

# Accounting for Ghana's External Borrowings, Trade Balances, and Domestic Currency in Recent Times\*

**Anthony Q. Q.  
Aboagye**

University of Ghana Business School  
Legon, Ghana

**Correspondence:**  
aaboagye@ug.edu.gh

\* Authors appreciate the partial support of the University of Ghana Business School. Author is grateful to Stella E. Nyarko and Awudu-Sare Yakubu for research support.

## **Abstract**

This paper seeks to draw the links among Ghana's rising external debt stock, depreciation of the domestic currency and balance of payments account balances. It uses national income and national product identities to show how components of national product identities are affected by international transactions that are reflected in balance of payments accounts. It found that over 2008 to 2016, Ghana ran trade deficits, which were paid for by net foreign capital inflows, mostly debt; investments in the economy exceeded savings; government ran budget deficits; and private investments exceeded private savings. The domestic currency depreciated over the entire period, but exports did not expanded above imports. It concluded that, it is Ghana's current account deficits that necessitated foreign borrowings, and that without these loans, the domestic currency would have depreciated even more.

---

**Keywords:** current account, capital account, trade balance, external borrowing, domestic currency.

JEL: E2; F1; F2; H5; H6

## **Introduction**

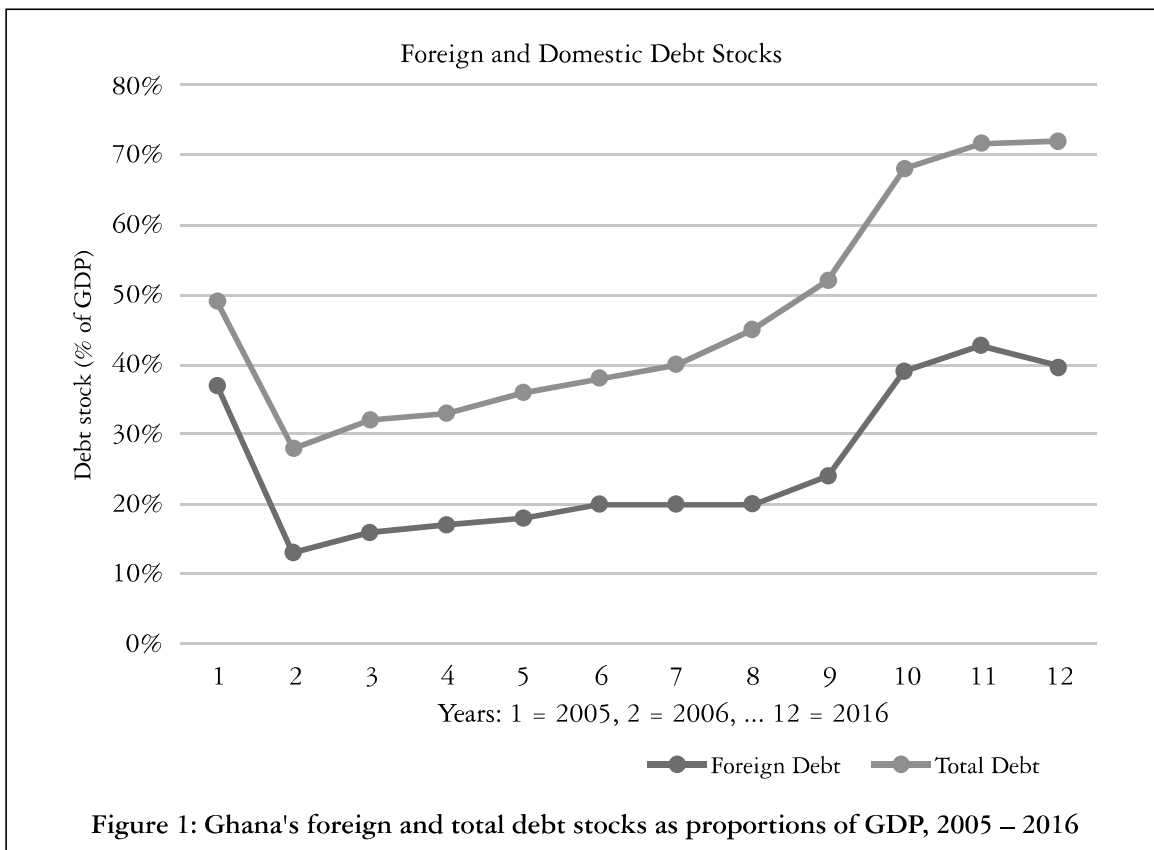
Two of the most topical macroeconomic issues in Ghana today are the perceived large external borrowings by government and the depreciation of the domestic currency. The story is that, Ghana's current stock of foreign debt as percent of GDP now exceeds the proportion that it was at the time Ghana signed on to the Highly Indebted Poor Country Initiative (HIPC) and received massive debt

forgiveness in 2005. On the currency front, the story is the increase in the rate at which the domestic currency was depreciating against international currencies, especially the United States dollar (USD).

### Increase in debt stocks

Figure 1 shows the stocks of Ghana's foreign debt and total debt at the end of

2005 as 37% and 49% of her gross domestic product (GDP) respectively. The HIPC initiative brought the foreign debt stock down to 13% in 2006 (28% total debt stock). The foreign debt stock rose steadily to 43% in 2015 and dropped somewhat to 40% in 2016. Total debt stock was 72% of GDP in both 2015 and 2016.



Source: International Monetary Fund (2015).

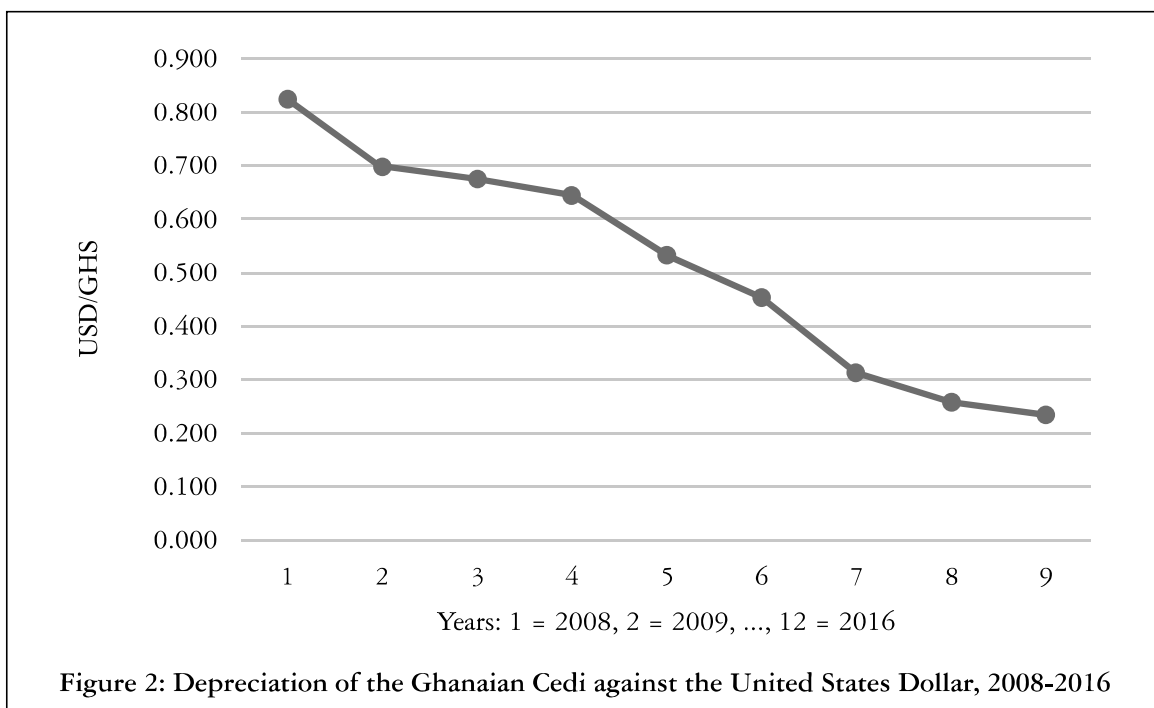
The press have been busy reporting these mounting debt stocks. A daily newspaper in 2012 carried this headline, *Public Debt Claims 49.4% Of Ghana's GDP*, Chronicle (2012). In mid 2015, a regular internet magazine headline read, *Moody's says Ghana's creditworthiness constrained by high*

*debt, external vulnerability*, Tradegate (2015). On October 19, 2016, another daily newspaper, The Finder (2016) carried a story about Ghana's debt captioned, *Debt Crisis Hits Ghana*.

## Depreciation of the domestic currency

Figure 2 shows that the value of the domestic currency (GHS) has depreciated continuously against the USD, more steeply in recent times. These developments have made headlines in the press. To illustrate. In January 2014, the newspaper with the widest circulation, Daily Graphic (2014), carried a front page story that read

*Bank of Ghana Releases 20m Dollars To Halt Cedi's Free Fall.* Eighteen months later, a regular business newspaper, Business and Financial Times (August 14, 2015), carried another story about the falling domestic currency. It was titled, *Why is the cedi going down?* In December that year, yet another daily newspaper carried a related story titled, *Cedi to fall further in 2016*, Daily Guide (22 December, 2015)<sup>1</sup>.



Source: Bank of Ghana (2015).

The Ghanaian public, politicians and managers of the economy such as the central bank, appear to view depreciation of the domestic currency as a bad sign that should be countered. For example, in early 2014, when the domestic currency fell sharply, the central bank imposed a number of monetary policy measures to try to stabilize the currency, Bank of Ghana

(2014). The steps tightened the rules in respect of operations of foreign exchange accounts and foreign currency accounts; repatriation of export proceeds; and operating procedures for forex bureaux in Ghana.

To some economic observers, these steps were ill advised for depreciation worsened

<sup>1</sup>The domestic currency is called cedi.

soon after the initial announcement. Indeed, some time later, the central bank re-tracked its earlier directives following market backlash.

### International trade

When Ghana exports, foreign buyers pay in foreign currency (usually USD). Thus, Ghana earns USDs which are used to pay for imports, also in USD. If she earns enough USD from exports to pay for her imports, the net effect on the current account balance would be zero. If export proceeds exceed the value of imports, the current account balance would be positive. But if Ghana does not earn enough from her exports, she will use GHS to buy USD to pay for (the excess) imports. This increases the supply of GHS and lowers its price in USD. But the cycle is not ended. Foreigners who buy GHS are investing in Ghana. This is an inflow of foreign currency, and is recorded as positive in the capital account for Ghana.

The evidence is that over the entire period, 2008-2015, merchandise imports exceeded merchandise exports, resulting in trade deficit, which could not be countered by the export of services, hence current account deficits were recorded throughout the period. Evidence is provided in Bank of Ghana (2017) and earlier issues.

This study seeks to analyse Ghana's balance of payments accounts and related macroeconomic accounts in recent times, and to link Ghana's mounting external debt and the depreciation of the domestic currency to the performance of other macroeconomic indicators.

Following this introduction is an exposition on some macroeconomic accounting identities that must hold for all economies.

Then, conceptual issues on debt and the performance of economies is discussed, followed by the methodology adopted in this investigation. Results of the investigation are then presented and discussed in the light of the literature. Policy implications of the study are then presented.

### The domestic economy, international flow of goods & services and the capital account

This section brings together aspects of international trade theory that help to analyse Ghana's situation. Reference is made freely to Shapiro (2003).

Consider the principal balance of payments accounts – current account; capital account and international official reserves account. By convention, exports of goods and services are credits to the current account, while imports of same are debits. Capital inflows are recorded as credits, while outflows are recorded as debits. Finally, increases in official reserves are debits and decreases are credits.

### Macroeconomic accounting identities

A principal macroeconomic accounting identity states that national income (national product) is spent on consumption or saved. Mathematically,

$$\text{NATIONAL INCOME} \equiv \text{CONSUMPTION} + \text{SAVINGS} \dots (1)$$

Another important macroeconomic accounting identity states that the total amount that a nation spends on goods and services can be disaggregated into spending on consumption and spending on domestic real investment<sup>2</sup>

<sup>2</sup>Real investment refers to procurements that are aimed at increasing a nation's productive capacity such as equipment, research and development, etc.



$$\text{NATIONAL SPENDING} \equiv \text{CONSUMPTION} + \text{REAL INVESTMENT} \quad \dots (2)$$

Subtracting identity (2) from identity (1), yields

$$\text{NATIONAL INCOME} - \text{NATIONAL SPENDING} \equiv \text{SAVINGS} - \text{REAL INVESTMENT} \quad \dots (3)$$

Identity (3) states that if national income exceeds national spending, then savings will exceed real investment, resulting in a surplus of capital. The capital surplus must be invested overseas as an outflow of capital (debit to the capital account).

On the other hand, if national spending exceeds national income, domestic investment will exceed domestic savings. The excess investment comes from foreign investors in the form of capital inflows. This inflow is some combination of capital account surplus and reduction in international official reserves.

A related identity for a country that is running a current account deficit says that net foreign inflows make up the excess of imports over exports,

$$\text{NET FOREIGN INVESTMENT} \equiv \text{IMPORTS} - \text{EXPORTS} \quad \dots (4)$$

That is, a deficit on the current account must equal the net foreign investment in the home country. This means, in a freely floating exchange rate system, positive capital account balance reflects net borrowing to finance excess of imports over exports. If a government intervenes in the foreign exchange market, the sum of the current account deficit, net capital surplus and changes in the official international reserves equal zero.

Put differently, any proposed solution to reduction in net foreign borrowing that is not consistent with a reduction in current account deficit will not work. Identity (4) must be respected.

### *Budget deficits and other macroeconomic accounts*

Interest also centres on how budget deficits are linked to other macroeconomic accounts. The analysis begins by breaking down national spending.

$$\text{NATIONAL SPENDING} \equiv \text{HOUSEHOLD SPENDING} + \text{GOVERNMENT SPENDING} + \text{PRIVATE INVESTMENT.}$$

But,

$$\text{HOUSEHOLD SPENDING} \equiv \text{NATIONAL INCOME} - \text{PRIVATE SAVING} - \text{TAXES.}$$

Therefore,

$$\text{NATIONAL SPENDING} \equiv \text{NATIONAL INCOME} - \text{PRIVATE SAVING} - \text{TAXES} + \text{GOVERNMENT SPENDING} + \text{PRIVATE INVESTMENT.}$$

That is,

$$\text{NATIONAL SPENDING} - \text{NATIONAL INCOME} \equiv (\text{PRIVATE INVESTMENT} - \text{PRIVATE SAVING}) + (\text{GOVERNMENT SPENDING} - \text{TAXES}) \quad \dots (5)$$

(where, GOVERNMENT SPENDING – TAXES is budget deficit).

Thus, excess national spending over national income has two components, i) excess private investment over private savings, and ii) excess government spending over government income (taxes). Thus, steps taken to curb excess national spending will

only be effective if they also curb some combination of excess private investment and excess government spending.

It is also a fact that national income less spending on domestic goods and domestic services is exported. Similarly, national spending, less expenditure on domestic goods and domestic services equals spending on imports. That is,

**NATIONAL INCOME – SPENDING  
ON DOMESTIC GOODS &  
DOMESTIC SERVICES  $\equiv$  EXPORTS,**

and

**NATIONAL SPENDING –  
SPENDING ON DOMESTIC GOODS  
& DOMESTIC SERVICES  $\equiv$  IMPORTS**

Manipulating these two yields,

**NATIONAL INCOME – NATIONAL  
SPENDING  $\equiv$  EXPORTS –  
IMPORTS** ... (6)

Taken together, identities (5) and (6) yield

**EXPORTS – IMPORTS  $\equiv$  (PRIVATE  
SAVINGS – PRIVATE  
INVESTMENT) + BUDGET  
DEFICIT** ... (7)

Identity (7) says a nation that is running current account deficit is not saving enough to finance its private sector investment and government deficit.

### Domestic currency value

The exchange rate may be viewed as the price of one nation's currency in terms of another. The GHS/USD exchange rate is the number of GHS one USD will buy. A nation that runs an over-valued currency

runs the risk of a trade deficit as the over-valued currency makes its imports cheaper in local currency units, but renders its exports expensive in foreign currency units.

International trade theory says, in the long-run, a depreciating domestic currency might be beneficial to the home country in two ways. First, by causing imported goods to be expensive relative to domestic goods in local currency terms, it may cause domestic consumers to switch their expenditure to domestic products, away from expensive imported goods (and services), assuming equivalent domestic alternatives exist. Secondly, faced with cheaper exports from the depreciating country, foreign consumers may switch to purchasing products being exported from the depreciating country. Both effects may help reverse a trade deficit. If the trade balance initially deteriorates (more negative), reaches a minimum and then begins to improve and invariably rises above the level at which the depreciation took place initially, then the J-curve effect is said to hold. That is, the depreciation may cause trade deficit in the short-run since the import bill increases in domestic currency terms (prices are sticky). With time however, domestic goods become more competitive in international markets due to foreign demand for cheaper imports. The depreciating country's trade balance then improves. Realization of the trade benefits implied by the J-curve is not automatic. Devaluation must be followed by a change in saving and spending behavior. Also, the depreciating country must be able to expand its production base to increase exports. Further, if foreigners are prepared to hold assets of the devaluing country, resulting in capital surplus for the devaluing country, a trade deficit may not improve.

## Debt and the economy

The neoclassical school of thought argues that high public debt is detrimental to economic growth because a lax fiscal policy results in current consumption, which in turn leads to the decline of the savings rate. To attract savings, interest rates must rise, but high interest rates discourage investments in domestic businesses by domestic entities as such businesses become less profitable, thus economic growth falls. In addition, increases in government interest payments resulting from higher debt levels means limited funds are left over for infrastructure and other development purposes. Further, the higher interest rate levels crowd out private investment. (Modigliani, 1961; Diamond, 1965; Saint-Paul, 1992).

Since the global financial and economic crisis of 2007-2008, economists have been busy investigating the relationship between debt levels and economic growth. Checherita and Rother (2010) find that government debt impacts economic growth through (i) private saving; (ii) public investment; (iii) total factor productivity; and (iv) elevated sovereign long-term nominal and real interest rates. The first three relationships are non-linear, they find.

Calderón and Fuentes (2013) used panel data to study 136 countries and found negative and robust effect of public debt on growth. They concluded that growth prospects of a nation are held back by the burden of government debt.

Panizza and Presbitero (2014) investigated whether public debt has a causal effect on economic growth in a sample of countries drawn from the Organisation for Economic Co-operation and Development. They report that their results agree with the literature that has found a

negative correlation between debt and growth. The relationship vanished when they corrected for endogeneity however, and found no evidence that public debt has a causal effect on economic growth.

## Related literature

Dion et al. (2006) evaluated the impact of exchange rate appreciation on the growth of Canadian exports and imports during 2003-2004. They showed that exports grew at a slower pace than imports and that appreciation of the Canadian currency accounted for 60% of the increase in imports.

Akrani (2011) analysed the composition of India's exports by investigating composition by 'commodity groups' between 1990/1991 and 2005/2006, and India's imports also between 1990/1991 and 2005/2006 and concluded that the composition of India's exports had changed, and that India had transformed itself from a predominantly primary goods exporting country into a non-primary goods exporting country. On India's imports, they concluded that India's dependence on food grains and capital goods had declined.

Bhat (2011) also noted that the commodity composition of India's exports and imports had altered in the face of structural changes in the economy over 1950-2010.

## Harmonised System and Customs Tariff Schedules (HS Code)

Composition of Ghana's exports and imports is tracked by the HS Code, which is used in classifying traded products. It is developed and maintained by the World Customs Organization.

The HS Code is organized into 21 sections and 99 chapters and has general rules of interpretation and explanatory notes, Ghana (2012). The system assigns goods to sections, and then proceeds to assign

these goods to their specific chapter, heading, and subheading, in that order, as necessary. For this paper, HS Code is useful for categorizing Ghana's imports and exports into related groups and identifying the items included in each classification. For example, on Ghana's list of imports for 2012 is the item with HS Code 0504000000. This item is interpreted as "Guts, bladders and stomachs of animals (excl. fish)". Public Health Officials believe importation of this item has negative health implications for Ghanaians, and serves very little positive economic goal.

This study uses the background just discussed to analyse Ghana's balance of payments accounts over 2008 to 2016. Particular attention is paid to trade account, current account and capital account. Links between current account deficits and net foreign investments (foreign loans) are investigated. So are links between current account deficits on one hand and excess of private investments over private savings and government deficits on the other. Also, the relationship between the current account deficit and strength of domestic currency is explored. Finally, the composition, sources and destinations of Ghana's imports and exports are analysed.

### Methodology

The methodology adopted here focuses on analyzing relationships among the macro-economic variables discussed in the literature. In particular, we investigated Ghanaian data in respect of the seven accounting identities discussed in the preceding sections. The analyses is conducted annually for the period 2008-2015 in most cases.

Specifically, the following relationships are investigated for Ghana:

- Excess national spending over national income and excess investment over saving implied in identity (3);
- Net foreign inflows and current account deficits implied in identity (4);
- Excess national spending over national income, excess private investment over private savings, and excess government spending over taxes implied in identity (5);
- Current account deficit, excess private investment over private savings and budget deficit implied in identity (7).

In addition, we also investigate depreciation of the domestic currency relative to the incomes of Ghanaians for an assessment of whether they have become poorer or better off.

Next, given the overwhelming evidence of trade deficits, the composition of Ghana's major exports and imports were analysed and then categorized by their HS Codes, countries of destination of exports and countries of import origins. Particular attention is paid to African destinations of exports and sources of imports. Preliminary observations were discussed with experts and knowledgeable persons including managers of the national economy.

### Data and the HS Code

Focusing on recent years, Ghana's total debt stock as a percentage of the country's GDP were obtained from International Monetary Fund (IMF, 2015). Ghana's balance of payments data were obtained from Bank of Ghana (2014, 2016).

Data on Ghana's savings rate, investment rate, budget deficits, household consumption, government consumption, gross fixed capital formation and gross domestic product in domestic currency were obtained from Ghana Statistical Service (2015, 2016).

Further, details about Ghana's merchandise trade data (imports and exports) according to HS Code, country of destination of exports, countries of origin of imports and monetary values were obtained from Ghana's Ministry of Trade and Industries (MOTI).

## Results

### Trends in imports and exports

Panel A of Table 1 shows year end balances of selected balance of payments accounts, and other national account balances. The table shows that over the entire period, 2008-2015, both Ghana's trade balances, row (1a), and current account balances, row (3a), were negative. Identity (3) implies that for Ghana over the period, there would have been excess domestic investment over savings. This is indeed borne out by rows (6) and (5) of Table 1.

According to identity (4), the current account deficit is financed by the capital account surplus in a freely floating exchange rate system. But in the face of the monetary authority's intervention in the foreign exchange market (as alluded to in the introduction) the current account deficit is financed by the combination of capital account surplus and changes in the official international reserves. Panel C of Table 1 depicts the sum of capital account surpluses and changes in official international reserves, row (9). These sub-totals are positive and almost equal in magnitude to the current account balance, row (3a), which is negative. That, it is the sub-total that approximately offsets the current account deficit provides evidence that the central bank of Ghana does indeed intervene in the foreign exchange market. Differences in magnitudes between this sub-total and current account figure may

be due to recording errors.

### Domestic currency and current account surplus

The persistent current account deficit suggests Ghana's demand for USD will rise as the country seeks USD to pay for her imports, (above what she earns from her exports). Panel D of Table 1 depicts deterioration in the value of the domestic currency relative to the USD (GHS/USD) over the entire period. At the average exchange rate of USD 0.235/GHS in 2016 versus USD 0.824/GHS in 2009 Ghanaians required 3 times as many GHS to buy one USD in 2016 as they did in 2009. Everything equal, Ghanaians are paying more by way of domestic output for each unit of import. In fact, exchanged into USD, Ghana's 2013 GDP was 47.8 billion current USD, whereas in 2015 it was only 37.9 billion current USD, thanks to the exchange rate deterioration, World Bank (2016).<sup>3</sup> Meanwhile, real GDP in domestic currency is reported to have grown by 4% in 2014 and 3.9% in 2015. In addition, depreciation of the GHS reduces incentives for Ghanaian exporters to work at increasing their international competitiveness for exports which are priced in GHS but quoted in USD.

### Debt and the economy

Identity (4) says excess of goods and services imported over goods and services exported is financed by borrowing from abroad. Panel E of Table 1 shows that foreign debt as a percentage of GDP has risen steadily to 40% at the end of 2015, row (12). This percentage has been higher than the current account balance as percentage of GDP since 2009, row 3b. Thus, one surmises that the capital inflows do not only pay for the current account deficits.

<sup>3</sup>USD inflation was positive.

Table 1: Trends in selected balance of payment accounts, macroeconomic economic indicators and debt stock.

		Monetary amounts in millions of United States dollars.										
		2008	2009	2010	2011	2012	2013	2014	2015	2016		
<b>PANEL A:</b>												
1a	Trade balance	(4,999)	(2,207)	(2,962)	(3,052)	(4,211)	(3,848)	(1,383)	(3,109)	(1,689)		
1b	Trade balance % of GDP	-17.5	-8.5	-9.2	-7.8	-10.5	-9.3	-3.6	-8.3	-4.3		
2	Balance on Services	1,456	1,006	315	(492)	(700)	(1,856)	(2,311)	1,121	(955)		
3a	Current Account Balance	(3,543)	(1,201)	(2,911)	(3,541)	(4,911)	(5,704)	(3,694)	(2,809)	(2,644)		
3b	Current Account Balance % GDP	-12.4%	-4.6%	-9.0%	-9.0%	-12.3%	-12.1%	-9.6%	-7.4%	-6.7%		
<b>PANEL B:</b>												
4	Consumption % GDP	103	96.6	100.7	99.6	95.5	100	90.6	92.8	92.7		
5	Savings % GDP	-3.0	3.4	-0.7	0.4	4.5	0.0	9.4	7.2	7.3		
6	Gross Fixed Capital Formation %	16.5	15.5	11.8	12.0	16.1	12.6	17.9	15.9	13.8		
<b>PANEL C:</b>												
7a	Capital and Financial Account	2,806	3,067	3,540	4,479	3,651	4,892	3,753	3,123	2,558		
7b	Capital and Financial Account %	9.8%	11.8%	11.0%	11.4%	9.1%	10.4%	9.7%	8.2%	6.5%		
8	Changes in International Reserves	940	(1,159)	(1,463)	(547)	1,211	1,166	85	106	(247)		
9	Sub-Total (7)+(8)	3,746	1,908	2,077	3,932	4,862	6,058	3,838	3,229	2,311		
<b>PANEL D:</b>												
10	USD/GHS	0.824	0.697	0.677	0.645	0.532	0.455	0.313	0.259	0.235		
11	GHS Depreciation %		-15.3%	-3.0%	-4.7%	-17.5%	-14.5%	-31.3%	-17.2%	-9.0%		
<b>PANEL E:</b>												
12	Foreign Debt % GDP	17%	18%	20%	20%	20%	24%	39%	43%	40%		
13	Total Debt % GDP	33%	36%	38%	40%	45%	52%	68%	72%	72%		
15	Budget Deficit % GDP	15%	10%	10%	4%	12%	11%	10%	7%	6.40%		
16	Consumption % GDP	103	96.6	100.7	99.6	95.5	100	90.6	92.8%	92.7		
17	Identity (8b)	27%	15%	19%	13%	24%	23%	20%	14%	13%		

The other item in Panel E is Budget Deficit, which has also persisted over the entire period, row (15). Identity (5) helps us understand the relationship. It says, the excess of national spending over national income is accounted for by the excess of private investment over private savings and excess of government spending over taxes collected (budget deficit).

Also, identity (7) may be re-written as

**(PRIVATE SAVINGS – PRIVATE INVESTMENT)  $\equiv$  (EXPORTS – IMPORTS) - BUDGET DEFICIT ...**  
(8a),

or,

**(PRIVATE INVESTMENT – PRIVATE SAVINGS)  $\equiv$  (IMPORTS – EXPORTS) + BUDGET DEFICIT ...**  
(8b).

Row 17 of Table 1 presents the figures of identity (8b). It says, the excess of private investment over private savings is given by current account deficit plus budget (government) deficit. These values were positive and relatively large in all years. Thus, private investment too has exceeded private savings substantially and have been funded by net foreign investment (identity 4) and budget deficits.

### Analysis of Ghana's imports

Records of each of Ghana's import and export transaction are captured into her Ministry of Trade and Industries' database by the Ghana Customs, Excise and Preventive Service (CEPS). For each transaction, the 6-digit HS code of the item, the country of origin or destination, the description of the item, the custom value of the item and the mass of the item in kilograms is recorded. Import data were analysed by two-digit HS code and coun-

try of origin, annually from 2009 to 2014.

### Composition of Ghana's imports

The HS classifications in effect over the period of study were organized into 21 Sections and 99 Chapters, Republic of Ghana (2012). Panel A of Table 2 refers. The HS classifications for the years 2009 through 2014, indicate that, the ten most highly valued 2-digit HS code of imported items constituted between 64% and 72% of Ghana's total merchandise imports. Codes 87, 85 and 84 made up the top three import categories in each year. The rest of the top 10 categories of imports for each year are 10, 73, 72, 39 and 38. Also making up the top 10 imports are HS classifications 25, 27 and 40 depending on the year in question. Panel A suggests that Ghana's imports did not change much over the period. They were highly concentrated among HS categories 87, 85, 84, 73, 72, 39, 38 and 10. The items are mostly processed and/or manufactured goods, save cereals (10) and fish (03). Processed and manufactured goods are high in value added content. See the legend to Table 2 for definitions of these categories.

An interesting category of imports has 2-digit HS Code 02 and described as *Meat and edible offal*. These items are not consumed in the countries from which they are imported. They are considered animal waste material. Interestingly they constitute a substantial 1.6% of Ghana's merchandise imports, about USD 190 million in 2014.

### Sources of Ghana's imports

Also of interest are the countries from which Ghana imports. This analysis indicates that there is a concentration of origin too. The proportion of imports that originate from the 10 countries with the highest custom values (f.o.b) range between 54% and 62% over the period. Table 3, panel A depicts selected import

Table 2: Ghana's Most Valued Imports and Exports by 2 Digit HS Code

Panel A: 10 most valued Imports as % of total imports						
	2009	2010	2011	2012	2013	2014
2-DHS*	%	2-DHS	%	2-DHS	%	2-DHS
87	15.39	84	14.31	87	15.27	84
85	12.86	87	12.61	84	14.67	87
84	11.80	85	10.06	85	9.56	85
10	5.63	27	7.15	27	7.23	10
73	5.06	73	5.26	10	4.37	73
39	3.39	10	3.78	73	3.95	39
25	3.31	38	3.75	38	3.71	25
38	3.22	40	3.16	39	3.36	38
27	3.09	39	3.13	72	3.20	27
72	2.47	72	3.10	25	2.93	72
02	1.49	02	1.61	02	1.78	02
<b>Total</b>	<b>66.22</b>		<b>66.31</b>		<b>68.25</b>	
						<b>66.70</b>
						<b>71.80</b>
						<b>64.20</b>
Panel B: 10 most valued exports as % of total exports						
71	30.73	71	33.67	27	20.55	71
18	11.34	18	8.68	71	14.69	27
44	2.16	44	1.75	18	6.43	18
39	1.18	27	1.09	08	1.55	44
27	0.87	76	1.06	44	1.35	08
48	0.60	26	0.82	07	1.29	15
26	0.57	39	0.56	39	0.86	26
<b>Total</b>	<b>47.57</b>		<b>46.57</b>		<b>46.70</b>	
						<b>47.50</b>
						<b>46.69</b>
						<b>53.58</b>

\* 2-D HS refers to 2-digit HS code. Source: Author's calculations from raw data.

*Legend:*

The 2-digit codes refer to items with the following descriptions

87: Vehicles other than railway or tramway rolling stock, and parts and accessories thereof;



85:	Electrical machinery and equipment and parts thereof, sounds recorders and reproducers, television image and sound recorders and reproducers and parts and accessories of such articles;
84:	Nuclear reactors, boilers, machines and mechanical appliances, parts thereof;
73:	Articles of iron or steel;
72:	Iron and steel;
71:	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal and articles thereof, imitation jewelry, coin;
44:	Wood and articles of wood, wood charcoal;
39:	Plastics and articles thereof;
38:	Miscellaneous chemical products;
27:	Mineral fuels, mineral oils and products of their distillation, bituminous substances mineral waxes;
26:	Ores, slag and ash;
25:	Saltearth and stone, plastering materials, lime and cement;
18:	Cocoa and cocoa preparations;
10:	Cereals;
03:	Fish and crustaceans, molluscs & other aquatic invertebrates;
02:	Meat and edible offals.

Table 3 : Interesting Import and Export Destinations

<b>Panel A: Import sources (% of total imports)</b>						
	2009	2010	2011	2012	2013	2014
Total Africa	11.9	8.7	14.9	10.1	7.2	10.1
China	13.0	12.4	16.4	18.0	18.3	20.2
USA	8.1	12.8	10.4	11.7	10.1	8.6
Sum of European Union countries in Top 10 Source Countries	25.2	18.8	17.4	19.1	21.1	19.8
<b>Total</b>	<b>58.2</b>	<b>52.7</b>	<b>59.0</b>	<b>58.9</b>	<b>56.7</b>	<b>58.8</b>
South Africa	4.2	3.9	3.2	3.7	3.3	3.3
<b>Panel B: Export destinations (% of total exports)</b>						
	2009	2010	2011	2012	2013	2014
Top 10 destinations	81.6	82.7	81.3	82.4	80.9	74.1
Total Africa	48.8	56.65	49.3	38.4	33.1	37.0
South Africa	41.3	48.5	24.8	27.6	24.9	20.7
EU countries in Top 10 Destinations	25.8	18.1	24.5	29.5	29.8	22.6
China	0.9	1.0	1.4	3.8	3.4	5.3
US	2.0	1.9	2.4	1.8	2.4	1.5

Source: Author's calculations

sources. The proportion of imports from All African countries is relatively small, between 7% and 15% over the period. Of the African total, between 30% and 40% comes from South Africa. The proportion from China, as a single country, ranked first in all years but 2010. In all cases, the proportion of imports from all African countries is less than the proportion from China. The United States was second in all years but 2010, when she was first.

Each year, at least four EU countries are included in the top 10 countries. Each year, South Africa appears among the top 10 countries.

### Analysis of Ghana's exports

In all years, items classified under 2-digit code 71 (*natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal and articles thereof, imitation jewellery, coin*) were valued the most. As a proportion of total exports, the value of 2-digit code 71 items ranged between 23% - 33%. See panel B of Table 2.

The 10 most valued 2-digit HS code export items sum up to between 48% and 55% of Ghana's exports. Over the period, HS codes 71, 18, 44, 27 appear among the top 10 valued exports in each of the years, classification 26 is missing in one year only, 39 is missing in two. The suggestion here too is that the composition of Ghanaian exports did not change much over this period and are consigned to a few destinations. Further, the exports are mostly non-manufactured items (little value-added goods). It is interesting to note that one 2-digit HS code item 39 is common to both imports and exports. This category represents plastics and plastic products. It is noted that Ghana operates a Free Zones systems, which allows certain items to be imported, processed and ex-

ported tax-free. Plastics are imported in block, processed into plastic articles and then exported.

### Destinations of Ghana's exports

Ghanaian exports go to many countries. However, the top 10 destination countries received over 80% of exports in 2009 through 2013, and 74% in 2014. See panel B of Table 3. Clearly, Ghana's export destinations are not diversified by this measure. Unlike imports, the country that received the most exports from Ghana in all years but 2011, is African, South Africa. In 2011, Ghana's neighbour, Togo, topped the list. More African countries are among the top 10 export destinations, unlike imports. There were four African countries in the top 10 in 2011, three in 2009, 2010, 2012, and two in each of 2013 and 2014. Neither China nor USA made the top ten export destinations in any year.

There is some positive news here. The general impression that African countries do not trade among themselves is not borne out in this case study. The proportion of African destinations for Ghana's exports is relatively impressive.

### Discussion

We seek to understand the links between Ghana's balance of payments accounts and a number of macroeconomic variables with a view to explaining deterioration in the value of the domestic currency and rising international debt.

Evaluation of identity (3) tells us that the savings rate is low in Ghana, thanks to a high rate of consumption of domestic output, and penchant for consumption of imported goods and services. Savings are lower than domestic investments overall, just as private investments exceed private savings substantially. This picture is reinforced by Identity (4), which shows

substantial net foreign capital inflows into Ghana, mostly debt, to pay for excessive imports. Chiu and Sun (2016) investigated whether a higher savings rate improves a country's trade imbalance using data for 76 countries for the period 1975–2010. They found that countries with a savings rate above 14.8% can improve their trade balance by increasing the savings rate or depreciating their currency. Depreciation of the domestic currency in Ghana appears not to have worked. Ghana's savings rate averaged only about 14% over 2009-2015.

That foreigners are ready to lend to Ghana, says they find Ghana to be an attractive destination for their investments, and that they expect their investments in Ghana to be profitable to them. Discussions about debt often include the question of debt sustainability, in order for countries to avoid debt crises. Discussions are underway about redefining debt sustainability to be consistent with the level of debt that would allow countries to achieve the United Nations Sustainable Development Goals. Flassbeck and Panizza (2008) find that the probability of debt crises is higher with external public debt contracted from private creditors in foreign currency. Ghana, having recently become lower middle income, much of her recent foreign debt continues to come from private lenders in foreign countries.

Further analysis, shows that the excess of investment over savings has two dimensions - private investments exceed private savings, and the government too has been running budget deficits. One may then ask about the nature of these investments. Analysis of Ghana's merchandise imports shows that much of the imports are equipment for extraction of minerals and crude oil, Information and Communication Technology (ICT) and vehicles. Investments in the extractive industry and

ICT are mostly private and it is expected that investors would have done their homework and expect to earn returns commensurate with the risks they are taking. A lot of the vehicles are government owned and are consumer items.

Analysis also reveals a relatively high proportion of Ghanaian exports to other sub-Saharan Africa, unlike perceptions in the literature which suggest that the inter African trade is low.

Analysis also uncovered spending on non-useful imports – animal offals, rejected elsewhere and of low nutritional value. Data also shows that Governments intervene in the foreign exchange market, mostly to shore up the domestic currency.

## Conclusion

It is noted that it is Ghana's current account deficits that have necessitated the net inflow of foreign loans. Without these loans, the domestic currency would have depreciated even more than has been the case. It would appear that foreigners find Ghana an attractive investment destination.

It is further noted that current account surplus is not necessarily an indicator of vibrant economic activity, nor is a current account deficit a sign of sluggish economic activity. Ghana's foreign loans should be invested and managed, so that new and better technology, improved production systems and more modern ways of management may be introduced into Ghana. The quality and variety of goods produced in Ghana would then improve. Labour productivity too would. If these happen, she may begin to show current account surpluses, reduce debt stock and possibly strengthen the domestic currency.

## REFERENCES

- Akrani, G. (2011). Composition of India's Foreign Trade - Import and Exports, <http://kalyancity.blogspot.com/2011/03/composition-of-india-foreign-trade.html> Accessed, April, 2016
- Bank of Ghana, (2014). **Statistical Bulletin, March**, Bank of Ghana, Accra.
- Bank of Ghana, Operations of Foreign Exchange Accounts (FEA) and Foreign Currency Accounts (FCA) - NOTICE NO. BG/GOV/SEC/2014/02
- Bank of Ghana, (2016). **Statistical Bulletin, March**, Bank of Ghana, Accra.
- Bank of Ghana (2017). **Summary of Economic and Financial Data**, July, Bank of Ghana, Accra.
- Bhat, T. P. (2011), **Structural changes in India's foreign trade**, Institute for Studies in Industrial Development, New Delhi.
- Business and Financial Times, (2015), "Why is the cedi going down?" **Business and Financial Times**, 14 August, p.9.
- Calderón, C. and J. R. Fuentes (2013), **Government Debt and Economic Growth**, IDB WORKING PAPER SERIES No. IDB-WP-424, Inter-American Development Bank, Washington, D.C.
- Checherita, C. and Rother, P. (2010), **The impact of high and growing government debt on economic growth: an empirical investigation for the euro area**, ECB WORKING PAPER SERIES No.1237, European Central Bank, Frankfurt.
- Chronicle, (2015), "Public Debt Claims 49.4% Of Ghana's GDP," **Chronicle**, 4 June, pp 3.
- Chin, M. D. (2004), "Incomes, Exchange Rates and the US Trade Deficit, Once Again," **International Finance**, vol.7 No3, pp451-469.
- Chiu, Y and Sun, C. D. (2016), "The role of savings rate in exchange rate and trade imbalance nexus: Cross-countries evidence", **Economic Modelling**, vol.52, pp1017-1025.
- Daily Graphic, (2014), **Bank of Ghana Releases 20m Dollars To Halt Cedi's Free Fall**, 2 October, pp 1.
- Daily Guide, (2015), **Cedi to fall further in 2016**, 22 December, pp 2.
- Diamond, P. (1965), National Debt in a Neoclassical Growth Model, **American Economic Review**, vol.55, No.5, pp1126-1150.
- Dion, R, Laurence, M., and Zheng, Y. (2006), Exports, Imports and the Appreciation of the Canadian Dollar, **Bank of Canada Review**, Autumn, 5-17.
- Flassbeck, H and Panizza, U. (2008), Debt sustainability and debt composition, Presented at the Workshop on Debt, Finance and Emerging Issues in Financial Integration. New York. 8-9 April. Available at: <http://un.org/esa/ffd/events/2008debtworkshop/papers/Flassbeck-Panizza-Paper.pdf> (accessed 13 April 2016).
- Ghana, (2012), **The Harmonized System and Customs Tariff Schedules 2012**, Ministry of Finance, Accra.
- Ghana Statistical Service, (2015), **Gross domestic Product: Expenditure Approach Provisional, New Series**, September, Ghana Statistical Service, Accra.
- Ghana Statistical Service (2016), **Gross domestic Product: Expenditure Approach Provisional, New Series**, March, Ghana Statistical Service, Accra.
- International Monetary Fund, (2015). "First Review Under the Extended Credit Facility Arrangement and Request for Waiver and Modifications of Performance Criteria — Press Release; Staff Report; and Statement by the Executive Director for Ghana," **IMF Country Report No. 15/245**, Washington, D. C.
- ISSER (2015), **The State of the Ghanaian Economy**, University of Ghana, Legon.
- Modigliani, F. (1961), "Long-Run Implications of Alternative Fiscal Policies and the Burden of the National Debt", **Economic Journal**, vol. 71, No.4, pp.730-755.
- Panizza U. and Presbitero, A. F. (2014), Public debt and economic growth: Is there a causal effect?. **Journal of Macroeconomics**, vol.41, pp.21-41.
- Republic of Ghana (2012), **The Harmonized System and customs tariff schedules 2012**, Ministry of Finance, Accra.

- Shapiro, A. C., (2003), **Multinational Financial Management**, Prentice Hall, Upper Saddle River, N.J.
- Saint-Paul, G. (1992), "Fiscal Policy in an Endogenous Growth Model", **Quarterly Journal of Economics**, vol.107, No.4, pp.1243–1259.
- The Finder (2016), **Debt Crisis Hits Ghana**, 19 October, pp 1.
- Tradegate (2015). Moody's says Ghana's creditworthiness constrained by high debt, external vulnerability, 4 June. <https://asokoinsight.com/news/moodys-says-ghanas-creditworthiness-constrained-by-high-debt-external-vulnerability/>
- Wampah, H. K, (2014), "Bank Of Ghana Releases 20m Dollars To Halt Cedi's Free Fall," **Daily Graphic**, 31 January, p 15.
- World Bank, (2016), **Ghana's gross domestic product**. Available at <http://www.tradingeconomics.com/ghana/gdp-per-capita>