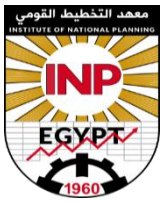
جمهورية مصر العربية
معهد التخطيط القومي



المجلة المصرية للتنمية والتخطيط

المجلد (32) العدد الثاني يونيو 2024

مجلة علمية محكمة

محتويات العدد

البحوث

مراجعات الكتب والتقارير

من إصدارات معهد التخطيط القومي

أولًا: سلسلة قضايا التخطيط والتنمية.

ثانيًا: سلسلة أوراق السياسات.

ثالثًا: سلسة أراء في قضايا التخطيط والتنمية.

رابعًا: كتاب مرجعي "أساسيات بناء النماذج الرياضية وتطبيقاتها في مجالات السكان والاقتصاد والبيئة"، تأليف أ.د. عبد الحميد القصاص

المجلة المصرية للتنمية والتخطيط

المجلد (32) - العدد الثاني - يونيو 2024

الاشتراكات

جمهورية مصر العربية:

سعر بيع العدد الواحد من المجلة 25 جنيهًا

قيمة الاشتراك السنوي للأفراد 80 جنيهًا

قيمة الاشتراك السنوي للهيئات 100 جنيهًا

البلدان الأخرى:

سعر بيع العدد الواحد 8 دولار

قيمة الاشتراك السنوي للأفراد 25 دولار

قيمة الاشتراك السنوي للهيئات 30 دولار

المراسلات

توجه جميع المراسلات إلى:

رئيس هيئة تحرير المجلة المصرية للتنمية والتخطيط

معهد التخطيط القومي

طريق صلاح سالم – مدينة نصر – القاهرة

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الموقع على الإنترنت: www.inp.journals.ekb.eg/

قواعد النشر

1. تنشر المجلة البحوث العلمية المحكمة، والمراجعات النقدية للكتب والتقارير، والتغطيات والمتابعات لمؤتمرات وفعاليات علمية، وغيرها من المساهمات ذات الصلة.

2. تنشر المجلة البحوث العلمية باللغتين العربية والإنجليزية بشرط ألا يكون قد سبق نشرها، وألا تكون مقدمة للنشر في دوريات علمية أخرى.

3. تستقبل البحوث من مؤلفيها على موقع المجلة المصرية للتنمية والتخطيط على بنك المعرفة المصري https://inp.journals.ekb.eg/contacts?_action=loginForm.

4. يراعى الالتزام بالأمانة العلمية وأخلاقيات البحث العلمي في إعداد البحوث المقدمة للنشر.

5. لا يزيد عدد كلمات البحث المقدم للنشر على 8000 كلمة متضمنة الأشكال التوضيحية والجداول وقائمة المراجع. وينسخ البحث بصيغة Microsoft Word. بفونط Simplified Arabic-14 لمتن البحث باللغة العربية، وبفونط Times New Roman-12 لمتن البحث باللغة الإنجليزية، مع كتابة العناوين بفونط 16 للغة العربية، وفونط 14 للغة الإنجليزية.

6. يرفق بالبحوث المقدمة للنشر باللغة العربية، ملخصًا باللغتين العربية والإنجليزية لا يزيد على 250 كلمة، وملخصًا بالحجم نفسه للبحوث باللغة الإنجليزية، وتضاف كلمات مفتاحية لكل بحث في حدود 5-7 كلمات.

7. لا تزيد عدد كلمات المراجعة للكتب والتقارير التي لم يمض على نشرها أكثر من ثلاث سنوات على 3000 كلمة باللغة العربية، مع النسخ بصيغة Microsoft Word وفونط 14 للمتن وفونط 16 للعناوين.

8. تراعى قواعد التوثيق العلمية لمراجع البحث، وذلك وفق الترتيب التالي: (اسم المؤلف، سنة النشر) في المتن ووفق الترتيب التالي: (اسم المؤلف، تاريخ النشر، العنوان، جهة ومكان النشر، رقم الصفحة) في قائمة المراجع، وترتب المراجع بدءًا بالبحوث المنشورة في مجلات علمية، تليها الكتب، ثم أعمال المؤتمرات العلمية، ثم الرسائل العلمية، و انتهاء بالمو اقع الالكترونية، كما يراعى توثيق الجداول والأشكال وغيرها داخل المتن بمراجعها الأصلية.

9. تخضع كافة البحوث المقدمة للنشر للتحكيم العلمي من جانب أساتذة وخبراء متخصصين، ويجوز لهيئة التحرير تقرير عدم أهلية بعض البحوث للتحكيم.

10. يتم إبلاغ الباحثين بموقف بحوثهم، ونتائج تحكيمها، وما يترتب عليها في النهاية من قبول أوعدم قبول النشر. وتنشر أعداد المجلة الكترونيًا على بنك المعرفة (الر ابط المذكور أعلاه)، كما يمكن الوصول إليها من الموقع الالكتروني لمعهد التخطيط القومي (https://www.inp.edu.eg/)- قسم الإصدارات، ويحصل الباحث على نسخة من عدد المجلة الذي نشر به بحثه على سبيل الإهداء.
11. تعبر الآراء الواردة في المجلة عن وجهة نظر كتابها، وتحتفظ المجلة بكافة حقوق النشر بخصوص المساهمات المنشورة بها، ويلزم الحصول على مو افقة كتابية منها قبل إعادة نشر تلك المساهمات.

رقم الإيداع 93/6505 الرقم الدولي الموحد 1110-984X

المجلد (32) العدد الثاني يونيو 2024

المحتويات

البـــحـــوث

تنازليًا من ص 119 إلى ص 34

مراجعات الكتب والتقارير

مبادئ للتعامل مع النظام العالمي المتغير: لماذا تنجح الدول أو تفشل[1]

مراجعة أ.د. مصطفي كامل السيد[2]

مقدمة

انشغل المؤرخون منذ فترة بمحاولة استكشاف الأسباب التي تؤدي إلى صعود القوى الكبرى في النظام العالمي ثم سقوطها، وقد غلب على هذه الكتابات الاعتقاد بأن صعود الولايات المتحدة على قمة النظام العالمي بعد الحرب العالمية الثانية في طريقه إلى أن ينتهي، واختلفوا فيما سيحدث بعد انقضاء ما أسموه بهيمنة الولايات المتحدة، هل ستصعد قوة أخرى تحل محلها أم يستقر النظام العالمي على عدد محدود من الدول تتنافس فيما بينها على قيادته، واعتبروا أنه كما كان حال الإمبراطوريات السابقة في التاريخ، فإن انتشار القوة يقترن أيضًا بضعف سيطرتها حيث لا تملك من الموارد ما يكفي لإحكام قبضتها على الأقاليم الواسعة التي دخلت في فلكها. مثل هذه الكتابات التي سميت بمدرسة الاضمحلال ,Declinist School ، ولكن بعد أن أدى سقوط الاتحاد السوفيتي إلى انفراد الولايات المتحدة بالسيطرة على النظام العالمي منذ أواخر تسعينيات القرن الماضي وربما حتى العقد الأول من القرن الحادي والعشرين، وهي المرحلة التي وصفها بعضهم بمرحلة القطبية الأحادية، توقفت هذه الكتابات، ولكن صعود الصين السريع وتولي شي جين بينج قيادتها منذ ٢٠١٢، وتأكيده على استعادة القيم الاشتراكية وضرورة توحيد الصين بضم تايوان وممارسة سيادتها في بحر الصين الجنوبي، أنهى مثل هذا الاعتقاد ليحل محله التساؤل حول مصير النظام العالمي في ظل التنافس الشديد بين الولايات المتحدة والصين.

وبينما انشغل علماء الاقتصاد والسياسة في الولايات المتحدة بمدى استمرار نمو الاقتصاد الصيني ومدى نجاحه في مواجهة تحديات تباطؤ النمو السكاني في الصين وارتفاع نسبة المتقدمين في السن بين سكانها ومديونية شركاتها الكبرى وصعوبة حصولها على المواد الأولية ومصادر الطاقة اللازمة لاستمرار هذا النمو، اجتذبت هذه القضايا اهتمام راي داليو Ray Dalio وهو واحد من كبار خبراء الاستثمار في أسواق المال العالمية، الذي بذل جهدًا كبيرًا في قراءة تاريخ تلك الدول التي تعاقبت على قمة النظام العالمي خلال القرون الخمس الأخيرة، وطرح رؤيته في أسباب صعود تلك الدول وتراجعها معتمدًا على ما فهمه من هذه القراءات وزياراته لمعظم دول العالم وخصوصًا تلك القوى الكبرى وخبرته الشخصية، وسجلها في هذا الكتاب الذي جعل هدفه هو صياغة المبادئ أو القواعد التي ينبغي اتباعها في التعامل مع نظام عالمي متغير سواء لفهم هذا النظام أو للتفاعل العملي مع القضايا والمشكلات التي يثيرها.

[1]Ray Dalio, Principles for Dealing with The Changing World Order: Why Nations Succeed or Fail, Simon Schuster, 2021, 576 pages.

[2] أستاذ العلوم السياسية -كلية الاقتصاد والعلوم السياسية - جامعة القاهرة.

مراجعة كتاب "مبادئ للتعامل مع النظام العالمي المتغير: لماذا تنجح الدول أو تفشل"

إن التأكيد على هذه الخلفية المهنية والشخصية ضروري لوضع هذا الكتاب في موضعه الصحيح، فهو ليس دراسة أكاديمية يمكن الحكم عليها بالمعايير العلمية المستقرة، فليس هناك استعراض للكتابات السابقة حول هذا الموضوع ولا مناقشة لما خرجت به من استنتاجات، ولا التزام بذكر المراجع التي استند إليها في الخروج برؤيته هذه، ولا تبرير لاهتمامه بإدراج مفاهيم يصعب قياس آثارها مثل الجنس أو الثقافة أو القيادة، ومع ذلك لا شك في صحة البيانات التي اعتمد عليها، وسلامة الاستنتاجات العامة التي خرج بها. كما أن هذه الخلفية المهنية تفسر شغفه الشديد بإعلاء قواعد الانضباط المالي وأثر المديونية وامتلاك أسواق رأسمال نشط وحيازة عملة احتياط عالمية رئيسية كبعض محددات قوة الدولة أو ضعفها. ولم يخرج الكتاب من دار نشر جامعية، ولكن لا شك في شهرة دار النشر المرموقة التي طبعته Simon& Schuster ذات الانتشار العالمي التي تتواجد مكاتبها الرئيسية في كل من نيويورك ولندن، والمؤلف حرص على انتهاج كافة السبل للتعريف بكتابه، ومن بين أساليبه مناقشة الكتاب على قناة تلفزيونية أمريكية، وإتاحة المناقشة على قناة You Tubeوبحضور توماس فريدمان محرر الشئون الخارجية ذائع الصيت في صحيفة نيو يورك تايمز.

الكتاب

يقسم المؤلف الكتاب إلى ثلاثة أجزاء، الجزء الأول هو بمثابة الإطار النظري، أو هو مبادئ التعامل مع النظام العالمي، والجزء الثاني هو دراسة تاريخية لصعود وهبوط قوتين عظميين في زمنهما وهما هولندا التي استتبت لها السيطرة على بحار العالم طوال القرنين السابع عشر والثامن عشر، ثم بريطانيا التي أعقبتها كقوة مسيطرة على بحار العالم طوال القرن الثامن عشر حتى منتصف القرن العشرين، والقوة الثالثة التي درسها في هذا الفصل هي الولايات المتحدة التي خلفت بريطانيا في احتلال قمة النظام العالمي بعد نهاية الحرب العالمية الثانية وبدأت مكانتها في الأفول، وأخير الصين وهي قوة صاعدة تجد طريقها سريعًا على قمة هذا النظام متنافسة مع الولايات المتحدة الأمريكية، وقد خرجت مع تولي الحزب الشيوعي السلطة في عاصمتها بيجين في ١٩٤٩ ثم بدأ صعودها يتسارع منذ أواخر سبعينيات القرن الماضي، والجزء الثالث يلخص رؤيته لمستقبل الصراع بين الولايات المتحدة والصين، الذي سيحدد في رأيه مستقبل النظام العالمي.

دورات صعود الدول ووصولها إلى قمة النظام العالمي ثم تراجعها عن القمة

ما هو السر في صعود هذه القوى ثم أفولها؟ يرى الكاتب أن قوة أي منها ومكانتها بالتالي في النظام العالمي ليستا ثابتتين وإنما تمران بدائرة، تأخذهما من مراحل النشأة إلى مرحلة نضوج ثم يعقبها تراجع، يفتح الباب أمام صعود قوة أخرى لتحل محلها. النقطة الزمنية التي ترجع لها لا تشابه النقطة التي بدأت منها، فالتاريخ لا يتكرر تمامًا في حالة نفس الدولة، فأوضاعها قد لا تتشابه بالكامل مع نقطة البداية الأولى، ولكن الفارق أنها عندما تصل إلى هذه المرحلة الأخيرة في مسيرتها في النظام العالمي تكون هناك قوة أخرى أكثر تفوقًا تنتزع منها هذه المكانة. وهذا واضح في الحالات الثلاث الإمبراطورية التي درسها بالتفصيل في الجزء الثاني من دراسته. فهولندا في منتصف القرن الثامن عشر عندما بدأ صعود بريطانيا وتحديدًا في العقد الثاني من القرن التاسع عشر بعد هزيمة جيوش

نابليون، وتوقيع الدول الأوروبية لمعاهدة فيينا التي توجت صعود بريطانيا على قمة النظام الأوروبي، والمسمى بالدولي في ذلك الوقت، لم تكن أوضاعها لا من حيث الرخاء الاقتصادي ولا امتلاك المستعمرات في آسيا وجنوب أفريقيا وشمال أمريكا الجنوبية تشبه تمامًا أوضاعها عند بداية صعودها في القرن السابع عشر. كما ينطبق ذلك على بريطانيا في لحظة هبوطها عن قمة النظام الدولي بعد الحرب العالمية الثانية .طبعًا أنهكتها الحرب العالمية الثانية، ولكن مستوى التعليم بين مواطنيها وقدراتها الصناعية ومستوى دخلهم كل ذلك كان أرقى بكل تأكيد مما كانت عليه أوضاعها في منتصف القرن الثامن عشر عندما بدأ صعودها مع الثورة الصناعية التي درسها، حتى إن كانت بحاجة للمعونة الأمريكية لإعادة بناء اقتصادها الذي دمرته الحرب العالمية الثانية، وهجمات الطيران الألماني عليها، ولكن ذلك لم يستغرق سوى بضع سنوات حتى استعادت مكانتها كقوة كبيرة، وليس قوة عظمى.

وعلى أي الأحوال، هذه المسيرة الدائرية للقوة العظمى هي حصيلة ثلاث دورات أخرى، تتعلق أولاها بأوضاعها المالية، وثانيتها بأوضاعها الداخلية، وثالثتها هي تعاملها مع دائرة خارجية فيها دول العالم الأخرى. وقد أسمى الدورة الأولى دورة النقود والائتمان والمديونية ورأس المال، ومع أن الكاتب يميز بين الاقتصاد النقدي والاقتصاد الحقيقي أو العيني، ويرى أن الثاني هو الأهم، ولكن الاقتصاد النقدي في رأيه هو الذي يسمح للاقتصاد الحقيقي بأن ينمو ويتقدم بأن يوفر له الأوضاع التي تؤدي إلى رفع الإنتاجية، ومع ذلك فإن تحليله يركز على البعد المالي أكثر من تركيزه على بعد الاقتصاد العيني. كما يميز بين أزمات المديونية قصيرة الأجل وأزماتها طويلة الأجل ويعتبر أن الثانية هي الأكثر تأثيرًا.

وتمر هذه الدورة بست مراحل، في المرحلة الأولى يكون حجم الدين محدودًا أو لا يوجد دين على الإطلاق، ولا يكون من السهل الحصول على النقود، ولا توجد نقود ورقية في هذه المرحلة، وفي المرحلة الثانية يزداد الطلب على النقود العينية مثل الذهب أو الفضة أو أية معادن أخرى ويتعامل الناس مع المستندات الورقية للحقوق كما لو كانت نقودًا، وفي المرحلة الثالثة يتزايد الدين، ويكون الطلب على النقود العينية مساويًا لحجم هذه النقود في البنك. ثم يكتشف حائزو المطالب الورقية مزايا الدين والائتمان. ولكن تبدأ المشكلات عندما لا يكون لدى الشخص دخل ليغطي دينه أو عندما تكون المطالبات بالنقود لتغطية الطلب على السلع والخدمات أكبر بكثير من عرض هذه السلع والخدمات، وهو ما يمهد للمرحلة الرابعة التي تشهد أزمة المديونية والإفلاس وتخفيض قيمة العملة، مما يؤدي إلى طبع النقود وقطع الصلة ما بين المصدر من النقود وقاعدتها من النقود العينية. وفي هذه الحالة إما أن تفلس البنوك أو تطلب مساعدة الحكومة، وتلجأ البنوك المركزية لتخفيض قيمة المطالبات. وفي المرحلة الخامسة تصبح النقود الورقية هي الأساس، وهو ما يؤدي إلى تراجع القيمة الجوهرية للنقود، فهي لا تحتوي على قيمة في حد ذاتها فهي مجرد ورق طبعه البنك المركزي، وخصوصًا عندما لا تكون هناك قيود على طباعة البنك المركزي لهذه النقود، ولذلك فإنه في المرحلة السادسة يفقد الناس ثقتهم في النقود الورقية ويتسابقون للعودة إلى النقود العينية مثل الذهب والفضة، وعندما يتسع نطاق هذا التسابق، وتستمر المغالاة في طبع النقود الورقية، يبدأ الناس في بيع أصول ديونهم ويهرعون إلى البنك لسحب ودائعهم النقدية، وهو ما يدفع الناس لتجنب كل من العملة الورقية والمديونية، وعندما

تتزايد حالات الإفلاس ويستمر الانخفاض في قيمة النقود ينهار النظام المصرفي، وتضطر الحكومة للعودة إلى نوع من العملات العينية لاستعادة قيمة النقود كمستودع للثروة.

أما الدورة الثانية فهي تتعلق بالنظام السياسي الداخلي ويسميها المؤلف بدورة النظام والاضطراب الداخليتين. وفي هذه الدورة يتصارع الأفراد والجماعات مع بعضهم للحصول على القوة (السلطة) أو الثروة أو انتصارًا لأحدى الإيديولوجيات أو لدين معين. ويستعين الكاتب بفكرة المراحل مرة أخرى، وهو على هذا النحو يذكر بمراحل العصبية لدى ابن خلدون. تبدأ المرحلة الأولى عندما تظهر قيادة جديدة تسعي لتوطيد سلطتها، وتضع الضوابط على سلوك المواطنين حتى لا تنجم الفوضى، وفي المرحلة الثانية يظهر نظام تخصيص الموارد وبناء الهياكل البيروقراطية، ويسود السلام والرخاء في المرحلة الثالثة، وتتسم المرحلة الرابعة بالإنفاق المفرط وزيادة المديونية واتساع فوارق الثروة والقوة داخل المجتمع، ويعلق المؤلف الخروج بسلام من هذه المرحلة على وجود قائد حكيم متزن يفهم الأوضاع جيدًا ويتبع مسلكًا يؤدي إلى ارتفاع الإنتاجية وتحسين الأوضاع المالية، وفي غياب مثل هذه القيادة تنزلق البلاد إلى المرحلة الخامسة التي تشهد انهيار الأوضاع المالية واحتدام الصراع، وينتهي ذلك بالوصول إلى المرحلة السادسة التي تندلع فيها الحرب الأهلية أو تحدث ثورة إذا ما انتهت بانتصار قائد معين تعود البلاد إلى المرحلة الأولى.

وفي رأي المؤلف أن الخليط السام الذي ينتهي بالبلاد إلى هذا الانهيار هو أن تسوء الأحوال المالية للدولة وللمواطنين، وأن تتسع الفوارق في القيم الأخلاقية والدخول والثروات داخل المجتمع، فضلًا عن صدمات اقتصادية سلبية وانتشار الصراع داخل النخبة. ويستفيض المؤلف في شرح سمات هذه المرحلة من التحلل في المجتمع وظهور الزعامات الشعبوية والمتطرفة واشتداد حدة الصراع الطبقي.

تتناول الدورة الثالثة الأوضاع الخارجية للدولة وعلاقاتها بالدول الأخرى، وبينما يكون أطراف التفاعلات في النظام الداخلي هم أطراف محلية في الأساس يفترض أن تلتزم بالقانون الذي تجبرهم الدولة على العودة له إذا ما انتهكوه، فلا توجد مثل هذه السلطة الملزمة في الصعيد الخارجي، وإذا كانت هناك ثمة قواعد تحكمه فهي قواعد تستند إلى رضاء هذه الدول، ولا توجد سلطة يمكنها دفعها إلى الالتزام بها. ويحدث الصراع بين الدول في خمسة مجالات قد تؤدي إلى حروب هي: حروب تجارية واقتصادية حروب تكنولوجية، حروب جيوبوليتيكية، وحروب حول امتلاك رؤوس الأموال، وحروب عسكرية، وقد أضاف المؤلف حروبًا ثقافية في الجزء الثالث من الكتاب.

واهتم المؤلف بذكر القوى التي يمكن أن تحدث التغيير في النظام الخارجي، وهي في رأيه قوة الدولة الداخلية أو استقرارها وقوتها العسكرية، وتعادل القوة الذي يمكن أن يؤدي إلى نتائج مرضية للجميع عندما يميل هؤلاء الأطراف للتفاوض أو إلى نتائج مدمرة للجميع عندما يعزفون عن التفاوض ويلجئون للصراع. ويختم المؤلف هذا الفصل بتحليل الأوضاع التي سبقت الحرب العالمية الثانية على ضوء هذه الدورات الثلاث في كل من الولايات المتحدة وبريطانيا من ناحية وألمانيا واليابان من ناحية أخرى. وهي قوى متعادلة ولكنها تحت ضغط تنافسها الاقتصادي والعسكري فضلت في النهاية حسم خلافاتها من خلال الحرب، وليس من خلال التفاوض.

محددات الصعود والتراجع

ولكن ما الذي يؤدي إلى هذه التحولات، ويأخذ دولة من بدايات متواضعة إلى التقدم حتى التربع على قمة النظام العالمي ثم الانحدار منه بالتدريج.؟ لا يبخل علينا المؤلف بالإجابة بل لعله يسرف فيها، فبدلًا من هؤلاء الكتاب الذين يركزون على عامل واحد أو عاملين مثل امتلاك ناصية التقدم التكنولوجي مثل ماركس، أو القدرة على الابتكار من خلال نوعية خاصة من المنظمين كما يذهب إلى ذلك جوزيف شومبيتر، أو بانتشار ثقافة تحث على العمل والادخار وتأجيل التمتع بالثروة كما يعتقد ماكس فيبر. كما أنه لا يتواضع ويتحدث عن ظروف أو أحوال تؤدي إلى التقدم، ولكنه يستعير لغة السببية الحتمية التي عفا عليها الزمن في العلوم الاجتماعية ويعرض على قرائه أكثر من سبعة عشر محددًا من" المحددات determinants" التي تشمل كل ما يمكن إن يرد على عقل الإنسان في هذا السياق، ويصنف هذه المحددات إلى محددات أساسية وأخرى إضافية، وبعضها كامن inherent في دولة معينة وبعضها مكتسب.

وتشمل المحددات الأساسية الثماني ما يلي:

1. التعليم
2. الابتكار
3. الإنتاج الاقتصادي
4. نفقة القدرة التنافسية
5. حصة مهمة من التجارة العالمية
6. امتلاك عملة احتياطي دولية
7. قوة المركز المالي أو سوق المال
8. القوة العسكرية

بكل تأكيد كان يمكن الاكتفاء بالمحددات الثلاث الأولى باعتبار أن قوة رأس المال البشري نتيجة ارتفاع مستوى التعليم والقدرة على الابتكار يؤديان إلى تحسن القدرة التنافسية، وزيادة الناتج الاقتصادي، وهو ما يسمح للدولة بالحصول على حصة معقولة من التجارة الدولية وامتلاك سوق مال نشط، ولا شك أنه بهذه المؤهلات يزداد الإقبال على عملة الدولة حتى تصبح عملة احتياطي دولية، كما أنه في هذه الظروف تستطيع الدولة بناء قوتها العسكرية، ولكن المؤلف يضيف إلى هذه " المحددات" أخرى، منها:

1. التركيبة الجيولوجية التي تمكن الدولة من الحصول على المعادن ومصادر الطاقة الأساسية
2. كفاءة تخصيص الموارد
3. أفعال الطبيعة والتي قد تكون إيجابية كمناخ معتدل، أو كارثية مثل الفيضانات والزلازل
4. بنية أساسية واستثمارات
5. السمات الشخصية المناسبة والتعامل المتحضر
6. أسلوب الحكم وسيادة القانون

7. العدالة في توزيع الثروة والمكانة والفرص.

وهذه المحددات قد يكون أثرها سلبيًّا أو إيجابيًّا، وهي تتفاعل مع بعضها على نحو يؤدي إلى تقوية مكانة الدولة ووضعها المتغير في كل من الدورات الثلاث أو إضعافه.

ثم يشرح المؤلف بعد ذلك الديناميكيات التي تؤدي إلى التغير في الدورات الثلاث، ويذكر أكثر من أربع عشرة ديناميكية من هذه الديناميكيات، وهي:

1. المصلحة الذاتية
2. الرغبة في الحصول على الثروة والقوة
3. التعلم من التاريخ
4. الدورة النفسية متعاقبة الأجيال
5. الإطار الزمني لصنع القرار
6. القيادة
7. الانفتاح على ما يجري في العالم للتعلم منه
8. الثقافة
9. العلاقات الطبقية
10. كيفية التفاعل مع الآخرين بمنطق ما يحقق الكسب للجميع أو ما يحقق لهم جميعًا الخسارة win–win or lose–lose relationships
11. درجة الاستقطاب في القضايا السياسية بين اليسار واليمين
12. الميل إلى التعاون في المواقف التي تفرض اختيارات صعبة، وما يشبه معضلة السجناء Prisoners dilemma
13. توازن القوى على الصعيد الدولي
14. دورة السلام والحرب التي يمكن أن يكون أثرها إيجابيًّا أو سلبيًّا

ثم يبسط المؤلف استعراضه لهذه الديناميكيات والمحددات بتقسيمها إلى محددات كامنة لا يد للبشر فيها وهي:

- الموقع الجغرافي
- التركيبة الجيولوجية
- أفعال الطبيعة
- التركيب الجنسي أو العنصري للسكان، Genealogy

أما السمات المكتسبة فترتبط بما يمكن تسميته رأس المال البشري، ويقصد بذلك قدرة البشر على صنع الثروة من خلال إنتاجهم دخلًا يفوق ما ينفقونه بحيث يتحقق لهم الاكتفاء الذاتي، وأهم محددات رأس المال البشري من وجهة نظره هي:

- المصلحة الذاتية
- الرغبة في كسب الثروة والقوة والاحتفاظ بهما
- أسواق رؤوس الأموال
- القدرة على التعلم من التاريخ
- الدورة النفسية الكبيرة للأجيال المتعاقبة
- مدى تفضيل التمتع بالمزايا قصيرة الأجل على الرفاهية في الأجل الطويل
- قدرة البشر على تطوير قدراتهم
- ثم يضيف أن بعض هذه المحددات يرتبط بالثقافة، وهي:
- الثقافة، ويعيد ذكرها كمحدد فرعي إضافي، وربما يقصد أن الثقافة مجموعة من المعتقدات والقيم والاتجاهات التي تتطور انطلاقًا من أطر ثقافية سابقة
- الانفتاح على الفكر العالمي
- القيادة

وأخيرًا تتشكل بعض هذه المحددات بكيفية تعامل الأفراد والجماعات مع بعضهم، وخصوصًا في مواقف تتميز بإمكانية توليدها للتوتر والصراع بين البشر، وهي:

- فجوات الثروة
- فجوات القيم الأخلاقية أو التعارض الشديد بين بعض القيم التي يعتز بها قسم في المجتمع بينما يرفضها قسم آخر.
- الصراع الطبقي
- الانقسام بين اليسار واليمين
- حل معضلة التعاون في مواقف الاختيارات الصعبة حتى يستتب السلام – معضلة السجناء
- دورة توازن القوى التي تدفع باتجاه دورة السلام والحرب داخل الدول أو في العلاقات بينها

كل هذه المحددات تتفاعل فيما بينها لكي تشكل وضع الدولة في الدورات الثلاث، الداخلتين منها، وهما دورة النقود والمديونية ودورة النظام أو الاضطراب الداخلي والخارجي، وهي دورة السلام أو الحرب.

ثم يفصل المؤلف ما يقصده ببعض هذه المتغيرات، ويهمنا في هذا التفصيل مفهومه لكل من المصلحة الذاتية والدورة النفسية الكبرى للأجيال المتعاقبة والصراع الطبقي. المصلحة الذاتية ليست فقط المصلحة الفردية ولكنها تشمل مصلحة الجماعة التي ينتمي لها أفرد بدءًا من العائلة والقبيلة والوطن والإمبراطورية التي يسيطر عليها هذا الوطن، مرورًا بالإنسانية وكل الكائنات الحية وانتهاء بالكون. أما الدورة النفسية متعاقبة الأجيال فيقسمها بدورها إلى خمس مراحل، وهي:

المرحلة الأولى عندما يكون الوطن وسكانه فقراء، وينظرون لأنفسهم على أنهم فقراء. والمرحلة الثانية عندما يكون الوطن والمواطنين يتمتعون ببعض الثراء ولكنهم ينظرون إلى أنفسهم ووطنهم على أنهم مازالوا فقراء.

والمرحلة الثالثة عندما يكون الوطن ثريًا ومواطنوه كذلك، وينظرون إلى أنفسهم على أنهم أثرياء، والمرحلة الرابعة عندما يصبح الوطن ومواطنوه أكثر فقرًا ولكنهم ينظرون إلى أنفسهم على أنهم أثرياء، والمرحلة الخامسة عندما يكون الوطن والمواطنين فقراء، وينظرون إلى أنفسهم على أنهم فقراء.

ويرى المؤلف أن المرحلة الثانية هي التي تدعو المواطنين لبذل الجهد حتى يصبح وطنهم أكثر ثراء، فهو يتمتع ببعض الموارد، ولكن المواطنين يرون أن ذلك لا يكفي، ولذلك لا يضنون بالجهد حتى يصبح وطنهم أكثر ثراء. وعلى العكس من ذلك في المرحلة الرابعة تزداد أحوال الوطن سوءًا، ومع ذلك يتصور المواطنون أنهم أثرياء، ولذلك تقل حوافزهم للعمل، ويرفضون الادخار، وينهمكون في أنماط استهلاكية تتسم بالبذخ، وهو ما يؤدي إلى سقوط وطنهم معهم في هوة الفقر.

ويلاحظ أن تعريف المؤلف للطبقة لا يقتصر على بعدها الاقتصادي أو وظيفتها في علاقات الإنتاج، فالانتماء الطبقي في رأيه يتوقف على رؤية الفرد للجماعة التي ينتمي إليها، فقد يكون الدين أو العرق أو الأيديولوجيا أو حتى النوع ذكرا أو أنثي أو نمط الحياة هو معايير تحديد الطبقة من وجهة نظر الفرد.

ملاحظات ختامية

لا شك أن هذا الإطار التحليلي الذي يستخدمه المؤلف هو إطار مربك لكثرة المتغيرات التي يستخدمها، ودائرية العلاقات فيما بينها، صحيح أن كون بعض المتغيرات هي مستقلة وتابعة لمتغيرات أخرى في نفس الوقت هو مقبول علميًا، ولكن مما يزيد من صعوبة فهم هذا الإطار هو تعدد التعريفات لنفس المفهوم، كما هو واضح في مفهومي المصلحة الذاتية والطبقة. فالانتصار لمصلحة الإنسانية أو كل الكائنات الحية قد يتعارض مع المصلحة الفردية أو الجماعية على الأقل في الأجل القصير. الذين انتصروا للمفهوم الإنساني الواسع للمصلحة وعارضوا الاستعمار كانوا يلقون المعارضة من مواطنيهم ممن كانوا يرون أن المصلحة الوطنية هي في استمرار السيطرة الاستعمارية، وأنصار البيئة في الوقت الحاضر يلقون المعارضة في مجتمعهم ممن يرون أن مصلحة بلادهم الاقتصادية هي في الإفراط في استخدام الموارد أو عدم وضع قيود على الأنشطة الصناعية بدعوى أنها تحقق المصلحة الاقتصادية للمواطنين بل وللوطن. كذلك يوسع المؤلف من مفهوم الطبقة ليشمل الجماعة الدينية أو الرابطة الإيديولوجية أو حتى من يشتركون في نمط حياة واحد. بل إن بعض هذه الجماعات التي يضعها المؤلف في إطار الطبقة يرفض المتحدثون باسمها أن يوصفوا بأنهم أو أنهن طبقة كما هو الحال بالنسبة للانقسام النوعي بين الذكور والإناث، والذي أصبحت الكاتبات النسويات يعتبرنه انقسامًا متعدد الأبعاد، ما بين طبقي وعرقي وجغرافي ... إلخ.

وهناك مفاهيم أخرى يصعب التحقق منها تاريخيًا، مثل: مفهوم الدورة النفسية متعاقبة الأجيال. ما الدلائل على رؤية المواطنين الهولنديين أو البريطانيين لدولتهم في مراحل تطورها الاقتصادي، وكيف كان وزن مراحل هذه الدورة النفسية على سلوك المواطنين وتطور وطنهم. كذلك ليس من الواضح كيف تؤثر التركيبة العرقية للمواطنين على

أحوالهم الاقتصادية والسياسية. ألا يتوقف ذلك على طبيعة سياسات التعامل مع هذه التركيبة، والتي قد تؤدي إلى التوتر في حالات وقد تؤدي إلى التعاون المثمر في حالات أخرى.

ومن ناحية أخرى فالعلاقة ليست واضحة تمامًا بين هذه الدورات الكلية الثلاث، باستثناء الافتراض البديهي أن سلامة اقتصاد الدولة وحجمه واستقرارها الداخلي وامتلاكها القوتين الاقتصادية والعسكرية تحدد مكانتها في النظام الدولي، ولكن هل المرور بكل مراحل كل دورة هو أمر حتمي. تدهورت مكانة بريطانيا على سبيل المثال في النظام الدولي بعد الحرب العالمية الثانية، ولم تمر بأي من المرحلتين الخامسة والسادسة أي حرب أهلية أو ثورة يعقبها انهيارها وعودتها إلى المرحلة الأولى، وهل كان الإفلاس والإسراف في الإنفاق هو السبب في تراجع مكانة هولندا في القرن التاسع عشر وحلول بريطانيا محلها على قمة ما يعتبره المؤلف نظامًا عالميًّا.

إن المشكلة الرئيسية في هذا الكتاب ليست عدم انضباطه منهجيًّا، ولا عدم مقارنة أفكار مؤلفه بما كتبه آخرون حول الموضوع نفسه، ولكن هي عدم اتساقه مع عنوانه. فهو لا يطرح مبادئ للتعامل مع النظام العالمي أيًّا كانت تعريفات هذا النظام. فهو لا يتحدث عن نظام دولي أو عالمي، وقد درج المتخصصون في العلاقات الدولية على النظر إلى النظام الدولي على أنه انتقل من نظام توازن القوى في القرن التاسع عشر حتى نهاية الحرب العالمية الثانية إلى نظام القطبية الثنائية بعد نهاية هذه الحرب حتى بداية تسعينيات القرن العشرين، ثم بقاء القطبية الأحادية عقدًا من الزمن بعد ذلك، ثم التحول نحو التعددية القطبية في الوقت الحاضر. كما أن الكتاب لا يتناول النظام العالمي الذي هو أوسع من النظام الدولي لأنه يضم كيانات غير الدول، مثل: الشركات دولية النشاط، والمنظمات الدولية، والمجتمع المدني العالمي، والفاعلين من غير الدول مثل العصابات الدولية والحركات المسلحة، وقد تناول أتباع مدرسة النظام العالمي الحديث هذا المنظور وقسموا العالم إلى مراكز وأطراف وكيانات شبه طرفية على نحو ما ذهب إلى ذلك إيمانويل ولشتين.

وليس هذا منظور المؤلف بل هو أقرب إلى كتاب مدرسة الاضمحلال التي سبقت الإشارة إليها، والذين يركزون على صعود وتراجع مكانة الأمم الكبرى في النظام الدولي. وهو تحديدًا ما يفعله المؤلف الذي يجد وحدات تحليله في الدول التي تصدرت توزيع القوة الاقتصادية والعسكرية في العالم، بل يمكن القول إنه حتى لو كان المؤلف يقصد نظامًا دوليًّا بعينه فإن ما يعنيه هو النظام الغربي، فلم يلق بالًا لوجود دول غير غربية كانت فاعلة على الأقل في الفترة التي أعقبت الحرب العالمية الثانية، ولم تظهر هذه الدول غير الغربية إلا عندما تحدت السيطرة الغربية سواء في حالة اليابان قبيل الحرب العالمية الثانية وفي أثنائها، ثم الصين منذ العقد السابع من القرن العشرين.

ومع ذلك فهو كتاب جدير بالقراءة. فمن المثير أن نعرف كيف يرى أقطاب مجتمع الأعمال في الولايات المتحدة تطور الأوضاع الدولية، وحالة المنافسة الجارية على قمة النظام العالمي بين الولايات المتحدة والصين، ورؤية المؤلف لهذا التنافس رؤية موضوعية، فعلى الرغم من أنه يرى وبناء على دراسته الكمية في بعض فصولها

أن الولايات المتحدة ما زالت تتفوق على الصين من حيث نصيبها في التجارة العالمية، وسبقها في التكنولوجيات القائدة وفي ميزان القوة العسكرية، وفي بقاء عملتها كعملة احتياطي على مستوى العالم وفي جاذبية ثقافتها، إلا أنه يرى أن الفوارق بينهما تقل، وأنه في بعض الأقاليم مثل جنوب بحر الصين وشرق آسيا تمتلك الصين بحكم موقعها الجغرافي ميزة عسكرية أفضل في أي نزاع جيو استراتيجي، ولذلك يتصور أنه بسبب الاعتماد المتبادل بين الاقتصادين وتداخلهما الشديد، فإن المنافسة بينهما لن تؤدي إلى حرب، إلا إذا اندلعت هذه الحرب عن طريق الخطأ أو تقديرات غير عليمة.

الاقتصاد السياسي للبنوك المركزية في الاقتصادات الناشئة[1]

مراجعة أ.د. محمود أبو العيون[2]

مقدمة

يهدف محرر هذا الكتاب إلى إلقاء الضوء على وضعية الدور الذي تقوم به البنوك المركزية في الاقتصادات الناشئة لإبراز كيفية عملها، ومحددات اتخاذ قراراتها في ظل الأوضاع السياسية والاجتماعية المحيطة بتلك القرارات، ولمقارنة مدى استقلاليتها بين النصوص القانونية وواقع الممارسات العملية، وذلك في سياق جمع ما بين العوامل والمحددات الاقتصادية والسياسية والإدارية والاجتماعية للوقوف على التأثيرات المتبادلة لتلك العوامل على قرارات وتوجهات البنوك المركزية في عدد من الاقتصادات الناشئة وتلك المتحولة أيديولوجيًا.

وقد شارك في تحرير هذا الكتاب 17 مؤلفًا من الأكاديميين والمتخصصين في البنوك والسياسات النقدية. ويتضمن الكتاب خمسة أجزاء شملت 12 بحثًا، بالإضافة إلى فصل تمهيدي وخاتمة شملت النتائج المستخلصة بقلم المحرر.

وتسلط محتويات هذا الكتاب الضوء على عدة موضوعات ترتبط بالدور الذي قامت به البنوك المركزية في أعقاب الأزمة المالية العالمية 2008 في عدد كبير من الاقتصادات الواقعة في آسيا، وأفريقيا، وأمريكا اللاتينية، بالإضافة إلى أوروبا. وهو الدور الذي استلزم تدخل تلك البنوك لتصويب المسار الاقتصادي لبعض تلك الاقتصادات كرد فعل لما نتج عن تلك الأزمة المالية من آثار.

ففي أعقاب تلك الأزمة نفذت البنوك المركزية في الاقتصادات الصناعية المتقدمة تدابير غير تقليدية للسياسة النقدية مثل خفض أسعار الفائدة إلى أدنى المستويات، والانخراط في عمليات التيسير الكمي. وأصبح تحقيق الاستقرار المالي عمليًا هدفًا حاسمًا للبنوك المركزية، بالإضافة إلى التزامهم بتحقيق هدف استقرار الأسعار. وعلى الرغم من ذلك لا يوجد إجماع على اعتماد الاستقرار المالي كهدف، ولا يوجد ما يؤكد وجود هدف لخلق فرص للعمل أو لتحقيق النمو الاقتصادي ضمن سياسات البنوك المركزية.

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[1] Mustafa Yagc (editor), The Political Economy of Central Banking in Emerging Economies, Routledge, Taylor & Francis Group, Lndon & New York,2022, 352 pages.

[2] أستاذ الاقتصاد المتفرغ بكلية التجارة جامعة الزقازيق، جمهورية مصر العربية، ومحافظ البنك المركزي المصري الأسبق.

لقد أثارت أنشطة البنوك المركزية في هذا السياق نقاشات حول استقلال البنك المركزي والأثر الاجتماعي والاقتصادي للسياسة النقدية. ويشير المحرر إلى إن هيمنة السياسة النقدية في صنع السياسات الاقتصادية والاعتماد المفرط على ممارسات البنوك المركزية قد أديا لبزوغ موجة من الجدل حول تسييس البنوك المركزية في الاقتصادات المتقدمة.

ولأن البنوك المركزية تقع في قلب صناعة السياسات الاقتصادية، ولأن قراراتها تؤثر بشكل واضح على مستوى الرفاهة الاقتصادية والاجتماعية للمواطنين، ضم المحرر في مؤلفه مجموعة من الدراسات حول العلاقات التشابكية ما بين السياسة والاقتصاد والبنوك المركزية، والكيفية التي يؤثر بها الاقتصاد السياسي العالمي والمحلي على ممارسات تلك البنوك، بما فتح الباب لتحليل درجة استقلالية البنوك المركزية في ظل تلك التشابكات والعوامل التي يمكن أن تؤثر في قراراتها.

ففي الفصل التمهيدي (ص 1–20) تناول المحرر تاريخًا موجزًا لنشأة البنوك المركزية باستعراض بداياتها والأسباب السياسية والاقتصادية التي أدت إلى ظهورها في أوروبا أولًا، ثم انتشارها خلال القرن العشرين بتأثير من قرارات عصبة الأمم وبتأثير الكساد العظيم في تلك الحقبة. ثم استعرض ظهور مدرسة "النقوديون" وتوجه السياسات النقدية لمحاربة حالات التضخم كظاهرة نقدية ومسئولية البنوك المركزية تجاهها. ويقول المحرر إن تبني فكر هذه المدرسة قد فتح الطريق أمام تبني فكر استقلالية البنوك المركزية حول العالم لضمان فعالية السياسة النقدية التي تمارسها، نظرًا لأن تلك الاستقلالية تعني حرية البنوك المركزية في اختيار أدواتها لتحقيق أهدافها.

"إن صعود النموذج النقدي والدور الحاسم الذي تلعبه البنوك المركزية في إدارة السياسة النقدية مهد الطريق لاعتماد استقلالية البنوك المركزية في جميع أنحاء العالم .ونتيجة لذلك، أصبح استقلال البنوك المركزية معيارًا عالميًّا في إدارة السياسة النقدية منذ أواخر الثمانينيات وأوائل التسعينيات" (ص 3).

وقام المحرر عقب ذلك بتحليل موجز لتأثير تقلبات أسعار الصرف وحرية تحركات رؤوس الأموال على التقلبات التي واجهت النظام المالي العالمي، وما أدى إليه ذلك من فرض سيطرة أكبر للبنوك المركزية على ذلك النظام من خلال السياسات النقدية "غير التقليدية" التي طبقتها تلك البنوك خلال الأزمة المالية العالمية وفي أعقابها. وبعد قيام البنوك المركزية في الولايات المتحدة وأوروبا بتطبيق تلك السياسات بدأ الجدل حول مدى استقلالية البنوك المركزية والتأثيرات الاجتماعية والاقتصادية للسياسات النقدية التي تطبقها، وبالذات في الدول الصناعية المتقدمة، في الوقت نفسه الذي ندرت فيه الدراسات الخاصة بالبنوك المركزية في الاقتصادات الناشئة.

وعرج المحرر عقب ذلك، وبشكل موجز، للدراسات السابقة التي تناولت الاقتصاد السياسي للبنوك المركزية في الاقتصادات الناشئة، بأسلوب البحث المرجعي، ثم عرض أيضًا لموضوع استقلالية البنوك المركزية. وفي هذا الموضوع استخلص المحرر أن هناك محاولات لقياس درجة استقلال البنوك المركزية وتقديم منظور مقارن لدرجات استقلالها، وإن كانت تلك المحاولات ذات أنماط متباينة. كما شرح الفرق الحاسم بين استقلال البنك المركزي بحكم القانون (الدولة القانونية) واستقلال البنك المركزي بحكم الواقع (الدولة الفعلية)، مشيرًا إلى أن استقلال البنك المركزي يتطلب أن يتم تحديد أهداف السياسة النقدية بالتشاور مع السلطة السياسية حتى يكون البنك المركزي مسؤولاً عن نتائج قراراته، وليس عن مدخلاتها. وحدد أربع سمات رئيسية للبنك المركزي المستقل، هي ألا يستطيع البنك المركزي إقراض الحكومة، وأن تكون إدارته العليا معزولة عن الضغوط السياسية، وألا تستطيع السلطة السياسية أن تقرر أو تلغي قرارات البنك المركزي، وأن يكون لدى تلك البنوك هدفًا محددًا بوضوح للسياسة النقدية. وتعكس تلك السمات القانونية الأربع الاستقلال القانوني للبنوك المركزية.

واسترشد المحرر بدراسة مقارنة أعدتها Garriga, AC (2016) باستخدام 16 مؤشرًا لقياس درجة استقلالية البنوك المركزية بحكم القانون شملت 182 دولة خلال الفترة ما بين عامي 1970 و2012. وقد خلصت تلك الدراسة إلى أن 72% من إصلاحات البنوك المركزية قد أدت إلى زيادة استقلال البنوك المركزية خلال تلك الفترة، في حين أن نحو 15% من الإصلاحات قد قللت من درجات استقلالها.

وفي القسم الأول من الكتاب الذي ركز على المناقشات الدائرة حول "استقلال البنوك المركزية والتطور المؤسسي في الاقتصادات الوطنية"، ضم هذا القسم أربعة دراسات. وجاء أول هذه الأبحاث في الفصل الثاني، حيث درس Ioannis Glinavos بوضوح في بحث بعنوان "التحول المؤسسي: رد الفعل العنيف ضد البنوك المركزية" أن تأثير رد الفعل الشعبوي العنيف ضد استقلالية البنوك المركزية في الغرب كان له آثارٌ عميقة على الاقتصادات الناشئة. ورأى أنه بسبب هذا الهجوم، تفقد الاقتصادات الناشئة الزخم الحاسم لتحديث اقتصاداتها. وناقشت دراسة جلينافوس موقف إدارة الرئيس ترامب وكذلك قيادات حزب العمال البريطاني في خلق توجهات"شعبوية" ضد استقلالية البنوك المركزية في الدولتين. ولأن البنوك المركزية في الاقتصادات الناشئة تنظر للاقتصادات الصناعية بمنظور القيادة، فإن هذه القيادة لا تعني أن النماذج التي تطبقها دائمًا صحيحيه. فالهجمات الشعبوية في الغرب ضد استقلالية المؤسسات تحرم الاقتصادات الناشئة من القدرة على الإصلاح، ومما لا شك فيه أن انهيار الثقة في القيم الرأسمالية يضيف قوة للتقليديين وللسياسيين في الاقتصادات الناشئة، ويضعف قدرات الإصلاحيين.

أما ثاني تلك الدراسات فقد شملها الفصل الثالث، حيث ركز Christopher A. Hartwell على "البنوك المركزية والتطور المؤسسي في مرحلة التحول"، حيث تناولت دراسته الإصلاحات الاقتصادية والمالية في بلدان أوروبا الوسطى والشرقية في أثناء فترة التحول من الشيوعية إلى الرأسمالية، والخطوات التي أدت لانضمام بعضها لعضوية الاتحاد الأوروبي فيما بعد. وأكد هارتويل على أن نموذج البنك المركزي الوطني المستقل كشرط لانضمام الدول المتحولة للاتحاد الأوروبي لم يكن سوى محطة على الطريق، حيث أدى تحول أوروبا لاستخدام عملة موحدة في كل الدول الأعضاء (اليورو) إلى تسليم الأمر للبنك المركزي الأوروبي (ECB) الأكثر استقلالية. واستخلص أن إصلاح البنوك المركزية مؤسسيًّا في تلك البلدان كان له تأثير كبير على تطوير المؤسسات السياسية والاقتصادية، لكنه زرع– في وقت لاحق– بذور ردود الفعل العكسية المناهضة للسوق والتهديدات الشعبوية لسيادة القانون. وتساءل هارتويل في خاتمة دراسته عما إذا كان البنك المركزي المستقل هو أفضل مؤسسة للحوكمة النقدية؟

وفي الفصل الرابع، ركزت Ayca Zayim على اعتماد تركيا وجنوب أفريقيا على الاستثمار الأجنبي وأثر ذلك على السياسات النقدية، حيث التقت مصالح التمويل مع مصالح البنوك المركزية. وبين كيف استخدمت البنوك المركزية في الدولتين الاجتماعات الخاصة مع المستثمرين والحملات الترويجية للتأثير على قرارات المستثمرين الماليين الدوليين، وتشكيل توقعاتهم في السوق، في محاولة منهما لتشجيع الاستثمارات في اقتصاديهما، مما أثر كثيرًا على قرارات السياسة النقدية نظرًا لسعي المستثمرين للحصول على ضمانات لاستثماراتهم من ناحية، ولبناء توجهات السياسة النقدية الضامنة لاستثماراتهم في هذين السوقين من ناحية أخرى. أي إن السياسة النقدية لجنوب أفريقيا وتركيا يمكن أن تتشكل بفعل قوى خارجية نتيجة لذلك التنسيق. وقال الباحث إن مسئولية البنك المركزي واستقلاليته تتطلب عدم تسييس السياسة النقدية، حتى لا تصبح هذه السياسة غير مرئية أمام مختلف فئات المجتمع.

وفي الفصل الخامس تناول Max Nagel تأثير الإجماع السياسي التكنوقراطي على الاستقرار المؤسسي والتغيير وتأثيراتهما على الإدارة النقدية والمالية في كل من الأرجنتين وتشيلي. وحاول الباحث الإجابة على سؤال حول كيفية هيكلة الاقتصادات الناشئة لإدارتها المالية والنقدية لعزل نفسها عن الأزمات المالية وتعزيز النمو الاقتصادي فيها. وخلص إلى أنه بمقارنة الدولتين تبين أن الحوكمة المالية والنقدية الواقعية التي تستقر نتيجة لنهج تطبيق إجماع سياسي تكنوقراطي عملي حول أهداف وسلوك السياسات النقدية والمالية أمر بالغ الأهمية لدرء الأزمات، ولتحقيق الاستقرار المؤسسي عمليًّا. أما نظريًّا، فيعتبر هذا الاجماع شرطًا ضروريًّا لتثبيت الحوكمة المالية والنقدية.

أما القسم الثاني من الكتاب المعنون: "البنوك المركزية في التخوم الأوروبية" فقد ضم بحثًا وحيدًا. ففي الفصل السادس تناول بحث Tatjana Jovanic تأثير الحوكمة الاقتصادية الأوروبية ومفاوضات قبول العضوية على

البنوك المركزية في الدول المرشحة للانضمام للاتحاد الأوروبي على حالة دولة صربيا. وقد تناول البحث تأثير السياسات التي يطبقها نظام البنوك المركزية الأوروبية على درجة استقلالية البنك الوطني الصربي NBS كشرط حاسم لقدرته على تحقيق هدف الاستقرار السعري. وخلص إلى أن البنك الصربي قد نجح على مدار عدد من السنوات في الظفر باستقلالية فعلية وفق معايير محددة لقياس تلك الاستقلالية، وليس فقط الاستقلالية القانونية، في تجربة يقول الباحث عنها إنها تصلح كمثال للاقتصادات الصغيرة المفتوحة التي تعاني من حالات التضخم الجامح[3].

وقد ضم القسم الثالث من الكتاب دراستين للبنوك المركزية في أفريقيا شملت في الفصل السابع دراسة حالة البنك المركزي النيجيري (CBN) بعنوان "الاقتصاد السياسي للبنوك المركزية في نيجيريا: منظور الاعتماد على الموارد"[4]. وركز الباحثون .Nakapodia et al على العلاقة بين استقلال هذا البنك والمؤسسات السياسية بالدولة، واستخلصوا أن قدرة البنك المركزي النيجيري على مساندة التنمية الاقتصادية في اقتصاد نامي يتم تعظيمها عندما تكون السياسات المالية والنقدية محصنة ضد تدخلات طبقة السياسيين وهو الأمر الذي لم يتحقق في نيجيريا وفق رأيهم. واقترحوا إيجاد نظام للحوافز لمسئولي البنك المركزي عند نجاحهم في تحقيق أهدافًا محددة، كما اقترحوا أن يتم تعيين هؤلاء المسئولين عن غير طريق تطبيق قوانين الخدمة المدنية السارية في البلاد[5].

وفي الفصل الثامن من القسم الثالث تناول الباحثون .Rossouw et al حالة جنوب أفريقيا في بحث بعنوان " استقلال بنك الاحتياطي الجنوب أفريقي: هل ستكتمل دورته خلال 25 عاماً؟". وأبرز مؤلفو الدراسة المشكلات التي تعرض لها البنك والتحديات التي واجها خلال حقبة الثمانينيات من القرن الماضي، وأوضحوا أن الاستقلالية لم تكن موجودة في جنوب أفريقيا بسبب فكرة "الاستئذان" من الحكومة قبل اتخاذ القرارات. لكن يعود الفضل في استعادة الاستقلالية إلى السياسيين متخذي هذا القرار، فهل بعد 25 عامًا من تحقق الاستقلالية ما زال الاستمرار على هذا التوجه ممكنًا؟

[3] لم تنضم صربيا للاتحاد الأوروبي حتى تاريخ إعداد هذه المراجعة. ولعل الاستنتاج الذي انتهى إليه الباحث يحوي تعميمًا غير موفق، حيث لا توجد وصفة واحدة تصلح للجميع، كما أن معايير شروط الانضمام للاتحاد الأوروبي لا يمكن الحكم بأنها شروط مثلى على جميع الاقتصادات الناشئة أن تطبقها. وقد أوضح الواقع العملي عدم ضمان استمرارية بعض الدول التي انضمت بالفعل لعضوية الاتحاد الأوروبي في الالتزام ببعض تلك المعايير.

[4] لا ندري إن كان كتاب هذا البحث قد اختاروا تعبير "البنوك المركزية" عن قصد لإبراز تعدد اللاعبين المؤثرين في الإدارة النقدية أم إنه خطأ غير مقصود لأن ما تناولته الدراسة يدور حول دولة واحدة وبنك مركزي واحد.

[5] وفي رأينا أن الاقتراحين لن يمنعا التداخل بين أهل السياسة والبنوك المركزية، ويتضح من الدراسة أن التداخل بين الطرفين قائم ويحد من الاستقلالية التشغيلية للبنك المركزي النيجيري.

وللبنوك المركزية في أمريكا اللاتينية نصيب في القسم الرابع من هذا الكتاب، حيث تناول Guillaume Valletحالة الإكوادور في بحث بعنوان "التنوع بين الجنسين كأداة لجعل البنوك المركزية مؤسسات تقدمية: حالة البنك المركزي في الإكوادور. " في الفصل التاسع[6].

وجاءت حالة البرازيل في الفصل العاشر في بحث قدمه Shapiro and Taylor بعنوان "الاقتصاد السياسي للبنك المركزي البرازيلي الغامض، 1988–2018.". فقد أظهر البحث لغز البنك المركزي في البرازيل الذي أثبت عمله بشكل مستقل وصارم في وضع السياسة النقدية للبلاد رغم قوة الهيمنة السياسية والسوقية فيها. فالعلاقة بين البنك المركزي والحكومة والبنوك الكبيرة بالذات ظلت غامضة وبعيدة عن التدقيق العام، ومجلس النواب (الكونجرس) يقوم بمراقبة محدودة لعملية صنع السياسة النقدية، وتقوم البنوك الكبيرة بتمويل الحكومة دون مساءلة، بالإضافة لتركيزها على تقديم الائتمان قصير الأجل للشركات مستبعدة تمويلها بآجال طويلة تناسب احتياجاتها. وبوجه عام تركزت السلطات المالية في البرازيل في أيدي معدودة، وعلى الرغم من محاولات تعزيز استقلالية البنك المركزي البرازيلي– التي استغرقت نحو ستة عقود– إلا أن تلك المحاولات كانت هامشية. واستخلص الباحثان أنه من الحقيقي أن النظام المالي البرازيلي يعمل، ولكنهما تساءلا "بأي تكلفة اقتصادية وسياسية".

وخصص القسم الخامس والأخير لدراسة بعض البنوك المركزية الآسيوية. ففي حالة روسيا قدم كل من Nenovsky and Sahling بحثًا بعنوان "تفسير تطور النظام النقدي في روسيا: الاقتصاد السياسي للبحث عن الريع والبنوك المركزية" في الفصل الحادي عشر من الكتاب. وتناول الكاتبان في بحثهما تأثير الاقتصاد الريعي على النظام النقدي من ناحية وعلى السياسة النقدية من ناحية أخرى خلال 3 فترات بينية في السنوات من 1990 وحتى 2020. واستخلصا ارتباط النظام النقدي بشكل كبير بالدخل الريعي من الموارد الطبيعية المتاحة لدي الدولة، وهو ما جعل السياسة النقدية غير مسئولة بشكل مباشر عن الإدارة النقدية. وفيما يتعلق باستقلالية البنك المركزي الروسي، يؤكد الباحثان أنه في كثير من الأحيان لا يعد البنك مؤسسة مستقلة، لأنه جزء من الإطار المؤسسي الشمولي الذي يحكم الاقتصاد الروسي. وبغض النظر عن محاولات استدخال الاستقلالية في السنوات الأخيرة (السابقة لنشر البحث) يؤكد الباحثان أنه من الواضح للجميع أن البنك مؤسسة تابعة سياسيًا.

ثم ورد بالفصل الثاني عشر دراسة للباحث Yazar حول بنك الشعب الصيني المتجذر بعمق في الاقتصاد السياسي المحلي بعنوان " بنك الشعب الصيني في عهد جديد للاقتصاد السياسي الصيني". ويقول الباحث أن هذا البنك يعمل كبنك مركزي للدولة ويحتل أهمية كبيرة في مختلف أسواق المال الدولية، نظرًا للتأثير الكبير للاقتصاد الصيني على

[6]لم نر أن لهذا البحث– رغم أهميته– مكانًا في هذا المؤلف نظرًا لتخصصه في مجال تمكين المرأة.

الاقتصاد العالمي. أما تاريخيًا، فلم يكن البنك سوى مجرد "محاسب" يقيد ما تقرره الدولة من تخصيص للائتمان للشركات العامة، حيث تحدد ديناميكيات السياسة الصينية وأيديولوجيتها حدود الدور الذي يقوم به البنك في ظل السياسات التي يقرها الحزب الحاكم، بما في ذلك السياسة النقدية.

واستمر هذا الوضع حتي عام 2012 حين أصبح دور البنك يرتبط بالتنمية الاقتصادية وتحقيق التكامل مع الأسواق الدولية[7]. ومع انفتاح الاقتصاد الصيني عقب ذلك التاريخ، وتدفق الاستثمارات منه وإليه، كان من اللازم للبنك أن يقبل التحديات المستجدة على استقلاليته التشغيلية. وخلص الباحث في نهاية دراسته إلى أن تطور الصين كلاعب مهم عالميًا تستلزم استدخال إصلاحات عدة من بينها ما يخص القطاع المالي، ولما كان لبنك الشعب الصيني دور أساسي في تلك الإصلاحات، ولكونه صاحب مصلحة رئيسي في ابتكار السياسات اللازمة لمواجهة الخارج، فإن ضعف بنيته المؤسسية، ومحدودية قدراته على قيادة التغيير– باعتباره جزءًا من النظام– يشكل تحديًا أمام الاقتصاد الصيني للتحول وتحرير نظامه المالي والاندماج في النظام المالي العالمي.

أما خاتمة الكتاب والتي كتبها المحرر بعنوان "سبل جديدة للبحث في مجال البنوك المركزية في الاقتصادات الناشئة" فقد أوجز فيها أن هناك حاجة ماسة لتعميق المعرفة بالبنوك المركزية، استنادًا لما توصلت إليه الدراسات التي شملها الكتاب من نتائج، أوجزها فيما يأتي:

- أن التداخل بين القوى الداخلية والدولية يشكل سياق الاقتصاد السياسي الذي تعمل داخله البنوك المركزية.
- أن سياق الاقتصاد السياسي الذي تعمل البنوك المركزية من خلاله يتضمن عدد كبير من المتغيرات.
- أن البنوك المركزية من جانبها تؤثر في سياق الاقتصاد السياسي المحيط بها، وتؤثر كذلك في التنظيم المؤسساتي في الدولة.
- هناك حاجة لدراسات درجة الاستقلالية قانونيًا وفي الواقع العملي.
- وبالإضافة الي المتغيرات الهيكلية والمؤسسية، يؤثر السلوك الفردي للبنوك المركزية بدرجة حاسمة في عمل البنوك المركزية، ولا ينبغي أن يتم تجاهل هذا البعد.
- بالإضافة إلى الاستقلالية، تعد الشفافية والمساءلة من الأبعاد المهمة في حوكمة البنوك المركزية.
- أن لسياسات البنوك المركزية آثارًا توزيعية كبيرة في المجتمعات التي تعمل فيها.
- أن البنوك المركزية في الاقتصادات الناشئة عرضة لآثار جانبية من جراء تطبيق السياسات النقدية للبنوك المركزية في الاقتصادات المتقدمة.

[7] عندما عقد المؤتمر الثامن عشر للحزب الشيوعي الصيني الذي يرسم توجهات الدولة:

وبناء على هذه النتائج توصل المحرر إلى استنتاج أن هناك طريقًا طويلًا أمام تطوير منظور دولي للاقتصاد السياسي للبنوك المركزية، واقترح أن يتم التحول من دراسة الحالات الفردية إلى إجراء دراسات مقارنة دولية وإقليمية، مع إلغاء الانقسام المصطنع بين العلماء وتخصصاتهم حول دراسة البنوك المركزية في الاقتصادات المتقدمة أو الناشئة، وأن تخصص المنح الدراسية للدراسات التي تغطي عددًا كبيرًا من المتغيرات الحديثة، وذلك لفهم ديناميكيات عمل البنوك المركزية.

التعليق

إن نشر هذا الكتاب لأول مرة في عام 2021 قبل صدور نسخته الورقية التي تناقش محتواها هذه المراجعة قد فوت على المحرر فرصة الإشارة للدور المهم الذي لعبته البنوك المركزية في تعافي مختلف اقتصادات العالم من تبعات وباء كوفيد-19، ومن معالجات لتأثيرات الحرب الروسية الأوكرانية على السياسات النقدية مؤخرًا. ومع ذلك ما زالت الموضوعات التي وردت فيه مهمة وحيه حتى الآن، خصوصًا ما يتعلق بمعايير قياس درجة استقلالية البنوك المركزية على المستوى العالمي، وبالأخص على مستوى الاقتصادات الناشئة.

ونتفق مع ما استخلصه المحرر في الفصل الأخير من أن هناك تشابكات جمة بين البنوك المركزية وسياقات الاقتصاد السياسي الذي تعمل تلك البنوك في إطاره. فعمليًّا، لا تضمن النصوص القانونية الواردة في قوانين البنوك المركزية أنها تعمل بمعزل عن الأوضاع السياسية والاجتماعية والتوجهات الحكومية المحيطة بها، وهو ما يجعل الواقع مختلف عن المنشود، وقد يوقعها في مواجهات مباشرة وتدخلات تؤثر بشكل كبير – بل ومباشر في بعض الأحيان– في فعالية سياساتها النقدية، ولا يضمن بالتالي نجاحها في تنفيذ هدف السياسة النقدية المتعارف عليه دوليًّا، وهو هدف تحقيق استقرار الأسعار الذي يعد شرطًا لتحقيق تنمية اقتصادية مستدامة تحتاجها الاقتصادات الناشئة بشدة. ولأن السياسات النقدية التي تطبقها البنوك المركزية قد تتعارض في كثير من الأحيان مع السياسات المالية التي تنتهجها الحكومات، فإن الادعاء باستقلالية البنوك المركزية من حيث الواقع ومسئوليتها الكاملة عن نتائج تطبيق هدف سياساتها النقدية يصبح محل شك كبير.

كما أن البنوك المركزية في وقتنا الراهن قد وقعت في براثن الآثار الجانبية للحرب الروسية الأوكرانية المستمرة، وحدت تلك المتغيرات الدولية من قدراتها على تحقيق هدف استقرار الأسعار في العديد من الاقتصادات الناشئة، كما جعلت تلك الآثار البنوك المركزية في الاقتصادات المتقدمة تقف في موقف المراقب لمؤشرات الأداء الاقتصادي فيها، وتشهر أدوات السياسة النقدية فيها لتجنب انزلاق اقتصادات بلدانها إلى منحدر الركود التضخمي غير مرغوب فيه، وهو ما أثر بالتالي على الاقتصادات الناشئة وزاد من تكلفة خدمة ديونها الخارجية عندما لجأت الدول المتقدمة

لرفع أسعار الفائدة. أضف إلى ذلك كله تقلبات أسعار صرف العملات الدولية الكبرى والآثر الذي تتركه على المتغيرات الاقتصادية في الاقتصادات الناشئة.

لقد نجح المحرر في جمع عدد كبير من الدراسات الخاصة بالاقتصاد السياسي للبنوك المركزية في عدد من الاقتصادات الناشئة[8]، لكن الرؤى المقتصرة لتلك الدراسات على نطاقات جغرافية محددة – على الرغم من إلقائها الضوء على بعض الممارسات– لم تنجح في التوصل لمعيار عام وشامل وموحد للحكم على مدى استقلالية البنوك المركزية على نطاق عالمي، وهو أمر نتفق فيه مع استنتاجات المحرر. فوجود مثل هذا المعيار أو المقياس الجامع يمكن أن يفيد العديد من الباحثين المهتمين بالبنوك المركزية في دراسات أساليب ومقتضيات اتخاذ القرار في البنوك المركزية، وفي قياس قدرتها على تحقيق أهدافها النقدية بكفاءة، وعلى حدود مسئوليتها عن ذلك. كما يساعدهم على فهم الأبعاد الحقيقية التي تعمل في إطارها تلك البنوك سواء في الاقتصادات المتقدمة أو حتى في تلك الناشئة، بما في ذلك الأبعاد السياسية والاجتماعية، بحيث يحد تطبيق هذا المعيار الجامع والمفسر من معدلات الهجوم "الشعبوي" على مبدأ استقلاليتها ربما دون دراية.

وعلى الرغم من عرض المحرر في فصله التمهيدي لدراسة Garrgia المهمة لقياس درجة استقلالية البنوك المركزية في عدد كبير من الحالات المقارنة، إلا إنه لم يشر إلى بعض الدراسات العملية والتطبيقية التي حاولت قياس الأبعاد السياسية والاقتصادية التي تعمل البنوك المركزية في إطارها خلال الفترة التي سبقت نشر كتابه. ولعله من المفيد للقارئ أن نطلعه بإيجاز على بعض من تلك الدراسات.

فخلال الأعوام الثلاثين الماضية – أو ما يزيد قليلًا– نشر عدد من الدراسات التي تناولت موضوع قياس درجة استقلالية البنوك المركزية. ففي عام 1988 نشر Bade and Parkin دراستهما التي أكدت على أن زيادة درجة الاستقلالية تحقق معدلات أقل للتضخم. وجاء هذا الاستنتاج بعد إجرائهما تحليل مقارن لنحو 12 بنكًا مركزيًّا استنادًا على معيارين هما السياسة والتمويل. وفيما يتعلق بالسياسة رأى الباحثان إن البنوك المركزية الأقل استقلالية هي تلك التي تكون فيها الحكومات هي صاحبة القرار، والتي يكون أعضاء مجالس إداراتها هم في واقع الأمر ممثلين للحكومة. أما معيار التمويل فيتمثل في أن الحكومات هي التي تقرر ميزانية البنوك المركزية، وتحدد مكافآت أعضاء مجالس إداراتها وكبار رؤسائها، وتقرر تخصيصات أرباح تلك البنوك القابلة للتوزيع سنويًا، وكلها متغيرات تقلل من درجة الاستقلالية.

[8]لم تشمل تلك الدراسات أي من الدول العربية، وربما يكون من المفيد للقارئ أن يطالع دراسة مهمة لقياس استقلالية البنك المركزي المصري نشرها الأستاذ الدكتور إبراهيم العيسوي في عام 2020 بعنوان " استقلال البنك المركزي بين النظرية والتشريع والممارسة، مع إشارة خاصة لحالة مصر".

وفي عام 1991 وضع Grill, Masciandaro and Tabellini مقياسًا جديدًا لدراسة درجة الاستقلالية في 15 دولة. واستند هذا المقياس على معيارين أحدهما سياسي (ويضم 8 مؤشرات) والآخر اقتصادي (ويضم 7 مؤشرات). وشمل المعيار الأول – بالإضافة لما أدخله Bade & Parkin– مدة تكليف المحافظ، ومدد عضوية مجلس الإدارة، وتمثيل الحكومة في المجلس، وعددًا آخر من المؤشرات. أما المعيار الاقتصادي فشمل مؤشرات تخص تمويل البنوك المركزية للحكومة، وما إذا كانت الحكومات تتحمل أسعار الفائدة السوقية على التمويل الذي تقدمه لها البنوك المركزية، وما إذا كان هذا التمويل مؤقت أم مستدام، وهل يدخل هذا الدين ضمن قياسات إجمالي الدين العام الحكومي.

وفي عام 1992 نشر Cukierman, Webb and Neyapti بحثًا اعتبر الأكثر شمولية، حيث غطى 72 دولة اعتمادًا على قياسات 16 متغير تخاطب الوضع القانوني للمحافظ، وطريقة رسم السياسة، وأغراض السياسة النقدية وأهدافها، وقيود التمويل الذي تقدمه تلك البنوك المركزية لحكوماتها. واعتبر المؤشر الذي استند إليه الباحثان أساسًا دارجًا استندت عليه العديد من الدراسات اللاحقة حول الموضوع ذاته من الناحية التطبيقية.

وفي العام نفسه قام Unsal, Papageorgiou and Garbers بإعداد مقياس متعدد الأغراض، شملت متغيراته الاستقلالية والمساءلة، والسياسة والاستراتيجية التشغيلية، ثم التواصل.

وفي فبراير من عام 2024 الجاري طور Davide Romelli مقياسًا أكثر تطورًا لقياس استقلالية البنوك المركزية، بإضافة عشرة مؤشرات إضافية لمقياس كوكيرمان وآخرون الذي سبقت الإشارة إليه أعلاه، حيث بلغ مجموع مؤشرات الاستقلالية في هذا المقياس 26 مؤشرًا. وقد تضمنت مؤشراته المضافة موضوعات تخص المحافظ ومجلس إدارة البنك وطريقة رسم السياسة بما في ذلك سياسة سعر الصرف، والرقابة المصرفية، ونمط الإقراض للحكومة، والاستقلالية المالية، والمراجعة والتدقيق.

وفي فبراير 2024 أيضًا صدر عن صندوق النقد الدولي ورقة عمل حملت رقم (WP/24/35) لمجموعة من الباحثين هم Adrian, Khan and Menad أضافت هذه الدراسة مقياسًا جديدًا لدرجة استقلالية البنوك المركزية، وادعت رئيسة صندوق النقد الدولي Kristalina Georgieva في تعليقها على المقياس الذي ورد بهذه الورقة أنه أول مقياس شامل للاستقلالية. فقد طور هؤلاء الباحثون مقياسًا ضم 10 مؤشرات شملت استقلالية المحافظ واستقلالية مجلس الإدارة واستقلالية موازنة البنك والاستقلالية في صياغة السياسة النقدية والهدف الرئيس للبنك المركزي، والتمويل المباشر طويل الأجل للحكومة، والتمويل قصير الأجل المقدم لها، والاستقلال المالي، والإقراض خارج النظام المالي للدولة، وإمكانية مراجعة السياسة النقدية وتدقيقها. واستبعد المقياس موضوعات سعر الصرف، والرقابة

المصرفية من العوامل المؤثرة على الاستقلالية. ويتكون كل مؤشر من المؤشرات العشر مجموعة من الأسئلة التي أجاب عليها 87 بنكًا تقع في 5 مناطق من العالم، مصنفة حسب مستوى الدخل في الدول المشمولة، ودرجة تقدمها الاقتصادي. وأعطيت أوزان نسبية لكل مؤشر استنادًا إلى قيم القياسات الفعلية لإجابات البنوك، وليس إلى تقييم وتفسيرات حكمية كما كان الحال في معظم المقاييس السابقة.

وحقيقي أن بالعديد من الاقتصادات الناشئة هناك تشابك – وربما تضارب– بين السياسات النقدية التي تنشد البنوك المركزية من وراء تطبيقها تحقيق الاستقرار السعري، وبين السياسة المالية التي لها أهداف سياسية واجتماعية وربما تنموية تحددها السياسات الحكومية حسب توجهاتها واختياراتها، وهو ما قد يحد أحيانًا من قدره البنوك المركزية على السيطرة على التوجهات التضخمية وتلك الركودية. وحقيقي أيضًا أن المتغيرات الخارجية تؤثر أيضًا في مدى نجاح البنوك المركزية في تحقيق أهدافها – التي قد تكون قد اتفقت عليها مع النخب السياسية– بكفاءة، وحقيقي كذلك أن بالعديد من الاقتصادات الناشئة تتداخل السياسة بالاقتصاد، بل ربما تقود السياسة الاقتصاد وتحد عمليًا من درجة استقلالية البنوك المركزية فيها على الرغم من جودة النصوص القانونية الداعمة لتلك الاستقلالية، إلا أن كل ما تقدم لا يمكن أن يستقيم إلا بشروط.

إن ما ينقص ممارسات البنوك المركزية في العديد من الاقتصادات الناشئة الساعية لتحقيق الاستقلالية لبنوكها المركزية هو الشفافية، ولا أقصد بذلك مجرد نشر المعلومات أو البيانات أو التقارير، ولكن أقصد الإفصاح عن أسباب تبني سلوكياتها ومقتضيات اتخاذ قراراتها لكل أصحاب المصلحة بمن فيهم أصحاب التوجهات الشعبوية، ويشمل ذلك الإفصاح علاقة الحكومات بالأهداف النقدية ومدى التزامها ماليًا بعدم التأثير السلبي أو المعارض لتلك الأهداف التي يمكن أن تتفق عليها كافة الأطراف ذات المصالح المتناقضة.

وبالإضافة للشفافية والإفصاح فإن موضوع المحاسبة والمساءلة يعد أمرًا جوهريًا في تحديد حوكمة أعمال البنوك المركزية، فلا يجب أن تقف الأمور عند مستوى مجرد التزام تلك البنوك بتقديم التقارير للمجالس النيابية، فحدود نطاق المسئولية بين الحكومات والبنوك المركزية لا بد أن يكون معروفًا ومحددًا، سواء كان ذلك في إطار تحديد الأهداف أو كان في تقييم نتائج التنفيذ، فالبنوك المركزية في نهاية المطاف هي التي تلام، على الرغم من كونها في الغالب مفعولًا بها.

إن مثل هذه الشروط– بالإضافة إلى ما توصل إليه مقياس صندوق النقد الدولي مؤخرًا من مؤشرات– ستظل محورًا لاهتمام كل أصحاب المصلحة نظرًا للحاجة لقياس مدى نجاح مبدأ الاستقلالية عمليًا، بما قد يوقف الهجمات المضادة لها.

ولعل ما ورد بهذا الكتاب، وما أعقبه من دراسات أشرنا إليها بإيجاز، يفتح بعض الأبواب الموصدة حاليًا أمام إجراء المزيد من الدراسات المخصصة لقياسات عملية لدرجة استقلالية البنوك المركزية لاستبيان الاقتصاد السياسي الذي تعمل تلك البنوك في إطاره، وهو ما تحتاجه مختلف الاقتصادات في منطقتنا العربية.

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من إصدارات معهد التخطيط القومي

من إصـدارات معـهد التخطيـط القومـي

أولًا: سلسلة قضايا التخطيط والتنمية

1- قراءة تحليلية لتطور مستويات التنمية البشرية في مصر في ضوء مؤشرات تقارير التنمية البشرية

العدد رقم (346) يوليو 2023

بعد استعراض مفهوم قياس التنمية البشرية وطريقة حساب مؤشرها، تناولت هذه الدراسة بالرصد والتحليل تطور مستويات التنمية البشرية بناءً على المعلومات المتوفرة من تقارير التنمية البشرية، مع تحديد أهم المؤشرات المؤثرة في مستوى التنمية البشرية على مستوى الأدلة الفرعية الثلاثة، دليل توقع العمر ودليل التعليم ودليل الدخل. وربطت الدراسة بين مستويات التنمية البشرية في تقارير التنمية البشرية الوطنية وبين ما رصدته تقارير التنمية البشرية الدولية عن مصر. كما قدمت تحليلًا لما شهدته المحافظات المختلفة في مصر من تطور في مستويات التنمية البشرية منذ عام 1993 حتى عام 2020. واستخلصت الدراسة مسارات التدخل اللازمة لتكون خارطة طريق أمام المخططين ومتخذي القرار. واستعرضت بصورة تفصيلية حال التنمية البشرية بمحافظة سوهاج كنموذج استرشادي لتحديد مسارات التدخل. واستطاع فريق الباحثين بتخصصاتهم العلمية المختلفة من إحصاء تطبيقي، وتخطيط تعليم، وتخطيط صحي، واقتصاد، فضلًا عن الخبرة في إعداد مؤشرات التنمية البشرية من قراءة المؤشرات قراءة تحليلية تعزز مسارات التدخل وتبين مدى توافقها مع مبادرة حياة كريمة.

- أعد هذه الدراسة فريق بحثي يضم: أ. د. زينات طبالة (باحث رئيسي)، ود. أحمد سليمان، وأ. د. عزة الفندري
- يمكن الاطلاع على الدراسة كاملةً بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5315/%d8%b3.%d9%82346.pdf?sequence=1&isAllowed=y

2- تقدير تكاليف المعيشة في ضوء المستجدات الدولية والمحلية

العدد رقم (347) يوليو 2023

تستهدف هذه الدراسة تحديد الحد المناسب لتكاليف المعيشة الذي يضمن مستوى لائقًا وكريمًا للمواطن المصري في ضوء المستجدات الراهنة والمتمثلة في تداعيات كوفيد -19، وتداعيات الحرب الروسية الأوكرانية، ومعدلات التضخم، والتغيرات المناخية. وحتى يتسنى تحقيق ذلك، تمت دراسة هذه المستجدات وتحليلها وبيان أثرها على الاقتصاد المصري. كما تم تحليل مستويات الإنفاق والاستهلاك على مستوى الجمهورية بصفة عامة، مع التركيز على تفاوتات مستويات المعيشة الموجودة بين المحافظات، وتقدير الحد المناسب لتكاليف المعيشة.

وتوصلت الدراسة إلى أن الحد المناسب لتكلفة الطعام والشراب لأسرة مكونة من أربعة أفراد يبلغ في الشهر نحو 4,188 جنيه، مقارنةً بنحو 1,602 جنية عام 2020/19. وقدمت الدراسة مجموعة من السيناريوهات لتقدير الحد المناسب لتكاليف المعيشة الشهرية لأسرة مكونة من أربعة أفراد بقيم تراوحت بين 9.049 جنيه و658.4 جنيه. وهذا هو الحد المقبول اقتصاديًّا واجتماعيًّا في ظل الظروف السائدة في المجتمع المصري من تضخم مستمر ومتصاعد.

وقد اختتمت الدراسة بمجموعة من المقترحات من أبرزها الاستمرار في تنويع مصادر واردات مصر الغذائية، مع العمل على تقليل الاستهلاك من الخبز وتحويل الاستهلاك من القمح إلى مجموعة أكثر تنوعًا من المجموعات الغذائية، والتوسع في توفير منافذ تسويقية للسلع الأساسية وطرحها بأسعار مخفضة، وضرورة مراعاة دمج بيانات الدخل والاستهلاك والعمل واستخدام وقت الترفيه وما إليها ضمن أداة مسح واحدة عند إعداد دراسات مستوى المعيشة؛ وهو ما يسهم في تطوير السياسة الاجتماعية.

- أعد هذه الدراسة فريق بحثي يضم: أ. د. محمود عبد الحي (باحث رئيسي)، و أ. د. سحر البهائي، و أ. د. سيد عبد المقصود
- يمكن الاطلاع على الدراسة كاملة بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5316/%d8%b3.%d9%82347.pdf?sequence=1&isAllowed=y

3- التمكين الاقتصادي للمرأة لتعزيز تنافسية الاقتصاد المصري

العدد رقم (348) يوليو 2023

تكتسب هذه الدراسة أهميتها من خلال دراسة القضايا الرئيسة التي يجب العمل عليها كهدف رئيس حتى تتحقق المساواة المرجوة بين الجنسين، ومن ثم استدامة النمو والتنمية كهدف يرجى الوصل إليه. وقد اتخذت الحكومات المصرية المتعاقبة عددًا من السياسات والإجراءات التي تدعم سياسة تمكين المرأة اقتصاديًا. لذا اهتمت هذه الدراسة بفحص هذه السياسات والإجراءات وتحليلها بعمق لبيان أثرها، ومن ثم الخروج بنتائج تسهم في معالجة الخلل أو القصور في المحاور المختلفة التي تصب في تحقيق تمكين المرأة اقتصاديًا، وتساعد في إزالة المعوقات ومقابلة التحديات التي تعوق استكمال مراحل التمكين الاقتصادي للمرأة المصرية.

- أعد هذه الدراسة فريق بحثي يضم: أ. د. إجلال راتب (باحث رئيسي)، و أ. د. فادية محمد عبد السلام، و أ.د. سلوى محمد مرسي
- يمكن الاطلاع على الدراسة كاملة بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5317/%d8%b3.%d9%82348.pdf?sequence=1&isAllowed=y

ثانيًا: إصدارات المعهد من سلسلة أوراق السياسات

1- سياسات تعزيز الأمن الغذائي المصري وإجراءاتها في ظل التحديات المحلية والدولية

العدد رقم (19) ديسمبر 2023

استهدفت هذه الورقة تحليل الوضع الراهن للأمن الغذائي في مصر، وتحديد أبرز محدداته، واقتراح السياسات والإجراءات التي تعزز من أوضاعه. وقد توصلت الورقة إلى عدد من النتائج من أبرزها ما يأتي:

- تراجع ترتيب مصر على مؤشر الأمن الغذائي العالمي بسبب عدم القدرة على تحمل تكاليف الغذاء التي تزايدت أسعارها بمعدلات مرتفعة تجاوزت 100% لبعض السلع. وفي العام 2020 كان هناك نحو 35.2 مليون شخص يعانون من انعدام شديد ومعتدل في الأمن الغذائي، ونحو 5.2 مليون شخص يعانون من نقص شديد في التغذية.
- سجل الاكتفاء الذاتي نسبًا جيدةً للعديد من السلع كالخضروات والفاكهة والأسماك والدواجن والبيض، ونسبًا متدنيةً للقمح والذرة الشامية والفول والعدس والزيوت النباتية واللحوم الحمراء.
- تُعد السلع نباتية المصدر المكون الرئيسي لغذاء المصريين نظرًا لانخفاض أسعارها مقارنةً بأسعار المنتجات الحيوانية، وبالتالي فالنمط الغذائي لمعظم المصريين غير صحي، ويترتب عليه زيادة مستويات الوزن والبدانة، مصحوبة بالعديد من الأمراض المرتبطة بالأنماط الغذائية غير الصحية.
- يواجه الأمن الغذائي في مصر مجموعة من التحديات. منها تحديات داخلية، مثل زيادة عدد السكان، ومحدودية الموارد المائية، وتفتت الحيازات الزراعية، وارتفاع أسعار السلع الغذائية ومستلزمات الإنتاج، وعدم قدرة الدولة على زيادة الاكتفاء الذاتي من بعض السلع، وارتفاع كميات الفقد والهدر في الغذاء. ومنها تحديات خارجية، مثل تداعيات التغيرات المناخية، واستمرار تداعيات وباء كوفيد 19، وتداعيات الحرب الروسية الأوكرانية، وتراجع النمو الاقتصادي العالمي، فضلاً عن تداعيات الأزمة السودانية.

ومن الإجراءات والسياسات التي اقترحتها الورقة: ضرورة تأمين مخزون استراتيجي غذائي مستدام، وتحقيق استدامة للنظم الغذائية، والاعتماد على سياسة إحلال الواردات، وذلك خلال المدى القصير والمتوسط. كما تمت صياغة مقترح بسياسة طويلة المدى تحت مسمى" سياسة تأمين الأمن الغذائي المصري" والتي تسعى لتحقيق مجموعة من المستهدفات، وتتطلب تشكيل مجلس أعلى للأمن الغذائي يختص بإعداد استراتيجية للأمن الغذائي المصري، والإشراف على تنفيذها ومتابعة أدائها، ومراجعة التشريعات المعنية بالغذاء قبل اعتمادها، واقتراح الإجراءات والآليات المعنية بتعزيز الأمن الغذائي للدولة.

- أعدت هذه الورقة أ. د. سحر البهائي.
- يمكن الاطلاع على الورقة كاملة بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5377/%d8%b3%d9%84%d8%b3%d9%84%d8%a9%20%d8%a3%d9%88%d8%b1%d8%a7%d9%82%20%d8%a7%d9%84%d8%b3%d9%8a%d8%a7%d8%b3%d8%a7%d8%aa%20%d8%b1%d9%82%d9%85%2019.pdf?sequence=5&isAllowed=y

2- رؤية مقترحة لتعزيز أداء القطاع السياحي في مصر

العدد رقم (20) ديسمبر 2023

تمتلك مصر مقومات سياحية تنافسية يمكن أن تضعها ضمن قائمة أفضل المقاصد السياحية عالميًّا. والواقع أن مصر لم تستغل هذه المقومات بشكل كافٍ بعد. كما تحتاج رؤية مصر 2030 في السياحة لإعادة نظر في ضوء التغيرات التي طرأت على أوضاع السياحة العالمية خلال السنوات الماضية.

تستهدف هذه الورقة تقديم رؤية لتعزيز أداء القطاع السياحي في مصر في إطار السياحة المستدامة لتصبح مصر مقصدًا سياحيًّا رائدًا إقليميًّا ودوليًّا، وذلك بما يُمكّن من زيادة مساهمة هذا القطاع في الاقتصاد المصري وتحسين أوضاع ميزان المدفوعات. وقد قدمت الورقة تحليلًا لأوضاع صناعة السياحة العالمية وتوجهاتها المستقبلية، وتحليلًا لأوضاع القطاع السياحي في مصر ومؤشرات التعافي، وأوضاع تنافسية القطاع عالميًّا وإقليميًا، مع تحليل نقاط القوة والضعف والفرص والتحديات(SWOT)، وتحديد الأولويات من خلال طريقة اتخاذ القرارات متعددة المعايير (MCDA) باستخدام أسلوب التحليل الهرمي (AHP).

وقد أوضحت نتائج تحليل SWOT-AHP أن نقاط الضعف تأتي في مقدمة ما يجب استهدافه، تليها نقاط القوة، ثم الفرص والتحديات. وفيما يتعلق بالوزن النسبي الإجمالي للعناصر المختلفة جاء ضعف الانفتاح العالمي وضعف بيئة الأعمال في الأولوية، يليه الثروات التاريخية والثقافية والطبيعية، وضعف أطر حوكمة القطاع السياحي، وتوافر المقاصد السياحية للأربعة المواسم السياحية وتنوع أنماط السياحة، والزيادة المطردة في أسواق الطلب السياحي عالميًّا، وتباطؤ التحول الرقمي وضعف جاهزية بنية تكنولوجيا البيانات والمعلومات والاتصالات. وانطلاقًا من هذه النتائج جرت صياغة السياسات والإجراءات اللازمة لتحقيق الرؤية المقترحة التي تمثلت في أربعة محاور أساسية: أولها تعزيز البيئة الداعمة لأداء القطاع السياحي، وثانيها رفع كفاءة جهود التسويق والترويج وفعاليتها، وثالثها سهولة الوصول، ورابعها تحسين جودة المنتج السياحي في إطار ثلاثة محاور فرعية هي: عناصر الجذب الحضارية والثقافية والترفيهية، ووكالات السفر والسياحة، وعناصر الإقامة.

- أعدت هذه الورقة أ. د. نجلاء حرب.
- يمكن الاطلاع على الورقة كاملة بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5430/%d8%b3%d9%84%d8%b3%d9%84%d8%a9%20%d8%a7%d9%88%d8%b1%d8%a7%d9%82%20%d8%a7%d9%84%d8%b3%d9%8a%d8%a7%d8%b3%d8%a7%d8%aa%20%d8%b1%d9%82%d9%85%2020.pdf?sequence=6&isAllowed=y

3- مشروعات المشاركة بين القطاعين العام والخاص ودورها في تعزيز قدرة الاقتصاد المصري

العدد رقم (21) يناير 2024

ركزت هذه الورقة على تقييم مشروعات المشاركة وتحليلها، ودورها في تعزيز النمو الاقتصادي، وقدمت تقييمًا لمشروع محطة معالجة مياه الصرف الصحي بالقاهرة الجديدة، ومشروع المدارس بنظام المشاركة مع القطاع الخاص. ومن أهم ما توصلت إليه الورقة من نتائج ما يأتي:

- تتمثل أساسيات بناء عقود مشاركة ناجحة على وجود إطار قانوني يشتمل على القوانين الجديدة أو تعديلات القوانين القائمة، لتسهيل أنشطة المشاركة بين القطاعين العام والخاص.
- تصنف مؤشرات الأداء الرئيسية لمشروعات المشاركة بين القطاعين العام والخاص إلى ثلاثة مؤشرات: مؤشرات الأداء التشغيلية، والوظيفية، والمهنية. وتختلف مؤشرات تقييم المشاركة لمشروعات الخدمات العامة والبنية التحتية باختلاف المراحل التي يمر بها المشروع. وتبدأ هذه المؤشرات بمراحل ما قبل دخول المشروع في المشاركة، حيث تبدأ بمؤشرات تقييم الجدوى الاقتصادية والاجتماعية للمشروع للوقوف على مدى قابلية المشروع للتمويل وتحقيقه للربحية المالية باعتبارها دوافع القطاع الخاص للمشاركة في تنفيذ تلك المشروعات.
- دائمًا ما تكون عقود مشروعات المشاركة طويلة الأجل ومركبة، ويصعب التنبؤ عند إبرام العقد بحدوث المخاطر المحتملة، والتي قد تستلزم أحيانًا اللجوء إلى إعادة التفاوض على شروط العقد لإعادة التوازن المالي للعقد، ويجب أن يكون الطرف الممثل للجهة الإدارية مستعدًا لذلك.
- يعد مشروع محطة معالجة مياه الصرف الصحي بالقاهرة الجديدة أول صفقة ناجحة في إطار برامج المشاركة بين القطاعين العام والخاص ونموذج قابل للتطبيق في المشروعات المستقبلية. وقد تعرض أول مشروع في قطاع التعليم بنظام المشاركة مع القطاع الخاص عام 2007 للإلغاء قبل الطرح بسبب عدم توفر الخبرة الكافية، وسوء توزيع المخاطر بين أطراف العقد.
- للقيام بعملية التقييم للمشروع على الوجه الأكمل، يحتاج الأمر إلى الإفصاح الكامل عن المشروع والمخاطر المحتملة التي سيتحملها طرفي التعاقد.

وقد خلصت الورقة إلى أن مشروعات المشاركة مع القطاع الخاص تعد أحد أهم أدوات تحقيق التنمية المستدامة، وبخاصة المساهمة في توليد فرص عمل جديدة، وتحسين البنية التحتية ورفع مستوى الخدمات العامة.

- أعد هذه الورقة د. يحيى حسين علي، و د. فاطمة خميس الحملاوي.
- يمكن الاطلاع على الورقة كاملة بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5442/%d8%b3%d9%84%d8%b3%d9%84%d8%a9%20%d8%a3%d9%88%d8%b1%d8%a7%d9%82%20%d8%a7%d9%84%d8%b3%d9%8a%d8%a7%d8%b3%d8%a7%d8%aa%20%d8%b1%d9%82%d9%85%2021.pdf?sequence=1&isAllowed=y

4- العلاقات المصرية الخليجية: بين التعاون والتنافس

العدد رقم (22) فبراير 2024

استهدفت هذه الورقة رصد وتوثيق وتحليل العلاقات الاقتصادية بين مصر ودول مجلس التعاون الخليجي– مع التركيز على دولتي الإمارات العربية المتحدة والمملكة العربية السعودية. وقد سعت الورقة لاستشراف مستقبل هذه العلاقات في ظل المستجدات الراهنة التي فرضتها المربكات المتراكبة خلال السنوات الأخيرة على دول مجلس التعاون الخليجي، مع تقديم بعض المقترحات العملية التي تسهم في تعزيز هذه العلاقات والدفع بها لآفاق أوسع من التعاون بما يحقق الإفادة للطرفين.

تناول الجزء الأول من الورقة المستجدات الراهنة على الصعيد الاقتصادي لدول مجلس التعاون الخليجي، وانعكاساتها على صياغة علاقاتها الدولية. وتناول الجزء الثاني بالرصد والتحليل العلاقات الاقتصادية المصرية الخليجية وتطوراتها في ظل المستجدات الراهنة، مع بيان مجالات التكامل، وكذلك مجالات التنافس التي بدت في ظل استراتيجيات التنويع في تلك الدول. وقدمت الورقة في الجزء الثالث منها مقترحات لتعزيز العلاقات المصرية مع دول مجلس التعاون الخليجي في المستقبل.

وأهم ما يمكن استخلاصه من تأثيرات محتملة للمستجدات الراهنة بدول مجلس التعاون الخليجي على العلاقات الاقتصادية المصرية الخليجية يتلخص في ثلاث نقاط أساسية. أولها أن التغير في المبادئ التي تحكم السياسة الدولية لدول المجلس، واتجاهها نحو ترشيد قراراتها المالية مع سيادة المدخل النفعي عليها، سوف ينعكس على سياسات التعاون مع الاقتصاد المصري خاصة في ظل تراجع أوضاع الاقتصاد المصري، وعدم استفادته من المساعدات التي قدمتها هذه الدول فيما سبق. ولذا يتوقع أن تكون سياسات المنح والمساعدات أقل سخاءً مما سبق. وثانيها أن اتساع دوائر العلاقات الدولية لدول مجلس التعاون الخليجي يمكن أن يقلص دور مصر كشريك اقتصادي في المرحلة القادمة في كافة المجالات، خاصة في ظل عقد اتفاقات تعاون شاملة مع العديد من الدول، من بينها الصين وتركيا والهند وإسرائيل، مع التفوق الواضح لهذه الدول في العديد من المجالات، خاصة الصناعة والتطور التكنولوجي. وثالثها أن استراتيجيات التنويع التي تبنتها دول المنطقة، وبصفة خاصة السعودية والإمارات لبناء اقتصاد مستدام، وإن كانت تنطوي على العديد من مجالات التنافس، فإنها تشتمل أيضًا على آفاق واعدة للتعاون في مجالات التنمية مع إمكانية تكامل الخبرات في العديد من المجالات أهمها الخدمات اللوجستية، والطاقة المتجددة، والصناعات العسكرية، والبحث العلمي والتعاون الثقافي. ويعزز فرص استدامة التعاون أن دول الخليج لا تزال لديها قناعة أن مصر تمتلك مفاتيح الاستقرار الأمني والسياسي للمنطقة برمتها. وبناء على ذلك قدمت مجموعة من المقترحات لتعزيز العلاقات الاقتصادية بين مصر ودول مجلس التعاون الخليجي في ستة مجالات، وهي توفير البيئة الداعمة، وتنمية الصادرات المصرية لدول المجلس، وتنمية الاستثمارات الخليجية في مصر، وزيادة أعداد

السائحين الوافدين لمصر من دول المجلس، وزيادة أعداد العاملين المصريين بدول المجلس، وتحويل مجالات التنافس إلى مجالات للتعاون.

- أعدت هذه الورقة أ. د. نجلاء حرب.
- يمكن الاطلاع على الورقة كاملة بالضغط على الرابط الآتي:

http://164.160.67.161/xmlui/bitstream/handle/123456789/5444/%d8%b3%d9%84%d8%b3%d9%84%d8%a9%20%d8%a3%d9%88%d8%b1%d8%a7%d9%82%20%d8%a7%d9%84%d8%b3%d9%8a%d8%a7%d8%b3%d8%a7%d8%aa%20%d8%b1%d9%82%d9%85%2022.pdf?sequence=5&isAllowed=y

ثالثًا: سلسة أراء في قضايا التخطيط والتنمية

1-المقاطعة في الميزان

فبراير 2024

مع اندلاع الحرب على غزة، انطلقت دعوات لمقاطعة منتجات العديد من الشركات ذات العلامات التجارية الأجنبية والعالمية لاتهامها بدعم ومحاباة إسرائيل في هذه الحرب. وقد تم تداول مجموعة من قوائم مختارة من منتجات شركات عالمية للمقاطعة على مواقع التواصل الاجتماعي. وتسابقت المنصات الإلكترونية لتعريف المواطنين بالمنتجات المحلية البديلة لمنتجات الشركات التي جرت الدعوة لمقاطعة منتجاتها. وتصدرت نقابة المحامين المصرية الدعوة للمقاطعة، للتأكيد على دعم الشعب المصري لأشقائه بفلسطين، وللتنديد بالاعتداءات الوحشية الإسرائيلية. ودفعت المقاطعة العديد من الفروع المحلية للشركات الأجنبية للإعلان عن: تخفيضات كبيرة في أسعار منتجاتها، مع إصدار بيانات تؤكد عدم دعمها للدولة المعتدية، ورفضها تمامًا للعنف، وتقديم تبرعات مالية للشعب الفلسطيني. وقد ناشد الاتحاد العام للغرف التجارية المصرية أبناء مصر عدم الانسياق وراء دعوات مقاطعة شركات مصرية تحمل علامة تجارية أجنبية لما لذلك من ضرر على الاستثمار بوجه خاص، وعلى الاقتصاد المصري بوجه عام.

- مادة هذا العدد مستمدة من تقرير عن مناقشات لقاء خبراء عقده المعهد في 13 من ديسمبر 2023.
- يمكن الاطلاع على هذا العدد كاملًا بالضغط على الرابط الآتي:

http://164.160.67.161/bitstream/handle/123456789/5452/%d8%a7%d9%84%d9%85%d9%82%d8%a7%d8%b7%d8%b9%d8%a9%20%d9%81%d9%89%20%d8%a7%d9%84%d9%85%d9%8a%d8%b2%d8%a7%d9%86.pdf?sequence=1&isAllowed=y

2- مستقبل الطاقة فيما بعد 2025

فبراير 2024

تعد الطاقة الكهربائية هي الركيزة الأساسية لجميع خطط التنمية الاقتصادية والاجتماعية، حيث يُجري الاعتماد عليها في تغذية كافة المشروعات الصناعية والزراعية والسياحية، وكذلك في تنمية المجتمعات العمرانية الجديدة وتطويرها، ومناطق الاستصلاح الزراعي، فضلًا عن ارتباطها بشكل مباشر بالمتطلبات المعيشية للمواطنين.

وقد شهد قطاع الكهرباء تطورًا ملحوظًا خلال الأعوام الثمانية الأخيرة بغرض تأمين احتياجات جميع القطاعات التنموية والخدمية من الكهرباء، وتحقيق أمن الطاقة، والقضاء على أزمة قصور إمدادات الطاقة الكهربائية المنتجة عن الوفاء بالأحمال الزائدة التي حدثت خلال الفترة من (2012 – 2014). وتتمثل أبعاد الرؤية التنموية للقطاع في تطوير الطاقة للنهوض بكفاءتها، والقدرة على مسايرة التقدم التكنولوجي والتطور المعرفي، مما يسمح بتوفير الطاقة بأسعار تنافسية، وعلى نحو مستدام، ومتوافق بيئيًا لتحسين جودة حياة المواطنين.

- مادة هذا العدد مستمدة من تقرير عن مناقشات لقاء خبراء عقده المعهد في 9 من يناير 2024.
- يمكن الاطلاع على هذا العدد كاملًا بالضغط على الرابط الآتي:

http://repository.inp.edu.eg//handle/123456789/5454

رابعًا: كتب مرجعية

كتاب "أساسيات بناء النماذج الرياضية وتطبيقاتها في مجالات السكان والاقتصاد والبيئة"

أصدر معهد التخطيط القومي هذا الكتاب الذي ألفه أ. د. عبد الحميد القصاص الرئيس الأسبق لمعهد التخطيط القومي، والأستاذ بمركز الأساليب التخطيطية بالمعهد، ونشرته الهيئة المصرية العامة للكتاب. ويتناول الكتاب الموضوعات التالية:

الجزء الأول: الخلفية النظرية لبناء النماذج الرياضية

الفصل الأول: مفاهيم بناء النموذج الرياضي وخطواته

الفصل الثاني: تطوير النموذج المفاهيمي

الفصل الثالث: المداخل الرئيسية للنمذجة (1): أساليب الأمثلية والمحاكاة

الفصل الرابع: المداخل الرئيسية للنمذجة (2): نماذج الاقتصاد القياسي والشبكات العصبية الاصطناعية

الفصل الخامس: طرق تقدير المعلمات ومعايرة النماذج

الفصل السادس: الطرق التحليلية والعددية لحل معادلات النماذج الرياضية

الجزء الثاني: تطبيقات النمذجة الرياضية في مجالات السكان والاقتصاد والبيئة

الفصل السابع: النماذج الرياضية في مجال السكان (النماذج الديموغرافية)

الفصل الثامن: النماذج الرياضية في مجال الاقتصاد (النماذج الاقتصادية)

الفصل التاسع: النماذج الرياضية في مجال البيئة (النماذج البيئية)

الفصل العاشر: النماذج متعددة الأبعاد السكانية–الاقتصادية–البيئية

ويعد هذا الكتاب مرجعًا علميًّا في أحد المجالات التي تتصف بندرة المراجع العربية وقلة الكوادر الفنية. وهو يسد حاجة الطلاب في المرحلة الجامعية لا سيما طلاب الماجستير والدكتوراه، وكذا حاجة الباحثين والممارسين في جهات العمل المختلفة في مصر وسائر الدول العربية إلى المعرفة بأنواع النمذجة ومفاهيمها ومنهاجياتها ومراحلها وأدواتها المختلفة.

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sectoral levels. Facing oil price fluctuations requires tightening monetary policies and increasing ex-ante real interest rates. The banking sector, brokerages, mortgage, and insurance companies are the most beneficial from interest rate hikes, because they can charge more for lending.

The present analysis can be extended to investigate more emerging markets and capture short and long-run asymmetries at the sectoral level. As Egypt recently shifted to a flexible exchange rate regime, which is expected to attract capital inflows and enable the economy to absorb real external shocks more easily, future work might consider the resulting stock market reaction.

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model captures the long-term behavior of the Egyptian stock market and isolates the effects of external variables like exchange rate volatility and interest rates.

6. Discussion and Conclusions

This study examined the impact of global oil price fluctuations on the Egyptian stock market's return and volatility between January 1, 2020, and June 30, 2022. This period witnessed significant financial market shocks due to the COVID-19 pandemic and the Russia-Ukraine conflict.

The research employed Pearson and Kendall coefficients to conduct a preliminary correlation analysis after dividing the study period into three sub-periods. A strong positive correlation emerged between oil prices and stock market indices during the initial wave of COVID-19. However, this correlation transitioned to negative after the Ukrainian crisis.

A comprehensive sectoral analysis of the Egyptian stock market was also performed. The analysis revealed an increase in the market capitalization of the basic resources sector, while the banking and "food, beverages, and tobacco" sectors experienced a decline. Notably, despite expectations of the food sector demonstrating greater resilience, the decrease in foreign and Arab investment during the crisis negatively impacted its performance.

The study then utilized GARCH, EGARCH, and a bivariate BEKK-GARCH model for further analysis. The GARCH model results indicated a significant negative impact of both oil prices and the fear index (LnVIX) on the returns and volatility of both the EGX100 and EGX30 indices. Interestingly, the impact of world oil prices on volatility was slightly weaker compared to the fear index.

Building upon the sectoral analysis, the study found that returns in the banking, non-banking financial services, and real estate sectors were negatively affected by fluctuations in oil prices, along with negative news related to COVID-19 and the Russia-Ukraine war. Furthermore, the research employed a BEKK-GARCH model to investigate the transmission of volatility and shocks between the oil and stock markets. The results revealed significant volatility spillovers in both directions between these markets.

Since the major sectors with the highest share of market capitalization percentage in Egypt are not highly oil-intensive, it is reasonable that oil price fluctuations had a slightly negative effect on their returns and volatility. However, the impact of recent challenges on variations in stock market returns outweighed that of oil prices.

These results have crucial implications for investors and policymakers, as they have to consider the effect of oil price variations on stock performance at both the aggregate and

degree of volatility clustering as a higher possibility of the extent of its present volatility movement is related to its previous volatility movement.

In the covariance equation (5a), the ARCH coefficient presents the effect of the previous common information to the current covariance. The GARCH coefficient shows persistence regarding the covariance of return volatility. All off-diagonal parameters are significant, showing that all markets are affected by common information. A_{12}(0.16) is statistically significant at the 1% level, indicating a shock spillover from the oil to the stock market. Coefficient B_{12}(0.65) was statistically significant. These results establish volatility spillovers from the oil market to the stock market.

b. The crude oil market and Egyptian stock market (EGX30)

The mean equation:

$$R_{t30}=0.002+0.23R_{30t-1}*** -0.00004\text{Ln Oil}_{t-1\ldots}(1b)$$

$$\text{LnOil}_t=0.92+0.98\ \text{LnOil}_{t-1}*** +1.9R_{30t-1\ldots.}(2b)$$

The conditional mean equations (1b) and (2b) show that the present EGX30 return, and the oil prices are heavily influenced by their prior values at the 1% level. However, there is little indication of spillover effects between the stock market return and the oil market.

The variance equation: The estimated findings of Equations 3b to 5b show that the oil market has a higher ARCH effect (0.79), indicating that volatility in the oil market is more sensitive to prior market information.

$H_{11,t}=8.62E\text{-}06+0.092\text{RESID1}(-1)^2+0.86\ h_{11,t-1\ldots..}(3b)$ $h_{22,t}=0.325+0.63\text{RESID2}(-1)^2+0.41h_{22,,t-1\ldots...}(4b)$

$h_{12,t}=0.00053+0.24\text{RESID1}(-1)^*\text{RESID2}(-1)+0.58h_{12,,t-1\ldots.}(5b)$

The estimated diagonal parameters A11(0.3), A22(0.79), B11(0.92), and B22(0.62) are statistically significant at 1% in both conditional variance equations, indicating a strong GARCH process, establishing that volatility in the Egyptian stock market (through EGX30) and the oil market is driven by their past shocks and volatility. Furthermore, in the covariance equation(5b), all off-diagonal parameters are significant, indicating that common information affects all markets. At the 1% level, the A12;(0.24); is statistically significant, showing A shock spillover from the oil market to the stock market. These findings assert the volatility spillovers from oil to stock markets, with the coefficient B12(0.58) statistically significant.

The eigenvalues of the conditional covariance matrix in the BEKK-GARCH model are all less than one in absolute value. This ensures covariance stationarity, implying that the

as Floros (2008), Emenike (2010) in Nigeria, Wasiuzzaman and Angabini (2011) in Malaysia, and Freedi et al. (2012) in KSA.

5.5 Bivariate BEKK-GARCH estimation results

The BEKK-GARCH estimation is conducted using two groups of variables: (i) EGX100 and EGX30, and (ii) oil price. Estimates of the bivariate asymmetric BEKK–GARCH parameters, along with various diagnostic test results, are reported.

a. The crude oil price market and (EGX100)

The mean equation:

$R_{t100}=0.02+0.17R_{100t-1}-0.005LnOil_{t-1}$….(1a)

$LnOil_t=0.012+0.99Ln\ Oil_{t-1}+0.08R_{100t-1}$….(2a)

The results of the conditional mean equations (1a) and (2a) indicate that the autoregressive coefficients for crude oil price and EGX100 returns are statistically significant at the 1% level. Therefore, the current returns of EGX100 and the oil prices depend to a great extent on their past values. Moreover, one-period lagged oil returns negatively affect current EGX100 returns significantly, implying that oil markets have price spillover effects on stock exchange market returns. The negative value of the coefficients indicates a decrease in the EGX100 returns due to an increase in oil prices.

The variance equation: The volatility transmission analysis between the oil and stock exchange markets (through EGX100) can be inferred from the estimated parameters in the conditional variance equations (Equations 3a ,4a, and 5a).

$h_{11,t}=0.00013+0.086RESID(-1)^2+0.421h_{11,t-1}$…..(3a)

$h_{22,t}=2.5e\text{-}05+0.29RESID2(-1)^2+0.73h_{22,,t-1}$….(4a)

$h_{12,,tv}=9.5e\text{-}06+0.16RESID1(-1)^{*}RESID2(-1)+0.56h_{12,,t-1}$….(5a)

Equations 3a to 5a reveal that the oil market has a higher ARCH effect (0.29) than the stock exchange market (0.086). Accordingly, volatility in the oil market is more sensitive to past market information than that in the stock exchange market. In both conditional variance equations, the estimated diagonal parameters A_{11}(0.29), A_{22}(0.539), B_{11}(0.65), and B_{22}(0.858) are statistically significant at the 1% level, indicating a strong GARCH process, which establishes that volatility in the stock market (through EGX100) and the oil market is driven by past shocks and volatility. Large magnitudes of GARCH coefficient, B_{11} and $B_{22,}$ indicate strong volatility persistence. They indicate that the oil market has a high

5.3 GARCH estimation results at the sector level

Recent global shocks have significantly impacted the stock returns of the banking, non-banking financial services, and real estate sectors, negatively affecting their performance. Interestingly, the volatility of returns within these sectors remained relatively unchanged. Following recent global challenges, the share of foreign ownership has increased in the banking, basic resources, and energy sectors. Conversely, the non-banking financial services industry experienced a decrease in foreign and Arab ownership. Specifically, the proportion of foreign ownership fell by 10.4%, while Arab ownership dropped by a more substantial 26%. The "food, beverages, and tobacco" industry was hit particularly hard. The percentage of foreign and Arab ownership plummeted by 32.2% and 61.8%, respectively. It's important to note that this decline was largely offset by a growing share of value traded in listed equities by Egyptians.

5.4 EGARCH (1,1) Estimation Results

Table 7 Results of EGARCH (1,1)

	R100		R30	
	Coeff.	z-stat.	Coeff.	z-stat.
ω	-1.8	-5.2***	-0.54	-4.7***
α	0.08	3.2***	0.17	3.5**
β	0.785	18.7**	0.96	94.04**
γ	-0.24	5.3***	-0.16	-7.7***
Log Likelihood	1647.7		1887.08	
Adjusted R^2	0.03		0.056	
AIC	-5.4		-6.2	

Source: Author's calculations using E-views software.

Table (7) reveals the existence of an asymmetric, a leverage, effect in the Egyptian stock market, where gamma γ has a negative value (-0.24) and is statically significant at the 1% level. Thus, stock returns are volatile, implying that negative shocks have a larger impact on future volatility than positive shocks. This is consistent with some previous studies such

Arabs percentage decreased significantly while the percentage of Arabs barely changed. Egyptians', foreigners', and Arabs' respective percentages of the value traded in listed equities in January 2020 were 65.8%, 24.5%, and 9.7%; by July 2022, those percentages had dropped to 71.9% for Egyptians, 18.9%, and 9.2% for foreigners and Arabs.

Table 6: Standardized Diagnostics tests of GARCH (1, 1)

A) The Collegram plot of standardized residuals (ACF and PCF)

R100=F(LnOil,LnVix)

Sample (adjusted): 2/02/2020 9/30/2021
Q-statistic probabilities adjusted for 1 dynamic regressor

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob*
		1	0.006	0.006	0.0204	0.886
		2	-0.092	-0.092	5.1812	0.075
		3	0.031	0.033	5.7883	0.122
		4	0.091	0.083	10.828	0.029
		5	-0.021	-0.017	11.102	0.049
		6	-0.020	-0.005	11.342	0.078
		7	-0.024	-0.033	11.689	0.111
		8	0.013	0.005	11.792	0.161
		9	0.006	0.005	11.815	0.224
		10	0.082	0.088	15.962	0.101
		11	0.010	0.013	16.019	0.140
		12	-0.031	-0.021	16.634	0.164
		13	-0.020	-0.026	16.881	0.205
		14	0.002	-0.019	16.883	0.262
		15	0.030	0.031	17.444	0.293
		16	-0.081	-0.075	21.511	0.160
		17	-0.039	-0.025	22.478	0.167
		18	0.005	-0.012	22.493	0.211
		19	0.016	0.007	22.662	0.253
		20	0.010	0.019	22.727	0.302
		21	-0.023	-0.020	23.055	0.341
		22	0.045	0.052	24.319	0.331
		23	0.032	0.023	24.961	0.352
		24	0.073	0.085	28.347	0.246
		25	-0.052	-0.054	30.052	0.222
		26	-0.035	-0.020	30.823	0.235
		27	-0.077	-0.090	34.584	0.150
		28	-0.026	-0.043	35.031	0.169
		29	-0.024	-0.027	35.412	0.191
		30	-0.002	-0.005	35.416	0.228
		31	0.028	0.052	35.912	0.249
		32	0.015	0.002	36.061	0.284
		33	-0.008	-0.009	36.100	0.326
		34	0.026	0.007	36.551	0.351
		35	-0.018	-0.016	36.756	0.387
		36	-0.009	0.012	36.809	0.431

*Probabilities may not be valid for this equation specification.

R30=F(LnOil,LnVix)

Sample (adjusted): 2/02/2020 9/30/2021
Q-statistic probabilities adjusted for 1 dynamic regressor

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob*
		1	0.013	0.013	0.0991	0.753
		2	-0.058	-0.058	2.1423	0.343
		3	0.045	0.047	3.3924	0.335
		4	0.034	0.030	4.1180	0.390
		5	-0.030	-0.025	4.6528	0.460
		6	0.015	0.017	4.7893	0.571
		7	-0.046	-0.053	6.0934	0.529
		8	0.036	0.041	6.8983	0.548
		9	0.028	0.021	7.3758	0.598
		10	0.065	0.072	9.9555	0.444
		11	-0.001	0.000	9.9560	0.534
		12	0.013	0.013	10.058	0.611
		13	0.004	-0.001	10.067	0.688
		14	-0.026	-0.032	10.498	0.725
		15	0.006	0.013	10.518	0.786
		16	-0.058	-0.065	12.612	0.701
		17	-0.015	-0.003	12.748	0.753
		18	-0.002	-0.015	12.750	0.806
		19	0.077	0.078	16.463	0.626
		20	-0.010	-0.008	16.529	0.683
		21	-0.040	-0.057	17.532	0.678
		22	-0.021	-0.010	17.814	0.717
		23	0.044	0.039	19.019	0.700
		24	0.103	0.112	25.804	0.363
		25	-0.043	-0.033	26.993	0.356
		26	0.015	0.028	27.140	0.402
		27	-0.091	-0.106	32.466	0.215
		28	-0.037	-0.033	33.344	0.223
		29	-0.013	-0.004	33.455	0.260
		30	0.015	0.020	33.605	0.297
		31	0.012	0.045	33.703	0.338
		32	0.074	0.060	37.195	0.242
		33	0.030	0.023	37.764	0.261
		34	0.002	-0.021	37.765	0.301
		35	0.014	0.005	37.891	0.339
		36	-0.007	-0.020	37.920	0.382

*Probabilities may not be valid for this equation specification.

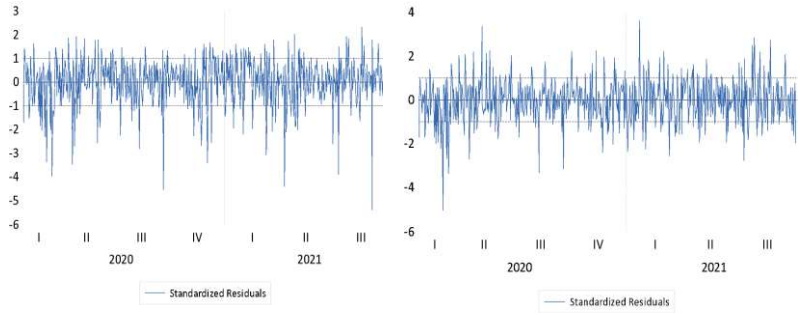
Source(s): Author's calculations using E-views software

b) Engle-Ng Sign-Bias Test

	t-Statistic	Prob.
Sign-Bias	-0.869228	0.3851
Negative-Bias	-0.780284	0.4355
Positive-Bias	-1.146567	0.2520
Joint-Bias	1.952693	0.5826

	t-Statistic	Prob.
Sign-Bias	0.316976	0.7514
Negative-Bias	-0.129666	0.8969
Positive-Bias	-0.202522	0.8396
Joint-Bias	0.502477	0.9183

Source: Author's calculations using E-views software



R100=F(LnOil,LnVix) ***R30=F(LnOil,LnVix)***

Figure (7) The standardized residual for GARCH(1,1)

Source: Author's calculations using E-views software

	α	0.195	3.6***	0.16951	4.2***
	β	0.359	3.1***	0.7068	13.4***
α+β		0.554		0.87	
Log Likelihood		1659.2		1885.16	
Adjusted R^2		0.04		0.067	
AIC		-5.43		-6.18	
ARCH LM	f-stat	0.056		f-stat	0.26
	Prob	0.811		Prob	0.6
Autocorreclation		NO		NO	

Source: Author's calculations using E-views software.

The findings of GARCH demonstrated a strong negative influence of oil price movements and the fear index (LnVIX) on the daily returns and volatility of the EGX100 and EGX30. These findings are compatible with (Ulusoy & Özdurak (2018); and Alamgir & Amin (2021). Furthermore, strong GARCH coefficients indicate that conditional variance shocks take a long time to dissipate, and that volatility is persistent.

Finally, as indicated in table 6. To assess the efficiency and goodness of fit of GARCH models residual diagnostics tests were utilized. The Collegram Q-statistics and ACF and PACF plots for the squared residuals display no significant autocorrelation (probabilities >0.05. Also the probability of ARCH LM test (.81and 0.6 respectively) is greater than 0.05 indicating the absence of homoscedasticity (, the lowest Akaike criterion value, the largest adjusted R^2, and the highest log-likelihood. Lastly, in evaluating the presence of leverage effects in the standardized residuals, sign –bias test was utilized where the results indicate that the model adequately captures the impact of shocks on volatility.

The GARCH model's findings demonstrate how current global challenges have affected the Egyptian stock market. Due to bad events, the returns of the EGX100 and EGX30 are more negatively impacted than their volatility. The returns' volatility is modestly affected by the world oil price fluctuations, in contrast to its response to risks generated by COVID-19 and the Russian-Ukrainian crisis, reflected in the VIX. The weak effect of oil price fluctuations may be attributed to several factors, including the fact that the energy sector represents only 1% on average of total market capitalization. Oil price shocks can affect stock prices directly through listed energy-related stocks, and indirectly through general market risk related to macroeconomic variables such as GDP growth rates, inflation, and exchange rates (Demirer et al.,2014). Hence, the uncertainty accompanied by recent challenges has a higher impact on stock market performance than oil price changes. Additionally, with ongoing foreign investor sales, Egyptian stock market indices had a major decline in the second quarter of 2022. According to EGX monthly data, the non-

5.2 GARCH Estimation Results

Because the EGX100 and EGX30 returns showed an Arch effect, the GARCH model was initially used to account for the changing variance. The null hypothesis of no change in volatility can be rejected based on the plain vanilla GARCH model findings in Table 4 since the change in volatility is considerable.

Table 4: Results of plain vanilla GARCH (1,1)

		R100		R30	
		coefficient	z-stat	coefficient	z-stat
Conditional mean equation	μ	0.0005	0.76	0.00016	0.4
	Return(-1)	0.23	5.04***	0.2088	4.36***
Conditional variance equation	ω	-0.0007	-4.5***	9.86E-06	3.658***
	α	0.18	3.5***	0.19	5.368***
	β	0.34	2.9***	0.75	17.4***
	α+β	0.52		0.94	
Loglikelihood		1655.26		1877.14	
AIC		-5.4		-6.16	

Source: Author's calculations using E-views software

The results of the GARCH models demonstrate that volatility from prior periods could explain the current volatility state at a 1% significance level. The coefficients of the ARCH effect are statistically significant in the conditional variance equation, suggesting that recent news influences stock market volatility. Furthermore, the GARCH effect coefficient is substantial, demonstrating that old news influences return volatility. Table 5 shows the findings of the GARCH model, which adds the natural logarithm of the oil price and the VIX variables to the conditional variance equation. As (α+β) is near one, the EGX100 and EGX30 return series have both volatility clustering and persistence.

Table 5 Results of GARCH (1, 1)

GARCH (1, 1) with independent Variables: Ln Oil and Ln VIX					
		R100		R30	
		Coeff.	z-stat.	Coeff.	z-stat.
Conditional mean equation	μ	0.028	-1.8**	0.02	2.2**
	Return (-1)	0.21	4.6***	0.18	3.56***
	$(LnOil)_t$	-0.0049	-2.3***	-0.002	-1.7*
	$(LnVIX)_t$	-0.0023	-0.8	-0.003	-2.05**
Conditional variance equation	$(LnVIX)_t$	0.000176	4.4***	2.35E-05	3.4***
	$(LnOil)_t$	6.57E-05	3.2***	3.34E-07	0.06
	ω	-0.0007	-4***	-5.82E-05	-1.6*

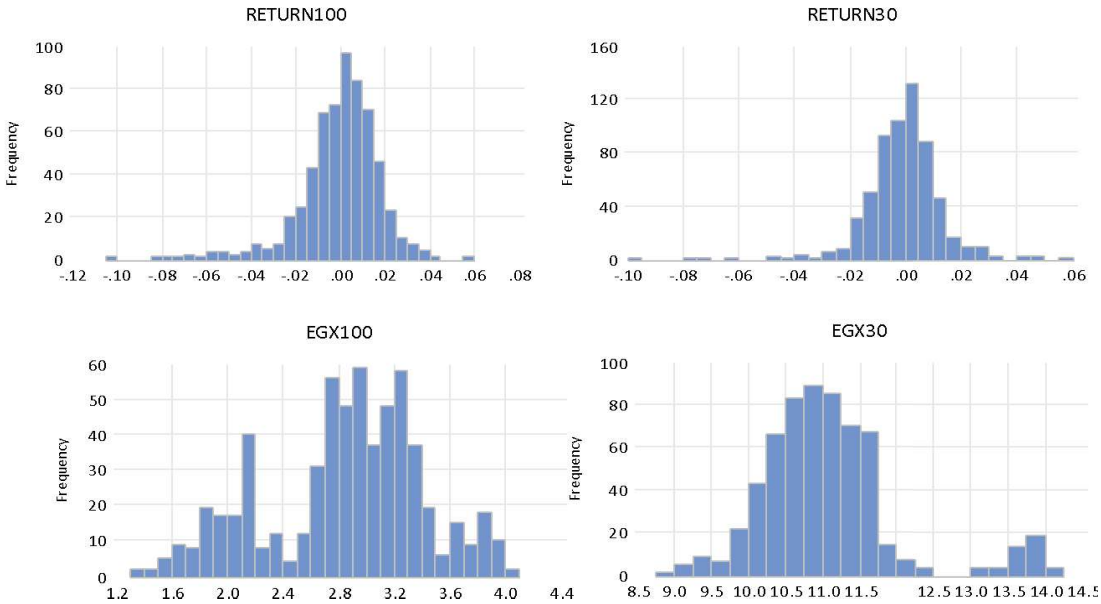


Figure 6: The Distribution of EGX100 and EGX30 Prices and Returns (Jan. 2020– July 2022)

The Jarque-Bera normality test results, as shown in Table 3 and Figure 6, are consistent with both kurtosis and skewness statistics. The returns are not normally distributed because the test result is significant at the 1% level. As the chosen data are leptokurtic, fat-tailed, and not normally distributed, this gives additional evidence for using the ARCH/GARCH model. Data stationarity was also tested before estimating the model using the Phillips-Perron, and Augmented Dickey-Fuller unit root tests.

The first step in the GARCH analysis procedure is to assess the residuals for heteroskedasticity and the presence of the ARCH effect. The following is the generalized autoregressive representation of the squared residuals:

$$\hat{u}_t^2 = b_0 + b_1\hat{u}_{t-1}^2 + b_2\hat{u}_{t-2}^2 + \cdots + b_q\hat{u}_{t-q}^2 + e_t$$

If the parameter estimate "bi" is significant and non-zero, this indicates the presence of an ARCH effect. The test statistics use the LM test in the following reduced form:

$$\hat{u}_t^2 = b_0 + b_1\hat{u}_{t-1}^2 + e_t$$

The null hypothesis states that there is no Arch effect on stock return volatility. Once the volatility of stock returns exhibits an Arch effect, the GARCH models are estimated to analyze changing volatility and assess whether EGX returns are affected by oil price swings.

5. Results

5.1 Descriptive statistics

According to Table (2), from January 1, 2020, to the 30th of June 2022, the average daily returns of the EGX30 and EGX100 were positive and approached zero, indicating that gains offset losses over the study period.

Table 2: Summary Statistics of EGX30 and EGX100

EGX100	Mean	Median	Max	Min	S.D	Skew.	Kurtosis
Price	2.84	2.918	4.06	1.39	0.56	-0.367	2.65
Return	0.0002	0.0026	0.06	-0.1	0.02	-1.327	7.568
EGX30	Mean	Median	Max	Min	S.D	Skew.	Kurtosis
Price	11.06	10.97	14.1	8.7	0.91	1.3	5.67
Return	-0.0007	0.00018	0.03	-0.1	0.01	-1.12	12.003

Source(s): Author's calculations using e-views software.

Additionally, a significant difference appears between the highest and minimum values, notably for EGX30, indicating severe fluctuations in price. Skewness is 0, and kurtosis is around 3 in a normally distributed series. The skewness of EGX100 and EGX30 returns is -1.32 and 24.6, respectively. Negative skewness indicates that the distribution deviates from normality and has a long left tail. EGX100 returns are leptokurtic because of the significant kurtosis statistics of 7.5, suggesting that the return is fat-tailed.

Table 3: The Jarque-Bera normality and ARCH effect

		J.B	**Prob**	**PP d(0)**	**ADF d(0)**	**ARCH effect (LM)**	
						F- stat.	**Prob**
EGX100	P	18.6	0.0				
	R	707.1	0.0	-18.8***	19.08***	58.1	0.0
EGX30	P	358.3	0.0				
	R	2179.5	0.0	-20.18	-20.2	63.3	0.0

Source: Author's calculations using e-views software.

to eliminate linear dependency in the series, whereas cross-market autoregressive terms (γ_{ij}) are used to capture the mean spillover from market(i) to market j. The residuals $\varepsilon_t = (\varepsilon_{1t}, \varepsilon_{2t})$ are normally distributed, $\varepsilon_t|\Omega t_{-1} \sim N(0, H_t)$, with its corresponding conditional variance-covariance matrix given by H_t, Ω_{t-1} as an information set at time t-1. The selection of lags in the above VAR models is based on Schwartz's criteria. The conditional variance equation of the BEKK-GARCH model is represented by:

$$\boldsymbol{H_t = CC` + A\ \varepsilon_{t-1}\ \varepsilon`_{t-1}\ A` + BH_{t-1}\ B`}$$

Where H_t represents the conditional variance-covariance matrix, and C is the triangular matrix with three parameters. Matrix B depicts the extent to which the conditional variances are related to past conditional variances. A is a 2x2 square parameter that captures the effects of lagged shocks or events on volatility. The conditional variance for each equation in the bivariate BEKK-GARCH model can be derived by expanding system H_t as follows:

$$h_o^2 = \alpha_o + \beta_o^2 \varepsilon_{o-1}^2 + 2\beta_o \beta_{so} \varepsilon_{s-1} \varepsilon_{o-1} + \beta_{so}^2 \varepsilon_{s-1}^2 + \delta_o^2 h_{o-1}^2 + 2\delta_o \delta_{so} h_{so-1} + \delta_{so}^2 h_{s-1}^2$$

$$h_{so} = \alpha_{so} + \beta_s \beta_o \varepsilon_{s-1}^2 + (\beta_{os}\beta_{so} + \beta_s \beta_o)\varepsilon_{s-1}\varepsilon_{o-1} + \beta_{os}\beta_o \varepsilon_{o-1}^2 + \delta_s \delta_o h_{s-1}^2 + (\delta_{os}\delta_{so} + \delta_s \delta_o) h_{so-1} + \delta_{os}\delta_o h_{o-1}^2$$

$$h_s^2 = \alpha_s + \beta_s^2 \varepsilon_{s-1}^2 + 2\beta_s \beta_{os} \varepsilon_{s-1} \varepsilon_{o-1} + \beta_{os}^2 \varepsilon_{o-1}^2 + \delta_s^2 h_{s-1}^2 + 2\delta_s \delta_{os} h_{so-1} + \delta_{os}^2 h_{o-1}^2$$

The above equations measure the spillover effects and volatility transmissions across variables throughout the study period. In other words, the conditional variance of the stock market (oil market) depends not only on its past variances and innovations but also on those of the oil market (stock market). Under the assumption of conditional normality, the parameters of a multivariate GARCH model can be estimated by maximizing the log-likelihood function:

$$Max \log L_T(\theta) = \sum_{t=1}^{T} l_t(\theta)$$

$$l_t(\theta) = -\frac{TN}{2}\log(2\pi) - \frac{1}{2}\sum_{t=1}^{T}(\log|H_t| + \varepsilon'_t H_t^{-1} \varepsilon_t)$$

Where θ represents all unknown parameters, N is the number of variables, and T is the number of observations considered to be typically employed to produce the initial starting values for the estimation of the mean and variance-covariance matrix using the BFGS (Broyden, Fletcher, Goldfar-Shanoo) method. The final step in our analysis is verifying the efficiency of the models used by residual diagnostic tests.

Karmakar (2005) recommended using GARCH to record the conditional volatility in stock returns. (α+β) provides a measure of the persistence of the relevant time series, and thus, higher values for (α+ β) indicate more persistent volatility. Although the GARCH model captures many issues related to the financial time series, it fails to detect other volatility properties, such as the leverage effect. The negative shocks have a substantial impact on increasing volatility compared to the positive shocks of the same magnitude. This tends to build asymmetric GARCH models that capture the extent of availability for asymmetric distribution, parameter restrictions, and the leverage effect of stock returns. The issue of asymmetric conditions was first proposed by Black (1976), and then, over time, many empirical studies provided supporting evidence, such as the Exponential GARCH (EGARCH). This study employs the EGARCH model to capture the leverage effect of events on the Egyptian stock market. Awartani & Corradi (2005) found that the EGARCH model exhibited more fitness accuracy in the estimation of volatility in comparison to other types in the asymmetric GARCH family of models. EGARCH allows for the testing of asymmetries and is utilized to investigate the various effects of good and bad news on future volatility in the Egyptian stock market. Hence, the log of the variance is used, and the conditional variance for the EGARCH (1, 1)

$$Ln(\sigma_t^2) = \omega + \sum_{j=1}^{p} \beta_j Ln(\sigma_{t-j}^2) + \sum_{i=1}^{q} \alpha_i \left\{ \left| \frac{\varepsilon_{t-i}}{\sigma_{t-i}} \right| - \sqrt{\frac{2}{\pi}} \right\} - \gamma_i \frac{\varepsilon_{t-i}}{\sigma_{t-i}}$$

Where ω is a constant, α is the ARCH effect, β is the GARCH effect, and γ is the asymmetric effect.

To ensure that the stationarity assumption still holds, β must be positive and less than 1. Additionally, gamma (γ) indicates the leverage effect (asymmetric), and it must be both negative and significant. If γ is less than zero, the negative shocks will generate more volatility than positive shocks. Finally, following Gomes & Chaibi (2014) and Sahoo et al. (2017), the BEKK-GARCH model is used to detect the spillover effect between the crude oil market and the Egyptian stock market. The bivariate BEKK-GARCH model is used to capture the spillovers across the two markets, where the system of conditional mean equations consists of VAR(p) models (p=1,..,n). According to Schreiber et al. (2012), the bivariate BEKK-GARCH model has more advantages than the general MGARCH model because of the substantial decrease in several estimated parameters. The specification for conditional mean equation in VAR(p) form is: $\mathbf{Y_t}=\boldsymbol{\mu}+\sum_{i=1}^{P} \quad \Gamma Yt - i + \varepsilon_t$

Where the parameter vector $\mu=(\mu_1,\mu_2)$ represents constants, and Γ is a 2×2 matrix of coefficients for autoregressive terms. The own market autoregressive terms (γ_{ii}) are used

4. Data and Methodology

This study employs several analytical and econometric tools to examine the influence of recent challenges and oil price variations on Egyptian stock market returns and volatility from January 1, 2020, through June 30, 2022. Furthermore, it provides unique insights into how variations in oil prices affect the major sectors.

4.1 Data Sources

The Egyptian Stock Market Exchange website provides the daily closing values for the EGX30 and EGX100 indices. For the analysis, returns were converted into price indices. The oil price data was retrieved from the Energy Information Administration. Daily data on the VIX closing prices was gathered from the Chicago Board Options Exchange website. The importance of the VIX is underlined in terms of the transmission of global market uncertainty (Dutta, 2018). A higher VIX reflects COVID-19 and the Ukrainian crisis, which depresses stock returns. Analyzing the volatility of stock market returns requires calculating the standard deviation of returns from the stock market index as follows: $SSdrt = \sqrt{\sum_{t=1}^{n} (Rt - \bar{R})2 / n - 1}$

As: $R_t = \text{Ln}(\text{index}_t/\text{index}_{t-1})$

Where R is stock returns, the index is EGX30 or EGX100 index, and t is time.

4.2 Methodology

Initially, the descriptive statistics of daily crude oil prices, EGX100, and EGX30 were analyzed to identify the characteristics of the variables. Also, the Jarque-Bera test was used to confirm the normal distribution of returns. The first step in the bivariate GARCH (p,q) methodology is to specify the conditional mean and variance equations as follows (Brooks & Rew, 2002):

The conditional mean equation is $R_t=\mu+\theta R_{t-1}+\varepsilon_t$

The conditional variance equation is $h^2_t= \omega+\alpha\varepsilon^2_{t-1}+\beta_1 h^2_t-1$

Where μ and ω are constants; α is the ARCH term, β_1 is the GARCH term, and ε_t is the error term. According to Bollerslev (1986), the parameters α and β_1 are assumed to be greater than zero for a positive variance.

We set p = 1 and q = 1 according to the lowest AIC. Additionally, this is usually the option that best fits financial time series and captures essential features of volatility. GARCH (1,1) strikes a balance between capturing volatility dynamics and avoiding excessive complexity (Bollerslev,1986)

between oil prices and stock Prices in major sectors was negative and significant for all sectors except the basic resources sector.

Table 1: The correlation coefficient between oil price & other variables

A. Based on period:

	1st wave	subsequent waves	After Ukrainian crisis
EGX30			
Pearson	0.8629***	0.255***	-0.4251***
Kendall	0.6409***	0.1749***	-0.3512***
EGX100	0.3317***	0.1799***	-0.2193**
Pearson			
Kendall	0.2244***	0.1328***	-0.1722**

B. Based on Sector (January 2020 – July 2022)

	Bank	Non-bank financial services	Basic resources	Food, Bev. & Tobacco	Real Estate
1st wave	0.79***	0.89***	0.77***	0.86***	0.80***
Pearson					
Kendall	0.51***	0.70***	0.51***	0.68***	0.609***
Subsequent waves					
Pearson	0.60***	0.75***	0.73***	-0.53***	0.38***
Kendall	0.39***	0.51***	0.55***	-0.38***	0.29***
Ukrainian crisis					
Pearson	-0.45***	-0.40***	0.047	-0.331***	-0.39***
Kendall	-0.36***	-0.31***	0.004	-0.279***	-0.30***

Note(s): *, ** and * denote significance levels at 1%, 5% and 10%, respectively.**
Source(s): Author's calculations using e-views software.

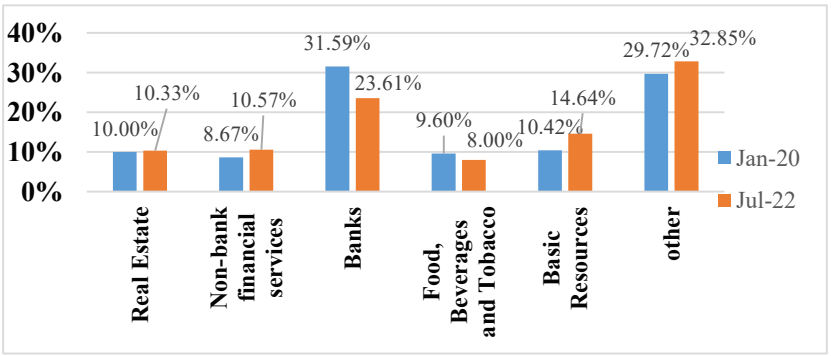


Figure 2: Market Capitalization (Jan. 2020 – July 2022)
Source: EGX data

However, the first round of sanctions imposed on Russia did not target oil supplies or energy payments.

On May 30, 2022, the EU agreed to ban seaborne imports of Russian oil (which makes up 90% of EU oil imports) with a transition period of six months for crude oil and eight months for refined products (Kajus et al., 2022). Eventually, the swift rise of the delta variant in the UK caused oil prices to fall by mid-June.

3.4 The Sectoral Analysis

The total market capitalization decreased by 11%, from EGP 708.1 billion in January 2020 to EGP 631.5 billion in July 2022 (according to the Egyptian Stock Exchange monthly reports). The major sectors include real estate, banking, non-banking, food, and basic resources, according to the highest share in market capitalization percentage. These sectors collectively represent 70% of the total market capitalization in January 2020.

Figure (2) shows that the share of the banking sector in total market capitalization decreased from 31.6% in January 2020 to 23.5% in July 2022, while that of the 'food, beverages, and tobacco' sector decreased from 9.6% to 8%. In contrast, the non-banking financial services sector share increased from 8.7% to 10.6% and the basic resources sector from 10.4% to 14.6%. The highest decline was found in the non-banking financial services sector (25% decrease during March 2020).

The Russian-Ukrainian crisis caused a sharp increase in oil prices; consequently, different sectors were distressed, but the intensity of this downturn was less than that of the pandemic. The correlation coefficients shown in Part B of Table 1 show a strong positive correlation between oil prices and stock prices in the five major sectors during the first wave of the pandemic. Hence, the pandemic exerted adverse effects on both oil prices and stock market prices. During the second and third waves, crude oil prices increased gradually, and the performance of the major sectors improved, except for banking and the "food, beverage, and tobacco" sectors.

The banking sector's market capitalization value experienced the largest decline compared to other sectors; it decreased from EGP 223 billion in January 2020 to EGP 196.8 billion just before the Ukrainian crisis, and it declined further to EGP 149 billion in July 2022. The food sector's market capitalization decreased by 23% from EGP 67.95 billion to EGP 52.3 billion in January 2022 and then decreased further to EGP 50.5 billion in July 2022.

After the Russian invasion of Ukraine, the sharp increase in oil prices and increasing uncertainty adversely affected stock market performance. Therefore, the correlation

3.2 The subsequent waves of the pandemic (November 22, 2020–February 23, 2022)

The rise in oil prices in the last quarter of 2020 followed an agreement among oil producers to extend lower production. Despite the good news about finding COVID-19 vaccines, crude oil prices fluctuated in 2021 as concerns were rising because of uncertain oil demand and a second wave of rising infections. The moderation of the second wave and the subsequent easing of restrictions caused the oil price to approach its pre-COVID values, reaching 73.6 per barrel by the middle of 2021. The EGX100 EWI index rose by 12.65% during the second quarter of 2021, as illustrated in Part B in Figure 1. OPEC+ started gradually increasing supply in June 2021 as economies came out of lockdown, putting an extra 400,000 barrels a day onto world markets. The highest monthly drop in the oil price since September 2020 was in August, following growing concerns about the Delta Coronavirus variant. The price decreased by 12% from $75 per barrel on August 1, 2021, to $66 on August 19, 2021. Consequently, EGX30 and EGX100 experienced a large decline in September 2021; EGX30 decreased by 7% and EGX100 by 8.5%.

As the third wave started, EGX30 witnessed a slight decline, but it rebounded quickly compared to the previous waves. There was a weak positive correlation between oil prices and both indices during the second and third waves of the pandemic, as the correlation coefficient did not exceed 26% (part A in Table 1). Oil prices have risen gradually since the beginning of 2022 because the increase in OPEC+ production was not enough to keep up with demand. At the same time, stock market indices declined because of concerns about the Russian-Ukrainian crisis.

3.3 The Post-Russian invasion of Ukraine (February 24, 2022–July 1, 2022)

The Russian invasion of Ukraine in February 2022 disrupted the energy supply and caused crude oil prices to jump to $128 per barrel on March 9, the highest level in almost ten years (EIA, 2022). Part C in Figure 1 shows the accompanying weak performance resulting from the increasing uncertainty that negatively affects global stock markets (Boungou & Yatie, 2022).

The results in Part A in Table 1 confirm the existence of a significant negative correlation between oil prices and the Egyptian stock market indices during this period. Oil prices had fallen by the end of March 2022 as China, the world’s largest oil importer, began its most extreme COVID-19 lockdown in two years to control the growing number of cases in Shanghai. Consequently, the US, UK, European Union (EU), Australia, and some Asian nations immediately responded to international sanctions targeting Russia's economy.

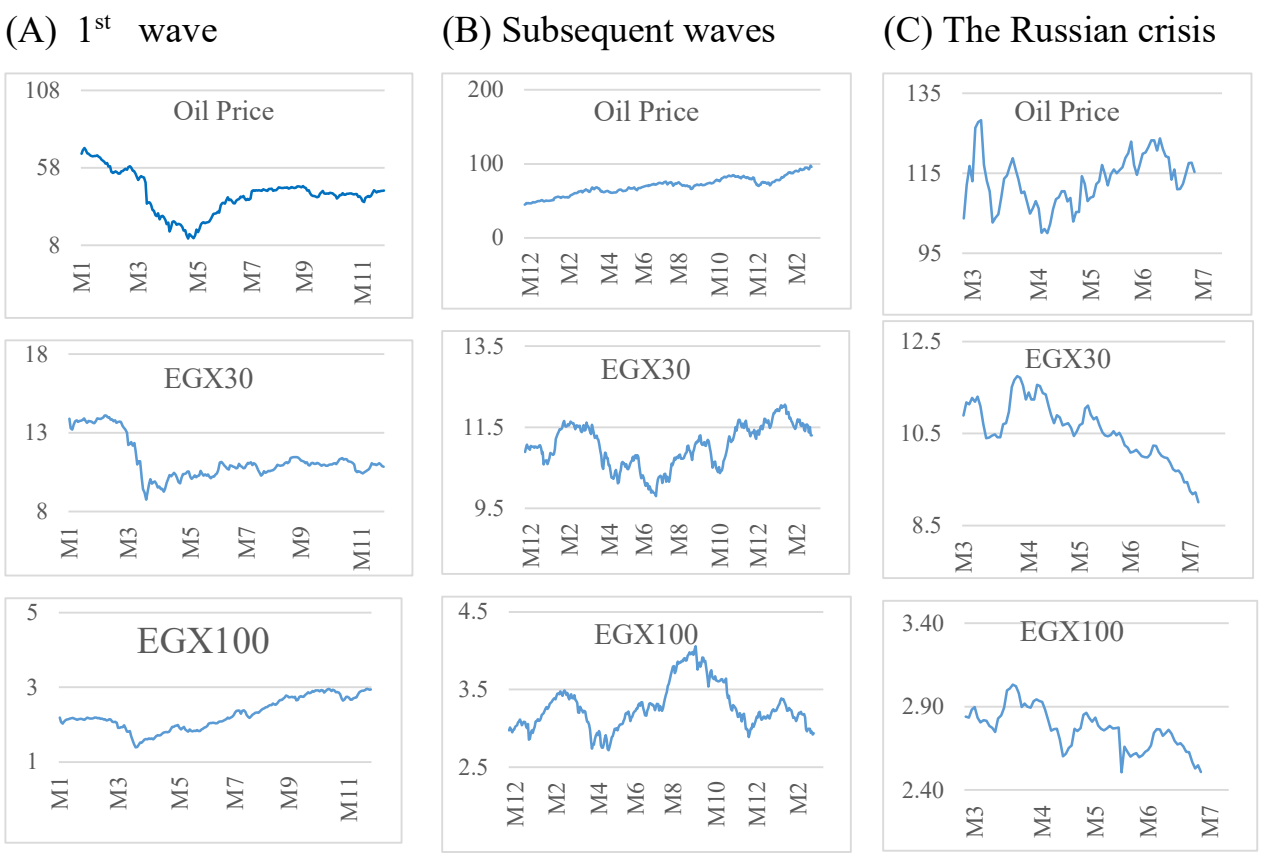


Figure 1: Oil price, EGX30 and EGX100

Source: US Energy Information Administration (EIA) and Egyptian Exchange (EGX) statistics.

The stock market indices began exhibiting the full effects of global turbulence in March; EGX30 recorded a 7% decline following the announcement of the first death on March 9. The closure of all schools and universities on March 15 constituted the worst decline (9%) since January. The indices improved during May, but the increase in new global COVID-19 cases by September 2020 (signifying the beginning of the second wave in the U.S.) sent bad signals to global stock markets; EGX30 declined by about 7% during the second half of October. Concerning the co-movement of oil price and stock market indices during the first wave of COVID-19, both Pearson and Kendall coefficients revealed a significant, strong positive correlation between oil price and EGX30, and the correlation was weaker in the case of EGX100, as shown in Part A of Table 1. Reduced oil consumption during this period decreased the barrel price, thus hurting the performance of stock markets worldwide.

prices; aggregate analysis may mask the heterogeneous performance of various sectors. Therefore, examining the relationship between oil price and stock market performance at the disaggregated level is essential. As the relationship between oil prices and financial indicators could change depending on economic conditions, three successive periods were analyzed: the first period represents the outbreak of COVID-19 until the end of the first wave. The reason behind the differentiation between the first and other waves is the severe impact of the first one. The second period represents the subsequent waves of the pandemic. The third period represents the post-Russian invasion of Ukraine.

3.1 Oil prices and stock market indices during COVID-19's first wave

Part A in Figure (1) plots oil prices, EGX30, and EGX100, starting from January 1, 2020 (the pre-COVID period), followed by the first wave of the pandemic that spans from March 8, 2020, to November 22, 2020. In 2020, energy markets suffered negative supply and demand shocks, leading to severe oil price volatility. As China, the US, and Europe have undertaken several containment measures, including lockdown and travel restrictions, oil demand has drastically declined. A pandemic-triggered recession led to a supply shock due to the oil trade war between the major oil-producing nations. Saudi Arabia and Russia engaged in a price war, increasing oil production to gain market share.

The second quarter of 2020 marked a turning point in the history of the history of the oil market, and the crude oil price reached its minimum on April 28, 2020, approaching $12 per barrel, the lowest since 2002.

Eventually, the OPEC+ reached a historic agreement in April 2020 to adjust overall oil production downward. This agreement lowered the production scale and reduced the volume of oil made available by 9.7 million barrels per day traded on the world markets. Consequently, oil prices increased to $38.22 on May 30, 2020. By December 2020, oil stocks in OECD countries had fallen for the fifth consecutive year, stabilizing the oil market and accelerating the rebalancing process. EGX30 and EGX100 followed the same path as oil prices, experiencing a downward trend during the first quarter of 2020 and an upward trend during the second quarter.

with oil markets; however, there is no evidence of such cyclical associations at higher levels (Onour, 2012).

Jones and Kaul (1996) clarified the direct and indirect negative effects of an increase in oil prices on stock market performance. The direct effect appears in the risk that such an increase exerts on financial markets; as it strongly influences the future cash flow, investment, and revenue of a firm. The indirect effect is reflected in the fact that inflation reduces investors' earnings expectations from the stock market, resulting in stock market depreciation. Mokni (2020) noted that an oil price increase is expected to positively affect stock markets in oil-exporting countries, as their income increases. In contrast, oil price increases hurt stock markets in oil-importing countries because of the increasing cost of production (Arouri & Nguyen, 2010; Jones et al., 2014).

Osah & Mollick (2022) differentiated between the short- and long-term effects of oil price changes on stock returns and found a short-term negative effect on stocks for both oil exporters and importers. However, the relationship was reversed in the long run for oil exporters. Nevertheless, the effect might not appear at the aggregate level, as U.S. stock market returns respond slightly to oil market shocks, although the energy and materials sectors are affected (Perez, 2020). Therefore, it is important to note that the linkage between oil price volatility and stock market indices varies considerably across sectors (Badeeb & Lean, 2018; Fang & Egan, 2018). The energy-related sectors were positively affected by oil price changes, whereas other sectors were either negatively affected or unaffected. Banking stocks in Turkey benefited from the oil price increases from 2008 to 2016. In Europe, major sectors, such as energy, financial services, banking, and basic resources, were mostly influenced by oil prices from January to July 2020.

In summary, oil price volatility adversely affects stock market performance through three basic channels. First, a higher oil price increases the cost of production and reduces future cash flows and dividends, leading to a decline in stock returns. Second, inflationary pressures that accompany oil price hikes eventually lead to higher interest rates and depressing stock prices. Uncertainty provides a third channel through which oil price changes can alter stock market behavior.

3. Performance of the Egyptian Stock Market

In this section, a preliminary analysis of the influence of oil price fluctuations on the Egyptian stock market performance is presented through graphical interpretation, Pearson's correlation coefficient, and Kendall's tau, which are particularly suited for heavy tails in high-frequency financial data. Sectors may be affected more than others by changes in oil

Oil price fluctuations have a greater influence on stock markets in oil-importing countries than in oil-exporting ones (Asteriou et al., 2013). Cunando & Gracia (2014) observed a remarkable negative effect of oil price changes on stock market returns, while Perez (2020) showed that U.S. stock market returns did not highly respond to oil shocks, except for the energy sector. Since the available literature does not provide clear results concerning the relationship between oil price shocks and stock markets, the novelty of this study lies in examining the impact of oil price fluctuations on stock market performance in Egypt. Our contribution is twofold: first, it addresses the impact of recent oil price changes on the Egyptian stock market returns and volatility; second, it provides a preliminary assessment of the impact of oil price shocks on the performance of major economic sectors. This study tests three basic hypotheses: (i) oil price fluctuations have a significant impact on stock market returns and volatility; (ii) oil price fluctuations have varying effects on major sectors; and (iii) there is volatility transmission between oil and stock markets.

This paper proceeds as follows; Section 2 reviews theory and literature. Section 3 provides an overview of the Egyptian stock market performance before and after the recent surge in oil prices. Section 4 includes the analytical and econometric methods used. Section 5 analyzes the results. Section 6 provides a discussion of the findings and concluding remarks.

2. Theory and Literature

Oil price fluctuations are considered among the most important factors affecting stock market volatility, but there seems to be no clear pattern in stock market reactions (Bastianin et al., 2016; Zhang & Asche, 2014). The changes in oil prices during the global financial crisis of 2008 affected most Middle East/North Africa (MENA) stock markets differently, depending on whether the country was an oil importer or exporter, also on the level of analysis (aggregate, sectoral, or firm-level).

Oil price movements reflect the global economic situation because of their close ties to economic growth and, in turn, stock prices (Peiro, 2015). Baur et al. (2012) differentiated between positive and negative oil price shocks; increased oil prices result in weak economic growth prospects and, thus, lower stock prices and market returns. However, a decrease in oil prices is an indicator of a general economic slowdown due to increasing uncertainty, which appears in the form of postponing both investment and consumption decisions (Atil & Mahfoud, 2021; Brown & Yücel, 2002). At low oil price levels, stock markets in major oil-exporting countries in the Middle East share common fluctuations

How Oil Price Shocks Affect the Egyptian Stock Market Performance in the Context of Recent Challenges

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Abstract

This study investigates the time-varying impact of oil price fluctuations on the performance of the Egyptian stock market from 1 January 2020 to 30 June 2022. During this period, the world witnessed two major shocks: COVID-19 and the Russian-Ukrainian crisis, which reconfigured the global oil situation and played a significant role in the functioning of stock markets. For an in-depth evaluation, the study assessed the impact of oil price fluctuations on stock performance for major sectors by utilizing GARCH and EGARCH models. Additionally, the BEKK-GARCH model measures the spillover transmission between oil prices and the stock market. The results revealed a significant adverse effect of oil prices and the fear index (VIX) on EGX100 and EGX30's daily returns and volatility. The banking, non-banking, and real estate sectors were the most affected. Moreover, a significant bidirectional volatility spillover between the oil and stock markets was detected. The results provide guidelines for investors and financial advisors to enrich their decision-making processes concerning how to efficiently reallocate resources among different economic sectors during periods of fluctuation. This study is among the first to address recent oil price fluctuations' impact on the Egyptian stock market returns and volatility, emphasizing sectoral performance.

Keywords: BEKK-GARCH, oil price, stock market returns and volatility, sectoral analysis, Egypt.

1. Introduction

After the global economy was breathing signs of relief from the repercussions of COVID-19, Russia's invasion of Ukraine led oil prices to rise, exerting a profound influence on economic and financial activities around the world. The fact that these two countries are major energy suppliers causes capital outflows from Emerging markets that suffered heavy losses in 2021 and 2022. In Egypt, EGX30 fell by 5.95% and EGX100 Equal Weight Index (EGX100 EWI) fell by 11.1% during the first quarter of 2022 (EGX quarterly report).

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7. Suggestion for Future research

The analysis of the relationship between remittance inflows and macroeconomic instability can be expanded to analyze the impact of disaggregated remittance inflows on economic growth and macroeconomic stability. In addition, the asymmetric impact of macroeconomic instability on remittance inflows is recommended to be assessed in future research.

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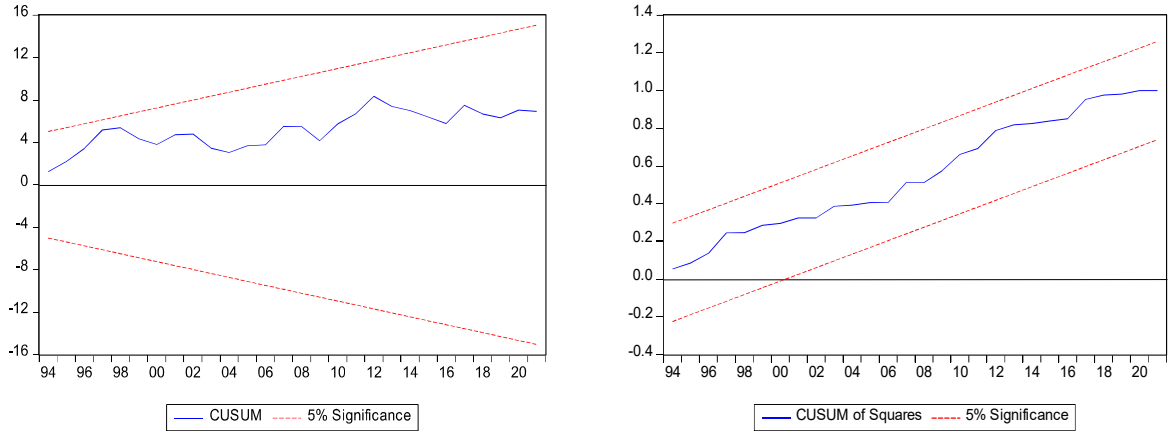

Figure 6: Plots of CUSUM and CUSUMSQ statistics for coefficient stability

6. Conclusion and policy recommendations

Understanding the main determinants of remittances is crucial for helping policymakers to design appropriate policies. This study investigates the impact of macroeconomic instability on remittance inflows to Egypt using ARDL bounds testing procedure for the time series data spanning 1980- 2021.

The findings of the study revealed the existence of cointegration between remittance inflows, macroeconomic instability, real GDP per capita in the home country, international oil prices, and exchange rate. Despite its severe negative consequences, remittance inflows react positively to macroeconomic instability in Egypt. Furthermore, remittances respond negatively to real GDP per capita in the home country, and positively to international oil prices and exchange rate. These results support the altruistic motive of remittances and provide evidence on their countercyclicality. They are also consistent with the compensatory nature of remittances during the periods of economic hardship whereas they work as an absorber to macroeconomic shocks.

These results have important implications for policy makers. First, policy makers should adopt suitable economic policies to mobilize remittance savings and direct them towards domestic productive investments. Second, although remittance inflows react positively to macroeconomic instability, policy makers should keep on adopting macroeconomic stabilization policies to avoid its negative consequences. In contrast to self-interest remittances devoted to investment, altruistically motivated remittances are mainly directed towards consumption. Therefore, maintaining macroeconomic stability and improving the macroeconomic environment in Egypt is a necessary condition for attracting self-interest remittances required for enhancing domestic investments and hence, achieving economic growth.

Table 4: Estimated long run and short run parameters of the ARDL model

Panel (A): Long run estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MII	1.4481***	0.199557	7.257032	0.0000
LnGDPPC	-1.6590**	0.675567	-2.455735	0.0205
LnOILp	0.3181**	0.136455	2.331321	0.0272
LnEX	0.5505***	0.136585	4.030713	0.0004
C	15.857**	6.317831	2.509976	0.0181
ECT_{t-1}	-0.6631***	0.103023	-6.436423	0.0000

Adjusted R-squared 0.8609

Panel (B): Diagnostic tests

Serial Correlation	3.6928[0.1578]
Heteroskedasticity	0.7591[0.6651]
Normality (Jarque-Bera)	2.2317 [0.3276]

Notes: * and ** indicate that the estimated coefficient is statistically significant at the 1% and 5% respectively.**

Source: Computed using E-views packages.

5.2.4. Diagnostic Checks

The results of the diagnostic checks are shown in Panel (B) of table (4). The Lagrange multiplier (LM) test of residual serial correlation statistic and the F-statistic of the Breusch-Pagan-Godfrey test applied to test homoscedasticity provide no evidence of serial correlation or heteroskedasticity in the error term. In addition, Jarque-Bera's normality test shows no evidence to reject the normality assumption.

The cumulative sum of recursive residuals (CUSUM) and the CUSUM of squares (CUSUMSQ) tests are applied to examine parameter stability. Figure (6) plots the CUSUM and CUSUM of squares statistics for examining the stability of the estimated long-run relationship. The results indicate all the estimated long-run parameters are stable since the plots of the two statistics fell consistently within the 5% significance critical bounds.

5.2.3. Estimation of Long run relationship and short run dynamics.

Table (4) reports the estimated coefficients of the specified ARDL model. The estimated long run coefficients presented in Panel (A) of the table reveal that the long-run elasticities of the macroeconomic instability and exchange rate are significant at the 1% significance level while the long-run elasticities of GDP per capita and the international oil price are significant at the 5% significance level. Macroeconomic instability has a positive statistically significant influence on remittances in the long run. A percentage point increase in macroeconomic instability index increases remittances by 145%, ceteris paribus. This result suggests the dominance of the altruistic motive and supports the compensatory nature of remittances since the economic hardship at the home country stimulates migrants to increase their remittances to financially support their families. This result is consistent with the findings of Akçay and Karasoy (2019).

The level of economic activity in the home country has a negative statistically significant effect on remittance inflows to Egypt. Holding other factors constant, an increase in the real GDP per capita by 1% decreases remittance inflows by 1.66% at 5% significance level. This result supports that altruism is the motivating factor for remittances in the long run. Accordingly, remittances are countercyclical and act as an absorber to macroeconomic shocks. On the other hand, the level of economic activity in the host country is found to have a positive statistically significant effect on remittance inflows. Where, a 1% increase in oil prices raises remittance inflows by 0.32% in the long run at 5% significance level.

Concerning the exchange rate, the results reveal that there is a positive and statistically significant association between the exchange rate and remittance inflows, whereas an increase in exchange rate by 1% results in an increase of remittance inflows by 0.55% at 1% significance level. This means that depreciation of the domestic currency triggers remittance inflows, which could grant insurance against balance of payment crisis. This result could be attributed to the exchange rate pass-through to consumer prices in the Egyptian economy (Elsharkawy and Elroukh, 2023).

The error correction term is negative and statistically significant at 1% significance level. It shows a relatively high speed of convergence in the long run dynamics of the variables. It indicates that around 66% of last period's disequilibrium is corrected in the current period. The adjusted R2= 0.86 which reflects the goodness of fit of our model.

Table 2: Augmented Dickey-Fuller (ADF) unit root test

Variable	ADF-statistic		
	Level		First difference
	Constant	Constant and trend	Constant
LnREM	-2.0900	-1.8476	-5.7917***
MII	-1.5678	-1.9317	-7.5307***
LnGDPPC	-0.9766	-3.7791**	-4.0388**
LnEX	-1.2023	-3.1417	-3.5907**
LnOILP	-1.0560	-2.3164	-6.2894***

Notes: * and ** indicate that the estimated coefficient is statistically significant at 1% and 5% respectively.**
Source: Computed using E-views packages.

5.2.2. The bounds test for cointegration. Three lags are chosen as a maximum for the specified model and the optimal number of lags (1, 3, 0, 0, 2) are selected based on AIC criterion. The results of the bounds test for cointegration are demonstrated in table (3). The results reveal a long-run cointegration relationship between remittance inflows, macroeconomic instability index, real per capita GDP, international oil price, and exchange rate since the F-statistic is greater than the upper bound of the critical value at the 1% significance level.

Table 3: Results of the Co-integration bounds test

F-Bounds Test			Null Hypothesis: No levels relationship			
			n = 35		n = 40	
Test Statistic	Value	Significance	I(0)	I(1)	I(0)	I(1)
F-statistic	5.8584***	10%	2.46	3.46	2.427	3.395
		5%	2.947	4.088	2.893	4
		1%	4.093	5.532	3.967	5.455

Note(s): The lower and upper bound critical values are obtained from Pesaran *et al.* (2001).
Source: Computed using E-views packages.

there are three eigenvalues: 1.84, 0.81 and 0.35 respectively. For each eigenvalue, there is an eigenvector. The principal components obtained from first, second and third eigenvectors are PC1, PC2 and PC3 respectively.

Table 1: Principal component analysis for the macroeconomic stability Index

Eigenvalues: (Sum = 3, Average = 1)

Number	Value	Difference	Proportion	Cumulative Value	Cumulative Proportion
1	1.8400	1.0302	0.6133	1.8400	0.6133
2	0.8099	0.4598	0.2700	2.6499	0.8833
3	0.3501	---	0.1167	3.0000	1.0000

Eigenvectors (loadings):

Variable	PC 1	PC 2	PC 3
Inf	0.4470	0.8751	0.1849
Deficit	0.6530	-0.1779	-0.7361
Debt	0.6113	-0.4498	0.6510

Notes: PC: principal component, Inf: inflation rate, Deficit: fiscal deficit, and Debt: external debt stocks.
Source: Computed using E-views packages

The proportions of variance representing the ratio of each eigenvalue to their sum show that PC1, PC2 and PC3 explain 61.33 %, 27% and 11.67% of standardized variance respectively. The highest eigenvalue of the principal components corresponds to the higher standardized variance. Since PC1 is the only principal component that has an eigenvalue greater than 1, it is considered for the analysis and the macroeconomic instability index is estimated using the weights assigned to the first principal component of each dimension. The first principal component (PC1) consists of a linear combination of inflation rate, fiscal deficit, and external debt stocks with weights obtained from the first eigenvector: 0.447, 0.653, and 0.611 respectively.

5.2. Empirical results

This section presents the empirical results of the econometric model applied in the study.

5.2.1. Stationarity tests.

The results of the augmented Dickey-Fuller (ADF) unit root test are presented in Table (2). The results show that none of the included series is integrated of order (2). All the included variables are non-stationary at levels but stationary at their first differences except for the real gross domestic product per capita (LnGDPPC) which is stationary at level at 5% significance level. This makes the bounds testing approach suitable for examining co-integration between the included variables.

run relationship among the variables. On the other hand, if the computed F-statistic is less than the lower bound value, the null of no co-integration cannot be rejected. Finally, if the computed F-statistics lies between the lower bound and upper bound, the test is inconclusive.

Once cointegration is established between variables, the long-run relationship can be estimated using the ARDL (p, q, m, n, s) represented in equation (4) as follows:

$$LnREM_t = \beta_0 + \sum_{i=1}^{\rho} \beta_{1i} LnREM_{t-i} + \sum_{i=1}^{q} \beta_{2i} MII_{t-i} + \sum_{i=1}^{m} \beta_{3i} LnGDPPC_{t-i} + \sum_{i=1}^{n} \beta_{4i} LnOILP_{t-i} + \sum_{i=1}^{s} \beta_{5i} LnEX_{t-i} + \mu_t \quad (4)$$

Where, β_0 is the drift term, $\beta_{1i}, \beta_{2i}, \beta_{3i}, \beta_{4i}, and\ \beta_{5i}$ are long run elasticities, p, q, m, n, s are the optimal lags of regressors $LnREM_t, MII_t, LnGDPPC_t, LnOILP_t, and\ LnEX_t$ respectively, μ_t is an error term.

Finally, the short-run dynamic parameters are obtained by estimating the restricted error correction model (ECM) as in equation (5).

$$\Delta LnREM_t = \alpha_0 + \sum_{i=1}^{\rho} \alpha_{1i} \Delta LnREM_{t-i} + \sum_{i=1}^{q} \alpha_{2i} \Delta MII_{t-i} + \sum_{i=1}^{m} \alpha_{3i} \Delta LnGDPPC_{t-i} + \sum_{i=1}^{n} \alpha_{4i} \Delta LnOILP_{t-i} + \sum_{i=1}^{s} \alpha_{5i} \Delta LnEX_{t-i} + \varphi EC_{t-1} + \mu_t \quad (5)$$

Where, α reflects the short-run dynamic coefficients and φ captures the speed of adjustment needed to restore equilibrium over the long run following a shock to the system.

Finally, the model must undergo several diagnostic checks to examine the reliability of the estimated ARDL model. These checks are the Lagrange multiplier (LM) test of residual serial correlation, Jarque-Bera's normality test and the Breusch-Pagan-Godfrey's heteroskedasticity test. Additionally, stability diagnostics checks as the cumulative sum of recursive residuals (CUSUM) test and the cumulative sum of squares of recursive residuals (CUSUM of squares) test are conducted to ascertain the stability of the estimated model.

5. Results and Discussion

This section presents the results of the study; it is divided into two subsections. The first subsection explains the results of the principal component analysis used for developing the macroeconomic instability index. The empirical results of the estimated econometric model are presented in the second sub-section.

5.1. Principal Component Analysis for Macroeconomic Instability Index

Table (1) reports the results of the principal component analysis (PCA). Through the PCA, eigenvalues for each principal component are estimated. As shown in the table

the ministry of finance (MOF) and the Egyptian Central Agency for Public Mobilization and Statistics (CAMPAS), while the annual data for international price of Dubai crude oil is extracted from the world bank commodity price data (the pink sheet).

4.3. Econometric methodology

The empirical analysis starts by assessing the stationarity status of the variables by applying the augmented Dickey-Fuller (ADF) unit root test to ascertain that none of the included series is integrated of order (2). After determining the order of integration of each of the included variables, co-integration between the variables is examined using the bounds testing approach of the autoregressive distributed lag (ARDL) model proposed by Pesaran and Shin (1996) and Pesaran *et al*. (2001).

The ARDL model offers some advantages over the traditional cointegration techniques. First, it establishes co-integration among the underlying variables of interest irrespective of their order of integration. Second, it allows different variables to take different optimal lag lengths, while this is not possible in traditional models. Third, it is used to estimate long run as well as short run coefficients. Fourth, it provides robust results in the case of small samples. Finally, it addresses the endogeneity problem.

The ARDL model involves applying several steps. First, the Akaike information criterion is used to identify the optimum order of lags of the model. The second step is establishing co-integration via the bounds test, which involves estimating the conditional unrestricted error correction (UECM) form. Following Pesaran *et al*. (2001) the error correction representation of the ARDL model is as follows:

$$\Delta LnREM_t = \alpha_0 + \sum_{i=1}^{\rho} \alpha_{1i}\Delta LnREM_{t-i} + \sum_{i=1}^{q} \alpha_{2i}\Delta MII_{t-i} + \sum_{i=1}^{m} \alpha_{3i}\Delta LnGDPPC_{t-i} + \sum_{i=1}^{n} \alpha_{4i}\Delta LnOILP_{t-i} + \sum_{i=1}^{s} \alpha_{5i}\Delta LnEX_{t-i} + \beta_1 LnREM_{t-1} + \beta_2 MII_{t-1} + \beta_3 LnGDPPC_{t-1} + \beta_4 LnOILP_{t-1} + \beta_5 LnEX_{t-1} + \in_t \quad (3)$$

Where, α_0 is a drift term, Δ is the first difference operator, $\alpha_{1i}, \alpha_{2i}, \alpha_{3i}, \alpha_{4i}, and\ \alpha_{5i}$ are the short run dynamic coefficients of the underlying ARDL model, with lag length p, q, m, n, and s respectively, $\beta_1, \beta_2, \beta_3, \beta_4, and\ \beta_5$ are the long-run multipliers, and $\in_t$ is a white-noise error term.

The Wald test (F-test) is then used to establish if there is a long-run relationship among the series. The null of no cointegration, $H_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$, is tested against the alternative that at least one of β_i, i = {1,2,3,4,5} is not equal to zero. The computed *F* statistic is compared to the critical values provided by Pesaran *et al*. (2001) and Narayan (2005) for the hypothesis tests. If the computed *F*-statistic exceeds the upper bound value, we will reject the null hypothesis and conclude that there is a long-

Where, REM is remittance inflows (expressed as a ratio of home country GDP), MII is a composite macroeconomic instability index, GDPPC is the real GDP per capita used as a proxy for the level of economic activity in the home country, Oilp is the international price of Dubai crude oil (US$ per barrel) used as a proxy for the level of economic activity in host countries, EX is the nominal exchange rate (LE/ US$), and ϵ_t is the standard random error term.

Theoretically, the relationship between remittance inflows and macroeconomic instability is influenced by the motive behind remittances. For instance, if the altruistic motive dominates, macroeconomic instability in the home country might have positive impacts on remittance inflows. When the altruistic motive dominates, macroeconomic instability in the home country can lead to increased vulnerability and economic hardship for migrants' families, potentially prompting migrants to boost remittance inflows. On contrast, if the investment motive prevails, macroeconomic instability may raise economic uncertainty, and discourage migrants from investing at their home countries and hence reduce their remittances (Elbadawi and Rocha, 1992; El-Sakka and McNabb, 1999; Akçay and Karasoy, 2019).

The level of economic activity in the home country is expected to affect remittances negatively if the altruistic motive dominates and positively if remittances are mainly for investment purposes (Lucas and Stark, 1985; Osili, 2007). Moreover, a higher level of economic activity in the host countries is expected to increase migrants' employment opportunities, wages, and hence, remittances to their home countries (Bettin *et al*. 2012; Artal-tur *et al*., 2014).

The impact of exchange rate (EX) on remittances is determined by two opposing effects: wealth and substitution effects (Faini, 1994). According to the wealth effect, depreciation of domestic currency increases migrants' purchasing power and wealth (in terms of domestic currency), so, their remittances would increase for investment purposes. On the other hand, exchange rate depreciation makes goods and services relatively cheaper (in terms of foreign currencies), thus migrants would remit less for supporting their families (Bouhga-Hagbe, 2006). From the substitution effect perspective, depreciation often leads to inflation, making goods and services more expensive in the home country. This would encourage migrants to increase their altruistically motivated remittances (Bleaney and Tian, 2019).

The annual data of remittance inflows, real GDP per capita, official nominal exchange rate, inflation rate, and external debt stocks is outsourced from the World Development Indicators (WDI) by the World Bank. The annual data of fiscal deficit is obtained from

income distribution and discourage investment. Large and persistent fiscal deficits can lead to high government debt that crowds out private investment slowing down economic growth. High external debt can make a country vulnerable to external shocks and limit its policy options. The multidimensional approach offers distinct advantages. First, there's no universally accepted single indicator for macroeconomic instability. Second, unlike a single measure like inflation, this index incorporates multiple variables, providing a more holistic view of Egypt's internal and external vulnerabilities and risks.

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The data set of each indicator is normalized by the "minimum-maximum" approach to smooth out their different scales without distorting differences in the ranges of their values and to transform the highly skewed indicators. The normalized value of each indicator lies between 0 (representing the lower end) and 1 (representing the top end) (Yorulmaz, 2018).

After normalization, principal component analysis is applied to derive the dimension`s weights for the overall macroeconomic instability index. By assigning the extracted weights (W_i) to the three dimensions, the macroeconomic instability index (MII) is constructed by the following a linear function:

$$MII = W_1 D_1 + W_2 D_2 + W_3 D_3 \quad (1)$$

Where, MII: Macroeconomic instability Index, D_1, D_2, and D_3 capture the inflation, fiscal deficit, and external debt dimensions of macroeconomic instability, respectively. It is worth mentioning that the higher value of the index indicates a higher degree of macroeconomic instability and vice versa.

4.2. Model specification and Data

Following El-Sakka & McNabb (1999) and Abbas *et al*. (2017), this study employs the extended model in equation (2) to estimate the impact of macroeconomic instability on remittance inflows within a multivariate approach that captures other macroeconomic determinants of remittances. The specified model can be expressed by the following equation:

$$REM_t = \gamma_0 + \gamma_1 MII_t + \gamma_2 GDPPC_t + \gamma_3 Oilp_t + \gamma_4 EX_t + \epsilon_t \quad (2)$$

The relative importance of migrants' remittances is evaluated based on its share to GDP. Figure (4) displays migrants' remittances, foreign direct investments (FDI), and official development assistance (ODA) as shares to Egypt's GDP during the period (1980-2021).

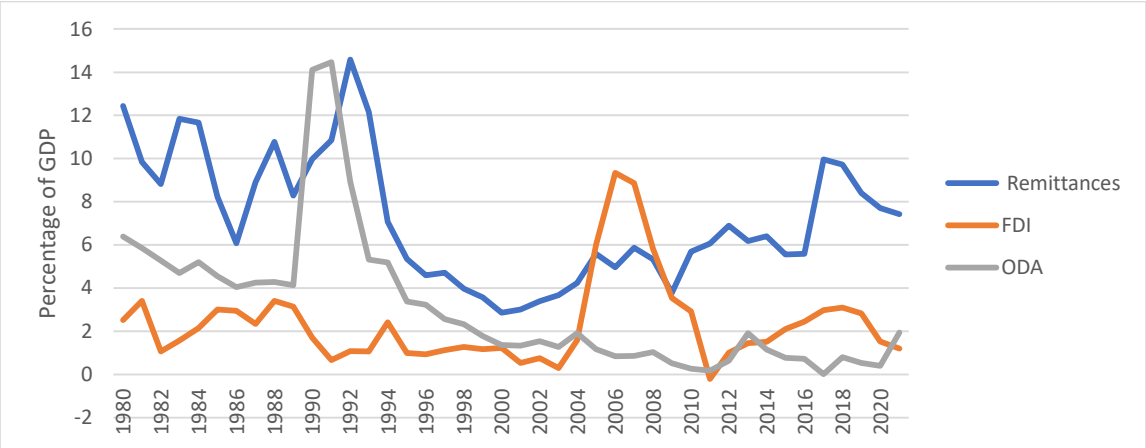

Figure 4: Sources of foreign capital inflows to Egypt during (1980-2021)

Source: World bank development indicators database.

Compared to other sources of foreign capital, remittances contributed by the largest share during most of the period under investigation except for the subperiods (1990-1992) and (2005-2008). The average shares of remittance inflows, foreign direct investments and official development assistance were around 7.2%, 2.4% and 3% respectively.

4. Methodology

Before assessing the impact of macroeconomic instability on remittance inflows to Egypt, the degree of macroeconomic instability should be measured first. To assess the impact of macroeconomic instability on remittance inflows to Egypt, we must first measure its degree. This section is structured accordingly, with three subsections. The first subsection details the process of constructing a macroeconomic instability index. The second subsection explains the specification of the econometric model used in the study. Finally, the third subsection demonstrates the empirical methods employed.

4.1. Measuring macroeconomic instability in Egypt

This study constructs a multidimensional index for measuring the degree of macroeconomic instability in Egypt. This multidimensional index captures monetary, fiscal, and external vulnerability dimensions of macroeconomic instability. The index construction is based on a linear combination of three indicators: inflation rate, fiscal deficit (expressed as a percentage of GDP), and external debt stocks (expressed as a percentage of GDP). High inflation rates erode purchasing power, reduce equality of

Figure (3) demonstrates the evolution of remittance inflows to Egypt during the period (1980-2021). During this period, migrants' remittances increased substantially from US $2.7 billion in 1980 to US $31.5 billion in 2021 at an average annual growth rate of 8.5%. Over this period, official remittances have been remarkably influenced by domestic as well as international economic and political conditions. In the early 1980s, remittances witnessed an upward trend due to the increase in demand for labor in GCC countries which resulted from a rise in international oil prices. In the second half of 1980s, remittance inflows experienced fluctuations till 1992. The relative instability of remittances during that period was mainly attributed to the fall in oil prices, adopting policies of substituting foreign labor with national labor and replacing Egyptian labor with Asian workers in GCC countries (Ghoneim, 2010). By the end of the first Gulf war, remittances started to gradually recover. It reached around 14.6% of GDP in 1992. Following this peak, remittances decreased for almost a decade due to the drop in oil prices followed by the collapse of the East Asian financial market in 1997. In the first half of the 2000s, remittances were almost stable and averaged US $3 billion during the period (2000-2003). After the sharp devaluation of the Egyptian pound in 2004, remittances started to increase steadily reaching US $8.7 billion in 2008, however, it slightly declined to US $7 billion in 2009 as a result of the world financial crisis.

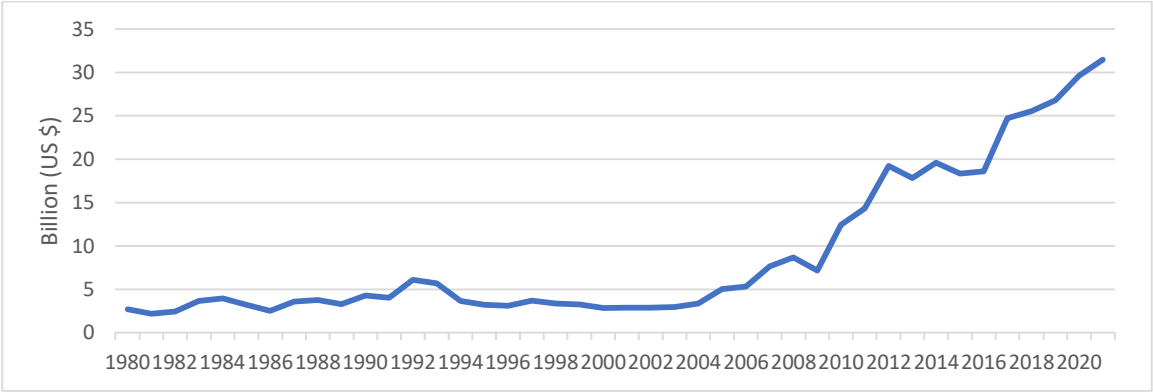

Figure 3: Remittance inflows (current US $) to Egypt during (1980-2021)
Source: World bank development indicators database.

Despite the political, social, and economic instability that followed the 2011 revolution, remittance inflows to Egypt increased significantly to reach US $18.3 billion in 2015. Furthermore, remittances unexpectedly jumped to US $24.7 billion after the second devaluation of the domestic currency in 2016. Afterwards, official remittances continued to increase at an average annual growth rate of 12%. In 2021, remittance inflows to Egypt have increased by around 10.5% to register US $31.5 billion.

3. Remittance Inflows to Egypt

Egypt is one of the top emigration countries in the world. Emigration from Egypt was mainly driven by internal economic factors, including poverty, low standard of living, unemployment, in addition to oil booms in Gulf Cooperation Council (GCC) which stimulated their demand on Egyptian labor. In 2022, remittances to Egypt registered US $29 billion. As shown in figure (1) Egypt is largest recipient of remittances in the Middle East and North Africa (MENA) region and the sixth largest recipient in the world following India (US $111 billion), Mexico (US $61 billion), China (US $51 billion), Philippines (US $38 billion), and Pakistan (US $30 billion) (Ratha *et al*., 2023).

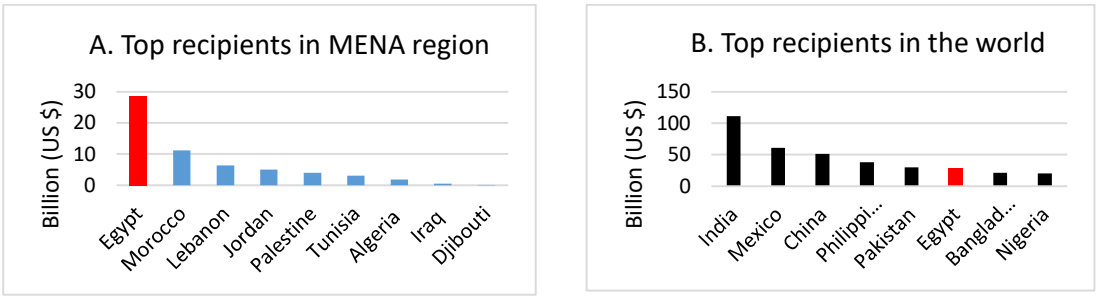

Figure 1: Top recipients of remittances in 2022

Source: Adapted from Ratha et al., (2023).

Egyptian migrants are mainly concentrated in few oil exporting Gulf countries. As shown in figure (2), the GCC countries are the major source of remittance inflows to Egypt, contributing by more than 73% of Egypt's total remittances. In 2021, Saudi Arabia contributed 25.8%, followed by the United Arab Emirates (25.7%), Kuwait (12%), and Qatar (5.6%), while remittances from Bahrain and Oman together were around (4.5%). Concludingly, the geographical concentration of remittance inflows makes Egypt highly vulnerable to external economic and political shocks that might take place in these countries.

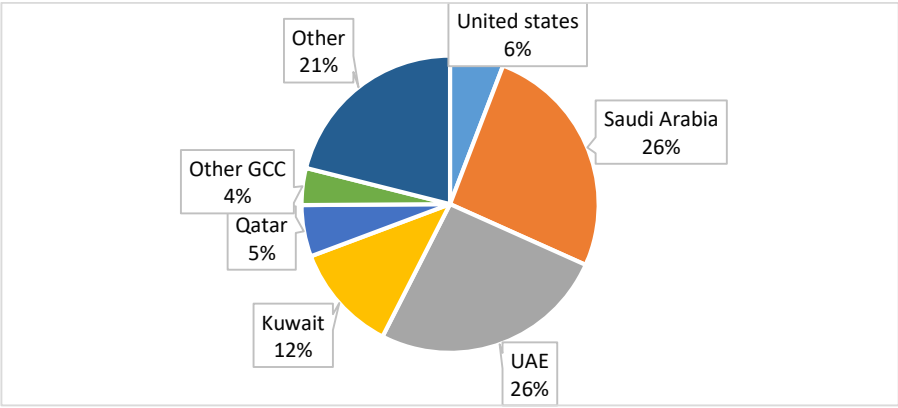

Figure 2: Distribution of remittance inflows to Egypt by destination

Source: KNOMAD/World Bank Bilateral Remittance Matrix 2021, December 2022.

misery index as a proxy for macroeconomic instability, found a positive relationship between macroeconomic instability and remittance inflows. Using inflation as a proxy for macroeconomic instability, Buch and Kuckulenz (2010) showed that remittances and domestic inflation are not significantly related for a sample of 87 developing countries. However, Abbas, *et al*., (2017) revealed a negative association between inflation rates and remittances in Pakistan. A similar conclusion is presented by Guetat and Sirdi, (2017) for the Middle East North Africa (MENA) region.

In Egypt, El-Sakka and McNabb (1999) investigated the macroeconomic determinants of migrant`s remittances. The results of their study suggest that interest rate differentials, exchange rate, black market premium are significant determinants of official remittance inflows. Al-Mashat and Billmeier (2012) explored the effect of pull and push factors on migrant's remittances using the Vector Error Correction Model (VECM). They found that both oil price (used as a proxy for the host countries' economic activity) and GDP growth in the home country promote remittance inflows, while inflation rate, interest rate, exchange rate, and credit to private sector have no significant effect on remittance inflows. In addition, Artal-Tur, *et al*. (2014) applied their model on MENA region countries, including Egypt. They concluded that GDP per capita and unemployment rates in the home country, and GDP growth rates in the host countries positively impact remittances. However, domestic credits to private sector, unemployment rates in the host countries, and interest rate differentials have a negative effect on remittance inflows. Using Vector Error Correction Model (VECM), Khodeir (2015) concluded that real GDP per capita and money supply have positive impact on remittances inflows, meanwhile oil prices and exchange rate negatively affect them. The results of Akçay and Karasoy (2019) revealed that economic growth in the home country has no significant impact on remittances. Remittances are positively associated with macroeconomic instability, oil prices, domestic currency depreciation and economic growth in the host countries, while they are negatively associated with financial development.

According to the World Bank (2005), macroeconomic instability can be projected through the behavior of key macroeconomic variables and their volatilities. In Egypt, high inflation rates, fiscal deficit and external debt are recognized as major causes of macroeconomic instability. This study advances the field by constructing a comprehensive index for macroeconomic instability in Egypt, incorporating key indicators like inflation rate, fiscal deficit, and external debt. This allows us to estimate the impact of overall macroeconomic instability, rather than individual factors, on remittance inflows.

domestic interest rates, exchange rate systems, financial development, and liberalization of financial markets. The dominance of these factors indicates that remittance inflows are a function of economic policies in the home country. On the other hand, external factors pushing remittances include the income levels in the host countries. In contrast to pull factors, the significance of push factors limits the ability of economic policies to attract remittance inflows.

In the empirical literature, numerous factors are identified as macroeconomic determinants of remittances such as inflation, interest rates differentials, exchange rates, incomes of home and host countries, financial development, and economic and political stability (Elbadawi and Rocha, 1992; Hagen-Zanker and Siegel, 2007; Adams Jr, 2009). These factors can be categorized into five main groups, as identified by Spatafora and Aggarwal (2005): first, the economic activity in the migrants' host country; second, the economic activity in the migrants' home country; third, economic policies and institutions in the home country; fourth, general risks in the migrants' home country; fifth, investment opportunities.

Macroeconomic instability refers to the situation when “the domestic macroeconomic environment is less predictable” (World Bank, 2005, p. 93). It does not only undermine the quality of macroeconomic policies, but also it hampers capital accumulation, distorts resources allocation and investment decisions and hence, impedes economic growth. Literature on the impact of macroeconomic instability on remittances is scarce, creating a gap in our understanding of this important relationship. This may be due to the absence of a comprehensive indicator for macroeconomic instability. Using inflation rate as an indicator of macroeconomic instability, two main contradicting channels of effect were identified: First, inflation may stimulate migrants to increase their remittances through reducing the purchasing power of their families in their home countries. In addition, inflation and hard economic conditions in the home countries might prompt migration to foreign countries and increase migrants stock causing remittance inflows to increase (Ali et al., 2015). Second, from a migrant’s perspective, higher level of inflation involves higher degree of uncertainty, which lowers the rate of return on investments in the home economy and reduces investment-induced remittances (Buch and Kuckulenz, 2010). In their study, Spatafora and Aggarwal (2005) showed that macroeconomic instability, exchange rate restrictions and black-market premia may deter migrants from sending remittances or divert remittances away from formal channels toward informal ones.

The few previous empirical studies that investigated the effect of macroeconomic instability on remittance inflows provided mixed results. In Turkey, Akçay (2018) using

a single indicator for macroeconomic instability, the constructed multidimensional index combines multiple variables to provide a more comprehensive indicator of internal as well as external risks and vulnerabilities.

Following this introductory section, section 2 gives a brief overview of the theoretical and empirical literature. An analytical overview of remittance inflows to Egypt is presented in section 3. The adopted methodology is illustrated in Section 4. The results are reported, interpreted, and evaluated in Section 5. Finally, Section 6 concludes and provides some policy recommendations.

2. Theoretical background and empirical literature review

The theoretical debate on the determinants of remittances was provoked in the mid-1980s by Lucas and Stark (1985). Since then, empirical studies have distinguished between two major motives behind remittances: altruism and self-interest. In their seminal paper, Lucas and Stark (1985) classified the microeconomic determinants of remittances into three categories; pure altruistic motives, pure self-interest motives and tempered altruistic or enlightened self-interest motives. They argued that under the pure altruistic motive, remittances are primarily driven by migrants' concern about improving the welfare of their families at home countries, whereas migrant's utility is derived from the utility of the dependent households. Remittances may also serve as insurance to households, whereby the migrants are expected to support their family members at home countries against income shocks. In this case, remittances are predictable and behave countercyclically to economic conditions in the home country. On the other hand, the pure self-interest motive, also known as the investment motive, describes remitters' aspiration to accumulate assets at their home countries and their decisions to allocate their savings and investments between home country assets and host country assets. Under this motive, remittances would be highly susceptible to interest rate differentials, political stability, and economic uncertainty and display a procyclical pattern. Finally, tempered altruism or enlightened self-interest describes the mutually beneficial agreements between the migrants and their families at home. In this case, remittances are regarded as a means of payment for the services provided to migrants by their families during migration, or repayments of loans used to finance their migration (Poirine, 1997; Antoniades et al., 2018).

From another perspective, the drivers of international remittance inflows can be classified into internal or domestic factors (known as pull factors), and external factors (known as push factors) (Fernandez-Arias, 1996; Schoorl *et al*., 2000; Al-Mashat, and Billmeier 2012;). Internal factors pulling remittance inflows to an economy include the level of economic activity in the home country, macroeconomic stability, inflation,

In the fiscal year 2021/2022, remittances dwarfed other sources of foreign capital, reaching around five times the size of Suez Canal revenues and more than double tourism revenues. In addition, remittances contribution to GDP have surpassed that of foreign direct investment and official development assistance since 2010.

Macroeconomic instability, by imposing uncertainty on the overall economic environment, negatively impacts productivity, employment, investments, economic growth, government budgets, and debt sustainability. Additionally, the inflationary impact of macroeconomic instability erodes the purchasing power, leading to a decline in living standards, reducing the equality of income distribution, increasing poverty and economic hardship.

One of the distinctive features of remittances is that they are less volatile compared to other sources of foreign capital. Migrants' remittances have demonstrably remained stable even during times of crisis. Unlike FDI, remittance inflows to Egypt showed a relatively stable pattern during the periods of the international financial crisis, 2011 revolution, and post Covid-19. Chami, *et al*. (2003) argue that remittances are compensatory in nature, whereas they may act as a hedge against income shocks and adverse economic conditions in the home countries.

The main purpose of this study is to examine how remittance inflows respond to macroeconomic instability in Egypt during the period (1980-2021) while accounting for other determinants such as income level in the home country, international oil prices, and exchange rate. The study tests the hypothesis that there is a positive relationship between macroeconomic instability and remittance inflows in Egypt.

This study contributes to the extant literature in two ways. First, it uncovers the impact of macroeconomic instability on remittance inflows. Apart from Akçay and Karasoy (2019), there is a lack of research in the relationship between macroeconomic instability and remittances especially in the context of Egypt. In this respect, the study fills a gap in the literature. Second, this study constructs a multidimensional index for macroeconomic instability in Egypt and estimates its impact on remittance inflows. Previous studies mostly used inflation rate (Buch and Kuckulenz, 2010; Guetat and Sridi, 2017), total reserves (Khodeir, 2015), external debt, and fiscal deficit (Abbas *et al*., 2017; Bettin *et al*., 2017) separately as indicators for macroeconomic instability and only few studies used bidimensional composite indices (Akçay, 2018; Akçay and Karasoy, 2019). In contrast, this study used principal component analysis (PCA) to construct a comprehensive index combining the most important indicators of macroeconomic instability: inflation rate, fiscal deficit, and external debt. Unlike using

The Impact of Macroeconomic Instability on Remittance Inflows to Egypt during the Period (1980-2021)

Dr. Rania Elsharkawy*

Abstract

This paper examines how macroeconomic instability impacts remittance inflows to Egypt over the period (1980-2021). The study constructed a comprehensive macroeconomic instability index using principal component analysis (PCA). An autoregressive distributed lag (ARDL) bounds testing approach is employed to estimate the impact of macroeconomic instability on remittance inflows. The results revealed that macroeconomic instability has a positive and statistically significant impact on remittance inflows to Egypt. Furthermore, remittances respond negatively to real GDP per capita in the home country, and positively to international oil prices and exchange rate. These results are consistent with dominance of the altruistic motive of remittances and provide evidence on their countercyclicality. The results reveal the compensatory reaction of remittances to the negative consequences of macroeconomic instability during the periods of economic hardship and their role in absorbing macroeconomic shocks. Although macroeconomic instability induces altruistically motivated remittances, government policies are required to mobilize remittance savings, attract investment-induced remittances, and direct them towards domestic productive investments.

Keywords: macroeconomic instability- remittances inflows- principal component analysis- ARDL bounds testing – Egypt.

1. Introduction

Over the past few decades, disturbances in foreign capital inflows became one of the urgent challenges facing developing countries with low levels of domestic savings. Remittances represent a significant part of foreign capital inflows, exceeding Foreign Direct Investment (FDI) and Official Development Assistance (ODA) in many developing countries. As defined by (Carling, 2005, p. 79), remittances are generally understood as "transfers of value by emigrants or their descendants to their country of origin". According to this broad definition, remittances include not only monetary transfers but also in-kind, and informal transfers. In this paper, remittances are precisely defined as personal monetary transfers from migrants to their home countries.

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effect of the "structure" of external debt, rather than its level, on economic growth as well as assess the economic and social profitability of the borrowed funds.

Despite efforts to improve governance, some MENA countries haven't seen the desired outcomes. For example, Algeria implemented anti-corruption legislation to curb bribery in the public sector. Additionally, several MENA countries have signed the United Nations Convention Against Corruption (UNCAC) aiming to promote good governance. However, these initiatives haven't necessarily translated into effective implementation or significant reductions in corruption. Additionally, an anti-corruption institution was established in Morocco and Jordan in 2006 (Haykal, 2017). Furthermore, Egypt took significant steps to curb corruption where the country issued its National Anti-Corruption Strategy (2014-2018), followed by the second issue covering the period (2019-2022). Lately, in December 2022, the third version of the Anti-Corruption Strategy covering the period (2023-2030), was released. [2] Moreover, a National Anti-Corruption Academy was established in Egypt with the aim of developing and publishing studies related to curbing corruption; offering an academic master in the field of governance and fighting corruption, as well as providing relevant training courses to the various segments of the society, including public officials, private sector, and civil society organizations.[3] Despite those efforts, the MENA countries are still suffering from high levels of corruption that are reflected in their ranks in the relevant indicators.

Based on the analysis, the MENA countries are in need to formulate policies to curb corruption and address their weak performance in the governance-related indicators. Effective practices that were adopted by different countries could help with shaping sound policies in this respect. These practices include the ones developed by the European Union which comprise promoting the availability and accessibility of data in a transparent manner and making sure of availing "public information" to all citizens. This is in addition to putting in place rules and regulations that help in achieving this objective. Moreover, the coordination of efforts among the different governmental entities and the involvement of citizens in the implementation process of governance reforms and anti-corruption practices is of paramount importance for the effectiveness of such practices. Finally, endorsing integrity and promoting it within public and private sector organizations through "codes of conduct" will indeed help embed it as a cornerstone in the MENA region countries (European Commission, 2023).

[2] Administrative Control Authority: www.aca.gov.eg

[3] National Anti-Corruption Academy: https://academy.aca.gov.eg

The estimated ECT in the first specification was negative and significant, with a value of -0.666. This indicates that the system adjusts any disequilibrium towards the long-run equilibrium status at 66.6% speed of adjustment. In other words, around 66.6% of the disequilibrium from the long run relationship is corrected each year. As for the second specification, the ECT was also found to be negative and significant, indicating that around 66.5% of the disequilibrium in a given year is corrected in the following year. With regard to the short-run dynamics, there is a short-run causal relation that goes from population to GDP annual growth in the two specifications, at 10% level of significance.

To sum up, the findings of this study prove the existence of a long run, cointegration, relationship between the examined variables. Moreover, the results of one of the two specifications estimated support our research hypotheses, where a positive and significant relationship between external debt and economic growth was found along with a positive and significant impact of the governance indicator "control of corruption" on this relationship.

6. Conclusion and Policy Implications

The main objective of this research was to examine the relationship between external debt and economic growth in selected MENA countries and to investigate if certain governance indicators, namely control of corruption and political stability, affected this relationship. The paper's findings indicated a positive significant impact of external debt on economic growth in the specification that includes the control of corruption. However, the magnitude of the impact was found to be minor. Moreover, adding the control of corruption improved this relationship, as evidenced by the obtained estimated coefficients, but again with a small magnitude.

It is noteworthy that the observed positive relationship between external debt and GDP growth could turn into a negative one after a certain threshold (i.e., certain external debt-to-GDP ratio) which could be examined in future studies. Furthermore, the obtained positive results should be complemented with other studies that examine whether or not the countries' debt levels are on sustainable paths. For instance, a recent debt sustainability assessment for Egypt by the IMF highlighted that the country's debt is sustainable but "not with high probability", due to the risks related to the considerable financing requirements and debt service, along with expected lower growth in the medium term (IMF, 2023). Additionally, another important angle to examine is the importance of attaining the primary balance, in order to keep the debt-to-GDP ratio at the same standing point (Yoshino et al., 2018). Future studies could also consider the

Table 7: Panel VECM Results: Specification 1

Regressand Variable	Short run ΔGDPG(-1)	ΔGFCGDP(-1)	ΔTRGDP(-1)	ΔPOP(-1)	ΔEDGDP(-1)	ΔED*CC(-1)	Long run ECT
ΔGDPG	-0.088477 (0.07155) [-1.23653]	0.079537 (0.09100) [0.87404]	0.032067 (0.03611) [0.88799]	8.40E-07* (4.5E-07) [1.85279]	-0.008562 (0.03662) [-0.23378]	0.008566 (0.02898) [0.29559]	-0.6655*** (0.09238) [-7.20414]
ΔGFCGDP	0.046996 (0.05260) [0.89338]	-0.029860 (0.06690) [-0.44632]	0.017683 (0.02655) [0.66605]	-1.58E-07 (3.3E-07) [-0.47335]	0.028469 (0.02693) [1.05729]	0.034706 (0.02131) [1.62894]	0.077388 (0.06792) [1.13945]
ΔTRGDP	-0.087484 (0.14072) [-0.62168]	-0.080590 (0.17897) [-0.45031]	0.043671 (0.07102) [0.61491]	-1.13E-06 (8.9E-07) [-1.26355]	0.020282 (0.07203) [0.28158]	-0.036630 (0.05699) [-0.64269]	0.167781 (0.18168) [0.92349]
ΔPOP	1327.780 (2116.39) [0.62738]	-1499.708 (2691.60) [-0.55718]	592.8531 (1068.12) [0.55504]	0.9874*** (0.01340) [73.6738]	-257.3262 (1083.30) [-0.23754]	86.89220 (857.182) [0.10137]	-1188.299 (2732.41) [-0.43489]
ΔEDGDP	0.278429 (0.17754) [1.56830]	-0.341066 (0.22579) [-1.51056]	-0.083387 (0.08960) [-0.93065]	-5.82E-07 (1.1E-06) [-0.51751]	0.2128** (0.09087) [2.34183]	0.094556 (0.07191) [1.31501]	-0.5412** (0.22921) [-2.36115]
ΔED*CC	-0.125457 (0.22019) [-0.56976]	-0.027415 (0.28004) [-0.09790]	0.104167 (0.11113) [0.93735]	1.17E-06 (1.4E-06) [0.83870]	0.000478 (0.11271) [0.00424]	0.038691 (0.08918) [0.43384]	0.7206** (0.28428) [2.53476]

The standard errors are written in ( ) while the t-statistics are written in [ ].
***** significant at 1%, ** significant at 5%, *significant at 10%.**

Table 8: Panel VECM Results: Specification 2

Regress and Variable	Short run ΔGDPG(-1)	ΔGFCGDP(-1)	ΔTRGDP(-1	ΔPOP(-1)	ΔEDGDP(-1	ΔED*PS(-1)	Long run ECT
ΔGDPG	-0.090198 (0.07086) [-1.27284]	0.077012 (0.09024) [0.85343]	0.030314 (0.03615) [0.83854]	1.08E-06** (4.6E-07) [2.35993]	-0.023136 (0.03738) [-0.61896]	-0.005764 (0.01726) [-0.33394]	-0.6645*** (0.09082) [-7.31663]
ΔGFCGDP	0.041889 (0.05249) [0.79799]	-0.017045 (0.06684) [-0.25499]	0.009314 (0.02678) [0.34781]	-1.85E-07 (3.4E-07) [-0.54607]	-0.017343 (0.02769) [-0.62636]	-0.013708 (0.01279) [-1.07212]	0.090885 (0.06728) [1.35092]
ΔTRGDP	-0.078501 (0.14007) [-0.]56045]	-0.081634 (0.17836) [-0.45769]	0.044310 (0.07146) [0.62011]	-1.14E-06 (9.1E-07) [-1.25655]	0.023495 (0.07388) [0.31800]	-0.016126 (0.03411) [-0.47269]	0.145689 (0.17951) [0.81158]
ΔPOP	1151.214 (2103.22) [0.54736]	-1442.692 (2678.24) [-0.53867]	471.2697 (1072.97) [0.43922]	0.987817 (0.01359) [72.6865]	-768.1358 (1109.40) [-0.69239]	-342.3644 (512.267) [-0.66833]	-825.6077 (2695.55) [-0.30629]
ΔEDGDP	0.250338 (0.17737) [1.41138]	-0.338178 (0.22586) [-1.49726]	-0.087999 (0.09049) [-0.97251]	-5.15E-07 (1.1E-06) [-0.44911]	0.1923** (0.09356) [2.05635]	0.032217 (0.04320) [0.74575]	-0.4747** (0.22732) [-2.08799]
ΔED*PS	-0.320744 (0.33803) [-0.94885]	0.188601 (0.43045) [0.43815]	-0.129872 (0.17245) [-0.75310]	1.66E-06 (2.2E-06) [0.75879]	0.178325 (0.17830) [1.00011]	0.048635 (0.08233) [0.59072]	1.1547*** (0.43323) [2.66526]

The standard errors are written in ( ) while the t-statistics are written in [ ].
***** significant at 1%, ** significant at 5%.**

Table 5: Results of the Dynamic OLS Estimation: Specification 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GFCGDP	0.585197	0.133654	4.378443	0.0000***
TRGDP	-0.061032	0.033287	-1.833495	0.0713*
POP	-2.76E-07	6.84E-08	-4.044315	0.0001***
EDGDP	0.101563	0.026604	3.817624	0.0003***
ED*CC	0.068827	0.023988	2.869217	0.0055***
R-squared	0.914138	Mean dependent var		3.272054
Adjusted R-squared	0.697502	S.D. dependent var		3.984057
S.E. of regression	2.191224	Sum squared resid		312.0949
Long-run variance	0.929486			

*** significant at 1%, ** significant at 5%, *significant at 10%.

Table 6: Results of the Dynamic OLS Estimation: Specification 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GFCGDP	0.473576	0.121741	3.890041	0.0002***
TRGDP	0.013088	0.038313	0.341603	0.7338
POP	-2.69E-07	6.75E-08	-3.984668	0.0002***
EDGDP	0.005949	0.023582	0.252264	0.8016
ED*PS	0.012782	0.012343	1.035595	0.3042
R-squared	0.906018	Mean dependent var		3.272054
Adjusted R-squared	0.668894	S.D. dependent var		3.984057
S.E. of regression	2.292500	Sum squared reside		341.6112
Long-run variance	1.013078			

*** significant at 1%

5.4 Panel VECM

This paper assessed the short run and long run dynamics of the cointegrated series through applying the VECM which is examined through two steps. The first step is deriving the residuals which are regarded as lagged error correction terms (ECT) after examining the long-run parameters from the cointegrating equation. The second step is to estimate the dynamic VECM.

The short-run causal relationship exists if the variable's lagged differences are significant, whereas a long-run causal relationship exists in case the ECT is negative and significant. The ECT reflects the idea that the last period deviation from the long-run equilibrium affects the short-run dynamics of the dependent variable (Sherif et al., 2022). Tables (7) and (8) show the outcome of the panel VECM in the two specifications.

(GFCGDP) and external debt as percentage of GDP (EDGDP) are positively associated with GDP growth rate (GDPG), at 1% level of significance. A 1 percentage point increase in GFCGDP leads to approximately 0.59 percentage point increase in GDPG. This finding supports the results reached by Siddique et al. (2016) and Yusuf and Mohd (2021). Moreover, a 1 percentage point increase in EDGDP leads to 0.1 percentage point increase in GDPG, on average, an impact that is considered minor in its magnitude. Several studies, including those by Jayaraman and Lau (2009), Kasidi and Said (2013), Dawood et al. (2020), and Yusuf and Mohd (2021), have found a positive and significant relationship between external debt and economic growth. However, the modest positive association observed in the MENA countries of our study might be due to loans being directed towards consumption rather than productive investments. Additionally, governments in some MENA countries might struggle to utilize loans effectively and channel them towards high-value-added sectors of their economies.

On the other hand, the coefficient of the population variable (POP) was found to be negative where this could be attributed to the economic pressures induced by the sizable populations in the MENA region. Similar findings were obtained by Dawood et al. (2020), for a sample of Asian developing and transition economies. Finally, the coefficient of the interaction between external debt and control of corruption (ED*CC) was found to be positive and significant at 1% significance level. This result implies that the improvement in the estimate of the control of corruption indicator reinforces the positive relationship between external debt and economic growth. This finding supports the results obtained by Manasseh et al. (2022), for a sample of Sub-Saharan African countries.

In the context of the second specification, where the interaction term was between external debt and political stability, the coefficients of the GFCGDP and POP variables were found to be significant and have the same signs detected in the first specification. In particular, a 1 percentage point increase in GFCGDP is associated with, on average, approximately 0.47 percentage point increase in GDPG. Additionally, the coefficient of population was negative and of very small magnitude. On the other hand, the coefficients of EDGDP and ED*PS were found to be insignificant.

Table 3: Pedroni Cointegration Test Results: Specification1

	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	1.179418	0.1191	-0.410919	0.659
Panel rho-Statistic	-1.417203	0.0782	-0.695808	0.243
Panel PP-Statistic	-8.195706	0.0000	-6.863672	0.000 [a]
Panel ADF-Statistic	-7.985818	0.0000	-6.712946	0.000 [a]

Alternative hypothesis: individual AR coefs. (between-dimension)

	Statistic	Prob.
Group rho-Statistic	-0.481727	0.3150
Group PP-Statistic	-9.275628	0.0000 [a]
Group ADF-Statistic	-9.163481	0.0000 [a]

[a] denotes the rejection of the null hypothesis at 1% significance level.

Table 4: Pedroni Cointegration Test Results: Specification 2

	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	1.356466	0.0875	0.176106	0.4301
Panel rho-Statistic	-0.835499	0.2017	-0.539551	0.2948
Panel PP-Statistic	-8.406779	0.0000	-6.374820	0.0000 [a]
Panel ADF-Statistic	-7.847952	0.0000	-6.288501	0.0000 [a]

Alternative hypothesis: individual AR coefs. (between-dimension)

	Statistic	Prob.
Group rho-Statistic	-0.056331	0.4775
Group PP-Statistic	-10.26576	0.0000 [a]
Group ADF-Statistic	-8.837969	0.0000 [a]

a denotes the rejection of the null hypothesis at 1% significance level.

5.3 Dynamic OLS estimation results

The estimation will then proceed with employing the Dynamic OLS estimation, in order to avoid having spurious results, since the variables are not all stationary at levels. This estimation method has the advantage of avoiding the problems of endogeneity and autocorrelation (Sherif et al, 2022). The results of the Dynamic OLS model for the first specification indicates that both gross fixed capital formation as percentage of GDP

Table 2: The Fisher-ADF Unit Root Test Results

Variables	Level statistic (P-value)	First difference statistic (P-value)
	Including Intercept and Trend	Including Intercept only
GDPG	113.108 (0.0000)[a]	
GFCGDP	29.3062 (0.0819)	136.576 (0.0000)[a]
TRGDP	11.2609 (0.9392)	132.187 (0.0000)[a]
POP	54.7952 (0.0000)[a]	
EDGDP	5.2010 (0.9996)	85.9203 (0.0000)[a]
ED*CC	28.4285 (0.0996)	109.808 (0.0000)[a]
ED*PS	31.4494 (0.0495)	137.760 (0.0000)[a]

[a] denotes the rejection of the null hypothesis at 1% significance level.

According to the results of the ADF test, the null hypothesis for GFCGDP, TRGDP, EDGDP, ED*CC, and ED*PS cannot be rejected at %1 significance level which signifies that the five series are non- stationary at level. By applying the first difference for the five series, the null hypothesis could be rejected at 1% significance level, indicating that these series are integrated of order 1 (i.e., I(1)). Additionally, the null hypothesis for GDPG and POP could be rejected at %1 significance level, which indicates that the two series are stationary at level (i.e., I(0)).

Considering the results of the ADF test, this paper applied the Pedroni cointegration test to examine the long run dynamic relation among the variables.

5.2 Pedroni Cointegration test

This paper performed the Pedroni cointegration test to examine the long-run relation among the variables. The null hypothesis of the test is the absence of cointegration among the variables. The Pedroni cointegration test is an Engle and Granger-based cointegration test that relies on the evaluation of the residuals. If the null hypothesis is not rejected, then the residuals will follow the I(1) process which signifies the non-existence of a long-run relation among the variables. If the null hypothesis is rejected, then the residuals will follow the I(0) process which signifies the presence of a long-run association among the variables (Sherif et al., 2022). Tables (3) and (4) show the outcome of the test, revealing the existence of cointegration among the variables of the two specifications.

Table 1: Descriptive Statistics of the Variables

Variable Name/ Statistic	Mean	Standard Deviation	Minimum	Maximum
Real GDP growth rate (GDPG)	3.42	4.13	-21.40	18.33
Gross fixed capital formation as % of GDP (GFCGDP)	24.84	7.11	3.47	47.56
Population (POP)	35,975,646	30,319,611	2,428,816	109,262,178
Trade as % of GDP (TRGDP)	64.91	27.29	4.13	146.91
External Debt as % of GDP (EDGDP)	50.45	39.73	0.12	228.79
Control of Corruption (CC)	-0.50	0.43	-1.55	0.38
Political Stability (PS)	-0.89	0.71	-2.67	0.38

Source: Authors' calculations using the countries dataset in E-Views

Methodology

This study performs the panel cointegration analysis to examine the relationship between external debt and economic growth in the MENA countries over the period (1996-2021) and to investigate how governance indicators affect this relationship. The application of panel data is associated with many advantages that include its capacity to control for endogeneity, heteroscedasticity, and serial correlation (Al-Mulali, 2014). Following the studies of Al-Mulali (2014) and Sherif et al. (2022), this study will firstly test for the stationarity of the variables using the ADF unit root test. Secondly, the study will examine the long run dynamic relation among the variables by applying the Pedroni cointegration test. Thirdly, the study will employ the Dynamic OLS estimation. Finally, the study will examine the short run and long run dynamics of the cointegrated series through applying the Vector Error Correction Model (VECM).

5. Estimation Results

This section incorporates the estimation results and discusses the findings.

5.1 Fisher-Augmented Dickey Fuller (ADF) test

Table (2) demonstrates the results of the ADF test which is based on the Chi-square, where the null hypothesis is the existence of unit root, which indicates non-stationarity. The selection of the lag length is based on the Schwarz Information Criterion (SIC) and is determined automatically.

- Control of corruption (CC) and political stability (PS) estimates. Two of the World Bank's WGI. It is noteworthy that the choice of the two mentioned governance indicators is influenced by different factors. Political stability has been an important determinant of the economic performance of several MENA countries, especially the ones that witnessed political turmoil in 2011. Additionally, the external debt-to-GDP ratio in these countries has started to remarkably increase since that year, as elaborated in the previous section. On another front, control of corruption was considered as a crucial element and governance indicator for economic growth in a study that incorporated 145 countries over the period (2002-2014) (Samarasinghe, 2018).

The dependent variable in the study is the annual real GDP growth rate (GDPG). Since the objective of this research is to investigate how governance affects the relationship between external debt and economic growth, another explanatory variable which is the interaction of external debt and control of corruption estimate (ED*CC) will be added. Moreover, another specification will be estimated that alternatively includes the interaction of external debt and political stability estimate (ED*PS). Accordingly, the following model specifications will be estimated:

$$GDPG_{it} = \beta_0 + \beta_1 GFCGDP_{it} + \beta_2 TRGDP_{it} + \beta_3 POP_{it} + \beta_4 EDGDP_{it} + \beta_5 ED*CC + \epsilon_{it} \quad (1)$$

$$GDPG_{it} = \beta_0 + \beta_1 GFCGDP_{it} + \beta_2 TRGDP_{it} + \beta_3 POP_{it} + \beta_4 EDGDP_{it} + \beta_5 ED*PS + \epsilon_{it} \quad (2)$$

The research relies on secondary data obtained from the World Development Indicators (WDI) of the World Bank over the period (1996-2021). Due to limited data availability, the study covers a sample of 10 MENA countries, namely: Algeria, Jordan, Sudan, Tunisia, Lebanon, Morocco, Egypt, Mauritania, Turkey and Iran. Moreover, data on the control of corruption and political stability indicators were obtained for the selected countries from the World Bank's WGI dataset.

Table (1) presents the summary statistics of the variables used. The mean value of GDP annual growth in the examined sample was 3.4%. The minimum and maximum values of this variable were recorded in Lebanon and Sudan, respectively. When it comes to the external debt as a percentage of GDP, the mean value was approximately 50.5 %. The maximum value was encountered in Lebanon, whereas the minimum value was observed in Iran.

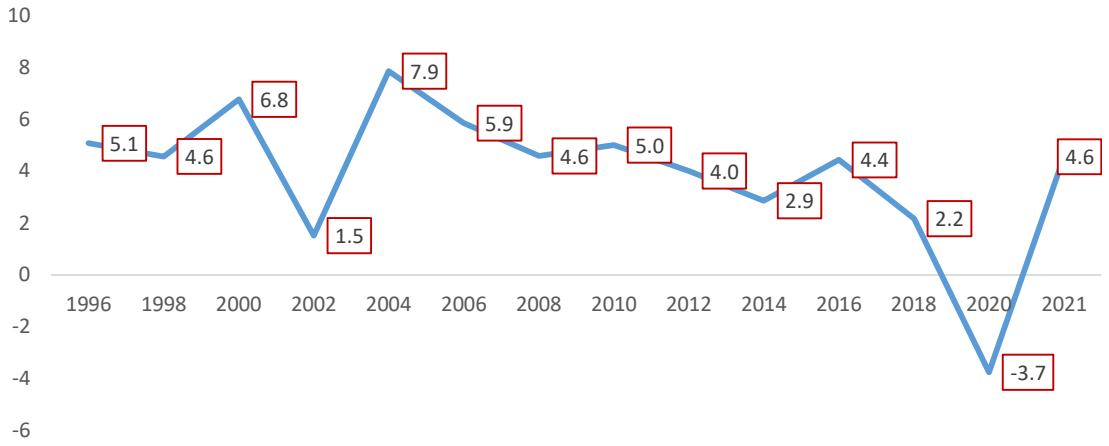

Figure 6: Growth Rate of Real GDP, MENA (1996-2021)
Source: Constructed by the authors based on World Bank Development Indicators

4. Modeling the Relationship between External Debt and Economic Growth

This section discusses the variables used in this study, the specification of the estimated model, and the methods utilized.

4.1 Variables and model specification

Following the econometric model developed by Siddique et al. (2016), the study includes the following explanatory variables:

- External debt as percentage of GDP (EDGDP): External debt reflects the debt owed to nonresidents repayable in currency, goods, or services. It is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, short-term debt, and use of IMF credit.
- Trade as percentage of GDP (TRGDP): The sum of exports and imports of goods and services assessed as a percentage of GDP.
- Gross fixed capital formation as percentage of GDP (GFCGDP): This variable comprises land improvements, plant, machinery, and equipment assessed as percentage of GDP.
- Population (POP): All residents regardless of legal status or citizenship.

demonstrated higher figures post 2011(See Figure 5). This trend highlights the growing role of external debt in the MENA region and the importance of studying its impact on economic growth.

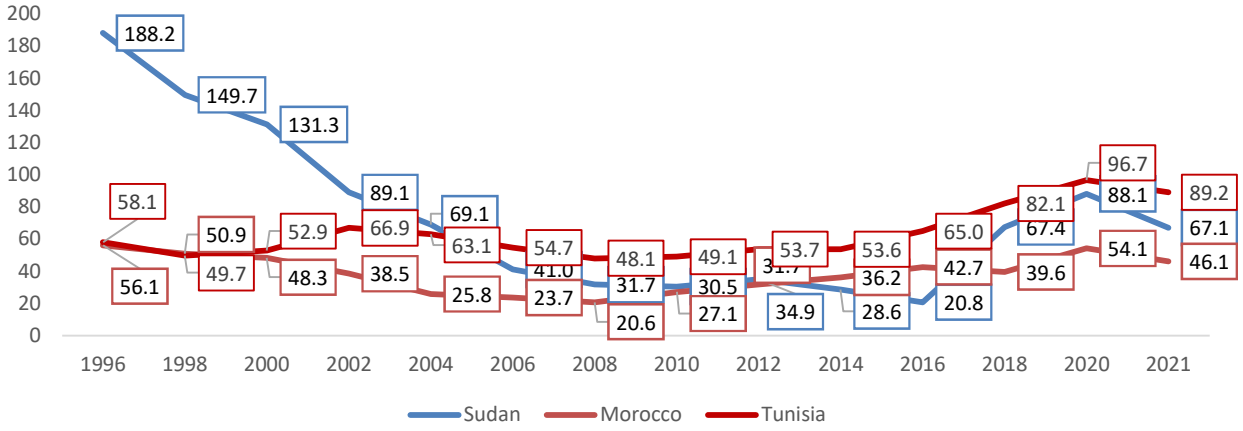

Figure 4: External Debt as % of GDP in Sudan, Morocco and Tunisia
Source: Constructed by the authors based on World Bank Development Indicators

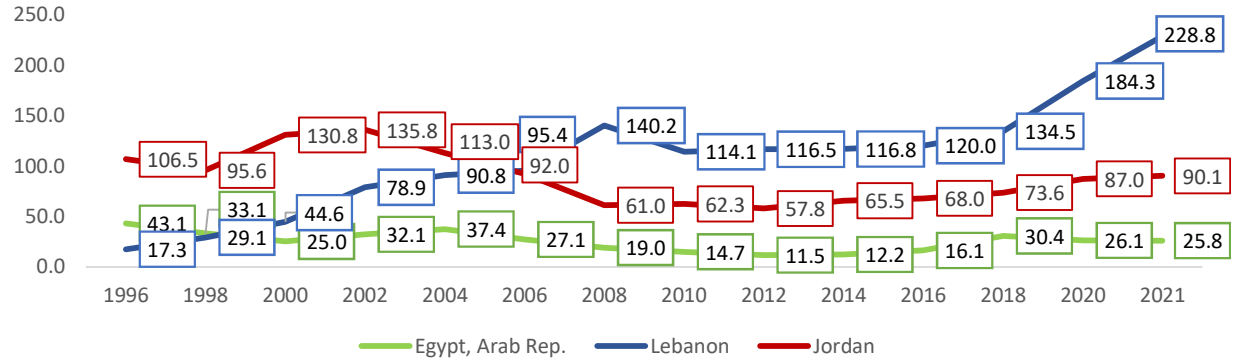

Figure 5: External Debt as % of GDP in Lebanon, Jordan and Egypt
Source: Constructed by the authors based on World Bank Development Indicator

The economic growth performance of the MENA region over the analyzed period was characterized by a general downward trend, reaching -3.7% in 2020 due to the economic pressures associated with the outbreak of COVID-19 pandemic. International organizations, such as the Organization for Economic Cooperation and Development (OECD) pointed to the worse off growth status of the MENA region compared to different emerging and Asian economies. Such downward trend in economic growth in the region could be linked to the fluctuations in oil prices, the continued political challenges and instability, along with the still unlocked potentials of the private sector (OECD, 2016).

"use of IMF credit & SDR" from 7 % during the period (2017-2019) to 12% in 2021.

On the other hand, the share of "private sector not guaranteed debt" declined over the years.

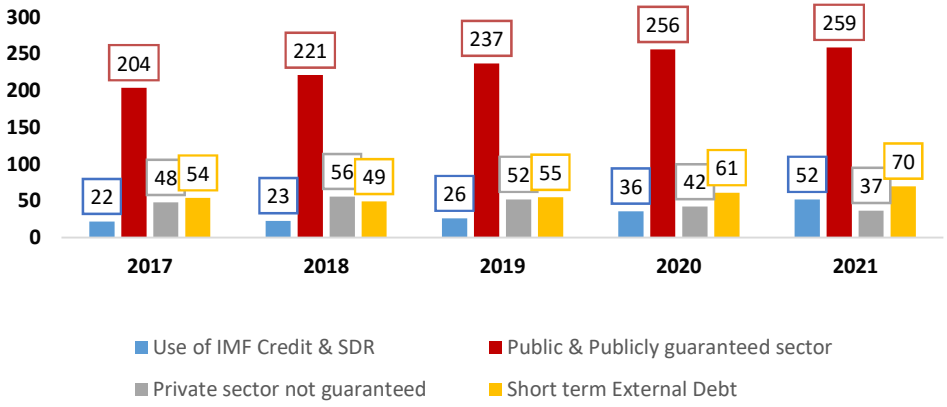

Figure 2: External Debt Data by Debtor in the MENA Region (in billion USD)
Source: Constructed by the authors based on World Bank International Debt Statistics

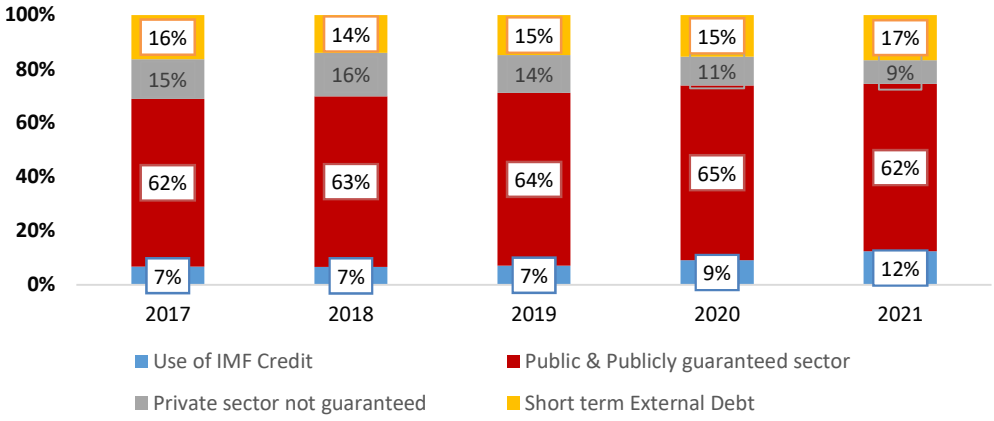

Figure 3: Debtors' Shares in External Debt in the MENA Region
Source: Authors' calculations based on World Bank International Debt Statistics

Due to lack of data availability on the aggregate level of the MENA region prior to 2010, Figures (4) and (5) postulate the evolution of the external debt as percentage of GDP over the period (1996-2021), for selected countries. Figure (4), which is focused on Sudan, Morocco and Tunisia, demonstrates a decline in this percentage since 1996 before it starts to increase again after 2011. A comparable trend could also be deduced for Egypt, Jordan and Lebanon where external debt as a percentage of GDP

indicators in influencing this relationship.

The hypothesized relationship between external debt and economic growth is positive but of weak magnitude. Moreover, as countries enhance their government structures, their capacity to effectively make use of their external debt funds to support economic growth is expected to improve and the opposite is true.

3. Stylized Facts on External Debt and Growth in the MENA Region

The international debt statistics developed by the World Bank revealed important figures and provided historical trends for the volume of external debt in different regions including that of MENA. Since the report is newly released, it includes data points only starting from the year 2010. As evident from Figure (1), a significant growth in external debt stocks was realized after 2014 where it reached an all-time high of 13 % in 2017 (World Bank, 2021). The most recent version of the report released in 2022 pointed to a growth rate of external debt stocks in the MENA region of 6 % in 2021, compared to 7% in 2019 (World Bank, 2022a).

The World Bank also highlighted that the external debt-to-exports ratio dramatically increased in the MENA region, where it reached 184% in 2021, compared to 58% in 2010. It is worth noting that the increase in external debt stocks on the aggregate level was also accompanied by an increase in the loan agreements signed with the IMF over this period, compared to the agreements signed in the world's other regions (Zaki and Youssef, 2021).

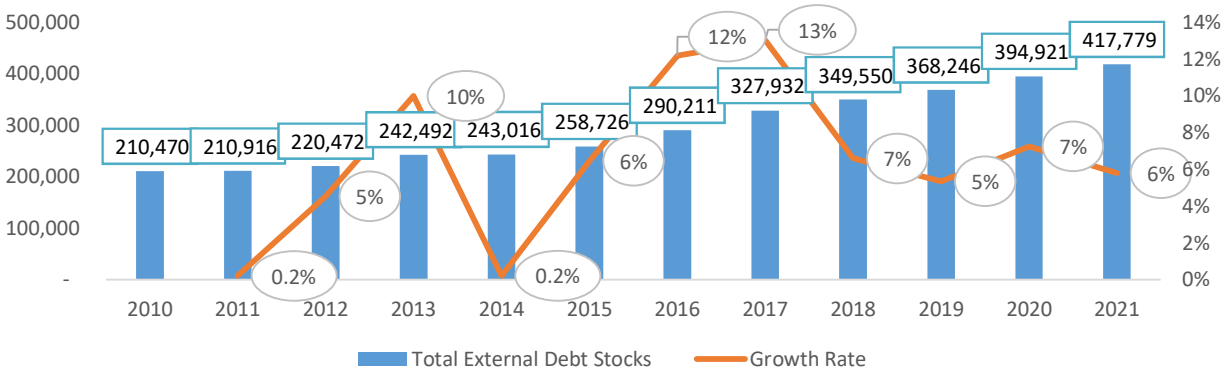

Figure 1: External Debt Stocks in Million USD, MENA (2010-2021)
Source: Constructed by the authors based on World Bank International Debt Statistics

Figures (2) and (3) demonstrate the structure of the total external debt stocks in the MENA region by debtor over the period (2017-2021), both in absolute terms and as shares of total external debt, respectively. Figure 3 reveals a growth in the share of the

studied the relation between governance and economic development for a sample of 23 MENA counties over the period 1996-2005 by applying the GMM. The study showed that ameliorating the governance performance is a challenge for the MENA countries to enhance their economic growth. Similarly, Han et al. (2014) explored the relation between governance gap and economic growth by employing a dynamic GMM for different regions. For the MENA region, the results of the study showed that improving governance performance is vital for promoting economic growth.

In contrast to the previous views, Emara and Johnsa (2014) analyzed the relation between governance and economic growth for 197 countries by utilizing a Two-stage Least Square (TSLS) regression. For the MENA countries, the results showed that the estimated income per capita in those countries is higher than the per capita income of the remaining countries in the sample despite the low governance performance of those countries. In the same vein, Emara and Chiu (2016) investigated the impact of governance on economic performance for a global sample using the Principal Components Analysis (PCA) method. The results revealed that economic growth of the MENA countries does not depend on the governance performance.

To sum up, the literature has not agreed on whether or not external debt promotes economic growth. Some theories argue that external debt promotes economic growth as it can be used in filling the saving-investment and foreign exchange gaps. Other theories argued that external debt retards economic growth due to the huge debt obligations and liquidity constraints. On the empirical side, the findings were also mixed. Thus, the relationship between external debt and economic growth is ambiguous.

Concerning the relation between governance performance and economic growth, most of the empirical studies argued that good governance fosters countries' economic growth trajectories. Despite the large literature that examined the relation between external debt and economic growth, the findings were mixed. Furthermore, few studies investigated this relationship in the MENA region. Thus, this study adds to the literature by exploring such relationships within this region. Additionally, there is relatively limited research on whether governance matters for the relationship between external debt and economic growth, especially at the level of developing countries. To the best of our knowledge, this is the first attempt to investigate whether governance indicators, namely control of corruption and political stability, matter for the external debt-economic growth relationship in the MENA countries. Accordingly, the study's main research questions are about assessing the association between external debt and economic growth in the MENA countries, along with analyzing the role of governance

examine its association with economic growth, over the period (1994-2005), in six different models. The authors made use of the system Generalized Method of Moments (GMM) where explanatory variables included trade openness, foreign direct investment (FDI), and the institutional quality variable. Moreover, interactions of "trade and institutional quality" and "FDI and institutional quality" were incorporated in the model. The results of the model indicated that the interaction terms are negative and significant. The institutional quality variable as measured by the percentage change in control of corruption, government effectiveness, rule of law, and voice and accountability was found to be positive and significant in each of the corresponding models. However, the institutional quality variable measured using regulatory quality and political stability was insignificant in the two corresponding models. In a similar context, a quantile regression was employed to investigate the impact of governance on economic growth in Sub-Saharan African countries, where a composite index for governance was constructed using data on the six indicators. The composite index was found to have a positive and significant impact on economic growth, which was measured in terms of GDP per capita. In addition, the impact of good governance was stronger for countries with low- and high-income levels, compared to the countries with middle income levels (Fayissa & Nsiah, 2013).

To emphasize the role of institutional quality in enhancing nations' economic development, Acemoglu et al. (2004) employed two quasi-natural experiments in history and divided Korea into two parts each with different institutional quality. Then, the study developed a dynamic theoretical framework that deals with political institutions and the distribution of resources as state variables. The study found that institutions foster economic growth when they impose constraints on power holders, little rents are gained by power holders, and when institutions distribute power to groups that enforce property rights.

Finally, a study on the economies of Sub-Saharan African countries covering the time period (1997-2020) aimed at investigating the relationship between external debt and economic growth, as well as the role of the six governance indicators in affecting this relationship. The authors employed the System of Generalized Method of Moments (SGMM) where the results showed a negative relationship between external debt and economic growth. However, the coefficients associated with the interaction terms between external debt and each of the governance indicators were positive and significant, but of small magnitude (Manasseh et al., 2022).

Concerning the MENA region, few studies tackled the relation between governance and economic growth and the results were mixed. For instance, Mehanna et al. (2010)

that external debt reduces GDP by about 35% to 40%. Using the ordinary least squares (OLS) method, Malik et al. (2010) concluded that external debt and debt service have a negative and statistically significant relation with economic growth in Pakistan over the period (1972-2005). For the highly indebted poor countries over the period (1970-2007), Siddique et al. (2016) applied a dynamic ARDL model. The study found that external debt has a negative and statistically significant impact on GDP in the short run as well as in the long run.

On the MENA region level, limited studies were dedicated to the empirical investigation of the relationship between external debt and economic growth, but two important studies are worth highlighting. Hadad et al. (2021) examined the relationship between external debt and economic growth in selected MENA region countries including Egypt, Bahrain, Morocco, Tunisia, Lebanon and Jordan over the period (2006-2019). The authors employed the quantile panel data regression, in order to account for "the distributional impact" of external debt on economic growth, not only at the mean level, but also at "the tails of the distribution". The results indicated the presence of a negative significant effect of external debt on the growth rate of GDP per capita in the event of having low levels of growth rates. The second study, by AlShammary et al. (2020) had a wider scope that is related to public debt. The objective of the paper was to estimate a public debt-to-GDP ratio threshold for 20 MENA region countries over the period (1990-2016) after which further increases in public debt could lead to a negative impact on economic growth. The authors employed a panel threshold regression and concluded that a public debt-to-GDP ratio below 58% is associated with a positive relation between debt and growth, whereas afterwards an inconclusive relation prevails.

Concerning the relationship between governance and economic growth, several studies were conducted to examine this relationship through employing the different governance indicators. Akıncı et al. (2022) investigated the existence of a long run relationship between the governance indicators and economic growth, for 27 EU countries and 7 EU candidate countries, during the period from 1996 to 2019. The authors employed the Westerlund cointegration test, which confirmed the existence of a long-run relationship between the variables. Moreover, the results of the study indicated the significance of the control of corruption and the political stability for economic growth in the EU countries. Yet, the coefficients of the other governance indicators were insignificant.

For a number of 29 emerging economies, Nguyen et al. (2018) used the percentage change in each governance indicator as a proxy for institutional quality, in order to

the state for the institutions that govern economic and social interactions (i.e., control of corruption and rule of law) (Kaufmann, 2010).

2.2 Empirical literature

Many empirical studies examined the relation between external debt and economic growth, reaching mixed results. Studies in which the relation between external debt and economic growth was positive indicate that countries were able to effectively manage external debt through using those funds in filling the saving-investment and foreign exchange gaps, which resulted in stimulating economic growth. On the contrary, countries in which the relation between external debt and economic growth turned out to be negative are those countries which failed to manage the external debt effectively and thus fell into huge debt obligations and liquidity constraint problems. Hence, the relevant empirical literature can be grouped in two strands, according to the sign of the relationship between external debt and economic growth.

The first strand of literature comprises studies that found a positive relation between external debt and economic growth. Jayaraman and Lau (2009) examined whether external debt was associated with economic growth of the Pacific Island countries over the period (1988-2004). The study concluded that external debt promotes economic growth of the examined countries in the short run. Yet, no long run relationship was found between the two variables. For the Asian developing and transition economies, Dawood et al. (2020) examined the impact of external debt on economic growth over the period (1995-2019). By applying the fixed effects model with the feasible generalized least square (FGLS) estimator and Driscoll-Kraay standard error (DSKE) estimator to tackle the cross-sectional dependence, heteroscedasticity, and autocorrelation, the study found that external debt promotes economic growth. For Nigeria, Yusuf and Mohd (2021) assessed the impact of government debt on economic growth over the period (1980-2018) by applying the Autoregressive Distributed Lag (ARDL) technique. The study found that external debt promotes economic growth in the short run. Moreover, Kasidi and Said (2013) found that external debt has a significant impact on GDP in Tanzania over the period (1990-2010), using the Augmented Dickey Fuller (ADF) test and Johansen cointegration. However, the study found no long run relationship between the variables.

As for the second strand, Fosu (1996) found that the burden of external debt reduces economic growth in a sample of the less developed African countries over the period (1970-1986). For a large panel dataset of 93 developing nations over the period (1969-1998), Pattillo et al. (2002) applied a dynamic panel data model and the study found

foreign exchange to repay their debt obligations which reduces the revenues available for the domestic economy to stimulate investment and growth (Cohen, 1993).

The liquidity constraint hypothesis argues that high debt obligations require enough inflow of foreign exchange for debt service, which may be challenging for nations facing low exports and inadequate foreign reserves. Therefore, countries suffering from inadequate reserves may resort to devaluing their currencies or restricting imports. Accordingly, this will increase capital goods' prices and impede economic growth. The debt Laffer curve theory argues that there exists a nonlinear relation between external debt and economic growth. In particular, external debt stimulates economic growth till a certain threshold beyond which the repayment capacity of the nation starts to decrease and external debt affects economic growth negatively (Senadza et al., 2018).

As for the relationship between governance and economic growth, scholars postulated the role of governance in fostering economic growth through enhancing markets' efficiency, where this mechanism is coined as "the market promoting governance strategy". The theories put in place by the school of "New Institutional Economics" also laid the foundation for the emergence of governance and its role in economic activity (Singh, 2019).

In this respect, it is important to get back to the pioneering study by Acemoglu et al. (2004) who laid the theoretical foundations for the pivotal role of institutions, especially economic institutions, in explaining the growth performance of different countries. The authors demonstrated the role of economic institutions in affecting the actions of economic agents in society with regard to investments in physical and human capital and technology, as well as the organization of production. They also elaborated the role of economic institutions in affecting the future distribution of resources in any country. Acemoglu and Robinson (2008) also demonstrated the interconnectedness between economic and political institutions and the importance of investigating the needed tools to transfer countries from bad to good political equilibrium status and, accordingly, towards better economic institutions.

It is worth noting that the Worldwide Governance Indicators (WGI), developed by the World Bank to quantify governance into measurable indicators, are relied on extensively in the relevant literature. These indicators rely on perception-based data sources (i.e., surveys on firms, households and public sector entities) and they cover three thematic areas, namely: the process by which governments are selected, monitored and replaced (i.e., voice and accountability and political stability); the capacity of the government to effectively formulate and implement sound policies (i.e., government effectiveness and regulatory quality); and finally the respect of citizens and

The structure of the Study:

Section 2 reviews the relevant theoretical and empirical literature.

Section 3 presents descriptive analysis and stylized facts about external debt in MENA region countries.

Sections 4 and 5 address the model specification, methodology, and estimation results, respectively.

Finally, section 6 concludes incorporating relevant policy implications.

2. Literature Review

One of the controversial issues in economics, both at the theoretical and empirical levels, is the relationship between external debt and economic growth. In this section, the various theories tackling this issue will be presented along with a discussion of the relationship between governance and economic growth, followed by a review of the relevant empirical studies.

2.1Theoretical literature

Theories on the relationship between external debt and economic growth are mixed. Some argue for a negative relationship, while others suggest a positive impact. On the one hand, theories like the Harrod-Domar growth model emphasize the role of savings and capital accumulation in economic growth. External debt can be used by developing countries to fill the savings-investment gap, thereby boosting growth. Similarly, the dual gap model by Chenery and Strout (1968) highlights the importance of savings for domestic investment and growth. In theory, savings and investments should be equal. However, developing countries often face insufficient domestic savings to stimulate growth. As a result, they may resort to external debt to finance imports of intermediate and capital goods, aiming to foster economic development (Onakoya and Ogunade, 2017).

In contrast, other theories argue that external debt affects economic growth negatively. The debt overhang theory postulates a negative relation between external debt and economic growth as the accumulated debt discourages investment because private investors expect to be taxed heavily in order to finance the debt service payments. Hence, external debt acts as a tax disincentive for private investors and has negative repercussions on economic growth (Iliya and Tahir, 2017). The over-crowding out effect theory falls into the same group. The intuition behind the over- crowding out effect theory is that the accumulated debt service will crowd out both private and public investments (Iliya and Tahir, 2017; Senadza et al., 2018. This is because countries use

The study's significance is further emphasized by the negative average control of corruption and political stability estimates for most countries, with Jordan being the only exception (average control of corruption: 0.14) (World Bank, 2022b). While Jordan and Tunisia achieved relatively good rankings of 61 and 85 respectively, other countries included in the study lagged behind developed nations. For example, Egypt ranked 130th, Sudan 162nd, Lebanon 150th, and Algeria 116th out of 180 countries in the 2022 Corruption Perception Index.[1] This poor performance imposes further challenges for the role of external debt in supporting economic growth since the poor utilization of external debt adversely affects economic growth trajectories.

Finally, the figures incorporated in the SDGs index report for Arab countries indicated that seven of the examined countries face major challenges in SDG8 of economic growth, where they are either stagnating or achieving moderate increases (UNDP, 2022).

This paper investigates the structural change in the composition and trends of external debt in MENA countries from 1996 to 2021. It aims to contribute to the existing empirical literature on the mixed relationship between external debt and economic growth, as will be elaborated in the literature review section. Furthermore, the study seeks to address the limited research on how governance indicators influence this relationship in the MENA region.

Accordingly, the main research questions tackled by the study are:

- What was the relationship between external debt and economic growth in selected MENA countries over the period (1996-2021)?
- How have governance indicators, namely control of corruption and political stability, affected the relationship between external debt and economic growth in the selected MENA countries?

This study hypothesizes that the relationship between external debt and economic growth will be positive and of weak magnitude, given that the loans in many developing countries tend to be directed towards consumption rather than productive purposes and uses (Berensman, 2019). For example, spending on wages and salaries; food and energy subsidies; and interest payments. Additionally, the improvement in the performance of countries in the area of governance is expected to enhance the countries' ability to utilize their external debt in a way that supports economic growth, and vice versa.

[1] Corruption Perception Index, available at: https://www.transparency.org/en/cpi/2022

According to the World Bank, external debt is defined as "the debt owed to non-resident creditors and repayable in foreign currency, goods, or services by public and private entities in the country" (World Bank, 2017). External debt is a major source of finance for the countries that do not have sufficient domestic resources to cover the saving-investment gap and finance the fiscal deficit. Governments of the developing nations borrow from foreign creditors with the aim of boosting the economic growth of their nations through using those funds in financing their development plans. The extent to which external debt boosts countries' economic growth has been one of the controversial issues among scholars since the debt crisis in the 1980s. Some argue that external debt has a positive effect on economic growth if it is devoted to productive activities that boost the nations' welfare. Others argue that external debt hinders economic growth due to the huge debt service obligations (Siddique et al., 2016). Additionally, it is worth noting that governance structures matter for this relationship, as nations might not be able to achieve the SDGs if strong institutions based on transparency, accountability, and the rule of law are lacking.

This research endeavors to investigate the correlation between external debt and economic growth in countries of the MENA region throughout the period 1996-2021. It is worth noting that several nations in the region turned to external debt, particularly in the aftermath of 2011, where they signed different loan agreements with the IMF, in order to boost confidence in their economies and strengthen their weakened fundamentals in light of the political upheaval that they encountered. For instance, Tunisia signed a Standby agreement with the IMF in 2013 and an Extended Fund Facility in 2016. Moreover, both Egypt and Jordan signed extended fund facilities in 2016, where Jordan also opted for a Stand-by agreement in 2012. The same goes for Morocco where a Precautionary and Liquidity Line were agreed upon with the fund in 2012 (Mosallam, 2015). Some of these agreements were primarily targeting the enactment of structural reforms that have the end goal of achieving macroeconomic stabilization.

The observed trend towards heightened reliance on external debt within the overall public debt profile of MENA countries may pose significant risks to the economies of these countries. These risks encompass potential exchange rate fluctuations, threats associated with sovereign credit rating downgrades, and the looming risk of default should a country prove unable to fulfill its debt obligations. Therefore, it is important to investigate the relationship between external debt and economic growth to decide if it is justifiable to rely on external debt, as a source of financing sustainable development that supports economic growth, in the MENA region countries.

External Debt and Economic Growth in MENA Countries: Does Governance Matter?

Dr. Israa A. El Husseiny*, Ms. Menna Tallah Sherif Abdel-Karim†, and Ms. Noha Magdy Mostafa ‡

Abstract

This paper examines the relationship between external debt and economic growth in selected countries in the Middle East and North Africa (MENA) region over the period (1996-2021), using panel cointegration analysis. It further explores how governance indicators, namely control of corruption and political stability, affect the external debt-economic growth relationship. The Pedroni cointegration test confirmed a long run relationship among the variables. The dynamic OLS results indicated a positive and statistically significant, but relatively weak, impact of external debt on economic growth in one specification. Furthermore, including the governance indicator "control of corruption" in one model specification slightly strengthened the positive relationship between external debt and economic growth. As such, the MENA countries need to design appropriate policies that promote better utilization of external debt for economic growth. Moreover, these countries should improve their governance performance, especially in the control of the corruption domain.

Keywords: External debt; governance indicators; economic growth; MENA countries; panel cointegration

1. Introduction

Achieving sustained and inclusive economic growth is central to the Sustainable Development Goals (SDGs), as manifested in the articulation of SDG 8 “Decent Work and Economic Growth”. Given that external debt has been a significant challenge for developing countries, especially during the past decade, its impact on economic growth is important to examine. Moreover, an investigation of how the performance of the MENA countries in the arena of governance indicators affects the relationship between external debt and economic growth is of particular interest to policymakers seeking to optimize economic growth.

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The limitation of this study is that the frequency of data employed is annual, not monthly or even quarterly, which means that the sample size would have been larger and the estimated parameters could have been more accurate in explaining the behavior of exports. Data availability has been a concern, as monthly frequency is harder to obtain, and even if obtained for REER and export variables, it is still not available for domestic and world GDP variables. Another limitation is that there might be several other indicators that could have clear impacts on exports, so future research could investigate other trade policy variables such as export subsidies and trade tariffs.

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also significant in all specifications. Egyptian exports respond immediately to the devaluation of the local currency, as Egyptian commodities become more competitive, especially service exports. Tourism benefits from the competitive prices after the devaluation of the Egyptian pound. This is consistent with several studies (Zaki et al., 2019) that indicate a favorable relationship between exchange rate devaluations and export performance. For the Egyptian case, this significant relationship was mentioned by several econometric studies (e.g., Adams and Metwally (2021) and Ibrahim (2012)).

Also, there might be other factors that hamper the increase in Egyptian exports. In addition, by checking the impact of other factors that might reflect the productive capacity of the economy, we find that the coefficient that is associated with the total Egyptian GDP is positive and significant, which is also consistent with the results of previous studies.

However, as we are dealing with total exports, we wanted to disaggregate exports by type and check the extent to which the same explanatory variables exercise the same impact. For example, when we estimated the determinants of merchandise exports, we also found that both the real exchange rate and the EU free trade agreement have a significant impact, whereas, for service exports, world GDP plays a more significant role in affecting service exports, along with the real exchange rate. Manufactured exports merit a separate study. For the remaining results, it seems that the ratification of the EU free trade agreement has enhanced the performance of Egyptian exports.

6. Conclusion

In this study, we examined the impact of the main determinants of the export function, based on theory and literature. We also disaggregated exports into types, merchandise exports, and service exports and estimated three equations. In our analysis, we focused on the period between 1980 and 2021. As a standard method of dealing with time-series data, we initially focused on identifying the probable non-stationarity of the variables. The ADF tests confirmed the presence of non-stationarity among the variables in question. Therefore, the Johansen test was conducted and showed that there is co-integration between the variables. In the presence of a long-run relationship between the variables, we modeled the variables using an error correction model. After defining the parameters and running the model, we conducted the diagnostic checks that indicated no significant presence of a serial correlation, and no omitted variables. The main findings emphasized the importance of world demand for total exports and service exports. The devaluation of the real effective exchange rate seems to exert a significant impact on all types of exports, especially service exports, while the EU agreement has facilitated the access of merchandise exports to the EU markets. Future research could focus on the subgroups of merchandise exports, especially manufactured exports, to see their response to changes in the main variables of our study.

Another test was conducted to check that the model has no omitted variables. The null hypothesis in Ramsey's RESET test indicates that the model has no omitted variables. P-values are 0.16 for the first equation, 0.2813 for the second function, and 0.3547 for the third equation. Hence, we cannot reject H0, meaning that there are no omitted variables in the specification of the equations.

As the variables used in the three equations show the presence of a co-integration relationship between them, we conducted a vector error correction model to investigate the short-run relationship; hence, we incorporated an error correction term in the model.

Table 4: VECM Results

	Coefficient	**Standard Errors**	**t-ratio**
ECt-1	-0.512018	-0.17176	[-2.98094]
D(LEXPT(-1))	0.28552	-0.21265	[1.34266]
D(LFDIEC(-1))	0.027213	-0.04403	[0.61805]
D(LREER(-1))	-0.341689	-0.11623	[-2.93983]
D(LY(-1))	3.367951	-1.48156	[2.27324]
D(LYW(-1))	0.697446	-1.8173	[0.38378]
D(EU(-1))	-0.160951	-0.16763	[-0.96017]
R-squared	0.42212		

The results from the model (in Table 4) show that the error-correction term $ECt{-}1$ is statistically highly significant, and expectedly has a negative sign. This points to the soundness of our equations, indicating that between the variables there is indeed a long-term equilibrium relationship. The coefficient of $ECt{-}1$ (-0.512) shows that in the case of a deviation, the variables converge he equilibrium by adjusting the preceding period's disequilibrium at over 5 percent in the following period. Furthermore, the coefficients of the real exchange rate and GDP are significant. We also see that the r-squared value is 0.42.

5. Empirical Results

After conducting the Johansen co-integration tests, we estimated the different forms of export functions using both OLS and 2STLS. The main findings confirm the results of previous studies, especially about the positive and significant relationship between exports and world GDP, which might be considered a proxy for foreign income and hence international demand for Egyptian exports. In addition, it can also be concluded that there is a negative relationship between the real effective exchange rate and total exports; it is

as shown in Table 2. Furthermore, to deal with the potential endogeneity problem of explanatory variables (feedback effects), we used lagged forms of the variables as instrumental variables. The use of instruments is always advisable to avoid any suspicion of endogeneity.

Table 2: Empirical Results

	lexpt	**LMEXPE**	**LSEVXPE**
C (coefficient)	-10.62	9.44	-3.73
prob	0.04	0.17	0.11
LREER	-0.16	-0.36	-0.96
prob	0.01	0.00	0.00
LYW	0.69	0.19	0.89
prob	0.00	0.29	0.00
D(LY(-1))	0.72		
prob	0.57		
EU	0.08	0.61	
prob	0.50	0.01	
LFDIEC	0.09		
prob	0.04		
LEXPT(-1)	0.54		
prob	0.00		
crs			-0.25
Prob			0.00
Adjusted R-squared	0.98	0.92	0.97
S.E. of regression	0.11	0.21	0.11
F-statistic	323.27	120.02	301.01
Prob(F-statistic)	0.00	0.00	0.00
J-statistic		37.00	36.00
Prob(J-statistic)		0.00	0.00
Durbin-Watson stat	1.85	2.12	1.51

To check the validity of the functions' specifications, we conducted several tests. First, the Breusch-Godfrey Serial Correlation LM Test was applied to check for serial correlation. The p-value is the result of the chi-squared test, and (normally) the null hypothesis is rejected for a p-value < 0.05. As shown in the table below, p-values pointed to the non-rejection of the null hypothesis. This indicates that there is no serial correlation between the errors in the three functions.

Table 3: Breusch-Godfrey Serial Correlation LM Test

Serial Correlation	**p-value**	**Decision**
Function_1	0.2518	No serial correlation
Function_2	0.6024	No serial correlation
Function_3	0.2005	No serial correlation

information about the speed of adjustment to long-run equilibrium and avoids the spurious regression problem.

The details of the trace and eigenvalue tests are shown below:

1. For the first equation, where the dependent variable is total exports of goods and services:

Rank	Trace Test		Max eigenvalue	
	Test stat	p-value	Test stat	p-value
0	119.9830	0.0004	45.64036	0.0107
1	74.34260	0.0208	32.03493	0.0816

These results suggest that there is a cointegration vector among the variables for the analysis period. In other words, there is a long-term link between total exports, world GDP, Egypt's GDP, foreign direct investment inflow, the real effective exchange rate, and the dummy variable EU.

2. For the second equation, where the dependent variable is total merchandise exports:

Rank	Trace Test		Max eigenvalue	
	Test stat	p-value	Test stat	p-value
0	62.11938	0.0013	39.38999	0.0010
1	0.211681	0.2596	14.03326	0.3623

These results suggest there is a long-term link among merchandise exports, world GDP, foreign direct investment inflow, the real effective exchange rate, and the dummy variable EU.

3. For the third equation, where the dependent variable is total service exports

Rank	Trace Test		Max eigenvalue	
	Test stat	p-value	Test stat	p-value
0	108.0767	0.0000	47.75633	0.0006
1	60.32039	0.0022	37.26571	0.0021

These results suggest there is a long-term link among service exports, world GDP, the real effective exchange rate, and the dummy variable CRS.

After applying the Johansen test, the functions were estimated using both OLS and two-stage least squares (2STLS), and a list of instruments was used in the three specifications,

Augmented Dickey-Fuller (ADF) Test

Variable	Parameter	ADF Statistics	P value	Decision
GDPw	Level	-0.809	0.805	I(1)
	First Diff	-3.390	0.018	
GDP	Level	-3.293	0.084	I(0)
	First Diff			
TRAN	Level	-4.172	0.011	I(0)
	First Diff			
LEXPT	Level	-0.481	0.884	I(1)
	First Diff	-4.659	0.001	
LMEXPE	Level	-0.872	0.786	I(1)
	First Diff	-7.354	0.000	
LSEVXPE	Level	-1.600	0.473	I(1)
	First Diff	-3.745	0.007	
NFMX	Level	-0.726	0.828	I(1)
	First Diff	-8.330	0.000	
LREER	Level	-3.174	0.030	I(0)
	First Diff			
FDIEC	Level	-3.639	0.010	I(0)
	First Diff			
LInd	Level	-1.477	0.534	I(1)
	First Diff	-5.358	0.001	
LMANUF	Level	-4.266	0.002	I(0)
	First Diff			

Johansen Cointegration Test

The theory of cointegration attempts to study the interrelationships between long-run movements in economic time series. Most economic theories are about long-run behavior. Therefore, acceptance of co-integration between two series implies that there is a long-run relationship between them. From a statistical point of view, a long-term relationship means that the variables move together over time so that short-term disturbances from the long-term trend will be corrected. Based on Johansen, in this section, we conduct the cointegration test, to determine whether the variables have a stable and non-spurious cointegrating relationship among themselves.

The Johansen test for cointegration entails that if there is at least one cointegrating relationship among the variables, the short-run causal relationship among these variables can be determined by estimating the vector error correction model (VECM). It provides

$$\text{Lmexpt} = \alpha_{ij} + \beta_1 logGDP_w + \beta_2 logREER + \beta_3 logFDI + \beta_4 EU + e_t$$

In this function, we keep the same explanatory variables.

Then, finally, a separate function will be estimated to concentrate on service exports:

$$\text{Lsevxpe} = \alpha_{ij} + \beta_1 logGDP_w + \beta_2 logREER + \beta_3 crs + \beta_4 EU + e_t$$

For estimating the export function, we obtain the annual data from the World Development Indicators database for the period 1980–2021

Variable	Description
GDPw	World GDP
GDP	Gross domestic product for Egypt
TRAN	An indicator of air transport freight (in tons)
EU	Dummy variable that takes the value of 0 before 2004 and 1 onwards. This refers to the EU trade agreement that went into effect starting 2004
CRS	Dummy variable that takes the value of 1 when a negative shock occurs (for example, the financial crisis of 2008, the political upheaval in 2011 until 2013, and the Russian anti-crisis plan in 2015)
LEXPT	Total exports of goods and services in constant LCU
LMEXPE	Merchandise exports in constant LCU
LSEVXPE	Service exports in constant LCU
REER	Real effective exchange rate
FDIEC	Net foreign direct investment (as a percentage of GDP)

Stationarity Check

In this study, we generally adopt the analysis of time series variables in a multivariate context in three steps. *Firstly*, nonstationary data is present in most macroeconomic variables, and the paper tackles this problem using time series techniques. Examination of stationarity and nonstationarity is important before doing any empirical work to overcome the problem of spurious regression. This is closely linked to testing for the presence of a unit root in all the variables. *Secondly*, the integration order of the time series should be determined before conducting the cointegration analysis. If the variables are integrated of the same order I(1), the next step is to estimate a long-run equilibrium relationship using cointegration analysis. *Thirdly*, one must estimate the dynamic behavior by estimating the error correction model (ECM), provided that the variables are cointegrated (Altintaş and Türker (2014), Afzal and Riaz (2011), Athanasoglou and Bardakas (2010)). We used the Augmented Dickey-Fuller (ADF) test to check for the non-stationarity of variables. The Table below shows the ADF tests both at levels and first differences:

this last wave of devaluation in 2021, the Egyptian pound lost another 50 percent of its value, reaching around EGP 30.00 against the US dollar by early 2023.

It is often argued that the devaluation of the local currency can enhance the price competitiveness of exports as they become cheaper in terms of foreign currency, hence the potential to increase the amount of exported goods in international markets.

4. Export Function Specification

In this section, we focus on developing the econometric specifications to model an export function for Egypt. Based on the empirical literature reviewed, we understood that several macroeconomic indicators (e.g., foreign GDP, real effective exchange rate, domestic GDP, FDI, etc.) might have a crucial role to play in the export function of Egypt.

It is difficult to consider the impact of all factors on exports. However, some factors are more significant than others. The main explanatory variables in the export demand function are world demand, domestic production capacity, and the real exchange rate. Accordingly, in this section, we estimate the various specifications using disaggregated forms of exports. In each specification, we keep these three main explanatory variables but add other independent variables that might explain the performance of exports, following the literature. First, we estimate the total export function, using the total exports of goods and services as a dependent variable, and the main independent variables are World GDP, the real effective exchange rate, foreign direct investment, a dummy variable that reflects the signing of the free trade agreement with the EU, Egypt's GDP, a measure for transportation (the amount of freight transportation provided by the World Bank WDI database), and a trend variable.

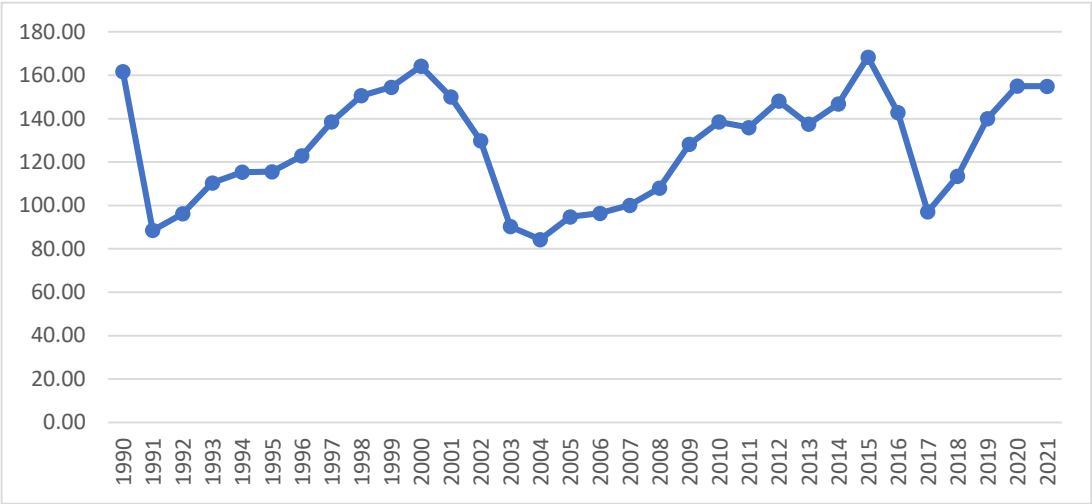
We take logarithms for both sides of the export function to estimate the resulting log-linear model, and then estimate it using the OLS method. In the second step, we estimate the log-linear function using the two-stage least squares (2SLS) method to account for possible endogeneity.

Thus, the export function is specified as follows:

$$\text{Lexpt} = \alpha_{ij} + \beta_1 logGDP_w + \beta_2 logGDP + \beta_3 logREER + \beta_4 logFDI + \beta_5 EU + e_t$$

Specifically, we are also interested in disaggregating total exports because the explanatory variables might differ depending on the type of export. Hence, in the second step, we focus on estimating the determinants of the merchandise exports solely as follows:

Figure 6 shows the evolution of Egypt's REER from January 1990 to 2021. It can be seen that the REER showed an upward trend. Thus, an appreciation of the REER indicates that the domestic price level in Egypt was rising over the relevant periods.



Source: https://www.bruegel.org[3]

Egypt had applied several exchange rate policies during the 1990s–2000s. Starting in 1991, Egypt adopted a unified fixed regime, and later a more flexible policy when the Egyptian pound was freely floated in 2003 (El-Masry 2021). The main objectives of floating the exchange rate were to attract more foreign capital and maintain the flow of remittances to the banking sector. However, during this period, the Egyptian pound was overvalued until 2015, as shown in Figure 6, leading to a loss in export competitiveness (El-Masry 2021). A foreign currency shortage was observed because of falling foreign direct investment and tourism revenues, especially during the 2009 financial crisis, and the political unrest that started in 2011. To avoid erosion of international reserves, the Central Bank of Egypt announced in 2016 the flotation of the exchange rate. A significant devaluation occurred, causing the Egyptian pound to lose more than 50 percent of its value, reaching EGP 18.00 against the US dollar. The objective of this policy was to increase the availability of foreign exchange resources for households and businesses, strengthen competitiveness and exports, and attract FDI (Chahir et al. 2019). In addition, the policy of exchange rate flotation was a main pillar of the new reform program, which Egypt started to apply in 2016. In another wave of devaluation, and following the Ukraine war, Egypt experienced a severe foreign capital flight of nearly $20 billion. Hence, the Central Bank of Egypt decided to devalue the Egyptian pound to address the shortage in US dollar resources. In

[3] Darvas (2021).

account for 15 percent and 9 percent, respectively, of total merchandise exports. In the meantime, the share of textile exports remains almost constant.

Table 1: Structure of Exports

(Shares in percent)	2010	2015	2020
Oil exports	53.0	43.3	35.7
Food exports (without cereals)	5.3	12.1	19.0
Cereals	1.8	2.1	1.5
Textiles	9.8	12.5	10.9
Chemicals	13.0	10.8	15.7
Electric appliances	3.8	10.7	9.2
Base metals	9.2	6.7	6.7
Vehicles, cars, and other means of transportation	4.2	1.7	1.3

Source: Central Bank of Egypt, Monthly Economic Bulletin, various years,

Concerning whether the structure of Egyptian exports has changed from low and primary commodities to higher value-added exports, it seems that exports are still concentrated in products that are either traditional or have a low value-added, such as fuel exports. Meanwhile, Egypt succeeded in shifting towards exporting more processed products, such as processed food as well as textiles and clothing.

Exchange Rate Policy

It is often argued that currency devaluation leads to an improvement in export performance. Since 2003, several devaluations have occurred, which could be analyzed to shed more light on the exchange rate policy and examine the extent to which the devaluation of the Egyptian Pound has led to an increase in exports. To observe the exchange rate path, it is better to identify the path of the real effective exchange rate (REER) and the nominal effective exchange rate (NEER) indices. These two indices are retrieved from Brugel's database (Darvas 2012). The NEER is defined as the value of a currency against a weighted average of several foreign currencies. An increase in the NEER indicates an appreciation of a currency against the weighted basket of currencies of its trading partners. While the REER is the NEER adjusted for inflation differentials, an increase in the REER indicates that exports become more expensive and imports are cheaper.

Regarding the breakdown of exports, total merchandise, and service exports have been declining as a percentage of GDP, while the share of merchandise exports has been increasing as a percentage of total exports and the share of service exports is declining. This pattern has prevailed since the mid-2000s (Figure 5). Regarding the components of merchandise exports, Figure 4 shows that the share of oil exports has declined from around 53 percent to only 35 percent, in real terms, while the share of manufacturing has been growing. This might be due to oil price fluctuations rather than a structural change in the supply of exports.

Figure 4: Fuel vs. Manufactured Exports

Source: Central Bank of Egypt, Monthly Economic Bulletin, various years.

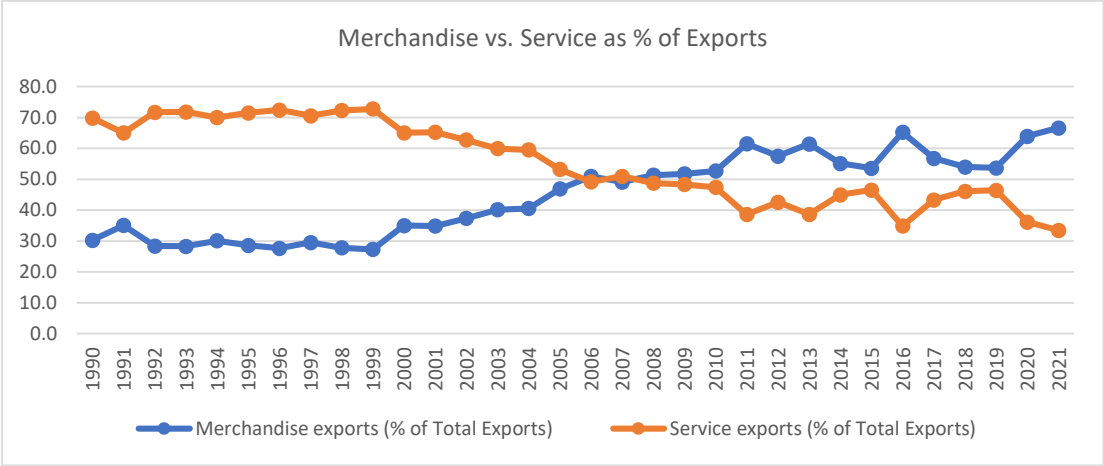


Figure5: Merchandise vs. Service Exports

Source: Central Bank of Egypt, Monthly Economic Bulletin, various years.

Concerning the structure of merchandise exports, Table 1 points to an increase in food exports to around 20 percent of total merchandise exports. Egypt has also succeeded in exporting more manufactured goods, such as chemicals and electrical appliances, which

registered zero growth rates in real terms, sometimes declining, except in 2018 and 2019 (Figure 3).

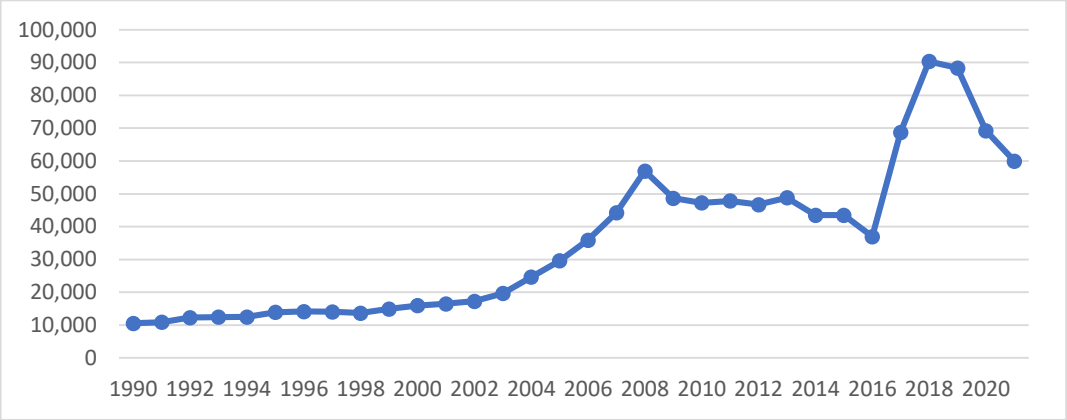


Figure 2: Exports of Goods and Services (Constant US dollar, millions)

Source: World Bank, World Development Indicators.

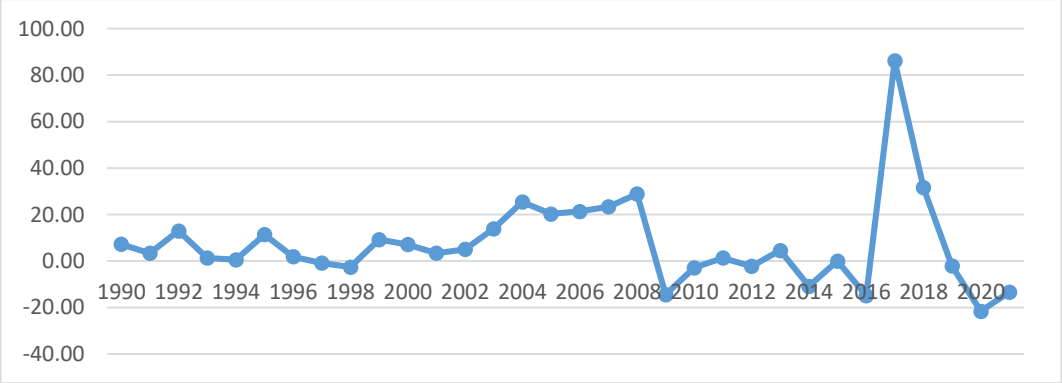


Figure 3: Growth Rates of Exports of Goods and Services (Constant US dollar, percent)

Source: World Bank, World Development Indicators.

Many factors could explain the performance of exports. First, Egypt signed several free trade agreements, such as the EU partnership agreement and the Qualifying Industrial Zones (QIZ) protocol, which might have led to an increase in exports for these markets, albeit to an extent not comparable to that of other international competitors. Both supply and demand factors might have played an important role in this matter. Concerning supply factors, domestic producers could not respond in a timely and adequate fashion to the new exportable products traded in international markets. In other words, Egypt continued to export more products, for which international demand was declining. In this regard, trade policy could provide incentives to producers, such as export subsidies, or abolish export barriers, such as tariff- and non-tariff barriers. This might help in giving a comparative advantage to products for which there is growing global demand in international markets.

Haider, Afzal, and Riaz (2011) to estimate the export elasticities of Pakistan's trade with traditional trade partners, but they also estimated an error correction model (ECM), which combines the long-run relationships with the short-run dynamics. Athanasoglou and Bardakas (2010) develop a demand function for Greece's exports of manufactured goods, estimating the long run, and a vector autoregressive error correction model (VECM) for the short run. They focus on time-series econometrics.

3. Stylized Facts: Current Situation of Exports in Egypt

Egypt adopted trade liberalization in the 1990s, especially with the proliferation of free trade agreements. One of the main objectives of free trade agreements is to increase the amount of foreign trade between Egypt and its trading partners. However, the indicator of trade openness witnessed a notable decline during the 1990s, albeit the trend was reversed to attain around 70 percent of GDP in 2008 (Figure 1). Unfortunately, starting in 2009, the trade ratio as a percentage of GDP started declining again. This was due to several negative shocks, such as the global financial crisis in the late 2000s and then the political upheaval and domestic economic disturbance in 2011 and onwards. In 2021, trade openness reached 27 percent only of GDP, indicating lower integration of the Egyptian economy in the world economy compared to other emerging economies, such as Turkey, South Africa, and Jordan, where trade openness reached 60.5, 56, and 66 percent, respectively (WDI 2024).

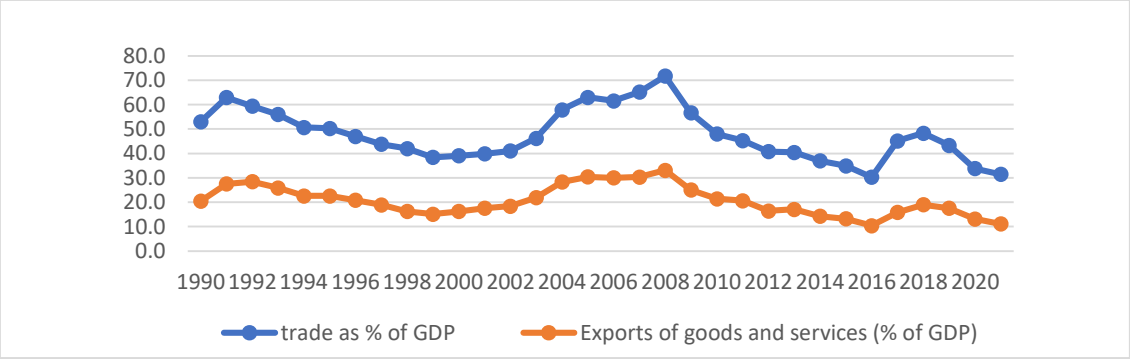


Figure 1: Trade and Exports as % of GDP

Source: World Bank, World Development Indicators.

Exports increased in real terms from around $10 billion in 1990 to about $56 billion in 2008. However, one can notice a decline in the real value of exports during the period 2010-2016, reaching only $47 billion. This loss in export revenue might be attributed to sluggish domestic economic activity as a result of political disturbances during the mentioned period. In 2016, exports more than doubled, rising from $36 billion in 2016 to more than $90 billion in 2019. After the Covid-19 outbreak, exports declined again to reach only $60 billion in 2021 (Figure 2). Figure 3 also shows the real growth of exports during the whole period. During the 2000s, exports registered positive real growth rates but later

The volatility of exchange rate movements also matters for export performance. For example, Badr and El-khadrawi (2018) concentrated on the impact of the volatility of the exchange rate on Egyptian trade flow for the period 1980–2016. The main results of the study highlight the negative impact of exchange rate volatility and inflation on exports.

Free trade agreements (FTAs) usually facilitate export access to international markets. Cardozo, Martínez-Zarzoso, and Vogler (2020) investigated whether the adoption of pan-Euro-Mediterranean (PEM) rules of origin has a positive impact on the exports (final and intermediate goods) of Egypt, Jordan, Morocco, and Tunisia. The gravity model[2] was applied to forecast the volume of trade between two trading partners based on several factors, namely their economic mass (positive relationship) and distance between them, which is an indication of the trade cost (negative relationship). Four model specifications were presented for the effects on exports of final goods and intermediate goods for the complete sample of trading partner countries and OECD countries. Agreements signed with the EU and EFTA countries had a positive and significant effect across specifications for final goods exports but not for intermediate goods, while the agreement with Turkey is significant and positive for intermediate goods exports across specifications. Çeştepe et al. (2015) also found that free trade agreements have a positive impact on the exports of those countries, even if the exporting country has comparative disadvantages in the case of free trade. A free trade agreement can improve the export power of the exporting country by providing exceptional applications such as lower customs tariffs.

Moreover, the size and growth of the supply capacity of a country depend critically on the availability of physical infrastructure, ranging from roads and ports to energy and telecommunications. Awolusi and Osman (2023) use the internal transport infrastructure as a proxy for the infrastructure as a whole. The analysis argues that internal transport infrastructures are likely to play an important role in the early stage of export sector development (Awolusi and Osman, 2023).

Concerning the methodology that is usually implemented to estimate export functions, Awolusi and Osman (2023) investigate the factors determining export performance in Uganda and apply the OLS technique. To overcome the problem of spurious regression, they examine the time series characteristics of the variables by testing for stationery and co-integration of the variables. The Johansen procedure is used, as it assumes the possibility of more than one cointegrating relation between the variables. Altintaş and Türker (2014) estimate the export function for Turkey using the unit root test, co-integration analysis, and Granger causality tests. The same methodology was applied by

[2] The gravity model approach includes other explanatory variables such as common language, colonial links, and the existence of trade agreements.

more trade creation. However, if foreign investment is directed to benefit from horizontal expansion and market penetration, it becomes a substitute for trade (Altıntaş 2014; Delice and Birol 2011). The experience in several countries suggests that FDI strongly contributes to the transformation of the composition of exports. For instance, FDI inflows into Singapore and China helped to significantly increase the technological content of exports by strongly supporting the development of export supply capacity, including knowledge-based industries (Awolusi and Osman, 2023). However, Alaya (2012) showed that inward FDI had a negative sign in 12 countries in the MENA region, which can be explained by the fact that MENA countries usually attract a small portion of FDI that is mainly directed to labor-intensive industries. While natural resources and exports of fuel often induce positive effects on exports, this endowment might hinder export diversification.

The relative competition between exporters is essential in determining the value of exports, which is measured by the ratio of export prices to the export prices of competing economies, adjusted by the exchange rate (Mirdala et al. 2019). In this regard, devaluation of the local currency renders domestic exports cheaper and, hence, might lead to an increase in the quantity of exports. In addition, many countries, such as China and Korea, have used currency devaluation as an additional tool to enhance comparative advantage, which has helped them increase exports. However, the results of the impact of exchange rate movements were inconclusive. While several studies confirmed the positive correlation between devaluation and the increase in exports, other studies did not succeed in proving this positive association between the two variables, especially at the macro level. Another study by Chahir et al. (2019) found that a depreciation of the real exchange rate increases the value of exports without affecting the quantity of exports. This highlights the fact that the price effect is more significant than the quantity effect (Chahir et al. 2019). With a special focus on the Egyptian case, Adams and Metwally (2020) tested the Marshall-Lerner condition. Using Egypt's trade data for the period 1965−2017, they examined whether changes in the exchange rate (devaluation in Egypt) drive changes in the relative prices of imports and exports, which in turn drive changes in the volume of both exports and imports (the elasticity approach). The paper applied the ordinary least squares (OLS) method for the exports equation, where the real effective exchange rate and world GDP were used as explanatory variables. They found that real exports of Egyptian goods and services are elastic concerning changes in the real effective exchange rate. Also, another study on the determinants of Egyptian merchandise exports showed that a depreciation of the Egyptian pound could induce a small increase in the real value of Egyptian merchandise exports (Ibrahim 2012).

of world income; γexport elasticity concerning production capacity; ηprice elasticity; and income elasticity.

The allocation of domestic production between selling the output in the domestic market versus exporting it to the international market depends on the firm's performance and the export demand curve. It is assumed that the exporting country is a price-taker because the small economy exerts no influence on the international prices of commodities.

The main aim of producers is to maximize profits when the marginal cost (MC) equals the marginal revenue in both domestic and export markets. Thus, total output is allocated towards both the domestic and foreign markets, and the price in the domestic market becomes PH and the price in the foreign market becomes PF. The total marginal revenue curve is the horizontal sum of the marginal revenue curves in both markets. Hence, if domestic demand for production increases, the quantity available for export will decrease, and if domestic demand decreases, the amount available for export will increase via changes in relative prices. Hence, there is a negative relationship between the decrease/increase in the quantity of exports and the upward/downward pressure (1974), selling the output in the domestic market. According to this theoretical framework, when there is an increase in domestic demand, domestic prices will shift upward, and hence it becomes more profitable for producers to sell more output in the domestic market and reduce the quantity that is directed towards the export market, and vice versa. Winters (1974, not listed in the reference list) has stressed the importance of identifying the changes in export profitability as measured by the ratio of the domestic price index to the export price index of manufactured goods.

Relative export profitability was considered an important additional factor that affects the performance of exports. In addition, many factors can play important roles in explaining the performance of exports. These factors are mainly concentrated in three dimensions. First, the production capacity in the home country is usually measured by real GDP growth and national savings as a percentage of GDP (Majeed and Ahmad 2006). Second, other factors emphasized external factors such as world demand for exports and foreign direct investment (Majeed and Ahmad, 2006; Mirdala et al., 2019).

For instance, the results associated with FDI are inconclusive, as the final impact depends on the type of FDI projects in the destination country. FDI might be complementary or a substitute for trade. If the FDI projects are vertically oriented and aim to localize parts of the production process in other countries, this type of foreign investment might lead to

This study investigates the behavior of exports by examining their possible determinants in light of theory and literature. The aim is to help policymakers identify the optimal policies that could help foster Egyptian exports. In this respect, measuring the income and price elasticities of export demand has received much attention because of its implications for trade policy and the balance of payments.

However, it might not be optimal to focus on the performance of total exports to explore the determinants of exports in Egypt. Total exports are composed of heterogeneous commodities and services that might respond differently to exogenous variables. For example, the devaluation of the Egyptian pound might have a different effect on fruits and vegetables than on tourism. Thus, it might be more insightful to estimate the determinants of exports for different types of exports, for example, merchandise exports vs. service exports. In this regard, the associated price and income elasticities for each type of export product and service shall be highlighted.

This study has four sections. Section 1 presents a literature review. Section 2 provides stylized facts on the current situation of exports in Egypt. Section 3 describes the export function specifications and the implemented methodology. Section 4 highlights the main empirical results and concludes.

2. Literature Review

In theory, exports depend on three main factors: the country's productive capacity and the available supply of exportable goods; the price of exportable goods compared to similar products in importing countries; and the world income that could be a proxy for global demand. Other non-price factors might affect export demand, such as quality standards and time for delivery; however, these factors are not easily measurable[1].

The export demand function takes the following form, and it includes the estimation of both income and price elasticities:

$$X_t = aC_t^{\gamma}\left(\frac{P_d}{P_f}\right)_t^{\eta} Z_t^{\epsilon}$$

where X is the dependent variable that refers to the export volumes; C represents the production capacity in the exporting country; and *pd/pf* is the ratio of the export price to the correspondent prices in the importing countries. The function also includes Z_t, the level

[1] Thirlwall (1986),

Estimation of Export Demand Function in Egypt

Dr. Mariam Raouf*

Abstract

In emerging economies, exports play an important role in enhancing economic growth, sustaining development, and providing foreign exchange revenue. The study explores the determinants of exports in Egypt from 1980-2021. Considering the heterogeneity of exports, the paper disaggregates the types of exports into three major sub-components according to data availability. First, the study estimates the determinants of total exports and then focuses on identifying the determinants of merchandise exports. Finally, a separate function is estimated to identify the main factors of service exports. Key empirical findings are consistent with the results of previous studies, especially about the positive and significant relationship between exports and world GDP, real domestic GDP, and the trade partnership agreement with the EU. However, a negative and significant relationship between the real effective exchange rate and the total exports has been detected, with a higher response from service exports.

Keywords: Export Demand Function, OLS, Vector error correction model (VECM), Cointegration, Egypt

1. Introduction

Exports play an important role in enhancing economic growth and sustaining development in emerging economies. Exports of goods and services are also important sources of foreign exchange resources that help generate income for exporters and those working in the feeding and related industries. Exports are also viewed as an engine of growth, as they contribute to improving the quality of goods to better compete in foreign markets. Additionally, using modern technologies in production helps enhance and increase the technological capabilities in the country, as high-technology exports usually generate higher value-added, which often translates into higher income and GDP growth. In this regard, Egypt is set to implement a new strategy that targets increasing its annual exports to the global markets to reach $100 billion compared to around $40 billion in 2021, especially since Egyptian exports have been growing at declining real rates for over a decade.

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