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Abuja, Nigeria 6–10 May

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## The Nexus of Monetary Variables on Construction Prices

(TS06C - Construction Economics and Management – 6564)

By

Dorothy L. BABA, Ikechukwu A. DIUGWU, Musa MOHAMMED, Nigeria

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## STATEMENT OF THE PROBLEM

- Developing economies, such as Nigeria, usually experience fluctuations in general price;
- leading to domestic inflation;
- and an adverse effect on aggregate demand in the economy (particularly the housing sector) due to variation in the cost of construction materials

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## OBJECTIVES OF THE STUDY

The study set out to examine the:

- trend of monetary variables and materials prices, as well as the
- relationship between cost of construction materials and monetary variables

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## CONTRIBUTION OF THE STUDY

The outcome of this study will:

- help minimize fluctuations in monetary variables through targeted monetary policies
- help in the proactive management of inflation triggers
- expand the frontiers of knowledge on the subject area

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## THEORETICAL BACKGROUND

- The construction industry contributes substantially to global and national economic development and stability
- In 2008, it contributed about £75 billion to the UK economy (Dye and Sosimi, 2010)
- Developing economies should pursue economic policies that would curtail inflation, stabilize price level and exchange rate, ensure equilibrium in balance of payment, and promote economic development (Jhingan, 2003).

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## THEORETICAL BACKGROUND (contd.)

- These policies are expressed as monetary policies, measured through monetary variables
- Monetary policies seek to achieve desired macroeconomic objectives by managing the quantity of money in the economy (Central Bank of Nigeria, 2011)
- Monetary policies and variables indirectly affect the construction industry, with extreme situations leading to insolvency of companies in the sector
- (Rwelamila and Lobelo, 2002)

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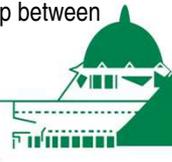
## METHODOLOGY

- Data used were obtained through
  - secondary sources for data on monetary variables
  - primary sources for data on construction material prices
- Using a non-probabilistic purposive sampling method
- Both descriptive and inferential analyses were carried out:
  - descriptive graphs were used to show trends in monetary variables and construction cost change, while
  - regression (inferential) analysis was used to explore the relationship between monetary variables and construction cost

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## SUMMARY OF MAJOR FINDINGS

- Analysis of trend in monetary variable reveals that the F-values are significant at above .05 level
- implying an agreement between the predicted value and the actual value of all the monetary variables
- only the model for credit to the private sector is accepted, having an  $R^2$  value of 0.811 (i.e. above 0.7)
- for material price trend analysis, the model can only be accepted for five materials (i.e. PVC pipe, ceramic floor tiles, hardwood, electric cables and emulsion paint), all with  $R^2$  above 0.8

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## SUMMARY (contd.)

- thus, for the rejected models there will be significant variation between the predicted and actual values
- when the analysis of price and monetary variables was carried out at a 0.9 (or 90%) level of acceptance, only the models for hardwood and sandcrete block met the model criteria for acceptance
  - perhaps, because these materials are abundant locally and require the least technological input in production

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## CONCLUSION & RECOMMENDATION

- The study established a relationship between monetary variables and the cost of procuring construction materials, and;
- recommends the establishment of monetary framework(s) to guard against sudden changes in fiscal policy

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