



مجلة التنمية والسياسات الاقتصادية

تقييم استراتيجيات سوق العمل لمواجهة
تحدي البطالة في دولة الكويت.

بلقاسم العباس

سوق العمل بالجزائر وأثر السياسات الاقتصادية
التجميعية على معدلات البطالة.

شيببي عبد الرحيم
شكوري محمد

النمو الاقتصادي والبطالة في الدول العربية:
مدى ملاءمة قانون أوكن.

عماد موسى
الأنشطة الاقتصادية غير المنظمة والتنمية
والتشغيل في الدول العربية.

إبراهيم بدوي
نورمان لويزا

ضغوط سوق العمل في مصر: تفسير استمرار
ارتفاع معدّل البطالة.

محمد حسن
سايرس ساسانجور

نحو إطار للسياسات لفهم البطالة في الدول
العربية.

سيد أحسن
زينج فاي ليو

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عدد خاص

أزمة البطالة في الدول العربية

الأهداف:

- الاهتمام بقضايا التنمية والسياسات الاقتصادية في الأقطار العربية في ضوء المتغيرات المحلية والإقليمية والدولية.
- زيادة مساحة الرؤية وتوسعة دائرة المعرفة لدى صانعي القرار والممارسين والباحثين في الأقطار العربية .
- خلق حوار علمي بناء بين الباحثين والمهتمين بالاقتصادات العربية وصانعي القرار بالمنطقة.

قواعد النشر:

1. ترسل ثلاث نسخ من البحوث والدراسات ومراجعات الكتب والتقارير إلى رئيس التحرير.
 2. تنشر المجلة الأبحاث والدراسات الأصلية (باللغتين العربية والإنجليزية) والتي لم يتم نشرها سابقاً ولم تكن مقدمة لنيل درجة علمية أو مقدمة للنشر في مجلات أو دوريات أخرى.
 3. تكون الأوراق والدراسات المقدمة بحجم لا يتجاوز الثلاثين صفحة، بما فيها المصادر والجداول والرسوم التوضيحية، كما لا تزيد مراجعة الكتب والتقارير على العشر صفحات. ويشترط أن تكون البحوث والمراجعات مطبوعة على أوراق 8.5x11 بوصة (A4) مع تخطي سطر (Double Spaced) وعلى وجه واحد، وتترك هوامش من الجوانب الأربعة للورقة بحدود بوصة ونصف.
 4. تكون المساهمات مختصرة بقدر الإمكان وسهلة القراءة والإستيعاب من قبل الممارسين وصانعي القرار.
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 8. تخصص قائمة بالمراجع في آخر البحث ولا توضع فيها إلا تلك المراجع التي تم الإشارة إليها في متن الورقة أو البحث. وترتب على الشكل التالي:
- Krueger, A.O. (1992). Economic Policy Reform in Developing Countries. Blackwell, Oxford
- سن، أ.ك.، (1984) الموارد والقيم والتنمية مطبعة جامعة هارفرد، كمبريدج.
9. توضع الهوامش في أسفل الصفحة المناسبة وترقم بالتسلسل حسب ظهورها.
 10. توثق الجداول والرسوم التوضيحية المستعارة وغيرها بالمصادر الأصلية.
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 14. تخضع كل المساهمات في المجلة للتحكيم العلمي الموضوعي، ويبلغ الباحث بنتائج التحكيم والتعديلات المقترحة من قبل المحكمين إن وجدت، خلال إسبوعين من تاريخ إستلام ردود كل المحكمين.
 15. يُصبح البحث المنشور ملكاً للمجلة، وتستوجب إعادة نشره في أماكن أخرى الحصول على موافقة كتابية من المجلة.
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مجلة التنمية والسياسات الاقتصادية

تصدر عن المعهد العربي للتخطيط بالكويت

المجلد العاشر - العدد الثاني - يوليو 2008

مجلة محكمة نصف سنوية تهتم بقضايا التنمية والسياسات
الاقتصادية في الأقطار العربية

الهيئة الاستشارية

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سمير المقدسي عبدالله القويز
عبد اللطيف الحمد محمد الخجا

مصطفى النابلي

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بلقاسم العباس التهامي عبد الخالق
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عيسى الغزالي

نائب رئيس التحرير
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رئيس التحرير - مجلة التنمية والسياسات الاقتصادية

المعهد العربي للتخطيط

ص.ب 5834 - الصفاة 13059 الكويت

تلفون 4844061 - 4843130 (965) - فاكس 4842935 (965)

البريد الإلكتروني jodep@api.org.kw

الاشتراكات :

ثلاث سنوات	سنتين	سنة	داخل الوطن العربي :
US\$ 40	US\$ 25	US\$ 15	للأفراد
US\$ 70	US\$ 45	US\$ 25	لمؤسسات
خارج الوطن العربي :			
US\$ 70	US\$ 45	US\$ 25	للأفراد
US\$ 115	US\$ 75	US\$ 40	لمؤسسات

ثمان النسخة في الكويت : 1.5 دينار كويتي.

عنوان المجلة :

مجلة التنمية والسياسات الاقتصادية

المعهد العربي للتخطيط بالكويت

ص.ب 5834 صفاة 13059 الكويت

تلفون 4844061 - 4843130 (965) - فاكس 4842935 (965)

البريد الالكتروني: jodep@api.org.kw

محتويات العدد العربية

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افتتاحية العدد

تقييم استراتيجيات سوق العمل لمواجهة تحدي البطالة في دولة الكويت.

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بلقاسم العباس

سوق العمل بالجزائر وأثر السياسات الاقتصادية التجميعية على معدلات البطالة.

شيببي عبد الرحيم

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افتتاحية العدد

يصدر هذا العدد تكملة مجلة التنمية والسياسات الاقتصادية العقد الأول من عمرها، تناولت فيه العديد من الموضوعات الاقتصادية الهامة. وبهذه المناسبة تصدر المجلة عدداً خاصاً حول موضوع يُورق الكثيرين من أصحاب القرار بشكل خاص والمهتمين بقضايا التنمية الاقتصادية والاجتماعية على وجه العموم، ألا وهو "أزمة البطالة في الدول العربية". ويشتمل هذا العدد الخاص على ست أوراق علمية ناقشت معظم الجوانب المتعلقة بأزمة البطالة في العالم العربي والتصورات المتعلقة بها. وتمثل هذه الأوراق عينة من الأوراق التي قدمت في المؤتمر السابع الذي عقده المعهد العربي للتخطيط خلال الفترة 18-17 مارس 2008 في مدينة القاهرة.

نستهل هذا العدد بورقة لبلقاسم العباس يقيم فيها استراتيجيات سوق العمل لمواجهة تحدي البطالة في دولة الكويت. ويضع نموذجاً لاستشراف سوق العمل، تم فيه تقدير علاقات سببية لكل من السكان الوافدين والتوظيف في القطاع الحكومي وإنتاج النفط وإنتاج القطاع الخاص والتشغيل فيه. على أساس تقديرات دوال النموذج واسقاطات السكان حتى عام 2032، تم استشراف آفاق المستقبل تحت ثلاثة تصورات بديلة هي استمرار الحالة الراهنة للبيئة الاقتصادية الدولية، وتدهور البيئة الاقتصادية الدولية، وتحسن البيئة الاقتصادية الدولية. وخلص المؤلف في نهاية ورقته إلى أن تحقيق معدلات بطالة منخفضة على المدى البعيد يتطلب إجراء تعديلات جذرية في الخصائص الهيكلية لسوق العمل الكويتي.

وفي الورقة الثانية يقوم شيببي عبدالرحيم وشكوري محمد بدراسة أهم العوامل المحددة لمعدل البطالة في الجزائر، وباستكشاف أثر السياسات الاقتصادية التجميعية على هذا المعدل. وأوضحت نتائج الدراسة أن أسعار النفط قد كانت أهم متغير كان له تأثير إيجابي على خفض معدل البطالة. وعلي أساس النتائج التطبيقية التي توصلت إليها الورقة اقترح أن تتضمن سياسات الحد من البطالة إجراءات متعلقة بتكثيف الإطار القانوني والتنظيمي لسوق العمل، مع تحسين أدوات وآليات الإعلام والتنظيم والتسيير ورفع قدرات الإنتاج الوطنية في القطاعات كثيفة الاستخدام للعمالة بواسطة الاستثمار المنتج، والاهتمام أكثر بجذب الاستثمارات الخارجية ورد الاعتبار لقطاع السياحة باعتباره قطاعاً استراتيجياً له دور كبير في خفض البطالة وتوزيع عائدات البلد المالية.

وفي ورقة ثالثة يناقش عماد موسى النمو الاقتصادي والبطالة في الدول العربية ومدى ملاءمة قانون أوكن الذي يقيس إستجابة البطالة لنمو الناتج، لما لذلك من أهمية في صياغة السياسات لأنه يدل على تكلفة البطالة في الاقتصاد. وقد تحدد هدف الورقة في تقدير معامل أوكن لأربع دول عربية توفرت لها معلومات: الجزائر، ومصر، والمغرب و تونس. استعرضت الورقة الحقائق النمطية حول البطالة في الدول العربية، حيث تمت ملاحظة إرتفاع معدل البطالة فيها مقارنة بإقاليم العالم المختلفة وتدني إستجابة البطالة للنمو الاقتصادي. خلصت الورقة إلى نتيجة مفادها عدم إنطباق قانون أوكن في كل دولة من الدول العربية وهو ما يخالف النتائج التطبيقية التي تدعم وجود هذا القانون في الدول المتقدمة. تشير الورقة إلى أن هناك

ثلاثة أسباب تفسر هذه النتيجة: أن البطالة في الدول العربية لا تتغير حسب الدورة الاقتصادية، وأن أسواق العمل في هذه الدول ليست مرنة وأن هيكل هذه الاقتصادات ليس متنوعاً بما فيه الكفاية.

ويقوم إبراهيم البدوي ونورمان لويزا في ورقة رابعة بمناقشة الأنشطة الاقتصادية غير المنظمة والتنمية والتشغيل في الدول العربية، حيث قاما بدراسة أسلوب ونتائج ظاهرة القطاع غير الرسمي وتطبيق ذلك على الدول العربية. استعرضت الورقة مفهوم هذا القطاع والأسباب التي تدعو إلى القلق من توسعته كظاهرة تنموية، وأهم خصائص العمالة في الدول العربية بشكل عام وفي السوق غير الرسمية على وجه الخصوص، والعلاقة المفترضة بين التنمية والعمالة والقطاع غير الرسمي. خلصت الورقة إلى نتائج تفيد بتفشي ظاهرة القطاع غير الرسمي في معظم الدول العربية، واعتبار ذلك ظاهرة مقلقة لما تعنيه من سوء في توزيع الموارد واستخدام غير كفوء للخدمات الحكومية، الأمر الذي قد يضر بالنمو الاقتصادي وتخفيف الفقر.

أما الورقة الخامسة، فقد ناقش فيها محمد حسن وسائرس ساسانبور ضغوط سوق العمل في مصر وتفسير استمرار ارتفاع معدل البطالة، حيث تشكل البطالة تحدياً كبيراً للاقتصاد المصري وتتركز أساساً في أوساط الشباب المتعلمين الباحثين عن عمل لأول مرة. تؤكد الورقة على أن المشكلة تكمن في عدم التطابق بين المهارات المعروضة والمهارات المطلوبة في سوق العمل، إضافة إلى ارتفاع الأجر الاحتياطي للعمال التاركين للمدرسة حديثاً، وكذلك محدودية تحريك العمالة. خلصت الورقة إلى نتيجة مفادها أنه على الرغم مما حققته مصر من نمو اقتصادي قوي إلا أن البطالة بقيت عالية، فالنمو الاقتصادي لا يقود لانخفاض كبير في معدلات البطالة إلا إذا كان مضطرباً ومرتكزاً على توسيع في النشاطات كثيفة العمالة ومترافقا مع تغيرات هيكلية في سوق العمل.

وتختتم أوراق هذا العدد بورقة سادسة يقوم فيها سيد أحسن وزينج فاي ليو بتطوير نموذج لسلك معدل البطالة في خمس دول عربية هي الجزائر والأردن وتونس ومصر والمغرب، استند فيه على خمس أطروحات نمطية حول علاقة البطالة بكل من: معدل نمو الناتج المحلي الإجمالي ورأس المال البشري، والمشاركة في قوة العمل وخدمات رأس المال والعمالة والاندماج في الاقتصاد الدولي. وقد تم في هذه الورقة رصد بعض النتائج التطبيقية أهمها: أن زيادة معدل النمو الاقتصادي بنقطة مئوية واحدة يؤدي إلى انخفاض معدل البطالة بحوالي 3.2%، بينما يؤدي ارتفاع العمر المتوقع عند الولادة بحوالي 2.7 سنة إلى ارتفاع معدل البطالة بحوالي 3.7%، كما تبين نتائج الورقة أن التذبذب في النمو الاقتصادي من شأنه زيادة معدل البطالة.

نأمل أن يجد القارئ في الأوراق التي يضمها هذا العدد ما يفيد في ما يتعلق بقضايا البطالة في الوطن العربي ومضامينها لمسيرة التنمية في الدول العربية بمختلف مراحلها التنموية. هذا ونأمل أن يتواصل الحوار البناء بيننا وبين القراء من خلال مساهماتهم الرائدة والبناءة من على صفحات هذه المجلة، بما يخدم قضايا الأمة العربية.

رئيس التحرير

تقييم استراتيجيات سوق العمل لمواجهة تحدي البطالة في دولة الكويت

بلقاسم العباس

تقييم استراتيجيات سوق العمل لمواجهة تحدي البطالة في دولة الكويت

بلقاسم العباس*

ملخص

حققت دولة الكويت وفضل استخدام الريوع النفطية مستوى تنمية بشرية مرموق، لكن الممارسات التشموية المتمثلة في استخدام توظيف القطاع العام في رفع مستويات رفاه المواطنين أدى إلى تجزئة سوق العمل بصفة عميقة، إنعكست أساساً في توجه المواطنين للعمل في القطاع الحكومي واعتماد القطاع الخاص على توظيف الوافدين. وبالرغم من تدني معدلات البطالة، فإن التدفقات المستقبلية لقوة العمل وتضخم القطاع الحكومي تدل على صعوبة مواجهة ضغوطات سوق العمل، قد تتحول في المستقبل إلى بطالة سافرة مرتفعة جداً. بالمقابل فإن الدولة تمتلك إمكانية مواجهة البطالة بإجراء إحلال موسع في القطاع الحكومي، وتنمية القطاع الخاص وتفعيل أكثر لسياسة توطین العمالة الوطنية في القطاع الخاص. تدل نتائج المحاكاة التي أجريت في هذه الورقة على نموذج سوق العمل، أنه مهما كان نمو الاقتصاد فإنه لا يمكن حل مسألة البطالة إلا من خلال تفعيل وتنمية توطین العمالة الوطنية في القطاع الخاص.

Evaluation of Labor market Strategies for Alleviating Unemployment in Kuwait

Belkacem Laabas

Abstract

The state of Kuwait achieved an impressive record in human development thanks to considerable oil windfalls that were principally used in improving the welfare of the citizens by using public sector employment to generously distribute part of these windfalls. However this situation created a deep segmented labor market whereby citizens opted mainly for public sector jobs, and private sector employed expatriates. Given the rapid rise of the national labor force and the fact that the public sector reached near saturation in terms of its capacity to absorb more labor, the actual low level of unemployment will deteriorate considerably if current situation would prevail in the future. Hitherto policy makers alleviated unemployment by national labor substitution in the public sector and by transferring nationals to work in the private sector. According to simulations using a labor market model, policy makers will have to further deepen such policies and to encourage the development of the private sector in order to provide jobs for labor market entrants in the future.

* عضو الهيئة العلمية - المعهد العربي للتخطيط بالكويت.

مقدمة

حققت دولة الكويت بفضل الطفرة النفطية تقدماً ملحوظاً في مستويات التنمية الاقتصادية والبشرية. ونتيجة لذلك ارتفع دخل الفرد من 3670 دولار أمريكي في سنة 1963 إلى أكثر من 30 ألف دولار أمريكي في سنة 2005 (البنك الدولي، 2007). كما حققت دولة الكويت تقدماً مرموقاً في مجال التنمية البشرية، وعليه فقد ارتفع مؤشر التنمية البشرية (تقرير التنمية البشرية 2007) من 0.76 لسنة 1975 إلى 0.89 لسنة 2005 وهو أداء يعتبر الأعلى عربياً. وبالرغم من الأداء التنموي المرموق، فإن التبعية المفرطة للنفط وضعت الكويت في موقع تواجه فيه تحديات اقتصادية كبيرة لاستدامة مستوى التنمية. (Okogu, 2003, Abed and Davoodi, 2003) فالريوع النفطية تشكل المصدر الأساسي لتمويل الموازنة، حيث بلغت 91% من إجمالي الإيرادات للسنة المالية 2004/2005، وبلغ استخراج النفط أكثر من 47% من إجمالي الناتج المحلي الإجمالي سنة 2004، كما بلغت صادرات النفط أكثر من 92% من إجمالي الصادرات السلعية، أما حصة الصناعات الكيماوية والمنتجات النفطية فقد بلغت أكثر من 77% في سنة 2003 من إجمالي الإنتاج الصناعي التحويلي. بالإضافة إلى ذلك، ارتباط نشاط القطاع الخاص الإنتاجي والخدمي بالإنفاق الحكومي، والذي هو في الأساس محدد بالمداخيل النفطية (Barnett and Ossowski, 2002). وعموماً فإن قطاع النفط يعتبر كثيف رأس المال، ولا يوفر مناصب عمل كبيرة، وبالتالي، يساهم بقدر بسيط في توظيف القوة العاملة، حيث بلغت نسبة العمالة في قطاع المناجم، 0.3% فقط من إجمالي العمالة في سنة 2006.

ونتيجة لهذه التشابكات، فإن قنوات نقل تقلبات سعر النفط كبيرة وواسعة و غير متناظرة⁽¹⁾، وتأثر على الاقتصاد من خلال تقلب الدخل والإنفاق الحكومي، والذي يعتبر من أهم منابع الطلب على إنتاج القطاع الخاص (Fasano, 2002). كما أن تقلبات سعر النفط، تشكل ضغطاً كبيراً على توسيع توظيف المواطنين في الجهاز الحكومي، وذلك لارتفاع حجم الكتلة الأجرية، وتوسع حجم الحكومة، بالإضافة إلى التكاليف الناجمة عن انتشار ظاهرة البطالة المقنعة، وانخفاض مستوى الأداء الحكومية (Fasano and Goyal, 2004)، وتأثيره السلبي على بيئة الأعمال عبر ارتفاع مستوى البيروقراطية، وارتفاع تكاليف الأعمال. تشير نتائج مؤشر التنافسية العربية لسنة 2006، إلى أن دولة الكويت لها أكبر قطاع حكومي ضمن الدول العربية ودول المقارنة. فنظراً للتقلبات الحادة في سعر النفط وتراجع قوته الشرائية⁽²⁾، فإن الدول النفطية لا تنمو بشكل مستدام (Makdisi et al, 2007, Bisat, El Erian and Helbling, 1997). بل إن هوة الدخل بين الكويت والدول المتقدمة تتسع بشدة لصالح هذه الأخيرة، بعدما كانت الكويت تفوقها في مستويات الدخل. وتشير الحسابات التي أجريت (العباس 2007)، أن حجم هذه الهوة سيزداد توسعاً إذا لم يتم تدارك الوضع وتعديل الاقتصاد بحيث ينمو بمعدلات مرتفعة جداً، وهو التحدي الأساسي الذي ستواجهه الكويت مستقبلاً⁽³⁾. بالرغم من معاودة أسعار النفط للارتفاع بشكل كبير منذ نهاية 1999، مقارنة بالطفرات السعرية السابقة، فإن هذا الارتفاع قد يبطن ويغطي حجم التحدي الاقتصادي إلى حين.

يواجه اقتصاد دولة الكويت تحديات هيكلية تحد من نموه السريع مرتبطة بهيمنة النفط وارتفاع تكلفة إدارة دولة الرفاه، المبنية على توزيع الربوع النفطية، وتكفل الحكومة بتوظيف المواطنين في الجهاز الحكومي بأجور وعلاوات اجتماعية مغرية، وتوفير الخدمات بتكاليف رمزية، مما أدى إلى تضخم الجهاز البيروقراطي للدولة وعزوف المواطنين عن العمل في القطاع الخاص، الذي اعتمد تقريباً كلياً على العمالة الوافدة، وركز نشاطه على المقاولات لتنفيذ المشاريع التي تطرحها الحكومة في مجال السكن والبنية التحتية، بالإضافة إلى الخدمات والتوزيع (Fasano and Wang, 2001)، مما أدى إلى عدم التركيز على القطاع الصناعي التحويلي، الذي يعتبر سر نجاح دول جنوب شرق آسيا، وهو الأساس لبناء إستراتيجية تنويع الاقتصاد والنمو⁽⁴⁾. وإذا ما بقيت هذه الخصائص الهيكلية على حالها فإن ضغوطات سوق العمل الحالية، التي تعتبر سهلة مقارنة بمستويات الدول العربية والنامية، ولكنها إن لم تصحح بشكل جذري فإن الاتجاه طويل الأجل لهذه الحالة قد يغير من معطيات الاقتصاد الكويتي ويجعله عرضة لانخفاض الدخل وارتفاع مستويات البطالة السافرة.

تهدف هذه الورقة إلى استشراف حالة سوق العمل الكويتي في المدى الزمني الطويل. ولأغراض هذا الاستشراف، يتناول القسم الثاني خصائص سوق العمل، ويستعرض القسم الثالث سياسات سوق العمل، بالتركيز على تقييم سياسة إحلال العمالة الوطنية محل العمالة الوافدة في القطاع الحكومي. وفي القسم الرابع يتم تطوير النموذج المستخدم لاستشراف سوق العمل. أما في القسم الخامس فيتم استعراض التصورات المستقبلية طويلة الأجل لسوق العمل، بينما يتم في القسم السادس تلخيص أهم ما توصلت إليه الورقة.

خصائص سوق العمل الكويتي

السكان وقوة العمل

ارتفع عدد سكان دولة الكويت بشكل ملحوظ من أقل من نصف مليون نسمة في منتصف الستينات إلى أكثر من ثلاثة ملايين نسمة سنة 2006، يشكل الوافدون نسبة مرتفعة من إجمالي السكان بالرغم من بعض الهواجس المعبر عنها باختلال التركيبة السكانية، وأثرها على توازن المجتمع الكويتي. ويتباين معدل نمو السكان الكويتيين مع نمو السكان الوافدين، حيث بتراجع الأول تدريجياً بفعل التحول الديموغرافي الناتج عن انخفاض خصوبة الإناث وارتفاع مستويات التعليم. وهكذا فقد انخفض معدل النمو السكاني من 6.2% سنوياً بين عامي 1975 و 1965 إلى 3.3% سنوياً للفترة 1995-2006. وبالمقابل فقد سجلت معدلات نمو السكان الوافدين مستويات أعلى من نمو السكان الكويتيين، حيث بلغ معدل النمو السنوي 5.1% للفترة 1995-2006، وارتفع عددهم في السنوات العشر الأخيرة من 1.24 مليون نسمة في عام 1995 إلى 2.04 مليون نسمة في سنة 2006. يتميز هرم السكان باختلاف التركيبة العمرية للمواطنين والوافدين، حيث يمتاز السكان الكويتيين بارتفاع نسب الشباب، بينما تنخفض هذه النسب لدى الوافدين. وتبلغ نسبة الذين تقل أعمارهم عن 20

سنة أكثر من نصف السكان الكويتيين، وبالتالي فإنه حتى في حالة انخفاض معدل النمو السكاني مستقبلاً، فإن حركية السكان سوف تدفع بأعداد كبيرة إلى سوق العمل. أما السكان الوافدون، فإنهم في أغلبهم في سن العمل، ويشكلون أكثر من 85% من السكان الوافدين للكويت.

ونتيجة لاختلاف التركيبة العمرية للسكان، فإن توزيع السكان حسب العلاقة بسوق العمل تختلف جذرياً بين الكويتيين والوافدين. فبالرغم من أن القوة البشرية الكويتية تشكل 60% من السكان، إلا أن نصفهم فقط داخل قوة العمل ولا زال ما نسبته 27% من القوة البشرية خارج قوة العمل، ويرجع ذلك بالتأكيد إلى انخفاض مساهمة المرأة في سوق العمل وخروجها منه مبكراً. ومن المتوقع ارتفاع نسبة القوة البشرية من السكان نتيجة انخفاض معدل النمو ووصول الشباب إلى سن العمل، كما يتوقع ارتفاع نسبة قوة العمل نتيجة ارتفاع مساهمة المرأة في سوق العمل. حيث انخفضت نسبة السكان خارج القوة البشرية بين عامي 1995 و 2006 بما نسبته 4.3% في سنة 2006، كما انخفضت نسبة السكان خارج قوة العمل بشكل ملحوظ من 32.8% سنة 1995 إلى 25.3% وبالتالي ارتفعت نسبة السكان المشغولين من 21.75% إلى 32%، وذلك نتيجة استيعاب سوق العمل لمعظم طالبي العمل واستقرار معدل البطالة. وإذا ما استمر هذا الاتجاه خلال السنوات العشرين القادمة، فإن السكان خارج القوة البشرية سينخفض إلى الثلث وأن السكان داخل قوة العمل سيرتفع إلى أكثر من النصف. وبافتراض أن عدد السكان سينمو بمعدل 2.5% خلال السنوات العشرين القادمة، فإن السكان الكويتيين سيصلون في عام 2026 إلى 1.65 مليون نسمة، والقوة العاملة الكويتية إلى 0.84 مليون، مما يستدعي توفير نصف مليون وظيفة جديدة خلال الفترة القادمة، أو ما يعادل 25332 وظيفة جديدة سنوياً.

قوة العمل

بلغت قوة العمل الكويتية في سنة 2006 حوالي ثلث السكان الكويتيين، أما قوة العمل الوافدة فشكّلت حوالي 75% من السكان الوافدين في نفس السنة، وبلغت قوة العمل الإجمالية أكثر من 1.86 مليون نسمة، شكل الوافدون منها 82%. وارتفعت قوة العمل الكويتية باضطراد مستمر، حيث ازدادت من 74 ألف فرد في سنة 1980 إلى 335 ألف فرد في سنة 2006، أي تضاعف العدد أربعة مرات ونصف خلال الـ 26 سنة الماضية. ووفق التوقعات المستقبلية، فإن قوة العمل ستصل إلى أكثر من 800 ألف فرد خلال السنوات العشرين القادمة. والسؤال الأساسي الذي يطرح نفسه بالحاح، هو من أين ستأتي هذه الوظائف، وكيف يمكن تديرها وبإية شروط، حتى يبقى معدل البطالة عند مستوى مقبول؟ تتميز قوة العمل بتضخم نسبة العاملين الوافدين بدون مؤهلات (العمالة الهامشية)، حيث تصل نسبتهم إلى 59% من إجمالي قوة العمل الوافدة، وفي المقابل فإن قوة العمل الكويتية تتميز أيضاً بقدر مرتفع من ذوي المؤهلات الدنيا، حيث يشكلون ما نسبته 36% من قوة العمل الكويتية. تعكس هذه البنية في مؤهلات قوة العمل صعوبة إحداث تغير جذري في سياسة توظيف العمالة الكويتية في القطاع الخاص، حيث أن أصحاب المؤهلات الدنيا والمتوسطة والذين يشكلون 73% من إجمالي قوة العمل الكويتية سيصعب امتصاصهم في سوق العمل الخاص، بمتوسط الأجور والشروط الجارية في القطاع الخاص.

أكدت الدراسات الحديثة أهمية دور رأس المال البشري في المساهمة بإحداث النمو والتنمية (Benhabib and Spiegel, 1994) كما أن طبيعة وظائف العمل الواجب توفيرها تعتمد على مستوى ونوعية رأس المال البشري، وقد تحدث بطالة هيكلية في حالة عدم تطابق مخرجات التعليم والمؤهلات مع متطلبات سوق العمل. يتميز رأس المال البشري في دولة الكويت بتباين شديد بين العمالة الكويتية والعمالة الوافدة، حيث أن متوسط السنوات الدراسية لدى الكويتيين بلغت 12.6 سنة دراسية ولدى الوافدين 4.6 سنة. وباستثناء العمالة الهامشية، فإن مخزون رأس المال البشري لدى الوافدين يرتفع إلى 11.6 سنة دراسية. أي أن مخزون رأس المال البشري لدى الوافدين خارج العمالة الهامشية لديه كفاءة تعليمية مرتفعة تضاهي مستوى العمالة الكويتية. ومع ذلك، فإنه يجب التنويه إلى أن العمالة غير الكويتية في القطاع العائلي تشكل 26% من إجمالي العمالة الوافدة، وبالتالي فإن 34% من العمالة الهامشية تقع خارج القطاع العائلي.

تتركز قوة العمل الكويتية في القطاع الحكومي بنسبة 85% من إجمالي قوة العمل الكويتية وتشكل حوالي 74% من عمالة القطاع الحكومي، بينما تتركز العمالة الوافدة في القطاعين الخاص والعائلي بنسبة 52% و26% على التوالي من إجمالي العمالة الوافدة. وهذا التوزيع ناجم عن اختيارات إستراتيجية التنمية المتبعة في دول الخليج العربي، حيث أن استثمار العائدات النفطية وتطوير الاقتصاد تطلب اللجوء إلى جلب العمالة (Zafaris, 2007) من خارج هذه الدول بالإضافة إلى أن سياسة الحكومات في هذه الدول في توزيع الريوع النفطية وتحقيق العدالة الاجتماعية بين المواطنين، استدعت توظيف المواطنين في القطاع العام بشروط مغرية، جعلت المواطنين يعزفون عن العمل في القطاع الخاص، وكذلك فقد لجأ القطاع الخاص بدوره إلى التركيز على عمالة الوافدين، سعياً منه للاستفادة من انخفاض تكاليف العمل وتحقيق مرونة أكثر في التوظيف. وقد خلقت هذه الوضعية تجزئة عميقة في سوق العمل الكويتي تقف عائناً في المزاوجة بين تعظيم منافع التوظيف بالنسبة للمواطنين، وتحقيق مبدأ انخفاض التكاليف والمرونة في التوظيف. وتحاول الحكومة تصحيح هذا الوضع تدريجياً وذلك من خلال إرساء إستراتيجية إعادة هيكلة القوى العاملة وتوطينها في القطاع الخاص من خلال تغيير علاقة الرفاهية والتكلفة بإدراج حزمة من التشريعات في مجال توظيف المواطنين في القطاع الخاص.

يعكس توزيع قوة العمل حسب القطاع الاقتصادي تجزئة قوية لسوق العمل، والتي تعيق حركة العمالة وتزيد من تكلفة التعديل وتبطئ عملية النمو الاقتصادي. تتركز إجمالي قوة العمل الكويتية في القطاع الحكومي بنسبة 90% في قطاع خدمات المجتمع والخدمات الشخصية والاجتماعية، بينما يجذب قطاع الصناعة التحويلية فقط 2.4% من إجمالي العمالة الكويتية في القطاع الحكومي كما يجذب 6.3% من إجمالي العمالة الكويتية في القطاع الخاص. ويتبين من توزيع العمالة الكويتية في القطاع الخاص أن قطاع الخدمات المالية يجذب نسبة مرتفعة وصلت إلى 28% سنة 2006. كما أن لقطاع الخدمات المالية إمكانيات جذب جيدة لتوطين العمالة الكويتية في القطاع الخاص، كذلك فإن قطاع التجارة والمطاعم والفنادق يستحوذ على (20%) من إجمالي عمالة الكويتيين في القطاع الخاص، وبدرجة أقل فإن قطاع التشييد والبناء (9%) وقطاع النقل والتخزين (8%) تشكل قطاعات جذب عمالة الكويتيين في القطاع الخاص، بالرغم من أنها تحتل نسب ضئيلة من إجمالي عمالة القطاع الخاص، حيث لا تتعدى 11% في قطاع الخدمات المالية و5% في قطاع النقل والتخزين والاتصالات و2% في قطاع الصناعات التحويلية.

كما أن توزيع قوة العمل في دولة الكويت تتباين حسب المجموعات المهنية، وهو ما يعكس العلاقة المعقدة ما بين تفضيلات المجتمع وسوق العمل والسياسات الحكومية في مجال التوظيف، بالإضافة إلى متطلبات كل مهنة في مجال المعارف والتعليم وطبيعة العمل المرتبطة بها. وإذا ما تمعنا في بيانات توزيع قوة العمل حسب المهن، يمكن ملاحظة أن قوة العمل الكويتية تتركز في ثلاث مهن أساسية مرتبطة بالعمل الحكومي، حيث تصدرها وظائف الكتابة ورجال الشرطة والمطافئ بـ 40%، والمديرون والمشرفون بـ 17%، والمدرسون بـ 13%، أي بإجمالي 70% من إجمالي قوة العمل الكويتية، ويحتل الكويتيون في المتوسط نسباً أعلى من 50% من إجمالي وظائف هذه المجموعات. أما وظائف الأطباء والعلميون والمهندسون والاقتصاديون والقانونيون والادباء والاجتماعيون والفنيون في الهندسة فإنها تستقطب حوالي 12% من إجمالي قوة العمل الكويتية، وهي مهن مرتبطة بمخرجات الجامعة. ويلاحظ أن قوة العمل الكويتية تشكل نسباً مرتفعة من إجمالي العمالة في هذه المجموعات، ولكنها أقل من المجموعة الأولى من المهن. أما الوظائف التي تأتي في الدرجة الثالثة من حيث أهميتها بالنسبة للعمالة الكويتية، فهي الفنيون في الطب والعلوم ورجال الأعمال، والقائمون بأعمال البيع، والعمال الحرفيون ونصف المهرة في الإنتاج. وهذه المجموعة من الوظائف لا تستقطب العمالة الكويتية، ذلك لأنها إما مرتبطة بأعمال غير محبذة اجتماعياً مثل حالة فتيو الطب والعلوم، حيث أن الأعمال المرتبطة بالطب والتمريض والعمل غير الإداري في قطاع الصحة الحكومي والخاص لا تجلب العمالة الكويتية، كما أن أعمال البيع والعمل الحرفي ونصف الماهر هي أعمال قطاع خاص وبالتالي فإنها أعمال غير مغرية. أما المجموعة الرابعة ذات المساهمة المتدنية من طرف العمالة الكويتية فهي مجموعة العمال العاديون وعمال الخدمات وعمال الزراعة. وهذه التوجهات والتفضيلات تعطي إشارات واضحة حول إمكانية تحفيز سياسة توظيف العمالة في القطاع الخاص.

البطالة

بالرغم من النمو القوي للقوة العاملة سواءً الوطنية منها أو الوافدة، فإن مستويات البطالة في دولة الكويت بقيت منخفضة مقارنة بمعايير الدول النامية. فلقد أدى ارتفاع مستوى الربوع النفطية إلى إحداث توسع في الاقتصاد الكويتي تطلب الاستعانة بأعداد كبيرة من العمالة الوافدة، بالإضافة إلى توفير وظائف عمل للمواطنين في القطاع الحكومي. لكن هذه العوامل لم تحجب تماماً ظاهرة البطالة السافرة، بالإضافة إلى الاعتقاد السائد بوجود بطالة مقنعة كبيرة في القطاع الحكومي. فارتفعت أعداد الكويتيين العاطلين عن العمل من 2136 فرداً في سنة 1980 إلى 12484 في سنة 2006، أي بمعدل ارتفاع سنوي قدره 7.3%. أما مستويات بطالة الوافدين، والتي هي طبيعتها احتكاكية وناجمة أساساً عن البحث عن العمل، فقد ارتفعت من 5329 في سنة 1980 إلى 12139 في سنة 2006 أي بمعدل ارتفاع سنوي قدره 3.3%. كما يلاحظ ارتفاع حصة الإناث من العاطلين عن العمل سواء للمواطنين أو الوافدين، حيث كانت نسبة الإناث العاطلات عن العمل في سنة 1980 تقدر بما نسبته 12% بالنسبة للمواطنات و17% بالنسبة للوافدات، وارتفعت هذه النسبة في سنة 2005 إلى 54% و45% على التوالي. وبالرغم من ارتفاع أعداد العاطلين، فإن معدل بطالة الذكور بقي أقل

من 4% خلال الفترة 2006-1980 ولكنه تجاوز الـ 5% بالنسبة للإناث الكويتيات نتيجة إقرار بدل بطالة سنة 2000، الذي أدى إلى ارتفاع البحوثات عن عمل من 598 في سنة 2000 إلى 3044 في سنة 2001.

جدول (1) تطور مستوى ومعدلات البطالة في دولة الكويت 1980-2006

السنة	مستوى البطالة			معدل البطالة		
	ذكور	إناث	إجمالي	ذكور	إناث	إجمالي
1980	1881	255	2136	3.00	1.90	2.80
1985	1245	312	1557	1.72	1.25	1.60
1995	2067	441	2508	1.74	0.78	1.43
2000	1851	598	2449	1.23	0.73	1.05
2001	3194	3044	6238	2.02	3.33	2.50
2005	5692	6666	12358	3.01	5.07	3.86
2006	5197	7287	12484	2.66	5.18	3.72

المصدر: قاعدة المعلومات الاقتصادية والمالية للمصرفيين، 2006.

تشير البيانات إلى أن مدة بطالة الكويتيين مرتفعة، حيث تصل نسبة العاطلين الذين تفوق مدة بطالتهم السنة أكثر من 63% وهي ناجمة عن ارتفاع نسبة الإناث مقارنة بالذكور، وهم يشكلون فقط 28% من العاطلين الذين تفوق مدة بطالتهم أكثر من السنة. أما توزيع البطالة حسب السن، فهي مرتفعة جداً بالنسبة للفئة العمرية بين 20-29، حيث تشكل 60% من أعداد العاطلين الذكور و50% بالنسبة للإناث، وعند مقارنة هذه الحالة بمستوى مؤهلات العاطلين، فإن أكثر العاطلين هم من ذوي المستوى الابتدائي والمتوسط، حيث يشكلون 77% من أعداد الذكور العاطلين، و61% من أعداد الإناث العاطلات. ويلاحظ أن نسبة الجامعيين لا يشكلون أكثر من 2.4% من إجمالي العاطلين. إن التركيبة التعليمية والعمرية للعاطلين عن العمل (الشباب ذوي المؤهلات المتوسطة والمتدنية) تطرح إشكالية كبيرة لتوظيفهم في القطاع الخاص في إطار برنامج دعم العمالة الوطنية. وإذا ما كان إقرار بدل البطالة يوجب مؤقتاً توظيفهم في القطاع العام، فإن سبل إدماجهم في القطاع الخاص بشكل مرض سيكون مربوطاً أولاً بتدريبهم وإعادة تأهيلهم وفق متطلبات القطاع الخاص بالإضافة إلى دعم القطاع الخاص وتنميته، لكي يتسنى له استيعاب الأعداد الكبيرة التي ستندفق إلى سوق العمل مستقبلاً.

سياسات سوق العمل

اتسمت سياسات سوق العمل في دولة الكويت في مراحلها الأولى بالتركيز على توظيف المواطنين في القطاع الحكومي والعام. وسهل هذه العملية توسع الاقتصاد الكويتي عبر استثمار العوائد النفطية الناجمة عن ارتفاع سعر النفط في بداية السبعينات، مما أدى إلى توجه غالبية المواطنين للعمل في القطاع الحكومي. ورسخ هذا التوجه لدى المواطنين ارتفاع أجور الموظفين في القطاع العام والمنافع المرتبطة بالعمل الحكومي، من علاوات وظروف وشروط عمل مُيسرة والتقاعد والترقية والعمل بدوام واحد، وكذلك العوامل النفسية والاجتماعية التي تزيد من التحيز للعمل الحكومي الذي يقل فيه مبدأ العمل بالمحاسبة واعتماد الإنتاجية شرط المكافئة. أما القطاع الخاص، فقد اعتمد على جلب الوافدين للعمل، الذي استفاد من حالة العرض تامة المرونة، والتي تجعل الأجور في أدنى مستوياتها وبأقل القيود والشروط الممكنة. وساهم في هذا التدفق غياب سياسة تنظيمية لهذه التدفقات، وترك الأمر للقطاع الخاص وللأفراد الكويتيين عبر نظام الكفيل، واكتفت الحكومة بإدارة تدفقات الهجرة المترتبة عن تدفقات العمالة.

ومع استمرار تدفق قوة العمل الوطنية إلى سوق العمل، وفي ظل تفضيل المواطنين للعمل في القطاع الحكومي، استمرت الحكومة في تنفيذ سياسة توفير مناصب العمل للمواطنين مبنية على استمرار التوسع في القطاع العام. ومع وصول التوسع حدود الفعالية والتكلفة بدأت الحكومة في تطبيق سياسة الإحلال أو "التكويت" وذلك في محاولة لتحويل ما يمكن من وظائف الوافدين في القطاع الحكومي إلى المواطنين. ويلاحظ أن نسبة عمالة المواطنين في القطاع الحكومي ارتفعت تدريجياً من 63% في سنة 1993 إلى 74% في سنة 2002 واستقرت عند هذا المستوى منذ ذلك التاريخ. وتشير آخر البيانات المتوفرة أن نسب الكويتيين في القطاع العام قد تكون وصلت الحدود القصوى التي يمكن تحقيقها مع بعض الاستثناءات. فقد وصلت هذه النسبة في سنة 2004 أكثر من 76% في القطاع الحكومي بعدما كانت 68.77% في سنة 1995، أي بمعدل إحلال سنوي يعادل 0.8%. كما يتبين أن جهود الإحلال في القطاع الحكومي تتباين بشكل كبير بين مختلف الوزارات والجهات الحكومية. أو لا يلاحظ أن أغلب الجهات حققت معدلات توظيف المواطنين بنسب تفوق الـ 80%، باستثناء قطاع الصحة العامة، والذي يوظف فقط 47% من إجمالي موظفيه من المواطنين، وذلك لأن العمالة غير الإدارية في المستشفيات والمرتبطة بالخدمات الطبية خاصة التمريض لا تجذب الكويتيات.

إطار رقم (1): إجراءات قانون دعم العمالة الوطنية وتشجيعها للعمل في الجهات غير الحكومية (قانون رقم 19 لسنة 2000)

- وضع سياسات تشغيل المواطنين في الجهات المختلفة ومتابعة تنفيذها بما يحقق المساواة وتكافؤ الفرص.
- وضع النظم التي تشجع القطاعات غير الحكومية على تشغيل المواطنين وتقرير الحوافز المناسبة لجذب القوى العاملة لها، ويكفل التنسيق في المزايا والحقوق التي حصل عليها القوى العاملة في كل الجهات.
- اقتراح السياسات المتعلقة بتعديل تركيبة القوى العاملة بما أدى إلى تنفيذ خطط إحلال العمالة الوطنية.
- إقرار علاوة اجتماعية وعلاوة أطفال حكومية للعاملين في الجهات غير الحكومية.
- تأسيس البديل النقدي للعاطلين عن العمل.
- المساهمة في تكاليف تدريب القوى العاملة الوطنية.
- لا يجوز إرساء المناقصات على المؤسسات التي لا تلتزم بالنسب التي يحددها القانون في شأن توظيف المواطنين.
- يقدم الدعم الحكومي للمؤسسات الخاصة إلا للمؤسسات التي لا تلتزم بالنسب.
- يحدد مجلس الوزراء نسب المواطنين للعمل في الجهات غير الحكومية.
- فرض رسم إضافي سنوي على الجهات التي لا تتقيد بنسب العمالة الوطنية على كل تصريح عمل إضافي زيادة على العدد المقرر.
- يتم مراجعة النسب والرسوم مرة كل سنتين.
- إلزام الشركات بإدراج بيانات العمالة الوطنية ضمن بيانات الميزانية المدققة.
- تمويل البرنامج بفرض ضريبة نسبتها 2.5% من صافي الأرباح السنوية على الشركات الكويتية المدرج وسوق الأوراق المالية.
- إلزام الشركات بصرف رواتب غير الكويتيين عبر النظام المصرفي.

وقد أدى ارتفاع نسب المواطنين في القطاع العام والحكومي إلى تضخم الجهاز الإداري وارتفاع تكلفته. ومع انخفاض أسعار النفط في النصف الثاني من تسعينيات القرن الماضي وارتفاع الكتلة الاجرية في نفقات الموازنة، وعدم إمكانية إجراء عمليات إحلال إضافية لبلوغ عملية الإحلال حدودها، بدأت الحكومة تفكر في توظيف سياسة تشغيل مرتكزة على توظيف المواطنين في القطاع غير الحكومي، وذلك في محاولة للتقليل من اللجوء إلى العمالة الوافدة من قبل القطاع الخاص. وتستند إستراتيجية تشجيع توظيف المواطنين في القطاع الخاص إلى تعديل هيكل حوافز توظيف الوافدين عن طريق رفع التكاليف المرتبطة بهذه العملية، بالإضافة إلى إزالة بعض القيود المرتبطة بتوظيف المواطنين، مثل: التكفل بتغطية تكاليف العلاوة الاجتماعية،

وتعميم الضمان الاجتماعي، والتكفل بتدريب وتأهيل العمالة حسب متطلبات القطاع الخاص، بالإضافة إلى جعل توظيف المواطنين في القطاع الخاص إلزامياً حسب النسب القطاعية المفروضة قانوناً، وفرض عقوبات تتراوح ما بين فرض تكاليف إضافية على توظيف الوافدين عن ما يزيد من النسب المقررة، وحرمان الشركات من العقود الحكومية في حالة عدم الالتزام بهذه القوانين المنظمة لتشجيع العمالة (إطار 1). كما تضمنت الإجراءات تأسيس بدل بطالة للمواطنين الراغبين في العمل في القطاع الخاص، أو الذين ينتظرون عملاً في القطاع الحكومي، عبر نظام التوظيف المركزي في ديوان الخدمة المدنية، بالإضافة إلى تدريبهم لتسهيل عملية إدماجهم في القطاع الخاص. ولتجسيد هذه الإجراءات، فقد قامت الحكومة بإصدار قانون دعم العمالة في سنة 2000، والذي تم بموجبه إنشاء برنامج إعادة هيكلة القوى العاملة الذي يقوم بإدارة عملية تشجيع المواطنين للعمل في القطاع الخاص، وتقييم سياسة توظيف العمالة في هذا القطاع.

جدول (2) نسب العمالة الوطنية في القطاع الخاص وقانون دعم العمالة الوطنية

القطاع	العمالة الكويتية	العمالة الوافدة	نسبة العمالة الكويتية من الإجمالي	حصة القطاع من إجمالي العمالة	النسب المقترحة في قانون دعم العمالة الوطنية	العمالة الكويتية بعض فرض النسب	نسبة العمالة الكويتية بعد تطبيق القانون
الزراعة والصيد	147	33390	0.4	2.36	2.0	671	2
المنجم والمحاجر	116	920	11.0	0.07	9.0	116	11.2
الصناعة التحويلية	2040	89381	2.23	6.43	2.0	2040	2.23
صناعة النفط والتكرير	0	0	0	0.52	25	1832	25.0
الماء والغاز والكهرباء	0	144	0.00	0.01	0	0	0.0
التشييد والبناء	2859	132132	2.12	9.49	2.0	2859	2.12
التجارة والمطاعم والفنادق	6332	244320	2.53	17.62	2.0	0	2.53
المالية والتأمين والعقار	6131	67499	8.33	5.18	15	11045	15.0
النقل والتخزين والاتصالات	2489	43659	5.39	3.24	4	2489	5.39
المصارف	2961	2933	50.24	0.41	50	2961	50
الخدمات الشخصية والتنظيف	0	471212	0	33.13	0	0	0
التعليم	0	60762	0	0	2.0	1215	0
الخدمات الاجتماعية	0	5150	0	0.36	2.0	103	2
الصحة	0	17878	0	1.26	10	1788	10
الترفيه والثقافة	0	18395	0	1.29	10	1840	10
غير مبين	6134	203726	2.92	14.76	0	6134	2.92
الإجمالي	32100	1390073	2.3	100	10.4	36050	3.0

وقد عدل قانون دعم العمالة الوطنية مرتين، وذلك بغية استجابة متطلبات القانون مع واقع سوق العمل ومتطلبات القطاع الخاص. إن صيغة القانون الحالية تؤسس فقط لمبدأ إحلال العمالة في القطاع الخاص، ولا يتجه إلى إحداث ثورة في هذا المجال، حيث أن النسب المفروضة قانوناً هي نسب متواضعة، وقد يكون تصميمها على هذا الشكل كي لا تحدث ربكة في سوق العمل. كما أن هذه المعدلات تكفي لموازنة سوق العمل حالياً، ولكن ولكنها تعتبر سهلة في حالة بقائها ثابتة في المستقبل، حيث ستصبح تدفقات المواطنين لسوق العمل هامة. وبالنظر إلى النسب القانونية وتركيب سوق العمل في القطاع الخاص، فإنه في حالة تطبيق هذه النسب على بيانات عام 2006، فإن نسبة تشغيل المواطنين في القطاع الخاص سترتفع من 2.3% إلى 2.8%، بحيث

سيرتفع عددهم من 32100 فرد إلى 35435 بعد تطبيق النسب القانونية. أي بمعنى أن القانون قد صُمم لكي يعكس الوضع القائم في سوق العمل. ومن الجدير بالأهمية قبل الشروع باستشراف مستقبل سوق العمل في دولة الكويت أن يتم تقييم أهم عناصر سياسات سوق العمل الحالية، وذلك لاستشفاف أهم التوجهات المستقبلية لهذا السوق ووضع تصورات بديلة لهذا المستقبل.

يمكن تقييم سياسة الإحلال في القطاع الحكومي بحساب نسبة الزيادة في عمالة المواطنين الناجمة عن رفع نسبتهم من إجمالي العمالة في القطاع الحكومي وليس عن طريق توسع القطاع العام. ويلاحظ في هذا الصدد ارتفاع أعداد القوى العاملة الكويتية في القطاع الحكومي من 144904 موظفاً في سنة 1993 إلى 285303 في سنة 2006. وذلك بمعدل نمو سنوي متوسط قدره 6%، وهو أسرع من الزيادة الإجمالية في العمالة الحكومية، والتي ارتفعت خلال نفس الفترة بمعدل وسطي قدره 4%، ويعزى هذا الفرق في النمو إلى سياسة الإحلال، والتي أدت إلى ارتفاع حصة العمالة الكويتية في القطاع العام من 63% في سنة 1993 إلى 74% في سنة 2006. وفي المتوسط استطاعت الحكومة أن تزيد من نسبة العمالة الكويتية بحوالي 0.8% سنوياً ما بين 1993-2006، ولكن هذه العملية ليست هي وحدها التي تحدد حركة العمالة في القطاع العام، وكيفية توزيعها بين الوافدين والمواطنين، حيث أن نسبة عمالة الوافدين في القطاع الحكومي ارتفعت بمقدار 1% سنوياً للفترة 1993-2006. وبالتالي فإن ارتفاع توظيف الكويتيون في القطاع العام يمكن أن يكون ناجماً عن عملية الإحلال، أو نتيجة لتوسع القطاع العام فقط، أو معاً وبنسب مختلفة.

ولتقييم سياسة الإحلال بطريقة تفكيك مصادر ارتفاع العمالة⁽⁵⁾، يمكن التعبير عن تغير عمالة المواطنين في القطاع العام ما بين فترتين ΔE_{gk} على أنها ناجمة عن توسع العمالة في القطاع الحكومي ΔE_{dk} ، وذلك بافتراض أن حصتهم في بداية الفترة S_0 كانت ثابتة.

$$\Delta E_{gk} = S_0(E_{g1} - E_{g0})$$

حيث أن E_{g0} و E_{g1} تمثل العمالة في القطاع العام ما بين الفترتين 0 و 1. كما أن عمالة المواطنين يمكن أن ترتفع نتيجة ارتفاع حصتهم من إجمالي العمالة ΔE_{ck} ، والناجمة عن تغير حصة العمالة في القطاع العام:

$$\Delta E_{ck} = (S_1 - S_0) E_{g1}$$

وهكذا فإنه يمكن تفكيك تغير العمالة في القطاع الحكومي حسب المعادلة التالية:

$$\Delta E_{ck} = \Delta E_{dk} + \Delta E_{ck} + \Delta E_{sk}$$

حيث أن ΔE_{sk} هو التغير في عمالة المواطنين الناجم عن التغير الهيكلي في قطاع التشغيل. وبتطبيق هذه المعادلات، يتبين أن توسع القطاع العام ساهم في رفع وتأثر توظيف المواطنين في القطاع الحكومي بنسبة 6% بين عامي 1993 و 2006، وبلغ معدل النمو الناجم عن توسع التوظيف 4.4%، بينما بلغ معدل النمو

الناجم عن الإحلال 1.5%. وتشير النتائج أيضاً إلى ارتفاع أهمية توسع القطاع العام على حساب سياسة الإحلال بعد عام 2002، وحصل تراجع في سياسة الإحلال بين عامي 2005 و 2006، فانخفض معدل نمو عمالة المواطنين الناجم عن الإحلال بنسبة 0.5-%، ويلاحظ أن الفترة الوحيدة التي تراجعت فيها أعداد الوافدين العاملين في القطاع العام بشكل مطلق كان بين عامي 1998 و 2001، وهذه الفترة تمثل المرحلة التي تدهورت فيها أسعار النفط قبل أن تعاود ارتفاعها بعد عام 1999، والتي شهدت أيضاً تسارع ارتفاع تشغيل الوافدين بعد سنة 2003.

وفي الإجمالي، تدل النتائج أن ارتفاع توظيف المواطنين في القطاع الحكومي والذي تضاعف بين عامي 1993 و 2003، كان في الغالب ناجماً عن توسع عمالة القطاع الحكومي، حيث ساهم هذا التوسع بثلاثي الزيادة، وأما الإحلال فقد ساهم بثلاث زيادة التوظيف. أما في القطاع الخاص، فإن توظيف المواطنين ارتفع بشكل ملموس من 9542 موظف سنة 1993 إلى 36741 موظف سنة 2006، أي تضاعف بمقدار 3.0 أمثاله، و بمعدل سنوي قدره 12%، ولكن بالرغم من النمو القوي، فإن حصة المواطنين في القطاع الخاص بقيت مستقرة ما بين 2% و 3%، وذلك نتيجة النمو القوي للعاملة الوافدة في القطاع الخاص. وساهم توسع العمالة في القطاع الخاص بمعدل 7.7% سنوياً، بينما ساهمت عملية الإحلال في حدود 4.6% سنوياً. وهذه الديناميكية ستحکمها في المستقبل مدى تطور الاقتصاد والذي يحدد مستوى التوظيف، وبالتالي تحديد توسع العمالة ومساهمتها في رفع أعداد المواطنين في القطاع الخاص، كما ستحدد هذه العمالة إلى حد كبير بتفعيل قانون دعم العمالة خاصة تنفيذ نسب العمالة الوطنية الخاصة بكل قطاع. وفي الأخير فإن ديناميكية الإحلال في القطاع الخاص قوية، وهي تعادل أكثر من نصف الزيادة الحاصلة في توظيف المواطنين في القطاع الخاص، حيث أن هذه العمالة ارتفعت بمقدار 27199 موظف بين عامي 1999 و 2006، منها ما يقارب 12930 موظفاً كان ناجماً عن توسع العمالة في القطاع الخاص، و 14268 موظفاً، كان ناجماً عن ارتفاع حصة العمالة الوطنية في القطاع الخاص.

نموذج استشراف سوق العمل الكويتي

تم في الفقرات السابقة توصيف وضع سوق العمل الكويتي وتحديد خصائصه وبنيته. لكن السؤال الحرج والصعب الذي نحاول الإجابة عنه انطلاقاً من تلك البنية والخصائص، ما هي سمات هذه السوق في المستقبل؟ إن الجواب على هذا السؤال الصعب يتطلب معرفة الآليات والقوى التي تدفع سوق العمل وتدفعاته (العرض والطلب)، ومحاولة بناء تصورات مستقبلية بديلة، حسب توقعات فحوى سياسات سوق العمل وتحولات القوى المؤثرة في الاقتصاد الكويتي. ويتطلب الأمر ترجمة هذه البنية والخصائص والتدفقات إلى نموذج كمي، يعكس التداخلات بين مكوناته ويمكن استخدامه لتحديد المسار المستقبلي لسوق العمل.

تتطلب معرفة التدفقات المستقبلية لسوق العمل الكويتي فهم آليات عمل هذه السوق وتحديد ترابطاتها وتشابكاتها مع الجانب الديموغرافي لتحديد عرض العمالة، وكذلك مع الاقتصاد لتحديد الطلب

على العمالة. كما يتطلب الأمر معايرة النموذج على بيانات سوق العمل الكويتي، وذلك من أجل استخدامه في عملية الاستشراف المستقبلي، وتقييم البدائل المتاحة لصناع القرار. تشكل ديناميكية السكان أهم محددات حجم قوة العمل، ويتطلب التنبؤ الجيد للسكان وقوة العمل الإحاطة بمعطيات السكان بدقة متناهية. من المفروض أن إسقاطات السكان هي عملية غير معقدة، وذلك لأن تركيبة السكان لا تتغير بسرعة. وباستخدام برمجية سبكتروم ومعطيات عام 2006 الخاصة بالتوزيع السكاني للمواطنين ما بين إناث وذكور حسب الفئات العمرية، تم إعداد إسقاطات السكان الكويتيون لغاية عام 2032 بناءً على عدة فرضيات تم أخذ جزء منها من إسقاطات الأمم المتحدة لسكان العالم. في الإسقاطات الخاصة بهذه الدراسة، تم استخدام هيكل السكان الكويتيين في عام 2006 كسنة أساس، وتم افتراض معدلات هجرة معدومة، بالإضافة إلى استخدام معدلات المساهمة في النشاط الاقتصادي حسب النوع لسنة 2006. تم استخدام نموذج الأمم المتحدة المتعلق بتوقع الحياة، حيث تم افتراض ارتفاع توقع الحياة تدريجياً من 75.5 سنة إلى 77.5 سنة للذكور، ومن 79.5 سنة إلى 81.8 بالنسبة للإناث، ما بين عامي 2006 و2032. وتم أيضاً استخدام التوزيع العمري لمعدلات الخصوبة الخاص بالمنطقة العربية. كما تم افتراض أن معدل خصوبة الإناث سيتناقص تدريجياً من 4.0 في سنة 2006 إلى 2.00 في سنة 2032. وتم أيضاً افتراض ثبات نسبة الإناث للذكور عند 105 ذكور لكل 100 إناث، وأخيراً تم استخدام جدول الحياة لكول ودمني. وباستخدام هذه الفرضيات، فإنه يتوقع ارتفاع عدد السكان الكويتيين من مليون فرد سنة 2006 إلى 1.96 سنة 2032، أي بمعدل نمو سنوي قدره 2.6%. أما قوة العمل الكويتية فقد تم حسابها بناءً على هذه الإسقاطات الديموغرافية بافتراض ارتفاع معدلات المساهمة في النشاط الاقتصادي للذكور من 68% سنة 2006 إلى 80% سنة 2032، ومعدلات الإناث من 46% إلى 60% خلال نفس الفترة. وباستخدام هذه الفرضيات، فإنه من المتوقع ارتفاع أعداد القوة العاملة الكويتية من 335238 في سنة 2006 إلى 845 ألف في سنة 2032 أي بمعدل نمو سنوي متوسط قدره 3.6%.

إن نموذج الإسقاطات الديموغرافية للسكان الوافدين لا يمكن أن يقدم تقديراً دقيقاً لحجم السكان في المستقبل، ذلك لأن حركية السكان الوافدين لا تخضع للقيود الديموغرافية وحدها. فبالنظر إلى بيانات تصاريح العمل، التي تنظم حركية السكان الوافدين في الكويت، تبين أن إجمالي تصاريح العمل قد وصل في سنة 2006 إلى حوالي 658298 منها 98197 تصريح عمل جديد، أي ما يعادل حوالي 15% من الإجمالي. وتم إلغاء حوالي 39824 تصريح (6%)، بالإضافة إلى وجود قوانين تمنع دخول المعالين إلى قوة العمل أوتوماتيكياً، وإجبارهم على مغادرة الدولة عند بلوغ سن الدخول إلى سوق العمل. ومع وجود ارتباط وثيق بين إقامة الوافدين ووضعهم في سوق العمل، بالإضافة إلى قوانين تنظم الإقامة عبر نظام الكفيل، ونظراً لارتباط تواجد العمالة الوافدة في سوق العمل وارتباط إقامتها بالعمل، فقد تم افتراض أن أعداد العمالة الوافدة تتعدّل حسب متطلبات سوق العمل، وأنه سيتم توزيع سياسة الهجرة والإقامة حسب متطلبات هذه السوق عبر استمرار نظام الكفيل. يفترض النموذج أن مستوى التوظيف في القطاعين العام والخاص هو المحدد لحجم قوة العمل الوافدة، وذلك بافتراض أن معدل بطالة الوافدين مثبت عند مستوى عام 2006. كما تم افتراض أن عدد السكان الوافدين محدد بحجم القوة العاملة وذلك عن طريق تقدير علاقة خطية بين قوة العمل والسكان

الوافدين. إن هذه الافتراضات حول قوة العمل الوافدة سينجم عنها تغير أعداد السكان الوافدين حسب الوضع الاقتصادي السائد، خاصة في ما يتعلق بتطورات التوظيف في القطاع العام، ومدى تفعيل سياسة الإحلال، وكذلك تطورات التوظيف في القطاع الخاص، ومدى تفعيل قانون دعم العمالة الوطنية.

في ما يتعلق بالتوظيف في القطاع العام، فقد تم افتراض أن حجمه مرتبط بإجمالي السكان وأن توزيعه بين وافد ومواطن يعكس سياسة الإحلال (نسب العمالة الوافدة والوطنية في القطاع العام)، أما التوظيف في القطاع الخاص فهو مرتبط بمستوى الإنتاج وبفارق الأجور بين القطاعين العام والخاص، وقد تم تحديد هذه العلاقة بافتراض أن القطاع الخاص يقوم بتخفيض التكاليف وباستخدام نسب العمالة الوطنية والوافدة بمعدلات الأجور السارية في السوق. أما الطلب على إنتاج القطاع الخاص، فيتحدد بمستوى إنتاج القطاع النفطي وإنتاج القطاع العام الغير نفطي. وقد حدد إنتاج القطاع النفطي بدالة إنتاج فنية تفترض أن الإنتاج محدد بخصص الإنتاج وسعر النفط الحقيقي في الأسواق الدولية. أما إنتاج القطاع العام غير النفطي، فقد افترض نموه بمعدل ثابت تم حسابه من البيانات التاريخية. وهكذا، فإن تقديرات الناتج المحلي الإجمالي المستقبلية تعتمد أساساً على افتراضات وتطورات الإنتاج النفطي والسعر الحقيقي له. وهذه المعادلات والعلاقات ستسمح بحساب تدفقات سوق العمل الكويتي مستقبلاً حسب الفرضيات حول هيكل الاقتصاد وسوق العمل، وكذلك حول احتمالات المستقبل، خاصة تطورات النمو وسياسات سوق العمل، التي تم صياغتها في تصورات بديلة.

معادلات النموذج المقدر

السكان الوافدون:

$$\ln(P_{NK})_t = \frac{8.676}{(2.73)} + \frac{0.421}{(1.96)} L_o (LF_{NK})_t + \frac{0.89}{(12.89)} \hat{U}_{t-1}$$

$$\bar{R}^2 = 0.97$$

$$F = 197.79$$

$$n = 13 \text{ التشغيل في } 1$$

$$E_{Gt} = \frac{57849.9}{(2.73)} + \frac{0.045}{(2.83)} P_t + \frac{0.49}{(2.61)} E_{Gt-1}$$

$$\bar{R}^2 = 0.99$$

$$F = 522.6$$

إطار رقم (2): نموذج استشراف مستقبل سوق العمل

- (1)
 - (2) $P_k = F(TFR, LEAB, P_0)$
 - (3) $LF_k = F(P_k, PR_k)$
 - (4) $P_{NK} = F[P_{NK-1}, LF_{NK}]$
 - (5) $P = P_k + P_{NK}$
 - (6) $LF_{NK} = F(E_{NK})$
 - (7) $E_G = F(P)$
 - (8) $E_{GK} = 0.75E_G$
 - (9) $E_{GNK} = 0.25E_G$
 - (10) $Y_0 = F(\bar{Q}, PoiL)$
 - (11) $Y_{nop} = Y_{nopo} (1+i)^n$
 - (12) $Y_p = F(Y_0, Y_{nopo})$
 - (13) $Y = Y_0 + Y_{nop} + Y_p$
 - (14) $E_p = F(Y_p)$
 - (15) $E_{kp} = 0.03E_p$
 - (16) $E_{Nkp} = 0.97.E_p$
 - (17) $E_K = E_{KG} + E_{KP}$
 - (18) $E_{NK} = N_{NKG} + E_{NKP}$
 - (19) $U_K = LF_K - E_K$
 - (20) $U_{RK} = \left(\frac{LF_K - E_K}{LF_K} \right) \cdot 100$
 - (21) $U_{Rnk} = 0.81\%$
- $$LF_{NK} = \left[\frac{E_{NK}}{1 - U_{nl}} \right]$$

قوة العمل	LF
السكان	P
التشغيل في القطاع الحكومي	E_G
التشغيل في القطاع الخاص	E_P
إنتاج القطاع النفطي	Y_O
حصة إنتاج القطاع النفطي	Q
سعر النفط الحقيقي	P_O
إنتاج القطاع الخاص	Y_P
معدل البطالة	U
غير كويتي	U_{NK}
كويتي	U_K

إنتاج القطاع النفطي:

$$Y_{ot} = \frac{1248.8}{(3.33)} + \frac{1.76}{(5.24)} Q \times P_{ot} + \frac{0.18}{(1.43)} P_{ot-1}$$

$$R^2 = 0.87 \quad F = 55.373$$

إنتاج القطاع الخاص:

$$Y_{pt} = \frac{1498.06}{(7.88)} + \frac{0.1615}{(4.07)} Y_{ot}$$

$$\bar{R}^2 = 0.47$$

$$F = 16.62$$

التشغيل في القا

$$\ln(E_{pt}) = \frac{11.7}{(3.32)} + \frac{0.63}{(2.54)} (Y_{pt}) - \frac{0.883}{(3.21)} \ln\left(\frac{W_p}{W_g}\right)$$

$$\bar{R}^2 = 0.88$$

$$F = 60207$$

التصورات المستقبلية طويلة الأجل لسوق العمل

يعتمد حساب التدفقات المستقبلية لسوق العمل على جملة من الافتراضات، والتي سوف تقيم كبداية تصورات مستقبلية لخصت في الجدول (3)، يتمثل التصور الأول في دراسة وضع الاقتصاد وسوق العمل مستقبلاً في حالة بقاء أوضاعهما على حالها، دون تفعيل سياسات ودون حدوث تطور في البيئة الدولية. يُظهر هذا التصور حجم تحديات سوق العمل التي سيواجهها الاقتصاد الكويتي في حال غياب سياسات تفعيل توظيف المواطنين، وهو أيضاً سيسمح بحساب المضاعفات الديناميكية التي ستحدثها سياسات سوق العمل مستقبلاً. إن حساب هذا التصور بسيط، لأنه يفترض بقاء الأشياء على حالها دون تغيير كبير يذكر، ودون تفعيل سياسات لتصحيح أوضاع سوق العمل. ولهذا فإنه سيفترض في هذا التصور بقاء الإنتاج النفطي عند مستواه في عام 2006، وكذلك الحال بالنسبة للأسعار النفطية، وكذلك الأمر بقاء نسب الإحلال ثابتة ونسب التوظيف في القطاع الخاص نفسها مثبتة عند مستوى العام 2006.

التصور الاتجاهي (استمرار الوضع القائم)

بإدخال هذه الفرضيات وإجراء الحسابات على النموذج، فإن أعداد السكان الكويتيين ستزداد من مليون في سنة 2006 إلى 1.96 مليون في سنة 2032، أي بمعدل نمو متوسط قدره 2.6%. وهو أقل من معدل النمو (3.4%) المسجل للفترة 1993-2006، وذلك نتيجة افتراض تراجع معدلات خصوبة الإناث. ونتيجة لهذا النمو السكاني، فإن قوة العمل الكويتية ستنمو بمعدل سنوي 3.6%، لتتضاعف بين عامي 2006 و2025. أما عدد السكان الوافدين فسيزداد بمعدل نمو 0.7% وهو أقل من معدلات النمو المسجلة للفترة (1993-2006)، وذلك لتباطؤ النمو في القطاع الخاص. وهكذا فإن عدد السكان غير الكويتيين سيرتفع من 2 مليون نسمة في سنة 2006 إلى 2,45 مليون نسمة في سنة 2032. أما قوة العمل الوافدة، فستزداد من 1.5 مليون نسمة في سنة 2006 إلى أكثر من 1.87 مليون نسمة في سنة 2032 أي بمعدل نمو قدره 0.8%

سنوياً. ونتيجة النمو السكاني بمعدل 1.4%، فإن العمالة في القطاع الحكومي ستزداد بمعدل نمو قدره 1.1% سنوياً. أما التوظيف في القطاع الخاص، فإنه سينمو بمعدل 0.7% مقارنة بـ6.8% خلال الفترة (1993-2006) وذلك نتيجة افتراض ثبات أسعار النفط وحصص الإنتاج. وبافتراض أن نسبة المواطنين من التوظيف في القطاع الخاص ثابتة عند 3% (مستوى 2006) فإن توظيف المواطنين إجمالاً سينمو بمعدل 1.1% سنوياً. ومقارنة بمعدل نمو القوة العاملة الكويتية 3.61% سنوياً، فإن معدل بطالة المواطنين سيتفقم بشكل متسارع من معدل 3.72% في سنة 2006 إلى أكثر من 40% في سنة 2025 بحيث تصل أعداد الباحثين عن العمل إلى 272927 خلال هذه السنة. وهذه النتيجة ليست مفاجئة، حيث أن الفرضيات التي تعكس هيكل سوق العمل الكويتي تجعل نمو العمالة بطيئاً، وتتركز في القطاع الحكومي فقط. وسيواجه صناع القرار اختيار رفع التوظيف في القطاع الحكومي بشكل كبير خلال السنوات العشرين المقبلة، أو النظر في بدائل أخرى، خاصة تلك المتعلقة بتشجيع العمالة الوطنية في القطاع الخاص.

أما في ما يتعلق بعدد السكان وقوة العمل الكويتية، فإنهما لا يتأثرا بافتراضات جانب الاقتصاد، وإنما تحددها المعطيات الديموغرافية على عكس قوة العمل الوافدة، التي ترتبط بقوة بجانب النمو الاقتصادي في القطاع الخاص وتطور العمالة في القطاع الحكومي. إن افتراض ثبات حصة الإنتاج والسعر الحقيقي، يبطئ نمو إنتاج قطاع النفط إلى 0.73% خلال فترة التنبؤ وافتراض أن إنتاج القطاع العام غير النفطي ينمو بمعدلاته السابقة 2.2% سنوياً، فإن إنتاج القطاع الخاص سينمو بمعدل 0.3%، مما يؤدي إلى تواضع نمو الناتج المحلي الإجمالي بـ0.8% سنوياً.

جدول (3) فرضيات التصورات البديلة لاستشراف مستقبل لسوق العمل الكويتي

الفرضيات	التصور
(1) حساب أعداد السكان الكويتيون حسب الإسقاطات الديموغرافية بافتراض معدلات خصوبة الإناث وتوقع الحياة حتى عام 2032، واعتماد تركيبة السكان في عام 2006. (2) قوة العمل الكويتية تم حسابها بناءً على افتراضات معدلات المساهمة في النشاط الاقتصادي. (3) قوة العمل الوافدة تتبع التوظيف، وافتراض معدل بطالة ثابت، والسكان الوافدون يتبعون قوة العمل. (4) افتراض أن العمالة الوطنية والوافدة في القطاعين العام والخاص محددة بنسب ثابتة. (5) توقع الناتج المحلي الإجمالي بافتراض أن الإنتاج النفطي محدد عند مستوى ثابت، وكذلك ثبات السعر الحقيقي للنفط، وأن إنتاج القطاع العام غير النفطي ينمو بمعدل ثابت، وأن إنتاج القطاع الخاص محدد بمستوى إنتاج القطاع النفطي والقطاع العام.	I الأساسي (الاتجاهي أو تصور الوضع القائم)
ارتفاع الإنتاج النفطي ليصل إلى 3.9 مليون برميل يومياً وسعر النفط 80 دولاراً للبرميل عند سنة 2032.	II بيئة دولية جيدة
بافتراض دوال فرق الأجيال بين القطاع العام والخاص وفرض نسب العمالة الوطنية حسب قانون دعم العمالة الوطنية.	III تطبيق قانون دعم العمالة الوطنية
افتراض أن نسب العمالة الوطنية في القطاع العام ترتفع تدريجياً عند مستواها في سنة 2006 لتصل إلى 95% في سنة 2025.	IV تصور تعظيم الإحلال
رفع حصة إنتاج القطاع العام لتصل إلى 50% من الناتج المحلي الإجمالي عند سنة 2032.	V تصور ديناميكية القطاع الخاص
• بيئة دولية جيدة. • تطبيق نسب الإحلال (IV) وتدعيم القطاع الخاص (V) ورفع نسب العمالة الوطنية في القطاع الخاص.	IV تصور حل مشكلة البطالة

عند افتراض أن سعر النفط وإنتاجه سيبقى ثابتاً حتى نهاية فترة الاستشراق، فإن الاقتصاد الكويتي سينمو ببطء، ويتوقع نمو الناتج المحلي الإجمالي من 15666 مليون دينار كويتي بأسعار 1984 في سنة 2006 إلى 19106 مليون دينار في سنة 2032، وهو معدل نمو ليس بعيد عن ذلك المتحقق خلال الفترة -2006-1993. ونتيجة لهذا النمو البطيء وعدم تغير هيكل سوق العمل، فإنه يتوقع ارتفاع معدل البطالة تدريجياً إلى مستوى 50% في سنة 2032. طبعاً هذا الوضع يفترض أن السلطات لم تقم وبضع سياسات لسوق العمل لمواجهة أزمة جمود نمو التوظيف في الاقتصاد الكويتي.

ولمواجهة هذا الوضع فإن لدى صناع القرار عدة بدائل تتمثل أساساً في تعميق مستويات الإحلال في القطاع الحكومي (سياسة إحلال موسعة)، أو رفع نسب العمالة الوطنية في القطاع الخاص (دعم العمالة الوطنية)، ودعم القطاع الخاص من خلال تفعيل سياسات اقتصادية تزيد من وزنه في الاقتصاد عبر تحسين بيئة الأعمال والاستثمار وتحويل ملكية القطاع العام إلى القطاع الخاص (تتمية القطاع الخاص). وبالرغم من احتساب هذه السياسات على أساس أنها بدائل، إلا أنه يتطلب مزج هذه السياسات وفق نسب محددة لتعظيم الفائدة من حل مشاكل سوق العمل.

إحلال موسع للعمالة

يتطلب تفعيل سياسة الإحلال قيام الحكومة برفع نسب توظيف المواطنين في القطاع العام، وبالنظر إلى أن هذه النسب قد وصلت إلى حدودها القصوى عند 74%، وذلك في ظل تفضيلات المواطنين لوظائف محددة في القطاع العام، فإن تعميق هذا الإحلال يتطلب تعديل هذه التفضيلات، التي يعتقد بأنها تنمو ببطء وفي حالة سوق عمل متشددة. ولهذا فإنه تم افتراض ارتفاع نسبة توظيف المواطنين في القطاع العام تدريجياً من 74% في عام 2006 إلى 90% في عام 2032، بمعدل ارتفاع سنوي قدره 0.7%، وسيخرج عن هذا التوسع ارتفاع توظيف المواطنين في القطاع الحكومي، بمعدل 1.8% سنوياً للفترة 2007 و 2032 مقارنة بـ 5.3% للفترة 1993-2006. كما أن أعداد العاملين الوافدين في القطاع الحكومي تتراجع بمعدل 2.5% سنوياً. ولكن ذلك سوف لن يؤدي إلى تخفيض معتبر معدل بطالة المواطنين بشكل كبير، حيث أن معدل البطالة سيظل مرتفعاً عند 40% في سنة 2032. وتلك الصعوبة في خفض معدل البطالة باستخدام سياسة الإحلال، تعكس محدودية هذه السياسة في حل مشكلة سوق العمل، وذلك لأن تدفق أعداد المواطنين لسوق العمل كبيرة مقارنة بإمكانيات نمو التوظيف في القطاع الحكومي.

دعم العمالة الوطنية

إن صعوبة خفض معدل البطالة بتوسيع نسب الإحلال يتطلب تفعيل تصور دعم العمالة الوطنية في الجهات غير الحكومية، ولتحقيق خفض معتبر في معدلات البطالة، فإن ذلك يتطلب رفع نسب توظيف المواطنين بشكل معتبر مع مواجهة الإشكالات المرتبطة بهذا القانون، والمتمثلة في ارتفاع الأجور والتكاليف

المرتبطة به، وتأثيرها على فعالية القطاع الخاص وتنافسيته، هذا بالإضافة إلى التأثير على تفضيلات المواطنين للعمل في الجهات غير الحكومية. ونظراً للحجم الكبير للعمالة الوافدة في القطاع الخاص، وما يترتب عنها من تأثيرات على الطلب والنمو، بالإضافة إلى أن هيكلها قد لا يتوافق مع تفضيلات المواطنين، فإنه من المتوقع أن تتطور هذه النسب مع احتياجات سوق العمل والنمو الاقتصادي. بالمقابل فإن حل مشكلة البطالة بشكل جذري يتطلب رفع هذه النسب بشكل ملموس حتى يتسنى امتصاص قوة العمل الداخلة لسوق العمل. ومن خلال إجراء عدة "محاكاة" حول مستوى النسب التي تتوافق مع خفض معدل البطالة، فإنه تبين أن إبقاء معدل البطالة عند مستوى أقل من 15%، يتطلب رفع نسبة عمالة المواطنين تدريجياً في سوق العمل إلى 25% حتى عام 2032. ومقارنة بمستوى النسب المقترحة في قانون دعم العمالة الوطنية، فإن هذا التصور يعتبر صعب التطبيق، بالإضافة إلى كونه لا يحقق النتائج المرجوة إلا عند النسب المرتفعة.

تنمية القطاع الخاص

تستطيع الحكومة التأثير على سوق العمل بشكل غير مباشر عبر التأثير على نمو القطاع الخاص. حيث أن مرونة الطلب على العمل تعتبر قوية قدرت بحدود 1.2% لكل 1% ارتفاع في مستوى إنتاج القطاع

الخاص. وانطلاقاً من هذه الحقيقة، فإن تفعيل سياسة تنمية القطاع الخاص ستساهم في رفع الطلب على العمالة، وبالتالي تخفيف الضغط على سوق العمل. ودون الخوض في تفاصيل تنمية القطاع الخاص، سنفترض أنها تتلخص في رفع حصة هذا القطاع تدريجياً من إجمالي الناتج المحلي الإجمالي من مستواه عند عام 2006 والمقدر بـ 20% إلى 40% في عام 2032، وبمعدل 2.5% سنوياً. إن هذه الاستراتيجية سوف تؤدي إلى رفع معدل نمو إنتاج القطاع الخاص إلى 4.5% سنوياً للفترة (2007-2032)، والناتج المحلي الإجمالي بـ 2%، وهذا التوسع سيرفع من وتيرة التوظيف في القطاع الخاص بـ 2.3% سنوياً خلال فترة الاستشراق. ولكن دون تفعيل سياسات سوق العمل بالتزامن مع سياسة النمو، فإن معدل البطالة سوف يبقى مرتفعاً، وهو يعادل مستوى تفعيل سياسة الإحلال عند 40% في سنة 2032. بالمقابل سترتفع القوة العاملة الوافدة إلى 2.75 مليون، وكذلك عدد السكان الوافدين سيرتفع إلى 3.15 مليون نسمة بحلول نهاية فترة الاستشراق.

تصور البيئة الدولية الجيدة

بالنظر إلى تطورات سوق النفط العالمية، وتزايد الطلب على النفط من جهة، وإمكانية تطوير الطاقة الإنتاجية، فإنه يمكن افتراض أن الطاقة الإنتاجية ستتوسع تدريجياً لتصل إلى حدود 4 مليون برميل يومياً عند نهاية فترة التنبؤ، وأن سعر النفط الاسمي أيضاً سيرتفع تدريجياً ليصل إلى أكثر من 100 دولاراً أمريكياً. إن هذه البيئة الجيدة ستساهم في تحسين نمو الاقتصاد الكويتي، لكن سوف تزيد من تبعيته للنفط وخاصة في حال عدم تفعيل سياسات هيكلية تهدف إلى تسريع نمو القطاع الخاص. ارتفاع الطاقة الإنتاجية لقطاع النفط، بالإضافة إلى تحسن أسعاره ستؤدي إلى نمو الاقتصاد الكويتي بمعدل 3.4% سنوياً، والقطاع

العام غير النفطي بمعدل 2.2%، والقطاع الخاص بمعدل 2.7% سنوياً. هذا النمو سيرفع التوظيف في القطاع الخاص بمعدل 4.2% سنوياً، والقوة العاملة الوافدة بمعدل 4.1%، مما سيرفع عدد السكان الوافدين إلى 4.38 مليون نسمة في سنة 2032 وبمعدل نمو 2.9% سنوياً. ونتيجة لذلك سيصل عدد سكان الكويت إلى 6.3 مليون نسمة في سنة 2032. هذا النمو سيؤدي إلى رفع التوظيف في القطاع الحكومي بمعدل 2.2% سنوياً، أي ما يعادل 675 ألف وظيفة، مما يؤدي إلى خفض البطالة حتى عام 2010، مقارنة بالتصور الأساسي، لكن ارتفاع نمو قوة العمل، سيدفع بالبطالة إلى الارتفاع بمعدل نمو متوسط قدره 8% سنوياً، وبالتالي ارتفاع معدل البطالة إلى 27% في سنة 2032.

تعظيم الإحلال في القطاع الحكومي

بلغت نسبة توظيف المواطنين في القطاع الحكومي في سنة 2006 حوالي 74% من إجمالي التوظيف في القطاع الحكومي. ونظراً لخصائص العاطلين عن العمل وتفضيلاتهم المتعلقة بشغل وظائف أقل مما يتوقعون، فإن رفع نسب الإحلال في القطاع الحكومي سيكون تدريجياً، ليتوافق مع إمكانيات الحكومة في توسيع القطاع العام، وكذلك انخفاض توقعات المواطنين حول طبيعة العمل في القطاع الحكومي. وإذا ما افترضنا أن معدل الإحلال في سنة 2032 سيصل إلى أقصاه عند 90%، فإن هذه النسبة ستزداد سنوياً بمعدل 0.7%. كذلك فإن رفع نسب الإحلال سيؤدي إلى رفع التوظيف في القطاع العام، وكذلك إلى رفع إنتاج القطاع الخاص، والذي بدوره يؤدي إلى رفع العمالة في القطاعين العام والخاص حسب النسب المثبتة. ولكن هذا التوسع سوف لن يحل مشكلة البطالة في الكويت مرحلياً، حيث أن معدل بطالة المواطنين سيرتفع بسرعة أقل ليصل إلى 14% في سنة 2032.

دعم العمالة الوطنية

نتيجة لتزايد ضغط سوق العمل وتسارع معدلات نمو القوة العاملة الكويتية وتباطؤ معدلات التوظيف في القطاع الحكومي، وبعد استنفاد إمكانيات إحلال العمالة في القطاع الحكومي، فقد أصدرت الحكومة في سنة 2000 قانوناً لتوطين العمالة في الجهات غير الحكومية، وقامت الحكومة بتعديل نسب التوظيف حسب القطاعات. وتتراوح هذه النسب حسب القطاعات من 50% في القطاع المصرفي إلى 2% في قطاعات الزراعة والتجارة والبناء والتشييد والخدمات الاجتماعية. ونظراً لانخفاض مساهمة هذه القطاعات في توظيف المواطنين فإن فرض النسب القانونية سوف يؤدي إلى رفع نسبة المواطنين هامشياً باستخدام هيكل التوظيف في القطاع الخاص لسنة 2006. وعند تطبيق هذه النسب، فإن نسب مساهمة المواطنين سوف ترتفع في المتوسط من 2.3% قبل تطبيق القانون إلى 3.0% فقط، وذلك لأنه في القطاع الخاص تشكل العمالة الشخصية في قطاع والتنظيف 33% من إجمالي، وكذلك يشكل قطاع التجارة حوالي 18% من إجمالي. ولذلك فإن تطبيق القانون بالنسب الحالية في ظل بيئة دولية جيدة، سوف لن يحدث تطوراً يذكر في دعم العمالة الوطنية. ونظراً لأن قانون دعم العمالة الوطنية في الجهات غير الحكومية يخول لمجلس الوزراء تحديد

النسب وتعديلها مستقبلاً عندما تقتضي الضرورة، فإن الحسابات التي نجمت عن هذا النموذج تدل على أن المعدل الفعلي لمساهمة العمالة الوطنية في الجهات الحكومية يجب أن يعدل تدريجياً عبر الزمن، وذلك تماشياً مع تطورات قوة العمل الوطنية، لكي يصل الاقتصاد الكويتي لحالة التوظيف التام. ويتطلب الأمر تعديل النسب تدريجياً من 3% في سنة 2006 ليصل إلى 8% في سنة 2032 ونتيجة فرضيات البيئة الدولية الجيدة المصاحبة لهذا التصور، فإن توظيف المواطنين في القطاع الخاص سيرتفع بشكل سريع بمعدل نمو سنوي قدره 4.2%، وتنخفض معه معدلات البطالة إلى 4.8% سنوياً لتصل إلى 1% في سنة 2032.

تنمية القطاع الخاص

إن تشييط النمو الاقتصادي يتطلب رفع حصة إنتاج القطاع الخاص من الناتج المحلي الإجمالي، حتى يتسنى للقطاع باستيعاب الأعداد الكبيرة من قوة العمل الوطنية. وسيتم افتراض أن رفع حصة القطاع الخاص تتم عبر تحويل جزء من حصة القطاع العام غير النفطي وكذلك عبر تسريع النمو في هذا القطاع. واستناداً إلى دراسة مسارات القطاع الخاص فقد تم افتراض أن الارتفاع التدريجي لحصة هذا القطاع ستصل إلى 40% سنة 2032. وأن رفع هذه الحصة من الناتج المحلي الإجمالي مع بقاء نسبة العمالة الوطنية ثابتة سيؤدي إلى رفع توظيف العمالة الوافدة بشكل واسع لتصل إلى 5.8 مليون فرد بحلول 2032. ولتحقيق هدف موازنة التركيبة السكانية ودعم العمالة الوطنية، فإن دعم القطاع الخاص يتطلب أيضاً رفع نسب توظيف المواطنين تدريجياً من 3% إلى 5% بحلول عام 2032. وتتفاعل أثر توسع العمالة الناجمة عن توسع القطاع الخاص وكذلك أثر الإحلال، فإن معدل بطالة المواطنين سيبقى خلال فترة الاستشراف أقل من 10% وسيصل إلى 3.9% في سنة 2032.

حزمة سياسات سوق العمل

تبين من مختلف التصورات المستقبلية المحتملة أن حل مشكلة بطالة المواطنين يتطلب تطبيق سياسات قوية وعميقة الأثر، حتى يمكن امتصاص العمالة الوطنية في سوق العمل، خاصة أن التصور لدعم العمالة الوطنية يتطلب رفع نسب العمالة الوطنية إلى 25% في تصور الوضع القائم، أو إلى 8% في حال بيئة اقتصادية جيدة. كما أن البدائل الأخرى لا تقدم حلاً جذرياً لهذه المشكلة. ولتخفيف وطأة تطبيق سياسات حادة قد تكون غير واقعية، فإنه يمكن وضع تصور قائم على أساس مزج هذه السياسات، بحيث ترتفع فيه نسب العمالة الوطنية مع إحلال موسم للعمالة في القطاع الحكومي، بالإضافة إلى تنمية القطاع الخاص. فمثلاً في تصور دعم العمالة الوطنية وتنمية القطاع الخاص في ظل بيئة جيدة، فإنه يمكن التحكم في معدل البطالة حتى مستوى الـ 10% مع فرض نسب عمالة مرتفعة تدريجياً من 2.5% في سنة 2006 إلى 4% في سنة 2025، لتراجع إلى 3.5% في سنة 2032. وبالمقابل فإنه يمكن تصور رفع نسب الإحلال إلى 85% في سنة 2032 في حال دعم مقدرة تنمية القطاع الخاص لكي تصل إلى نسبة 30% من الناتج المحلي الإجمالي. وبعد إجراء العديد من التجارب "بنموذج المحاكاة" يظهر أنه في ظل بيئة دولية جيدة فإن رفع نسب الإحلال إلى

مستوى 85% في سنة 2032 ونسب العمالة في القطاع الخاص بشكل معتدل من 2.5% في سنة 2006 إلى 4% في سنة 2032 بالإضافة إلى تنمية القطاع الخاص ورفع نسبته من الناتج المحلي الإجمالي من 20% في سنة 2006 إلى 30% في سنة 2032 سيحقق مستوى من البطالة أقل بكثير من التصورات الأخرى. ولكن في ظل تصور الوضع القائم، فإن هذه النسب المتواضعة من دعم العمالة الوطنية في القطاع الخاص لن تمكن من السيطرة على بطالة المواطنين، حيث أن معدل البطالة سيبقى مرتفعاً جداً.

الخلاصة

حققت الكويت بفضل الطفرة النفطية وبخطى متسارعة تقدماً مرموقاً في مستويات التنمية الاقتصادية والاجتماعية، حيث وصل مستوى دخل الفرد إلى أكثر من 30000 دولار أمريكي في سنة 2005. كما حققت الكويت مستوى تنمية بشرية مرتفع. وبالرغم من هذا الأداء الجيد، فإن دولة الكويت تواجه تحديات اقتصادية كبيرة ناجمة عن اعتماد الاقتصاد على الموارد الطبيعية، حيث يؤثر النفط بشكل قوي في الاقتصاد ويشكل المورد الأساسي للموازنة العامة وميزان المدفوعات. بالإضافة إلى اعتماد نشاط القطاع الخاص على الإنفاق الحكومي المحدد بالريع النفطي. كما أن دولة الكويت تواجه تحدي الإبقاء على مكاسب دولة الرفاه، وخاصة توفير العمل في القطاع العام للمواطنين بشروط مغرية، وتوفير الخدمات الحكومية بأسعار متدنية. مما أدى إلى توسع حجم القطاع العام وبلوغ حدوده وارتفاع التكاليف، حيث أن الكتلة الأجرية تشكل نسبة مرتفعة من الإنفاق الحكومي الجاري.

ومع ارتفاع معدلات نمو القوة العاملة وارتفاع معدلات الالتحاق بسوق العمل، خاصة فئتي الشباب والإناث، فقد بدأت تظهر ضغوطات قوية على سوق العمل، والتي قد تتحول إلى بطالة سافرة، إن لم يتم تدارك الوضع من قبل صناع القرار. إن مواجهة هذه الإشكالية يتطلب تصحيح مكامن الخلل، والمتمثلة أساساً في عدم تنوع الاقتصاد وضيق قاعدته الإنتاجية، وتركز العمالة الوطنية في القطاع العمومي وعزوفها عن التوجه نحو القطاع الخاص، الذي يعتمد إلى حد كبير على توظيف الوافدين بشروط تسمح له بتخفيض التكاليف وتحقيق أكبر قدر من الإنتاجية.

بلغ عدد سكان الكويت في سنة 2006 حوالي ثلاثة ملايين، يشكل الوافدون الثلثين ومن المتوقع حسب الإسقاطات ارتفاع عدد السكان الكويتيون في سنة 2032 سيصل إلى 1.69 مليون، بمعدل نمو وسطي قدره 2.6%. وقد شكلت قوة العمل الكويتية حوالي ثلث السكان الكويتيون ومن المتوقع أن تصل قوة العمل الكويتية في سنة 2032 إلى 0.845 مليون فرد بمعدل نمو سنوي قدره 3.6% للفترة 2006 و2032.

وبافتراض بقاء المعطيات الهيكلية للاقتصاد الكويتي على حالها، المتمثلة أساساً في ثبات الإنتاج النفطي والأسعار النفطية بالقيمة الحقيقية عند مستوى عام 2006 بالإضافة إلى توزيع العمالة الكويتية في القطاع العام بنسبة 75% و3% في القطاع الخاص، فإن الإسقاطات المستقبلية تدل على أن دولة الكويت ستواجه أزمة بطالة حادة، مما يستدعي إجراء تعديلات جذرية في هذه الخصائص الهيكلية.

بمقاسم العباس

وفي حالة تصور يتسم ببيئة اقتصادية دولية جيدة تتمثل في ارتفاع أسعار النفط تدريجياً لتستقر عند مستوى 80 دولار للبرميل في سنة 2032، وكذلك ارتفاع إنتاج النفط إلى مستوى 4 مليون برميل يومياً، فإنه بالرغم من هذه البيئة الجيدة، ومع تسارع معدلات نمو القوة العاملة فإن معدل البطالة سيكون مرتفعاً بشكل كبير. فمهما كانت التطورات المستقبلية للاقتصاد الكويتي، فإن صناعات القرار يحتاجون إلى تفعيل سياسات سوق العمل لامتناس فائض العمالة الوطنية التي ستدخل مستقبلاً إلى سوق العمل. ففي ظل الوضع القائم فإن تصور توسيع الإحلال في القطاع العام وتنمية القطاع الخاص لن تؤدي إلى امتناس هذا الفائض في حالة بقاء تركيز العمالة في القطاع الحكومي، أو في حالة اعتماد القطاع الخاص على توظيف الوافدين بشكل كبير. إن الخيار الأكثر نجاعة في كلا الوضعين، سواء استمر الوضع القائم أو تحسن البيئة الدولية، هو تفعيل قانون دعم العمالة الوطنية حسب نسب متزايدة لامتناس ارتفاع قوة العمل، التي يتوقع تناقص وتأثرها مع تراجع معدلات نمو السكان وانخفاض شدة حركية السكان مستقبلاً. إن تفعيل حزمة من السياسات التي تتضمن: رفع نسب القطاع الخاص، توسيع حركة الإحلال في القطاع الحكومي وتدعيم العمالة الوطنية للعمل في القطاع الخاص، ستسمح بالتحكم في سوق العمل الكويتي، وتبقى معدلات البطالة في مستويات مقبولة، وعليه فإن الأمر سيتطلب تغيير توقعات المواطنين وتفضيلاتهم حول نوعية العمل وطبيعته، والاستعداد للعمل في مجالات كانت حكرًا على الوافدين.

معدلات البطالة حسب التصورات المستقبلية

معدل النمو السنوي-2032-2006	2032	2025	2020	2014	2010	2006	معدل النمو السنوي 2006-1993	
8.0	27.8	25.5	21.5	16.4	10.8	3.7	7.0	تصور1: بيئة دولية جيدة
5.3	14.3	15.0	13.2	11.1	7.8	3.7	7.0	تصور2: سياسة إحلال موسعة في ظل بيئة دولية جيدة
-4.8	1.0	6.7	8.7	10.0	7.7	3.7	7.0	تصور3: دعم العمالة الوطنية في ظل بيئة دولية جيدة
2.8	7.7	12.4	12.2	10.8	7.3	3.7	7.0	تصور4: تنمية القطاع الخاص في ظل بيئة دولية جيدة
0.1	3.9	5.0	8.2	10.0	8.0	3.7	7.0	تصور5: دعم العمالة الوطنية في إطار تنمية القطاع الخاص وبيئة دولية جيدة
0.1	3.8	0.8	3.6	6.4	5.7	3.7	7.0	تصور6: مزج السياسات في إطار بيئة جيدة
10.5	49.6	40.5	31.8	21.1	12.3	3.7	7.0	تصور1: استمرار الوضع القائم
9.6	40.7	33.0	25.6	17.0	10.1	3.7	7.0	تصور2: سياسة إحلال موسعة في ظل الوضع القائم
-0.7	3.1	13.2	13.9	12.0	8.1	3.7	7.0	تصور3: دعم العمالة الوطنية في ظل الوضع القائم
9.7	41.7	34.8	27.7	18.8	11.4	3.7	7.0	تصور4: تنمية القطاع الخاص في ظل الوضع القائم

الهوامش

- (1) تحاول الحكومات في الدول النفطية تقليص آثار تقلبات أسعار النفط عبر استخدام صناديق التثبيت مثل صندوق الاحتياطي العام وصندوق الأجيال القادمة (Davis, Ossowski, and Daniel, 2001)
- (2) تشير المجلة الإحصائية لشركة النفط البريطانية (British Petroleum) لسنة 2007 أن السعر الحقيقي للنفط بأسعار 2006 كان يساوي أكثر من 90 دولار سنة 1980 بينما وصل سنة 2006 65 دولار أمريكي فقط.
- (3) بلغ معدل نمو الناتج المحلي الإجمالي السنوي طويل الأجل (1970-2005) 0.52% في المتوسط بينما تراجع نمو دخل الفرد بمعدل 2.6% سنويا خلال نفس الفترة.
- (4) تحاول الدول النفطية ترويج سياسات التقليل من هيمنة النفط على الاقتصاد و النهوض بقطاع الصناعات التحويلية و قطاع الخدمات. أنظر (Fasano (2002, 2001) لدراسة تجربة الإمارات العربية المتحدة وقطر وعمان.
- (5) منهج تفكيك مصادر ارتفاع العمالة في القطاع الحكومي تم استلهاه من منهج تفكيك مصادر التنافسية في الأسواق الدولية والمستخدم من طرف مركز التجارة الدولية أنظر www.intracen.org

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شيببي عبد الرحيم
شكوري محمد

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شبيبي عبد الرحيم *

شكوري محمد **

ملخص

لقد عرف تسيير و تقويم سوق العمل في الجزائر في ظل حركة الإصلاحات الاقتصادية نقائص وعجزاً كبيراً على مستوى وسائل التقويم وكذلك على مستوى القياس الإحصائي، ولم تستغل في هذه الاثناء الموارد المالية المتاحة و مرونة سوق العمل إستغلالاً جيداً مما أدى إلى الفعالية النسبية للسياسات الاقتصادية المنتهجة للحد من البطالة خاصة منها السياسة المالية، وذلك نظراً لضعف أداء الاقتصاد الجزائري المرتبط بعائدات النفط وعدم تنوعه وهيمنة القطاع العام عليه. في هذه الورقة البحثية تم القيام أولاً بعرض تحليل إقتصادي كلي للبطالة مستوحى من أعمال (Nickell.S (1998)، مع دمج أثر السياسة المالية على البطالة بتبني فرضيات التخلفية، بينما اعتمد التحليل القياسي على اختبار العلاقات السببية لGranger وتحليل أثر الصدمات الهيكلية باستخدام دوال الاستجابة الدفعية (impulse responses)، التي بينت أن أسعار النفط هي أهم متغير كان له تأثير إيجابي على تخفيض معدلات البطالة في الجزائر، في حين كشف اختبار السببية أن كلا من أسعار النفط و حجم الاستثمار يؤثران في حجم البطالة بالجزائر. و من أجل فهم تأثير حجم الاستثمار الخاص على البطالة تم القيام بتحليل فعالية السياسة المالية، حيث تبين أن الزيادة في الإنفاق العام في الجزائر تتم على حساب نقص الاستثمار الخاص، أي إن السياسة المالية المنتهجة عملت فقط على إحلال الاستثمار الحكومي محل الاستثمار الخاص، الذي كان باستطاعته التسبب في امتصاص أكثر للأيدي العاملة، وهو بالتالي مضمون أثر المزامحة (crowding-out) الذي يجسد لنا مرة أخرى الفعالية النسبية للسياسة المالية، و أيضاً محدودية الاستثمار الخاص في تقليص نسب البطالة. وبالتالي فإن السياسة المالية التي انتهجتها الدولة عن طريق رفع الإنفاق العام بهدف الرفع من عرض الإنتاج الوطني و التشغيل لم يكن لها أي أثر يخدم هذا المنظور، و يرجع هذا بكل بساطة إلى ضعف الجهاز الإنتاجي و محدودية قدراته. وعليه فإن نسبة التوظيف في الاقتصاد الجزائري تبقى خاضعة بالدرجة الأولى إلى نسب النمو المحققة، التي تخضع بدورها إلى ارتفاع أسعار النفط في الأسواق العالمية.

Labour Market in Algeria and the Effect of Macroeconomic Policies on Unemployment Rates

Chibi Abderahim

Shokouri Mohamad

Abstract

In the context of economic reforms, the management of the labour market in phone experienced a large deficit at the level of medium-sized and evaluation of statistical measurement. And despite the abundance of financial resources at this time and the elasticity of the labour market, there is no great exploitation of these resources, which has led to the relative efficiency of the political fight against unemployment and especially fiscal policy, a view that the poor performance of the economy linked to the Algerian oil revenues, and dominance of public sector. In this study, we try to deal with the various discussions on unemployment through analysis of different theoretical approaches on this issue, and on the explanation of the standard macroeconomics inspired work Nickell.S (1998) with the integration the effect of fiscal policy on unemployment and the adoption of assumptions hystérisés. Other hand, the econometric study that was done on the economy Algerian adopted on the testing of the causal relationship at the Granger and analysis of structural shocks through the application of the impulse responses functions demonstrates that the oil prices is the most variable influencing the reduction of the unemployment rate. In contrast, the causality tests revealed that there was a relationship between unemployment and the price of oil and private investment. For more understand the effect of investment on unemployment, it has analyzed the effectiveness of fiscal policy through the revelation of the crowding-out effect. The results showed that the growth rates achieved are far from the multiplier effect budgetary and fiscal policy inspired Keynesian conducted by the state through the economic recovery program and increase spending, which has for the aimed at increasing the supply of production and uses, has presented no real effect in this direction because the weakness of the productive system and Algerian production capacity idle. Indeed, the rate of employment in the Algerian economy remains subject to the rate of growth which in turn enslaved to the oil price in international market.

* شبيبي عبد الرحيم : أستاذ بكلية العلوم الاقتصادية و علوم التسيير و العلوم التجارية - جامعة أبي بكر بلقايد - تلمسان. الجزائر.
chibirahim@yahoo.fr

** شكوري محمد: أستاذ بكلية العلوم الاقتصادية و علوم التسيير و العلوم التجارية - جامعة أبي بكر بلقايد - تلمسان. الجزائر.

مقدمة

شهد الاقتصاد الجزائري كغيره من إقتصاديات الدول العربية منذ الاستقلال تغييرات عديدة ساهمت بشكل كبير في تغيير المفاهيم والإيديولوجيات والاستراتيجيات، وبالتالي تغيير القرارات والأنظمة. فبعد الاستقلال، قامت الجزائر بتبني الخيار الاشتراكي كمنهج للتنمية الاقتصادية ركزت فيه على القطاع الصناعي بغرض إحداث تنمية شاملة، وقد تطلب هذا النموذج التنموي إستثمارات ضخمة، نتج عنها إنشاء العديد من المؤسسات العمومية التي كانت تمتص حوالي 65% من اليد العاملة الإجمالية حسب سنة 1978، حيث كان القطاع العمومي آنذاك المصدر الأول للتوظيف، وعليه، فقد عرفت معدلات البطالة نسبة منخفضة نوعا ما، حيث بلغت حوالي 13.28% في سنة 1983، الأمر الذي دفع الدولة خلال هذه الفترة إلى توجيه سياستها المالية نحو هذا المجال بزيادة إنفاقها الاستثماري، معتمدة في تمويل ذلك على الربيع النفطي الذي مثل أهم مصدر للتمويل.

غير أن الأزمة النفطية لسنة 1986 كان لها وقع كبير على الاقتصاد الجزائري، حيث أدت إلى كبح جماح النمو الاقتصادي واختلال أسواق العمل، كما أنها كشفت عن هشاشة نظام التراكم في القطاع الصناعي العام. ورغم الإصلاحات المنتهجة آنذاك، والتي اهتمت فقط بإعادة الهيكلة التنظيمية للمؤسسات العامة مصحوبة بتطهير مالي لهذه الأخيرة غير أنها لم تمس علاقات التوظيف. وعليه، فقد تدهورت الحالة العامة للتوظيف نتيجة غياب الاستثمارات الجديدة من قبل المؤسسات الاقتصادية العامة والخاصة، في ظل تطبيق السياسة العامة وأهداف برنامج التعديل الهيكلي الذي طبق في سنة 1994، ومنه أصبحت هذه المؤسسات بصورة مزمنة غير منتجة ومتخمة بالعمالة، وبذلك وصلت معدلات البطالة إلى مستويات مرتفعة، حيث بلغت 29.2% في سنة 1999.

وقد أدت عودة ارتفاع أسعار المحروقات في السنوات الأخيرة إلى إعطاء دفع جديد للسياسة المالية، حيث ساهمت بشكل ملحوظ في تحسين بعض المؤشرات الاقتصادية الكلية، لعل من أهمها ارتفاع نسب النمو الاقتصادي وانخفاض نسبة البطالة في الجزائر إلى أكثر من النصف خلال السنوات الست الماضية، إذ سجلت الأرقام الرسمية لسنة 2006 نسبة 12.3% مقابل 29.5% لسنة 2000، غير أن هذا الانخفاض تم على حساب إرتفاع التوظيف المؤقت والتوظيف لبعض الوقت للذان يعتبران حلاً جزئياً ومؤقتاً لمشكلة البطالة بالجزائر. نشير هنا إلى أن البحوث المالية للبلاد قد شوّهت إطلاقاً قراءة الحالة الاقتصادية والاجتماعية للبلد، إذ أنه بالرغم من سياسات وآليات التوظيف التي اعتمدت من أجل الحد من ظاهرة البطالة، إلا أن هذه الأخيرة قد أخذت أشكالاً وأبعاداً جديدة كبطالة المتعلمين، البطالة الكامنة أو المخفية إضافة إلى البطالة المحبطة، وهو ما يستدعي إضافة هذه الأشكال إلى المعدلات الرسمية.

تهدف هذه الورقة إلى دراسة أهم العوامل المحددة لمعدل البطالة في الجزائر، وإلى استكشاف أثر السياسات الاقتصادية التجميعية على معدل البطالة. وتشتمل بقية الورقة على خمسة أقسام، يستعرض

القسم الثاني منها خصائص هيكل سوق العمل في الجزائر من جانبي الطلب على العمل، وعرض فرص التوظيف الذي ترتب عليه معدلات البطالة المرتفعة، ويتطرق القسم الثالث إلى أثر السياسات الاقتصادية على البطالة. ويهتم القسم الرابع بتوضيح أهم الاعتبارات المنهجية لأغراض التعرف على أهم العوامل المحددة لمعدل البطالة باستخدام السلاسل الزمنية المتوفرة، بينما يقدم القسم الخامس أهم النتائج التي تم التوصل إليها. ويقدم القسم السادس بعض الملاحظات الختامية.

هيكل سوق العمل

لقد عرف تسيير وتقويم سوق العمل في الجزائر في ظل حركة الإصلاحات الاقتصادية نقائصاً وعجزاً كبيرين على مستوى وسائل التقويم وكذلك على مستوى القياس الإحصائي، إذ لم تستغل في هذه الأثناء مرونة سوق العمل استغلالاً كبيراً. هذا بالإضافة إلى عدم التناسق بين أجزائه المختلفة، الذي عادة ما يتسبب في عدم تكيفه مع الأوضاع الجديدة المتسمة بالتعديل الهيكلي.

تعتبر معدلات البطالة في الاقتصاد الجزائري من المعدلات المرتفعة نسبياً، حيث تجاوزت المعدل المقبول أو الطبيعي للبطالة الذي يتراوح ما بين 5% و 7%. ولوقورنت معدلات البطالة في الجزائر مع نظيراتها من الدول المغاربية الأخرى التي لم تتجاوز البطالة فيها نسبة 14%، لتبين لنا ما يعانيه سوق العمل في الجزائر من أزمة، ويمكن التعرف على طبيعة هذه الأزمة بالنظر إلى محددات الطلب على العمل، بمعنى الطلب على الوظائف ذات الأجر، وعرض العمل، بمعنى توفر الوظائف الشاغرة في الاقتصاد.

أما الطلب على العمل فيعتبر دالة لثلاثة عوامل رئيسية، تتمثل في: النمو السكاني، زيادة مساهمة المرأة وفتة الشباب في سوق العمل و انتشار التعليم. وفي ما يلي تفصيل لكل عامل على حدة:

النمو السكاني: يعتبر نمو وتزايد عدد السكان عاملاً مساعداً لزيادة الطلب على العمل، ففي الجزائر نجد أن الفترة الممتدة من سنة 1970 حتى 1985 قد تميّزت بمعدل نمو سكاني مرتفع قدر بحوالي 2.9%، لكن هذه النسبة قد بدأت بالتراجع مع بداية الأزمة الاقتصادية للجزائر ابتداءً من سنة 1986، وذلك بسبب مجموعة من العوامل أدت إلى خفض نسبة النمو السكاني، من بينها: سياسة تباعد الولادات، إرتفاع مستوى التعليم بين الآباء والأمهات و أزمة السكن و الأزمة الاقتصادية، فوصل بذلك معدل النمو السكاني في عام 2006 إلى 1.78%.

أما عن معدل نمو السكان في سنّ العمل، فقد انتقل من 4.2% للفترة 1980-1985، إلى 2.9% للفترة 2000-2004، وقد مثلت هذه الفئة على العموم حوالي 67 إلى 70% من مجمل السكان في الجزائر. إن هذه الوتيرة المنخفضة في معدل النمو السكاني سوف تؤدي على المدى البعيد إلى تخفيف الضغط على سوق العمل في الجزائر و تكون عاملاً إيجابياً نحو توازن هذا السوق.

زيادة مساهمة المرأة وفئة الشباب في سوق العمل: عرفت العشرية الماضية تغييراً جوهرياً في مساهمة المرأة الجزائرية في سوق العمل، حيث ارتفعت نسبة الأنشطة التي تقوم بها النساء من 1.8% في سنة 1996 إلى 9.6% في سنة 1998، أي بزيادة قدرها 5 مرات. وترجع هذه المشاركة الكبيرة للمرأة في سوق العمل في الجزائر إلى مجموعة عوامل أساسية أهمها: تزايد نسبة الفقر في المجتمع، ديناميكية القطاع غير الرسمي الذي ساهم في زيادة مشاركة المرأة في العمل من خلال زيادة العمل المنزلي وارتفاع مستوى التعليم الذي أدى إلى تأخر سن الزواج. كما ارتفعت مساهمة المرأة في العديد من القطاعات، يأتي في مقدمتها قطاع الخدمات الذي وصلت نسبة مشاركة المرأة فيه بين عامي 1990 و 1997 إلى 36%، أما نسبة الرجال فبلغت 45%. وفي ما يخص القطاع الصناعي فقد قدرت نسبة النساء العاملات فيه بحوالي 7.4%. مثلت النساء العاملات نسبة 19.6% من مجموع الأيدي العاملة في الاقتصاد في سنة 2006. أما في ما يتعلق بفئة الشباب، فهي الفئة التي تعرف معدلات بطالة مرتفعة مقارنة بالكبار، إذ أن حوالي 70.1% من العاطلين في سنة 2006 تقل أعمارهم عن 30 سنة، وهذا حتى في أوقات الرفاه المالي الذي يعرفه الاقتصاد الجزائري.

انتشار التعليم: يمثل الاستثمار في رأس المال البشري عاملاً مهماً في دعم النمو الاقتصادي للدول من خلال توفير أيدي عاملة مؤهلة تساهم في رفع مستويات الإنتاجية، أما في الجزائر فإن أهم مساهمة لتوسيع التعليم قد كانت في خفض نسبة الأمية وخاصة بين النساء، حيث انخفضت من 76% في سنة 1980 إلى 44% في سنة 1999، الأمر الذي أدى إلى زيادة الطلب على العمل عند فئة النساء.

وبالإضافة إلى العوامل الثلاثة السالف ذكرها، فقد ساهم تشغيل الأطفال وعودة المتقاعدین لسوق العمل في زيادة الطلب على العمل في الجزائر، ويتوقع صندوق النقد الدولي ارتفاع المتوسط السنوي لنمو قوة العمل في الجزائر إلى 3% بعد سنة 2000. وللمقابلة هذا الارتفاع المتزايد على العمل، فإنه ينبغي على السلطات وضع سياسات وبرامج قطاعية تستطيع خلق مناصب عمل جديدة وتقلل من نسبة البطالة في أوساط الشباب.

وفي ما يتعلق بجانب عرض العمل، فإنه يمكن النظر إلى سوق العمل بالجزائر على أنه يتكون من قطاعين: قطاع ريفي أو قروي يشمل جميع النشاطات الفلاحية، وقطاع حضري يشمل نوعين من الممارسات المهنية الرسمية وغير الرسمية. وقد كان القطاع الريفي في عام 1977 يمتص حوالي 72.2% من مجمل اليد العاملة، غير أن هذه النسبة قد انخفضت إلى حوالي 42% في سنة 2003 نتيجة هجرة السكان من الأرياف إلى المدن بسبب نوعية الهياكل القاعدية الاجتماعية وارتفاع الأجور في المدن، وهو ما أدى إلى ارتفاع معدلات البطالة في القطاعات الرسمية، و بروز القطاع غير الرسمي الذي امتص حوالي 36.5% من مجمل التوظيف خارج قطاع الزراعة في سنة 2002 و أيضا 39% من مجمل التوظيف في القطاع الحضري.

وبالنظر إلى مساهمة كل قطاع في التوظيف الكلي، فإنه يلاحظ أن مساهمة القطاع الصناعي قد انخفضت من 18% للفترة 1967-1978 إلى 14% للفترة 1993-2002، ويرجع ذلك إلى انخفاض نسبة نمو

التوظيف في هذا القطاع التي عرفت معدلات نمو سالبة في الفترة 1993-2002 وصلت إلى -0.6% من جراء غلق العديد من المؤسسات الصناعية العامة وتسريح عمالها. أما قطاع الأشغال العامة فقد ارتفعت مساهمته في التوظيف الكلي من 14.7% للفترة 1967-1978 إلى 20.4% للفترة 1993-2002، في حين عرفت مساهمة قطاعات النقل والمواصلات، التجارة والخدمات، والإدارة في التشغيل الكلي نسبة ثابتة، بلغت في المتوسط حوالي 6.6%، 24% و 34% على الترتيب.

السياسات الاقتصادية والبطالة

مع نهاية ثمانينات وبداية تسعينات القرن العشرين شرعت الجزائر في إصلاحات اقتصادية ومالية كان لها الأثر الكبير على التوظيف سواء في القطاع العام أو القطاع الخاص، فقد عرف القطاع العام خلال تسعينيات القرن الماضي تسريح عدد كبير من العمال، وعلى العكس من ذلك عرف القطاع الخاص تحسناً ملحوظاً ابتداءً من سنة 990، حيث ساهم في خلق عدد معتبر من مناصب العمل نتيجة تطوره السريع، فمثلاً، من بين 7418 مؤسسة صغيرة و متوسطة تم إنشاؤها في سنة 1998 كانت من بينها 7384 مؤسسة خاصة، في حين مثلت المؤسسات العامة 14 مؤسسة فقط. ويتضح توسع القطاع الخاص من خلال إنشاء المؤسسات الصغيرة و المتوسطة التي تركزت أنشطتها في الأشغال العامة و البناء، التجارة، النقل و الاتصالات، الصناعات الغذائية و المؤسسات الصغيرة للخدمات. وعليه فقد أصبح القطاع الخاص يوفر حوالي 63.2% من الوظائف الإجمالية مقابل 36.8% للقطاع العام، مما يجسد العلاقة الوثيقة بين وتيرة معدل البطالة و معدل نمو مخزون رأس المال، التي تدعمها العديد من الشواهد التجريبية الحديثة كأعمال كل من: هنري وآخرون (2000)، وكارناسا و آخرون (2003)⁽¹⁾.

إن مختلف الإصلاحات الاقتصادية ذات الطابع القطاعي التي طبقت في الجزائر منذ الاستقلال، كانت تصبو بالإضافة إلى إرساء قواعد اقتصاد السوق و إعادة التوازنات الاقتصادية الكلية، إلى توفير الشروط الملائمة لنمو اقتصادي مرتفع و دائم، و بالتالي إلى زيادة طاقات القطاعات المحلية في عرض العمل و امتصاص البطالة.

فخلال سبعينات و ثمانينات القرن الماضي، سيطر التوظيف العام في القطاع الرسمي إلى حد كبير نتيجة انتهاج الدولة لسياسات إحلال الواردات و خاصة ما يعرف منها بسياسة الصناعات التحويلية، و الناتج عنها إنشاء العديد من المؤسسات العامة التي كانت تمتص حوالي 65% من اليد العاملة الإجمالية في سنة 1978. وهو ما يعكس العلاقة الإيجابية على المدى البعيد، بين نسبة الانفاق الحكومي و معدل البطالة التي تقرها بعض الشواهد النظرية و التجريبية الحديثة كأعمال أبرامز (1999) و كريستوبولوس و آخرون 2008. غير أن زيادة حجم القطاع العام على حساب القطاع الخاص آنذاك، زوده بقدرة كبيرة على جذب و استمالة الأفراد للعمل بحيوية في القطاع العام، مما نتج عنه تغييرات هيكلية في سوق العمل نظراً لظهور قوة عاملة إضافية أدت إلى ارتفاع معدلات البطالة في ما بعد، و هو ما أقرته بعض الدراسات الحديثة كأعمال السينا و آخرون (2002).

غير أن الأزمة النفطية لسنة 1986 كان لها وقع كبير على الاقتصاد الجزائري، حيث كشفت هذه الأزمة عن هشاشة نظام التراكم في القطاع الصناعي العام. ورغم الإصلاحات المنتهجة آنذاك والتي اهتمت فقط بإعادة الهيكلة التنظيمية للمؤسسات العامة مصحوبة بتطهير مالي لهذه الأخيرة إلا أنها لم تمس علاقات التوظيف. وعليه، فقد تدهورت الحالة العامة للتوظيف نتيجة غياب الاستثمارات الجديدة من قبل المؤسسات الاقتصادية العامة والخاصة في ظل تطبيق السياسة العامة وأهداف برنامج التعديل الهيكلي الذي طبق في سنة 1994، ومنه أصبحت هذه المؤسسات بصورة مزمنة غير منتجة ومتخمة بالعمالة، مما دفعها إلى التسريح الجماعي للعمال إما نتيجة لإعادة هيكلة المؤسسات أو غلقها لعدم إيجاد مصادر التمويل، مما أدى إلى تشييط مستويات التوظيف عند المستوى السائد آنذاك مع ارتفاع ضغوط الطلب على العمل، مما نتج عنه اختلال في سوق العمل تمثل بارتفاع مستويات البطالة ابتداء من سنة 1994.

و إذا كان برنامج الإصلاح الهيكلي قد وفق في إعادة التوازن الاقتصادي الكلي والموازنة العامة، إلا أنه أدى إلى تفاقم البطالة التي انتقلت من نسبة 24% في سنة 1994 لتصل إلى أكثر من 29% في سنة 1997، حيث أن مصدر 52% من البطالة هو القطاع العام و 48% من القطاع الخاص. وقد قدرت البطالة في هذه المرحلة بحوالي 3.2 مليون شخص، خست 80% من فئة الشباب اللذين لا يتجاوز سنهم الثلاثين سنة، و 75% منهم يتقدمون بطلبات عمل لأول مرة، و خست كذلك 80 ألف من خريجي الجامعات في سنة 1996، وذلك من بين أكثر من 100 ألف خريج جامعي. كما زادت إعادة الهيكلة من تفاقم البطالة، بحيث أن أكثر من 360 ألف عامل أو موظف فقدوا مناصب عملهم أو وجهوا إلى البطالة التقنية ما بين عامي 1994 و 1998⁽²⁾.

إن غياب الإنعاش الاقتصادي و غياب برنامج لدعم التوظيف آنذاك أدى إلى الطلب المتزايد على العمل الذي يتراوح ما بين 250 ألف إلى 300 ألف طلب سنويا. كما أن غياب سياسة واضحة للتوظيف أدى إلى تزايد العمل الموازي غير الرسمي وخاصة في مجال النشاط التجاري، وقد ساعد على هذه الحالة ارتفاع التسرب المدرسي الذي تراوح ما بين 400 ألف إلى 600 ألف تلميذ يغادرون المدرسة سنويا. كما طالبت البطالة المرأة، حيث ارتفع عدد النساء العاطلات من 125 ألف امرأة في سنة 1992 إلى 487 ألف امرأة في سنة 1996، مع العلم أن النساء يمثلن خمس عدد العاطلين و أغلبهن موجودات في المناطق الحضرية. و عليه، فقد كانت الزيادة الدائمة في معدلات نمو البطالة نتيجة تراكم الصدمات الدائمة التي رفعت من المعدل الطبيعي للبطالة في الاقتصاد الجزائري، و نفس هذا التفسير تقررّه الاختبارات التجريبية لكل من: جيقرو و باركنسون (1994)، وبيانشي و زويافي (1998)، وبيسيتلي وآخرون (2000)، و هيوز وآخرون (2002) و ليون ليدسما - ماك آدم (2003) و التي ربطت فرضيات التخلف بالمعدل الطبيعي للبطالة.

ومن أجل تخفيض نسب البطالة، فقد وضعت الحكومة الجزائرية عدة تدابير كانت ترمي إما إلى حث الشباب المتعطّل للبحث عن فرصة عمل أو إلى خلق مؤسسته الخاصة، من خلال منحه فرصة عمل مؤقت بانتظار الإدماج في سوق العمل، و قد كان لهذه التدابير جانب إيجابي تمثل في تجنب إقصاء الشباب المتعطّل من عالم العمل و خفض التكلفة النفسية للبطالة. ففي سنة 1997 تم إنشاء الهيئة الوطنية لدعم توظيف

الشباب، و التي من مهامها الأساسية المساعدة على انجاز مشاريع المؤسسات الصغيرة عن طريق تقديم النصائح، والمساعدة في الحصول على التمويل المصرفي، والمرافقة اثناء مباشرة عمل المشروع بالإضافة إلى الدعم المالي من جانب هذه الهيئة. و حسب أرقام السلطات الرسمية، فقد تم تحقيق 16 ألف مشروع في سنة 1998 ساهمت في خلق أكثر من 4700 فرصة عمل، لكن انتشار البيروقراطية في هذه الهيئة و تردد البنوك في تمويل المشاريع الصغيرة شكل عائقاً أمام تطور هذه المبادرة. كذلك فقد اتخذت الحكومة تدابير أخرى للحد من البطالة التي كانت تمس فئة الشباب غير المؤهل، في مجال الأشغال العامة التي تتطلب أيدي عاملة كثيفة، كصيانة الطرقات و الأشغال ذات المنافع العامة، و التي ساهمت بفاعلية في خفض نسبة البطالة، ففي سنة 1999 تم خلق 12.9 ألف فرصة من خلال هذه التدابير.

و نتيجة لغياب سياسة توحى بالقضاء على البطالة من منظور السياسة العامة للاقتصاد الجزائري، اكتفت الحكومة بمحاولات لتوفير فرص عمل مؤقتة واعتماد نظام التكفل و الشبكة الاجتماعية و التضامن الوطني، و هو ما أدى إلى زيادة فرص العمل التعاقدية و الفصلية بالمقارنة بفرص العمل الدائم. فعلى سبيل المثال، تم في سنة 2001 تحقيق حوالي 23.7 ألف فرصة عمل من بينها حوالي 20.5 ألف فرصة عمل مؤقتة و حوالي 3.2 ألف فرصة دائمة فقط، كل هذا من أجل مقابلة 99913 طلب على العمل.

ابتداءً من سنة 2000 و مع ارتفاع أسعار المحروقات في الأسواق العالمية و تحسن مداخل الدولة، و أمام الأزمة الاقتصادية و الاجتماعية، فقد شرعت الحكومة في سنة 2001 بتطبيق برنامج لدعم النمو الاقتصادي، و من بين أهم الأهداف المخططة في هذا البرنامج هو رفع وتيرة النمو الاقتصادي و خفض نسبة البطالة، و قد خطط في هذا البرنامج لخلق حوالي 626 ألف فرصة عمل دائمة و حوالي 18.7 ألف فرصة عمل غير دائمة. و لقد أدى تطبيق هذا البرنامج إلى تحسين بعض المؤشرات الاقتصادية الكلية بشكل ملحوظ، لعل من أهمها ارتفاع نسب النمو الاقتصادي إلى حدود 6.8% في سنة 2003 و انخفاض نسبة البطالة في الجزائر إلى أكثر من النصف خلال السنوات الست الماضية، إذ سجلت الأرقام الرسمية لسنة 2006 نسبة 12.3% مقابل 29.5% في سنة 2000.

ملاحظات منهجية

دون الدخول في تفاصيل إقتصادية قياسية، يمكن الاطلاع عليها في الكتب المدرسية المتخصصة، ستتم دراسة أهم العوامل المحددة لمعدل البطالة في الجزائر للفترة 1979-2006 في إطار نموذج للمتجهات ذات الانحدار الذاتي⁽³⁾. وكما هو معروف، تقتض هذه النماذج أن هناك علاقة بين قيمة كل متغير من المتغيرات تحت الدراسة في الفترة الحالية، كمتغير تابع، وقيمه السابقة (لعدد من السنوات الماضية) بالإضافة إلى القيم السابقة لكل المتغيرات المشمولة بالدراسة، كمتغيرات مفسرة. و تتم صياغة هذه العلاقات في شكل معادلات تحتوي كل واحدة منها على مكون للخطأ العشوائي، بحيث يفترض استقلال هذه الأخطاء في ما

بينها. وبغرض التوضيح لمتغيرين X_t و Y_t يمكن كتابة نموذج المتجهات ذات الانحدار الذاتي على النحو التالي:

$$X_t = \alpha_x + \sum_{i=1}^m \beta_{x,i} X_{t-i} + \sum_{i=1}^m \phi_{x,i} Y_{t-i} + \varepsilon_{x,t} \quad (1)$$

$$Y_t = \alpha_y + \sum_{i=1}^m \beta_{y,i} Y_{t-i} + \sum_{i=1}^m \phi_{y,i} X_{t-i} + \varepsilon_{y,t} \quad (2)$$

حيث ε_t هي الخطأ العشوائي، و m هي عدد فترات الإبطاء.

وبهنا، في هذا الصدد، ملاحظة أن أهم استخدام لهذه النماذج يكمن في تحليل الاستجابة الدفعية⁽⁴⁾، التي تُعبر عن تأثير أي تغير (بمعنى صدمة) يحدث في أحد مكونات الخطأ العشوائي على القيم الحالية والمستقبلية للمتغيرات التابعة⁽⁵⁾. ويلاحظ في هذا الصدد أن حدوث صدمة في أحد الأخطاء العشوائية يمكن أن يؤثر مباشرة في قيمة المتغير التابع المعني، كما أن هذا التأثير يمكن أن ينتقل إلى المتغيرات التابعة الأخرى عن طريق هيكل ديناميكية نموذج المتجهات ذات الانحدار الذاتي⁽⁶⁾.

ولأغراض هذه الدراسة، يشتمل النموذج الذي تم استخدامه على استجابة معدل البطالة، u ؛ لكل من نسبة الإنفاق العام للنتائج المحلي الإجمالي، g ؛ ونسبة الإيرادات الكلية للنتائج المحلي الإجمالي، α ؛ ونسبة التراكم الإجمالي لرأس المال الثابت للنتائج المحلي الإجمالي، k ؛ ونسبة الأجور من الناتج المحلي الإجمالي، w ؛ وأسعار النفط، o ؛ ومعدل التضخم، p ؛ والنمو الاقتصادي، n .

وكما درجت العادة عند استخدام السلاسل الزمنية، خصوصاً في تحليل الحالات القطرية، فقد قُمنّا باختبار استقرار السلاسل الزمنية للمتغيرات المشمولة بالتحليل، وذلك باستخدام الاختبار المعزز لديكي- فولر للجذور الوحيدة. وكما هو معروف، فإنه يمكن تطبيق هذا الاختبار لمستويات المتغيرات، أو للفرق بين القيم المتتالية لكل متغير، وذلك بتقدير علاقة بين القيم الحالية لكل متغير مع القيم السابقة له وبفترة إبطاء بطريقة المربعات الصغرى والنظر إلى ما إذا كانت معلمة الاستقرار ذات معنوية إحصائية. وقد أوضحت نتائج هذا الاختبار عدم استقرار السلاسل الزمنية لكل مستويات المتغيرات المستخدمة، مما حدى بنا إلى إجراء الاختبار على الفروق، والذي كانت نتائجه على نحو ما يوضح الجدول التالي.

جدول (1) الاختبار المعزز لديكي- فولر لاستقرار سلاسل المتغيرات : الفروق الأولى

القيم الحرجة لمستوى			قيمة ت- الإحصائية	عدد فترات الإبطاء	المتغيرات
10%	5%	1%			
-1.610	-1.951	-2.634	-11.07	1	معدل النمو
-1.610	-1.951	2.634	-2.951	1	سعر النفط
-1.610	-1.951	2.634	-4.245	1	نسبة الإنفاق العام
-1.610	-1.951	2.634	-6.086	1	نسبة الإيرادات الكلية
-1.610	-1.951	2.634	-4.767	1	معدل البطالة
-1.610	-1.951	2.634	-6.922	2	نسبة تراكم رأس المال
-1.610	-1.951	2.634	-4.528	1	معدل التضخم
-1.610	-1.951	2.634	-4.295	1	نسبة الأجور

وبمقارنة قيم ت - الإحصائية مع القيم الحرجة، فإنه يتضح أن الفروق الأولى لكل متغير من المتغيرات هي عبارة عن سلاسل زمنية مستقرة، وذلك بدلالة أن القيم المطلقة للإحصائية المقدرتها تفوق تلك الحرجة لكل مستويات المعنوية الإحصائية.

النتائج التطبيقية

تتمثل أول مجموعة للنتائج التطبيقية في تحليل أثر الصدمات الهيكلية ومدى استجابة البطالة للمتغيرات التي تم تحديدها، وذلك من خلال دوال الاستجابة الدفعية التي سبقت الإشارة إليها، والتي تعبر عن تأثير أي تغير (صدمة) يحدث في واحد من بواقي (حد الخطأ ε) للمتغيرات المستقلة على القيم الحالية والمستقبلية للمتغيرات التابعة. فحدوث صدمة في أحد بواقي متغير ما يمكن أن يؤثر مباشرة في قيمة هذا المتغير، غير أن هذا التأثير سينتقل إلى المتغيرات الأخرى عن طريق هيكل ديناميكية النماذج المستخدمة. وقد ترتب على تقدير دوال الاستجابة الدفعية النتائج التالية:

- حدوث صدمة في أسعار النفط بما يعادل 2.192 وحدة سيقابله انخفاض في معدل البطالة على طول فترة الاستجابة، إذ يقدر بحوالي 0.993 % في الفترة الثانية، لينخفض هذا التأثير إلى 0.126 % عند الفترة العاشرة.
- حدوث صدمة في نسبة الإنفاق العام بما يعادل 2.39 وحدة سيقابله انخفاض في معدل البطالة بحوالي 0.028 % في الفترة الثانية، لكن هذا الأثر الإيجابي سيزول ابتداء من الفترة الثالثة إلى غاية نهاية فترة الاستجابة.
- حدوث صدمة في نسبة الإيرادات العامة بما يعادل 2.34 وحدة، سيؤدي إلى انخفاض معدل البطالة بحوالي 0.43 % في الفترة الثانية، ليزول هذا الأثر ابتداء من الفترة الرابعة إلى نهاية فترة الاستجابة.

- حدوث صدمة في نسبة التراكم الإجمالي لرأس المال الثابت بما يعادل وحدة، سيؤدي إلى ارتفاع معدل البطالة بحوالي 0.59% في الفترة الثانية، لكن هذا التأثير سيزول خلال الفترتين الموالتين، حيث ينخفض معدل البطالة بحوال 1% و 0.097% على التوالي، ليعود الأثر السلبي إبتداء من الفترة الخامسة إلى نهاية فترة الاستجابة.
- حدوث صدمة في نسبة التضخم بما يعادل 2.3 وحدة سيؤدي إلى ارتفاع معدل البطالة بحوالي 0.347% في الفترة الثانية، لكن هذا التأثير سيزول خلال الفترتين الموالتين، حيث ينخفض معدل البطالة بحوالي 0.449% ويدوم هذا التأثير على ما تبقى من فترة الاستجابة لكن قيمته ضعيفة جداً.
- حدوث صدمة في نسبة الأجور بما يعادل 2.25 وحدة ستؤدي إلى ارتفاع معدل البطالة بحوالي 0.54% في الفترة الثانية، لتتخفف هذه النسبة إلى 0.46% عند الفترة الرابعة، ليزول هذا التأثير من جديد عند الفترة السادسة إلى غاية نهاية فترة الاستجابة.
- حدوث صدمة في معدل النمو الاقتصادي بما يعادل 2.36 وحدة سيؤدي إلى انخفاض معدل البطالة بحوالي 0.1527% عند الفترة الثانية، ليتراجع هذا التأثير إلى غاية -0.00038% عند نهاية فترة الاستجابة.

من خلال تحليل دوال الاستجابة الدفعية أعلاه، فإنه يتبين أن أهم متغير كان له تأثير إيجابي على تخفيض معدلات البطالة هو أسعار النفط، حيث كانت جميع الاستجابات بقيم سالبة على طول فترة الاستجابة، مع تسجيل أعلى نسبة استجابة. يليه في ذلك تأثير حجم النمو الاقتصادي ثم بقية المتغيرات، التي كان تأثيرها متبايناً ونسبياً. وعليه تبقى نسبة التوظيف في الاقتصاد الجزائري تخضع بالدرجة الأولى إلى نسب النمو المحققة التي تخضع بدورها إلى ارتفاع أسعار النفط في الأسواق العالمية.

على أساس من هذه النتائج فقد تم اختبار العلاقات السببية ما بين البطالة وبقية المتغيرات الأخرى في المدى القصير من خلال اختبار اتجاه العلاقات السببية بين المتغيرين باستعمال طريقة جرانجر⁽⁷⁾. ويذكر في هذا الصدد أنه يتم اختبار وجود علاقة سببية بين معدل البطالة والمتغيرات الأخرى باستخدام إحصائية فيشر المقدرتها ومقارنتها بإحصائية فيشر الحرجة عند مختلف مستويات المعنوية الإحصائية، وحيث تكون الفرضية تحت الاختبار هي عدم وجود علاقة. يوضح الجدول رقم (2) نتائج هذا الاختبار للفروق الأولى للمتغيرات تحت الدراسة.

الجدول (2) اختبار العلاقات السببية ما بين البطالة و بقية المتغيرات.

إحصائية فيشر الجدولية	إحصائية فيشر المحسوبة	عدد فترات التباطؤ	الفرضيات العدمية (الفروق الأولى للمتغيرات)
4.08	0.87610	1	معدل النمو الاقتصادي لا يتسبب في معدل البطالة
4.08	6.70318	1	سعر النفط لا يتسبب في معدل البطالة
4.08	0.00468	1	نسبة الإنفاق الحكومي لا تتسبب في معدل البطالة
4.08	0.63075	1	نسبة الإيرادات العامة لا تتسبب في معدل البطالة
4.08	6.00468	2	نسبة تراكم رأس المال لا تتسبب في معدل البطالة
4.08	1.21233	2	معدل التضخم لا يتسبب في معدل البطالة
4.08	2.61898	1	نسبة الأجور لا تتسبب في معدل البطالة

يتضح من الجدول أعلاه أن إحصائية فيشر المحسوبة لكل من معدل النمو الاقتصادي ونسبة الإنفاق الحكومي، ونسبة الإيرادات العامة، ومعدل التضخم ونسبة الأجور، هي أصغر من إحصائية فيشر الجدولية عند مستوى 5%. ويعني ذلك قبول فرضية عدم وجود علاقة سببية بين الفروق الأولى للمتغيرات المذكورة والتفاضل الأول لمعدل البطالة. ومن الناحية الأخرى، يوضح الجدول أن إحصائية فيشر المحسوبة لكل من سعر النفط ومعدل الاستثمار هي أكبر من إحصائية فيشر الجدولية عند مستوى معنوية 5%، مما يعني أن هناك علاقة سببية بين الفروق الأولى للمتغيرين والفرق الأول لمعدل البطالة، ومنه فإن كلاً من أسعار النفط وحجم الاستثمار يؤثران في معدل البطالة في الجزائر.

ولهذا الغرض، فقد تم تقدير علاقة انحدار بين معدل البطالة u كمتغير تابع، وأسعار النفط في الأسواق الدولية O و تراكم رأس المال k كمتغيرات مفسرة، للفترة 1966-2006، مع تبني الفروق الأولى للمتغيرات، وذلك على النحو التالي:

$$u = -0.0917 - 0.1587 O - 0.103 k$$

$$(-1.65) \quad (-1.98) \quad (-0.69)$$

$$R^2 = 0.4319 \quad DW = 1.78$$
(3)

من خلال نتائج المعادلة أعلاه، تتضح جودة توفيق النموذج ومقدرته على تفسير التغيرات في معدل نمو البطالة بالجزائر، حيث أن التغيرات في المتغيرات المستقلة يمكنها تفسير 43.19% من التغيرات في هذا

المعدل. في حين تظهر إحصائية فيشر المحسوبة (3.07) بقيمة أكبر من قيمتها الجدولية (2.92)، أي أن معالم الانحدار ليست جميعها معدومة عند مستوى معنوية 5%، وهي توضح بذلك العلاقة الطويلة الأجل بين المتغيرات المفسرة و معدل نمو البطالة. كما أن إحصائية ديرين - واطسن توحى بعدم وجود ارتباط ذاتي ما بين الأخطاء.

تبين نتائج الانحدار السابق دائماً بأن معلمة الثابت ذات دلالة إحصائية عند مستوى معنوية 10% وهي بإشارة سالبة، مما يعني أن معدلات نمو البطالة في الجزائر خلال فترة الدراسة كانت تتجه نحو التناقص لكن بوتيرة منخفضة جداً.

في حين كشفت النتائج على أن العلاقة العكسية بين نسبة تراكم رأس المال و معدل نمو البطالة، هي علاقة غير معنوية إحصائياً. و يعود السبب في ذلك إلى ضعف الإنفاق الاستثماري الخاص في الجزائر، وما لأثر المزاحمة من تأثير سلبي على أداء هذا الأخير، إذ أن السياسة المالية المنتهجة عملت فقط على إحلال الاستثمار الحكومي محل الاستثمار الخاص الذي كان باستطاعته التسبب في امتصاص أكثر للأيدي العاملة و تقليص نسب البطالة. و تتفق هذه النتائج مع الدراسات التجريبية لألجان وآخرون (2002)، ونيكل و آخرون (2005) و فلدمان (2006).

أما بالنسبة لأسعار النفط، فقد بينت النتائج أن هناك علاقة عكسية بينها و بين معدلات نمو البطالة في الجزائر عند مستوى معنوية 5%، إذ أن زيادة أسعار النفط بمعدل 1% يمكن أن تؤدي بعد فترات إبطاء زمنية إلى تخفيض معدل البطالة بنسبة 15%. ورغم هذه المكانية التي يعتيها قطاع المحروقات في الاقتصاد الجزائري، إلا أنه لا يوظف إلا ما نسبته 3% من مجموع العمالة المحلية، وذلك بسبب كثافة رأس المال في استثمارات هذا القطاع. وبغض النظر عن نسبة العمالة المنخفضة في قطاع المحروقات، فإن لهذا الأخير تأثير مباشر و مهم على العمالة الكلية في الجزائر (أي العمالة في القطاعات الأخرى) من خلال ما توفره عائدات تصدير النفط من موارد مالية توجه لتمويل كل القطاعات و الأنشطة الاقتصادية المحلية.

الخاتمة

لقد تبين من خلال هذه الدراسة، أن من بين أهم العوامل التي أثرت سلباً على خلق فرص عمل و خفض نسبة البطالة في الجزائر، هو ضعف أداء الاقتصاد الجزائري و غياب سياسة توحى بالقضاء على البطالة من منظور السياسة العامة للاقتصاد الجزائري، حيث اكتفت الحكومة بمحاولات لتوفير فرص عمل مؤقتة و اعتماد نظام التكلفة و الشبكة الاجتماعية و التضامن الوطني، و هو ما أدى إلى زيادة فرص العمل التعاقدية و الفصلية على حساب فرص العمل الدائمة. أما التحليل القياسي فقد اعتمد على اختبار العلاقات السببية و تحليل أثر الصدمات الهيكلية باستخدام دوال الاستجابة الدفعية التي بينت أن أهم متغير كان له تأثير إيجابي على خفض معدلات البطالة في الجزائر هو أسعار النفط، حيث كانت جميع الاستجابات بقيم

سالبة على طول فترة الاستجابة، في حين كشف اختبار السببية أن كلاً من أسعار النفط وحجم الاستثمار يؤثران في حجم البطالة في الجزائر. ومن أجل فهم تأثير حجم الاستثمار الخاص على البطالة فقد تم تحليل فعالية السياسة المالية، حيث تبين أن الزيادة في الإنفاق العام في الجزائر تتم على حساب نقص الاستثمار الخاص، أي أن السياسة المالية المنتهجة عملت فقط على إحلال الاستثمار الحكومي محل الاستثمار الخاص الذي كان باستطاعته التسبب في امتصاص أكثر للأيدي العاملة، وهو بالتالي مضمون أثر المزامحة الذي يجسد لنا مرة أخرى الفعالية النسبية للسياسة المالية، و أيضاً محدودية الاستثمار الخاص في تقليص نسب البطالة. ومن ثم فإن السياسة العامة للاقتصاد الجزائري التي انتهجتها الدولة عن طريق رفع الإنفاق العام بهدف زيادة عرض الإنتاج الوطني والتوظيف لم يكن لها أي أثر يخدم هذا المنظور، ويرجع ذلك بكل بساطة إلى ضعف الجهاز الإنتاجي ومحدودية قدراته. وعليه تبقى نسبة التوظيف في الاقتصاد الجزائري خاضعة بالدرجة الأولى إلى نسب النمو المحققة، التي تخضع بدورها إلى ارتفاع أسعار النفط في الأسواق العالمية.

و بالتالي فإنه على سياسات الحد من البطالة أن تتضمن أولاً إجراءات عديدة متعلقة بتكييف الإطار القانوني والتنظيمي (تشريعات العمل) لسوق العمل، مع تحسين أدوات وآليات الإعلام والتنظيم والتسيير بالنسبة لهذا السوق، وذلك من أجل تحسين نظام علاقات العمل وتكييف ذلك مع الواقع الاجتماعي، تماشياً مع هدف السياسة الاقتصادية الساعية إلى إنشاء فرص عمل جديدة، مع الحفاظ على الفرص الموجودة في ظل الأوضاع الاقتصادية التي تعرفها الجزائر.

وفي هذا الإطار، يجب استغلال هذه الوفرة المالية التي يترجمها إرتفاع إحتياطي الصرف الذي بلغ حوالي 70 مليار دولار في سنة 2006، في توجيه السياسات الاقتصادية إلى تنشيط وتحفيز العرض الكلي و امتصاص اليد العاملة الشاغرة، وذلك من خلال رفع قدرات الإنتاج الوطنية في مختلف القطاعات وعلى وجه الخصوص، كثيفة الاستخدام للعمالة بواسطة الاستثمار المنتج، وهو بهدف الخروج من وضعية قوة الموارد و ضعف الفعالية و التخلص من تبعية السياسة المالية (و الاقتصاد الجزائري ككل) لقطاع الطاقة، كما ينبغي زيادة حجم الصادرات خارج قطاع الطاقة و وضع سياسة تصنيع تهدف إلى تطوير القطاع الصناعي. هذا بالإضافة إلى الاهتمام أكثر بجذب الاستثمارات الخارجية و رد الاعتبار لقطاع السياحة باعتباره قطاعاً استراتيجياً له دور كبير في خفض البطالة و تنويع عائدات البلد.

الهوامش

(1) في نص الورقة سوف نكتب اسم المؤلف باللغة العربية بينما نثبت المراجع بلغتها الأم، مما سوف لن يفوت على فطنة القارئ.

(2) CNES (1999) : " Rapport préliminaire sur les effets économiques et sociaux du programme d' Ajustement Structurel "

(3) " نموذج المتجهات ذات الانحدار الذاتي " ترجمة للتعبير Vector Auto regression Models ويختصر VAR.

(4) "الاستجابة الدفعية" ترجمة للتعبير Impulse Response.

(5) Bourbonnais, R., (2002): "Econométrie", Dunod, 4^{em} Edition, Paris. P: 267.

(6) Lardic, S., et Mignon, M., (2002) : «Econométrie Des Séries Temporelles Macroéconomiques et financières », Economica, Paris. P : 102.

(7) جرانجر ترجمة Granger .

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Economic Growth and Unemployment in Arab Countries: Is Okun's Law Valid?

Imad A. Moosa

Economic Growth and Unemployment in Arab Countries: Is Okun's Law Valid?

Imad A. Moosa*

Abstract

Two models are used to measure the responsiveness of unemployment to output, as represented by Okun's law, in four Arab countries: Algeria, Egypt, Morocco and Tunisia. In no case does Okun's coefficient turn out to be statistically significant, which means that output growth does not translate into employment gains. Some reasons are suggested for this finding, which implies that boosting growth is not a sufficient condition for reducing unemployment in Arab countries.

النمو الاقتصادي والبطالة في الدول العربية : مدى ملاءمة قانون اوكن

عماد موسى

ملخص

إن تقدير معامل أوكن الذي يقيس استجابة البطالة لنمو الناتج، له أهمية في صياغة السياسات لأنه يدل على تكلفة البطالة في الاقتصاد. وقد تحدد هدف هذه الورقة في تقدير هذا المعامل لأربع دول عربية توفرت لها معلومات هي: الجزائر ومصر والمغرب وتونس. تخلص الورقة إلى عدم ملاحظة أن عدم إنطباق قانون أوكن في الدول تحت الدراسة يخالف النتائج التطبيقية التي تدعم وجود هذا القانون في الدول المتقدمة. وهناك ثلاثة أسباب يمكن أن تفسر هذه النتيجة أن البطالة في الدول العربية لا تتغير حسب الدورة الاقتصادية، وأن أسواق العمل في هذه الدول ليست مرنة؛ وأن هياكل هذه الاقتصادات ليست متنوعة بما فيه الكفاية.

* Department of Accounting and Finance, Monash University, P O Box 197, Caulfield East Victoria 3145, Australia.
e-mail: imad.moosa@buseco.monash.edu.au

Introduction

Okun's law is a representation of the connection between output and unemployment, hence relating the level of activity in the goods market to the level of activity in the labour market over the business cycle. It has been found to hold as a strong empirical regularity by several economists. Okun's law has attracted the attention of economists, not only because it is a robust empirical regularity but also because of its importance as a macroeconomic building block. When it is combined with the Phillips curve, it produces the aggregate supply curve. Moreover, it has implications for macroeconomic policy, particularly in determining the optimal or desirable growth rate, and as a prescription for reducing unemployment. Estimating Okun's coefficient, which is a measure of the responsiveness of unemployment to output growth, is important because it indicates the cost of unemployment in terms of output. Okun's law is often used as a benchmark for measuring the cost of unemployment.⁽¹⁾

The objective of this paper is to estimate Okun's coefficient, and explore the validity of Okun's law, for four Arab countries: Algeria, Egypt, Morocco and Tunisia. There is nothing special about these countries, but the choice was dictated by the availability of data, which is lacking, inadequate or faulty for other MENA countries. This exercise is undertaken because very few attempts of this kind, if any, have been made. The motivation for doing this work is straightforward. If Okun's law is valid for these countries, this will provide an idea about the kind of unemployment prevailing in these countries (cyclical or otherwise). This would then imply whether or not unemployment can be reduced by boosting growth. Two models are used for measuring Okun's coefficient: the gap model and a modified version of the growth rates model.

Unemployment and Growth in Arab Countries

Unemployment has been recognised as a major problem in Arab countries, particularly non-oil producing ones. Unemployment rates in the Middle East and North Africa (MENA) region, which encompasses the Arab world, are among the highest in the world. The literature on unemployment in the MENA region reflects mixed views about the proposition that growth has failed to deliver jobs,

which is another way of saying that Okun's coefficient is low or insignificant. Thus, it may seem strange that not many attempts have been made to estimate Okun's coefficient for Arab countries.

Motivated by the proposition that "providing good employment opportunities is perhaps the greatest challenge facing the MENA region", Keller and Nabil (2002) present some crude estimates of the responsiveness of employment to GDP growth (the closest thing to Okun's coefficient). They report what they call the "elasticities of employment with respect to GDP growth" for eight MENA countries, including the four Arab countries examined in this paper. This elasticity is calculated by dividing the average employment growth rate by the average GDP growth rate over a period of many years extending into the late 1990s. On average for the eight countries, the elasticity turns out to be 1.1 but the strange result is that it is three times the average for Algeria, which in turn is 6 times the elasticity for Egypt and more than three times that of Kuwait (another oil-producing country). This is a rather strange result that does not seem to be consistent with the fact that the unemployment rate in Algeria was 29.9% in 2000 compared with 19.8% in 1990, whereas Egypt witnessed a fall of unemployment from 8.6% in 1990 to 7.9% in 2000. Furthermore, it is not easy to explain why the elasticities in two oil-producing countries (Algeria and Kuwait) differ significantly.

Keller and Nabil (2002) suggest that economic growth in the MENA region has been insufficient compared to the region's labour force and that high growth does not guarantee good labour market outcomes. They also suggest that unemployment will persist with high economic growth if it is capital-intensive (rather than employment-intensive) and point out that employment has strongly expanded despite low levels of growth. This, they argue, is a reflection of the nature of the process of employment creation in the region where public sector employment has been used as a refuge for large portions of the labour force.

Keller and Nabil (op.cit.) reach the conclusion that improving the region's labour market outcomes can be achieved by improving the growth prospects and increasing the employment intensity of growth. What is rather strange is the argument that the so-called employment elasticities are "healthy

by international standards” and that they are “unlikely to be improved”. This argument means that Okun’s coefficient in MENA countries is comparable to what is found in developed countries, which is counter-intuitive and a proposition that is not supported by the results presented in this paper. Differences between the structures of developed economies and those of MENA, as well as differences in the rigidity of labour markets, must translate into differences in Okun’s coefficients, i.e., they should be higher in developed economies.

Gardner (2003) addresses the issue of whether or not current GDP growth in MENA countries generates adequate employment or that higher GDP growth is required (and if so, by how much), stating at the outset that “the bleak job picture is one of the region’s most urgent and destabilising problems”. He touches upon two points that are relevant to the discussion presented in this paper: (a) the public sector remains an important source of employment and job creation; and (b) labour market rigidities in some countries are likely to impose serious efficiency costs and could undermine the economy’s ability to grow in response to structural changes.

Contrary to the arguments put forward by Keller and Nabil (op.cit.), the analysis of the World Bank (2007a) seems to suggest that Okun’s coefficient is low in Arab countries. According to this analysis, the MENA region experienced an average growth rate of 5.2% during the period 2000-2006, yet MENA countries continue to struggle with high unemployment rates.

In its World Development Report, the World Bank (2007b) suggests that MENA countries have increased schooling among both young people and women, arguing that if the gap between young people’s education, energy and hopes and the limited number of opportunities that actually exist for them becomes wider, these young people are likely to become increasingly frustrated. The World Bank identifies some challenges and priorities that include obtaining the right skills for jobs in the private sector, improving access to information, improving the quality of primary education, and increasing the incentive for firms to provide training for employees. In the World Bank report, high unemployment is viewed as a reflection of lower-than-average growth rates (among developing countries) and schooling systems that do not impart market-relevant skills and learning.

Another view put forward by the World Bank is that labour markets in MENA countries protect the rights of incumbents, making it hard for new entrants to find jobs. These points pertain to the problems of structural and frictional unemployment – factors that will be used later to explain the low responsiveness of unemployment to growth in Arab countries.

The Empirical Evidence on Okun's Law

Several economists have followed Okun (1962) by testing the relation between unemployment and output to obtain estimates for Okun's coefficient. The list includes, *inter alia*, Smith (1975), Gordon (1984), Knoester (1986), Kaufman (1988), Prachowny (1993), Weber (1995), Moosa (1997a, 1999), Attfield and Silverstone (1998), Lee (2000), Harris and Silverstone (2001), Sogner and Stiasny (2002), and Silvapulle et al (2004). These studies generally provide support for the empirical validity of Okun's law but the estimates of Okun's coefficient vary substantially across countries and over time. Moreover, there seems to be some strong evidence for a structural break in the relation, a finding that has been attributed by Lee (2000) to: (a) structural changes caused by rising female labour force participation; (b) productivity and wage slowdown; and (c) corporate restructuring.

The empirical estimates of Okun's coefficient are also sensitive to model specification, which may take the form of static versus dynamic models (for example, Weber 1995). Another form of variation in model specification is the use of the first-difference model as opposed to the gap model. In the first difference model, the output and unemployment variables are expressed in first differences (growth rates), but in the gap model, they are measured in terms of the cyclical components or deviations from long-term trends (for example, Lee, 2000). If the gap model is selected, another problem arises pertaining to the choice of the decomposition (or detrending) method, which produces different estimates of the trends and cycles. The choice in this case is among, *inter alia*, linear trend, HP filter, Beveridge-Nelson decomposition and the unobserved components model.

More recently, economists have started to pay attention to the possibility of asymmetry in the output-unemployment relation as represented by Okun's

law. Here, the meaning of asymmetry is that the response of unemployment to output growth is different when the economy is expanding from that when the economy is contracting. This is different from the conventional specification, which encompasses symmetry in the sense that expansions and contractions in output have the same absolute effect on unemployment.

Using alternative estimation methods, Brunner (1997) finds similar asymmetric features in U.S. output data. Likewise, Rothman (1991) provides some evidence indicating that unemployment responds asymmetrically to positive and negative growth shocks. More recently, Silvapulle et al (2004) suggest that there are good reasons to believe, and ample empirical evidence to support, the proposition that the output-unemployment relation as represented by Okun's law is asymmetric. They define Okun's coefficient based on a dynamic model that allows for asymmetry in the relation between cyclical output and unemployment. Using data from the United States for the post-war period, their results show that: (a) the short-run effects of positive cyclical output on cyclical unemployment are quantitatively different from those of negative ones; and (b) the data are consistent with the proposition that cyclical unemployment is more sensitive to negative than to positive cyclical output. The findings are rationalised by outlining several theoretical explanations of asymmetry.

Methodology

Two models are used to calculate Okun's coefficient in this paper: (a) the gap model; and (b) the growth rates model. The gap model is based on static and dynamic regressions of cyclical unemployment on cyclical output, where the cyclical components of output and unemployment are calculated by applying the Hodrick-Prescott (1997) filter (HP filter) to the observed time series, which are decomposed into trends and cycles.⁽²⁾ Formally, the HP filter is used to estimate the trend path $\{Z_t^*, t = 1, 2, \dots, n\}$ of a time series $\{Z_t, t = 1, 2, \dots, n\}$, subject to the constraint that the sum of the squared second differences of the time series is not too large. The trend is calculated from the observed time series by solving the optimisation problem:

$$\min_{z_1^*, z_2^*, \dots, z_n^*} \left\{ \sum_{t=1}^n (Z_t - Z_t^*)^2 + \lambda \sum_{t=2}^{n-1} (\Delta Z_{t+1}^*)^2 \right\} \quad (1)$$

where the smoothing parameter, λ , is normally determined by the frequency of the observations. Once the cyclical components have been extracted, Okun's coefficient can be calculated from the static regression:

$$U_t^c = \alpha + \gamma Y_t^c + \varepsilon_t \quad (2)$$

where U^c and Y^c are, respectively, the cyclical components of unemployment and output, whereas γ is Okun's coefficient. Equation 2 implies that the relation is contemporaneous, which may not be plausible theoretically. It may also be inadequate empirically owing to the omission of short-run dynamics. Following Hendry et al (1984), the dynamic ARDL model used here is:

$$U_t^c = \alpha + \sum_{i=1}^m \beta_i U_{t-i}^c + \sum_{i=0}^n \gamma_i Y_{t-i}^c + v_t \quad (3)$$

where the contemporaneous (impact or short-run) effect of output on unemployment is measured by the coefficient γ_0 while the long-run effect is measured by calculating a function of the coefficients, ϕ , which is given by:

$$\phi = \frac{\sum_{i=0}^n \gamma_i}{1 - \sum_{i=1}^m \beta_i} \quad (4)$$

The question that arises here is whether Okun's coefficient is γ_0 or ϕ . The tendency is to define Okun's coefficient as measuring the long-run effect, as the relation between unemployment and output is not necessarily contemporaneous. Both of these parameters will be reported.

The second model is a structural time series version of the growth rates model, which may be written as:

$$u_t = \mu_t + \phi_t + \delta_t \Delta y_t + \varepsilon_t \quad (5)$$

where u_t is the observed logarithmic value of unemployment, μ_t is the trend component, ϕ_t is the cyclical component, ε_t is the irregular component, and Δy_t is the growth rate of output such that $y = \log_e(Y)$. The trend and cycle are

assumed to be uncorrelated while ε_t is assumed to be white noise. The basic idea behind Equation 5 is that unemployment may be explained in terms of its components and the growth rate of output.⁽³⁾ In this model, Okun's coefficient, δ_t , has a time subscript because the model is estimated in a time-varying parametric (TVP) framework to capture any variation in the coefficient.

The trend component, which represents the long-term movement of a series, is represented by:

$$\mu_t = \mu_{t-1} + \beta_{t-1} + \eta_t \quad (6)$$

$$\beta_t = \beta_{t-1} + \zeta_t \quad (7)$$

where $\eta_t \sim \text{NID}(0, \sigma^2_\eta)$, and $\zeta_t \sim \text{NID}(0, \sigma^2_\zeta)$. μ_t is a random walk with a drift factor, β_t , which follows a first order autoregressive process as represented by Equation 7. This process collapses to a simple random walk with drift if $\sigma^2_\zeta = 0$, and to a deterministic linear trend if $\sigma^2_\eta = 0$ as well. If, on the other hand, $\sigma^2_\eta = 0$ while $\sigma^2_\zeta \neq 0$, the process will have a trend which changes relatively smoothly.

The cyclical component, which is assumed to be a stationary linear process, may be represented by:

$$\phi_t = a \cos \theta t + b \sin \theta t \quad (8)$$

where t is time and the amplitude of the cycle is given by $(a^2 + b^2)^{1/2}$. In order to make the cycle stochastic, the parameters a and b are allowed to evolve over time, while preserving continuity is achieved by writing down a recursion for constructing ϕ before introducing the stochastic components. By introducing disturbances and a damping factor, the following is obtained:

$$\phi_t = \rho(\phi_{t-1} \cos \theta + \phi_{t-1}^* \sin \theta) + \omega_t \quad (9)$$

$$\phi_t^* = \rho(-\phi_{t-1} \sin \theta + \phi_{t-1}^* \cos \theta) + \omega_t^* \quad (10)$$

where ϕ_t^* appears by construction such that ω_t and ω_t^* are uncorrelated white noise disturbances with variances σ_ω^2 and $\sigma_{\omega^*}^2$ respectively. The parameters $0 \leq \theta \leq \pi$ and $0 \leq \rho \leq 1$ are the frequency of the cycle and the damping factor on the amplitude respectively. In order to make numerical optimisation easier, the constraint $\sigma_\omega^2 = \sigma_{\omega^*}^2$ is imposed.⁽⁴⁾

Data

The raw data sample, which was obtained from the International Financial Statistics CD ROM produced by the International Monetary Fund, consists of annual observations covering the period 1990-2005 on unemployment and output (GDP) in the four countries. The problem with the data sample is that there is only a small number of observations, which makes it rather difficult to estimate the dynamic version of the model. For this reason, and due to the unavailability of quarterly data, the author had to resort to interpolation to derive quarterly data from the available annual data. In what follows, a description of the interpolation method is presented.⁽⁵⁾

The interpolation method used here may be found in the writings of economists working on continuous-time dynamic models (for example, Wymer, 1979). This method has been applied (without rationalisation) by Goldstein and Khan (1976) who used it to derive quarterly series on real and nominal income from the corresponding annual series. It is typically applied to flow variables, but since absolute changes in stock variables are themselves flow variables, the method may be applied to the first difference of a stock variable. Given a base period observation on the level of the stock variable, the first differences may be subsequently converted into level observations.

Consider a flow variable, Z_t , which has a time path represented by the function $Z_t = f(t)$. An observation on the variable at the end of year 1 does not indicate that the annual value of the variable is realised at the end of the year, but rather that it accumulates over the period 0-1. Hence, the annual observation can be conceived to be the area under the curve in the interval 0-1, which means that it can be expressed mathematically as:

$$Z_1 = \int_0^1 f(t) dt \quad (11)$$

Interpolation in this case amounts to partitioning the area under the curve to obtain quarterly observations. Thus, the first quarter observation of year 1 is the area under the curve in the interval 0-0.25. This is given by:

$$Z_1^1 = \int_0^{0.25} f(t) dt \quad (12)$$

and so on. Assume now that the time path of Z_t can be approximated by a quadratic function of the form:

$$f(t) = at^2 + bt + c \quad (13)$$

where a,b and c are parameters to be estimated. It follows that:

$$Z_t = \int_{t-1}^t (at^2 + bt + c) dt \quad (14)$$

By evaluating the definite integral (14) for $t=1,2,3$, the system of simultaneous equations follows:

$$Z = XA \quad (15)$$

or:

$$\begin{bmatrix} Z_1 \\ Z_2 \\ Z_3 \end{bmatrix} = \begin{bmatrix} \alpha_1 & \beta_1 & \gamma_1 \\ \alpha_2 & \beta_2 & \gamma_2 \\ \alpha_3 & \beta_3 & \gamma_3 \end{bmatrix} \begin{bmatrix} a \\ b \\ c \end{bmatrix} \quad (16)$$

By solving Equation 16, the values of a,b and c are obtained as:

$$\begin{bmatrix} a \\ b \\ c \end{bmatrix} = \begin{bmatrix} 1/2 & -1 & 1/2 \\ -2 & 3 & -1 \\ 11/6 & -7/6 & 1/3 \end{bmatrix} \begin{bmatrix} Z_1 \\ Z_2 \\ Z_3 \end{bmatrix} \quad (17)$$

Having obtained the values of a,b and c, the interpolated quarterly observations are calculated from the definite integral:

$$Z_t^i = \int_{t_1}^{t_2} (at^2 + bt + c) dt \quad (18)$$

where Z_t^i is the observation for quarter i ($=1,2,3,4$) of year t ($=1,2,3$), $t_1 = t - 1 + 0.25(i-1)$, and $t_2 = t - 1 + 0.75 + 0.25(i-1)$. Since output is a flow variable whereas unemployment is a stock variable, the procedure is applied to the level of output, Y_t , and the first difference of unemployment, ΔU_t , to derive the quarterly data.

Empirical Results

The HP filter is applied to the interpolated quarterly data to extract the cyclical components of output and unemployment, which are basically deviations from the fitted trends. Since unemployment is measured in percentage terms whereas output is measured in absolute monetary terms, the cyclical component of unemployment is taken to be the absolute difference between the actual series and the fitted trend. In the case of output, however, the cyclical component is measured as the percentage deviation from the fitted trend.

Table 1 reports the estimates of the static regression Equation 2, including the coefficients and their t statistics (in parentheses). The coefficient of determination is reported as a measure of the goodness of fit, and three diagnostic test statistics are reported for serial correlation and heteroscedasticity. The results show that none of the estimated Okun's coefficients is statistically significant. In any case, the results are not reliable because the estimated models exhibit significant serial correlation as indicated by the DW and SC statistics, resulting from the lack of dynamics in the equation (hence, dynamic misspecification). At one time, the next step would have been to correct for serial correlation, but Mizon (1995) has warned against this (mal) practice. This is because serial correlation implies model misspecification (most likely missing variables), in which case the solution should be model re-specification.

Table 1. OLS Estimates of Equation 2

	Algeria	Egypt	Morocco	Tunisia
α	-0.011	-0.001	-0.00009	0.001
	(-0.09)	(-0.002)	(-0.59)	(0.002)
γ	0.024	-0.079	0.102	-0.056
	(1.28)	(-2.26)	(1.16)	(-1.50)
R ²	0.03	0.08	0.02	0.04
DW	0.32	0.23	0.27	0.22
SC	42.46	51.21	53.62	51.96
HS	21.24	2.15	2.32	0.02

N.B.

t statistics are enclosed in parentheses.

SC is a test statistic for serial correlation distributed as $\chi^2(4)$ (Godfrey, 1978a, 1978b).

HS is the Koenker (1981) test for heteroscedasticity, distributed as $\chi^2(1)$.

Given the results of estimating Equation 2, the results of estimating Equation 3, are reported in Table 2. The model is estimated by specifying a maximum lag of four, then picking the best model out of all possible combinations on the basis of the Schwarz Bayesian criterion (SBC). It turns out that the preferred model is the one in which $m=2$ and $n=1$, or an ARDL(2,1). The results show that the introduction of dynamics leads to a significant improvement in the goodness of fit and diagnostics. The dynamic model passes the tests for serial correlation and heteroscedasticity, in which case the results should be reliable. But again, they show that Okun's coefficient is not significant in any case. There is also some dynamics in cyclical unemployment as there is significant dependence at lags 1 and 2 quarters. This means that cyclical unemployment is independent of cyclical output, implying that cyclical unemployment is either self-propelled or that it is caused by variables other than cyclical output. The focus of interest here is the finding that unemployment is not responsive to changes in output.

Table 2. OLS Estimates of the ARDL Model (Equation 3)

	Algeria	Egypt	Morocco	Tunisia
α	-0.011	-0.001	-0.00009	-0.012
	(-0.09)	(-0.002)	(-0.59)	(-0.43)
β_1	1.089	1.294	1.401	1.274
	(8.65)	(10.84)	(13.19)	(10.68)
β_2	-0.322	-0.407	-0.610	-0.463
	(-2.62)	(-3.39)	(-5.71)	(-4.01)
γ_0	0.018	0.005	0.015	-0.024
	(1.35)	(0.30)	(0.39)	(-1.21)
ϕ	-0.045	-0.007	-0.015	0.032
	(-0.98)	(-0.31)	(-0.38)	(1.07)
R^2	0.77	0.86	0.85	0.83
DW	2.09	1.99	2.18	2.14
SC	3.56	5.27	4.08	3.42
HS	1.24	0.25	1.08	3.51

N.B.

t statistics are enclosed in parentheses.

SC is a test statistic for serial correlation distributed as $\chi^2(4)$ (Godfrey, 1978a, 1978b).

HS is the Koenker (1981) test for heteroscedasticity, distributed as $\chi^2(1)$.

Table 3 reports the results of estimating Equation 5 in a TVP framework. This is done by writing the model in state-space form, then estimating it by maximum likelihood using the Kalman filter to update the estimates of the state vector as more and more data points are used. What is presented in Table 3, therefore, is the estimated final state vector. Also presented are the coefficient of determination and the diagnostics for serial correlation and heteroscedasticity.⁽⁶⁾ The estimated coefficients and components include the trend and three cycles at three different frequencies, as well as γ_t , the time-varying Okun's coefficient that turns out to be insignificant.

The significance of the trends and some of the cycles indicate that output growth does not affect unemployment on either a secular or cyclical basis. The significance of the components may be taken to imply that other missing variables affect unemployment. It may be noted that it is not the concern here what these variables may be. Rather, the focus of interest is finding whether or not unemployment is responsive to output growth. Obviously however, it does not imply the failure of Okun's law in the four countries.

Table 3. Maximum Likelihood Estimates of the Growth Rates Model (Equation 5)

	Algeria	Egypt	Morocco	Tunisia
μ_t	2.846	2.245	4.120	2.717
	(53.82)	(495.50)	(1.13)	(587.11)
ϕ_{1t}	-0.035	0.030	-0.029	0.019
	(-1.43)	(3.74)	(-1.13)	(1.61)
ϕ_{1t}^*	-0.128	-0.001	-0.007	-0.0009
	(-6.21)	(-0.75)	(-0.22)	(-0.05)
ϕ_{2t}	-0.066	0.044	-0.061	-0.015
	(-4.08)	(3.85)	(-3.15)	(-1.86)
ϕ_{2t}^*	-0.560	0.016	0.164	-0.034
	(-7.89)	(0.74)	(8.44)	(-4.18)
ϕ_{3t}	-0.017	0.082	-1.611	-0.067
	(-0.52)	(12.37)	(-0.44)	(-9.34)
ϕ_{3t}^*	0.022	-0.127	-10.70	0.042
	(0.68)	(-18.40)	(-4.79)	(6.34)
δ_t	-0.049	-0.024	0.16666	-0.062
	(-0.49)	(-0.28)	(1.13)	(-0.60)
R^2	0.98	0.97	0.99	0.95
DW	1.99	1.81	1.77	1.87
SC	0.78	3.25	3.52	2.93
HS	2.35	0.21	0.32	0.10

N.B.

t statistics are enclosed in parentheses.

SC is the Ljung-Box (1978) test statistic for serial correlation, distributed as $\chi^2(2)$.

HS is an F test statistic for heteroscedasticity, distributed as F(20, 20).

Conclusion

Irrespective of the model used to estimate Okun's coefficient, the results presented in this study suggest that unemployment and output are unrelated in the four countries examined. This is in contrast with the results found for more advanced economies, in which case, there must be a reason why there is a difference. Obviously, the structures of the economies examined in this study differ from those of the U.S., Japan and Europe where Okun's law seems to work rather well as an empirical regularity.

Based primarily on the previous discussion of unemployment and growth in Arab countries, three reasons may be suggested for the finding that Okun's law is not valid for the four countries examined in this study:

- The first reason is that unemployment in these countries is not cyclical, but rather structural and/or frictional. Structural unemployment results from changes in the economy that are not matched by changes in education and training. This means that people are unemployed not because the economy is in a recession but because they do not have the skills to do the available jobs. Frictional unemployment, on the other hand, results from failure to match job vacancies with the available job seekers. People may have the skills to do certain jobs but they are unaware of the availability of vacant positions that match their skills. Output growth cannot reduce these kinds of unemployment.
- The second explanation is rigidity of the labour markets in these countries, particularly because the labour market is dominated by the government as the prime source of demand for labour. This is the same reason why unemployment is more responsive to changes in output in the U.S. and Canada than in Europe and Japan. The flexibility of the labour market (for example, the ease by which employers can hire and fire workers and the absence of labour laws such as minimum wage legislation) is conducive to a higher Okun's coefficient. It is plausible to suggest that the dominant role played by the government in the labour markets of the countries under study leads to labour market rigidity and so does the tendency to protect the positions of the incumbents.
- The third explanation is the structures of these economies, which is dominated by the government and perhaps one sector (for example, the oil sector in Algeria). If the dominant sector is not labour-intensive, then growth in this sector (which propels overall economic growth) will not reduce unemployment. This would be true for oil-producing countries in general. Okun's coefficient tends to be higher in developed than in developing economies because the former are more diversified than the latter.

But no matter what the reason is for the insignificance of Okun's coefficient, it may be suggested that the lack of growth does not explain the unemployment problem in the four countries examined in this paper. There is no reason to believe that this finding is not valid for other Arab countries. The suggested reasons for the failure of Okun's law in Arab countries may provide areas of concern that have to be addressed by policy makers.

Footnotes

⁽¹⁾ See, for example, Moosa (1997b).

⁽²⁾ The HP filter was first suggested in a working paper in 1980 that was not published in a journal until 1997. Indicative of the popularity of this technique is the fact that the working paper turned out to be the most heavily cited working paper ever. Of course, this is possibly due to the fact that it remained a working paper for some seventeen years.

⁽³⁾ Hence, this is different from the conventional growth rates model in the sense that the dependent variable is the log level of unemployment rather than its absolute or percentage change. The advantage of this specification is that it allows the distinction between the behaviour of the trend and cycle of unemployment.

⁽⁴⁾ For details, see Harvey (1985, 1989).

⁽⁵⁾ For details, see Moosa (1995).

⁽⁶⁾ Note, however, that the diagnostics for higher order serial correlation and heteroscedasticity are different from those appearing in Tables 1 and 2.

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Informality, Employment and Economic Development in the Arab World

Ibrahim Elbadawi
Norman Loayza

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Abstract

This paper studies the causes and consequences of informality and applies the analysis to Arab countries. It starts with a review of employment, labor informality and other labor market outcomes in the Arab world; and a discussion on the definition and measures of informality, as well as on the reasons why widespread informality should be of great concern. The paper also analyzes informality's main determinants, arguing that informality is not single-caused but results from the combination of poor public services, a burdensome regulatory regime, and weak monitoring and enforcement capacity by the state. This combination is especially explosive when the country suffers from low educational achievement and features demographic pressures and primary production structures. Finally, using cross-country regression analysis, the paper evaluates the empirical relevance of each determinant of informality. It then applies the estimated relationships to several Arab countries to assess the country-specific relevance of each proposed mechanism. Results suggest that informality has had negative marginal effects for Micro and Small Enterprises' (MSEs') performance in the Arab world. Moreover, informal establishments might have difficulty penetrating regional or international markets; instead, they are likely to specialize in producing for local markets.

الأنشطة الاقتصادية غير المنظمة والتنمية والتشغيل في الدول العربية

إبراهيم بدوي
نورمان لويزا

ملخص

تدرس الورقة أسباب ونتائج ظاهرة القطاع غير الرسمي، وتطبق ذلك على الدول العربية. تستعرض الورقة مفهوم القطاع غير الرسمي والأسباب التي تدعو إلى القلق الكبير من توسعته كظاهرة تنموية، وأهم خصائص العمالة في الدول العربية بشكل عام وفي السوق غير الرسمية على وجه الخصوص والعلاقة المفترضة بين التنمية والعمالة والقطاع غير الرسمي. عالجت الورقة تعريفاً لبعض المؤشرات لقياس الطبيعة غير الرسمية للقطاعات، وقد تمت دراسة تأثير هذه المؤشرات على النمو الاقتصادي ونقشي الفقر، وقد خلصت الدراسة إلى نتيجة مفادها أن ارتفاع النشاطات غير الرسمية يؤدي إلى انخفاض النمو الاقتصادي وزيادة انتشار الفقر. كما تم تقدير نموذج لاستكشاف محددات القطاع غير الرسمي على مستوى الاقتصاد الكلي وكذلك على مستوى الاقتصاد الجزئي، خلص إلى نتائج تقيد بتقني ظاهرة القطاع غير الرسمي في معظم الدول العربية، واعتبار ذلك ظاهرة مقلقة لما تعنيه من سوء في توزيع الموارد، واستخدام غير كفوء للخدمات الحكومية، الأمر الذي قد يضر بالنمو الاقتصادي وتخفيف الفقر.

* Ibrahim Elbadawi and Norman Loayza are Lead Economists at the Development Economics Research Group (DECRG), The World Bank, Washington, D.C. Ibrahim Elbadawi and Norman Loayza may be contacted at ielbadawi@worldbank.org and nloayza@worldbank.org, respectively. This paper was presented at the International Conference of the Arab Planning Institute on "The Unemployment Crisis in the Arab World." Cairo, Egypt, March 17-18, 2008. The authors would like to acknowledge the excellent research support by Hanane Ahmed, Costantino Pischedda and Naotaka Sugawara. Ibrahim Elbadawi would like to thank, without implication, El-Mahdi and Assaad for helpful suggestions regarding the MSE data and the definitions of micro informality; and Gary Milante for helpful insights. The views expressed in this paper are not necessarily those of the World Bank, its Board of Directors or affiliated organizations.

Introduction

“Over the next two decades, the Middle East and North Africa (MENA) region faces an unprecedented challenge. In 2000, the labor forces of the region totaled some 104 million workers, a figure expected to reach 146 million by 2010 and 185 million by 2020... Absorbing unemployed workers in addition to the new entrants implies the need to create close to 100 million jobs by 2020, a doubling of the current level of employment in the first two decades of the 21st century.” (World Bank, 2004: p. 1).

The long-term development of the Arab world and perhaps its political stability as well, hinges on the region’s ability to generate massive number of jobs on a sustained basis for the next two decades. This would be required to overcome a huge 15% regional unemployment level and to absorb a high and rising working-age population. As the above quote makes clear, this is, indeed, a tall order.⁽¹⁾ The Arab world is comprised of a diverse group of countries in terms of their economic structures: oil-exporting and labor-importing upper middle-income economies; mixed oil-exporting, labor-abundant lower middle-income economies; diversified labor-abundant middle-income economies; and, primary-exporting labor-abundant low-income economies.⁽²⁾ However, despite their diversity, the economies of the Arab world share many commonalities with regard to labor market outcomes.

Due to its delayed demographic transition, the working-age population in the Arab world grew by about 3.5% since the beginning of the 1980s, which exceeded the growth rates of all other regions. Although this rate started to decline in the 1990s, it is projected to remain high, at close to 3%, well into the second decade of the 21st century. By the 1990s, labor force growth dropped sharply in other regions, including to 2.4% in Latin America and to just 1% in East Asia (World Bank, 2008). On the other hand, the over-regulated and public sector-dominated Arab economies could not generate high enough growth to absorb the rising supply of labor, especially among youth and more educated job seekers. In turn, the failure to generate high productivity jobs in the formal private sector has led to the rapid expansion of the informal sector, which has become an important source of employment in the Arab economies.

In his classic study of informality, De Soto (1989) defines the informal sector as the collection of firms, workers, and activities that operate outside the legal and regulatory frameworks. Therefore, participating in the informal sector entails escaping the burden of taxation and regulation but, at the same time, not enjoying the protection and services that the state can provide. This definition of informality has gained remarkable popularity due to its conceptual strength, which allows it to focus on the root causes of informality rather than merely its symptoms.⁽³⁾ Previous studies broadly following this concept find evidence of substantial informal labor markets in the Arab world. For example, informal employment in 1998 is estimated at 40% of the total labor force in Egypt; and about 25% and 57% in Algeria and Morocco respectively, in the 1980s.⁽⁴⁾

However, because the informal sector is usually organized around small scale and low capital-intensive firms that mostly employ unskilled workers, it is characterized by low productivity and low returns to education. As a consequence, wages and incomes generated in the informal sector may not be high enough to lift informal workers above the poverty line. Moreover, informal employment has several other drawbacks, including lack of social security coverage and other work-related rights, and that women are discriminated against in both hiring and earnings (Wahba, 2000). Therefore, the increasing informalization of Arab economies, it has been argued, is not likely to be part of the solution to the poor labor market outcomes that characterize these economies. Rather, it is a symptom of poor policies and inappropriate development strategies.

While this diagnosis is consistent with international evidence from other regions⁽⁵⁾, an alternative view about the informal sector in the Arab world casts a more positive light. For example, Assaad (2002) notes that this sector promotes much needed labor-market flexibility by allowing employers to tap into an adaptable workforce during periods of expansion and lay off workers during periods of slump. Therefore, it may be argued that it is not clear why informality should lead to lower productivity growth. On the larger development and welfare issues, it has also been argued that the small and micro-enterprises which are dominated by informal activities, are not “just owned by a majority of the world’s working people - these enterprises build markets, expand trade, manage natural resources, fight poverty, generate employment, strengthen communities, support

families, and feed most of the world's children," (World Bank, 2008: p. 237).⁽⁶⁾ In other words, whether or not the informal sector has negative consequences for productivity growth, or other development outcomes for that matter, is an empirical question.

Against this backdrop, this paper analyzes the development impact of informality of the economies of the Arab world. Using a global sample of Arab and non-Arab countries, the determinants of informality in the Arab world are analyzed, where the latter is accounted for by four indirect measures of informality. The growth and poverty impact of these indicators of informality is also assessed. Additionally, the benchmark macroeconomic assessment is contrasted with micro evidence on the impact of informality on firm-level economic performance, using micro and small enterprise (MSE) survey data from three Arab countries (Egypt, Lebanon and Morocco) as well as Turkey. Turkey was a logical choice, it being a more advanced non-Arab comparator country from the region.

The presence of large informal labor markets and other problematic labor market outcomes experienced by most Arab countries, such as high youth unemployment and low returns to education, are all attributed to the public sector-dominated development strategy pursued and maintained by these countries well after it was widely believed to have hit the point of diminishing returns (World Bank, 2004). For some 25 years between 1960 and 1985, most countries of the region managed to achieve relatively high and stable growth rates - at or close to 5% per annum. It also appears that the region has effectively used the enormous resources triggered by the oil price hikes in the 1970s⁽⁷⁾ to considerably advance its standing in terms of the social development agenda.

Compared to other regions, the people of the Arab world have realized enormous social benefits. For example, until recently, the region has been characterized by low poverty and more equal income distribution by international standards (Ali and Fan, 2007)⁽⁸⁾. Such gains were made possible by massive investments in education and health and also through direct and generous transfers to large segments of the population (World Bank, 1995). However, these achievements were a product of substantially public-sector dominated economies, with little, if any, role for the private sector.

Unlike East Asia which arguably started off with a similar state-led development strategy, the region continued with this strategy well after it started to become counter-productive. Instead, the East Asian region achieved a timely and adequate transformation into more open, diversified and export-oriented economies, in which the modern formal private sector assumes a prominent role in the labor market and the productive economy. The failure of the region to achieve economic diversification away from the oil sector and the continued dominance of the public sector in the productive economy proved to be a rather costly development strategy.

Following the deceleration in the prices of oil since the second half of the 1980s, economic growth in the region slowed down from more than 5% per annum in the 1970s to only 2% in the 1980s, and only marginally improved to about 3% in the 1990s. This trend continues for the current decade, except for Jordan, Morocco and Tunisia, which grew by close to 4.0% (Table 1). Moreover, the 1990s earmarked the beginnings of a “demographic transition” in many countries of the region, due to the slow down in fertility relative to the 1970s and 1980s when the region experienced the highest rates of population growth in the world. As a consequence of the demographic transition, and the increasing participation of women in the labor force⁽⁹⁾, especially educated women, the region’s labor supply has grown quite rapidly. On the other hand, faltering growth since the 1980s - as educational attainments continue to expand - has resulted to a widening mismatch between labor supply and demand, especially with regards to educated labor. For example, despite the proportion of the Egyptian labor force with secondary education or above accounting for only 42%, they constitute about 80% of the unemployed. For Algeria and Morocco, this category accounts for 38 and 30% respectively, of the unemployed, which is about twice their respective shares in the labor force (World Bank, 2008).

Table 1. Growth Performance in the Arab World, 1960-2006

	1960-84		1985-94		1995-2000		2001-2006	
	Growth (%)	Growth Volatility (%)	Growth (%)	Growth Volatility (%)	Growth (%)	Growth Volatility (%)	Growth (%)	Growth Volatility (%)
Mixed Oil Economies	1.9	5.4	-2.1	1	1.6	0.9	3	0.6
Algeria	1.9	5.4	-2.1	1	1.6	0.9	3	0.6
Oil Economies	5.5	2.1	1	4	0.8	1.3	1.5	2.3
Bahrain	5.5	2.8	1.5	4	1.6	1.3	-	-
Kuwait	-6.6	1.5	4.5	9.8	-3.2	1.2	-	-
Libya	13	1.4	1.4	6.8	13.6	0.5	1.5	2.3
Oman	8.3	2	1	4	0.8	2.2	-	-
Qatar	12.4	2.4	0.6	19.3	21.6	0.4	-	-
Saudi Arabia	3.2	2.1	-1.3	3.8	-1	1.8	-	-
United Arab Emirates	-4.3	2.3	-4.4	2.1	-1.4	5.1	-	-
Diversified Economies	3.1	2	1.4	3.3	0.8	3.4	2.9	0.6
Egypt	3.6	0.9	1.6	1	3.1	0.2	2.3	0.7
Jordan	2.5	3	-2	3.9	0.3	5.1	3.8	0.4
Lebanon	-	-	1.3	24.2	1.3	1.7	2.2	1.1
Morocco	2	2	1.9	2.7	0.1	69.7	3.5	0.5
Syria	3.1	3	1.4	4.9	0.3	13.3	1.7	0.9
Tunisia	3.6	1.1	1.4	2.2	3.6	0.4	3.7	0.4
Primary Exports Economies	0.4	18	-1.3	4.4	1.2	0.8	0.8	0.6
Comoros	0.4	18	-1.3	3	-1.1	1.7	0.2	0.9
Djibouti	-	-	-7	0.3	-2.3	0.8	0.8	1.6
Mauritania	1.7	4.3	0.4	5.4	1.2	0.8	2.2	1.7
Sudan	-1.7	34.4	1.2	5.5	3.8	0.1	5.3	0.5
Yemen	-	-	-1.5	4.4	3.4	0.7	0.7	0.7
Arab World	2.5	2.3	1.1	3.9	1.2	1	2.2	0.7
East Asia	4.3	0.6	5.2	0.3	2.9	2.2	3	0.7
Sub-Saharan Africa	1.1	3.5	-1.1	1.8	0.3	2.3	1.8	1.1

Source: Author's calculations using World Development Indicators (WDI:World Bank)

In addition to the structural imbalances in the Arab labor markets, it is argued that labor market policies have also contributed immensely to the disappointing labor market outcomes in the region.

Firstly, the influence due to the legacy of the dominance of the public sector in the job markets of most Arab countries. For example, in Egypt, employment in the public sector doubled from 16% in 1960 to 32% by 1981. While public

employment is estimated to account for 18% for the world (excluding China), the average for the Arab world is approximately 29%. However, it varies from a low of 10% for Morocco to 93% (of nationals) for Kuwait. The share of public sector wages and salaries to current expenditure is also rather high for this region (see Table 7.6 of World Bank, 2008). Such legacy has been linked to, among other things, an inherent tendency to generate rents through stifling regulations on private sector activities, significant labor market segmentation, high job expectation and voluntary unemployment among educated youth.

Secondly, in addition to the regulatory burden associated with a bloated public sector, the private sector in the region has also been impacted by a poor record of contract enforcement and low quality of public sector administration. While the labor market regulations do not appear to be particularly stifling, the average number of required contract enforcement procedures in the region exceeds all other regions, and the quality of the administration in the region is only slightly better than that of South Asia, which is a much poorer region. Moreover, in terms of trade and macroeconomic policy, the region remains relatively closed and undiversified, in large measure because of the Dutch Disease⁽¹⁰⁾ associated with the oil sector and the ensuing lack of real exchange rate competitiveness (e.g. Elbadawi, 2005).

Thirdly, labor informalization is also linked to poor labor market outcomes, such as sluggish job creation at various levels of training and education. Recent survey evidence, from Egypt for example, suggests that the informal sector provides a temporary “refuge” for educated workers facing high formal unemployment rather than an opportunity to achieve entrepreneurial future (Wahba, 2000). To the extent that the presence of a large informal sector reduces the pressure for meaningful reforms, widespread informality can be a drag on the region’s economy (Galal, 2002).

The Measurement and Cost of Informality

Although the definition of informality - such as the one due to De Soto (1989) - can be simple and precise, its measurement is not. Given that it is identified with working outside the legal and regulatory frameworks, informality

is best described as a latent, unobserved variable. That is, a variable for which an accurate and complete measurement is not feasible but for which an approximation is possible through indicators reflecting its various aspects.

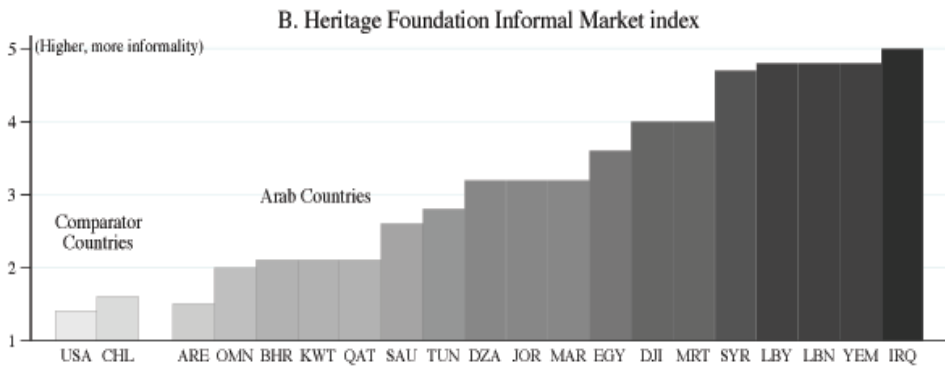
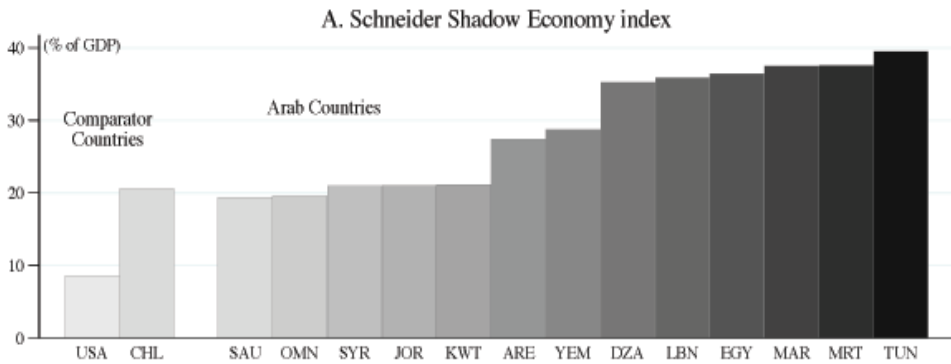
Indicators

Four of these indicators are considered, available for a relatively large collection of countries. Two of them refer to overall informal activity in the country, and the other two relate to informal employment in particular. Each indicator, on its own, has conceptual and statistical shortcomings as a proxy of informality. Taken together, however, they may provide a robust approximation to the subject.

The indicators related to overall informal activity are: the Schneider index of the shadow economy obtained from Schneider (2004); and the Heritage Foundation index of informal markets (Miles et al, 2005). Details on definitions, sources, and samples for these and other variables used are provided in Appendix 1a. The Schneider index combines the DYMIMIC (dynamic multiple-indicator-multiple-cause) method, the physical input (electricity) method, and the excess currency-demand approach for the estimation of the share of production that is not declared to tax and regulatory authorities. The Heritage Foundation index is based on subjective perceptions of general compliance to the law, with particular emphasis on the role played by official corruption. The indicators that focus on the labor aspect of informality are the prevalence of self employment and the lack of pension coverage. The former is given by the ratio of self to total employment, as reported by the International Labour Organization (ILO).⁽¹¹⁾ The latter is given by the fraction of the labor force that does not contribute to a retirement pension scheme, as given in the World Bank's World Development Indicators.

Appendix 2 presents some descriptive statistics on the four informality indicators. In particular, it shows that, as expected, they are significantly positively correlated, with correlation coefficients ranging from 0.59 to 0.90 - high enough to represent the same phenomenon but not too high to make them mutually redundant.

Using data on these four indicators, the prevalence of informality in the Arab region is assessed. Figure 1 presents data on the four informality indicators for Arab countries (as many as data availability allows), for Chile (a developing, resource-rich country that has become a reform leader), and for the United States (the developed country to which several Arab countries have close aid and trade ties). There seems to be much heterogeneity across Arab countries, with a few comparing favorably to Chile (e.g., Saudi Arabia, Oman, and Tunisia). However, for the majority of countries, the level of informality is much larger than in the US or Chile. For some countries (e.g., Iraq, Syria, Mauritania, and Sudan), it is comparable to the most informal countries in the world. This heterogeneity, which spans most of the distribution of developing countries, reflects the underlying diversity of Arab countries regarding the fundamental sources of informality.



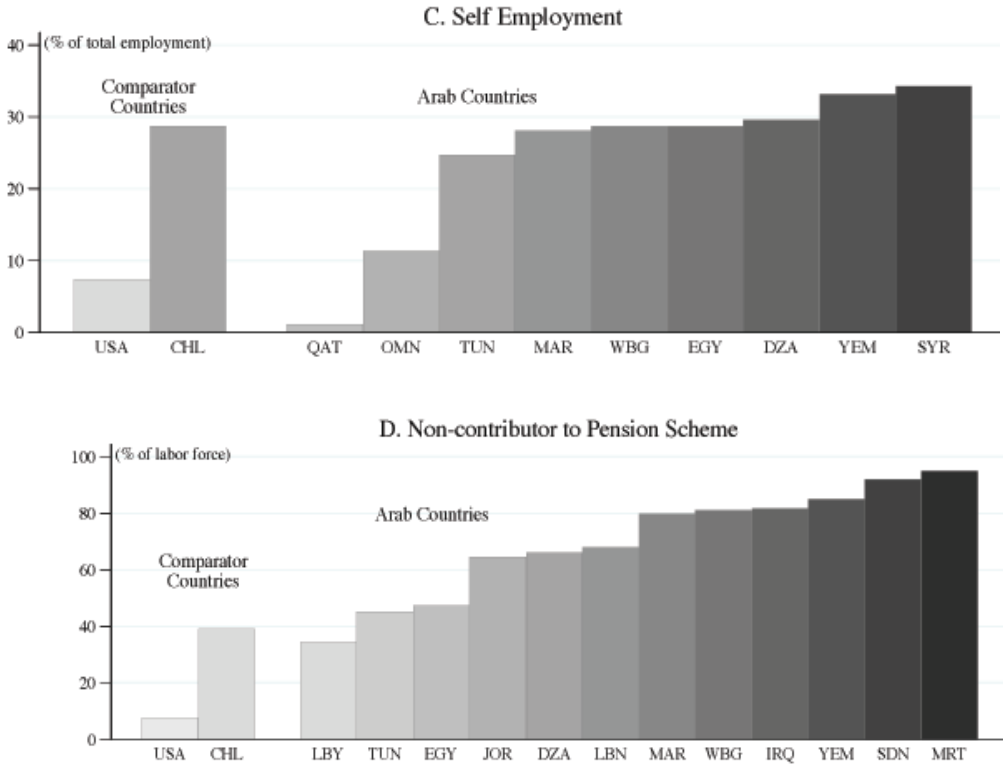


Figure 1. Size of informality, various measures.

Informality is a distorted response of an excessively regulated economy to the shocks it faces and its potential for growth. It is a distorted, second-best response because it implies misallocation of resources and entails losing, at least partially, the advantages of legality, such as police and judicial protection, access to formal credit institutions, and participation in international markets. Trying to escape the control of the state induces many informal firms to remain sub-optimally small, use irregular procurement and distribution channels, and constantly divert resources to mask their activities or bribe officials. Conversely, formal firms are induced to use more intensively the resources that are less burdened by the regulatory regime. In particular for developing countries, this means that formal firms are less labor-intensive than they should be according to the countries' endowments. In addition, the informal sector generates a negative externality that compounds its adverse effect on efficiency: informal activities use and congest public infrastructure without contributing the tax

revenue to replenish it. Since public infrastructure complements private capital in the process of production, a larger informal sector implies smaller productivity growth.⁽¹²⁾

Compared with a first-best response, the expansion of the informal sector often represents distorted and insufficient economic growth.⁽¹³⁾ This statement merits further clarification. Informality is sub-optimal with respect to the first-best scenario that occurs in an economy without excessive regulations and with adequate provision of public services. Nevertheless, informality is indeed preferable to a fully formal but sclerotic economy that is unable to circumvent its regulation-induced rigidities. This brings to bear an important policy implication - the mechanism of formalization matters enormously for its consequences on employment, efficiency, and growth. If formalization is purely based on enforcement, it will likely lead to unemployment and low growth. If, on the other hand, it is based on improvements in both the regulatory framework and the quality/availability public services, it will bring about more efficient use of resources and high growth.

From an empirical perspective, the ambiguous impact of formalization highlights an important difficulty in assessing the impact of informality on economic growth. Two countries may have the same level of informality, but if this depends on different underlying causes, the countries' growth rates may also be markedly different. Countries where informality is kept at bay by drastic enforcement will fare worse than countries where informality is low because of light regulations and appropriate public services.

A simple regression analysis of the effect of informality on growth is now presented. As suggested above, this analysis must control for enforcement; and a straightforward, albeit debatable way to do so, is by including a proxy for overall state's capacity as a control variable in the regression. For this purpose, two proxies are tried: (a) the level of GDP per capita; and (b) the ratio of government expenditures to GDP. The former has the advantage of also accounting for conditional convergence. The latter has the advantage of more closely reflecting the size of the state.⁽¹⁴⁾

Table 2 presents the results of the regressions having the average growth of per capita GDP over 1985-2005 as dependent variable, initial (1985) GDP per capita or initial level (1985) of the ratio of government expenditure to GDP as control variable, and, in turn, the four informality indicators as explanatory variables.

Table 2. The Effect of Informality on Economic Growth
 Method of Estimation: Ordinary Least Squares with Robust Standard Errors
 Dependent variable: Per Capita GDP Growth, 1985-2005, country average

	Per capita GDP Growth, 1985-2005							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Initial GDP per capita (2000 US\$, 1985, in logs)	-0.1966	-0.3519	-0.3498*	-0.6910*				
Initial Government Expenditure (% of GDP, 1985)	-1.29	-1.54	-1.88	-1.98				
Schneider Shadow Economy index (% of GDP)	-0.0747***				-0.0340*	-0.0513**	-0.0681***	-0.0588**
Heritage Foundation Informal Market index (ranging 1-5: higher, more informality)	-3.87				-1.96	-2.60	-2.82	-2.59
Self Employment (% of total employment)		-0.8009**			-0.0622***			
Non-contributor to Pension Scheme (% of labor force)		-2.41			-4.76			
Constant								
No. of observations								
R-squared								

N.B.

t-statistics are presented below the corresponding coefficients.
 *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.
 See Appendix 1a for definitions and sources of four informality measures.
 Source: Authors' estimation

A period of approximately 20 years is appropriate for the computation of the average growth rate in order to achieve a compromise between merely cyclical, short-run growth (which would be unaffected by informality) and very long-run growth (which may actually cause informality, rather than the other way around). The maintained hypothesis for identification of the causal relationship between informality and growth is that the level of informality is related to institutional and structural factors that change little over time and influence but are not influenced by medium-term growth rates (in this case, covering the 21-year period leading to 2005).

The regression results indicate that an increase in informality leads to a decrease in economic growth. All four informality indicators carry negative and highly significant regression coefficients. This result represents a general tendency and not the influence of isolated observations.⁽¹⁵⁾ The harmful effect of informality on growth is not only robust and significant, but its magnitude makes it also economically meaningful. An increase of one standard deviation in any of the informality indicators leads to a decline of 1-1.5 percentage points in the rate of per capita GDP growth, when initial level of per capita GDP is controlled for.⁽¹⁶⁾

There is also a close connection between poverty and informality, reflecting, at least in part, the negative relationship between economic growth and informality. Table 3 presents cross-country regression analysis having the headcount poverty index as dependent variable and, in turn, the four measures of informality as explanatory variables. As in the growth regressions, the level of GDP per capita or the ratio of government expenditures to GDP are included as control variables. Additionally, the Gini index is included as an explanatory variable so as to control for the effect of inequality on poverty. In order to have a close chronological match between dependent and explanatory variables, the headcount poverty index corresponds to the latest available measure per country.

Table 3. The Effect of Informality on Poverty
 Method of Estimation: Ordinary Least Squares with Robust Standard Errors
 Dependent variable: Poverty Headcount index, latest year

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Initial GDP per capita (2000 US\$, 1985, in logs)	-0.1469***	-0.1202***	-0.1543***	-0.1129***				
Initial Government Expenditure (% of GDP, 1985)	-6.24	-4.42	-3.12	-2.90	0.0048	0.0091	0.0119	0.0060
Initial Gini index (ranging 0-100, country specific year)	0.0041	0.0061*	0.0091***	0.0062	-0.0041	0.0018	0.0014	0.0012
Schneider Shadow Economy index (% of GDP)	0.0057**	1.96	2.86	1.60	-1.33	0.57	0.46	0.40
Heritage Foundation Informal Market index (ranging 1-5: higher, more informality)	2.12	0.0837**			2.23	0.2180***		
Self Employment (% of total employment)		2.56	-0.0021			4.44	0.0146**	
Non-contributor to Pension Scheme (% of labor force)			-0.60				2.52	
Constant	0.8143***	0.4559*	0.9106**	0.5937**	0.0093	-0.7900***	-0.5538*	-0.4134*
No. of observations	4.06	1.77	2.40	2.10	0.04	-2.90	-1.77	-1.95
R-squared	51	51	33	46	48	48	31	43
	0.53	0.48	0.47	0.40	0.14	0.33	0.25	0.36

N.B.
 t-statistics are presented below the corresponding coefficients.
 *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.
 See Appendix 1a for definitions and sources of four informality measures.
 The latest year of poverty headcount index and the initial year of Gini index vary by country. For more information, refer to Loayza and Raddatz (2006).
 Source: Authors' estimation

The regression results reveal a positive relationship between the prevalence of informality and the incidence of poverty. When government expenditure is controlled for, the four measures of informality carry positive and significant coefficients. Similarly, when the level of GDP per capita is controlled for, three of the four informality indicators (self-employment being the exception) carry positive coefficients and those corresponding to the Schneider and the Heritage indices are also statistically significant. The positive and mostly significant relationship between informality and poverty is remarkable because it survives the inclusion of GDP per capita, government size, and the Gini index.⁽¹⁷⁾ Since these variables capture the overall effect of development on poverty, the positive link between informality and poverty suggests additional mechanisms dealing with the complex sources of informality.

Causes of Informality

Informality is a fundamental characteristic of underdevelopment, shaped both by the modes of socio-economic organization inherent to economies in the transition to modernity and by the relationship that the state establishes with private agents through regulation, monitoring, and the provision of public services. As such, informality is best understood as a complex, multi-faceted phenomenon.

Informality arises when the costs of belonging to the country's legal and regulatory framework exceed its benefits. Formality entails costs of entry - in the form of lengthy, expensive, and complicated registration procedures - and costs of permanence including payment of taxes, compliance with mandated labor benefits and remunerations, and observance of environmental, health, and other regulations. The benefits of formality potentially consist of police protection against crime and abuse, recourse to the judicial system for conflict resolution and contract enforcement, access to legal financial institutions for credit provision and risk diversification, and, more generally, the possibility of expanding markets both domestically and internationally. At least in principle, formality also voids the need to pay bribes and prevents penalties and fees, to which informal firms are continuously subject to. Therefore, informality is more prevalent when the regulatory framework is burdensome, the quality of government services to formal firms is low, and the state's monitoring and enforcement power is weak.

These benefits and costs considerations are affected by the structural characteristics of underdevelopment, dealing in particular with educational achievement, production structure, and demographic trends. A higher level of education reduces informality by increasing labor productivity and, therefore, making labor regulations less binding and formal returns potentially larger. Likewise, a production structure tilted towards primary sectors like agriculture, rather than to the more complex processes of industry, induces informality by making legal protection and contract enforcement less relevant and valuable.

Finally, a demographic composition with larger shares of youth or rural populations is likely to increase informality by making monitoring more difficult and expensive, by complicating the training and acquisition of abilities, and by making the expansion of formal public services more problematic.

Often times in popular and even academic discussions, people do not follow this comprehensive approach, emphasizing instead particular sources of informality. Thus, some people focus on insufficient enforcement and related government weaknesses such as corruption. Others prefer to emphasize the burden of taxes and regulations. Yet others concentrate on explanations dealing with social and demographic characteristics.

As suggested above, all these possibilities make sense, and there is some evidence to support them. In order to consider this evidence, measures are obtained for the proposed determinants of informality.⁽¹⁸⁾ An index on the prevalence of law and order is obtained from the International Country Risk Guide (ICRG) to proxy for both the quality of formal public services and government's enforcement strength. An index of business regulatory freedom is taken from The Fraser Institute's Economic Freedom of the World Report (Gwartney et al, 2007) to represent the ease of restrictions imposed by the legal and regulatory frameworks. The average years of secondary schooling of the adult population is used to represent educational and skill achievement of the working force. The data are either directly taken from Barro and Lee (2001) or, when missing, computed based on the methodology in Barro and Lee (1993). An index of socio-demographic factors is used, constructed from the World Bank's World Development Indicators and other data sources, including the United Nations

(2005), which consider the share of youth in the population, the share of rural population, and the share of agriculture in GDP.⁽¹⁹⁾

The pairwise correlations are then computed between the informality measures and each of the informality determinants. Remarkably, all 16 correlation coefficients (four informality measures times four determinants) are highly statistically significant, with p-values below 1%, and of large magnitude, ranging approximately between 0.54 and 0.87 (Table 4). All informality measures present the same pattern of correlations, i.e. informality is negatively related to law and order, regulatory freedom, and schooling achievement; and it is positively related to factors that denote incipient socio-demographic transformation.

Table 4. Correlations between Informality and Basic Determinants

	Bivariate Correlations (country average; full sample)			
	Schneider Shadow Economy index (% of GDP)	Heritage Foundation Informal Market index (1-5: higher, more)	Self Employment (% of total employment)	Non-contributor to Pension Scheme (% of labor force)
Law and Order (ICRG, index ranging 0-6: higher, better)	-0.62***	-0.69***	-0.72***	-0.72***
	118	134	69	99
Business Regulatory Freedom (The Fraser Institute, index ranging 0-10: higher, less regulated)	-0.60***	-0.79***	-0.70***	-0.70***
	125	131	71	101
Average Years of Secondary Schooling (Barro and Lee 2001)	-0.66***	-0.80***	-0.67***	-0.84***
	94	105	65	78
Sociodemographic Factors (average of share of youth population, share of rural population, and share of agriculture in GDP)	0.54***	0.72***	0.71***	0.87***
	137	149	74	109

N.B.

Sample sizes are presented below the corresponding coefficients.

*** denotes significance at the 1% level.

See Appendix 1a for definitions and sources of variables and periods used to compute country averages.

Source: Authors' estimation

Therefore, all these explanations may hold some truth in them. Needing to be determined now is whether each of them has independent explanatory power with respect to informality. Or, more specifically, the need is to assess to what

extent each of them is relevant both in general, for the cross-section of countries and in particular, for a given country.

Following is the use of cross-country regression analysis to evaluate the general significance of each explanation on the origins of informality. Each of the four informality measures presented earlier serves as the dependent variable of its respective regression model. The set of explanatory variables is common to all informality measures and represents the major determinants of informality. They are the same variables used in the simple correlation analysis, introduced above. These estimated relationships are applied to the case of the Arab countries with available data in order to evaluate the country-specific relevance of each proposed mechanism. This is done for the countries that have complete information on dependent and explanatory variables, or at least information on the latter, with which to obtain predicted values of the dependent variable.

The countries that have complete information on all explanatory variables, the Schneider index, and the Heritage index are: Algeria, Egypt, Jordan, Kuwait, Morocco, Syria, Tunisia, and United Arab Emirates. Regarding self employment, Jordan, Kuwait, and United Arab Emirates do not have comparable data for the period under consideration. Likewise, Kuwait, Syria, and United Arab Emirates do not have data for pension coverage. In both cases, however, a predicted value based on the regression analysis may be constructed for each of these countries.

The regression results are presented in Table 5. They are remarkably robust across informality measures. Moreover, all regression coefficients have the expected sign and are highly significant. Informality decreases when law and order, business regulatory freedom, or schooling achievement rise. Similarly, informality decreases when the production structure shifts away from agriculture and demographic pressures from youth and rural populations decline. The fact that each explanatory variable retains its sign and significance after controlling for the rest indicates that no single determinant is sufficient to explain informality. All of them should be taken into account for a complete understanding of informality.

Table 5. Determinants of Informality

Method of estimation: Ordinary Least Squares with Robust Standard Errors
 Dependent variable: Four types of Informality measures, country average

	Schneider Shadow Economy index (% of GDP)	Heritage Foundation Informal Market index (1-5: higher, more)	Self Employment (% of total employment)	Non- contributor to Pension Scheme (% of labor force)
Law and Order (ICRG, index ranging 0-6: higher, better)	-3.2360**	-0.0969*	-1.6925*	-2.9764*
	-2.57	-1.76	-1.84	-1.67
Business Regulatory Freedom (The Fraser Institute, index ranging 0-10: higher, less regulated)	-2.0074*	-0.5333***	-2.5196**	-5.8675**
	-1.80	-9.95	-2.17	-2.28
Average Years of Secondary Schooling (Barro and Lee 2001)	-1.9684*	-0.1152**	-2.1527**	-5.8114***
	-1.70	-2.00	-2.25	-3.27
Sociodemographic Factors (average of share of youth population, share of rural population, and share of agriculture in GDP)	3.8438**	0.5027***	5.9743***	21.6130***
	2.00	4.99	3.77	7.31
Constant	60.3429***	6.6326***	4.7254***	113.3110***
	10.48	31.72	14.06	11.40
No. of Observations	84	86	57	70
R-squared	0.59	0.89	0.80	0.89

N.B.

t-statistics are presented below the corresponding coefficients.

*, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

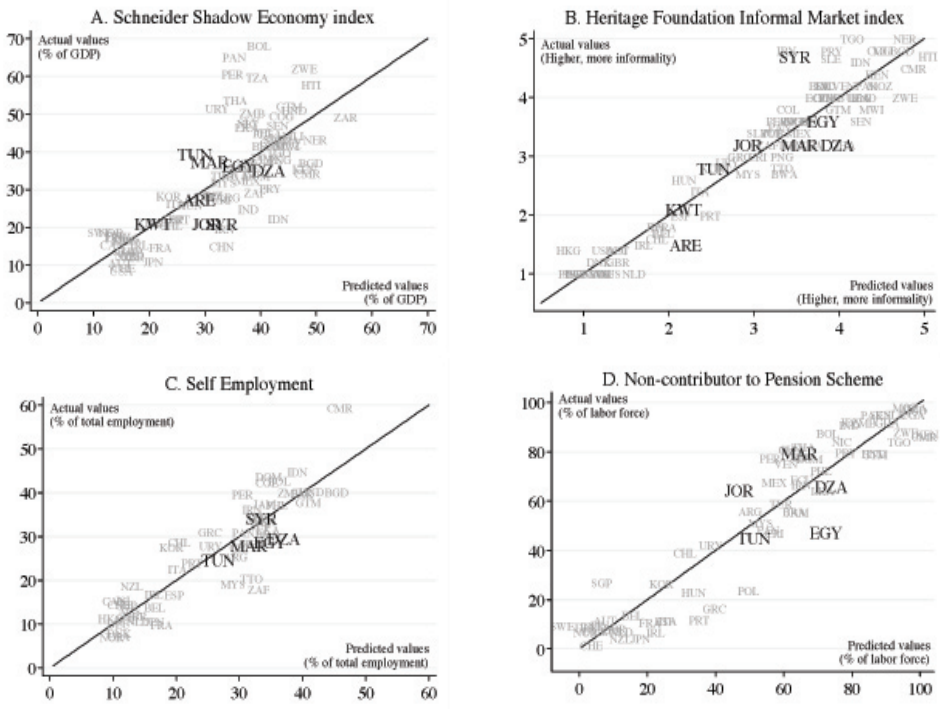
See Appendix 1a for definitions and sources of variables and periods used to compute country averages of informality measures.

Source: Authors' estimation

The four explanatory variables account jointly for a large share of the cross-country variation in informality. The R-squared coefficients are 0.59 for the Schneider shadow economy index, 0.89 for the Heritage Foundation informal market index, 0.80 for the share of self employment, and 0.89 for the share of the labor force not contributing to a pension program.

Figure 2 presents a scatter plot of the actual vs. predicted informality measures. The majority of countries have small residuals (i.e., the unpredicted portion of informality), a fact which is consistent with the large R-squared coefficients obtained in the regressions.

Is this also the case of the Arab countries under consideration? The answer is yes - the majority of Arab countries are located evenly around the 45-degree line. In fact, when an “Arab country” dummy variable is included, it turns out to be insignificant in all cases. In terms of specific countries, Algeria, Kuwait, and Morocco have predicted values of informality that are similar to their actual counterparts. Tunisia and United Arab Emirates would join this group except that the Schneider index and the Heritage index, respectively, seem to be much larger than what is predicted by regression analysis for these two countries. In the case of Egypt, the actual and predicted values of production informality (that is, the first two indices) are quite close. However, regarding labor informality (the last two indices), the predicted values are considerably larger than the actual ones. For Syria, the production informality indices have contradictory information. The Schneider index is much smaller than its predicted value, and the opposite occurs on the Heritage index.



N.B.

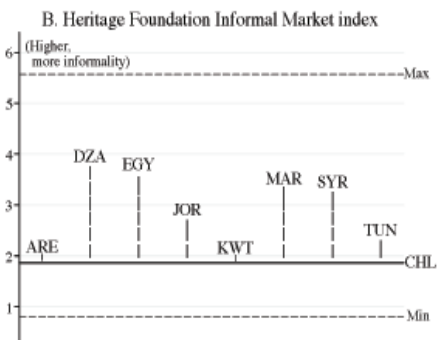
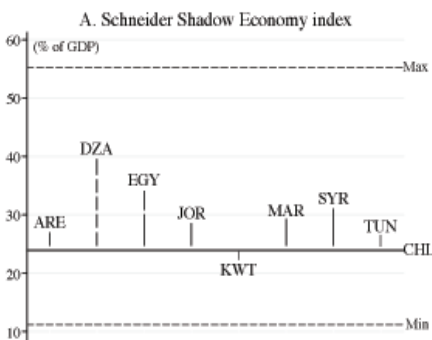
In each graph, a 45-degree line is drawn to show the distance between predicted and actual levels.

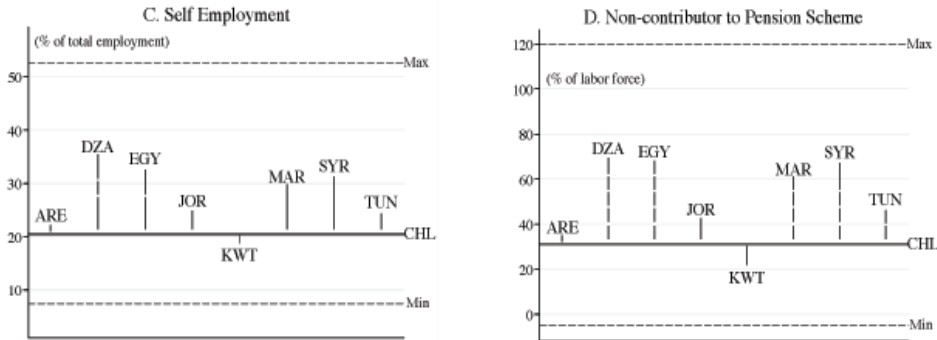
Figure 2. Predicted and actual levels of informality

Focusing now on the portion of informality explained by the cross-country regression model, the importance of each explanatory variable for the case of the eight Arab countries with sufficient available data we can evaluate can be evaluated. In particular, it may now be assessed how each determinant contributes to the difference in informality between the Arab countries and a comparator one, for which Chile is chosen as an example of a resource-rich, successfully reforming country.

The contribution of each explanatory variable is obtained by multiplying the corresponding regression coefficient multiplied by the difference in the value of this explanatory variable between each Arab country and the comparator country (Table 5). The importance of a particular explanatory variable would, therefore, depend on the size of its effect on informality in the cross-section of countries and how far apart the two countries are with respect to the explanatory variable in question. Naturally, the sum of the contributions equals the total difference in predicted informality between each Arab country and Chile.

This difference is plotted in Figure 3. As expected, it shows that the majority of countries have larger (predicted) informality levels than Chile. The exception is Kuwait, which in three out of the four informality indicators, has lower predicted informality than Chile. Algeria, Egypt, Morocco, and Syria seem to be the most informal (and in general have the largest difference with respect to Chile). Finally, Jordan, Tunisia, and United Arab Emirates have larger informality levels than Chile, but moderately so.





N.B.

Presented are all predicted levels, which may be above/below the actual max/min values.

Figure 3. Differences in informality, Arab countries and Chile

Figures 4a – 4d present the decomposition of the difference of (predicted) informality between the eight Arab countries and Chile. The four panels correspond to each of the four informality indicators. The most remarkable observations are the following: (a) restricted regulatory freedom contributes to larger informality in all Arab countries and for all measures of informality; (b) deficient law and order also promotes informality in United Arab Emirates, Algeria, Jordan, and

Egypt. On the other hand, Kuwait, Syria, Tunisia, and Morocco have at least as good law and order as Chile; (c) except for United Arab Emirates, education does not play a role in explaining the larger informality in Arab countries than in Chile; and finally (d) socio-demographic factors contribute to explain the larger informality of Tunisia, Morocco, Syria, Egypt, Algeria and Jordan. For Tunisia, in fact, it is the overriding cause underlying informality.

For these countries, socio-demographic factors are particularly important to explain the differences in labor informality, whereas the policy variables are so in the case of production informality. As mentioned before, Kuwait has lower (predicted) informality than Chile in all but one informality measure, i.e. the Heritage index. This is explained by better education and lower socio-demographic pressures in Kuwait, which counteract the country's less propitious regulatory environment.

Schneider Shadow Economy index (% of GDP)

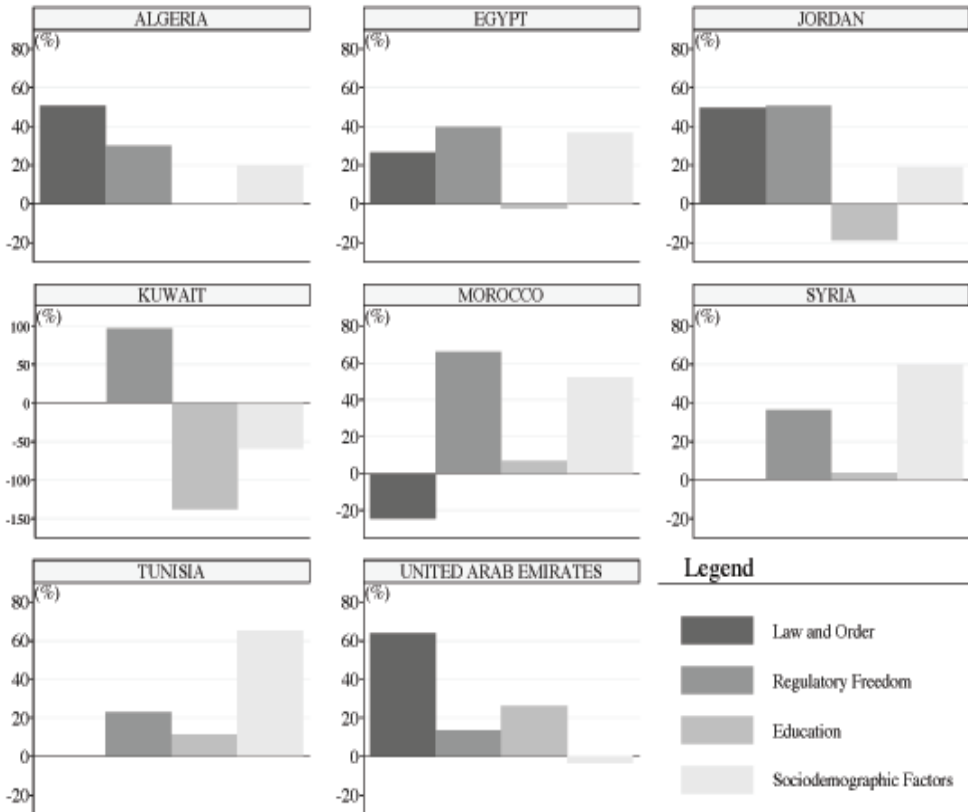


Figure 7a. Explanation of differences in informality, Arab countries and China

Heritage Foundation Informal Market index
(range 1-5: higher, more informality)

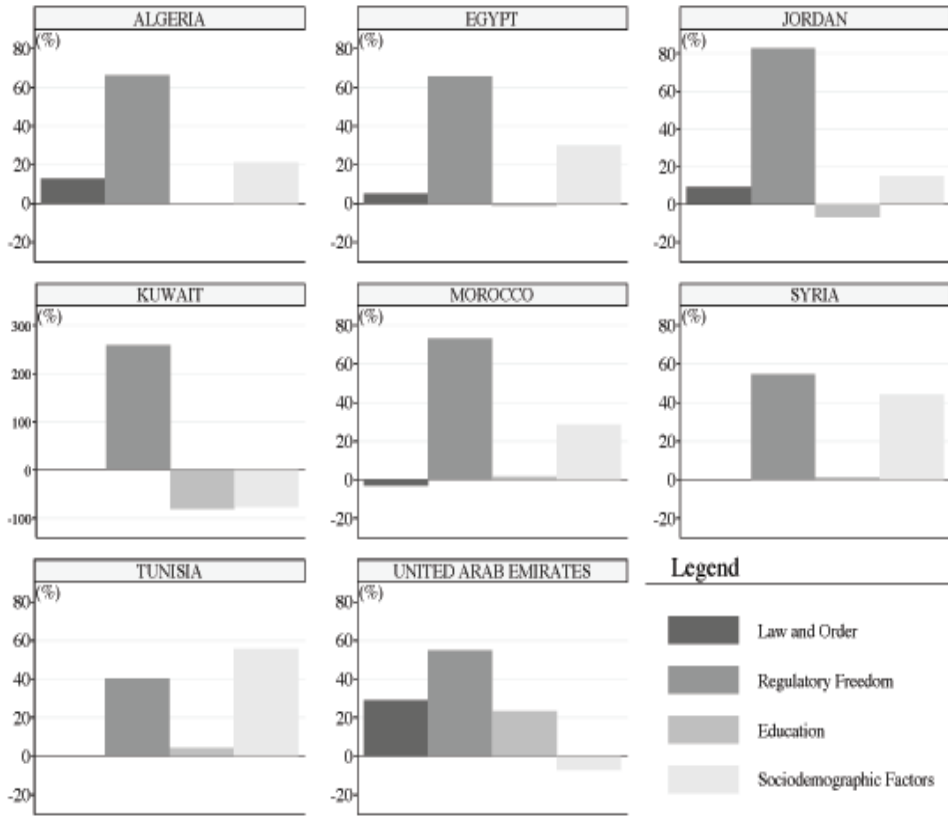


Figure 4b. Explanation of differences in informality, Arab countries and Chile

Self Employment (% of total employment)

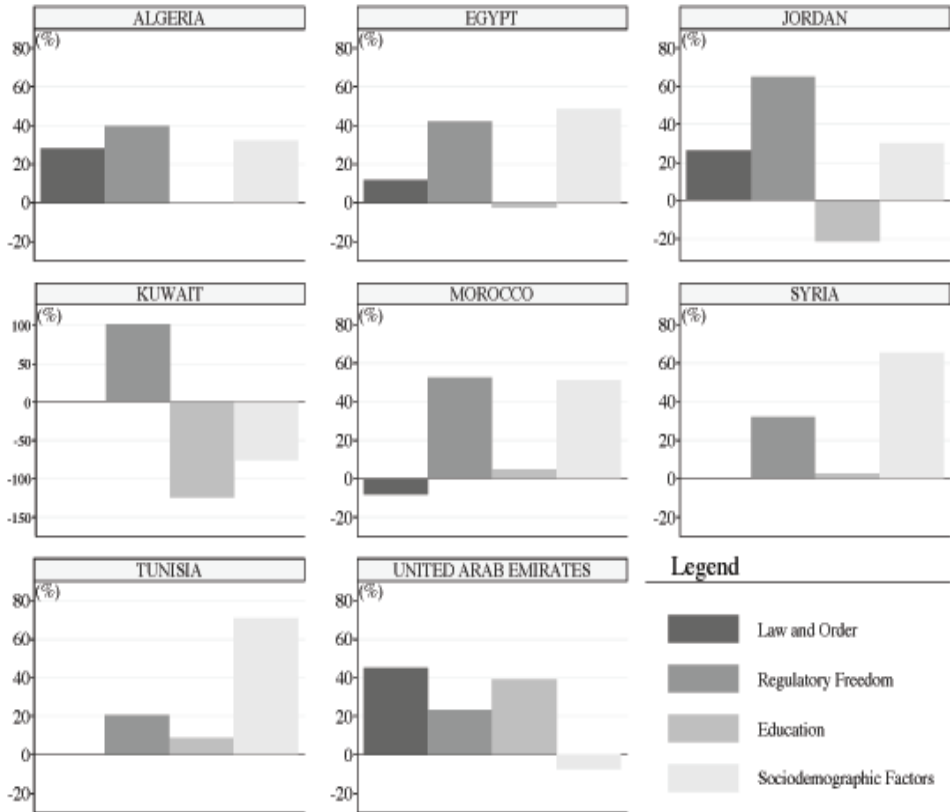


Figure 4c. Explanation of differences in informality, Arab countries and Chile

Non-contributor to Pension Scheme (% of labor force)

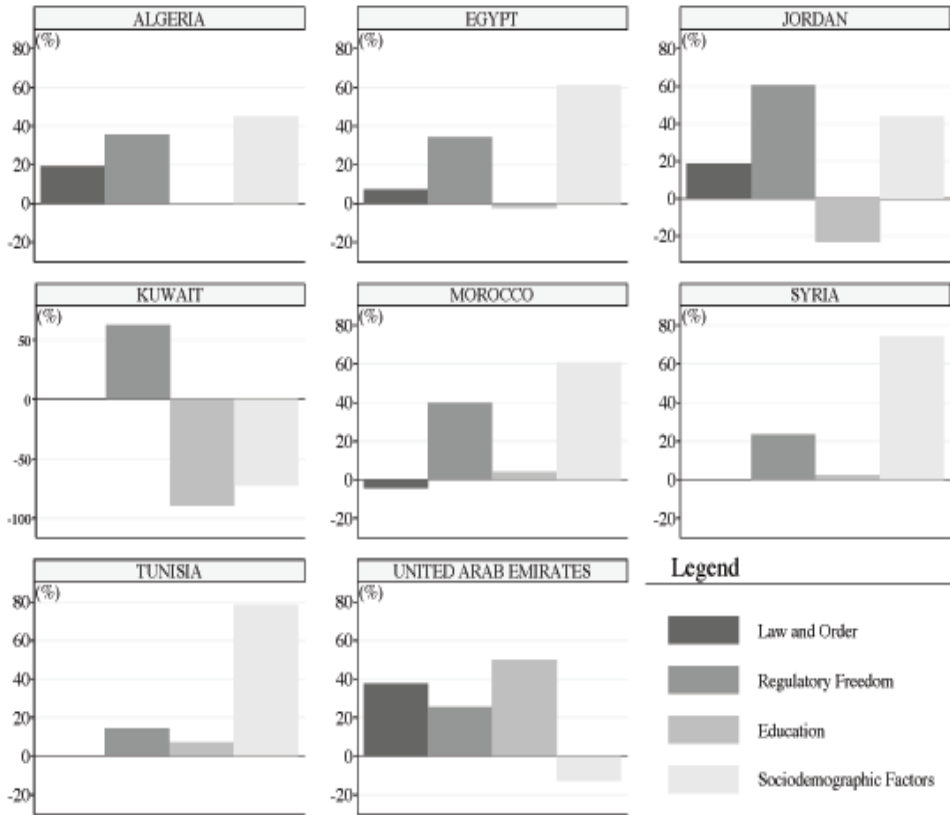


Figure 4d. Explanation of differences in informality, Arab countries and Chile

Microeconomic Evidence on Informality

The micro analysis of informality is based on recent Micro and Small Enterprises (MSEs) surveys, sponsored by the Economic Research Forum network.⁽²⁰⁾ An enterprise with less than 10 workers is defined as micro, while a small enterprise is one employing 10-49 workers. The surveys cover four countries in the MENA, including three representative Arab countries with diversified economies and substantial informal sectors: Egypt (2003 and 2004),

Lebanon (2004) and Morocco (2002 and 2003). The fourth is non-Arab Turkey (2001 and 2002), which is a perfect comparator because of its historic, economic and geographic connections with the Arab countries of our present interest. The MSE surveys sampled 4,958 firms for the case of Egypt, 2,948 for Lebanon, 5,210 for Morocco and 5,000 for Turkey. These surveys have generated substantial data and several studies, including El-Mahdi et al (2004) for Egypt; Ozar (2004) for Turkey; and Hamdan (2004) for Lebanon.

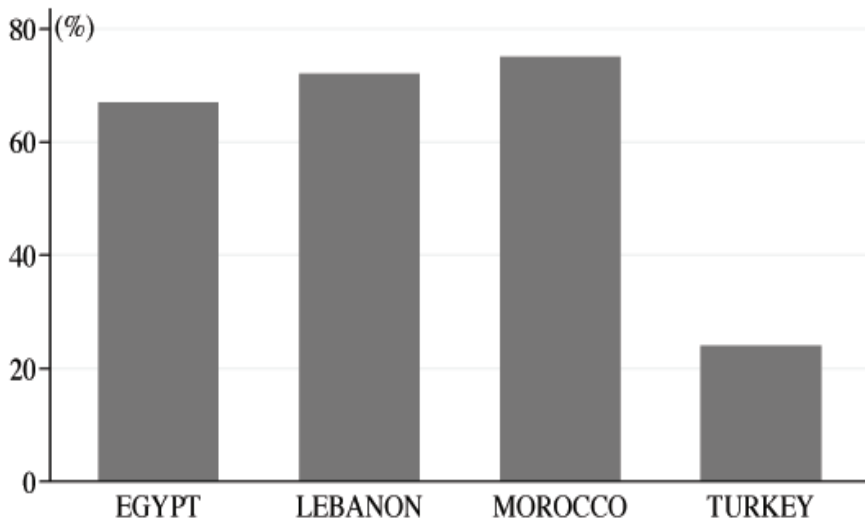
The MSE sector basically dominates the non-agricultural private economic activities in these countries. For example, it accounts for 97% of the enterprises in Egypt, of which 81% are informal; and 62% of total non-agricultural private employment, of which 88% are informal workers. Also, according to the 1996 census, the Lebanese MSE sector accounts for 96% of the enterprises and employ 51% of the total working population. Even in relatively more advanced Turkey, this sector accounts for over 75% of employment, although it represents only 27% of value-added. The aforementioned studies of El-Mahdi et al (2004) for Egypt; Ozar (2004) for Turkey; and Hamdan (2004) for Lebanon contain very extensive analyses of MSE characteristics and performance indicators.

This study focuses on the informality dimensions of the MSE, where two types of informality are distinguished. Firstly, an enterprise unit (EU) is coded as informal if it fails any one of the following three requirements: (a) that it is registered; (b) licensed; and (c) it keeps financial accounts. Secondly, a worker is coded as informal if he/she does not enjoy social security coverage⁽²¹⁾. An informal worker could be employed by informal as well as formal EU alike.

Compared to Turkey, as a more advanced comparator country from the region, evidence suggests that informality is an Arab phenomenon. For example, informal EUs accounts for more than 70% of MSE in Lebanon and Morocco and about 76% in Egypt, but only 24% for Turkey (Figure 5). Similarly, the share of informal labor (to total MSE employment) ranges from 47% for Egypt to 67% and 69% for Morocco and Lebanon, respectively, compared to a meager 8% for Turkey.

Moreover, although most of the informal labor tends to be hired by informal EUs in the three Arab countries, the share hired by formal EUs is, nevertheless,

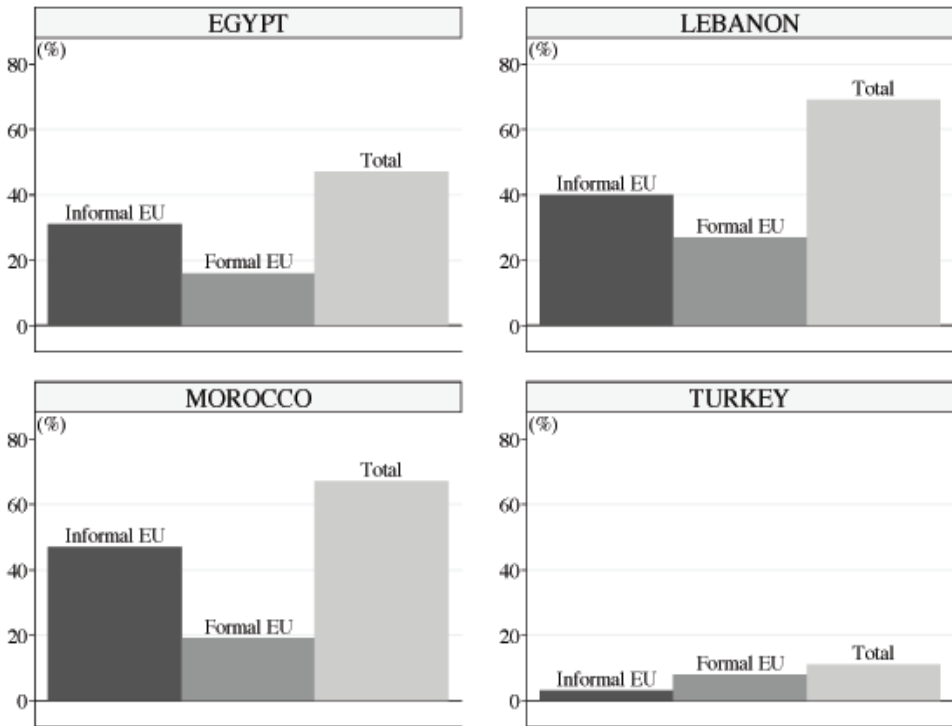
fairly substantial (Figure 6). In terms of the size of employment, informal micro enterprises (less than five workers) virtually account for the entire informal sector for the case of Egypt, Morocco and to a lesser extent Turkey (97%, 93% and 84%, respectively). However, surprisingly, in the case of Lebanon, informal EUs hiring 10 or more workers account for 60% of the informal MSE sub-sector (Figure 7).



N.B.

Out of 4,958, 2,948, 5,210 and 5,000 firms surveyed, 3,360 (67%), 2,110 (72%), 3,898 (75%) and 1,198 (24%) firms are found to be informal in Egypt, Lebanon, Morocco and Turkey, respectively.

Figure 5. Share of informal firms.



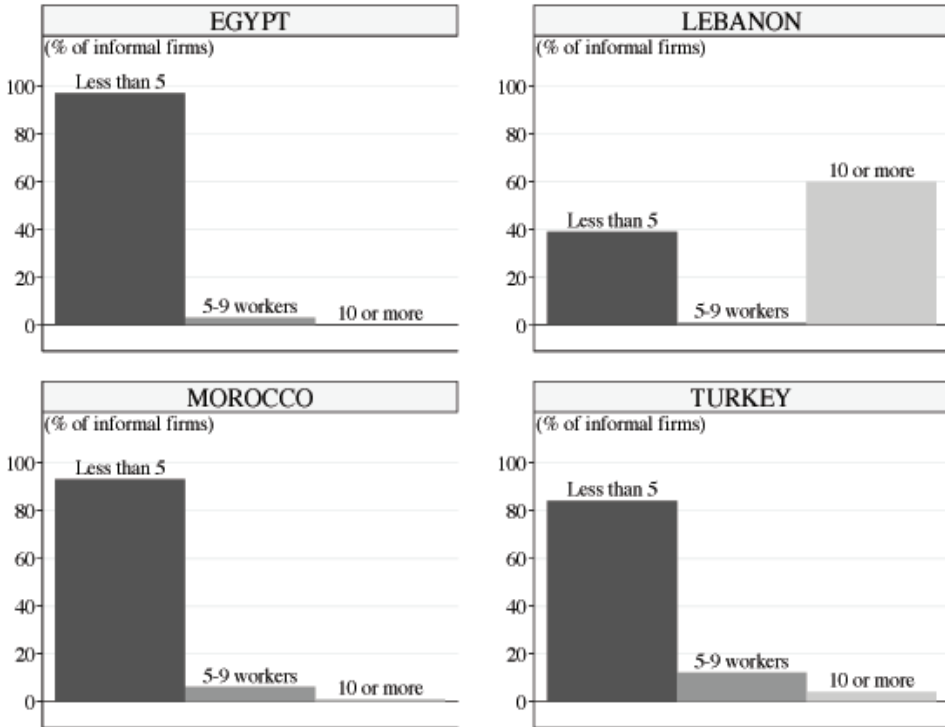
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“Informal (Formal) EU” indicates the percentage of informal labor hired by informal (formal) EUs relative to total labor hired by all EUs.

“Total” means the percentage of informal labor hired by all EUs relative to total labor hired by all EUs, which is essentially the sum of “Informal EU” and “Formal EU.”

See also Appendix 1b for the definition of informality.

Figure 6. Informality by share of informal labor.



N.B.
 Details are presented in Table 6 on: Size of Establishment.

Figure 7. Informality by number of workers in EUs.

Table 6 shows characteristics of EUs, workers and entrepreneurs. Not surprisingly, most informal EUs are of the sole proprietorship type, which is the simplest and most common form of business, conducted by a single individual owner (the “sole proprietor”)⁽²²⁾. However, for the case of Turkey, and to a lesser extent Egypt, other types of informal MSE are also found. With regard to ownership, informal EUs tend to be “private domestic”, although in the cases of Egypt and Lebanon, more than 10% have different types of ownership.

The legal and ownership types of MSE naturally reflect their small and basic nature of their employment, outputs, and production relation. The skill distribution of informal workers is dominated by unskilled and semi-skilled, whether employed by formal or informal EUs. In terms of gender, informal female workers account for only 15% of informal employment in Egypt and

Morocco but for Lebanon, female participation is double that rate, and is also higher for Turkey (at 23%). However, except for Turkey, the rate of female labor force participation is much higher in the formal labor market, especially for Lebanon (at 48%). Finally, the entrepreneurs of informal EUs tend to be mostly men, in the 25-60 age groups, and have primary or secondary school education. On the latter, Lebanon has a larger share of entrepreneurs with university degree or above (at 28%), while in the case of Morocco, 25% are illiterate.

Table 6. EU Characteristics (Informal Firms, %)

EU Characteristics	Turkey	Egypt	Lebanon	Morocco
Type of Establishment				
Sole Proprietorship	69	80	97	92
Other	31	20	3	8
Size of Establishment				
Less than 5 workers	84	97	39	93
5-9 workers	12	3	1	6
10 or more	4	0	60	1
Sector of Enterprise Ownership				
Private domestic	99	88	89	98
Other	1	12	11	2
Distribution of Informal Workers by Skill Level Hired by Informal EUs (%)				
Unskilled	23	-	-	14
Semi-Skilled	13	-	-	25
Skilled	64	-	-	61
Distribution of Informal Workers by Skill Level Hired by Formal EUs (%)				
Unskilled	27	-	-	12
Semi-Skilled	20	-	-	37
Skilled	53	-	-	51
Informal Workers Hired by Informal EUs	23	15	31	15
Female Workers Hired by Formal EUs	20	22	48	28
Age of Entrepreneur				
14-24	13	11	7	11
25-60	83	80	84	85
>60	4	9	9	4
Gender of Entrepreneur				
Male	89	89	93	84
Female	11	11	7	16
Education of Entrepreneur				
Illiterate	3	28	0	25
Primary	45	18	19	33
Secondary	41	40	53	34
University & Above	11	14	28	8

Source: Authors' calculations based on MSE surveys

Analyses of Determinants and Consequences of Informality

It is assumed that the probability of an informal establishment unit (EU) or an informal worker is a linear function of a vector of various socio-economic variables (Z). For the case of EU, informality is given by a dummy variable, which takes a value of 1 for informal EU and 0 for formal EU. Workers' informality is given by the share of informal workers to total employment per establishment. The Z vector contains establishment characteristics, such as number of workers, legal type, age and education of entrepreneur; and two worker attributes, namely, gender and skill⁽²³⁾. In addition, country and time effects are controlled. Definitions of variables used in this section are presented in Appendix 1b.

To test the marginal effect of informality on establishment performance, the following simple panel regression with time- and country-specific effects is estimated:

$$y_{ict} = \delta_1 Z_{ict} + \delta_2 I_{ic} + \mu_c + \eta_t + \varepsilon_{ict}, \quad (1)$$

where i stands for establishment, c for country and t for time; I is a dummy for informal workers (or informal EU); and μ_c , η_t , ε_{ict} are, respectively, country- and time-specific effects and random disturbances. Equation 1 is estimated for three performance indicators (y): relative monthly wage; output per worker; and, share of local market sales.

Determinants of Informality

The results of the linear probability regressions are contained in Table 7. Compared to Turkey, a typical MSE establishment in the three Arab countries is more likely to be informal, and the same applies for the workers in the cases of Lebanon and Morocco. However, Egypt presents an implausible result because a typical MSE in this country is less likely to be informal (in terms of percentage of its workforce) than its counterpart in Turkey. Moreover, the likelihood of both establishment and labor informality has risen in the post-2000 period. Also, these country- and time- specific effects are robust against additional controls, albeit their quantitative impact is weakened.

Table 7. Determinants of Informality

Method of estimation: Ordinary Least Squares with Robust Standard Errors
 Dependent variables: informality by establishment and informality by labor

	Informality by Establishment			Informality by Worker		
	Base	Extended	Marg. Effect	Base	Extended	Marg. Effect
Egypt dummy	0.4342***	0.3198***		-0.3778***	-0.3220***	
	33.03	14.88		-38.41	-21.89	
Lebanon dummy	0.5767***	0.9293***		0.3918***	0.3792**	
	34.79	9.20		22.32	2.16	
Morocco dummy	0.5158***	0.4861***		0.5287***	0.4820***	
	65.04	51.70		73.53	59.93	
Year after 2000	0.0034	0.0055		0.0032	0.0050	
	0.60	0.71		0.81	0.75	
Age (Entrep.)		-0.0034***	-4.1894		-0.0038***	-4.6823
		-10.56			-14.47	
Education (Entrep.)		-0.0194***	-9.3480		-0.0112***	-5.3968
		-22.50			-16.64	
Size (Total Workers)		-0.0123***	-5.0275		-0.0154***	-6.2945
		-19.59			-22.98	
Female (Share of Labor)		0.0003***	0.9082		0.0003***	0.9082
		2.84			3.59	
Sole Proprietorship		0.0534***	5.3400		0.0955***	9.5500
		5.70			12.12	
Semi-skilled Share of Labor		-0.0007***	-1.9385		-0.0013***	-3.6000
		-4.34			-8.92	
Skilled Share of Labor		-0.0001	-0.4018		-0.0021***	-8.4382
		-1.16			-21.94	
Constant	0.2344***	0.5204***		0.3664***	0.7397***	
	24.32	22.78		44.23	37.49	
No. of observations	29,183	13,781		23,717	13,776	
R-squared	0.23	0.33		0.62	0.51	

N.B.

t-statistics are presented below the corresponding coefficients.

** and *** denote significance at the 5% and 1% levels, respectively.

The marginal effect is calculated as the change in the dependent variable due to a change of a standard deviation of the corresponding independent variable.

See Appendix 1b for definitions and sources of variables.

Source: Authors' estimation

For the substantive controls, it is found that age and education of entrepreneurs, size of establishments as well as the skill levels of workers are associated with lower probability of informality (for both establishments and workers alike). On the other hand, larger share of female workers in the labor force or establishments of sole proprietorship are associated with higher probability of informality. Compatible orders of magnitudes of this effects can be analyzed in terms of marginal coefficients, which give the percentage change in the linear probability due to a one-standard-deviation shock in the variable in question (age, education, size, share of female labor force, semi-skilled and skilled). For example, one-standard-deviation shocks to age, education, size and share of skill workers would reduce the probability of workers and establishment informality by 4.7 and 4.2%; 5.4 and 9.3%; 6.3 and 5.0%; and 8.4 and 0.4% respectively.

Informality and MSE Performance

Table 8a presents the core regression results of Equation 1, which estimates the marginal contribution of informality on EU performance with only country and time effects as additional controls. The first three regressions account for informality via the status of the EU, while the remaining three control for informality in terms of the percentage of informal workers. The results are similar regardless of the type of informality. It is found that the marginal effect of informality (of labor or EU) is highly significant. In particular, informality is associated with lower wages, lower output per worker and smaller share of output sold in regional and international markets.

The results for the fixed effects are also interesting. For example, relative to Turkey, the typical MSE in the three Arab countries offers lower wages; produce lower output per worker; and, for the cases of Egypt and Morocco, it also produces a lower share of their output for regional and international markets. However, establishments in Lebanon produce a larger share of their output to regional and international markets than their Turkish counterpart. Moreover, during the period following the year 2000, output per worker, relative wages and to a lesser extent, the share of output produced for local markets increased at higher rates in the three Arab countries than in Turkey.

The estimated coefficients of these country- and time-specific effects remain robust, albeit with smaller orders of magnitudes, in the more encompassing regressions that also account for controls pertaining to characteristics of EUs, workers attributes as well as dummies for EU (or labor) informality (Table 8b). As before, the results for these additional controls are broadly similar regardless of the type of informality.

Table 8a. The Effect of Informality on Micro and Small MENA Enterprises
Core Regressions [1] to [6]

Method of estimation: Ordinary Least Squares with Robust Standard Errors
Dependent variables: relative wage, relative output per worker, and share of local market

	[1]	[2]	[3]	[4]	[5]	[6]
	Scaled Relative Wage	Scaled Relative Output per Worker	Share of Local Market	Scaled Relative Wage	Scaled Relative Output per Worker	Share of Local Market
Egypt dummy	-11.8680*** -47.85	-3.0293*** -22.67	3.3391*** 7.45	-13.5402*** -50.92	-3.3415*** -22.76	8.5606*** 15.46
Lebanon dummy	-16.7647*** -47.42	-4.2186*** -19.73	-17.1325*** -23.67	-16.3907*** -40.70	-4.1158*** -16.79	-23.6321*** -21.70
Morocco dummy	-9.4071*** -53.20	-1.9372*** -21.76	0.9395*** 2.78	-8.6779*** -50.64	-1.8817*** -24.77	1.1673** 2.46
Year after 2000	4.5694*** 45.52	1.7901*** 31.79	0.1260 0.66	4.5785*** 45.46	1.7920*** 31.77	0.1405*** 0.67
Age (Entrep.)						
Education (Entrep.)						
Size (Total Workers)						
Female (Share of Labor)						
Sole Proprietorship						
Informality by Establishment	-1.3412*** -13.29	-0.3107*** -5.29	2.2633*** 9.98			
Informality by Worker				-0.0277*** -16.94	-0.0043*** -5.49	0.0568*** 10.82
Semi-skilled Share of Labor						
Skilled Share of Labor						
Constant	2.0744*** 13.24	-1.5789*** -21.84	93.0121*** 263.35	2.8047*** 16.16	-1.4845*** -18.10	89.2830*** 189.34
No. of observations	20,150	22,113	28,041	19,746	21,834	22,868
R-squared	0.20	0.08	0.11	0.20	0.08	0.13

N.B.

See the end of Table 8b for notes.

Table 8b. The Effect of Informality on Micro and Small MENA Enterprises
Extended-Form Regressions [7] to [12]

Method of estimation: Ordinary Least Squares with Robust Standard Errors
Dependent variables: relative wage, relative output per worker, and share of local market

	[7]	[8]	[9]	[10]	[11]	[12]
	Scaled Relative Wage	Scaled Relative Output per Worker	Share of Local Market	Scaled Relative Wage	Scaled Relative Output per Worker	Share of Local Market
Egypt dummy	-6.2605*** -14.75	-1.9385*** -9.74	6.5619*** 8.48	-7.2363*** -16.20	-2.0479*** -9.90	7.2805*** 9.35
Lebanon dummy	-8.2645*** -11.26	-2.6178*** -6.63	-4.4178 -0.62	-8.9283*** -11.19	-2.9265*** -8.58	-4.3496 -0.54
Morocco dummy	-5.7156*** -24.71	-1.3217*** -11.93	1.6684*** 3.64	-5.4705*** -25.84	-1.3015*** -14.22	1.8794*** 3.84
Year after 2000	1.7555*** 11.26	1.0428*** 14.10	0.2417 0.74	1.7558*** 11.17	1.0436*** 14.10	0.2439 0.74
Age (Entrep.)	0.0219*** 4.13	0.0031 1.61	-0.0645*** -4.46	0.0213*** 3.84	0.0029 1.44	-0.0655*** -4.56
Education (Entrep.)	0.1070*** 8.78	0.0345*** 4.42	-0.3127*** -8.17	0.1178*** 8.95	0.0355*** 4.26	-0.3284*** -8.82
Size (Total Workers)	0.0078 0.55	-0.0062 -0.72	-0.9075*** -14.84	-0.0049 -0.34	-0.0074 -0.87	-0.9091*** -14.63
Female (Share of Labor)	0.0072*** 3.54	0.0024* 1.74	0.0155*** 3.99	0.0073*** 3.59	0.0024* 1.74	0.0156*** 4.00
Sole Proprietorship	-1.5502*** -8.40	-0.4735*** -4.97	5.2549*** 11.40	-1.4924*** -7.70	-0.4635*** -4.77	5.2508*** 11.36
Informality by Establishment	-1.2504*** -8.92	-0.1428** -2.10	1.3266*** 3.58			
Informality by Worker				-0.0172*** -9.21	-0.0019** -1.94	0.0090* 1.78
Semi-skilled Share of Labor	0.0094*** 3.54	0.0019 1.20	-0.0170*** -2.69	0.0084*** 3.22	0.0018 1.10	-0.0167*** -2.66
Skilled Share of Labor	0.0122*** 7.03	0.0009 0.96	-0.0141*** -3.50	0.0095*** 5.42	0.0006 0.53	-0.0123*** -2.95
Constant	3.1632*** 8.51	-0.7404*** -4.21	96.4179*** 93.21	3.6503*** 9.27	-0.6804*** -3.37	96.4245*** 91.70
No. of observations	10,344	12,546	12,999	10,339	12,544	12,996
R-squared	0.21	0.05	0.13	0.21	0.05	0.13

N.B.

t-statistics are presented below the corresponding coefficients.

*, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

See Appendix 1b for definitions and sources of variables.

Source: Authors' estimation

EUs led by older and better educated entrepreneurs or those that employ a larger share of skilled and semi-skilled workers tend to perform better in terms of output per worker and relative wages as well as produce a larger share of their output to regional and international markets. Surprisingly, however, the size of establishment, as given by the number of workers is not found to be significant as a determinant of output and wage. However, it is significant in the case of local market share, where, as expected, the results suggest that larger establishments tend to produce smaller shares of their outputs for local markets. On the other hand, not surprisingly, establishments of the sole proprietorship type tend to pay lower wages, produce smaller output per worker and specialize in producing for local markets. Finally, establishments with higher share of female workers tend to perform better in terms of wage and output per worker, though they also tend to produce a larger share of their output for local markets.

Even after controlling for all of the above variables, the marginal impact of informality remains very strong, despite that, relative to the core estimates of Table 8a, the estimated effects are smaller. Again, robust and significantly negative marginal effects for informality on wages and output per labor for both types of informality are found. However, while both measures of informality were associated with local market specialization, the effect for the labor market informality appears to be slightly weaker (significant at 10% level).

The above findings, however, may be affected by the possibility of selection bias associated with informality. This is because, establishments choosing to be informal or, more generally, formal, or informal establishments choosing to hire all or part of their labor force informally, may have characteristics that make them under-perform and/or specialize in producing for local markets regardless of their informality attributes. In other words, the performance of these establishments as well as their informality status or hiring decisions, may be driven by similar but unobserved determinants.

The authors attempted to correct this potential selection bias by undertaking a two-step estimation process, where the two informality variables of Tables 8a and 8b are replaced with their respective residuals from the linear regressions of Table 7. These residuals are orthogonal to the other right hand side variables and may be interpreted as the component of informality that is not explained by

EU characteristics, worker attributes or fixed effects. The results are broadly similar. However, this is not within the framework of this particular study. Therefore, this issue will be revisited in a future version of the research report.

Conclusion

Informality is quite prevalent in most Arab countries. This is worrisome because it denotes misallocation of resources (labor in particular) and inefficient utilization of government services. This may jeopardize the countries' growth and poverty-alleviation prospects. Cross-country evidence suggests that informality is heterogeneous across Arab countries and that this heterogeneity is the result of the diversity of informality's underlying causes. In most Arab countries, informality is related to a burdensome regulatory environment for formal firms. In some countries – notably the United Arab Emirates, Algeria, Jordan and Egypt - this is compounded by poor public services, particularly related to the provision of law and order. Informality is exacerbated when the modes of production are still primary and demographic pressures are strong – as it seems to be the case of Egypt, Syria, and Tunisia.

Formal analyses of MSE surveys on four countries from the region suggest that informality (for both establishment and labor alike) have had negative marginal effects on MSE performance, even after controlling for establishment characteristics and labor attributes. Moreover, informal MSEs have difficulty tapping regional or international markets. Instead, they are likely to specialize in producing for local markets.

The fundamental conclusion of this study is that informality has been associated with lower growth, limited export potential and wider spread of poverty. However, the question arises: Does this evidence, as compelling as it may be, suggest that policy makers should intervene to eliminate, or at least substantially curtail, informal economic activities?

The answer is a conditional yes, where the condition resides on the mechanism of formalization. That is, the benefits of the policy intervention - in terms of employment, efficiency, and growth - would reside on how informality is reduced. Informality is sub-optimal with respect to the first-best case of an

economy without excessive regulations and with adequate provision of public services. However, informality is preferable to a fully formal but inflexible economy that cannot bypass the distortions and rigidities induced by a burdensome regulatory system. If policy makers in the Arab world resort to a formalization strategy purely based on enforcement, it will likely lead to unemployment and low growth. If, on the other hand, they base their strategy on improvements in both the regulatory framework and the quality/availability of public services, Arab economies will use their resources more efficiently, generate more formal and diverse employment opportunities, and, consequently, grow faster.

Footnotes

⁽¹⁾ According to the definition of the World Bank, the MENA region is comprised by 18 of the 22 Arab countries plus Iran (and Malta). The remaining four Arab countries are classified as Sub-Saharan African countries.

⁽²⁾ The above four groups, respectively include: (a) the six member countries of the Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates) and Libya; (b) Algeria and Iraq; (c) Egypt, Jordan, Lebanon, Morocco, Tunisia; and the West Bank and Gaza; and (d) Comoros, Djibouti, Mauritania, Somalia, Sudan, and Yemen.

⁽³⁾ For an excellent review of the causes and consequences of the informal sector, see Schneider and Enste (2000). Drawing from a public-choice approach, Gerxhani (2004) provides an interesting discussion of the differences of the informal sector in developed and developing countries. The World Bank Latin American and Caribbean 2007 flagship report *Informality: Exit and Exclusion* by Perry et al (2007), is the most comprehensive and in-depth study on informality in the region.

⁽⁴⁾ The above evidence is due to Avirgan, Bivens, and Gammage (2004) and the Economic Research Forum (1998).

⁽⁵⁾ See, for example, a recent analysis by Loayza (2007) for the case of the informal sector in Peru.

⁽⁶⁾ This assessment is attributed to the International Labour Organization SEAPAT Programme on the Informal Sector.

⁽⁷⁾ The oil windfall directly benefited the oil-producing economies and indirectly the labor-exporting countries of the region.

⁽⁸⁾ These authors argue that the region as a whole, has seen little decrease in absolute poverty measures since the early 1990s, and that the least developed countries in the region witnessed large increases in poverty during this period, while some, like Yemen and Sudan, are among the poorest in the world. Moreover, because the region experienced the lowest growth rates among all developing region during the 1990s and part of this decade, progress in overall human development has also slowed down.

⁽⁹⁾ Although the female labor force participation in the region is still lower than in other regions, it has risen rapidly from just over 18% in 1980 to more than 26% in 2004 (World Bank, 2008).

⁽¹⁰⁾ Dutch disease is an economic concept that tries to explain the seeming relationship between the exploitation of natural resources and the fall of the manufacturing sector. The theory states that an increase in revenues generated from natural resources will eventually de-industrialize a nation's economy by increasing the exchange rate, thereby, reducing the competitiveness of the manufacturing sector.

⁽¹¹⁾ The data are retrieved from ILO's LABORSTA Internet, <http://laborsta.ilo.org>. As in Loayza and Rigorini (2006), countries in Europe and Central Asia (ECA) are excluded from the sample.

⁽¹²⁾ See Loayza (1996) for an endogenous-growth model highlighting the negative effect of informality through the congestion of public services.

⁽¹³⁾ This does not necessarily mean that informal firms are not dynamic or lagging behind their formal counterparts. In fact, in equilibrium, the risk-adjusted returns in both sectors should be similar at the margin. See Maloney (2004) for evidence on the dynamism of Latin American informal firms. The arguments presented in the text apply to the comparison between an excessively regulated economy and one that is not.

⁽¹⁴⁾ Also considered as proxy is the ratio of tax revenues to GDP. Despite the fact that the number of observations drops considerably, the results were the same on the negative effect of informality.

⁽¹⁵⁾ This is clearly shown in partial regression plots. They are not included here but are available upon request.

⁽¹⁶⁾ To be precise, a one-standard-deviation increase of the Schneider index, the Heritage Foundation index, the share of self-employment, and the share of labor force not contributing a pension scheme leads to a decline of 1.0, 1.0, 0.8, and 1.4 percentage points, respectively, of per capita GDP growth. In the case of government expenditure, a decline is 0.6-0.9 percentage point.

⁽¹⁷⁾ The informality indicators and the control variables, particularly the Gini index and GDP per capita, are clearly interrelated. Thus, they compete for significance in their relationship with poverty. The informality indicators that may be most affected by this issue of multicollinearity are those related to the labor force: self-employment and lack of pension coverage. This may be the reason why their corresponding coefficients are not statistically significant in the regression that includes GDP per capita. When the ratio of government expenditures takes the place of GDP per capita, all informality indicators (including the labor-related ones) carry highly significant coefficients, while the Gini index loses its significance.

⁽¹⁸⁾ Details on definitions and sources of variables used are presented in Appendix 1a.

⁽¹⁹⁾ This is constructed by first standardizing each component (to a mean of zero and a standard deviation of 1) and then taking a simple arithmetic average. A composite index is used, rather than the components separately, given the very high correlation among them.

⁽²⁰⁾ See homepage: http://www.erf.org.eg/cms.php?id=home_page.

⁽²¹⁾ Authors follow the definition adopted in El-Mahdi et al. (2004), whom the authors would like to thank, along with Assaad, for this suggestion.

⁽²²⁾ Another very critical feature of this type is that any income that is earned from the business is considered the owner's income. Therefore, sole proprietorship itself is not separately taxed on its income.

⁽²³⁾ Unfortunately, the data set does not contain consistent data on educational attainment but skills levels (unskilled, semi-skilled & skilled) are assumed to be closely correlated with educational levels. The survey also contains data on age distribution of workers.

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Appendices

Appendix 1a. Definitions and Sources of Variables, Cross-Country Regression

Variable	Definition and Construction [Source]
Schneider Shadow Economy index	Estimated shadow economy as the percentage of official GDP. Average of 2001-2002 by country. [Schneider 2004]
Heritage Foundation Informal Market index	An index ranging 1 to 5 with higher values indicating more informal market activity. The scores and criteria are: (i) Very Low: Country has a free-market economy with informal market in such things as drugs and weapons (score is 1); (ii) Low: Country may have some informal market involvement in labor or pirating of intellectual property (score is 2); (iii) Moderate: Country may have some informal market activities in labor, agriculture, and transportation, and moderate levels of intellectual property piracy (score is 3); (iv) High: Country may have substantial levels of informal market activity in such areas as labor, pirated intellectual property, and smuggled consumer goods, and in such services as transportation, electricity, and telecommunications (score is 4); and (v) Very High: Country's informal market is larger than its formal economy (score is 5). Average of 2000-2005 by country. [Miles et al 2005]
Self Employment	Self employed workers as the percentage of total employment. Country averages but periods to compute the averages vary by country. Average of 1999-2006 by country, but countries in Europe and Central Asia (ECA) are excluded (Loayza and Rigolini 2006). [LABORSTA Internet. Data retrieved from laborsta.ilo.org]
Per Capita GDP Growth	Log difference of real GDP per capita (2000 US\$). [World Development Indicators]
Initial GDP per capita	Real GDP per capita (2000 US\$) in 1985, in logs. [World Development Indicators]
Initial Government Expenditure	Ratio of general government final consumption expenditure to GDP in 1985. [World Development Indicators]
Poverty Headcount index	The fraction of the population with income below a given poverty line. The poverty line is \$1 per person a day, converted into local currency using a PPP-adjusted exchange rate. The latest/final year of each country's poverty spell is used. [Loayza and Raddatz 2006]
Initial Gini index	A measure of income inequality ranging 0 to 100 with higher values indicating more unequal income distribution. The initial year of each country's poverty spell is used. [Loayza and Raddatz 2006]
Law and Order	An index ranging 0 to 6 with higher values indicating better governance. Law and Order are assessed separately, with each sub-component comprising 0 to 3 points. Assessment of Law focuses on the legal system, while Order is rated by popular observance of the law. Average of 2000-2005 by country. [ICRG. Data retrieved from www.icrgonline.com]
Business Regulatory Freedom	An index ranging 0 to 10 with higher values indicating less regulated. It is composed of following indicators: (i) Price controls: extent to which businesses are free to set their own prices; (ii) Burden of regulation / Administrative Conditions/Entry of New Business; (iii) Time with government bureaucracy: senior management spends a substantial amount of time dealing with government bureaucracy; (iv) Starting a new business: starting a new business is generally easy; and (v) Irregular payments: irregular, additional payments connected with import and export permits, business licenses, exchange controls, tax assessments, police protection, or loan applications are very rare. Average of 2000-2005 by country. [Gwartney et al 2007. Data retrieved from www.freetheworld.com]
Average Years of Secondary Schooling	Average years of secondary schooling in the population aged 15 and over. The most recent score in each country is used, while figures are computed for countries data are not available. [Barro and Lee 1993 and 2001, and authors' calculations]
Sociodemographic Factors	Simple average of following three variables: (i) Youth (aged 10-24) population as the percentage of total population; (ii) Rural population as the percentage of total population; and (iii) Agriculture as the percentage of GDP. All three variables are standardized before the average is taken. Average of 2000-2005 by country. [Authors' calculations with data from World Development Indicators, LABORSTA Internet, and United Nations 2005]

Appendix 1b. Definitions and Sources of Variables, Micro-Level Regression

Variable	Definition and Construction
Year after 2000	Number of years since 2000.
Age (Entrep.)	Age of owner/manager.
Education (Entrep.)	Educational achievement of owner/manager (number of grades completed in all types of formal education).
Size (Total Workers)	Enterprise's total number of workers.
Female (Share of Labor)	Share of women in the enterprise's workforce.
Sole Proprietorship	Dummy variable indicating whether the enterprise is conducted by a single individual owner.
Semi-skilled Share of Labor	Share of semi-skilled workers in the enterprise's workforce.
Skilled Share of Labor	Share of skilled workers in the enterprise's workforce.
Informality by Establishment (Not Registered, etc.)	Dummy variable indicating informality by establishment (=1 if an enterprise fails any one of the following three requirements: that it is registered; licensed; and has kept financial accounts).
Informality by Worker (% of Workers without Social Security)	Share of the enterprise's workforce that does not enjoy social security coverage.
Scaled Relative Wage	Enterprise's average wage, scaled by maximum in the country-year.
Scaled Relative Output per Worker	Enterprise's average output per worker, scaled by maximum in the country-year.
Share of Local Market	Share of the local market's revenues that accrue to the enterprise.

N.B. Source: MSE surveys.

Appendix 2. Descriptive Statistics of Four Informality Indicators
Data in country averages; periods vary by informality measure.

Univariate (regression sample)					
Variable	Obs.	Mean	Std. Dev.	Minimum	Maximum
Schneider Shadow Economy index (% of GDP)	84	32.960	14.7358.5	50.000	68.200
Heritage Foundation Informal Market index (range 1-5: higher, more informality)	86	3.055	1.251	1.000	5.000
Self Employment (% of total employment)	57	26.204	12.0287.1	32	59.335
Non-contributor to Pension Scheme (% of labor force)	70	53.198	33.4821.4	50	98.000
Univariate (full sample)					
Variable	Obs.	Mean	Std. Dev.	Minimum	Maximum
Schneider Shadow Economy index (% of GDP)	145	34.838	13.2148.5	50.000	68.200
Heritage Foundation Informal Market index (range 1-5: higher, more informality)	159	3.409	1.201	1.000	5.000
Self Employment (% of total employment)	86	25.158	12.1181.1	19	59.335
Non-contributor to Pension Scheme (% of labor force)	110	55.999	31.9051.4	50	98.500
Bivariate Correlations between Informality Measures Upper triangle for regression sample (in italics); Lower triangle for full sample					
Variable	Schneider Shadow Economy		Heritage Fndn. Informal Market		Self Employment
Schneider Shadow Economy index (% of GDP)	1.00		0.68***		0.71***
	145 84		83		55
Heritage Foundation Informal Market index (range 1-5: higher, more informality)	0.65***		1.00		0.88***
	132		159 86		57
Self Employment (% of total employment)	0.65***		0.79***		1.00
	69	76		86 57	
Non-contributor to Pension Scheme (% of labor force)	0.59***		0.77***		0.88***
	104		107		57

N.B.

Sample sizes are presented below the corresponding coefficients.

*** denotes significance at the 1% level.



Labor Market Pressures in Egypt: Why is the Unemployment Rate Stubbornly High?

Mohamed Hassan
Cyrus Sassanpour

Labour Market Pressures in Egypt: Why is the Unemployment Rate Stubbornly High?

Mohamed Hassan*
Cyrus Sassanpour*

Abstract

Unemployment is one of the key policy challenges in Egypt. The unemployment issue in Egypt is mainly about the educated youth seeking its first job. The mismatch of skills between job requirements and the qualification of job seekers, the high reservation wage of new school leavers, and limited labor mobility are at the root of the problem. The wage setting mechanism seems to be operating fairly efficiently in Egypt, and non-wage costs – although relatively high - do not appear to be a binding constraint. Moreover, recent legislation has on balance, increased labor market flexibility. Economic performance in Egypt has been uneven, but even in periods of fairly robust growth, unemployment has remained stubbornly high. This paper explores the job content of economic growth over the past decade and concludes that high growth may not necessarily lead to a substantial decline in unemployment unless it is sustained, is generated by more labor-intensive activities, and is accompanied by structural changes in the labor market.

ضغوط سوق العمل في مصر: تفسير استمرار ارتفاع معدل البطالة

محمد حسن
سايرس ساسانپور

ملخص

تشكل البطالة تحدياً كبيراً للاقتصاد المصري، وتتركز في الشباب المتعلمين الباحثين عن عمل لأول مرة. ويكمن جذر المشكلة في عدم التطابق بين المهارات المعروضة من طالبي العمل والمهارات المطلوبة في سوق العمل، بالإضافة إلى الأجر الاحتياطي المرتفع للعمال التاركين للمدرسة حديثاً، وأخيراً محدودية تحرك العمالة. ورغم ما حققته مصر مؤخراً من نمو اقتصادي قوي إلا أن البطالة بقيت عالية ومزمنة، فالنمو الاقتصادي لا يقود بالضرورة لانخفاض كبير في معدلات البطالة، إلا إذا كان مضطرباً ومرتكز على توسع في النشاطات كثيفة العمالة، و مترافقاً مع تغييرات هيكلية في سوق العمل.

* Hassan is an Advisor to the Governor of the Central Bank of Egypt (CBE) and Assistant Professor of Economics, Cairo University, email: Mohamed.hassan@cbe.org.eg. Sassanpour is the Senior Resident Representative of the International Monetary Fund (IMF) in Egypt, email: csassanpour@imf.org. The authors are grateful to Klaus Enders, Andreas Billmeier, Nadeem Ilahi, Hanna Kheir El-Din, and Samir Radwan for their helpful comments and suggestions, and to Mariana Rizk of the CBE for her excellent research assistance. The views expressed in this paper are those of the authors and do not necessarily represent the views of the CBE nor the IMF.

Introduction and Brief Historical Overview

Job creation is one of the most important challenges facing Egypt today. Demography is part of the problem. Egypt's population growth is not particularly high by peer group standards, but Egypt has a young population and a large number of young people enter the job market each year searching for first jobs. Demand for labor is the other side of the problem. Economic performance has been uneven in the past decade, but even in periods of high growth, the job content of growth has not been strong enough to absorb new entrants to the labor market. Disparities related to education, training and skills between the jobs offered and the qualification of job seekers have also hampered employment, particularly among the youth.

Until the mid-1970s, major public investment in heavy industries and import substituting activities generated sufficient growth and employment. Perhaps more importantly, the government's guaranteed employment policy absorbed the bulk of labor force entrants. Unemployment was low in the range of 2-3% and youth unemployment was virtually nonexistent, masking large costs and inefficiencies associated with a bloated public sector which surfaced later.

Following the adoption of more liberal economic policies in the mid-1970s, the investment rate doubled by the end of the decade. While growth also picked up from the mid-1970s in reaction to higher investment and productivity, the job content of growth was weak. High inflation, an overvalued exchange rate and a loose monetary policy lowered the cost of capital and encouraged capital-intensive activities (El Ehwany, 2004). The need to modernize the Egyptian industry hastened the process. The unemployment climbed to the 5-7% range, despite a fairly robust economic growth, and unemployment among the young and the relatively educated began to rise as the government began to curtail its guaranteed employment policy (and ended it in the late 1980s).

The pick-up in economic activity in the oil-producing countries in the region following the two rounds of oil price increases in 1973-74 and 1979-80 provided an important outlet for the Egyptian labor and helped partially defuse

the labor market pressures at home. The foreign demand for Egyptian labor was, however, largely concentrated at the extreme ends of the skill spectrum and helped little in alleviating the problem of youth unemployment.

Since 1990, Egypt's unemployment rate has remained stubbornly high, in the range of 8-11%, through economic cycles, major structural changes in the Egyptian economy, a number of external shocks, and various government employment promotion schemes. Economic reforms in the early to mid-1990s lifted the growth profile, but the employment content of growth was weak, and the youth unemployment problem began to manifest itself forcefully. The unemployment worsened in the early 2000s as economic growth stagnated.

Investment and growth picked up strongly from 2005 in reaction to a broad-based economic reform program that the government began to implement from mid-2004. A favorable external economic environment provided added support. The growth surge since the end of 2004 has been reflected in higher overall employment, especially in the more recent period as growth became broad-based and more job-rich. According to Egypt's national statistical agency, the CAPMAS (The Central Authority for Public Mobilization and Statistics), close to 2.5 million new jobs were created between the end of 2004 and March 2007 and the unemployment rate declined from 10.5% to 9% during this period. However, the problem of youth unemployment remains undiminished.

Currently, an estimated 2 million Egyptians are out of work. The overall unemployment measures, high as they are, do not sufficiently reflect the extent of labor market pressures in Egypt, and in particular, the socio-economic problems of high youth unemployment and widespread underemployment.

The aim of this paper is to analyze the job content of economic growth and identify the key constraints to job creation in Egypt.

Labor Force and Unemployment

Characteristics of the Labor Force

Table 1 presents a snapshot of the Egyptian labor market as of 2006.

Table 1. Snapshot of the Labor Market, 2006

Population	72.6 million
Population growth rate	1.9%
Labor force	21.9 million
Labor force/Population	30.2%
Unemployed	2.0 million
Unemployment rate	9.3%

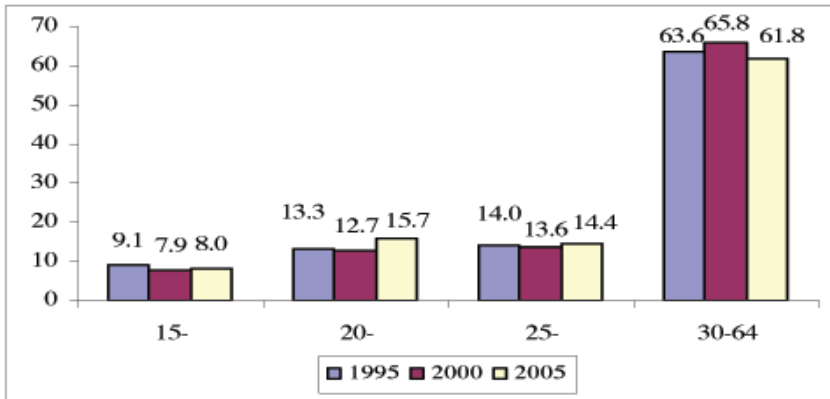
Source: CAPMAS 2006 Population Census

The labor force in Egypt has been growing at about 2.8% per annum in recent years, with the peer group entering the work force for the first time growing at closer to 3% annually. The youth (15-29 age group) comprises 38% of the labor force in 2005 (Figure 1a).

The labor force is heavily dominated by men (more than three fourths of the total) because of low female participation rate (Figure 1c). According to the 1996 census,⁽¹⁾ the overall participation rate was only 41% because of the exceptionally low participation rate for women (13%). Other labor market surveys, however, report higher rates of female participation, but still significantly lower than those for males. The International Labor Office (ILO, 2006a)⁽²⁾ reports a female participation rate of 22% in 2005, compared to a male participation rate of 77%. Assaad (2002) reports an even higher (and probably more realistic) female participation rate of 46% and a male participation rate of 72% in 1998, the latter being comparable to the 1996 census estimate of 69%.⁽³⁾

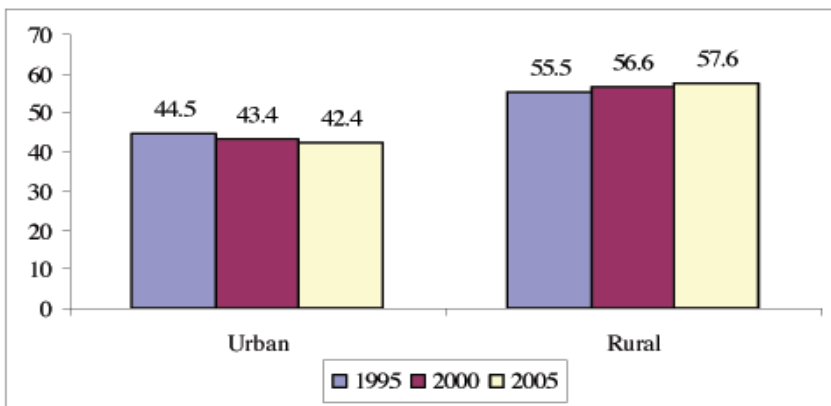
The lower female participation rate reflects cultural norms as well as the early exit of women from the labor force either to start a family, out of frustration after a long job search, or both. However, most surveys suggest that female participation has been inching upward as women are becoming better educated, delaying marriage, and seeking to support family income. At the same time, the participation rate for men has been declining as many young men unable to find jobs may be inclined to extend their education.

The education level of Egypt’s labor force is fairly low (about half has less than intermediate schooling), but is improving (Figure 1d). The labor force’s geographical composition reflects Egypt’s roughly 40-60 urban-rural population divide which is growing in favor of the rural areas because of the higher rural population growth and slower (and possibly reversal of) migration to the urban areas (Figure 1b).



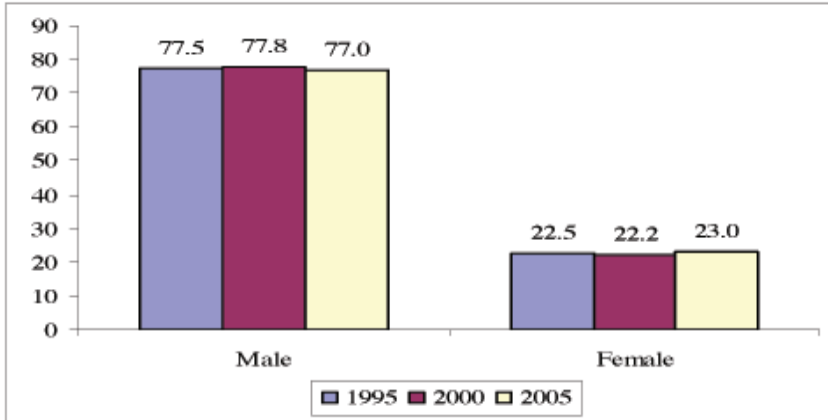
Source: Calculated based on the CAPMAS data from three annual labor surveys: 1995, 2000 and 2005.

Figure 1a. Labor force by age (%)



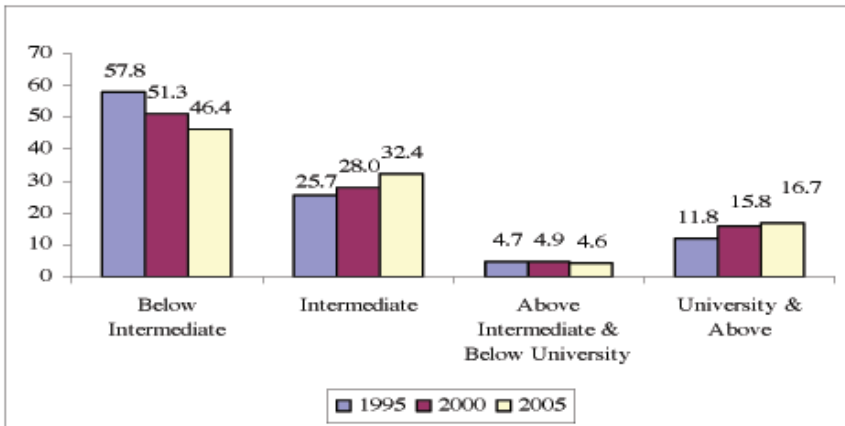
Source: Calculated based on the CAPMAS data from three annual labor surveys: 1995, 2000 and 2005.

Figure 1b. Labor force by area (%)



Source: Calculated based on the CAPMAS data from three annual labor surveys: 1995, 2000 and 2005.

Figure 1c. Labor force by gender (%)



Source: Calculated based on the CAPMAS data from three annual labor surveys: 1995, 2000 and 2005.

Figure 1d. Labor force by education (%)

The Nature of Unemployment

The unemployment problem in Egypt is more related to labor market insertion (finding the first job) than getting back on the job ladder.⁽⁴⁾ It is more

about the educated youth than the illiterate, unskilled middle age workers. The problem is particularly acute among women and is worse in the urban areas.

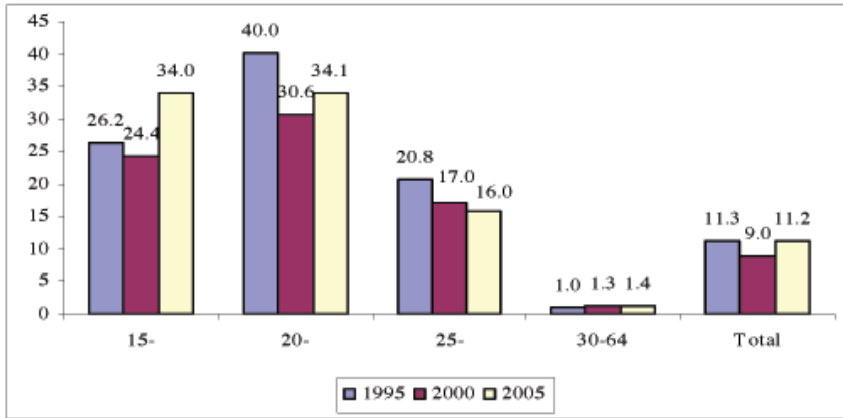
According to the 2005 Labor Force Sample Survey compiled by CAPMAS,⁽⁵⁾ 92% of all those unemployed are below the age of 30. About half of all the unemployed are in the 20-25 age group, the age when the youth enters the job market for the first time after completing secondary or higher education. The unemployment rate for the 20-25 year age group has been in the range of 30-40% in the past decade with a declining trend as the “youth bulge” of the mid-1990s is growing older and is moving forward in the age brackets (Figure 2a). There is hardly any recorded unemployment in the over-30 age group, although this peer group accounts for 62% of the labor force. Many frustrated job seekers, and particularly women, exit the labor force by the time they are in their early 30s.

The unemployment rate among women is more than three times higher than men (Figure 2c). A great majority of young educated women seeking employment prefer government jobs and are willing to accept long job searches. Women account for about 30% of government sector employees compared to about 20% in total employment.⁽⁶⁾ Women prefer government jobs because of its security, flexibility, better working conditions, social security and other benefits, most importantly maternity leave which is less common in the private sector. However, with government jobs becoming scarcer, the search/wait time for the new young entrants to the labor market has increased, contributing particularly to the high rates of female unemployment and the early exit of women from the labor force. Moreover, many better educated women are unwilling to work in the low-pay, low skill informal sector.

The unemployment rate is higher among the better educated, particularly among those with intermediate education (Figure 2d). There is hardly any recorded unemployment among the illiterate and those with lower than intermediate education.

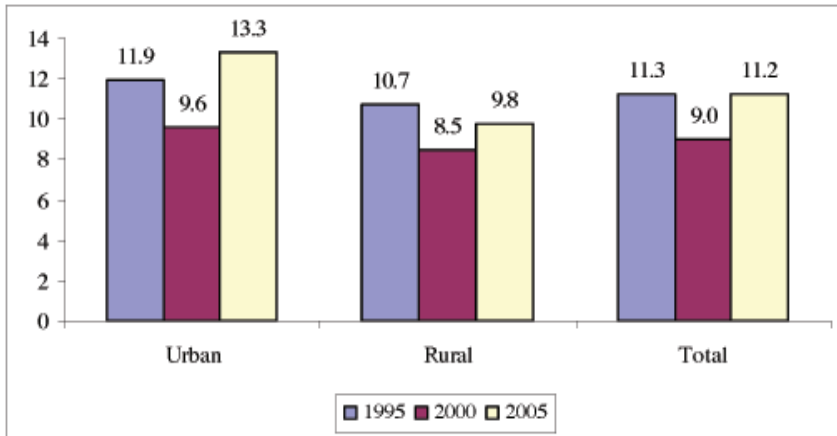
The unemployment rates are slightly higher in urban areas as more people in the rural areas can make subsistence living on the margins by working on family plots or by engaging in small scale retail activities (Figure 2b). Partly as a

result of long and costly job search in urban areas, the rural-urban migration flow seems to have moderated, and has even reversed by some accounts.



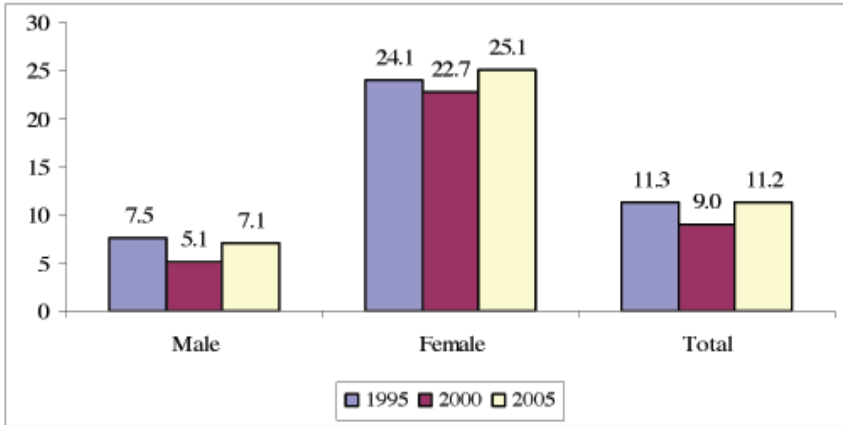
Source: Calculated based on the CAPMAS data in three annual labor surveys: 1995, 2000 and 2005.

Figure 2a. Unemployment rate by age (%)



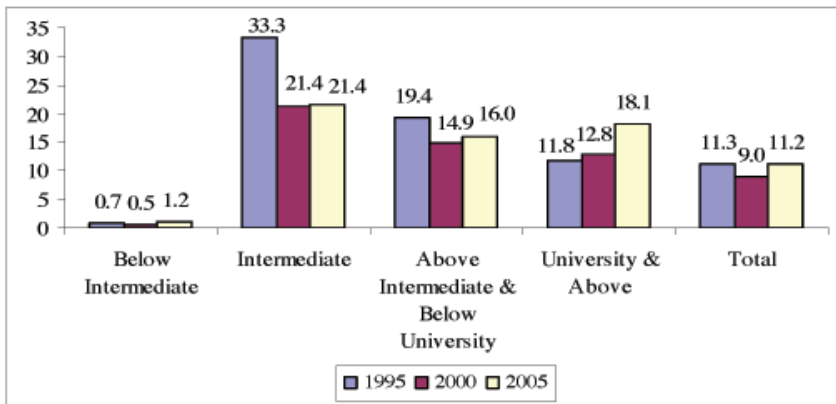
Source: Calculated based on the CAPMAS data in three annual labor surveys: 1995, 2000 and 2005.

Figure 2b. Unemployment rate by area (%)



Source: Calculated based on the CAPMAS data in three annual labor surveys: 1995, 2000 and 2005.

Figure 2c. Unemployment rate by gender (%)



Source: Calculated based on the CAPMAS data in three annual labor surveys: 1995, 2000 and 2005.

Figure 2d. Unemployment rate by gender (%)

The above characterization of unemployment in Egypt is heavily influenced by young first-time job seekers. Focusing on the unemployed peer group that had previously worked shifts the gender and geographical unemployment divide dramatically against men in the urban areas. In 2005, more than 80% of them

were men, over 70% resided in urban areas, and greatest number had worked in service industries. However, since this peer group accounts for less than 1% of the unemployed, no strong conclusions should be drawn, although these findings are widely supported by anecdotal evidence. Moreover, many workers laid off in the formal sector seek refuge in the informal sector and exit the unemployment pool.

One of the interesting characteristics of unemployment in Egypt is that it is not necessarily associated with poverty. The bulk of the young and better educated unemployed can afford a long job search with family support, but the poor simply cannot afford to be out of work for long and many take refuge in the low-pay informal market. The problem of the working poor in Egypt is underemployment and low wages.⁽⁷⁾

According to El-Laithy et al (2003), “the Egyptian poor tend to live in large families, have low levels of education, work in the informal sector and be concentrated in low-paying unskilled activities”. The study concludes that the level of education is the major determinant of poverty in Egypt: 28% of the households headed by an illiterate are poor compared with only 8% of households headed by a person with secondary education. In terms of employment status, El-Laithy et al (op cit.) report that 20% of households headed by an unemployed person are poor, only slightly higher than the 17% of households headed by a salaried person that are poor. In fact, the largest share of the poor is among the self-employed, mostly in the informal sector: 25% of self-employed households in non-agricultural activities are poor.

Informal Labor Market

The informal sector acts as an important shock absorber to the formal sector and has both counter-cyclical and pro-cyclical features. It serves as an important source of low-pay employment where many poor and uneducated job seekers take refuge. Because of its low-pay, low-skill nature, it is not an important employment outlet for the better educated youth seeking their first jobs. It also has pro-cyclical features as economic gains in the formal sector readily spill over into production and employment gains in the informal sector.

The informal sector in Egypt is estimated to account for roughly one-third of total GDP, or about 40% of private sector GDP, assuming a 70-30 private-public distribution of GDP. The informal sector's share in private sector employment is believed to be well above one half.

There are only scant estimates of employment in the informal sector. A 1996 CAPMAS survey estimated employment in the informal sector at 4.8 million out of the estimated total employment of 15.5 million at that time. At the current total employment level of roughly 20 million, that would translate to 6.2 million. In all likelihood, however, the share of the informal sector in total employment has increased markedly in the past decade as the formal job market had not been able to absorb all job seekers. Galal (2004) reports an employment level of 8.2 million in the informal sector, much higher than the 6.8 million that he estimates for the formal private sector.

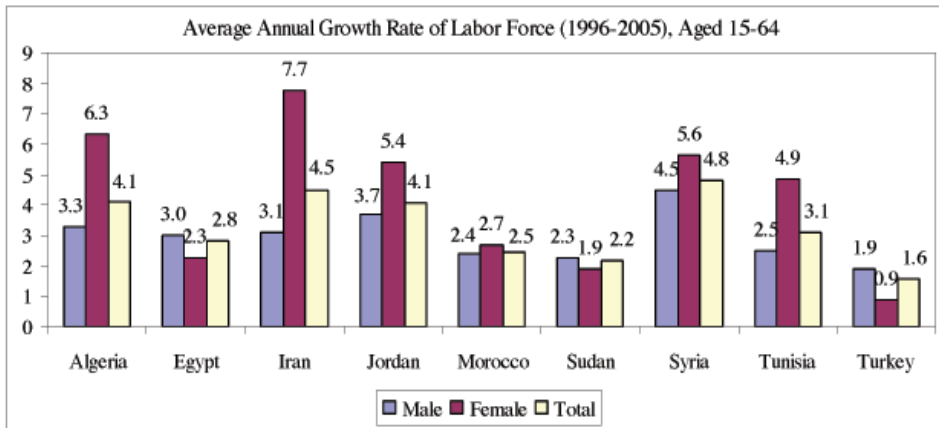
Informal sector employment is dominated by wholesale and retail trade, low- technology manufacturing, construction, and transport. Majority of these activities are heavily dominated by men. A 1998 survey by the CAPMAS on employment in the informal industrial sector reports that men account for 87% of employment in this sector, with their share being as high as 99% in certain activities within the sector. A more recent CAPMAS survey conducted in 2004 on the informal wholesale trade reports the share of male employment at 94%. On the other hand, women dominate low-skill domestic help and personal services in the urban areas, and micro-business activities and small-scale retail trade in the rural areas. The informal sector is particularly appealing to women because its flexibility allows them to balance their income needs with their household commitments.

Recognizing the importance of the informal sector in income generation and employment, and its flexibilities, a number of studies (see, for example Rizk, 2004) have advocated policies to promote the informal sector, rather than to force its formalization. Others (for example, Galal, 2004) have argued in favor of formalization of the informal sector on the grounds that it promotes efficiency and cost reduction by improving access to infrastructure, bank credit, and markets. The informal sector covers a broad spectrum of activities and entity sizes. It would probably make sense for certain activities and larger entities to be

brought into the formal sector to increase their access to financing and markets, while others (mostly microbusinesses) would need to retain their flexibility in the informal market.

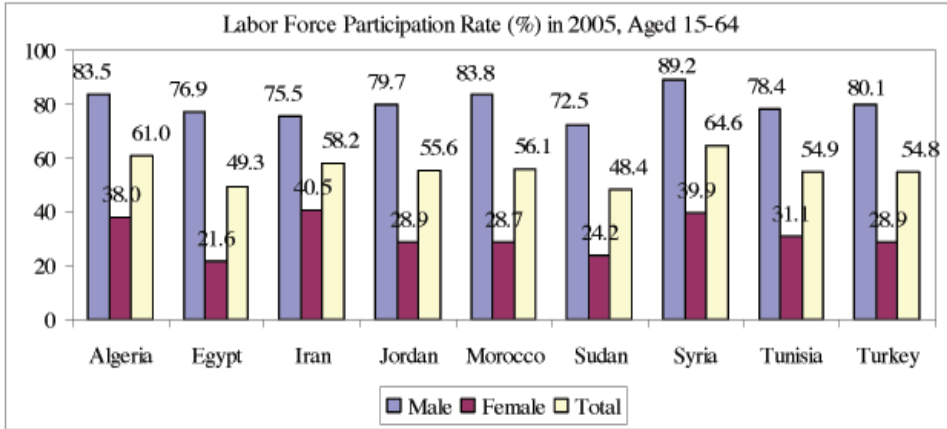
Egypt in a Regional Context

Egypt’s rapid growth of labor force is not unique among its peer group in the Middle East and North Africa (MENA) region (Figures 3 and 4). At 2.8% per annum, the labor force growth rate in Egypt over the past decade has been somewhere in the middle of the range for the MENA region. Algeria, Iran, Jordan and Syria have recorded higher rates of labor force growth, mostly attributed to the growing number of women in the labor force. The participation rate of women in Egypt, however, is the lowest among the peer group.



Source: Calculated based on ILO estimates.

Figure 3. Labor force growth rates of MENA countries



Source: Calculated based on ILO estimates.

Figure 4. Labor force participation rate of MENA countries

High unemployment is a regional phenomenon; many MENA countries facing rapid population growth with a young age profile are facing a similar problem (Figure 5). High as it is, and notwithstanding measurement problems and differences, the unemployment rate in Egypt is at the lower end of the range of the MENA countries. However, the acute problem of female unemployment stands out in Egypt (only surpassed by Syria) despite the low female participation rate.



¹ Unemployment rates in 2003, except for Algeria, Jordan and Turkey which are for 2004. The age coverage is 15+, except for Egypt which is 15-64 years.

² Not available by gender.

Source: ILO database (2006a).

Figure 5. Unemployment rate of the MENA region countries.

Measuring Unemployment in Egypt

While there is no dispute that unemployment is a major socioeconomic challenge in Egypt, estimates of the unemployment rate vary. There are even divergent views among analysts regarding the trend and direction of unemployment.

There is a narrow and a broad definition of unemployment. The narrow definition considers as unemployed all individuals aged between 15 and 64 who are physically able to work, want to work, and have been actively searching

for jobs during the reference period before the survey (a week, a month, or longer), but could not find work. The official employment survey data compiled and published by the CAPMAS are based on this narrow definition, where the reference job search period is the week preceding the survey. The broad definition drops the search criterion, and includes as unemployed both the searching and non-searching jobless individuals.

While the International Labor Organization (ILO) has recommended the narrow measure, it recognizes that the broader concept may be more appropriate in countries or situations “where the conventional means of seeking work are of limited relevance, where the labor market is largely unorganized or of limited scope, where labor absorption is, at the time, inadequate, or where the labor force is largely self-employed” (ILO, 1982). The Egyptian labor market conditions fit these criteria fairly closely. The narrow definition with a short reference period (say, a week, as used by the CAPMAS) may be viewed as the lower bound for unemployment, and the broad definition as the upper bound. As the reference period prior to the survey increases, the unemployment rate will exceed the lower bound, but will remain below the upper bound.

Why would an unemployed person stop job search and would this have any bearing on the definition of unemployment? Kingdon and Knight (2006) offer two possible explanations. One explanation (“taste for unemployment”) is that families (and less ambiguously, the higher-income families) can support their unemployed members and consequently there is an incentive for the

unemployed to consume more leisure. In this case, as in the narrow definition, it makes sense not to count non-searching individuals as unemployed because they have chosen voluntarily to consume more leisure indefinitely. According to the second explanation (“discouraged worker”), the frustrated job seekers stop job search when the duration of unemployment becomes long and the economic conditions are not favorable. In this situation, the broad definition is perhaps more relevant because the condition of “actively searching for a job” is misleading as the unemployed individual may have chosen to exit the labor force permanently. There is evidence of both of these features in the Egyptian labor market.

There could also be other explanations for stopping job search. In the transition toward a market-oriented economy, the private sector plays an increasingly larger role as the government sector retreats. In the process, a new class of economic elites gradually emerges, dominating many aspects of economic activity. It is often the case that the ability to secure a job in the formal market might hinge on the access to these elites. In this case, even if the economic and labor market conditions might not be particularly unfavorable, the lack of access to “job holders” makes the job search less productive. The Egyptian labor market also exhibits this feature which could explain the lack of job search by the unemployed and their early exit from the labor force even under favorable economic conditions.⁽⁸⁾

What is the best measure of unemployment in Egypt?

According to the official CAPMAS data, the unemployment rate has been fairly steady in the range of 9-11% in the last decade during peaks and troughs of economic cycles. The CAPMAS data, based on the narrow definition, may be taken as the lower bound of the unemployment rate, as discussed earlier. Comparable data are not available for the broad definition of unemployment. The only estimates of unemployment based on the narrow and broad definition are offered by Assaad (2006) using longitudinal microeconomic data collected from the Egypt Labor Market Panel Survey conducted in 2006 as a follow-up to the panel survey of 1998. According to Assaad, the unemployment rate declined from 11.7% in 1998 to 8.3% in 2006 based on the narrow definition, and from 13.8% to 8.7% during the same time frame based on the broad definition.

Irrespective of the definition, Assaad's surveys suggest a fairly significant decline in the unemployment rate since the late 1990s, which is not borne out to the same extent by the official CAPMAS data. Of course, the CAPMAS cross-section data for a specific period and the longitudinal data used by Assaad are not comparable, and Assaad's measurements are only available for the two reference periods of 1998 and 2006.

The CAPMAS employment data also mask the significant degree of underemployment among those classified as employed. For example, in the reference week before the 2005 Labor Force Sample Survey (Table 2), only 60% of those reported employed actually worked a full week of 45 hours or more. The ratio was significantly lower in rural areas and among women.

Table 2. Average Hours Worked per Week by Gender and Area, 2005 (%)

		< 5	5-	10-	15-	25-	35-	45-
Urban	M	0.3	0.3	0.2	1.6	3.8	20.3	73.4
	F	0.3	0.8	2.2	1.7	4.0	37.8	53.1
	T	0.3	0.4	0.6	1.6	3.8	23.4	69.8
Rural	M	0.2	0.2	0.3	3.1	6.8	27.8	61.2
	F	0.3	2.2	16.8	15.0	15.0	25.5	24.8
	T	0.2	0.6	3.7	5.6	8.5	27.3	53.7
Total	M	0.3	0.3	0.3	2.5	5.5	24.6	66.3
	F	0.3	1.7	11.3	10.0	10.9	30.1	35.5
	T	0.3	0.5	2.4	3.9	6.6	25.7	60.4

Source: Calculated based on the CAPMAS unpublished data.

Institutional Framework of the Labor Market: Is it Flexible Enough?

Job creation in many countries facing high unemployment, is hampered by labor market rigidities and inefficiencies. Many of these typical rigidities - inflexible wage structure, high minimum wages, high non-wage costs, strong unionized activity - are either not an issue or are not a binding constraint in the case of Egypt. Employment outside the public sector is dominated by the

agricultural sector and the large and growing informal sector, both of which traditionally follow flexible market rules. The wage setting mechanism seems to be functioning fairly efficiently in the private sector, with adequate wage differentiation across sectors and skill levels. The unionized sector is small and unionized activities (collective bargaining and industrial actions), although increasing noticeably in the past 2-3 years, are still fairly limited.

There are no minimum wages in the private sector. Labor Law 12/2003 established a National Council of Wages to set the minimum wage every year and even stipulated an annual increase of no less than 7%. However, the Council has not issued any decisions since its inception.

Wages in the private sector are set largely by the interplay of supply and demand for labor. Wage flexibility is best evidenced by the erosion of real wages in the private sector during the second half of 1990s when economic activity stagnated (Figure 6). Private sector real wages increased in 1999-2000 before stagnating again. It is only since 2003-2004 that real wages in the private sector have begun to firm as demand for labor has picked up. Real wages in the public sector (government and public enterprises) broadly tracked those in the private sector during the 1990s, but have grown much faster since 2000. By 2005, average nominal wages in the public sector exceeded those in the private sector by one-half. Within the overall sluggish private sector wage growth, there are pockets of strong labor demand and wage pressure for certain high skill activities, especially during the boom years of 2006-2007.



Source: Derived from the CAPMAS unpublished data, adjusted for a '2000 outlier' using data published on the CAPMAS official website.

Figure 6. Real wages in the public and private sectors, 1995-2005

Social security benefits are provided under various laws in Egypt. Law 79/1975 establishes retirement and disability pensions and survivor benefits for government and public sector employees and those employed in the formal private sector. Contributions are set at 25% (10% paid by the employee and 15% by the employer) of the base wage. Additionally, there is a remuneration scheme paid as a lump sum upon retirement, financed by a 5% contribution (3% paid by employee and 2% by employer).

Law 108/1976 establishes pension, retirement and disability benefits for employers and self-employed persons. The contribution rate is 15% of income. Law 112/1980 provides old age, disability and survivor benefits to causal and temporary workers - many of whom would be employed in the informal sector - as a budget-funded social safety net. The contribution rate is a flat LE 1 (currently, \$US 0.20) per month (in effect since 1992) and benefits are payable at the flat rate of LE 80 per month. Unemployment benefits are financed through an employer's contribution of 2% of basic wage.

Law 12/2003 also establishes an emergency fund to provide financial support to dismissed workers for a limited time, financed through a 1% fee imposed on basic wage paid by the employer.

Non-wage labor costs (employer's contributions toward social security, sickness, unemployment, disability, and survivor benefits) are high in Egypt.⁽⁹⁾ However, they do not appear to be a major constraint to employment. Non-wage costs in the large and growing informal sector are minimal. Even in the formal sector, many employers refuse binding contracts to avoid the high cost of the social security system (El-Megharbel, 2007). Moreover, even in case of formal contracts, the high social security costs have encouraged both employers and employees to under-report wages.

Recent legislation has strengthened the institutional and legal framework of the labor market. In particular, Law 12/2003 provides more freedom to employers in direct hiring and firing, the use of temporary or fixed term contracts, and the power to modify contracts.⁽¹⁰⁾ At the same time, it allows the employees the right to strike (under restrictive conditions) and to engage in collective bargaining (for firms with more than 50 workers). The law also stipulates compensation benefits and severance pay, and offers female workers maternity leave, child care provisions and restrictions on working hours. In essence, Law 12/2003 aims at striking a balance between labor market flexibility, which it recognizes as an essential ingredient for employment generation, and the protection of labor rights. The consensus is that the Law has introduced greater flexibility in that part of the private labor market which is governed by formal employment contracts and established practices.

Assaad (2002) estimates, however, that about 80% of new jobs created in the nonagricultural sector are not covered by contracts. The share of non-contract employment might have even increased as firms try to maintain their flexibility. Most of the informal sector remains outside the purview of the labor law.

The major factor impeding employment in Egypt, particularly of its educated youth, is the skill mismatch between the job requirements and the qualifications of job seekers.⁽¹¹⁾ According to business surveys (see, for example, ECES (2007)), insufficient skill workforce is one of the major constraints affecting businesses. Most of the jobs created domestically or abroad either require no skills or demand high technical skills which the first time job seekers do not possess. The technical skill shortcoming among the secondary school graduates

is mainly the outcome of an outdated, rigid and inefficient education system. Moreover, with the comforts of a family support network, the educated youth has a relatively high reservation wage and is not particularly mobile. The high cost of living in cities, and the difficulties and costs of commuting to urban centers have tended to discourage rural-urban migration in search of jobs, particularly among women.

The problem of skill mismatch is not unique to Egypt. In fact, many labor surplus developing countries have similar experiences. Rama (1998) estimates “matching functions” for Tunisia and concludes that the matching process is particularly inefficient for the unskilled and first time job seekers. The “mismatch problem” is not even unique to the developing countries. The problem of over-education and the mismatch between job demand, and education and skill specific labor supply have also been studied extensively in the industrial countries.⁽¹²⁾ The skill mismatch problem and remedies are specialized issues which go beyond the scope of the present paper.

Job Content of Economic Growth, 1995-2005

Egypt’s strong economic recovery since 2004 and its stubbornly high unemployment rate have brought into focus the relationship between economic growth and unemployment. This relationship has two components: (a) the relationship between economic growth and employment growth; and (b) the

link between employment growth and the unemployment rate. Economic factors mainly drive the first, while demographics and other factors that influence labor supply drive the second.⁽¹³⁾ Since the labor force growth in Egypt has been fairly stable in the past decade, the relationship between economic growth and employment growth has become the core issue in the debate on unemployment.

While this relationship has been examined for a number of individual countries and country groups,⁽¹⁴⁾ the present study is the first attempt to investigate the employment intensity of economic growth at the aggregate as well as at the sector level for Egypt.

Why is it that employment growth in Egypt has been relatively subdued during periods of high economic growth? There are at least three plausible explanations:

- Firstly, the economic growth has been unbalanced across sectors and many of the growing sectors of the economy have low job content because of the type of technology employed. It is only in the more recent period that job-rich sectors (agriculture and construction) have been contributing more to the overall economic activity.
- Secondly, many firms react to growing activity by increasing labor utilization rather than increasing employment. In this case, a much higher economic growth and of a longer duration would be needed to convince the firms to hire more labor.
- Thirdly, employment could be more of a lagging economic indicator than a coincident one. If the economy exhibits inconsistent economic growth, as has been the case in Egypt, employment might not increase significantly during boom periods because a slow-down is expected to follow. In this case, longer periods of high and sustained economic growth would be required for the employment to increase significantly.

Mapping Economic and Employment Growth

Table 3 tabulates the simple average and the standard deviation of economic growth and employment growth during the period 1997-2005 for all sectors. It also shows the weight of each sector in GDP and employment.

Table 3. Summary Statistics on Growth and Employment, 1997-2005

	GDP			Employment		
	Average Weight	Growth Rates (%)		Average Weight	Growth Rates (%)	
		Mean	Std. Dev.		Mean	Std. Dev.
Agriculture	15.18	3.41	0.84	29.78	2.49	5.41
Industry & Mining /Manufacturing	19.47	5.26	2.87	12.04	0.71	5.92
Petroleum & Products/Mining	6.75	-0.08	3.98	0.26	-0.52	32.24
Electricity, Gas & Water	2.38	7.18	0.91	1.24	3.29	7.32
Construction	5.24	3.24	4.54	7.72	4.76	6.74
Total Commodities	49.03	3.73	1.10	51.05	2.30	3.22
Transportation & Communications	7.37	5.59	1.25	6.32	4.70	4.97
Trade, Hotels & Restaurants	19.32	5.24	3.79	13.59	3.31	6.79
Finance	4.14	4.81	2.47	1.09	-0.47	8.22
Other Services	20.22	4.27	0.74	27.90	2.58	3.37
Total Services	51.06	4.86	1.62	48.89	2.93	2.95
Grand Total	100	4.23	1.09	100	2.54	0.79

Source: Calculated based on data from the CAPMAS annual labor surveys and the Ministry of Economic Development (various years)

Employment growth for the economy as a whole, averaged 2.5%, with the service sectors contributing more than the commodity sectors. The construction sector and the transport and communication sector experienced the highest employment growth, while employment in the petroleum and mining sector, and in the financial sector actually declined. All sectors had higher standard deviations of employment growth than the economy as a whole. Excluding the two sectors with declining employment, the standard deviation of employment growth was in the range of 3-7%. This might suggest that the idiosyncratic shocks that have affected the petroleum and mining, and finance sectors are considerably more important than the common shocks that have hit all sectors.⁽¹⁵⁾

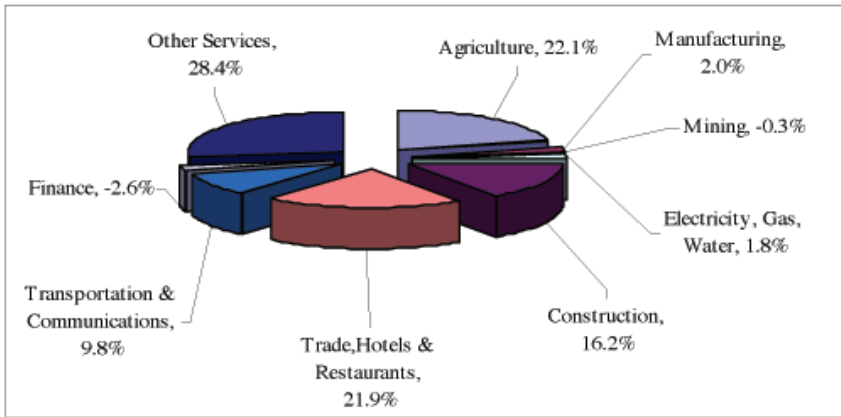
On the growth side, real GDP growth averaged 4.2%, with a larger contribution coming from the utilities, manufacturing, and service sectors. The construction sector followed by trade, hotels and restaurants sector - all high employment activities - exhibited the highest volatility. Again, it seems that the idiosyncratic shocks that influenced these sectors were more important than the

systematic shocks affecting all sectors. In addition, these sectors usually exhibit notable differences in cyclical sensitivity.

Sectoral Contributions to Employment and Economic Growth

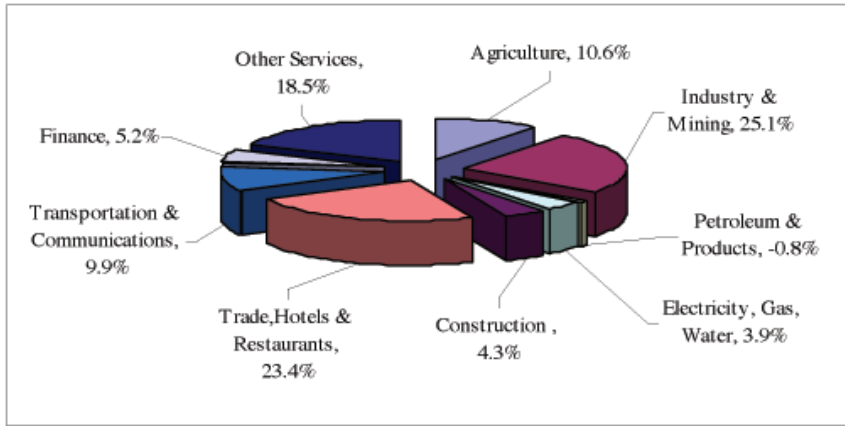
The contribution of each sector to employment growth and economic growth over the period 1995-2005 are shown in Figures 7 and 8 below.⁽¹⁶⁾ The employment intensity of economic growth at the sector level may be summarized as follows:

- Trade, hotels and restaurants; and transportation and communication contributed highly to both employment growth and economic growth;
- Industry and mining contributed more to economic growth compared to their contribution to employment growth;
- Construction and agriculture contributed less to economic growth and more to employment growth; and
- The remaining sectors had a low contribution to both economic growth and employment growth.



Source: Calculated based on data in the CAPMAS annual labor surveys.

Figure 7. Sector contributions to employment growth, 1995-2005



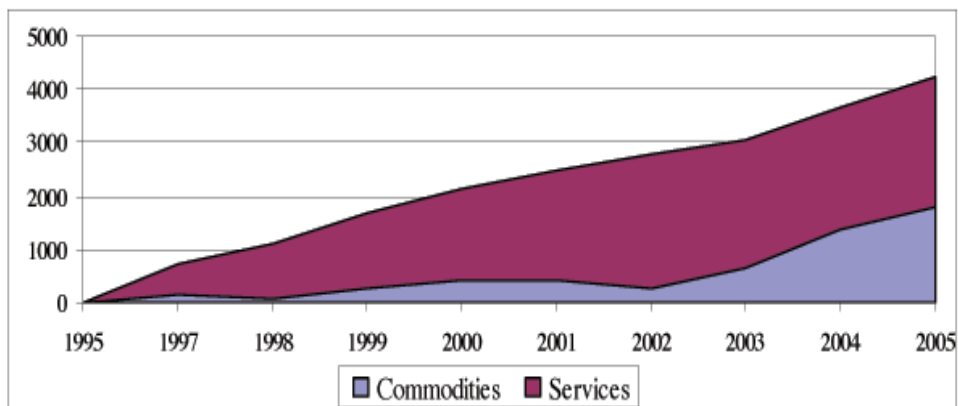
Source: Calculated based on data from the Ministry of Economic Development (Various years).

Figure 8. Sector contributions to real GDP growth, 1995-2005

In the decade 1995-2005, the economy created about 4.3 million jobs, with the service sectors accounting for 2.5 million and the commodity sectors for the rest (Table 4 and Figure 9). Within the commodity sector, the construction and agriculture sectors accounted for virtually all of the increase in employment. Interestingly, the manufacturing sector contributed negatively to cumulative employment through 2004. There could be a number of reasons. Overall investment in the manufacturing sector had been sluggish until recently. Investment in state owned industrial firms has declined significantly in recent years, and private investment has lagged behind. In addition, investment has been biased toward those sectors that employ capital-intensive technology (Fawzy, 2002).⁽¹⁷⁾

Table 4. Cumulative Increases in Employment as of 1995 (thousands)

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Agriculture	-75.1	-203.6	-219.3	70.9	-15.7	-112.5	385	931.9	945.9
Mining	1.3	28.3	6.7	6.7	18.8	3.8	-8.7	-8.7	-11.7
Manufacturing	-12	-103.3	62.1	-97.3	-30.5	-74.8	-168.6	-60.4	84.2
Electricity, Gas & Water	25.9	36.6	40.2	42.4	43.4	75	61.9	51.7	78.5
Construction	195.7	329.9	362.9	401.4	391.2	357.9	383.8	442.3	692.6
Total Commodities	135.8	87.9	252.6	424.1	407.2	249.4	653.4	1356.8	1789.5
Trade, Hotels & Restaurants	392.8	656.8	749.7	705.8	880.2	1069.9	882.3	1016.3	937.5
Transportation & Communications	20.5	51.4	157.5	223.3	239.5	230.2	242.6	268.7	420
Finance	-102.7	-108.4	-97.5	-97.1	-83.3	-63.2	-82.8	-86.9	-113.5
Other Services	276.8	437.5	629.9	888.2	1052.8	1311.6	1366.1	1105.6	1216.9
Total Services	587.4	1037.3	1439.6	1720.2	2089.2	2548.5	2408.2	2303.7	2460.9
Grand Total	771.9	1124.8	1692	2145	2498.5	2798.1	3060.5	3659.3	4283.6



Source: Calculated based on data in the CAPMAS annual labor surveys.

Figure 9. Contributions to cumulative employment increases as of 1995 (thousands)

While the elasticities for most individual sectors cannot be relied upon because of the volatility that these sectors have exhibited in employment growth, in economic growth, or both, the elasticities for the commodity sector, the services sector, and the economy as a whole may be used with some confidence. The elasticity for the economy as a whole is found to be 0.59, identical to the estimate obtained in the regression analysis. The elasticity for services sector (0.64) exceeds that for the commodity sector (0.52). The relationship between

the elasticity of employment with respect to GDP and the elasticity of productivity with respect to GDP is worth highlighting. As expected, the productivity elasticity⁽²¹⁾ for the commodity sectors (0.48) is higher than that for the service sectors (0.36). This implies that in a growing economy, while the employment gains in the service sectors exceed that of the commodity sectors, the productivity increases in the commodity sectors exceed that of the service sectors.

Illustrative Scenarios of Unemployment, 2006-2011

A key policy question in Egypt is how high an economic growth trajectory would ensure a sustained fall in the unemployment rate. The link between economic growth and the unemployment rate may be further disaggregated into the following subset of questions:

- What minimum growth rate would prevent the unemployment rate from rising from its present level and what additional growth would be necessary to reduce the unemployment rate?
- What would be the impact of structural changes in the production-labor relationship on the unemployment rate, and how much higher the economic growth would have to be to compensate for the lack of structural changes?

These questions are addressed by developing five illustrative scenarios for the next five years, using 2006 as the base.⁽²²⁾ The “low uneven growth” and the “high sustained growth” scenarios are the two extremes. The former is based on the pattern of uneven economic growth that has characterized the Egyptian economy in the past quarter of the century. Real GDP growth averaged 4.4% over the period 1992/93-2005/06, with three years of relatively low growth

(less than or equal to 3.2% per annum) and two years of relatively high growth (higher than or equal to 5.7%).⁽²³⁾ The high growth scenario is based on an annual growth rate of 7%, close to the rate recorded in the past two years. The “neutral” scenario highlights the conditions under which the unemployment rate would remain basically unchanged over the period. Finally, there are two benchmark scenarios where the employment implications of the same economic growth are investigated with and without structural changes in the relationship between employment growth and economic growth.

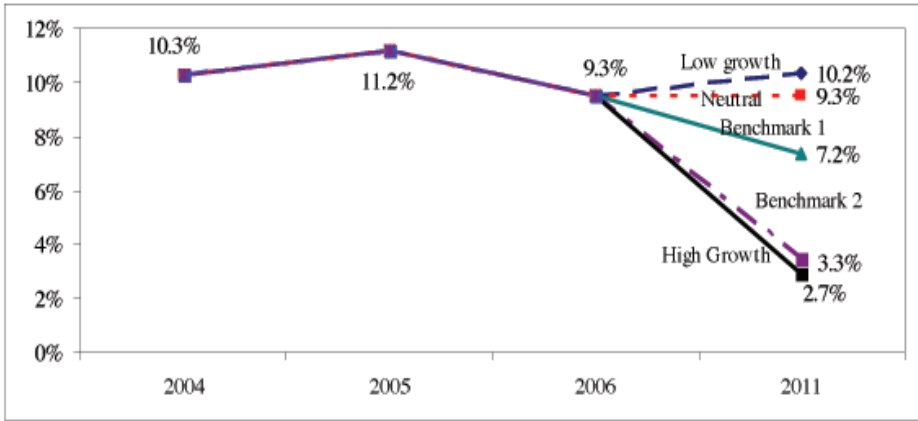
All scenarios assume an annual labor force growth rate of 2.9%, equal to the average growth over the period 1998-2005. All scenarios are based on an employment elasticity of 0.59 with the exception of the second benchmark scenario which assumes a higher employment elasticity as a proxy for structural changes that improve labor absorption.

For quantifying these scenarios, the authors first calculated the end of period (2011) labor force and real GDP⁽²⁴⁾ and then used the employment elasticity to translate the accumulated economic growth into employment growth. Subsequently, the end of period unemployment rate is calculated (Table 6 and Figure 10).

Table 6. Illustrative Scenarios for Unemployment, 2006-2011

	2006				2011				Assumptions			
	Emp.	Labor Force	Unemp.	Unemp. Rate (%)	Emp.	Labor Force	Unemp.	Unemp. Rate (%)	2006-2011 Annual GDP Growth Rate (%)	Elasticity	Annual Labor Force Growth Rate (%)	
Low growth	19,877,329	21,917,429	2,040,100	9.3	22,715,575	25,285,205	2,569,630	10.2	4.43	0.59	2.9	
Neutral					22,940,114		2,345,091	9.3	4.75			
Benchmark 1					23,477,241		1,807,965	7.2	5.50			
Benchmark 2					24,453,488		831,717	3.3	5.50			0.75
High growth					24,598,304		686,901	2.7	7.00			0.59

Source: Authors' estimates of 2011, based on 2006 data from the CAPMAS and the Ministry of Economic Development (various years).



Source: Authors' estimates; and CAPMAS data.

Figure 10. Illustrative scenarios for unemployment rate, 2011

“Low uneven growth” scenario. This scenario assumes that the real GDP grows by 4.4% per annum (the average growth rate over the period 1992/93-2005/06) over the coming five years. In view of growth rates of around 7% in 2006 and 2007, it implies annual growth rates of around 3.5% per annum during 2008-2011. While the likelihood of this scenario is fairly slim, it sheds light on the risks attached to large cyclical swings that Egypt has experienced in the past. This is the only scenario under which the unemployment rate increases from 9.3% in 2006 to 10.2% in 2011.

Neutral” scenario. An economic growth rate averaging 4.8% per annum would keep the unemployment rate unchanged at the 2006 level.

Benchmark scenario without structural change. This scenario assumes that real GDP will grow at its roughly estimated potential rate of 5.5% per annum.⁽²⁵⁾ According to this scenario, the unemployment rate would decrease moderately to 7.2% by the end of the period, which is still relatively high.

Benchmark scenario with structural change. While this scenario maintains the assumption of an economic growth of 5.5% per annum, it further assumes that structural changes would raise the employment elasticity to 0.75.

This could happen, for instance, by using policies to channel the economic growth into those sectors with higher employment elasticities. The likelihood of this scenario hinges on the early introduction of a package of medium and long-term policies. It is unlikely, however, that such a policy could produce a dramatic change in employment elasticity in the medium term. Nevertheless, the point is to stress that the impact could be indeed substantial as the unemployment rate under this scenario plunges to 3.3% by the end year.

“High sustained growth” scenario. What additional growth would compensate for the absence of structural changes? This scenario suggests that an average growth rate of 7% per annum would reduce the unemployment rate to around the same level by 2011 as in the previous scenario. Naturally, the impact would be even more significant if combined with structural changes that raise the employment elasticity.

Robustness of Results to Changes in Labor Force Growth Rate

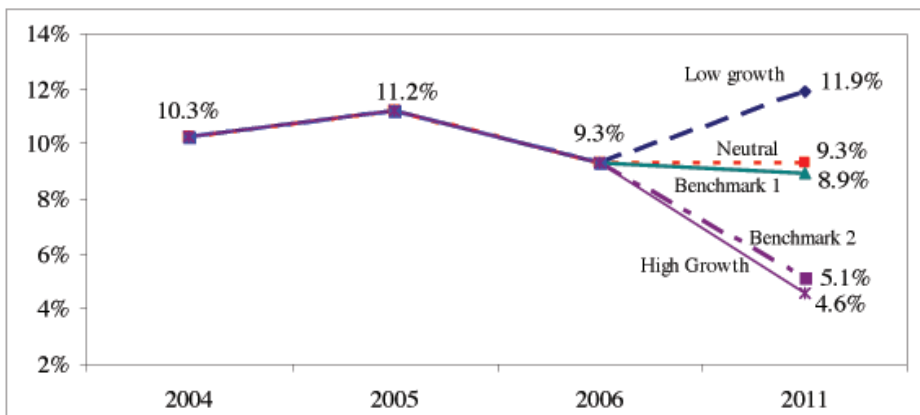
The analysis so far has focused on labor demand. All illustrative scenarios are based on the assumption that the labor force growth rate remains fixed at 2.9%. How sensitive are the scenarios to an increase in the labor force growth arising, for example, from a gradual increase in the participation rate? This could happen if, for example, the higher economic growth (and employment) were to result in higher wages that exceed the reservation wages of those who have temporarily exited the labor market, especially women.

Again for illustrative purposes, the unemployment scenarios above are simulated for the effect of a gradual increase in the participation rate to 52% by the end of the projection period, compared to 49% in 2005. Such an increase in the participation rate would be consistent with a gradually rising labor force growth of 3-3.5% during the period, averaging 3.3% over the period, compared to 2.9% under the previous set of scenarios. This is under the assumption that the population growth rate of the 15-64 age bracket would remain constant over the period. Most of the increase in the participation rate would be expected to come from an increase in the women participation which, as already discussed, is quite low. Specifically, female participation is assumed to increase from 21.6% in 2005 to about 26%, while the male participation rate remains constant.

Table 7. Illustrative Scenarios of Unemployment under Higher Labor Force Growth

	2011				Assumptions		
	Emp.	Labor Force 25,780,493	Unemp.	Unemp. Rate (%)	Annual GDP Growth Rate (%)	Elasticity	Annual Labor Force Growth Rate (%) 3.3
Low growth	22,715,575			3,064,918	11.9	4.43	
Neutral	23,372,198		2,408,295	9.3	5.36	0.59	
Benchmark 1	23,477,241		2,303,252	8.9	5.50	0.59	
Benchmark 2	24,453,488		1,327,005	5.1	5.50	0.75	
High growth	24,598,304		1,182,188	4.6	7.00	0.59	

Source: Authors' estimates of 2011, based on 2006 data from the CAPMAS and the Ministry of Economic Development (various years).



Source: Authors' estimates; and CAPMAS data.

Figure 11. Illustrative scenarios of unemployment under higher labor force growth, 2011

Table 7 and Figure 11 highlight the sensitivity of the abovementioned results to a possible increase in the labor force growth rate. With a higher labor force growth rate, other things equal, the unemployment rate under the low growth scenario increases to about 12% (10.2% previously). In the neutral scenario, the economic growth required to keep the unemployment rate unchanged at its

2006 level rises to 5.4% instead of 4.8% previously. The benchmark scenario without structural change would lead to only a slight decrease in the unemployment rate from its 2006 level, but would decline more significantly with structural changes that increase labor absorption for the same rate of economic growth. Finally, with the rising labor force growth, the decline in the unemployment rate under the high growth scenario (to 4.6%) would significantly exceed the rate under the constant labor force growth scenario.

Conclusion

The unemployment rate in Egypt has been persistently high in the last decade, with the problem being most acute among the better educated youth. There are various (and often incomparable) measures of the unemployment rate, and the official measure of around 9-10% possibly forms the lower bound. Apart from the measurement problem, there is also wide evidence of under-employment in the formal sector.

The Egyptian private labor market is fairly efficient. There is no binding minimum wage; wages are flexible; non-wage costs (although significant) are in most cases non-binding; and employers follow fairly liberal hire/fire practices. The lack of employment opportunities for the young, first time job-seekers arises from a host of other factors, including: the skill mismatch, a high reservation wage, and limited labor mobility.

The unemployment issue has both supply and demand dimensions. On the supply side, the issues are the rapid growth of the labor force and the young age profile of the population. On the demand side, the uneven overall economic performance and the low job content of growth are the key issues.

The paper explores the interaction of supply and demand for labor. Given the stable growth of the labor force, it focuses on the employment intensity of economic activity at the sector level. Within an uneven overall economic performance of the last decade, the paper argues that the growing sectors of the economy are not necessarily those that contribute significantly to employment generation.

The paper presents a set of illustrative medium-term scenarios to highlight the employment impact of economic growth and structural changes in the labor market. The trade-off is fairly significant: in the absence of structural changes to improve the employment response. Much higher rates of economic growth would be required to increase employment. The illustrative scenarios also suggest that the decline in unemployment associated with rapid economic growth would be substantially less if the labor force begins to expand even slightly faster than what has been the case in the recent past. A clear implication is that high economic growth may not necessarily lead to a substantial decline in unemployment unless: (a) it is sustained; (b) it is generated by sectors with high employment content; and (c) it is accompanied by structural changes in the labor market.

Maintaining high rates of growth requires higher rates of investment and improvements in the efficiency of investment. Increasing the employment response to growth requires policies to promote activities and sectors which have large labor content (services, construction, agriculture). Structural changes in the labor market would include measures to improve skill levels (vocational training, on-the-job training, upgrading the education system) in line with the changing requirements of the labor market. These are not short-term issues. Addressing the unemployment problem in Egypt, especially among its youth, is a generational issue with a high socioeconomic trade-off.

Footnotes

⁽¹⁾ National census is conducted every ten years. The full results of the 2006 census are not yet available.

⁽²⁾ ILO database.

⁽³⁾ Assaad's survey extended the coverage to subsistence activities (agriculture and animal husbandry) which more than doubled the female participation rate.

⁽⁴⁾ See also Galal (2002), Radwan (2002), Van Eekelen et al (2001), and ILO (2006b).

⁽⁵⁾ The CAPMAS conducts annual (and since 2004, quarterly) labor market surveys, except in census years when the census results are used. The CAPMAS has also conducted three special labor market surveys, in 1988, 1998 and 2006, but the results are not fully comparable.

⁽⁶⁾ For a review of civil service employment and wage policy, see Handoussa and El Oraby (2004).

- (7) See also Awad (2003), El Ehwany (2004) and El-Laithy et a. (2003).
- (8) According to a survey by the government's Information and Decision Support Center (IDSC), and reported in the Egyptian Gazette (May 18, 2007), 70% of jobs are secured through favoritism.
- (9) Non-wage costs in Egypt are higher than most comparators. See World Bank (2007).
- (10) The law excludes the public sector. It also excludes agriculture and many activities that are typically in the informal sector (e.g., domestic help).
- (11) See Van Eekelen et al (2001) for various initiatives and programs to promote youth employment in Egypt.
- (12) See, for example, Clogg and Shockey (1984), Alba-Ramirez (1993), and Halaby (1994).
- (13) See Okun (1962). For more details on Okun's law, see also Knotek (2007).
- (14) See Boltho and Glynn (1995) and Walterskirchen (1999), among others.
- (15) Oil production fluctuated notably and gas production came on stream at the end of the period. The financial intermediaries saw, after the boom of mid-to-late 1990s, a severe credit crunch which was partly associated with the problem of nonperforming loans.
- (16) The relative contribution of each sector to economic growth is calculated as: $RCG_i = w_i g_i / GDP_g$ where RCG_i refers to the relative contribution to economic growth by sector i , w_i to sectoral weight in GDP, g_i to sectoral growth, and GDP_g to real GDP growth. The relative contribution of each sector to employment growth is calculated as: $RCL_i = \Delta L_i / L$, where RCL_i stands for relative contribution to employment growth, ΔL_i for the increase of employment in sector i , and ΔL for the increase of employment in the whole economy.
- (17) Fawzy (2002) found a general trend toward employing more capital-intensive technology in the manufacturing sector, with investment biased against small and micro enterprises that typically use labor-intensive technology.
- (18) The GDP data are from the World Bank, World Development Indicators, CD-ROM, 2006. The employment data are from ILO, Key Indicators of the Labor Market, 4th Edition, CD-ROM, 2006a .
- (19) The coverage and measurement of unemployment in census years (1996 in this sample) are different from non-census years where the data are based on labor force surveys.
- (20) When regressing employment growth on the lagged real GDP growth, instead of the contemporaneous real GDP growth, and controlling for autocorrelation among residuals, the estimated employment elasticity is still statistically significant at 1% level, but declines to 0.52, while the adjusted R^2 increases to 0.41.
- (21) Elasticity of productivity = 1- elasticity of employment.
- (22) The authors used the 2006 census results announced by the CAPMAS to set the initial conditions, where age coverage is 15+. It may be recalled that the CAPMAS data refer to the narrow definition of unemployment.

⁽²³⁾ These growth rates are one standard deviation from the average growth rate during the period.

⁽²⁴⁾ The following formula: $y_{t+5} = y_t(1+r)^5$ is used, where y refers to the initial value and r stands for the growth rate.

⁽²⁵⁾ Authors' estimates based on various trend analysis (linear, quadratic, Hodrick-Prescott filter) over the past quarter of century suggest a potential real growth rate in the region of 4.8% per annum, the same as the average real growth rate over this period. With the ongoing major structural changes in the economy, a trend shift of about 1 percentage point seems feasible, suggesting a potential growth rate in the region of 5.5-6%

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Understanding Unemployment in the Arab Countries: Towards A Policy Framework

Syed Ahsan
Xing Fe Liu

Understanding Unemployment in the Arab Countries: Towards A Policy Framework

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Xing Fe Liu

Abstract

The paper uses a sample of five Arab countries (namely Algeria, Egypt, Jordan, Morocco and Tunisia) in a dataset covering the period from 1990 to 2006. Two-stage least squares methodology is used to find estimates of growth and human capital variables from a search of deeper instruments, and fitted values from these regressions are then used in a second-stage estimation of unemployment behaviour in the general population and separately for men. Results suggest that while growth, by itself, does tend to achieve significant reduction in unemployment, the lack of sustainability of growth works in the opposite direction raising unemployment so that the net effect is rather modest. Moreover, while educational contribution to lowering of unemployment is likely to be of a modest magnitude for all, the labour market appears to strongly discriminate against women's skills. Rising longevity appears to predict rising unemployment via participation which would call for faster job creation in order to meet the growing aspirations of the public.

نحو إطار للسياسات لفهم البطالة في الدول العربية

سيد أحسن

زينج فاي ليو

ملخص

استهدفت الورقة تطوير نموذج لسلوك معدل البطالة في خمس دول عربية هي الجزائر، الأردن، تونس، مصر والمغرب خلال الفترة 1990 - 2006. تم الاعتماد في بناء هذا النموذج على قواعد بيانات البنك الدولي ومنظمة العمل الدولية، واستند على خمس أطروحات نمطية حول علاقة البطالة بكل من: معدل نمو الناتج المحلي الإجمالي، ورأس المال البشري، والمشاركة في قوة العمل وخدمات رأس المال والعمولة والاندماج في الاقتصاد الدولي. وفي ما يتعلق بالنتائج التطبيقية التي تم رصدها في هذه الورقة تبين أن زيادة معدل النمو الاقتصادي بنقطة مئوية يؤدي إلى انخفاض معدل البطالة بحوالي 3.2%. وأن ارتفاع العمر المتوقع لدى الولادة بحوالي 2.7 سنة يؤدي إلى ارتفاع معدل البطالة بحوالي 3.7% كما توضح النتائج أن التذبذب في النمو الاقتصادي من شأنه زيادة معدل البطالة.

* The authors are, respectively, P Professor and Ph.D. student respectively, in the Department of Economics, Concordia University, 1455 Boul. de Maisonneuve Ouest, Montreal, QC, Canada H3G 1M8 (syed.ahsan@concordia.ca; feiya66@gmail.com). They are grateful to the editors of the journal for many detailed constructive comments and suggestions. They also thank Ali Abdel Gadir Ali, Gordon Fisher, Nikolay Gospodinov, and Rizwanul Islam, Dorothea Schmidt and other seminar participants at the API conference in Cairo (March 17-18, 2008), ILO (Geneva) and IFAD (Rome) for constructive comments, helpful comments, suggestions and help with the data. The usual caveat applies.

Introduction

The goal of this paper is to analyze the unemployment behaviour in selected diversified Arab countries with available data, which will then form the basis of a useful policy debate. Needless to say, the unemployment issue is among the pressing social and economic concerns anywhere and particularly so in the Middle East and North Africa (MENA) region where its level has been historically high. Sen (1999) stresses the psychological and other harmful effects (e.g., human capital depreciation, loss of motivation, family stress, racial tensions and gender asymmetries) over the direct income loss arising out of unemployment. Unlike industrial or higher income countries, typically there is little in the way of transfer programs.

While growth is looked upon as the key to ameliorating unemployment and poverty outcomes, it is generally observed that even countries with good growth performance, have not been able to create a commensurately large number of jobs. However, most discussion of the growth-employment nexus in the MENA context has been largely based on observed correlation pattern between variables, not via testing of formal hypotheses. Hence, one cannot infer that there is no casual process at play here. Moreover, anyone familiar with the region would recognize that growth has been highly volatile. In this context, it would be interesting to formally explore the likely impact of the sustainability of growth on unemployment.

Literature on human capital points out that the contribution of human capital ought to be at the core of the growth process, i.e., as an engine of growth typically embedded in labour-augmenting technology or via a similar device (e.g., Pissarides and Véگانzonès-Varoudakis, 2006). If indeed output cannot grow beyond the subsistence level without the contribution of human capital, high growth must be synonymous with good human capital development. And the latter would translate to higher labour productivity and rising real wage in the economy. A cursory look at the observed growth experience in the MENA region does not conform to this premise, even if the recent pick up in the growth rate

in most countries of the region is undeniable (Ali, 2002, and Ali and Elbadawi, 2002).

To examine the growth and employment nexus closely, one needs to look closely at the labour market developments. The region in focus has undergone a demographic makeover whereby the number of new entrants in the labour market over the past decade has been much higher than in earlier decades. This is, however, expected to moderate in the years to come, but still remains high. Moreover, the participation level has remained modest by global, particularly developing country standards.

In recent years, advances in female educational attainment have also spelled a new impetus to their participation. A final remark on the labour market feature of the MENA region needs to be highlighted which sets it apart from other developing regions, namely in its historical reliance on government or public sector jobs as a share of all jobs in the country. The latter phenomenon is believed to have distorted the labour market in manners such as by adhering to a non-market clearing wage structure, by providing wrong signals to the pattern of human capital acquisition, by fostering unproductive employment and thus lowering the growth potential for the given stock of human capital. Many writers argue that public sector can no longer afford to run its affairs as of the old. New job creation must come from the private sector, thereby creating an environment for market incentives and efficient signalling.

This paper cannot reasonably be expected to address all these issues, regardless of how important they may be or how closely they may be connected. Instead the goal is to explain the recent behaviour of unemployment in a sample of five diversified economies in the Arab world most of which have a relatively large population, namely, Algeria, Egypt, Jordan, Morocco and Tunisia.

The objective is to specify an adequate analytical model that may plausibly explain the functioning of the labour market such that it may be estimated with

some degree of robustness before one can discuss policy. Hence, the focus will be in developing an a-priori model of unemployment behaviour.

Methodology and its Empirical Formulation

The analytical model proposed below builds on several stylized hypotheses, which have been variously supported by observed and/or anecdotal evidence in different contexts:

- **Unemployment:** Its counterpart, employment growth when looked at from the demand side of the market, must depend on the expected rate of expansion of the economy, namely GDP growth. However, it is also understood that both employment and growth must be endogenously determined which in turn requires the 'discovery' of an instrument for the growth variable in order to empirically model employment behaviour.
- **Human Capital:** Continuing with the sources of employment demand, in today's knowledge economy, job creation/losses are often dictated by technological evolution. Consequently, demand for appropriate skills would rise. It would thus be necessary to model unemployment in relation to a suitable 'human capital' variable. The challenge would be in identifying the best proxy measure of human capital. Further at the estimation stage, it would be necessary to investigate the role of an 'instrument' since it is plausible that both human capital acquisition and employment/unemployment behaviour are jointly determined.
- **Participation:** It may be observed that on the supply side of the market, labour force participation, especially by women, may play a major unfolding story. Indeed with greater education, participation, and hence labour supply, would likely increase, but given the historical rigidities of the Arab labour market and capital market deficiencies, unemployment may actually increase. It would be interesting to capture these details in an estimated model. In any case, how should a researcher capture the participation variable in the analytic model?

- **Capital Services:** Analytically speaking, the ease of acquisition of capital stock would feature prominently in any labour demand function due to the productivity link. In terms of the mechanism involved, the issue boils down to the choice of technology and access to finance. Recent literature makes a lot of the significance of financial capital as an agent of economic growth, and hence, employment (e.g., see Aghion et al, 2005). Here again arises the mutuality of the growth and finance issue. In view of the endogeneity involved, one should ideally model growth as being dependent on some measure of the efficiency of the financial market, rather than merely as another independent variable.
- **Globalization and Economic Integration:** In many of the literature on modern growth and development, economic integration features prominently (e.g., Sachs and Warner, 1995). Hence, a measure of this variable as a possible explanation of employment generation has to be searched. Empirically, however, a 2-stage estimation procedure as proposed would normally capture the effect of integration via growth itself, and thus, the direct effect may or may not be discernible. Robust estimation would reveal whether this is the case or not.

The analytical model implied by the foregoing discussion may be conceptualized as follows. Unemployment level (U) may be defined as

$$U = LF - E \quad (1)$$

where LF and E denote total labour force and employment, respectively in levels, or simply 'labour supply' less 'labour demand' suitably interpreted. Dividing through by LF, the 'unemployment rate' is obtained which is convenient since most data are typically expressed in terms of the rate:

$$(U/LF) = (1 - E/LF) = f(E/LF), f' < 0 \quad (2a)$$

or:

$$UET = f(EMT/LPT) \quad (2b)$$

where UET is used to denote the 'total unemployment rate'. Equation 2b follows from Equation 2a simply by dividing the numerator and the denominator on the right-hand side (rhs) by the economically active population variable (P). UET

is obtained as determined by the ratio of the 'employment rate' (EMT) to the 'labour force participation rate' (LPT). For estimation purposes, however, it may be linearized, written as:

$$\text{UET} = f_0 + f_1 \text{EMT} + f_2 \text{LPT} + \text{error} \quad f_1 < 0, f_2 > 0 \quad (3a)$$

Alternatively, it may be noted that Equation 2a is linear in log. Hence, it may also be written:

$$\log \text{UET} = g_0 - g_1 \log \text{EMT} + g_2 \log \text{LPT} + \text{error}, \quad g_1, g_2 > 0 \quad (3b)$$

The sign pattern of the coefficients in Equations 3a and 3b is of obvious significance.

One would normally hypothesize that the human capital variable (HUM) as well as health indicators such as longevity (LET) and mortality (MRT) rates would play important roles in determining the participation decision. Moreover, price of labour must also enter the function. In the absence of data on real wage growth or on labour productivity, GDP growth (GRO) is used as a proxy as follows:

$$\text{LPT} = I(\text{GRO}, \text{HUM}, \text{LET}, \text{MRT}) \quad (4a)$$

Rising life expectancy (LE) would have several implications for the labour force growth. It may delay the participation decision as individuals may accumulate human capital over a longer period in view of the expected longer working life, delayed retirement (i.e., staying longer in the labour force), and for the 25+ group, the participation rate should normally go up at every age (presumably due to better health and better education). While the first element may temporarily help the employment outlook for those already in the labour force, in the longer horizon, the remaining two elements would *ceteris paribus* lead to an increase in labour supply. The net effect on labour supply and unemployment would be likely to raise them both.

Under-5 mortality (MRT) is another good health indicator which may also have significant implications on enrolment and eventual participation decisions. However, the practical importance of this variable may be compromised due to its presumed correlation with the life expectancy variable.

Employment Rate (EMT). The next task is to capture the demand side of the market, namely the evolution of the employment rate. Essentially, factors that affect the marginal productivity of labour need to be included, and hence the labour input may be interpreted to have been measured in 'efficiency units'. Following the neoclassical production function idea, this variable must reflect the roles of capital-labour ratio and the TFP growth parameter, where the latter may be thought to incorporate the impact of technological innovations. Additionally, on pragmatic grounds, an integration variable is included, typically measured by 'export to GDP ratio' (EXG), as several empirical studies have stressed its impact on job creation especially in East and South East Asia.

$$\text{EMT} = e(\text{HUM}, \text{TFP}, \text{Access to Capital}, \text{EXG}) \quad (4b)$$

where it is proposed to use GDP growth as a proxy for TFP since no alternative estimate of the latter is feasible at this stage. Access to capital may be measured by the 'real interest rate' (RIT), which is generally available. Thus, the employment demand function may be restated as follows:

$$\text{EMT} = e(\text{HUM}, \text{GRO}, \text{RIT}, \text{EXG}) \quad (4c)$$

In view of both supply and demand sides of the market, Equations 4a and 4c in Equations 3a and 3b may be substituted to obtain a reduced-form equation that retains the essential structure of the causal relationships reviewed above:

$$\begin{aligned} \text{UET} = & \alpha_0 + \alpha_1 \text{GRO} + \alpha_2 \text{HUM} + \alpha_3 \text{RIT} + \alpha_4 \text{EXG} + \alpha_5 \text{LET} + \alpha_6 \text{MRT} + \varepsilon_1 \\ & \alpha_1 ?, \alpha_2 ?, \alpha_3 > 0, \alpha_4 < 0, \alpha_5 > 0, \alpha_6 < 0 \end{aligned} \quad (5a)$$

Alternatively, in log form:

$$\begin{aligned} \log \text{UET} = & \beta_0 + \beta_1 \log \text{GRO} + \beta_2 \log \text{HUM} + \beta_3 \log \text{RIT} + \beta_4 \log \text{EXG} + \beta_5 \\ & \log \text{LET} + \beta_6 \log \text{MRT} + \varepsilon_2, \beta_1 ?, \beta_2 ?, \beta_3 > 0, \beta_4 < 0, \beta_5 > 0, \beta_6 < 0 \end{aligned} \quad (5b)$$

Sustainability of Growth. If one were to test the growth volatility hypothesis, it would be necessary to add a GRO-squared term or some suitable indicator of the degree of dispersion in observed growth rates across time and space on the rhs of Equations 5a and 5b. The latter coefficient would be expected to be positive, namely higher volatility leads to higher unemployment according to the hypothesis postulated.⁽¹⁾ It is intuitive that if growth is perceived to be unreliable, employers would hold off hiring till the outlook becomes more stable, especially when market rigidities make firing of workers difficult to accomplish.

Given the sign pattern of Equations 3a and 3b, the RIT and LET variables are expected to raise the unemployment rate, while the opposite is the causality for EXG and MRT. Obviously, in view of the conflict between the magnitude of the relative shift in supply and demand sides of the labour market, the overall effect of increased growth and human capital acquisition cannot be determined a priori.

Gender. An important element of this research would be to discern the implications for both male and female unemployment policies. Hence Equations 5a and 5b would be estimated both in the general case (UET), as presented above, and lacking direct data on female unemployment, for males (denoted UEM). A comparison of the two sets of estimates would allow drawing inferences along the gender dimension. Further details of the separate estimation of UET and UEM are described below.

Proxy Variables

When it comes to empirical modelling, the dependent variable (the unemployment rate), GDP growth, life expectancy and mortality are perhaps the only variables for which the choice is fairly clear-cut in the sense that the measurement issues are standard and well-known. Even then, and as noted already, there are no data on female unemployment on a consistent basis for all countries in the sample analyzed. On the rest of the variables, there is however, a much larger latitude of debate, albeit the choice is constrained by the availability issue.

Human Capital. Although completed years of schooling among population in the 15-64 age group would be a natural variable to focus on (e.g., see Barro and Lee, 2000), this does not appear to be available for this panel. Hence, it is proposed to measure human capital by the 'secondary school enrolment rate' (SET). For the male unemployment equation, boy's enrolment figures (SEB) are used.

Access to Capital. The real overnight rate under the control of the monetary authorities may be viewed as a good indicator of the cost of financial capital in most contexts since business prime lending rates are typically closely related to the former. However, again due to non-availability, the real interest (RIT) variable compiled by World Development Indicators (World Bank, 2007b) is used which is a weighted average of real commercial lending rates.

Instrumental Variable Approach

GDP Growth (GRO). Since several rhs variables (e.g., unemployment, GRO human capital) may well be determined endogenously, it is important to take this into account. Hence, there is a need to look for instruments for GRO and human capital variables.

On the issue of a suitable instrument for GRO, Rodrik et al. (2004) have convincingly argued that the quality of institutions (à la New Institutional Economics, e.g., see North, 1990 and Williamson, 1979) is the primary determinant of long run growth.⁽²⁾

Focusing on the indicators from the World Bank Governance project available since 1996, namely 'governance effectiveness' (GVE), which is a measure of economic governance, i.e. the capacity to implement policies and to deliver services and 'rule of law' (ROL), which measures institutional aspects of governance, i.e. respect of citizens and state for institutions, these two are used as alternative instruments for the growth variable. One component of these indices on which data is available on a consistent basis for all data points starting 1996, is used in the present study.⁽³⁾

For secondary enrolment, the instrumental variable proposed is the 'percent of paved roads' (RDP) on which consistent data are available for all sample countries. The idea is that school enrolment would depend on the quality of physical accessibility of schools. The same variable would also indirectly

capture the quality of transportation available in the local area since the latter is intimately related to the quality of roads - elements that are directly relevant to the access to education, especially for girls.

The following is proposed to estimate the two first-stage equations for GRO and HUM:

$$\text{GRO} = \gamma_0 + \gamma_1 (\text{GVE/ROL}) + \gamma_2 \text{RDP} + \gamma_3 \text{EXG} + \gamma_4 \text{RIT} + \gamma_5 \text{LET} + \gamma_6 \text{MRT} + \varepsilon_3 \quad (6)$$

$$\text{SET/SEB} = \varphi_0 + \varphi_1 (\text{GVE/ROL}) + \varphi_2 \text{RDP} + \varphi_3 \text{EXG} + \varphi_4 \text{RIT} + \varphi_5 \text{LET/LEM} + \varphi_6 \text{MRT} + \varepsilon_4 \quad (7)$$

where general 'life expectancy among men' is denoted by LEM as distinct from that in the general population, LET. The a priori sign-pattern of the estimated coefficients of these equations is discussed when the data are described.

The second stage estimation of Equations 5a and 5b therefore takes the estimated values of GRO and SET/B respectively from Equations 6 and 7 and similarly, for the male unemployment equations. For testing the sustainability of growth hypothesis on the unemployment behaviour, one would add to the rhs of the second-stage equations fitted value of GRO either as a squared term or a measure of relative dispersion as discussed above.

Data Construction

The paper's objective is to assemble a data set for the larger and more economically diversified countries from the MENA region, keeping in mind the structural differences in the nature of the challenges between those which are major exporters of oil and the rest. The data set should also be of a panel type that may be analyzed for both changes over time and in the cross-section. These stipulations suggest focusing on the fairly recent period of 1990-2006, which covers different oil price regimes as well as policy shifts in much of the region to address the problem of unemployment and under-employment.

However, the availability issue dictated narrowing the dataset to the five countries of Algeria Egypt, Jordan, Morocco and Tunisia, herein referred to as MENA_5. Of the entire MENA region, these five countries account for nearly half of the region's population at precisely 46%, 45% of the working-age population and 43% of the labour force (ILO, 2005). Indeed, the three relatively large countries included in this sample - Egypt, Morocco and Tunisia - account for 41% of MENA's entire working-age population.⁽⁴⁾

Insofar as data on the primary variables are concerned, namely, unemployment rates (UET/UEM), annual GDP growth rate (GRO), secondary school enrolment rate (SET/SEB), export of goods and services as a share of GDP (EXG), life expectancy (LET/LEM) and mortality rate of children under 5 years' of age (MRT), the sample countries yield altogether 85 observations on each of these variables over 1990-2006 in the pooled dataset.⁽⁵⁾

UET/UEM. Data on unemployment rates are taken from the World Bank's World Development Indicators online database accessed through Concordia University's subscription (<http://ddp-ext.worldbank.org/ext/DDPQQ/member>). Some data points are missing in the former which are taken from the ILO website (<http://laborsta.ilo.org>), but are mutually consistent in most cases. When faced with the problem of missing observations, averaging procedure was followed to fill in these points.⁽⁶⁾ For Jordan, the unemployment data are exclusively drawn from WDI.⁽⁷⁾

Governance Data. As already stated, the data about institutional variables of GVE and ROL were processed by Global Risk Service (GRS)/Global Insight, and which forms a component of the index that Kaufmann et al (2007) has derived for these indicators. The GRS data are scaled on a percentile basis (from 0 to 100) so that these are easy to interpret, and are obtained from the World Bank website on governance (<http://www.worldbank.org/wbi/governance/govdata>). For the 1990-1995 period, which pre-dates this survey, the 1996 values were used as proxy.

Other Data. The rest of the data - GRO, EXG, RIT, RDP, SET, SEB, LET and LEM - are all taken from the on-line WDI web site (op cit.). As before, where there are missing observations, the averaging procedure was followed. For the RIT variable, the year-by-year four-country sample average was used to construct a series for Tunisia where no data were available from the sources noted above.

De-trending of the Time Series Data. For several variables - EXG, SET, SEB, LET and LEM - a discernible trend is noticed in the data. Hence, de-trending of the data was done. For each observation for a given year, the average of the five-country data for that year was taken, and subtracted the latter from each country's observation in that year. This procedure yields normalized (i.e., zero-mean) observations for each year. It is the latter series that are used in the estimates reported below. RDP, the instrument for school enrolment, appears to show no trend whatsoever for the present sample of countries, and therefore, entered as is.

Descriptive Properties of the Dataset and Related Literature

Labour Market Developments

The labour market dynamics in the region is rich in contrasts vis-à-vis most other developing regions. For a start, female labour force participation has been historically low, and in spite of recent progress, at 31% as of 2005, it lags behind all other developing regions including South Asia. The total participation rates, albeit on the rise in some countries, have stagnated at moderately low level in global terms or even declined in others, indicating discouraged worker behaviour. Over the sample period, female participation has decreased in Egypt from 28% in 1990 to 22% in 2005, resulting in a decline in overall participation rate from 52 to 49% over the same period. Only Tunisia among MENA_5, registers secular growth in both female as well as total participation rates. Moroccan figures have stabilized at the 2000-level. Algeria, on the other hand, since 2000 has adopted the practice of including 'work at home' and temporary public works jobs as

‘employment’, which have caused the participation rates to increase and, at the same time, unemployment level to fall significantly.⁽⁸⁾ However, this is not a standard practice and adoption of such measures would render the sample strictly not comparable. The empirical analysis described below however, is based on ILO-WDI estimates of UET and UEM.

Overall labour force growth in MENA has been the highest among all regions, and is likely to remain so at least till 2010, when sub-Saharan Africa (SSA) might take over the top spot in this regard. The female share of labour force for MENA as a whole, stood at about 25% in 2000, but has been on an uptrend. However in Egypt and Morocco, the additions to the labour force in 2000-2005 have been at their current rates, hence stagnation. On the other hand, female share of labour force has grown robustly both in Algeria and Tunisia since 2000.

Unemployment Rate. This has decreased in recent years for most MENA countries where comparable data exist.⁽⁹⁾ While labour force growth has exceeded the growth of working-age population (by about a third) due to growing participation, the rate of additional job creation itself, has also kept ahead of the growth of labour force by a quarter, thus resulting in both falling unemployment and rising employment rates at the same time. While the regional unemployment rate reached 10.8% in 2005 (from 14.3% in 2000), in terms of the MENA_5, none has reached this level. In the case of Algeria, which officially shows to have reduced unemployment rate by nearly half (from 29.5 to 15.3%), the non-conventional procedures followed there leave such figures suspect. It is still plausible that the conventionally measured unemployment rate must also have fallen significantly in Algeria in recent years (World Bank, 2007a , Box 2, p44).

Given the broadly positive backdrop of the unemployment situation, the rising female unemployment emerges as an issue of policy concern. With rising female participation in the labour force, job creation has generally failed to keep pace. Reviewing the data between 2000 and 2005, it is seen that in most cases, female unemployment had either increased or fallen by much less than the rate

for males. In Egypt where female unemployment rate has fallen annually by about the same percentage as for males, the former remains four times higher than for men. In Tunisia, there has been a sizeable decline in unemployment for men (from 15.3 to 13.1%); but in contrast, the female rate has gone up from 15.9 to 17.2%. In Morocco, while both have fallen, the slow pace of reduction in the case of females, has led to a rise in gender bias in relative unemployment rates in urban areas. Algeria appears to be a major exception where, for reasons already cited, female unemployment has come down faster than for men. However, both the rates still remain rather high even in a regional context - 19.8% for males and 21.3% for females as of 2006 (World Bank, 2007a).

The pooled sample for MENA_5 for the period 1990-2006, presents a comparable picture (Figures 1 and 2). Not unexpectedly, Egypt turns out as having the lowest average level of total unemployment over this period at about 10% and without much fluctuation. The Tunisian figures are fairly flat at the 15% level, while for Morocco, some fluctuations are observed, ranging from 15.8% in 1990 to 9.7% in 2006. Jordanian figures have fluctuated between 27.5% in the early 1990s to 12.4% in 2004. Algerian unemployment rates which stood at about 21% (both male and female) as of 1991 rose to 28.7% of the labour force as a whole (and 26.9% for males) by 1997, and hence, much higher rates for females. Thereafter, it has fallen gradually (to the 20-21% range by ILO-WB estimates), but national estimates suggest much lower rates, especially for females as already noted. Overall, the male figures are consistently and significantly below the total, implying a much higher rate for females, except as otherwise noted. The sample as a whole, exhibits a high degree of volatility with the standard deviation being 5.5 and 6.4, respectively, for UET and UEM (while the means are 16.4 and 15.1%).⁽¹⁰⁾

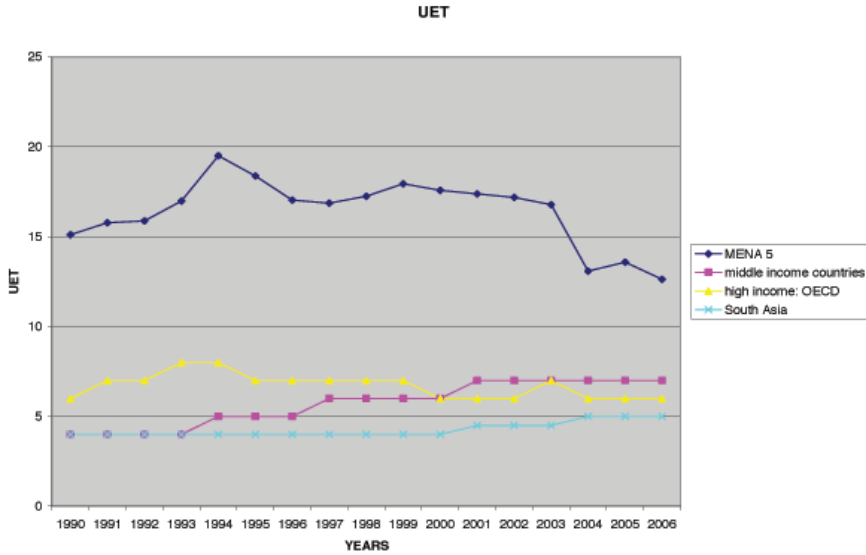


Figure 1. Unemployment rate (UET).

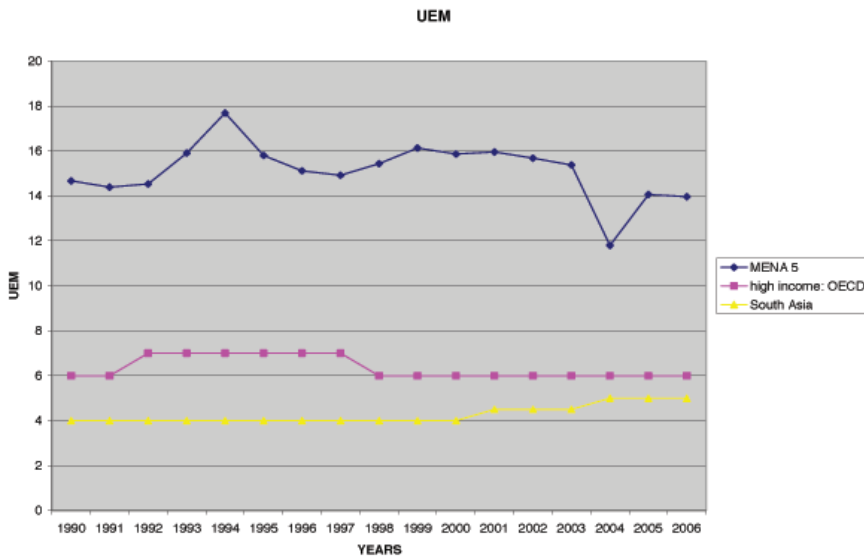


Figure 2. Male unemployment (UEM).

GDP Growth. GDP growth for the entire MENA region (excluding Iraq and Turkey) since the mid-1990s has been 4.63%, which is somewhat below that for developing countries as a whole but is significantly higher than that experienced either by Latin America and the Caribbean (LAC) or sub-Saharan Africa (SSA). Only Jordan and Tunisia have grown a little faster at 5.3 and 4.9%, respectively. The average rate over 1990-2006 has been 4.1% for the sample, which is below the MENA average cited above. Moreover, in most cases, growth has been uneven with significant year-to-year fluctuations, the standard deviation being 3.3 that is much more than that either in South Asia or developing countries as a whole. In any case, unlike for example South Asia, there is not a strong evidence of rising trend in GDP growth over the past five years (Figure 3).

To examine the sample more closely, Algeria's real growth started from 1% in 1990 rising to 3% in 2006 with fluctuations in between, and with negative rates (in the 1-2% range) in the early 1990s. Egypt has grown much faster starting off with a figure of 6% in 1990 and registering 6.9% in 2006 but growth has faltered during 2000-2005, where the six-year average is a mere 4.0% annually. Jordan's growth was highly volatile in the early 1990s (although never in the negative), but has since stabilized. The average growth since 2000 is well above the regional average. Morocco's figures are low to begin with (in the 4.0% range in 1990), but rose to 7.3% in 2006. However, growth had been frequently negative in the 1990s (e.g., negative 6.6 and 2.2%, respectively, in 1995 and 1997). GDP growth in Tunisia started from 8% in 1990 and fell to 5.2% in 2006, again with a fair bit of fluctuations. The frequent observation in the literature that growth has been unable to engender jobs creation (e.g., Messkoub, 2006) may well be due to its periodic fluctuations, a hypothesis that is formally tested below.

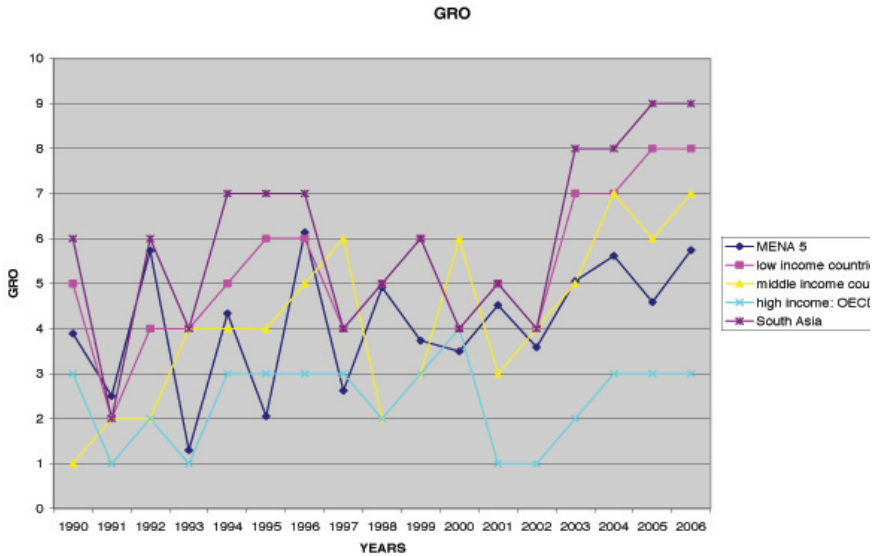


Figure 3. GDP growth rate (GRO).

Institutional Variables (GVE/ROL). Most sample countries fall roughly in the middle of the MENA distribution for both these indicators, where the overall MENA record has improved over time. While the MENA averages of these variables are slightly below the global mean, the sample five countries produce results that are in the second quartile of the global distribution (Figures 4 and 5). Jordan and Tunisia do rather well in both categories (i.e., GVE/ROL) while Morocco performs the best in terms of the ‘rule of law’ throughout the sample period. Studies using such indicators appear to support the hypothesis that the long-run growth potential of a country does depend on the underlying quality of governance (Kaufmann, 2006).

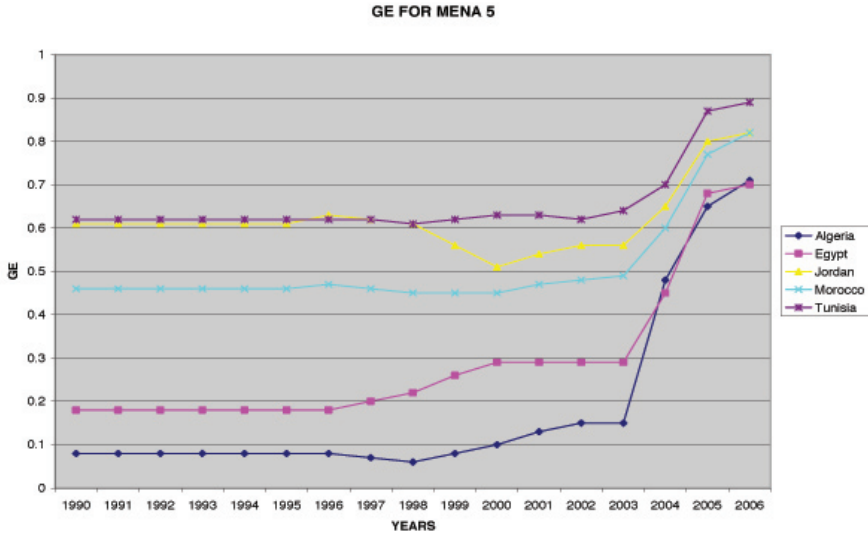


Figure 4. Governance effectiveness (GVE).

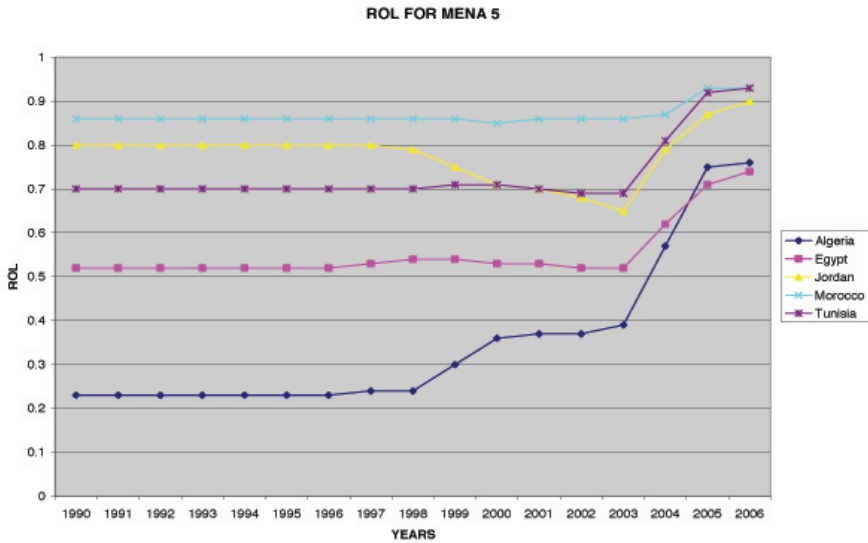


Figure 5. Rule of law (ROL).

Human Capital. The MENA educational standards have improved significantly in the last 20 years or so (see Figures 6 and 7 for a regional comparison). Barro and Lee (2000) analyzed quinquennial data on average schooling years, which is also seen to have about doubled since 1980 thus closing the gap with regions such as East Asia. Gross secondary school enrolment rate, the human capital variable for the study, indicates that Egypt and Jordan enjoy the highest level of this indicator throughout the time period. It rose from about 70-75% in the early 1990s to the 85% range by 2006, both for boys and girls. The gender disparity is totally absent in the case of Jordan, but still lingers in the Egyptian case. Algeria started from a lower base of 61% in 1990 and rose to 83% in 2006, a sharper pattern, while Tunisia started from an even lower figure of 45% in 1990 to reach 79% in 2000, which records the fastest pace in the sample. Morocco, by contrast, remains out of league where the figure started from 35% in 1990 to reach only 50% in 2005. For boys, the educational level is higher than the aggregate figure, but the levels are significantly below that for the remaining countries in the sample by a wide margin (Appendix Table A2).⁽¹¹⁾

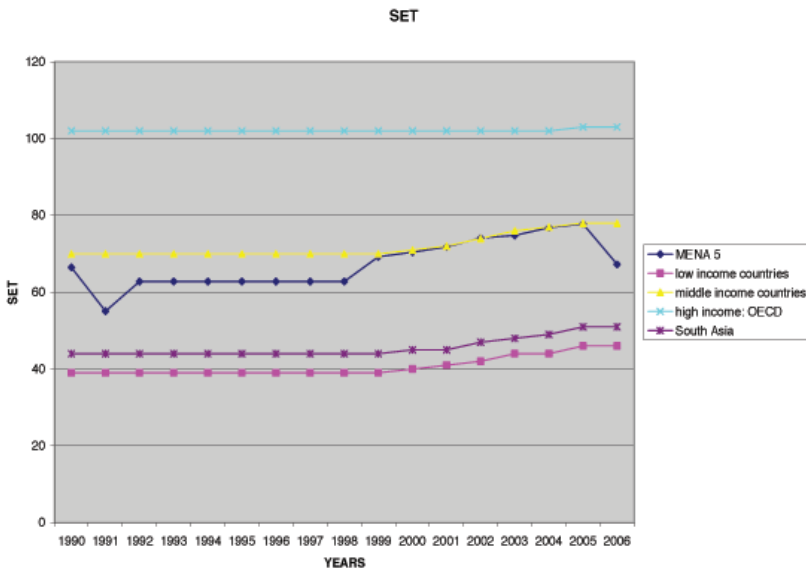


Figure 6. Gross secondary enrolment rate (SET).

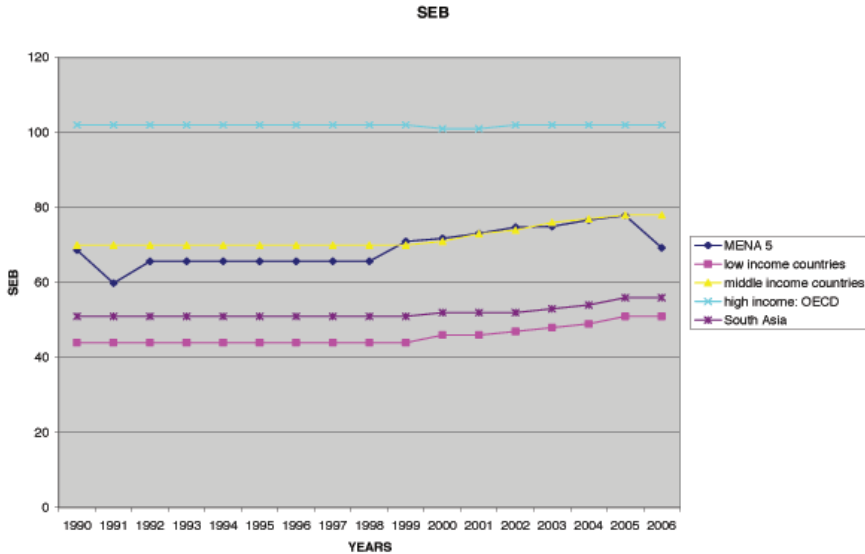


Figure 7. Gross secondary enrolment rate, boys, (SEB).

It has been noted earlier that rising educational attainment, especially for women, has been an impetus to their labour force participation, contributing to the secular rise in the labour force. While rising unemployment among the more educated, especially females, has been observed in MENA countries, for Egypt on which adequate data exist, it is seen that at the secondary education level, female unemployment rate fell from 47.7% in 2000 to 33.8% in 2006. However at the higher education level, the opposite pattern indeed is in evidence (20.2 vs. 24.8%, respectively between 2000 and 2006).⁽¹²⁾ The underlying efficiency of the labour market institutions determine to what extent the right type of human capital is produced, how effectively it is deployed and rewarded. Thus, it would be important to carefully interpret the empirical results in this regard.

Export Ratio (EXG). Oil exports endow the MENA region with a large export-to-GDP ratio (Figure 8). What is remarkable however is that even the oil importing nations within it exported in excess of one-third of their GDP as of 2006, with a good proportion destined for EU. The export share has been far

in excess of that in South Asia (in the low teens till the new millennium), or for that matter, the LAC region (about 28%). Given this background, the sample countries, on average, enjoy higher exports to GDP ratio vis-à-vis the average for MENA oil importers as well as that for all developing countries taken together.

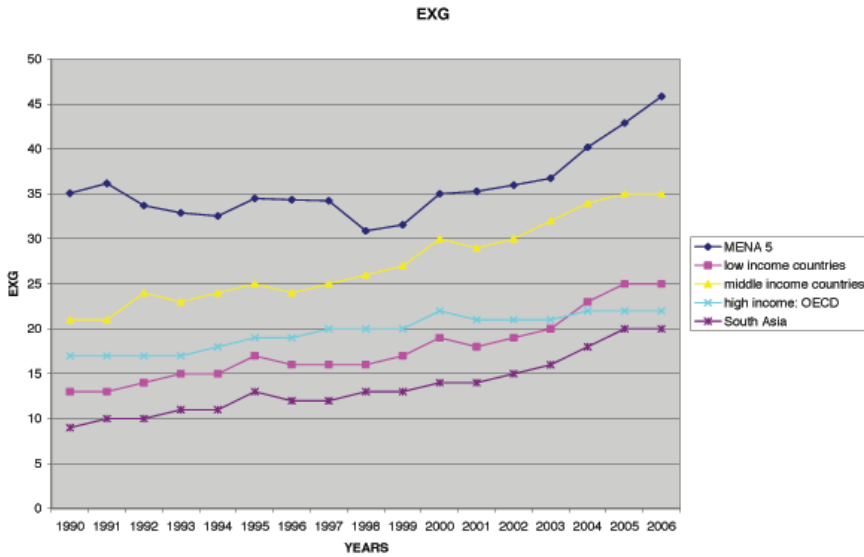


Figure 8. Export share of GDP (EXG).

The annual pattern, as elsewhere in MENA, has been on an uptrend, albeit exhibiting some fluctuations (Appendix Table A2). Jordan is the leader in this category where the ratio had fluctuated between 62% in 1990 to figures in the 40% range in late 1990s before stabilizing at the 50% level in recent years. Egypt's figures range from 20% in 1990, falling to 15% in 1999 but then it reached 31% in 2006, while Morocco's level has been very stable, ranging from 27% (1990) to 37% (2006). Tunisia is the other major exporter among the resource-poor group. Its ratio stood at 43% in 1990 and rose to 55% in 2006 with minimal fluctuations along the path. These figures are ahead of resource-rich Algeria throughout the sample period, except that the latter, buoyed by high oil prices, jumped ahead with an export ratio of 53% in 2006. It would be of interest to examine if the export ratio affects unemployment via growth or independently.

Life expectancy (LET). The mean over the entire pooled sample being 69, is also high for developing countries, and it has been rising for all sample countries with Tunisia being at the top at 73.5 (Appendix Table A2). Within-sample variability has been minimal in recent years. It has been observed earlier that rising life expectancy is likely to lead to an increase in unemployment in the longer run via participation and a longer working life thus lowering the vacancy rate, other things being equal. Figures 9 and 10 present a regional comparison of life expectancy, both general (LET) as well as that for males (LEM), respectively.

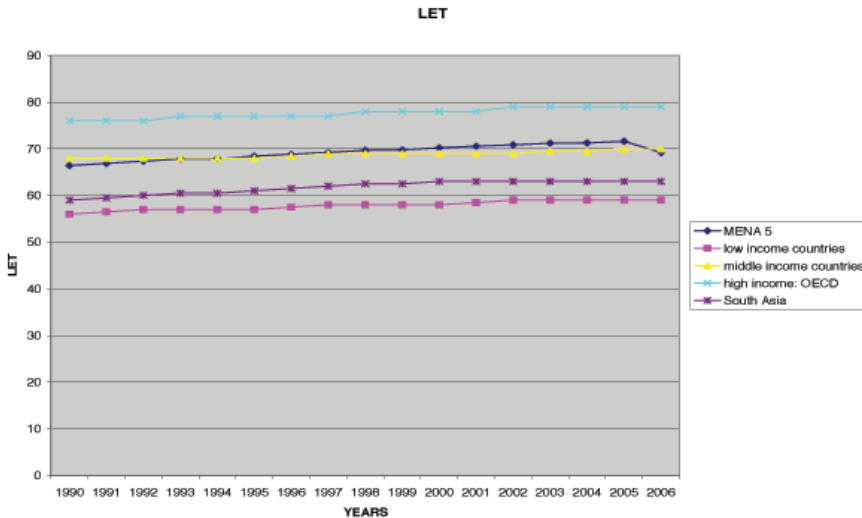


Figure 9. Total life expectancy (LET).

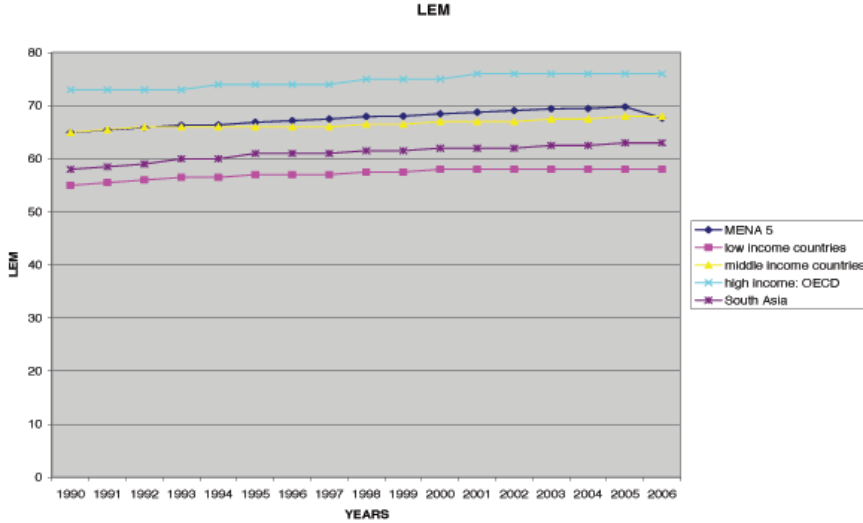


Figure 10. Male life expectancy (LEM).

Mortality Rate (MRT). Most countries in the region have relatively low mortality rates vis-à-vis other developing regions, although for this indicator, there is quite a bit of dispersion in the data. The Algerian figures generally lie between 5 and 6% except for the blip to 18% in 1997. Egypt’s mortality rates declined significantly from 13% in 1990 to 4% in 2003 except recording 18% in 1995. Morocco also shows good progress on this front where it dropped from 8% in 1990 to 5% in 2002 and continued to drop, while Jordan and Tunisia stay at the top of the heap with low and stable figures rather close to the Organization for Economic Cooperation and Development (OECD) level (World Bank, 2007b).

Paved Roads (RDP). The availability of paved road is relatively high in the sample region vis-à-vis the average picture of the middle income as well as South Asian countries (Figure 11). Jordan is right on top with 100% of its roads duly paved thus meeting or even exceeding the standard in high-income OECD countries. Morocco at the other extreme, has roughly 53% of its roads paved by 2005, while Algeria, Egypt and Tunisia stay in the 70% range. The latter’s

record in this category appears to have slipped a bit in the last decade vis-à-vis the previous one when the ratio had reached the high 70s mark (Appendix Table A2).

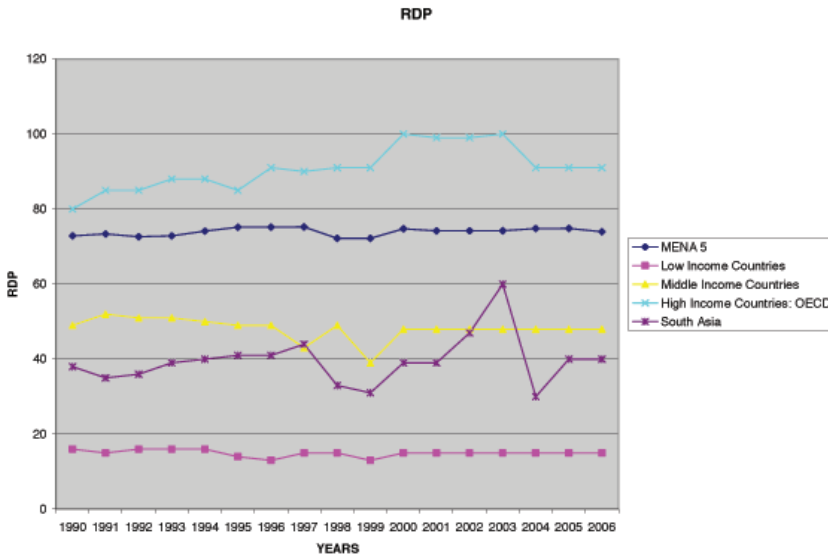


Figure 11. Percentage of paved roads (RDP).

Empirical Results

The empirical estimation is done first for the overall sample, where the independent variable is general unemployment rate (UET) and then for male unemployment (UEM). All rhs variables are identical between the two estimations, except where gender-specific variables are involved (e.g., enrolment and health indicators). Another preliminary point to settle at this stage is that since several rhs variables are negative in the sample either in their own rights (e.g., RIT) or due to normalization (e.g., EXG, SET/SEB, LET/LEM), a full logarithmic version of the basic model is not estimated (e.g., Equation 5b and similar ones for UEM). Instead, these are estimated in the semi-logarithmic form, i.e., where the left-hand side (lhs) variables are entered as logarithms.

The Correlation Matrix

An initial examination of the correlation pattern among variables reveals that under-5 mortality (MRT) is fairly closely and negatively correlated with LET/LEM in the sample (the Pearson coefficient being in excess of - 0.5). Consequently, the separate roles of LET/LEM and MRT may not be identifiable in the estimated models as some preliminary tests appeared to confirm. Hence, MRT is excluded from any further consideration to avoid a potential source of multicollinearity.

The correlation chart (Table 1) indicates that growth (GRO) and human capital (SET/SEB), each appears to be negatively correlated with unemployment both generally and among men, which is intuitive. Increased life expectancy on the other hand seems to be associated with higher unemployment (both UET and UEM), which is also in accordance with the sign pattern predicted by the analytical considerations. The EXG variable appears to correlate positively with unemployment, which is counter intuitive at least from the Asian perspective, where growth has been heavily influenced by export success. Similarly, i.e., contrary to intuition, the real interest rate (RIT) variable appears to negatively correlate with unemployment. In terms of the risk of high correlation among the independent variables, it is seen that EXG and LET/LEM are also well correlated (coefficient being 0.58 and 0.64 for LET and LEM, respectively). It would be necessary to examine if this is a cause for concern on account of potential multicollinearity.

Table 1. Correlation Matrix, 1990-2006

	UET	UEM	GRO	GVE	ROL	EXG	SET	SEB	LET	LEM	RIT	RDP
UET	1											
UEM	0.92	1										
GRO	-0.2	-0.19	1									
GVE	-0.35	-0.25	0.28	1								
ROL	-0.38	-0.35	0.22	0.86	1							
EXG	0.07	0.15	0.21	0.72	0.46	1						
SET	-0.26	-0.23	0.18	-0.04	-0.33	0.22	1					
SEB	-0.31	-0.29	0.16	-0.13	-0.39	0.1	0.99	1				
LET	0.13	0.22	0.18	0.48	0.14	0.58	0.32	0.21	1			
LEM	0.2	0.3	0.18	0.46	0.09	0.64	0.37	0.26	0.99	1		
RIT	-0.28	-0.38	0.1	0.28	0.47	-0.05	-0.21	-0.2	0.07	0	1	
RDP	-0.19	-0.21	0.23	0.22	-0.01	0.52	0.74	0.7	0.24	0.33	-0.01	1

Validity of Instruments. Insofar as the instrumental variables are concerned, both GVE and ROL are positively correlated with GRO, although the coefficients are moderate in magnitude (0.28 and 0.22, respectively). The RDP variable, an instrument for the enrolment equations, appears well correlated with SET/SEB (coefficients being 0.74 and 0.70, respectively). Running simple OLS regressions (not reported here), it is further confirmed that while GVE is significant in explaining GDP growth at the one-percent level, ROL attains significance at the five-percent level. The RDP variable by contrast, is highly significant in explaining the enrolment pattern both generally and for boys (with the p-value being 0.00 in each case). Hence, the preliminary diagnostics for the validity of the instruments pass muster for the set of instruments chosen presently.

OLS Results. Before going into the two-stage estimation procedure, briefly outlined are the simple OLS results to put the results in proper perspective. Table 2 reports the OLS estimates where the unemployment variables have been treated in logarithmic form, which yields a better fit than the linear specification. The estimated coefficients essentially confirm the correlation pattern as presented in Table 1. Increased values of SET/SEB and RIT each improve the unemployment situation. However, while the coefficient of GRO indicates a negative association with unemployment, the estimate is not statistically significant. The RIT sign is however counter-intuitive. Increased life expectancy is seen to hurt the unemployment outlook as discussed earlier. The EXG variable is not significant in any of the OLS equations reported in Table 2. It is to be noted that while the SET/SEB variables are highly significant in each equation, the coefficient for

male unemployment is double that for general unemployment, implying very low relative impact of schooling on female unemployment. It would be of interest to re-examine if any of these predictions may survive in the 2-stage procedure.

Table 2. OLS in Log with Data Not Normalized

Independent Variables	Dependent Variables	Dependent Variables	Dependent Variables	Dependent Variables
	Log(UET)	Log(UEM)	log(UET)	log(UEM)
Constant	-0.230949441	-3.333466048	0.199213431	-3.032088428
Std error	0.918092626	1.009528564	1.051429862	1.233750743
t-stat	-0.25155	-3.30200***	0.18947	-2.45762**
GRO	-0.012884502	-0.016702401	-0.014367373	-0.017027780
Std error	0.009443345	0.010736393	0.009502827	0.010907668
t-stat	-1.36440	-1.55568	-1.51191	-1.56108
SET	-0.009384746		-0.009410296	
Std error	0.002016636		0.002008710	
t-stat	-4.65366***		-4.68475***	
SEB		-0.018547305		-0.018391191
Std error		0.002420167		0.002451749
t-stat		-7.66365***		-7.50125***
LET	0.054595491		0.047116314	
Std error	0.013851009		0.016576682	
t-stat	3.94163***		2.84232***	
LEM		0.110978620		0.105378876
Std error		0.015408386		0.020095993
t-stat		7.20248***		5.24378***
EXG			0.002889490	0.001607078
Std error			0.003330519	0.004068328
t-stat			0.86758	0.39502
RIT	-0.022609817	-0.036815428	-0.023088773	-0.035602975
Std error	0.006057197	0.006831021	0.006126778	0.006958540
t-stat	-3.73272***	-5.38945***	-3.76850***	-5.11644***
Number of Observations	85	85	85	85
Degree Of Freedom	80	80	79	79
F-Statistics	9.6428	27.2214	8.1616	21.1039
P-value of F	0.00000205	0.0000000	0.00000310	0.00000000
R-Squared	0.325300	0.576463	0.343478	0.574978
Adjusted R-Squared	0.291566	0.555286	0.301394	0.547732

N.B. Unless otherwise stated, notations for statistical significance of the estimated coefficients are identified as follows in all tables:

***: significant at the 1 percent level

**: significant at the 5 percent level

*: significant at the 10 percent level

First-Stage Equations

The two first-stage equations as specified by Equations 6 and 7 are estimated with instruments for the growth and human capital variables. It may be recalled that while RDP is the sole instrument for SET/SEB variables, there are two alternative candidates - GVE, and ROL - for the growth equation. The four sets of results are presented in Tables 3a - 3d.

Table 3a. First-Stage with GVE and RDP as Instruments

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable
	GRO	SET	SEB
Constant	-1.389287922	-61.00093048	-58.74293561
Std error	2.320017692	5.34507602	5.06022464
t-stat	-0.59883	-11.41255***	-11.60876***
GVE	4.135673732	-10.72568862	-9.23397381
Std error	2.062749950	4.75235828	4.48294878
t-stat	2.00493**	-2.25692**	-2.05980**
RDP	0.047890855	0.93106682	0.88730739
Std error	0.026940355	0.06206774	0.05857230
t-stat	1.77766*	15.00082***	15.14893***
EXG	-0.037925110	-0.48876619	-0.59854119
Std error	0.057499177	0.13247204	0.13261708
t-stat	-0.65958	-3.68958***	-4.51330***
LET	0.03500143	1.47514860	
Std error	0.288046644	0.66362908	
t-stat	0.12151	2.22285**	
LEM			0.80180929
Std error			0.64795176
t-stat			1.23745
RIT	0.016085582	-0.55382589	-0.49768040
Std error	0.073667462	0.16972206	0.16391543
t-stat	0.21835	-3.26313***	-3.03620***
Number of Observations	85	85	85
Degree Of Freedom	79	79	79
F-Statistics	2.0073	56.6600	54.9703
P-value of F	0.08659771	0.00000000	0.00000000
R-Squared	0.112724	0.781949	0.776742
Adjusted R-Squared	0.056567	0.768148	0.762612

Table 3b. First-Stage with GVE and RDP as Instruments (without EXG)

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable
	GRO	SET	SEB
Constant	-0.486234120	-49.36267385	-46.26123648
Std error	1.866322608	4.64279194	4.72288864
t-stat	-0.26053	-10.63211***	-9.79511***
GVE	3.534736310	-18.47036996	-18.72735644
Std error	1.844086680	4.58747632	4.41215591
t-stat	1.91680*	-4.02626***	-4.24449***
RDP	0.039228029	0.81942321	0.77808494
Std error	0.023438763	0.05830787	0.05944685
t-stat	1.67364*	14.05339***	13.08875***
LET	-0.069818712	0.12426158	
Std error	0.239390076	0.59552315	
t-stat	-0.29165	0.20866	
LEM			-0.98879789
Std error			0.57094816
t-stat			-1.73185*
RIT	0.017777956	-0.53201515	-0.51883662
Std error	0.073362342	0.18250119	0.18261004
t-stat	0.24233	-2.91513***	-2.84123***
Number of Observations	85	85	85
Degree Of Freedom	80	80	80
F-Statistics	2.4174	58.2395	51.2190
P-value of F	0.05535262	0.00000000	0.00000000
R-Squared	0.107838	0.744375	0.719176
Adjusted R-Squared	0.063229	0.731594	0.705135

Table 3c. First-Stage with ROL and RDP as Instruments

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable
	GRO	SET	SEB
Constant	-3.445769208	-48.54113238	-45.90431729
Std error	2.968475802	6.46286039	6.08624277
t-stat	-1.16079	-7.51078***	-7.54231***
ROL	4.723617904	-20.19438884	-20.39055206
Std error	2.392504123	5.20887525	5.08389524
t-stat	1.97434*	-3.87692***	-4.01081***
RDP	0.060866069	0.86211595	0.82495036
Std error	0.028703196	0.06249158	0.05780587
t-stat	2.12053**	13.79571***	14.27105***
EXG	-0.060001870	-0.30875147	-0.37254098
Std error	0.063498078	0.13824577	0.14072881
t-stat	-0.94494	-2.23335**	-2.64723***
LET	0.292206946	0.48291166	
Std error	0.302769026	0.65917800	
t-stat	0.96512	0.73260	
LEM			-0.32607529
Std error			0.66591378
t-stat			-0.48967
RIT	-0.009150096	-0.35825149	-0.31379235
Std error	0.079331464	0.17271765	0.16243225
t-stat	-0.11534	-2.07420**	-1.93184*
Number of Observations	85	85	85
Degree Of Freedom	79	79	79
F-Statistics	1.9812	65.2221	65.0395
P-value of F	0.09048692	0.00000000	0.00000000
R-Squared	0.111421	0.804992	0.804551
Adjusted R-Squared	0.055182	0.792649	0.792181

Table 3d. First-Stage with ROL and RDP as Instruments (without EXG)

Independent Variables	Dependent Variables	Dependent Variables	Dependent Variables
	GRO	SET	SEB
Constant	-1.503372336	-38.54614558	-34.96579198
Std error	2.140166360	4.77741460	4.63334843
t-stat	-0.70246	-8.06841***	-7.54655***
ROL	3.407268701	-26.96792368	-28.83525649
Std error	1.943816157	4.33910927	4.10445174
t-stat	1.75288*	-6.21508***	-7.02536***
RDP	0.045274946	0.78188875	0.74790167
Std error	0.023471227	0.05239396	0.05178527
t-stat	1.92896*	14.92326***	14.44236***
LET	0.090086700	-0.55713800	
Std error	0.214138968	0.47801454	
t-stat	0.42069	-1.16553	
LEM			-1.66148049
Std error			0.45073023
t-stat			-3.68620***
RIT	0.00476819	-0.28663216	-0.25712892
Std error	0.077899905	0.17389309	0.16695225
t-stat	0.06121	-1.64832	-1.54013
Number of Observations	85	85	85
Degree Of Freedom	80	80	80
F-Statistics	2.2563	76.4689	73.9909
P-value of F	0.07027853	0.00000000	0.00000000
R-Squared	0.101377	0.792679	0.787213
Adjusted R-Squared	0.056446	0.782313	0.776574

Growth. It appears difficult to pin down the first-stage growth equation well with the instruments that have been examined, i.e. GVE and ROL. One difficulty here is that EXG appears to be highly correlated with the GVE variable (coefficient being 0.72) and more moderately so with LET/LEM as already noted. Tables 3a and 3b show that even if the coefficient of GVE in the growth equation (column 2 in these tables) is slightly more robust, the F-value is higher in Table 3b than in Table 3a, i.e. when EXG is dropped as an rhs variable.

Similarly, in the case of the ROL variable as an instrument for growth, dropping EXG improves the F-value of each equation (Tables 3c and 3d). Comparing column 2 in Tables 3b and 3d, it may be concluded that GVE yields a better specification for the growth equation. Both the governance and the infrastructure variables turn out to be significant, albeit only at the 10% level. The overall equation is however, adequately specified as seen from the F-test (p-value being 0.055). The RIT variable fails to be significant in explaining growth behaviour.

The estimated coefficient for GVE indicates that a doubling of the governance indicator from its mean of 0.45 (i.e., from the 45th to the 90th percentile) would lead to 1.6 percentage points increase in long-run growth rate, i.e., from the mean level of 4.1 to 5.7% per annum.⁽¹³⁾ It may be noted that the GVE indicator actually varies from 0.06 to 0.89 for the entire sample. Kaufmann (2006) claims that one standard deviation increase in governance can raise per capita income by 300% in the long-run (i.e., presumably by compounding growth over a 30-year term).

The estimated coefficients of RDP variable, an excellent instrument for the human capital variable, from both the GRO and SET/B equations may be utilized to infer the impact of human capital on growth, which at 4.8 basis points, is seen to be statistically significant although small in magnitude.⁽¹⁴⁾ In other words, one additional percentage point increase in (total) enrolment is predicted to augment long-run growth by about 5 basis points.

It has been noted by earlier writers (e.g., Barro and Lee, 2000 and Messkoub, 2006) that despite rapid growth in several of the indicators, human capital has failed to contribute significantly to growth. This study also appears to confirm such a proposition. Pissarides and Véگانzonès-Varoudakis (2006) suggest that by offering a non-market wage structure (on average by 30% in excess of that in the private sector), MENA governments have been rationing jobs leading to queuing especially on the part of the well educated and thus contributing to unemployment and consequent labour market rigidities. Human

capital is being wasted through engagement in less productive public employment and high unemployment, hurting growth. Growth also suffers as public sector wage bills tend to be higher than they need to be thereby putting burden on the revenue capacity of the state, and consequently undermining growth once more.

Human Capital Equations. The infrastructure variable, RDP, allows the enrolment equations to be well estimated and the overall fit is highly significant in terms of the F-value. The EXG variable appears to add an element of multicollinearity as already anticipated. For example, comparing SET/SEB equations in Tables 3a and 3b, it is seen that dropping EXG leads to a reversal of the sign of the LEM coefficient while that for LET turns from significant to not statistically different from zero. Examining the results for ROL as the instrument for GRO (i.e., Tables 3c and 3d), it is quite clear that Table 3d provides the best fit for both SET and SEB variables with very high values of the F-statistic (in the 74 to 77 range) as well as R-bar squared (0.78 and 0.79, respectively). It should also be noted that GVE yields strong results.

From Tables 3b and 3d, it is seen that a one-percentage point increase in paved roads, RDP, (from the mean of 74%) is predicted to lead to almost an equal increase in the enrolment rate (between 78 and 75 basis points for boys and between 82 and 78 basis points for girls). Increased real interest rate is also seen to lower enrolment rates as the opportunity cost of staying in school rises.⁽¹⁵⁾ These signs are intuitive and expected.

Governance (GOV/ROL). At first sight, it appears awkward to encounter very strong and robust estimates of these variables on the enrolment behaviour, but the sign is negative; i.e., better economic governance or rule of law appears not to increase enrolment. However, a closer look at the countries concerned suggests that this is to be expected. Morocco, for example, scores the best in the sample in terms of ROL, but it has the lowest enrolment figure in the sample, possibly the whole region at barely around 50% as of 2006 in contrast to about 80% in the four other countries sampled. There are also the signalling difficulties in the labour market as is often cited in the literature.

Life expectancy (LET/M). From Tables 3b and 3d, it may be noted that while the LET coefficient is inconclusive and statistically insignificant, LEM appears to negatively impact on the enrolment outcome. The coefficient is however, not very precisely estimated for the GVE specification as it is significant only at the 10 percent level. A review of the data shows that while for each country, both SET/B has steadily increased with LET/M, some countries possess relatively low expectancy but demonstrate very high enrolment performance. Example is Egypt, which is a potential source of ambiguity. It may also help if a suitable lag structure is employed in treating the LET/M variable rather than contemporaneously. Thus, to the extent the life expectancy variable features in the final-stage estimates for unemployment, one may argue that the impact to LET/M is not so much via SET/B, instead directly via labour force participation.

Second-Stage Equations: Explaining Unemployment

The Overall Fit, GVE vs. ROL. The second-stage unemployment equations (both general and for males), as reported in Tables 4a through 4d, are rather well specified with high F-values. Most independent variables are highly significant with the correct a-priori sign. In these tables, GROF and SETF and SEBF denote respectively the fitted first-stage values of growth and secondary enrolment variables. While Tables 4a and 4b relate to GVE, Tables 4c and 4d report results based on ROL as the governance indicator. The other dimension in which they differ is that Tables 4b and 4d treat the dependent variable in the logarithmic form. While the quality of results is rather similar, on a pair-wise comparison of Tables 4a with 4c (or, Tables 4b with 4d), it is seen that the GVE indicator yields a dominant pattern of estimated equations than ROL. Hence, the ensuing discussion from hereon, focuses on Tables 4a and 4b.

Table 4a. Second-Stage with GVE and RDP as Instruments

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	UET	UEM	UET	UEM
Constant	29.30772323	29.16132707	33.46916342	31.00352871
Std error	2.22770692	2.24400496	2.08088979	2.30110386
t-stat	13.15600***	12.99522***	16.08406***	13.47333***
GROF	-3.15163478	-3.22132845	-4.19185250	-3.68103630
Std error	0.59069728	0.59573464	0.54737757	0.60246718
t-stat	-5.33545***	-5.40732***	-7.65806***	-6.10994***
SETF	0.05145124		0.03977697	
Std error	0.04430617		0.03818981	
t-stat	1.16127		1.04156	
SEBF		-0.03964579		-0.03600459
Std error		0.04686119		0.04390800
t-stat		-0.84603		-0.82000
LET	1.35075730		0.67007259	
Std error	0.31367191		0.34361129	
t-stat	4.30627***		1.95009*	
LEM		2.08560926		1.78516224
Std error		0.31525196		0.39511536
t-stat		6.61569***		4.51808***
EXG			0.22092187	0.08689971
Std error			0.05982086	0.07230267
t-stat			3.69306***	1.20189
RIT	0.00942154	-0.14472667	0.03109377	-0.13556412
Std error	0.11533721	0.11858697	0.10022794	0.11075657
t-stat	0.08169	-1.22043	0.31023	-1.22398
Number of Observations	85	85	85	85
Degree Of Freedom	80	80	79	79
F-Statistics	11.1327	20.4597	17.2202	21.0205
P-value of F	0.00000031	0.00000000	0.00000000	0.00000000
R-Squared	0.357589	0.505681	0.521505	0.570891
Adjusted R-Squared	0.325469	0.480965	0.491221	0.543732

Table 4b. Second-Stage in Log with GVE and RDP as Instruments

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	Log(UET)	Log(UEM)	log(UET)	log(UEM)
Constant	3.401995040	3.374759865	3.690236792	3.606284958
Std error	0.137887716	0.169979547	0.125232104	0.167080960
t-stat	24.67221***	19.85392***	29.46718***	21.58406***
GROF	-0.159559716	-0.171673537	-0.231615737	-0.229206431
Std error	0.036562215	0.045125883	0.032942276	0.043744568
t-stat	-4.36406***	-3.80433***	-7.03096***	-5.23965***
SETF	0.000925434		0.000117904	
Std error	0.002742406		0.002298339	
t-stat	0.33745		0.05130	
SEBF		-0.008070643		-0.007806313
Std error		0.003549655		0.003188118
t-stat		-2.27364**		-2.44856**
LET	0.094213642		0.047073788	
Std error	0.019415257		0.020679214	
t-stat	4.85256***		2.27638**	
LEM		0.170575103		0.132146290
Std error		0.023879798		0.028688950
t-stat		7.14307***		4.60617***
EXG			0.015298125	0.011511355
Std error			0.003600139	0.005249828
t-stat			4.24932 ***	2.19271**
RIT	-0.000462463	-0.009788147	0.001040382	-0.008838386
Std error	0.007138993	0.008982761	0.006031918	0.008041929
t-stat	-0.06478	-1.08966	0.17248	-1.09904
Number of Observations	85	85	85	85
Degree Of Freedom	80	80	79	79
F-Statistics	9.7955	19.4026	17.6284	23.2261
P-value of F	0.00000168	0.00000000	0.00000000	0.00000000
R-Squared	0.328758	0.492419	0.527348	0.595143
Adjusted R-Squared	0.295196	0.467040	0.497433	0.569519

Table 4c. Second-Stage with ROL and RDP as Instruments

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	UET	UEM	UET	UEM
Constant	27.63265784	28.82513819	32.72289134	31.17135925
Std error	2.39290784	2.35340944	2.10360897	2.23959431
t-stat	11.54773***	12.24825***	15.55560***	13.91831***
GROF	-2.67102176	-3.11814805	-3.98238353	-3.71981118
Std error	0.63137621	0.62126885	0.54815127	0.58003002
t-stat	-4.23048***	-5.01900***	-7.26512***	-6.41314***
SETF	0.02508051		0.03057844	
Std error	0.04377592		0.03727313	
t-stat	0.57293		0.82039	
SEBF		-0.05221685		-0.03923477
Std error		0.04428233		0.04111677
t-stat		-1.17918		-0.95423
LET	1.25519667		0.66335633	
Std error	0.33353985		0.35523492	
t-stat	3.76326***		1.86737*	
LEM		2.07487163		1.76948411
Std error		0.32746310		0.39558976
t-stat		6.33620***		4.47303***
EXG			0.21284820	0.09149167
Std error			0.06186181	0.07206531
t-stat			3.44070***	1.26957
RIT	-0.04582919	-0.16071687	0.01051118	-0.13657564
Std error	0.12030789	0.12022366	0.10152504	0.10850312
t-stat	-0.38093	-1.33682	0.10353	-1.25873
Number of Observations	85	85	85	85
Degree Of Freedom	80	80	79	79
F-Statistics	7.9930	18.3792	15.0926	20.9223
P-value of F	0.00001792	0.00000000	0.00000000	0.00000000
R-Squared	0.285535	0.478885	0.488551	0.569744
Adjusted R-Squared	0.249812	0.452829	0.456181	0.542513

Table 4d. Second-Stage in Log with ROL and RDP as Instruments

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	Log(UET)	Log(UEM)	log(UET)	log(UEM)
Constant	3.286335478	3.331517248	3.639219129	3.624759880
Std error	0.146795416	0.176028479	0.127497131	0.163290770
t-stat	22.38718***	18.92601***	28.54354***	22.19819***
GROF	-0.126386859	-0.158742585	-0.217313259	-0.233797346
Std error	0.038732429	0.046469182	0.033222769	0.042290493
t-stat	-3.26308***	-3.41608***	-6.54109***	-5.52837***
SETF	-0.000889757		-0.000506331	
Std error	0.002685479		0.002259078	
t-stat	-0.33132		-0.22413	
SEBF		-0.009282850		-0.007965660
Std error		0.003312195		0.002997859
t-stat		-2.80263***		-2.65712***
LET	0.087591208		0.046572564	
Std error	0.020461348		0.021530348	
t-stat	4.28081***		2.16311**	
LEM		0.168261117		0.131209454
Std error		0.024493329		0.028842794
t-stat		6.86967***		4.54912***
EXG			0.014746111	0.011907437
Std error			0.003749368	0.005254345
t-stat			3.93296***	2.26621**
RIT	-0.004273087	-0.011606352	-0.000363477	-0.008734254
Std error	0.007380413	0.008992395	0.006153307	0.007911057
t-stat	-0.57898	-1.29069	-0.05907	-1.10406
Number of Observations	85	85	85	85
Degree Of Freedom	80	80	79	79
F-Statistics	7.2737	18.3330	15.0356	22.8005
P-value of F	0.00004769	0.00000000	0.00000000	0.00000000
R-Squared	0.266694	0.478257	0.487605	0.590679
Adjusted R-Squared	0.230029	0.452170	0.455175	0.564773

Total and Male Unemployment (UET/M). The principal results are given by columns 2 and 4 in Tables 4a and 4b. Given the earlier remarks on the scope of multi-collinearity with EXG, it is safer to rely on estimates that exclude this variable. The important findings may then be grouped as follows.

Growth. The GDP growth coefficient appears to have a high t-value. A one-percentage point increase in the growth rate (from its mean level of 4.1) is predicted to lower unemployment by 3.15 percentage points, i.e., lower it from the mean of 16.41 to 13.26%.⁽¹⁶⁾ For male unemployment, the effect is slightly stronger (column 3). Interpreted in gender terms, the above estimates suggest that the female unemployment elasticity of growth is lower than for males indicating that an equivalent amount of incremental growth does not lead to a commensurate decrease in female unemployment. Overall, the unemployment elasticity of growth appears to be in excess of -3.0, higher than the well-known poverty elasticity of growth of about 2 or 2.5.

Life Expectancy. Increased expectancy appears to positively affect the unemployment rate both generally and for males, where the associated t-values are also very high at 4.3 and 6.6, respectively. A one-standard deviation - which happens to be 2.7 years - increase in longevity is predicted to raise total unemployment by 3.65 percentage points, i.e., from its mean level of 16.4 to 20.05%. This is rather large. The predicted magnitude is even higher for males. As previously discussed, the process by which increased expectancy affects unemployment is via participation. Hence, the gender impact is that increased life expectancy by females is likely to make their employment prospects less harsh than for men.

In view of evolving advances in medical technology, the longevity issue would appear to take a front seat in any labour market analysis. Therefore, the growth and employment strategies have to adequately deal with not only the impact of population growth on participation, but also on labour force growth via longer life expectancy.

Human Capital. Generally speaking, the human capital variables, in spite of these being well specified in the first-stage estimation, do not appear to

materially influence the unemployment outcome (columns 2 and 3 in Tables 4a and 4b). However, the logarithmic specification (Table 4b) shows that increased secondary education by boys does indeed alleviate male unemployment. A one-percentage point increase in secondary enrolment by boys (from the mean of 69.3) is predicted to lower male unemployment by 12 basis points.⁽¹⁷⁾ Interpreted in gender terms, the above estimates suggest that the female employment elasticity of education is significantly lower than for males, which is suggestive of a possible discrimination against females in the labour market. Assaad (2007) points out that in the case of Egypt, educated women have been absorbed traditionally in public employment which has been drying up of late, consequently slowing down overall job growth for women.

Economic Integration. In view of earlier remarks on the mutual correlation of the EXG variable with several of the explanatory variables, it is not useful at this stage to dwell further on this issue. However, it is to be noted that in spite of having a high export-GDP ratio vis-à-vis other developing regions, and presumably because the resource based trade is less diversified, this has not had much of an impact either on growth (as seen in stage-1 estimation) or on the employment potential.⁽¹⁸⁾

In view of the potential gains from greater economic integration via trade, merger and acquisition, and foreign direct investment (FDI), the pertinent question is how to evaluate if the former does indeed act as a catalyst for faster growth, access to appropriate technology and faster human capital enhancement. Given that in the data set, the export share fails to perform the task, attention must therefore shift to additional indicators of economic integration such as FDI which may have better statistical properties of an explanatory variable in a growth and employment context.

Cost of Capital (RIT). It was seen in the first stage that although increased real interest rate lowered the enrolment figures, the direct impact on growth is negligible. The second-stage equations reveal that the impact on unemployment is also statistically insignificant. Among possible explanations behind this would be the hypothesis that in most of the period covered here (especially the 1990s),

the nominal rates of interest set by the monetary authorities have been largely in the nature of administered prices without much regard as to the needs of the day. Most credit issued by the banking system have been of a directed nature with significant rationing. Whenever authorities attempted to target an economic event, these are in the nature of a reaction to the event, rather than in anticipation thereof. Market forces play very little role in the shaping of monetary policy.

The Growth Sustainability Hypothesis

Tables 5 and 6a through 6d present the test of the growth sustainability hypothesis, namely that growth volatility is bad for the unemployment outlook.⁽¹⁹⁾ Equation 5 deals with the OLS case, where a comparison with Table 2 reveals that once the GRO-squared term (GROS) is added, GRO becomes mildly significant in the OLS specification, albeit GROS still lacks statistical significance. However in the two-stage case, as seen in Tables 6a - 6d, not only is the hypothesis confirmed by the results reported, these new estimates provide a significant improvement in the overall model specification. Most estimated coefficients are more stable than before (especially as regards SET/B, LET/M and RIT). The overall fit in terms of the F-value and adjusted R-squared improve significantly from those reviewed earlier, namely, Tables 4a through 4d.

Table 5. Testing Growth Sustainability, OLS: Normalized Data in Log

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	Log(UET)	Log(UEM)	log(UET)	log(UEM)
Constant	2.917333603	2.854241199	2.930169434	2.855647718
Std error	0.057337083	0.064766171	0.057297261	0.066225445
t-stat	50.88040	44.06994***	51.13978***	43.12010***
GRO	-0.029688660	-0.028296341	-0.029515304	-0.028330205
Std error	0.014847642	0.016790106	0.014696110	0.016898211
t-stat	-1.99955**	-1.68530*	-2.00838**	-1.67652*
GROS	0.001532706	0.001034217	0.001365347	0.001024140
Std error	0.001142253	0.001295184	0.001135245	0.001306058
t-stat	1.34183	0.79851	1.20269	0.78415
SET	-0.007716169		-0.008189745	
Std error	0.002146343		0.002144270	
t-stat	-3.59503***		-3.81936***	
SEB		-0.016756757		-0.016754801
Std error		0.002562351		0.002578539
t-stat		-6.53960***		-6.49779***
LET	0.067393094		0.039829290	
Std error	0.017751838		0.024419378	
t-stat	3.79640***		1.63105	
LEM		0.134152085		0.131516314
Std error		0.019170132		0.029279723
t-stat		6.99797***		4.49172***
EXG			0.006426749	0.000585392
Std error			0.003954049	0.004891969
t-stat			1.62536	0.11966
RIT	-0.017492240	-0.027966440	-0.019138700	-0.028149284
Std error	0.006175051	0.007028339	0.006195246	0.007235770
t-stat	-2.83273***	-3.97910***	-3.08926***	-3.89030***
Number of Observations	85	85	85	85
Degree Of Freedom	79	79	78	79
F-Statistics	7.7796	22.3295	7.0580	18.3781
P-value of F	0.00000541	0.00000000	0.00000502	0.00000000
R-Squared	0.329928	0.585623	0.351879	0.585699
Adjusted R-Squared	0.287518	0.559396	0.302024	0.553830

Table 6a. Testing Growth Sustainability, Second-Stage (with GVE and RDP)

Independent Variables	Dependent Variables	Dependent Variables	Dependent Variables	Dependent Variables
	UET	UEM	UET	UEM
Constant	77.44574911	73.98725481	69.79116360	65.17787731
Std error	6.25859905	6.78476281	4.89054724	5.82169784
t-stat	12.37429***	10.90491***	14.27062***	11.1956***8
GROF	-28.69049129	-27.05518738	-24.04641287	-22.41003963
Std error	3.23071072	3.51207386	2.56580364	3.05736913
t-stat	-8.88055***	-7.70348 ***	-9.37188***	-7.32984***
GROS	3.10086790	2.90480953	2.45202241	2.32189427
Std error	0.38857091	0.42411193	0.31276293	0.37401007
t-stat	7.98019***	6.84916***	7.83988***	6.20811***
SETF	-0.09835287		-0.03943931	
Std error	0.03811805		0.03046699	
t-stat	-2.58022**		-1.29449	
SEBF		-0.18465601		-0.12099293
Std error		0.04293607		0.03865615
t-stat		-4.30072***		-3.12998***
LET	1.37231564		1.05817379	
Std error	0.23488438		0.26330365	
t-stat	5.84252***		4.01883***	
LEM		1.78346787		1.90396448
Std error		0.25513028		0.32587347
t-stat		6.99042***		5.84265***
EXG			0.13377700	0.01326614
Std error			0.04637490	0.06069920
t-stat			2.88469***	0.21856
RIT	0.15065043	-0.03145370	0.18091838	-0.00761227
Std error	0.08815725	0.09596163	0.07781761	0.09348958
t-stat	1.70888*	-0.32777	2.32490**	-0.08142
Number of Observations	85	85	85	85
Degree Of Freedom	79	79	78	78
F-Statistics	28.6214	35.1432	35.5774	32.2645
P-value of F	0.000000	0.00000000	0.000000	0.00000
R-Squared	0.644316	0.689851	0.732386	0.712799
Adjusted R-Squared	0.621804	0.670221	0.711800	0.690707

Table 6b. Testing Growth Sustainability, Second-Stage in Log (with GVE and RDP)

Independent Variables	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	Log(UET)	Log(UEM)	log(UET)	log(UEM)
Constant	6.416978370	6.925065155	5.852655306	6.139840806
Std error	0.383633898	0.499499592	0.296792107	0.418245280
t-stat	16.72683***	13.86401***	19.71971***	14.68000***
GROF	-1.759110294	-2.059363981	-1.413650895	-1.617703296
Std error	0.198033160	0.258561648	0.155710645	0.219649017
t-stat	-8.88291***	-7.96469***	-9.07870***	-7.36495***
GROS	0.194213618	0.230066864	0.145980422	0.172136384
Std error	0.023818266	0.031223455	0.018980610	0.026869816
t-stat	8.15398***	7.36840***	7.69103***	6.40631***
SETF	-0.008457139		-0.004598244	
Std error	0.002336525		0.001848947	
t-stat	-3.61954***		-2.48695**	
SEBF		-0.019555750		-0.014107024
Std error		0.003160987		0.002777154
t-stat		-6.18660***		-5.07967***
LET	0.095564869		0.070181067	
Std error	0.014397729		0.015979080	
t-stat	6.63750***		4.39206***	
LEM		0.146644885		0.140953834
Std error		0.018782893		0.023411562
t-stat		7.80736***		6.02069***
EXG			0.010109774	0.006052443
Std error			0.002814348	0.004360782
t-stat			3.59223***	1.38793
RIT	0.008383063	-0.000816696	0.009960223	
Std error	0.005403783	0.007064771	0.004722509	
t-stat	1.55133	-0.11560	2.10910**	
Number of Observations	85	85	85	85
Degree Of Freedom	79	79	78	78
F-Statistics	27.5492	36.7210	35.3630	36.0053
P-value of F	0.000000	0.000000	0.000000	0.000000
R-Squared	0.635518	0.699168	0.731199	0.734723
Adjusted R-Squared	0.612450	0.680128	0.710522	0.714317

Table 6c. Testing Growth Sustainability, Second-Stage (with ROL and RDP)

Independent Variables	Dependent Variables	Dependent Variables	Dependent Variables	Dependent Variables
	UET	UEM	UET	UEM
Constant	83.83024270	80.98728156	68.62512118	65.34774124
Std error	6.60395352	6.98371175	5.14060163	5.87688396
t-stat	12.69395***	11.59660***	13.34963***	11.11945***
GROF	-31.90963603	-30.27512443	-24.29489342	-23.01915683
Std error	3.34924989	3.54633895	2.79140918	3.18590879
t-stat	-9.52740***	-8.53701***	-8.70345***	-7.22530***
GROS	3.51731570	3.27349813	2.61404734	2.48301129
Std error	0.39923127	0.42367475	0.35506765	0.40522085
t-stat	8.81022***	7.72644 ***	7.36211***	6.12755***
SETF	-0.16421083		-0.10429671	
Std error	0.03795304		0.03414401	
t-stat	-4.32668***		-3.05461***	
SEBF		-0.22619613		-0.17134279
Std error		0.04047321		0.04025772
t-stat		-5.5887***9		-4.25615***
LET	1.15433409		0.84356548	
Std error	0.23865052		0.27568998	
t-stat	4.83692***		3.05983***	
LEM		1.59717979		1.62342941
Std error		0.25626770		0.32796651
t-stat		6.23247***		4.94999***
EXG			0.08532765	-0.01565023
Std error			0.05086054	0.06210069
t-stat			1.67768*	-0.25201
RIT	0.07101197	-0.06792313	0.04874085	-0.11011448
Std error	0.08699968	0.09209261	0.07865307	0.08982126
t-stat	0.81623	-0.73755	0.61969	-1.22593
Number of Observations	85	85	85	85
Degree Of Freedom	79	79	78	78
F-Statistics	28.0432	37.4312	30.0809	31.7590
P-value of F	0.000000	0.000000	0.000000	0.000000
R-Squared	0.639625	0.703182	0.698242	0.709555
Adjusted R-Squared	0.616816	0.684396	0.675030	0.687214

Table 6d. Testing Growth Sustainability, Second-Stage in Log (with ROL and RDP)

Independent Variables	Dependent Variables	Dependent Variables	Dependent Variables	Dependent Variables
	Log(UET)	Log(UEM)	log(UET)	log(UEM)
Constant	6.812876016	7.466007899	5.759148840	6.145984976
Std error	0.395785569	0.497503537	0.317022077	0.426034133
t-stat	17.21355***	15.00694 ***	18.16640***	14.42604***
GROF	-1.961183321	-2.311266575	-1.416712144	-1.657528933
Std error	0.200725939	0.252633017	0.172146842	0.230956728
t-stat	-9.77045***	-9.14871***	-8.22967***	-7.17679***
GROS	0.220720325	0.259464941	0.154352426	0.183174169
Std error	0.023926573	0.030181613	0.021897103	0.029375757
t-stat	9.22490***	8.59679***	7.04899***	6.23556***
SETF	-0.012768285		-0.008470365	
Std error	0.002274587		0.002105669	
t-stat	-5.61345***		-4.02265***	
SEBF		-0.023072846		-0.017711398
Std error		0.002883218		0.002918411
t-stat		-8.00246***		-6.06885***
LET	0.081262588		0.057214976	
Std error	0.014302710		0.017001864	
t-stat	5.68162***		3.36522***	
LEM		0.130398171		0.120434856
Std error		0.018255921		0.023775342
t-stat		7.14279***		5.06554***
EXG			0.007216200	0.004003474
Std error			0.003136581	0.004501878
t-stat			2.30066 **	0.88929
RIT	0.003059069	-0.004251309	0.001893973	-0.006782188
Std error	0.005214031	0.006560466	0.004850553	0.006511431
t-stat	0.58670	-0.64802	0.39047	-1.04158
Number of Observations	85	85	85	85
Degree Of Freedom	79	79	78	78
F-Statistics	28.9568	42.8131	28.5339	34.5919
P-value of F	0.000000	0.000000	0.000000	0.000000
R-Squared	0.646981	0.730435	0.687002	0.726844
Adjusted R-Squared	0.624638	0.713374	0.662926	0.705833

It is seen that growth volatility is uniformly predicted to increase unemployment. Both GRO and GRO-squared terms have very high t-values

(between 7 and 9) and with the correct sign. Focussing on Table 6a (columns 2 and 3), it is to be noted that secondary enrolment now appears to confirm the anticipated reduction in unemployment, albeit the coefficient is double for men. This once again confirms the strong discrimination against women's skills in the labour market.

On the life expectancy issue, the new tests (contrast Table 6a with Table 4a) also confirm the worsening effect on unemployment. Moreover, all coefficients are more dense than earlier, and all are highly significant (t-values between 6 and 7), which reveal that the rising longevity is likely to add more than proportionately (one extra year adding more than one percentage point to the unemployment queue) mainly via participation. The impact for men is more severe (the elasticity being close to 2) than generally, i.e., the impact is less serious for females.

Policy Framework and Conclusion

While preliminary at this stage and further tests using an expanded dataset would be in order to validate the empirical findings in a more robust setting, the study does reach some fairly striking conclusions. The paper uses a sample of five Arab countries - Algeria, Egypt, Jordan, Morocco and Tunisia - in a dataset that covers the period from 1990 to 2006. Two-stage least squares methodology is used to find estimates of growth and human capital variables from a search of deeper instruments, and fitted values from these regressions are then used in second-stage estimation of unemployment behaviour in the general population and separately for men.

The first major observation of the paper relates to the generally accepted view that in spite of healthy growth of late, the unemployment reduction in most diversified Arab economies has been less than commensurate. This study points out that this may have been due to growth volatility. In other words, while growth by itself does tend to achieve significant reduction in unemployment, the lack of sustainability of growth is the villain of the piece. It works in the opposite direction raising unemployment so that the net effect is rather modest.

What policies will suffice here? How does one provide an enabling environment such that growth becomes more predictable? The standard answer must lie in the provision of a sound macro policy framework by the state, especially monetary policy. In many contexts, the case for a transparent monetary policy stance has been emphasized to a great deal, and central bank independence would be high on the agenda. Low inflation, low budgetary deficits and predictable public borrowing behaviour are key ingredients of a stable macro policy environment. With a dominant public sector share of the banking industry in many of these countries (often 60% or above), it is likely that credit allocation is not efficient. These markets ought to be allowed to function independent of directed credit policy of the state, but within a credible regulatory framework.

Rodrik (2000) has argued that prevalence of participatory institutions primarily obtaining in a democratic regime, offers better prospects of resiliency to shocks and consequently reduces growth volatility.⁽²⁰⁾ He goes on to make a case that better institutions have allowed Korea and Thailand to recover ahead of Indonesia from the financial contagion that hit Asia in the late 1990s.

The second major finding is that while educational contribution to lowering of unemployment is likely to be of a modest magnitude for all, the labour market appears to strongly discriminate against women's skills. Part of the problem may well be due to a mis-match of required job skills and women's schooling. The folly of preparing oneself exclusively for civil service jobs has been mentioned. A recent World Bank study (2004a) finds that in most countries included in this sample (e.g., Egypt, Morocco, Tunisia and Jordan), the return to education is higher in the public sector than the private sector at all levels excepting the university level. Another World Bank study (2004b) has pointed out that for women to succeed in the labour market, it would require revising labour legislation and eliminating barriers that raise the cost of hiring women relative to men. However, more generally, institutions need to be developed and nurtured so that the labour market can deliver the right signals to those acquiring human capital.

The next result suggests that since continuing medical and nutritional advances are likely to lead to rising life expectancy, the labour market implications are rather serious, especially for men. Rising longevity appears to predict rising unemployment via participation. What can the society do to increase the rate of job creation in order to meet the growing aspirations of the public? Faster and stable labour-intensive growth strategy is the order of the day. Capital market innovations that encourage small enterprise growth, which in other parts of the world (e.g., South and Southeast Asia) appear to contribute more to job creation than larger enterprises, may form part of such a strategy.

Finally, while the trade-GDP ratio is rather high for these countries vis-à-vis other developing regions, the overall impact on growth, employment or educational attainment have been very limited. Strategies need to be framed so that human capital acquisition, technology access and thus faster growth may result from greater exposure to globalization. Development of niche export-oriented products that take advantage of local resources would appear as a goal of export and growth policy. This has been cited in other contexts, which essentially calls for diversification of the product base of the economy. On the latter issue, earlier writers have noted that exports of small countries like Czech Republic and Hungary, or even smaller Finland, have been in excess of non-oil exports out of the region (World Bank, 2007a). Some authors cite domestic regulatory environments as discouraging private investment and thus impeding the development of export-oriented industrial sectors (Yousef, 2004).

Can FDI, which has risen in recent years to about 2% of global inflows, play a role here as has been claimed by some?⁽²¹⁾ How hospitable is the local environment? Abdi and Chami (2007) point out that traditional preference for public enterprises (e.g., in banking and finance) have led to the crowding out of private investment including FDI. The business environment has been further compromised by excessive regulations, red tape, extended procedures, weak enforcement of property rights, and generally high relative costs of doing business.⁽²²⁾ These authors observe that further trade liberalization may help in this regard since it forces domestic firms to lobby the state and compete for an improved business environment.

At another level, it may be noted that the failure of trade to accelerate growth, in spite of the volatility setback, is suggestive of the inability to fully exploit the comparative advantage that lies within each country's technology. Modality should be found to delve deeper into the search for significant comparative advantage and the hindrances that stand in the way of benefiting from this. The focus is on applied research with actual country-specific data on capital and labour productivity.

Footnotes

(1) An example of a measure of relative dispersion in the observed growth behaviour would be a weighted term such as the country-specific standard deviation of growth (s_i) divided by the actual GRO data (x_{it}), i.e., $[s_i/x_{it}]$, $i = 1, \dots, 5$, and $t = 1, \dots, 17$.

(2) This literature views institutions as encompassing the formal rules designed by polity as well as informal rules often labelled 'social capital' that have emerged over the course of history. More broadly, the focus is on those institutions that lower transaction costs and thus make a greater array of economic exchanges possible than would otherwise be the case under pure laissez-faire.

(3) The actual source is 'global risk service' surveys carried out by Global Insight, earlier known as Data Resources, Inc (DRI). The data set is made available in Kaufman et al (2007). Ahsan (2003 and 2004) have explored analyzed more exhaustively the role of do the governance indicators? in the growth and poverty context for the MENA region as well as transition countries in the former Soviet Union and Eastern Europe.

(4) The figures are based on data included in the World Bank document on MENA's job creation prospects in a growth environment (World Bank, 2007a), which does not include Turkey.

(5) The search for additional data however continues. Suggestions from readers on how to expand the dataset in a consistent basis would be highly appreciated.

(6) The average for dates (t-1) and (t+1) to choose the missing entry for date-t was taken. In other cases (e.g., the last data point), the country average was taken for the sample to obtain the missing observation(s). Clearly, there are other methods for dealing with missing observations, planned to be dealt with in other research.

(7) More specifically, the pattern of the data source is as follows: Algeria and Morocco (both WDI and ILO), Egypt and Tunisia (ILO), and Jordan (WDI).

(8) The Algerian female participation rate rose from 24% in 1990 to 38% in 2005, some of which would be expected to be spurious due to reasons cited above.

(9) The employment-unemployment figures reviewed relate to the 2000-2005 average for 12 countries highlighted in Chapter 2 of World Bank (2007 a). These 12 include, in addition to the five in the present sample, Bahrain, Iran, Kuwait, Qatar, Saudi Arabia, UAE and West Bank and Gaza. Where appropriate, these means are contrasted to those obtained for the five sample countries over the period 1990-2006, for a total of 85 observations.

(10) The sample properties described here relate to the 5-country data obtained from World Bank

(2007 a; 2007, b) and ILO (2005). Table A1 of the aAppendix describes the data. The broader regional data has been reviewed in World Bank (2007 a) as noted above.

⁽¹¹⁾ See Ali (2002) for a broader discussion on the scope of human capital in the MENA context.

⁽¹²⁾ The male –female unemployment pattern over 2000-2006 has been reviewed in World Bank (2007a), Table 2.4, p.46.

⁽¹³⁾ This is calculated as follows: the incremental growth would be 45% percent of the estimated coefficient of 3.53.

⁽¹⁴⁾ The coefficient is calculated as follows: $(\partial \text{GRO} / \partial \text{SET}) = [(\partial \text{GRO} / \partial \text{RDP}) / (\partial \text{SET} / \partial \text{RDP})]$.

⁽¹⁵⁾ The RIT coefficient just misses the 10 percent level of significance in Table 3d, but is highly significant in all other cases (especially Tables 3a and 3b).

⁽¹⁶⁾ Messkoub (2006) cites much lower elasticity on a country-by-country basis. However, these do not appear to be econometric results but rather based on observed growth in sectoral employment and sectoral GDP growth (Table 8).

⁽¹⁷⁾ This is calculated by using the relationship between the derivative of logarithm of a variable and the ordinary derivative. The coefficient of SEBF (0.0081) in column 2 of Table 4b is multiplied by the mean value of UEM, which is 15.14, to yield 0.1226.

⁽¹⁸⁾ The estimated EXG coefficients in the employment equations are inconsistent as to sign. These (although not most being statistically significant) suggest that increased export share predicts rising unemployment.! How can you make this conclusion when the results are NOT significant?

⁽¹⁹⁾ While the tables cited here use the GRO-squared term as measuring the volatility of growth, the relative dispersion can alternatively be measured by the ratio of the country's standard deviation in growth to the observed growth rate. Both sets of results turn out to be rather similar,. and hence, the first set is presented in Tables 6a through 6d.

⁽²⁰⁾ Rodrik (2000) contends that democracies deliver more predictable long-run growth. Using the Index of Political and Civil Liberties compiled by Freedom House, he detects that the variability in growth (e.g., measured by the coefficient of variation) is significantly smaller in democracies than in authoritarian regimes. This is so even when he finds “no strong, determinate relationship between political participation and average level of long run growth” (p24). His thesis is that adjustment to shock requires managing social conflicts, and democratic institutions are useful in this regard. In particular, he finds that “political regimes with lower executive autonomy and more participatory institutions handle exogenous shocks better”(p 31).

⁽²¹⁾ It may be noted that South Asia has been growing rather fast in the new millennium without much of FDI. FDI flows come in below the 2-percent mark of GDP even for India, and significantly below that in Bangladesh and Pakistan, for example.

⁽²²⁾ These authors go on to note that the minimum capital requirement to start a business in MENA is higher than in any other region, and five times larger than the global average. Time taken to enforce a contract or to import a standard consignment of cargo is, respectively, 50 and 80% higher than in East Asia (and, respectively, 60 and 190% above the industrialized country level).

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Appendices

Table A1. UET (UMT) in the Sample, 1990 -2006
(percentage)

Country	1990	1995	2000	2006
Algeria	19.8 (20.9)	27.9 (26.0)	29.8 (33.9)	20.3 (19.8)
Egypt	8.6 (5.2)	11.3 (7.6)	9.0 (5.1)	7.8 (4.7)
Jordan	14.7 (13.4)	14.6 (12.1)	13.7 (12.3)	16.1 (12.8)
Morocco	15.8 (14.2)	22.9 (18.7)	21.5 (19.9)	14.5 (12.6)
Tunisia	14.7 (13.4)	19.2 (16.1)	15.7 (15.3)	14.1 (12.9)

Source: World Bank (2007 a, b) and ILO (2005)

Table A2. Sample Properties, 1990 -2006

Country	GRO		(SET)/(SEB)		EXG		(LET)/(LEM)			RDP				
	1990	2006	Mean	1990	2006	Mean	1990	2006	Mean	1990	2006			
Algeria	0.80	3.00	2.65	60.5 (67.2)	83.1 (80.1)	70.5 (72.0)	23.4	52.6	32.3	67.2 (65.9)	71.7 (70.4)	69.6 (68.3)	67.0	68.7
Egypt	5.70	6.80	4.36	70.8 (79.0)	850 (88.8)	79.6 (84.5)	20.4	31.3	22.5	62.8 (61.4)	70.5 (68.4)	67.4 (65.5)	72.0	76.9
Jordan	0.97	6.44	5.33	63.3 (62.1)	87.4 (86.6)	79.8 (78.8)	61.9	50.7	49.8	67.5 (66.3)	72.0 (70.5)	70.1 (68.8)	100.0	100.0
Morocco	4.03	7.27	3.32	35.2 (40.7)	49.7 (53.7)	39.6 (44.2)	26.5	37.8	29.7	64.3 (62.7)	70.4 (68.2)	67.9 (65.9)	49.1	52.4
Tunisia	7.95	5.20	4.88	44.6 (49.8)	83.9 (80.2)	66.4 (66.8)	43.6	54.4	44.4	70.3 (68.6)	73.5 (71.5)	72.0 (70.1)	76.1	71.6
MENA_5 Average, 1990-2006		4.11			67.2 (69.3)			35.7			69.4 (67.7)			73.9

Source: World Bank (2007 b). All entries are shown in percentage terms.