

**Prof. dr hab. Krzysztof Jajuga**

**Uniwersytet Ekonomiczny we Wrocławiu**

**Opinion on the doctoral thesis:**

**Joseph Yaw Abodakpi**

**Foreign Direct Investment, Financial Sector Development, and Economic Growth in the Republic of Ghana**

This opinion has been prepared according to the Act of 14 March 2003 on Academic Degrees and Title and Degrees and Title in Arts. According to this law, doctoral thesis should fulfill the following requirements:

- It consists of the original solution to the scientific problem.
- It proves the general knowledge of doctoral candidate in scientific discipline (in this case it is economics and finance).
- It proves the ability of doctoral candidate to conduct scientific research independently.

In this opinion I will refer to these requirements.

The topic of the thesis – as the title indicates – is concerned with the relationship between economic growth and two important factors related to economic growth, namely foreign direct investments (FDI) and financial sector development. The author concentrates on this relationship for Ghana. The selection of the topic of the thesis is very appropriate. On the one hand, from theoretical point of view, two underlying factors (FDI and financial sector development) are key factors as far as their impact on economic growth.

On the other hand, selection of Ghana as the country being researched, is a good choice. Despite Ghana holds low position in the nominal GDP (83<sup>rd</sup> generally and 69<sup>th</sup> in PPP), Ghana has several features worth to conduct the analysis of economic growth of this country:

- It is sixth producer of gold (first in Africa, surpassed South Africa).
- It is second world producer of cocoa (after Côte d'Ivoire).
- Its economy is growing increasingly based on the service sector (largest contributor to economy), it is growing at the rate close to 6%.
- Ghana recorded a 6.9% annual growth in Q2 of 2024, the highest in five years.

There is no doubt that the reviewed doctoral thesis should be classified to the discipline of economics and finance within the area of social sciences. The submitted considerations prove the decent quality of the presented research.

The doctoral thesis of Mr. Joseph Yaw Abodakpi is presented on 189 pages (where the core text is on 178 pages), it is divided into four chapters, contains the list of references, large number – 302 sources.

The core structure of the thesis is appropriate one. However, it would have been beneficial if the author had included an introduction (indicating motivation, content, and own contribution) and conclusions as separate (not numbered) chapters. The executive summary given at the beginning of the thesis only partially satisfies the usual content of these two chapters.

Now I present and briefly evaluate the content of all chapters.

Chapter 1 is devoted to two problems. The first one is the concept of economic growth, its measurement, and determinants with reference to Ghana. The author discusses selected theories of economic growth, from classical to neo-classical ones. This material is known from basic economic literature; however, the author gives synthetic and transparent presentation without unnecessary formalism. The second topic is the description of the economic growth and reforms in Ghana. It presents the economic history of Ghana in last several dozens of years. The author gathered the basic macroeconomic data for Ghana. I would expect that the period of 1960 to 2019 will be extended over recent years. As a small contribution of the author, I would point the elaboration of the strengths and weaknesses of economy of Ghana.

This chapter ends with the research objectives, the methodology and formulated research hypotheses aiming at determining whether there exists the relationship between the mentioned determinants (economic growth and FDI, economic growth and financial sector development). These hypotheses are called in the latter part of this opinion.

My evaluation of this chapter is positive. The contribution is: systematic review of economic growth theories and good presentation of the economy of Ghana with the indication of strengths and weaknesses.

Chapter 2 is concerned on the incentives to attract investment, with the stress on Ghana. This chapter is devoted to two problems. The first one is the theory of foreign direct investments. Firstly, the author identifies and discusses four crucial determinants of foreign direct investments, namely: political environment, market openness and accessibility, labor costs and productivity, and finally infrastructure. Based on the literature, he shows the relationships between FDI and economic growth. Then five theories of FDI are presented. The important decision of the author is to relate these theories to the second topic of this chapter, which is the institutional economics of Ghana connected with FDI (particularly via Ghana Investment Promotion Council and the Ministry of Trade). The substantial part of this chapter is the presentation of statistical data related to FDI in Ghana, including the involvement of China. My evaluation of this chapter is positive. The contribution is: identifying the determinants of FDIs and gathering statistical data.

Chapter 3 is devoted to two problems. The first one is the theoretical introduction to the problem of financial sector development. Here the definitions are discussed, and measures of financial sector development are presented, as well as the role of financial institutions. These theoretical considerations are linked to the second problem of this chapter, namely financial sector development in Ghana. The author selects the measures related to financial sector in Ghana. The substantial part of the chapter contains the detailed description of the development of financial sector in Ghana, including the main challenges. As the key driving force of the changes the author identifies the regulations that occurred in several dozens of years. The mainstream of changes is the liberalization of the financial sector. This is strongly supported by statistical data gathered by the author. Some part of the material discusses also similar changes in some other African countries.

My evaluation of this chapter is positive. The contribution is presentation and evaluation of financial development of Ghana with the indication of milestones.

Chapter 4 is an empirical chapter, and it is the main contribution of the author of the thesis. Based on the theoretical considerations given in previous three chapters (mostly in chapter 2 and 3), the empirical studies for Ghana are conducted. Following the previous analysis, the author selects six variables for further analysis. Two variables reflect economic growth, three variables reflect financial sector development, and one is typical for foreign direct investments.

As it was indicated in this opinion, the author formulated four hypotheses (all of them refer to Ghana):

One hypothesis is more general, states that economic growth, foreign investment, and financial development are bound to be highly interconnected.

The other three are more specific, namely:

- There is a long-term relationship between the economic growth, measured by GDP per capita and net FDI inflow in Ghana.
- There is a long-term relationship between economic growth, measured by GDP dynamics and net FDI inflow in Ghana.
- There is a long-term relationship between the economic growth as measured by GDP per capita and financial sector development as proxied by credit growth, money supply growth, or savings growth in Ghana.

As one can see, financial sector development is measured by three variables.

The author expected the inflow of foreign direct investment to Ghana together with a developed financial sector will tend to have a positive effect on the economic growth outlook of Ghana.

This chapter contains two important parts. The first one is extensive review of literature, presenting outcome of the research of different authors, conducted for different countries, often of the similar level of development as Ghana. This research, as expected, looked at the relationship between economic growth and two determinants (FDI and financial sector development). I particularly evaluate here as the contribution of the author, the research concluded in the following tables:

Table 18: Sampled economies and key financial liberalization processes,

Table 19: Selected empirical studies on the finance-economic growth nexus,

Table 21: A chronology of key liberalization policies of the financial sector in Ghana.

The second part, key for the thesis, is the research conducted by author using well known econometric methodology for verifying postulated hypotheses. This methodology consists of three steps:

- Checking for possible non-stationarity of time series.
- Using autoregressive-distributed lag models.
- Performing bounds test for cointegration.

The chosen techniques are appropriate for this type of research. The author gives arguments for this selection. Then he conducts econometric studies. I consider this part thorough investigations. The author studies dozen models and selects the best ones, from the statistical point of view. At the very end there is a summary of statistical results.

The presented case of Ghana shows that economic growth is impacted by FDI but not strongly enough to influence the level of development approximated by GDP per capita. As such foreign direct investment cannot be treated as a major factor in Ghana's economic convergence to the advanced economies.

The last part gives short conclusions and the so-called policy recommendations. Key proposal is the establishing Sovereign Wealth Fund for Ghana, similarly as it happened for number of countries in which resources and commodities are important determinants of economy.

In the previous part of this opinion, I provided partial evaluation of some parts of the thesis. Now I give the overall evaluation.

As the formal rules related to doctoral thesis stated (see above), the thesis should satisfy three requirements:

1. Consists of the original solution of the scientific problem.

My evaluation is positive. The scientific problem analyzed in the thesis is the impact of foreign direct investments and financial sector on economic growth and relationship between these three phenomena. The originality is in the research conducted for Ghana, also in analyzing all three variables together.

2. Proves the general knowledge of doctoral candidate in the scientific discipline (in this case it is economics and finance).

My evaluation is positive. The author shows this knowledge particularly in first three chapters, by critically revising theory and reviewing the research of the other authors.

3. Proves the ability of doctoral candidate to conduct scientific research independently.

My evaluation is positive. This is shown by extensive literature research and appropriate empirical studies by econometric methods.

The main contribution of the author is the research on the long-term relationship between economic growth, foreign direct investments, and financial sector development in Ghana between 1970 and 2019. It is grounded in theoretical considerations and verified empirically.

As a reviewer, I want to raise the following remarks:

1. The author gives an analysis of the results at the end of chapter 4. It would have been beneficial if he provided a comparison of his results with the other authors mentioned by him.
2. The author gives some policy recommendations for the economy of Ghana. One issue was not mentioned: what will be the impact of very fast technological development on financial sector development (on one hand) and on the economic structure of Ghana (particularly service sector).
3. The author in his research uses data up to 2019 (5 years ago!). This also refers to subchapter 2.5, as well as table 1, table 2, figure 6. As an excuse, he uses argument of COVID-19, but it is not convincing. First, COVID-19 has been over for at least 2 years, secondly, it could have been included as “structural break” (of course, different than regulatory changes).
4. The analysis of the literature is based on the papers published in very many different periods. It would have been beneficial if the review of literature contained order with respect to time and countries.
5. In several parts of the thesis, there is analysis related to China. It is not clear why it is so, since this analysis is not necessary in the main analysis of the thesis.

Some minor remarks:

1. Subchapter 1.4 has a very general title, but it is short, and the content does not correspond to the title. It should have been merged with a long subchapter 1.5.
2. The language of the thesis is good, there are just few mistakes, for example: in page 145 wrong name: should be “Bartlett”, also wrong spelling of name of Nobel Prize laureate, should be “Leontief”.
3. Some figures are scans from some sources, but the quality is poor.

### **Conclusion**

Given the evaluation provided in this opinion, I certify that the doctoral thesis of Mr. Joseph Yaw Abodakpi fulfills the formal requirements as to doctoral thesis in economic sciences in the discipline finance (in new classification: social sciences discipline economics and finance). Therefore, my conclusion is that this thesis should be subject of future procedure by the Discipline Council.

Wrocław, 2024-10-14.

