

Sudan University of Science and Technology

College of Graduate Studies

**The Impact of Macroeconomic Policies and Foreign Capital Transfers
On Sudan's Currency Crises (1930 – 2012)**

أثر السياسات الإقتصادية الكلية وتدفقات رؤوس الأموال الأجنبية في أزمات العملة بالسودان
(1930 – 2012م)

Submitted in Fulfillment of the Requirements of PhD in Economics

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Date: 6 April 2016

بسم الله الرحمن الرحيم

(سورة طه)

أعوذ بالله من الشيطان الرجيم

بسم الله الرحمن الرحيم

" فَتَعَالَى اللَّهُ الْمَلِكُ الْحَقُّ وَلَا تَعْجَلْ بِالْقُرْآنِ مِنْ قَبْلِ أَنْ يُقْضَىٰ إِلَيْكَ وَحْيُهُ وَقُل رَّبِّ زِدْنِي عِلْمًا (114)

...إِنَّ لَكَ أَلَّا تَجُوعَ فِيهَا وَلَا تَعْرَىٰ (118) وَأَنْتَ لَا تَنْظُمُ فِيهَا وَلَا تَصْحَىٰ" (119)

صدق الله العظيم

(سورة الاسراء)

أعوذ بالله من الشيطان الرجيم

بسم الله الرحمن الرحيم

"وَلَيْنِ شِئْنَا لَنَضْهَبَنَّ بِالَّذِي أَوْحَيْنَا إِلَيْكَ ثُمَّ لَا تَجِدُ لَكَ بِهِ عَلَيْنَا وَكَيْلًا" (86)

صدق الله العظيم

Dedication

To:

All those calling for the Prosperity of all Human Souls via Real Scientific Researches

My Parents (*Mercy upon Them*)

My Great Professors

Highly Esteemed Scientific Ivory Elite: Professor/ Ali Abdalla Ali

Highly Adored Great Dean: Professor/ Mohamed Abd ElSalam

(At Sudan University's Post-Graduate College)

Highly Honored Great Dr.: Khalid Hassan ElBeely

(At Sudan University's Post-Graduate College)

My around the World Sudanese and Foreign Colleagues and Friends From all Economic Ideologies and Schools for their Fruitful Discussions and Back-ups

For All Them

This

Little Memory That Might Help During Heavy Rainy Days

Acknowledgements

I am very grateful for the opportunity to study again at the Sudan University for Technology and Science and the College of Business Studies – Department of Economics.

The researcher is also very grateful for contributions of supportive Ministry of Finance and National Planning Funding and support via *The Former Ministry of Finance and National Economy State Minister: Dr. Lual Deng.*

This research acknowledges the peerless extreme support of the Rare Great Supervisor, Professor: **Ali Abdalla Ali**. *It would have not been possible at all without his unrivaled excellent intellectual guidance, encouragements via in-depth discussions, and exchange of insightful views, based on his well-established narratives of events he experienced and deep scientific knowledge. Although there are no stronger word that is alternative to thanks, one can express by saying that “Your unparalleled outstanding support and patience, Prof., made this research process so much easy, pleasure, enjoyable, and a manageable work over the past three-plus years. You can’t be Forgettable.”*

A learned experience and lesson for supporting and make scientific researches see light has been gained, with the support of highly cherished Dr.: Khalid H. Elbeely, from the highly adored Professor: Mohamed Abd ElSalam, Dean of Graduate College at The “Sudan University.” Allowing people’s efforts to go smooth and easy is a character of a deep-far-sighted thinking man that is rarely to be found in every generation. “Prof., I’ll never think about you otherwise. You are, definitely without too much discussion, one of the Great Remarkable Elites of this country.”

I would like to thank all those who have supported me during my research and the writing of this thesis.

Abstract

The subject of this research was motivated by the observation of sustainable devaluations of the Sudanese official pound's exchange rate from LS 0.345 per dollar in 1957 to LS 0.394 per dollar in 1972 to LS 6,414 per dollar in 2015, while the many development plans and peace agreements remained dependent on net balancing capital inflows (NBKIs). As mentioned in the outline chapter, the available literature and reports considered devaluation to be a curing medicine for the Sudanese economy's imbalances. That literature goes-on advising the same policy without mentioning whether these devaluations were due to currency crises (CCs) or not. This backdrop formed the research's problem and its aim to find out if that is true.

As a result, the research's hypothesis stresses that some of these NBKIs-dependent devaluations were the result of currency crises, mainly during 1930 – 2012 for unindustrialized undiversified economy (UUE). Dependence on NBKIs is actually a temporary anesthesia to unstable macroeconomic disequilibrium that ends in CCs. To test them, a predictive law-based nonlinear visual model. As revealed in chapters 4 and 5, the Sudanese exchange rate witnessed eleven CCs, of which two were achieved by aggressive internal devaluations. The fundamentals that led them were: the influential commodity' international price's (ICIP), adopted ERR, net international reserves to domestic money (NIR/DMS) ratio, and divergence between inflation (IR) and current account deficit (CAD) rates, which is equivalent to NBKIs, explain, robustly, the non-currency-crisis (CC) duration and the onset of CCs episodes. It is found that the crashing point is realized when CAD rate and Inflation rate (IR) diverge as NIR/DMS ratio in the negative trend.

The research concluded, implicitly, as based on the historical experiences of the now advanced and emerging economies, in chapter 3, that the fixed exchange rate regimes (ERRs) were the most appropriate ones for stabilizing rapidly the development of the Sudanese economy's socio-economic structure. It also reached to the following main findings for Sudan: (a) the CC's minimum threshold was 13.86% or above; (b) they took longer time to happen under fixed, relative to floating/flexible, ERR; (c) fiscal policies were crisis-transmitting channel, and (d) the deteriorated, economic structure, by 2011, with its strong ties to the historical structural trade-growth limiting parameter (H-STGLP), was the core reason for Sudan's all types of financial crises.

In the end, the fading NBKIs-dependent *NIR/DMS ratio* was the core triggers for CCs with its substantial economic, and political costs. So, a rule of thumb is suggested to minimize exposures to CCs and heavy dependence on NBKIs. It states that the growth of export/import ratio to be at rates higher than NIR/DMS ratio. In addition, deep indispensable studies are sturdily recommended for changing drastically the prevailing underdeveloped economic structure, in line with improved macroeconomic policies, to limit exposure to currency crises.

ملخص البحث

كان الدافع وراء البحث في موضوع هذه الرسالة هو ملاحظة التخفيضات المستمرة لسعر الصرف الرسمي للجنيه السوداني الرسمي من 0.345 جنية للدولار الأمريكي في عام 1956 إلى 0.394 جنية للدولار الأمريكي في عام 1972 إلى 6,414 جنية للدولار الأمريكي في عام 2015م، وذلك رغم استمرار خطط التنمية وإتفاقيات السلام العديدة في الإعتماد على التمويل الدولي. فكما اشير في الفصل التالي، فإن الأدبيات والتقارير المتاحة تعتبر تخفيض سعر الصرف دواءً لعلاج إختلالات الاقتصاد السوداني. وتستمر تلك الأدبيات في النصح بنفس السياسة دون التوضيح عما إذا كانت بعض تلك التخفيضات كانت نتيجة لوقوع سعر صرف الجنيه السوداني الرسمي في أزمة أم لا. هذه الخلفية أدت الى تحديد مشكلة البحث وهدفه في كشف ما إذا كان ذلك حقيقة، الأمر الذي زاد من أهميته.

وبناءً على ذلك، إفترض البحث على أن بعض تلك التخفيضات كان نتيجة لأزمات عملة، رغم استمرار الإعتماد على صافي التمويل الأجنبي، خاصة خلال 1930 – 2012م لإقتصاد غير صناعي أو متنوع. وأن الإعتماد على صافي التمويل الأجنبي هو تسكين مؤقت لاختلال التوازن الكلي الغير مستقر بما ينتهي اما بتخفيضات أو بأزمات عملة. وللتحقق من سلامة الفرضية، استخدمت النماذج المرئية غير الخطية للحصول تنبؤات تستند على قوانين الإقتصاد. وقد اتضح في الفصلين الرابع والخامس، ان سعر صرف الجنيه السوداني، قد شهد احد عشر ازمة عملة من بينهما اثنتان تحققنا عبر التخفيضات الداخلية الإجبارية. وقد تم تحديد الأساسيات التي أدت إليها في الأسعار الدولية للسلعة المهيمنة، نظام سعر الصرف المتبناة، نسبة صافي الاحتياطيات الدولية إلى عرض النقود المحلي، والتباين بين التضخم والعجز في الحساب الجاري، والذي يعادل صافي تدفقات التمويل الدولي. حيث كانت هذه الأساسيات من أهم العوامل التي فسرت وقوع، وعدم وقوع، الإقتصاد السوداني، بفجوات زمنية مختلفة، في أزمات العملة.

وخلص البحث، استناداً على التجارب التاريخية للاقتصادات المتقدمة والناشئة، كما اوضح في الفصل الثالث، أن نظام سعر الصرف الثابت كان الأكثر ملائمة لإستقرار سرعة تغيير الهيكل الاقتصادي والاجتماعي المتخلف لبلادهم. أما فيما يتعلق بالسودان، توصل البحث إلى النتائج الرئيسية التالية: (أ) أن الحد الفاصل للوقوع في أزمة عملة هو 13.86٪ فما فوق. (ب) أن فترة ما قبل الوقوع في أزمة كانت أطول في ظل نظام سعر الصرف الثابت بالمقارنة مع نظامه التعويمي (ج) أن السياسة المالية كانت قناة نقل الأزمة، (د) تدهور الهيكل الاقتصادي، بحلول عام 2011، في إرتباطه القوي بالمحدد التاريخي لعلاقة النمو بالتجارة الخارجية، كان السبب الجوهرى لكل أنواع الأزمات المالية التي مرت بالسودان.

وأخيراً، فإن تقلص نسبة الإحتياطي الدولي إلى عرض النقود المحلي المعتمدة على حصيلة صافي التمويل الأجنبي وحصيلة الصادرات، للدفاع عن نظام سعر الصرف المتبناة، كانت عامل التنبؤ الرئيسية بأزمات العملة ومفجرتها بتكاليف إقتصادية وسياسية مرتفعة. ولهذا، تم إقتراح معيار لفعالية السياسات الإقتصادية الكلية تنص على أن تنمو نسبة الصادرات/الواردات بمعدلات اعلى من نمو صافي الإحتياطيات الدولية إلي عرض النقود المحلي. بالإضافة إلى ذلك، تمت التوصية بضرورة إجراء الدراسات الحتمية لإحداث التغييرات الجذرية للهيكل الإقتصادي السائد، في إتساق تام مع تحسين السياسات الإقتصادية الكلية، لتقليل التعرض لأزمات العملة، بصفة أساسية.

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Abbreviations

ADD	≡ Aggregate Domestic Demand
APC	≡ Aggregate Productive Capacity
AWEs	≡ Advanced World Economy's Drivers
BoPs	≡ Balance of Payments
BWIs	≡ Bretton Woods Institutions
CAB(s)	≡ Current Account Balance(s)
CAD(s)	≡ Current Account Deficit(s)
CC	≡ Currency Crisis
CCs	≡ Currency Crises
CPA	≡ Comprehensive Peace agreement
CPI	≡ Consumer Price Index
DCs	≡ Developing Countries
D-JAM	≡ Darfur Joint Assessment Mission
DMS/GDP ratio	≡ Domestic Money Supply relative to Gross Domestic Product Ratio
DMS	≡ Domestic Money Supply or Broad Money supply
ED	≡ External Debt
EDS	≡ External Debt Servicing
ER	≡ Exchange Rate
ERR	≡ Exchange Rate Regime
FYP	≡ The Five Year Plan
GDP	≡ Gross Domestic Product
GFC	≡ Global Financial Crisis
H-STGLP	≡ Historical Structural Trade-Growth Limiting Parameter
ICIP	≡ Influential Commodity's or Cotton's International Prices
IEIs	≡ Internal and external Imbalances
IMF	≡ International Monetary Fund
IR	≡ Inflation rate

KAB	≡ Capital Account Balance
MDGs	≡ United Nation's Millennium Development Goals
NBKIs	≡ Net Balancing Capital Inflows
NBKOs	≡ Net Balancing Capital Outflows
NFA	≡ Net Foreign Assets
NIR	≡ Net International Reserves
S-JAM	≡ South Joint Assessment Mission
TED	≡ Total External Debt
TYP	≡ The Ten Year Plan
UDEs	≡ Under-Developing Economies
UUE	≡ Unindustrialized Undiversified Economy
USA	≡ United States of America
WWI	≡ World War I
WWII	≡ World War II
WB	≡ The World Bank
Δ NFA	≡ Changes In Net Foreign Assets
Δ	≡ Rate of Change