior to, during and after initiation of the Agricultural Diversification project (1991-1999) in Ghana. This is to help identify the impact of the initiative on Ghana's agricultural exports and to ascertain the ability or otherwise of the country to sustain or improve on performances observed under the project. Covering the years 1987 to 2011, the study primarily made use of secondary data on commodity and aggregate agricultural export values for Ghana and the world, the latter being used as the reference group. In assessing export performance, the CEP, SCEP and In (CEP) indices were used and based on newly developed thresholds, commodities were placed under the categories "Highly Competitive", "Competitive", "Weakly Competitive" and "Uncompetitive". Use of the thresholds helped in appropriately reflecting the fragileness of agricultural export trade. The results show that besides cocoa and pineapples which were "Highly Competitive" in export performance before initiation of the project, only rubber exports witnessed major improvement among the five other commodities during the project phase. Export performance for rubber has however dropped beyond its previous level in recent years, with that for oil palm rather improving upon its previous level. Improvements in oil palm export performance have been attributed to recent efforts put in place by various stakeholders in the subsector to promote export development of the commodity, while decline in performance of rubber exports is attributed to a decrease in attention paid to the subsector among other potential inefficiencies. Although the export dimension of agriculture is believed to have witnessed major growth in recent years due to beneficial implications of the diversification project, the current study concludes based on findings that, the growth observed is possibly due to major improvements in fewer subsectors. Effort should therefore be put towards revisiting some of the growth enhancing measures implemented under the initiative, promoting stakeholder participation in export promotion and current production and marketing inefficiencies addressed to enhance export growth

Keywords: Agricultural diversification; export growth; export performance; Ghana; thresholds

1. INTRODUCTION

Agriculture has since the immediate post-independence era been the foundation for development in Ghana. The sector plays vital roles in the lives of the inhabitants, with such roles stretching from the enhancement of food security, creation of employment and generation of foreign exchange, supply of raw materials for industry, contribution to poverty reduction, buffer during shocks, to supporting environmental sustainability among others. Contribution of the sector to food security is observed primarily through its direct effect of adding to domestic food availability and indirectly by permitted access to food supplies

24 through enhanced earnings. Beside these traditional roles, the agriculture sector, through its
 25 dimensions of food production and exports does influence (and is influenced by) both
 26 domestic and international markets through forward (product market) and backward (factor
 27 market) linkages. Even in developed countries where the role of the sector is deemed
 28 relatively minimal, agricultural landscape and production of food still are key aspects of
 29 national identity and social welfare [12,6]. This makes the sector a fuel for growth in both
 30 developing and developed worlds, thereby attracting greater attention when exposed to
 31 shocks. With the economy of Ghana being heavily reliant on the agriculture sector during the
 32 early 1960s to mid-1970s, and the sector being more concentrated and extremely reliant on
 33 the cocoa subsector, the economy of Ghana witnessed a great depression following the
 34 collapse of world cocoa prices in the mid-to-late 1960s. Coupled with inappropriate response
 35 from the then government (by fuelling inflation and lowering real wages through printing of
 36 more money into the system) and intensification of fiscal and marketing inefficiencies,
 37 *“Ghana lost its stand of being one of the highest per capita income countries, government*
 38 *revenues fell from 15% of GDP in the early 1970s to 6% in 1982, public sector wages fell by*
 39 *an average of 10% in real terms per year between 1975 and 1983, export earnings fell to a*
 40 *low of 7% of GDP, and external financing dried up”* [7].

41 This experience triggered the initiation of an Economic Recovery Program (ERP) and more
 42 importantly initiatives to shield the country against future shocks from the international
 43 market. Among such initiatives was the Agricultural Diversification Project (ADP, 1991-1999)
 44 under the Medium Term Agricultural Development Programme (MTADP). The objective of
 45 this initiative was primarily to revitalize and enhance cultivation and expansion of export of
 46 non-cocoa tree crops (specifically oil palm, coffee, and rubber) and horticultural crops (with
 47 greater emphasis on pineapples) [1]. This was to promote import substitution and to reduce
 48 the country's extreme reliance on cocoa, as cocoa beans exports alone accounted for 93%
 49 of earnings from agricultural exports during the period 1961-1965 (see Table 1). Farmers
 50 were trained under the project and supported in diverse ways to ensure achievement of the
 51 objective of the ADP. Although the project is believed to have yielded a positive outcome,
 52 very little has actually been done so far to ascertain how the country performed under the
 53 project and is currently performing in exports of the commodities prioritized. Production and
 54 export of some of the products considered under the project are reported to have increased
 55 markedly in recent years [15]. This increase is said to have been led by pineapples, with
 56 output for many other products however believed to have stagnated or fallen. In spite of their
 57 suggestion, [15] failed to provide a clear picture on the performance of each of the
 58 commodities thereby providing no clearer picture on the impact of the initiative. Bridging of
 59 information gap along this line is the primary goal of the current study. The commodities
 60 covered in this study are cocoa, coffee, fruits and vegetables (as a unit), pineapples,
 61 bananas, oil palm and rubber.

62 Table 1 Share of agricultural commodities in total value of agricultural exports

Commodities	1961-1965	1991-1995	2001-2005	2007-2011
Value of exports (\$1000)				
	198.40			
Banana	1,124.00	420	1,947.80	5,742.80
Coffee (green)	146.00	1,896.00	603.00	497.50
Rubber (Nat. dry)	11.60	6,244.00	6,321.80	22,545.20
Oil Palm		3,324.00	15,432.20	51,900.00
Pineapples	0	5,106.00	28,168.60	15,515.40
Cocoa beans	190,819.40	291,450.00	639,041.00	1,204,039.00
Agricultural products	204,724.80	348,533.80	915,672.80	1,712,036.60

Share in agricultural exports (%)

Banana	0.10	0.12	0.21	0.34
Coffee (green)	0.55	0.54	0.07	0.03
Rubber (Nat dry)	0.07	1.79	0.69	1.32
Oil Palm	0.01	0.95	1.69	3.03
Pineapples	0	1.46	3.08	0.91
Cocoa beans	93.21	83.62	69.79	70.33

Source: Author's computation with data from FAO (Agricultural Trade Database)

2. LITERATURE REVIEW

Export performance or competitiveness has been defined in several ways along several dimensions in literature. [4] defines competitiveness as the ability of a country (a firm or an entity) to offer products and services that meet local and international quality standards, worth domestic and global market prices and provide adequate returns on the resources used in producing them. Taking a more interesting stand, [13] defines competitiveness as the ability to sell products that meet demand requirements (price, quality, quantity) and, at the same time, ensure profits over time that enable the unit under study (nation or firm) to thrive. Having been inappropriately used interchangeably with the concept of comparative advantage, the concept of competitiveness has in economic and business literature been given numerous interpretations, making it more ambiguous as new interpretations evolve every now and then. As a relative measure, the most used index among the lot that comes to mind at the mention of competitiveness is the Balassa Index [2]. Since the proposition of this index by Balassa however, definition of the index has been revised and modified such that a plethora of measures now exist [9]. In as much as the aim for some of such revisions has been towards applying the index at the global level [e.g. 19], others have applied the index at regional level [2] and for assessment of bilateral trade between two trading partners [10].

By its original definition, the Balassa index (RCA- revealed comparative advantage) measures normalized export shares, with respect to exports of the same industry in a group of reference countries. By this, the index (RCA) is defined as follows:

$$RCA = \frac{(x_{ij} / x_{it})}{(x_{nj} / x_{nt})} \dots \dots \dots \text{eq. (1)}$$

Where X represents exports, *i* is a country, *j* is a commodity, *t* is a set of commodities and *n* is a set of countries. $RCA > 1$ is by this definition perceived to reveal comparative advantage of a country *i* in exports of commodity *j*. Thus, the index measures a country's exports of a commodity relative to its total exports and compares this outcome with that for a set of countries (reference group). This index is foremost flawed by deviation in the index value observed as the set of countries used as reference changes, thereby making the outcome context and reference specific and sensitive to reference definition. The index is as well susceptible to double counting between pairs of countries. In addition, although blurrily perceived as a measure of comparative advantage, the Balassa index does not measure comparative advantage in the rigorous sense, but instead reflects competitive advantage based on real factor induced or distortionary induced developments in export shares [16]. The concept of comparative advantage is rather better reflected by the Domestic Resource Cost (DRC) criterion proposed by [8] and discussed by many other researchers including [11] and [17].

To address the flaw in RCA of being sensitive to reference definition, [19] offered three alternative specifications in its stead. These are the relative trade advantage (RTA), logarithm of the relative export advantage (ln RXA) and revealed competitiveness (RC). The respective definitions are given as follows:

$$RTA = RXA - RMA \dots\dots\dots eq. (2)$$

Where RXA holds similar definition as Balassa's RCA but uses the world as a reference group (instead of some selected set of countries) and

$$RMA = \frac{(M_{ij}/M_{it})}{(M_{nj}/M_{nt})} \dots\dots\dots eq. (3)$$

Where M represents import and n represents world.
Thus, the RTA is defined appropriately as follows

$$RTA = \left[\frac{(X_{ij}/X_{it})}{(X_{nj}/X_{nt})} \right] - \left[\frac{(M_{ij}/M_{it})}{(M_{nj}/M_{nt})} \right] \dots\dots\dots eq. (4)$$

Revealed competitiveness (RC) on the other hand is defined as

$$RC = \ln RXA - \ln RMA$$

Following proposition of these alternatives by [19], several claims have been put across on the failure of these alternatives to correct for/capture the effect of government interventions and other distortionary measures on trade. [20] however found export performance to be more affected by economic fundamentals than by government intervention, whereas the reverse holds for import behavior. Based on this finding and others thereafter, several studies including [19] have recommended the use of the relative export advantage (RXA) and its logarithmic form (ln RXA) in preference to RTA and RC as appropriate measures for assessing export performance due to the low susceptibility of the former two indices to policy-induced distortions, and the high susceptibility of the latter two due to the import component [9].

Based on this observation, the RXA which holds the same intuition as the RCA and the ln RXA have been used frequently in economic and business literature for assessing export performance. In spite of their advantage of being less susceptible to distortions, like the RCA index of Balassa, the RXA and ln RXA are less informative on the performance status of countries in exports of respective commodities due to the respective narrow bounds of $< > 1$ (for RXA) and $< > 0$ (for ln RXA) along which outcomes are interpreted. In interpreting outcomes of these indices for respective countries, many researchers [e.g. 14, 3] have mostly made use of fewer randomly selected years to inform decision on export performance, which I deem inappropriate. For example, in [3], Iran was found to have an RCA for Kiwifruit of 1.0 in the year 2000, 23.3 in the year 2005 and "N/A" for the year 2009. France on the other hand had respective year indices of 1.0, 0.7 and 0.7, while Italy had 7.5, 5.5 and 7.8. In as much as one may be able to in some way predict performance for Italy and France based on the lower deviations observed (which as well have some risk implications), informing decision on export performance for Iran could be misleading bearing in mind the wide variation in figures for the country and the information gap in performance for years between 2000-2005 and 2005-2009. Similarly, assuming an index value above 23.3 was observed for Iran during each of the years 2006, 2007, and 2008 but a value of less than 1 in 2009 (as a replacement for the "N/A"), informing decision on export performance based on the year 2009 could be misleading.

155 It is upon these flaws identified that this study seeks to propose a more appropriate
 156 technique for effectively assessing export performance. Although the approach to be
 157 suggested was indirectly applied by [9] through the use of seven-year mean indices (for
 158 1992-1998) in assessing Revealed Comparative Advantages of Hungary with respect to the
 159 EU, the bounds (binary) used were as well very narrow thereby being less informative.
 160 Appropriate bounds/thresholds which are robust to minor improvements in the cardinal
 161 measures (index values) are proposed in the methodology section below. In assessing
 162 export performance in this study, use is made of the "Comparative Export Performance"
 163 index (CEP), the "Symmetric Comparative Export Performance" index (SCEP) and the
 164 logarithmic form of CEP. These indices are almost similar by definition to the RXA, and In
 165 RXA indices proposed by [19], with the SCEP being a symmetric form of the CEP. Although
 166 under different names, by definition, the CEP index and the SCEP have been used in past
 167 research works [including 4, 14, 5]. In contrast however to assessing performance based on
 168 export of good j relative to all goods other than j at national and world levels as per the
 169 definition of the RXA, definition of the CEP is more sector-bound. Thus in assessing export
 170 performance for example of an agricultural commodity, the commodity specific exports at
 171 national and world levels are used alongside aggregate agricultural exports at the national
 172 and world levels. This makes the indices used easily comprehensive and minimizes any
 173 possible misinterpretation or misspecification as have been the case with Balassa's RCA.
 174 With conforming definition for other sectors along this line, the thresholds introduced in this
 175 study could as well be used in other sectors, thereby making it externally valid (for other
 176 sectors).

177

178

179 3. METHODOLOGY

180

181 In responding to flaws identified in economic and business literature on assessment of
 182 export performance for major commodities of interest to respective countries over the past
 183 three decades, effort is made in this study to appropriately address most of the flaws stated
 184 in the literature review section through proposition of new thresholds and use of more
 185 friendly and comprehensible measure of competitiveness. To assess export performance of
 186 the seven commodities prioritized under the Agricultural Diversification Project, this study
 187 primarily made use of secondary data on value of exports for the respective commodities
 188 (cocoa, coffee, fruits and vegetables (as a unit), pineapples, Bananas, Oil Palm and Rubber)
 189 from Ghana, that for aggregate agricultural exports and their corresponding world values. All
 190 data used were gathered from the agricultural trade database of FAO (FAOSTAT) for the
 191 period 1987 to 2011.

192

193 In assessing performance of the country in exports of the commodities aforementioned, the
 194 comparative export performance index (CEP), the symmetric comparative export
 195 performance index (SCEP) and the logarithmic form of CEP are used. These respective
 196 indices are defined as follows:

197

$$198 \text{ CEP} = \frac{(X_{iB}/X_B)}{(X_{iA}/X_A)} \dots\dots\dots \text{eq. (5)}$$

199

Where

200 X_{iB} : value of export of agricultural commodity ifrom Ghana

201 X_B : total value of agricultural exports from Ghana

202 X_{iA} : total value of world exports for agricultural commodity i

203 X_A : total value of world agricultural exports

204

205 The symmetric comparative export performance index is consequently defined as follows:

206

207 $SCEP = \frac{(CEP-1)}{(CEP+1)}$ eq. (6)

208 And

209 $\ln (CEP) = \log (CEP)$ eq. (7)

210 Among these three measures of competitiveness, the SCEP (as a symmetric measure of
 211 CEP) is perceived to provide a better picture on the performance of a country by setting
 212 boundaries between -1 and +1. The closer a given country is to +1, the higher its export
 213 performance and vice versa. With a similar intuition as the RXA and $\ln$ RXA, values of CEP
 214 of at least +1 and $\ln$ (CEP) of at least 0 reveal competitive advantage in exports. Besides
 215 these basic foundations of the respective measures, more appropriate thresholds/bounds as
 216 shown in Table 2 are introduced to aid efficient assessment of export performance,
 217 effectiveness of policy instruments, reflect fragileness of agricultural export trade and as well
 218 capture possible inefficiencies in exports due to distortionary measures.

219 To inform decision on Ghana's performance in exports of the respective commodities,
 220 seven-year mean figures are used. To effectively assess the effect of a policy instrument or
 221 initiative in enhancing a country's export performance for example over the period 1991 to
 222 1999 and from the year 2000 to 2011 as is the case in the current study, it is more
 223 appropriately to base decision on mean indices developed over the last seven continuous
 224 years for the period 1991-1999 and 2000-2011 (thus mean figures for 1993-1999 and 2005-
 225 2011). To ensure appropriate reflection of the impact of the project on export performance of
 226 the respective commodities, use is made of annual figures for the period 1987-1990 (due to
 227 limited data availability) which mark the pre-Agricultural Diversification Project period, and
 228 mean figures for the periods 1993-1999 (period of Agricultural Diversification Project) and
 229 2005-2011 (current/post-Agricultural Diversification Project performance). Upon the figures
 230 observed for the respective periods, decision on export performance for each commodity
 231 during the respective periods is informed based on the following thresholds proposed to
 232 guide efficient and effective assessment of performance within sub-sectors:

233 Table 2 Seven-year mean thresholds for assessing export performance

234

Classes	CEP	$\ln$ (CEP)	SCEP
Highly Competitive	≥ 4.20	≥ 1.44	0.62 – 1.00
Competitive	1.73 - 4.19	0.55 -1.43	0.27 – 0.61
Weakly Competitive	1.00 – 1.72	0.00 – 0.54	0.00 – 0.26
Uncompetitive	< 1.00	< 0.00	< 0.00

235 Source: Developed by Author

236 These thresholds were not just randomly selected, but were set at the respective upper and
 237 lower bounds after several rotations for robustness. This is to ensure that no minor changes
 238 in the cardinal measures (figures within respective thresholds) would lead to movement of a
 239 country from a lower export performance level to a higher level, but rather to move from a
 240 lower to a higher level would require effective and efficient policy instruments, reduction of
 241 existing inefficiencies in export market of the respective commodities, improvements in trade
 242 (including appropriate liberalization of internal and external marketing) and minimization of

243 distortionary measures which according to [18] reduces competitiveness. These thresholds
244 are valid for assessing export performance in all sectors as long as definition of the
245 measures of competitiveness and the underlying intuition for interpretation are in conformity
246 with the CEP, SCEP and In (CEP) indices as defined above. When used in a policy
247 environment, these thresholds could be useful as a guide for evaluating the effectiveness of
248 various policy instrument purposed on enhancing export growth. These as well could be
249 used to identify inefficiencies in export trade in less diversified and highly trade distorting
250 environment and sectors (they could for example be extremely informative when used in
251 assessing performance of export trade in cotton). They are quite effective in reflecting
252 fragileness of agricultural export trade.

253

254 **4. RESULTS AND DISCUSSION**

255 Although pineapple exports started in 1984, Ghana by the year 1987 was according to the
256 classes used in this study already “Highly Competitive” in export of the commodity. Besides,
257 pineapple, the country was as well “Highly Competitive” in cocoa exports. The country was
258 “Uncompetitive” in exports of coffee, fruits and vegetables (as a unit), bananas, oil palm and
259 rubber. In as much as introduction of the agricultural diversification project helped in
260 improving performance of all the commodities, export performance of only three of the
261 commodities was above the “Uncompetitive” class based on the lower boundaries of the
262 thresholds (thus CEP value less than 1.00). Performance of cocoa and pineapple remained
263 “Highly Competitive” under the initiative, while that for rubber also improved from being
264 “Uncompetitive” to being “Weakly Competitive”. The use of the thresholds is to reflect the
265 fragileness of being at the lower or upper boundary of a given threshold. In as much as
266 appropriate policy responses to market shifts and developments could ensure improvement
267 in export performance of a given commodity initially close to the lower boundary of a higher
268 threshold, implementation of inappropriate measures or decreased attention allotted a
269 subsector could lead to a decline in performance of the commodity when in a higher
270 threshold but close to the lower limit (movement from a higher threshold to a lower
271 threshold). Providing clarity on the performance of the commodities in the “Uncompetitive”
272 class, the CEP index for coffee increased from the range of 0.07-0.10 for the period 1987-
273 1990 to an average index of 0.28 for the period 1993-1999. Indices for fruits and vegetables,
274 Bananas and oil palm respectively increased from ranges of 0.03-0.09, 0.01-0.04, and 0.19-
275 0.88 for the period 1987-1990 to 0.23, 0.27 and 0.85 respectively for the period 1993-1999.
276 The CEP index for pineapple increased from a range of 1.86-16.97 for the period 1987-1990
277 to an average of 21.88 for the period 1993-1999, while that for rubber also increased from a
278 range of 0.07-0.63 for the period 1987-1990 to 1.16 for the period 1993-1999. Being already
279 classified as “Highly Competitive” a CEP index of 125.46 was observed for cocoa under the
280 diversification project, with a range of 69.71-131.71 being observed for the period 1987-
281 1990.

282 Emphasizing once again on the fragileness of being close to the lower boundary of a
283 threshold, a decline in export performance of rubber was observed during the period 2005-
284 2011 (compared to 1993-1999), while that for oil palm improved. Export performance of oil
285 palm improved from being “Uncompetitive” to being “Weakly Competitive” with the opposite
286 being observed for rubber. Although still in the “Highly Competitive” class, the CEP index for
287 pineapple decreased from 21.88 under the diversification project, to 7.36 during the period
288 2005-2011. CEP index of cocoa also decreased from 125.46 for the period 1993-1999 to
289 102.80 for the period 2005-2011, maintaining its “Highly Competitive” status in the process.
290 In as much as export performance for fruits and vegetables and bananas have improved
291 (although still uncompetitive) between the periods 1993-1999 and 2005-2011, that for coffee

declined from an index of 0.28 for the period 1993-1999 to 0.02 for the period 2005-2011, the lowest so far for the entire period considered.

Table 3 Export performance for selected agricultural commodities

	1987	1988	1989	1990	1993-1999	2005-2011
CEP						
Cocoa	69.71	91.29	105.89	131.71	125.56	102.80
Coffee	0.08	0.10	0.07	0.07	0.28	0.02
Fruits and Veg.	0.03	0.05	0.07	0.09	0.23	0.41
Pineapples	1.86	5.44	9.01	16.97	21.88	7.36
Bananas	0.01	0.02	0.04	0.03	0.27	0.55
Oil palm	0.30	0.19	0.88	0.58	0.85	1.21
Rubber	0.07	0.09	0.20	0.63	1.16	0.63
SCEP						
Cocoa	0.97	0.98	0.98	0.98	0.98	0.98
Coffee	- 0.86	- 0.82	- 0.87	- 0.86	- 0.58	-0.96
Fruits and Veg	- 0.95	- 0.90	- 0.86	- 0.83	- 0.63	- 0.44
Pineapples	0.30	0.69	0.80	0.89	0.91	0.64
Bananas	- 0.98	- 0.96	- 0.93	- 0.94	- 0.59	- 0.42
Oil palm	- 0.54	- 0.68	- 0.06	- 0.27	- 0.11	0.05
Rubber	- 0.87	- 0.84	- 0.67	- 0.23	0.03	- 0.24
Ln (CEP)						
Cocoa	4.24	4.51	4.66	4.88	4.82	4.63
Coffee	- 2.57	- 2.29	- 2.68	- 2.61	-1.44	- 3.95
Fruits and Veg.	- 3.58	- 2.96	- 2.60	- 2.36	- 1.49	- 0.98
Pineapples	0.62	1.69	2.20	2.83	3.07	1.69
Bananas	- 4.60	- 4.02	- 3.34	- 3.40	-1.48	-1.10
Oil palm	- 1.21	- 1.67	- 0.12	- 0.54	- 0.24	0.10
Rubber	- 2.64	- 2.43	-1.60	- 0.47	0.06	-0.51

Source: Author's computation with data from FAOSTAT (Agricultural Trade Database)

In summary, as shown in Table 3, the agricultural diversification project enhanced performance in export of all the commodities considered, but besides cocoa and pineapple which were already "Highly Competitive" in export performance, only performance in export of rubber improved significantly from being "Uncompetitive" to being "Weakly Competitive". By current performance, Ghana is "Highly Competitive" in cocoa and pineapple exports, "Weakly Competitive" in oil palm exports and "Uncompetitive" in exports of coffee, fruits and vegetables, bananas and rubber. Although the country is found to be "Competitive" in export of pawpaw based on own-computation, the commodity was excluded from the analysis due to missing data for a significant number of years, while exports of commodities like oranges and pepper were found to be "uncompetitive" (also excluded due to issues with missing data for some years). Summary on classification by the thresholds is provided in Table 4.

310

311 Table 4 Performance according to thresholds for the period 1993-1999 and 2005-2011

Classes	CEP	SCEP	Ln (CEP)	Commodities
1993 – 1999				
Highly Competitive	≥ 4.20	0.62 - 1.00	≥ 1.44	Cocoa, pineapple
Competitive	1.73 – 4.19	0.27 - 0.61	0.55 – 1.43	
Weakly Competitive	1.00 – 1.72	0.00 - 0.26	0.00 – 0.54	Rubber
Uncompetitive	< 1.00	< 0.00	< 0.00	Coffee, fruits and vegetables, banana oil palm
2005 – 2011				
Highly Competitive	≥ 4.20	0.62 - 1.00	≥ 1.44	Cocoa, pineapple
Competitive	1.73 – 4.19	0.27 - 0.61	0.55 - 1.43	
Weakly Competitive	1.00 – 1.72	0.00 - 0.26	0.00 - 0.54	Oil palm
Uncompetitive	< 1.00	< 0.00	< 0.00	Coffee, fruits and Vegetables, Banana, rubber

312 Source: Author's construct based on developed thresholds and computations

313

314 **5. CONCLUSION**

315

316 This study affirms suggestions by [15, 1, and 21] that the agricultural diversification project
317 had a positive impact on export performance for the commodities prioritized under the
318 initiative. In spite of the beneficial implications from the initiative however, besides cocoa and
319 pineapples exports which were already in the “Highly Competitive” class prior to initiation of
320 the project, only rubber exports improved from being “Uncompetitive” to being “Weakly
321 Competitive” under the initiative. Failure of government, policy makers, exporters and
322 various stakeholders to put in place effective measure to sustain and further enhance growth
323 and performance of rubber exports after the diversification project has led in recent years to
324 a decline in performance of rubber exports. Effective efforts from the Oil Palm Research
325 Institute, other marketing bodies and stakeholders in the oil palm industry have gone a long
326 way to improve the performance of the oil palm export industry. By current standards, Ghana
327 is “Highly Competitive” in cocoa and pineapple exports, “Weakly Competitive” in oil palm
328 exports, and “Uncompetitive” in exports of all the other four commodities, with performance
329 in coffee exports being worst among the lot identified in this study. Improvement in export
330 performance of the various commodities would require effective participation of various
331 stakeholders in the respective subsectors and not just the introduction of an initiative.
332 Although the export dimension of agriculture is believed to have witnessed major growth in
333 recent years due to beneficial implications from the diversification project, the current study
334 highlights that, the growth observed is possibly due to major improvements in fewer
335 subsectors. There arises therefore a need to revisit effective tools under the diversification
336 project, promote stakeholder participation in export development as well as addressing
337 existing marketing and fiscal inefficiencies that in one way or another stands precluding
338 export growth of the various commodities.

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340

COMPETING INTERESTS

No competing interests exist

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