

JORDAN ECONOMIC MONITOR

REVIVING A SLOWING ECONOMY

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PREFACE

The *Jordan Economic Monitor* provides an update on key economic developments and policies over the past six months. It also presents findings from recent World Bank work on Jordan. It places them in a longer-term and global context, and assesses the implications of these developments and other changes in policy for the outlook for the country. Its coverage ranges from the macro-economy to financial markets to indicators of human welfare and development. It is intended for a wide audience, including policy makers, business leaders, financial market participants, and the community of analysts and professionals engaged in Jordan.

The *Jordan Economic Monitor* is a product of the World Bank's Global Practice for Macroeconomics & Fiscal Management, (GMFDR) team. It was prepared by Léa Hakim (Economist) and Zeina Hasna (Economic Analyst), under the general guidance of Eric Le Borgne (Lead Economist) and Auguste Tano Kouame (Global Practice Manager). The Special Focus on Public Expenditure Review in the Education Sector was prepared by Samira Halabi (Education Specialist) and Dina Abu Ghaida (Lead Economist). The Special Focus on the Economic Impact of the Arab Spring on Jordan was prepared by Samer Matta (Economic Analyst). May Ibrahim (Senior Executive Assistant) provided Arabic translation and Zeina El Khalil (Communications Officer) print-produced the report.

Macroeconomic projections are as of 1 September 2016. The findings, interpretations, and conclusions expressed in this Monitor are those of World Bank staff and do not necessarily reflect the views of the Executive Board of The World Bank or the governments they represent.

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LIST OF KEY ABBREVIATIONS USED

bps:	Basis points
H1, H2:	First half of the year, second half of the year.
3mma:	Three-months moving average
pp:	Percentage points
Q1 (Q2, Q3, Q4):	First (second, third, fourth) quarter of the year
qoq:	Quarter-on-quarter
sa:	Seasonally adjusted
saar:	Seasonally adjusted, annual rate
yoy:	Year-on-year
lhs, rhs:	Left hand side, right hand side (for axis of figures)
ESSRP:	The Emergency Services and Social Resilience Program

EXECUTIVE SUMMARY

i. Jordan's economic growth has been subdued in the last year as spillovers from regional instability take a toll. Jordan has been managing spillovers from the Syrian crisis including closure of trade routes with Iraq and Syria and hosting more than 656,000 registered Syrian refugees with UNCHR with an estimated 1.3 million Syrians in Jordan as per the census. While the Jordanian economy has held up with growth generated from a number of sectors, it has been losing momentum. Growth of 2.1 percent (yoy) in the first half of 2016 (H1-2016) slightly declined compared to 2.2 percent in H1-2015. 'Finance and insurance services', 'transport storage and communications', and 'electricity and water' were the largest contributors to growth that half; while 'mining and quarrying' was a drag. The government has signaled that the economy is a priority for Jordan by approving a number of initiatives to stimulate growth, including measures recommended by the Economic Policy Council established by the King. Growth is expected to slow for the second year running to 2.3 percent in 2016 from 2.4 percent in 2015.

ii. Spare capacity in the economy is widening as reflected in ever-higher unemployment rates. Unemployment reached a high of 15.9 percent in Q3-2016 with over one third (36.7 percent) of youth unemployed. With signs of social pressures building, the government announced an 8-point plan to address unemployment including allocating funds for entrepreneurial projects by youth. In parallel, the European Union (EU) has relaxed its Rule of Origin (ROO) requirements to Jordan for specific product categories for 10 years. This is expected to spur investment in Jordan, job creation for both Jordanians and Syrian refugees, and exports to the EU.

iii. Prices continue to recede as international oil prices remain below the 2015 average and

as the output gap further widens. Prices (CPI) contracted by 1.1 percent on a period average (p.a.) basis for the first nine months of 2016 (9M-2016). This was driven by prices of food, transport and fuel. Core inflation (excluding food and fuel) stabilized at 2.0 percent p.a. over the same period. Monetary policy action has been unchanged since the last rate cuts in July 2015.

iv. Jordan's public finances improved in the first eight months of 2016 (8M-2016) as new measures kick-in yet debt remains elevated. The fiscal deficit narrowed by 33 percent in 8M-2016 yoy. A number of new fiscal measures were introduced in July 2016 to address the fiscal position. While the national electricity company has achieved cost recovery – currently aided by low international oil prices, the Water Authority of Jordan (WAJ) saw its deficit widen. WAJ's government-guaranteed borrowing adds pressure to Jordan's already-high debt. The World Bank's Programmatic Energy and Water Sector Reforms Development Policy Loan supports improving the financial viability and increasing efficiency gains in both sectors. Additionally, a three-year US\$ 723 million arrangement under the IMF's Extended Fund Facility approved in August 2016 focuses on fiscal consolidation and aims for a reduction of the gross debt-to-GDP ratio to 77 percent by 2021 from 93.4 percent end-2015. The IMF program also highlights a structural reform agenda to stimulate growth. The agreement is expected to unlock grants and concessional financing for Jordan in line with commitments made under the Jordan Compact.

v. Pressures abound on the current account due to slower tourism and remittances, closed land routes and pricing pressures on potash exports. As a result, travel receipts contracted by 1.2 percent 9M-2016 yoy while total exports of goods

fell by 3.8 percent 8M-2016 yoy; with domestic exports to Iraq down 40.6 percent. While continued low oil prices compared to 8M-2015 help reduce Jordan's import bill, pressure on the current account stems in part from a reduction in remittances (-4.0 percent 9M-2016 yoy). Such pressures have led to a widening of the current account to 12.7 percent of GDP (H1-2016) and have affected Jordan's gross international reserves which decreased by 11.1 percent to US\$12.6 billion (7.9 months of imports) by end-September 2016 compared to end-2015.

vi. The outlook is subject to downside risks.

Compared to the region, Jordan's growth forecast of 2.3 percent for 2016 is in line with the average growth rate for the Middle East and North Africa. However, higher frequency of security incidents are materializing around Jordan and could further depress consumer and investor confidence. Containing the fiscal deficit and implementing the new IMF program will be challenging as some adjustment measures could be considered socially sensitive. In parallel, the implementation of planned reforms to improve the functioning of the labor market, improve the investment climate and unlock access to finance which are vital to stimulate economic activity, and improve welfare. Finally, Jordan's external position would face further pressures if expected grants and concessional financing do not materialize and grants are not sustained and increased.

المحلي (في النصف الأول من ٢٠١٦)، وقد أثرت على الاحتياطات الدولية الإجمالية التي انخفضت بنسبة ١١,١ بالمئة إلى ١٢,٦ مليار دولار أميركي (٧,٩ أشهر من الواردات) في نهاية شهر أيلول/سبتمبر ٢٠١٦ مقارنة بنهاية العام ٢٠١٥.

vi. تخضع التوقعات لمخاطر مثقلة بالسلبية. مقارنة بالمنطقة، يتماشى النمو المتوقع للأردن والبالغ ٣,٢ في المئة عن عام ٢٠١٦ مع متوسط معدل النمو في منطقة الشرق الأوسط وشمال أفريقيا. إلا أن البلاد قد شهدت ارتفاعاً في وتيرة الحوادث الأمنية، ممّا قد يضعف ثقة المستهلك والمستثمر على حد سواء. كما قد تواجه البلاد بعض التحديات في ما يخص ضبط الأوضاع المالية وتنفيذ برنامج صندوق النقد الدولي الجديد بحيث تعتبر بعض التدابير المطلوبة حساسة اجتماعياً. وفي موازاة ذلك، يعتبر تنفيذ الإصلاحات المخطط لها لتطوير أداء سوق العمل وتحسين مناخ الاستثمار في غاية الأهمية لتنشيط الحركة الاقتصادية وإدخال التحسينات على نوعية الرفاه الاجتماعي. وأخيراً، قد تخضع وضعية الأردن الخارجية للمزيد من الضغوط إن لم يتم تحويل المنح والقروض الميسرة الموعودة والمتوقعة وإن لم يتم تخصيص المزيد من المنح.

الملخص التنفيذي

والوقود) عند ٢ بالمئة (على أساس متوسط) خلال الفترة نفسها. أما السياسة النقدية فلم تتغير منذ آخر خفض لأسعار الفائدة في تموز/يوليو ٢٠١٥.

iv. تحسن وضع المالية العامة في الأردن في الأشهر الثمانية الأولى من عام ٢٠١٦ نتيجة انعكاس نتائج التدابير الجديدة، ولكن بقيت نسبة الدين مرتفعة. ضاق العجز المالي بنسبة ٢٣ بالمئة في الأشهر الثمانية الأولى من السنة (على أساس سنوي). وقد أدخلت بعض التدابير المالية في تموز/يوليو ٢٠١٦ لمعالجة الوضع المالي. وبالرغم من أن شركة الكهرباء الوطنية استطاعت استرداد التكاليف بمساعدة هبوط أسعار النفط، إلا أن سلطة المياه في الأردن قد شهدت توسعاً في العجز. وتزيد ديون سلطة المياه المدعومة من قبل الدولة من حدة الضغوط المالية التي تعاني منها البلاد. فيما يدعم القرض البرنامجي الثاني المخصص من قبل البنك الدولي لأغراض سياسات التنمية، والمعني بإصلاحات قطاعي الطاقة والمياه، تحسين الجدوى المالية وزيادة الفعالية في القطاعين المذكورين. إضافة إلى ذلك، يركز برنامج صندوق النقد الدولي ضمن منشأته الإئتمانية الموسعة، والتدابير المتخذة لتأمين ٧٢٣ مليون دولار أميركي عبر ثلاث سنوات، على ضبط أوضاع المالية العامة وعلى الحد من نسبة إجمالي الدين إلى إجمالي الناتج المحلي إلى ٧٧ في المئة بحلول عام ٢٠٢١، من ٩٣،٤ في المئة في نهاية العام ٢٠١٥. كما يرمي برنامج صندوق النقد الدولي إلى تسليط الضوء على الإصلاحات الهيكلية لتحفيز النمو. ومن المتوقع أن ينتج عن ذلك تسهيلات مالية إضافية على شكل منح وقروض ميسرة يستفيد منها الأردن بحسب الالتزامات التي تنص عليها معاهدة الأردن.

v. تتزايد الضغوط على الحساب الجاري بسبب التباطؤ الحاصل في قطاع السياحة والتحويلات المالية، إضافة إلى الممرات التجارية المغلقة والضغط الحاصل على تسعير صادرات البوتاس. وقد أدى ذلك إلى انكماش إيرادات السفر بنسبة ٢،١ بالمئة خلال الأشهر التسعة الأولى من عام ٢٠١٦ (على أساس سنوي)، بينما انخفضت الصادرات بنسبة ٨،٣ بالمئة في الأشهر الثمانية الأولى من سنة ٢٠١٦ (على أساس سنوي)، حيث تدهورت الصادرات المحلية إلى العراق بنسبة ٦،٤٠ بالمئة. وفيما يساعد هبوط أسعار النفط مقارنة بالأشهر الثمانية الأولى من عام ٢٠١٥ على خفض حساب الواردات، إلا أن الضغوط على الحساب الجاري ناتجة بشكل جزئي عن انخفاض نسبة التحويلات المالية (-٤ بالمئة في الأشهر التسعة الأولى من ٢٠١٦ على أساس سنوي). وقد أدت تلك الضغوط إلى توسيع عجز الحساب الجاري إلى ٧،١٢ بالمئة من إجمالي الناتج

i. شهد النمو الاقتصادي في الأردن انكماشاً خلال العام الماضي بسبب تداعيات عدم الاستقرار في المنطقة. عمل الأردن على معالجة الآثار غير المباشرة للأزمة السورية، بما فيها إقفال الممرات التجارية مع العراق وسوريا واستضافة ما يفوق الـ ٦٥٦ ألف لاجئ سوري مسجل لدى المفوضية السامية للأمم المتحدة لشؤون اللاجئين، فيما يقدر عدد السوريين في الأردن بـ ١،٣ مليون نسمة حسب التعداد السكاني. وعلى الرغم من صمود الاقتصاد الأردني بوجه التحديات بفضل عدد من القطاعات المحركة للنمو، إلا أنه قد فقد زخمه مؤخراً. فقد انخفض النمو جزئياً في النصف الأول من العام ٢٠١٦ (على أساس سنوي) حيث بلغ ١،٢ بالمئة، مقارنة بـ ٢،٢ بالمئة في الفترة ذاتها من العام ٢٠١٥. أما القطاعات التي ساهمت بشكل كبير في تحريك النمو في النصف الأول من السنة فهي: "القطاع المالي وخدمات التأمين"، و"التخزين والنقل والاتصالات"، و"الطاقة والمياه"، بينما شكل قطاع "التعدين والمحاجر" عبئاً على النمو. وقد أكدت الحكومة على أولوية دعم الاقتصاد من خلال إقرار العديد من المبادرات التي ترمي إلى تحفيز النمو، بما في ذلك التدابير التي أوصى بها مجلس السياسة الاقتصادية الذي أنشأه جلاله الملك. ومن المتوقع أن يتباطأ النمو في السنة الثانية ليسجل نسبة ٢،٣ بالمئة في العام ٢٠١٦، مقارنة بـ ٢،٤ في العام ٢٠١٥.

ii. يتسع حجم الطاقة الفائضة في الاقتصاد الأردني وفق ما يعكسه الارتفاع المستمر في معدلات البطالة. بلغت نسبة البطالة ٩،١٥ بالمئة في الربع الثالث من العام الحالي، حيث تبين المؤشرات أن أكثر من ثلث (٣٦،٧ بالمئة) الشباب الأردني عاطل عن العمل. وفي ضوء الضغوطات الاجتماعية المتصاعدة، أعلنت الحكومة عن برنامجها المؤلف من ثمانية نقاط لمعالجة مشكلة البطالة، بما في ذلك تخصيص الموارد المالية لتحفيز الشباب على إنشاء المشاريع الريادية. وفي موازاة ذلك، قلص الاتحاد الأوروبي من شروط قاعدة المنشأ خلال فترة عشر سنوات لفئات معينة من المنتجات الأردنية. ومن المتوقع أن يؤدي ذلك إلى تحفيز الاستثمارات في الأردن وخلق فرص العمل وللأردنيين والسوريين وزيادة الصادرات إلى دول الاتحاد الأوروبي.

iii. تستمر الأسعار في الانحسار مع انخفاض أسعار النفط العالمية إلى دون المعدلات التي سجلت في العام ٢٠١٥ ومع اتساع الفجوة الإنتاجية. انكمشت الأسعار (مؤشر أسعار المستهلك) بنسبة ١،١ بالمئة على أساس متوسط الفترة خلال الأشهر التسعة الأولى من عام ٢٠١٦، وذلك نتيجة لأسعار المواد الغذائية والنقل والوقود. واستقر التضخم الأساسي (باستثناء المواد الغذائية

RECENT ECONOMIC AND POLICY DEVELOPMENTS

1. Higher frequency of security incidents is materializing around Jordan exposing its vulnerabilities in addition to social discontent.

Security incidents at the Jordan-Syria border have been on a rise in 2016, with northern and northeastern borders declared as a military zone. Land routes to Syria and Iraq remain closed (since April and July 2015, respectively) despite high-level discussion for the re-opening of the latter. A number of protests have manifested including those opposing the signing of a gas deal between NEPCO and Noble Energy. Controversy has also arisen in relation to proposed curriculum reform with religious conservatives accusing the reform as fulfilling a secularist agenda. The reforms are part of a larger effort in the education sector in line with Vision 2025 and the recently launched National Committee for Human Resources Development.

2. Parliamentary elections proceeded largely smoothly with preliminary results indicating some new elements, with 36 percent voter turnout.

The 20 September 2016 Parliamentary elections had elements of a proportional representation system under a new law that moved away from the one-man-vote system that had been in place since 1994. Close to 1.5 million Jordanians voted out of more than 6 million citizens, the highest number to go to the polls in Jordan's history, with forty percent of voters under the age of 40. The Islamic Action Front (the political arm of the banned Muslim Brotherhood) who emerged from boycotting the previous two elections made gains aided by its alliance with non-Islamists and Christian candidates in the National Coalition for Reform. They won 15 (compared to an expected 20-30) out of the 130 Parliamentary seats. In contrast, a number of traditional Members of Parliament were not elected to the Lower House. Some secular voices emerged and 20 women were elected to Parliament (compared to 18/150 women

in the previous Parliament), five above the number stipulated under the woman's quota introduced in the new electoral law. Overall, two-thirds of new Parliamentary members were voted for the first time. Observers from the Parliamentary Assembly of the Council of Europe commended the Internal Election Commission for transparent and professional elections while suggesting some improvements to the electoral process. A new government was announced on 28 September 2016 comprising 29 ministers of which 22 unchanged from the previous government and the introduction of three new portfolios (ministers of state for investment affairs, economic affairs and foreign affairs).

Output and Demand

3. While the Jordanian economy has held up, it has been losing momentum and is diverging further from its potential.

Growth of 2.3 percent in the first quarter of 2016 (Q1-2016) was an improvement compared to 2.0 percent in Q1-2015. However, Q2-2016 growth slowed down to 1.9 percent (compared to 2.4 percent in Q2-2015) such that the first half results for 2016 (H1-2016) of 2.1 percent average growth are more or less flat to the 2.2 percent H1-2015 growth. This is also in line with the growth plateau seen since 2010 with average annual growth reduced at an average of 2.6 percent compared to 6.5 percent for 2000-2009 (Figure 1). This plateau is impacted by a number of exogenous shocks that have affected Jordan since 2010, including spillovers of the Arab Spring such as closing of trade routes with Iraq and Syria, and the influx of Syrian refugees. Arab Spring spillovers are estimated to have affected Jordan economic performance negatively, reducing GDP/capita by

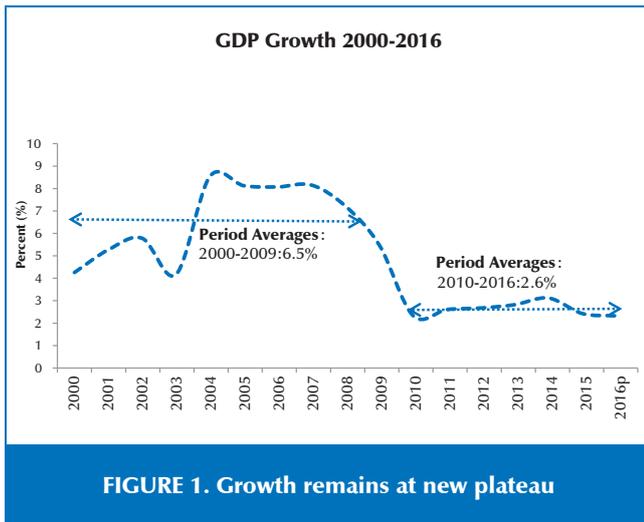


FIGURE 1. Growth remains at new plateau

Source: Department of Statistics and World Bank staff calculations

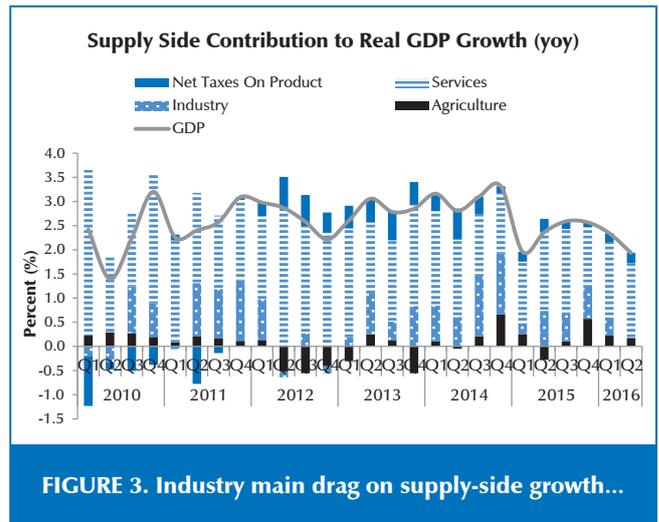


FIGURE 3. Industry main drag on supply-side growth...

Source: Department of Statistics and World Bank calculations

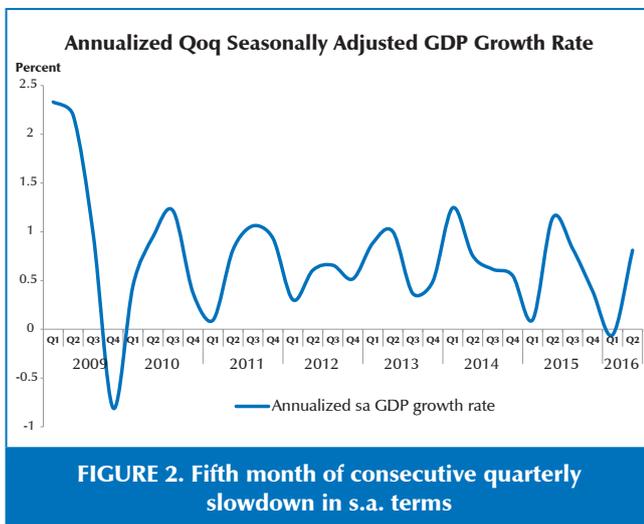


FIGURE 2. Fifth month of consecutive quarterly slowdown in s.a. terms

Source: Department of Statistics and World Bank staff calculations

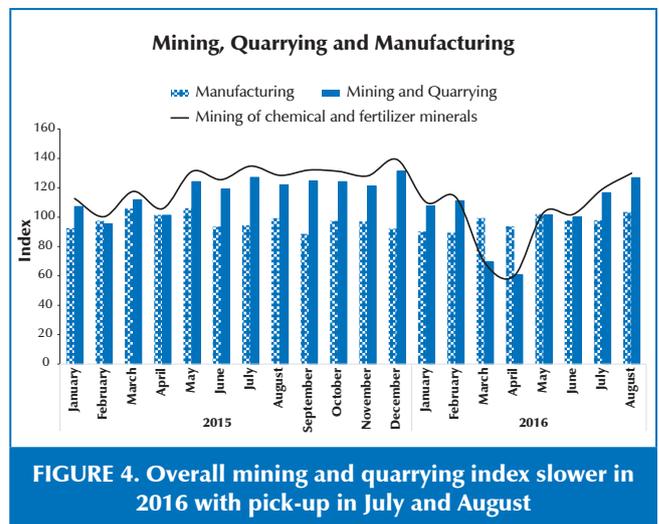


FIGURE 4. Overall mining and quarrying index slower in 2016 with pick-up in July and August

Source: Central Bank of Jordan and World Bank staff calculations

US\$ 901 in 2015 alone.¹ Q1-2016 was the fourth quarter in a row to slow-down on a seasonally adjusted basis although some pick-up is apparent for Q2-2016 (Figure 2). It is estimated that Jordan’s output gap as a share of its potential output for Q1-2016 was negative 0.58 percent on average (Box 1).

4. Growth was moderate yet fueled by a number of sectors, with only two sectors being drags on growth in H1-2016. ‘Finance and insurance services’, ‘transport, storage and communications’, and ‘electricity and water’ were the largest contributors to growth contributing 0.5 percentage points, 0.5 percentage points and 0.3 percentage points to growth, respectively. In contrast, ‘imputed bank service charge’ and

‘mining and quarrying’ were two sectors detracting from growth by 0.2 percentage points and 0.3 percentage points respectively in H1-2016 (Figure 3). On a quarterly basis, Q2-2016 saw growth of 1.9 percent compared to 2.4 percent in Q2-2015. Mining and quarrying notably saw negative growth of 26.7 percent in Q2-2016 yoy. This reflects lower international demand for Jordan’s potash which has been negatively affected by international pricing pressures. It also reflects the 12.6 percent drop in the average mining and quarrying component of the industrial price index for the first 8 months of 2016 compared to the same period in 2015 despite improvement in July and August (Figure 4). While ‘restaurants and hotels’ declined by 2.7 percent in Q2-2016 yoy, the tourism-related sector had a neutral contribution to growth. Tourist arrivals saw a 6.8 percent contraction in Q1-2016 yoy mitigating

¹ Kindly refer to this issue’s Special Focus: The Economic Impact of the Arab Spring on Jordan.

BOX 1. Potential Output Gap Analysis.

Policy makers often refer to the potential output gap as a proxy of the economy's performance or lack thereof. The potential output gap depicts how far off the economy is from the output it would have generated had it operated with its maximum capacity (i.e. fully employed factors of production).

There are several techniques referred to in the literature for estimating potential output gap. Two estimation techniques with variations are employed in the following for a holistic and robust approach. The Hodrick-Prescott (HP) filter, a de-trending statistical method, is employed using three standard smoothing parameters (1600, 1000, 500). The output gap for Jordan is estimated on annual data over the sample period 1975-2018 as well as on quarterly data over the sample period Q1-1992 – Q4-2016. Data post Q2-2016 is obtained from World Bank staff projections. Annual output gap is also estimated using a Production Function model (as of 1990), which is a structural method incorporating economic theory that relates output to total factor productivity and production inputs.

The economy has been operating below its potential since 2013 when the output gap turned negative for the first time since 2005. Results show that the economy was suffering from a negative and widening output gap from the mid-1990s until mid-2000s. In 2005, the economy embarked on a period of high growth during which it operated above potential recording a positive output gap until 2009 when it reached +5.27 percent (on average across the four estimation techniques employed) of potential output (Figure 5). Since then, the output gap has been narrowing and even became negative in 2013. The annual output gap estimates for 2013 have an average of -0.03 percent across the four different methods, after being +0.65 percent in 2012. The annual output gap further widened to reach an average of -1.05 percent of potential output in 2015 and is forecasted to continue deteriorating to reach -1.74 percent in 2016.

The numerous estimation methods employed yield similar trajectories for the potential output gap, particularly when applied with quarterly data. The magnitudes of the quarterly output gap estimates from the different HP filters* are very close (Figure 6). This diversity in the use of estimation techniques provides a wide scope for robustness and cross-checking that further validates the estimation process. The output gap estimates from the HP filter with the three different smoothing parameters are negative in all quarters of 2013. This is in line with the annual data. In the first quarter of 2016, output gap reached an average of -0.58 percent of potential output, which was the lowest recorded since Q4-2012. Although still negative, the output gap showed a modest pickup in Q2-2016 to reach -0.38 percent of potential output. The gap is expected to turn positive by the third quarter of 2016 to reach +0.13 percent of potential output.

Despite the uncertainty in estimating a country's output gap, the various estimates unanimously show that the Jordanian economy is operating below its potential. This result is in line with other indicators that reflect idle capacity such as high unemployment rates, persistent deflation, among others.

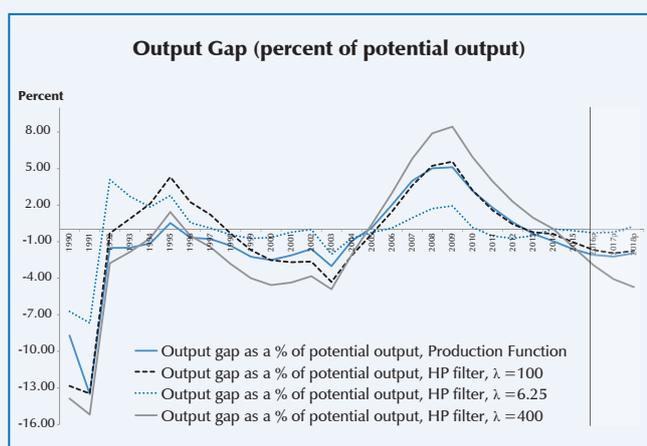


FIGURE 5. Output gap is negative and widening since 2013.

Source: Department of Statistics and World Bank staff calculations

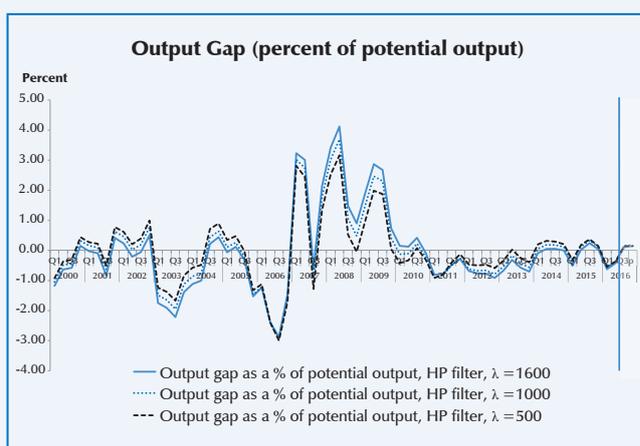


FIGURE 6. Output gap in Q1 2016 is the lowest since Q4 2012.

Source: Department of Statistics and World Bank staff calculations

*The production function estimation approach was not employed with quarterly data.

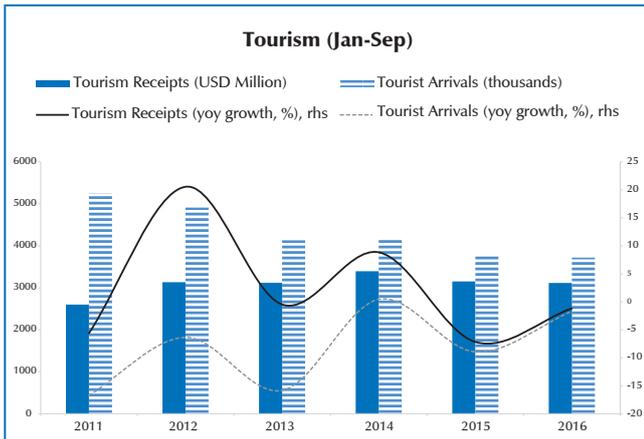


FIGURE 7. Tourist arrivals and receipts lag 2015...

Source: Ministry of Tourism, Central Bank of Jordan and World Bank

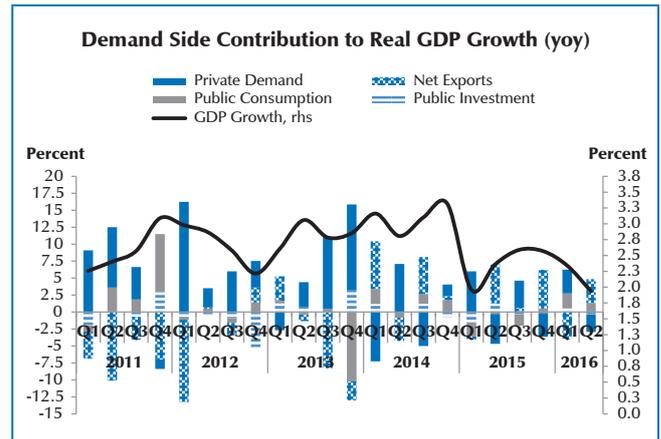


FIGURE 9. Net exports and private demand fuel demand-side growth in Q2 and Q1 2016 respectively

Source: World Bank staff calculations

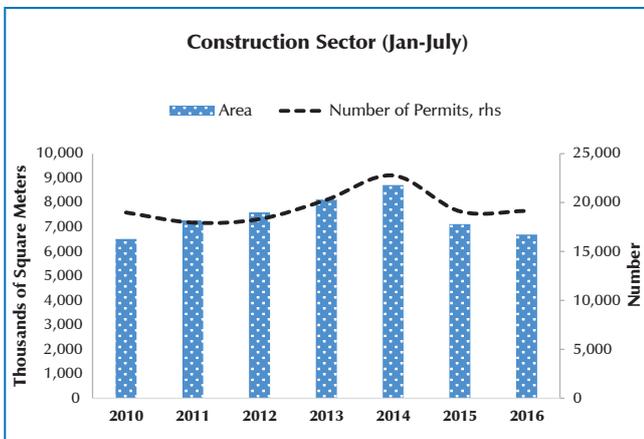


FIGURE 8. ...with construction indicators mixed

Source: Central Bank of Jordan and World Bank staff calculations

somewhat to a 3.4 percent contraction in the first 7 months of 2016 (7M-2016), yoy (Figure 7). Construction which recorded 1.1 percent growth in Q2-2016 yoy (also neutral contribution to growth in Q2-2016) has seen a negligible improvement in the number of permits issued and a 5.9 percent contraction in the area for 7M-2016 yoy (Figure 8).

5. It is estimated that public consumption stimulated growth from the demand side, followed by private demand in H1-2016. Public consumption is estimated to have contributed 1.8 percentage points to growth in H1-2016 followed by 0.5 pp by private demand (private consumption and private investment). On a quarterly basis however, it was net exports that was the larger contributor to growth from the demand side in Q2-2016 with an estimated 3.6 percentage points to growth as a result

of a narrower trade deficit (Figure 9). The deficit narrowed by an estimated 14.5 percent in Q2-2016 yoy as a result of an 8.1 percent contraction in imports that offset the 4.1 percent contraction in exports in Q2-2016 yoy (in real terms). Public consumption contributed an estimated 1.3 percentage points to growth. Meanwhile private demand and public investment detracted 2.6 and 0.3 percentage points to growth respectively that quarter. However, public and private investment are expected to improve following the bilateral agreement between Jordan and Saudi Arabia for investment purposes in the Hashemite Kingdom, crystalized in the related Jordan Investment Fund Law.

6. The government is introducing new reforms to stimulate the economy such as those recommended by the newly established Economic Policy Council (EPC). In June 2016, the King established the EPC to identify measures to activate the economy both related to quick fixes with direct impact and to longer term structural policies. The establishment of the EPC is perceived as a serious signal to treat the economy’s challenges as a priority. The 15-member council has 8 sub-committees including related to the business environment, startups, laws and regulations, tax reform, small and medium enterprises. The EPC’s first recommendations were endorsed by the government in September 2016 (Refer to Box 2).

Box 2. New Economic Reform Package.

The Jordanian government adopted a new economic reform package in September 2016. Cabinet endorsed the first set of recommendations proposed by the Economic Policy Council to help the government in accelerating growth. The 38 measures, which were effective upon approval, fall into nine categories as presented below.

Startup Financing

- Setup a \$100m venture capital fund with the World Bank (WB) and the Ministry of Planning and International Cooperation (MoPIC) in coordination with the Central Bank of Jordan (CBJ), \$50m by WB and CBJ to secure additional \$50m in 2016. (Withdrawal of WB loan will be in beginning of 2017)
- CBJ to increase the Jordan Loan Guarantee Corporation (JLGC) JD50m start-up loan guarantee program established in 2016 to JD100m in 2017

Export and Growth Financing

- Allocate JD100m to JLGC for export guarantee program (CBJ/ 2016)
- Banking sector to setup private equity fund of JD150m JD110m from commercial banks and JD40m from Islamic Banks (Banks, CBJ/ 2016)
- Raise allowable guarantee ceiling to JD1m (from JD550,000) for service and industrial loans (MoPIC, JLGC/ 2016)

Capital Market

- Privatize ASE — Public shareholding company (Jordan Securities Commission (JSC)/2017)
- Enable e-trading on ASE (JSC/2017)
- Amend JSC and companies laws to grant securities commission more discretion in issuing instructions to set policy (JSC/2017)
- Enforce corporate governance stipulated in laws on public shareholding companies (JSC/2017)
- Enact Exchange Traded Fund (ETF) and Mutual Funds (JSC/2017)

Microfinance and insurance

- Furnish banks' lending and loan guarantees with microfinance institutions that successfully complete licensing process as per CBJ regulations (banks, CBJ/2017)
- Incentivize mergers of insurance and microfinance companies (CBJ/2017)
- Enable general partners/limited partners — Investment Limited Partnership (ILP) legal setup. Introduce Investment Limited Partnership (ILP) legal structure in companies
- Allow for enforceability of shareholders agreements — except for PLCs. Introduce an article in companies law to allow for annexation and enforceability of shareholders agreement
- Remove Goodwill Tax. Amend article (3-A7) of Income Tax Law (2014) to remove Goodwill Tax

Lower cost of compliance for SMEs:

- Allow semi-annual reporting
- Cash-based accounting (vs accrual), for applicable sectors
- Automate legal case assignment processes within judicial system (assign commercial cases to specialized judges)
- Train employees on proper use of judicial police license (law enforcement authority)
- Facilitate company insolvency
- Amend legal notification process (electronic)
- Create tax clearing house

SME Financing

- Endorse Movable Assets Law (2016) — activate the existing law through issuing by-law and withdraw the draft law from parliament for review.
- Allow banks to give out direct loans to SMEs under CBJ's refinancing program (immediately)
- Allocate 15 percent of the soft loans extended by international and regional financial institutions to SME's startups (CBJ/ 2016)

Governorate Financing

- Decrease the CBJ's refinancing program rate from 1.75 percent to 1 percent for projects located outside Amman (immediately)
- Expand the maturity period of the CBJ's refinancing program (immediately)

Financial Instruments

- Expand the "Issuing of Savings Bonds" campaign to include Jordanian expats as well as locals (Ministry of Finance (MoF), CBJ/2016)
- Expand the "Issuing of Islamic Sukuk" target market to include individuals (MoF, CBJ/2016)

Microfinance and insurance (cont.)

- Allow for tax deductions on investments in startups. Introduce an article to Income Tax Law (2014) that allows for tax deductions on investments in startups of three-year-old
- Allow for "virtual office" registration. Amend Companies Law to allow for "virtual office" registration
- Create a flat low rate for customs and goods and services tax while reconsidering exemptions
- Align resource allocation with international best practice on compliance vs auditing (5-10 percent) , as well as creating specializations within tax department
- Limit tax evasion
- Adopt receipt-based system
- Automate and link services through building an e-database
- Enforce imprisonment for tax evasion
- Encourage payment of outstanding tax dues through adopting incentive settlement program.

Overarching economic legislative framework

- Ensure economic rights of private sector interaction with government are clear and met
- Exempt Social Security Investment Fund and Securities Commission from Civil Service by-law (hiring procedures)
- Re-engineer, digitize and outsource (when possible) business related processes. Project to commence with top 10 business related to government processes
- Reach out to Gulf Cooperation Council to secure accreditation and recognition of Jordanian professional service qualifications (ex: auditing, accounting, engineering and architecture)
- Enable low-cost carriers (LCCs). Develop Marka Airport through private sector BOT participation to become Amman's primary airport for LCCs.

Source: "Cabinet adopts economic reform package proposed by EPC", Jordan Times, 2016

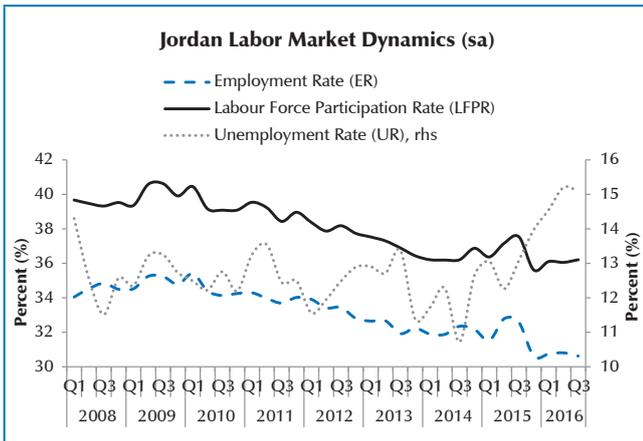


FIGURE 10. Unemployment reaches historical high...

Source: Department of Statistics and World Bank staff calculations

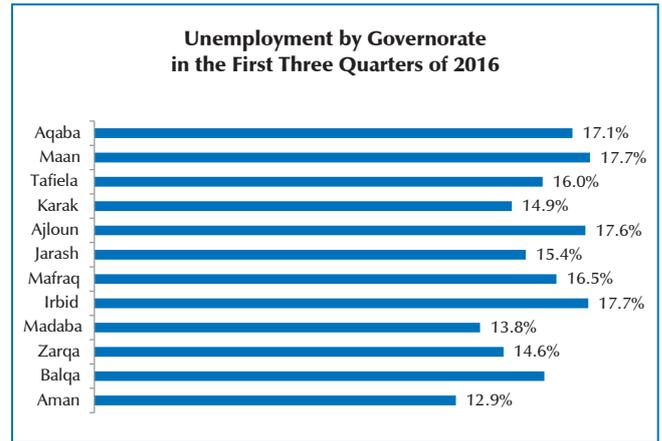


FIGURE 11. ...with Irbid and Maan the most affected

Source: Department of Statistics and World Bank staff calculations

Labor and Employment

7. **Structurally-high unemployment reached a historical high in the first three quarters of 2016 averaging 15.1 percent.** This constitutes a worsening by 2.2 percentage points compared to the same period of 2015, with the female unemployment rate of 23.9 percent substantially higher than that of men (13.2 percent). The youth unemployment rate remains elevated averaging 35.5 percent in the first three quarters of 2016, the highest since Q3-2013. The employment rate has exhibited a sharp downward trend since 2009 to reach an average of 30.7 percent in the first three quarters of 2016 (Figure 10). The labor force participation rate (LFPR) remains low and decreasing at 36.2 percent during the first three quarters of 2016 (compared to 37.1 percent for the same period of 2015), with female participation at 13.1 percent against 59.0 percent for males. (Box 3 looks at unemployment rates and job creation more closely using data available between 2007 and 2014). Geographically, Irbid and Maan registered the highest unemployment rate over the first three quarters of 2016 at 17.7 percent each compared to 12.9 percent registered in Amman (Figure 11). All governorates suffered from increasing unemployment rates between the first three quarters in 2015 and the first three quarters 2016 except for Madaba whereby the average unemployment rate registered there declined by 0.1 percentage points to reach 13.8 percent.

8. **The Government has been focused on job creation for Jordanians as well as Syrian refugees as part of its development plans and agreement with the international donor community.** With signs of social pressures building, the government announced an 8-point plan to address unemployment including allocating funds for entrepreneurial projects by youth. The government has also been supporting a number of regional development packages to stimulate job-creation including in Ajloun, Madaba, Zarqa, Maan and Aqaba with a focus on development programs, infrastructure support and funds to support Small and Medium-sized Enterprises (SMEs). In Madaba for example, government spending on development programs reached JD 58.3 million in 2016 by end-August with development projects in Zarqa supported by JD 115 million, JD 112 million for Maan and JD 244 million in Aqaba. In parallel, part of the Jordan Compact aims to turn the refugee crisis into a development opportunity which is expected to foster some job creation for Jordanians and Syrians. This is based on new market opportunities related to the relaxation of the European Union’s (EU) rules of origin, which entered into effect in July 2016 for an initial period of 10 years. This agreement allows exports from 18 special economic zones (SEZs) in Jordan to access the EU for a specified number of product lines such that at least 15 percent of labor is from Syrian refugees. With a number of reforms aimed at improving the labor market, investment climate, and investment promotion, new investments are expected, particularly from investors already familiar with Jordan.

Box 3. A Closer Scrutiny on Job Creation in Jordan between 2007 and 2014.

Unemployment rates remain elevated despite positive growth in Jordan. While real GDP grew by 29.2 percent between 2007 and 2014, unemployment only dropped slightly from 13.1 percent in 2007 to 11.9 percent in 2014 (Figure 12). This is in line with Jordan's low aggregate employment-growth elasticity, previously estimated at 0.53 between 2000 and 2009.* Even though the number of unemployed Jordanians dropped from 8,008 in 2007 to 5,511 in 2014, it was offset by a larger drop in the Jordanian labor force. In fact, there were 61,043 economically active Jordanians in 2007 compared to 46,348 in 2014. The contraction in the Jordanian labor force is one explanation for the persistently high unemployment rates.

While the Jordanian economy has been registering positive growth rates, this growth has not been inclusive in terms of job creation across sectors. Total jobs created dropped by 29 percent between 2007 and 2014 (-4.3 percent average annual growth rate) (Figure 13). In absolute terms, there were 70,356 net jobs created in 2007 versus 49,935 net jobs created in 2014. Out of the total jobs lost between 2007 and 2014, 16.1, 21.1 and 30.1 percent corresponded to sectors covering education; real estate, renting and business activities; and private households with employed persons, respectively. On the other hand, mining and quarrying and hotels and restaurants contributed positively to total job creation during the period of 2007-2014.

A closer scrutiny of the data shows that job creation was worse in the private sector than in the public sector. Job creation in the private sector shrank at an average annual growth rate of -4.54 percent between 2007 and 2014 compared to -0.37 percent in the public sector. In fact, out of the total jobs lost between 2007 and 2014, 75.8 percent stemmed from the private sector.

Job creation for Jordanians was slower than that for non-Jordanian workers in the Kingdom especially for those with a bachelor's degree and above. Out of the 20,421 jobs lost between 2007 and 2014, 66.1 percent were occupied by Jordanians versus 33.9 percent by non-Jordanians. Moreover, out of the Jordanians who lost their jobs, 37.8 percent had bachelor degrees and above and 25.4 percent had secondary level education. However, job prospects improved for Jordanians with basic education only. This depicts shifts in the labor market dynamics in Jordan. Moreover, data is not that stark with non-Jordanians as all education categories suffer from job losses almost proportionally between 2007 and 2014. More noticeably, 15.1 percent of the non-Jordanians who lost their job had elementary level education and 13.1 percent had secondary level education. However, only 2.8 percent of bachelor holders lost their jobs among the non-Jordanians.

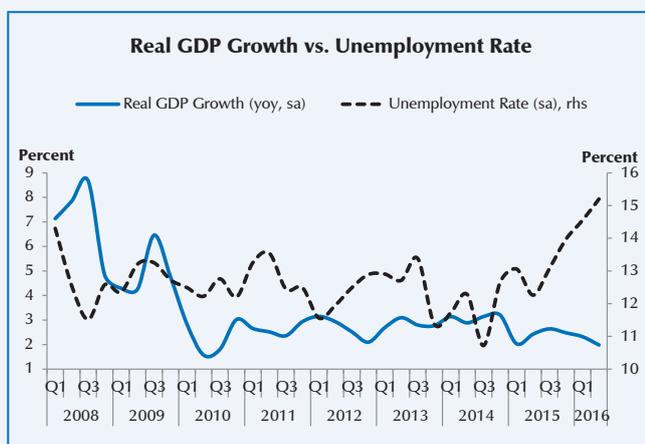


FIGURE 12. Despite positive growth rates, unemployment rate is on the rise ...

Source: Department of Statistics and World Bank staff calculations

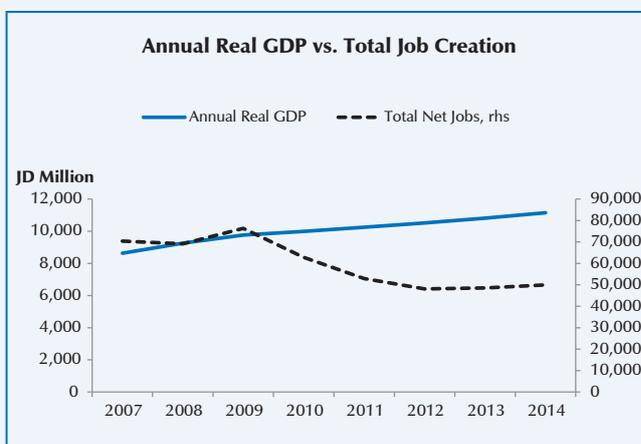


FIGURE 13. ... and total job creation on the decline ...

Source: Department of Statistics and World Bank staff calculations

* World Bank (2012). Hashemite Kingdom of Jordan: 2012 Development Policy Review, Washington DC.

9. The government is delivering on its pledge to facilitate the issuance of work permits for Syrian refugees, although take-up has been slower than expected. In April 2016, the Government of Jordan introduced a three-month period for Syrian refugees

to obtain work permits for free from employers in the informal sector. This measure was expected to regularize the employment of Syrian refugees and help them access legal employment as few met requirements to be afforded a work permit before

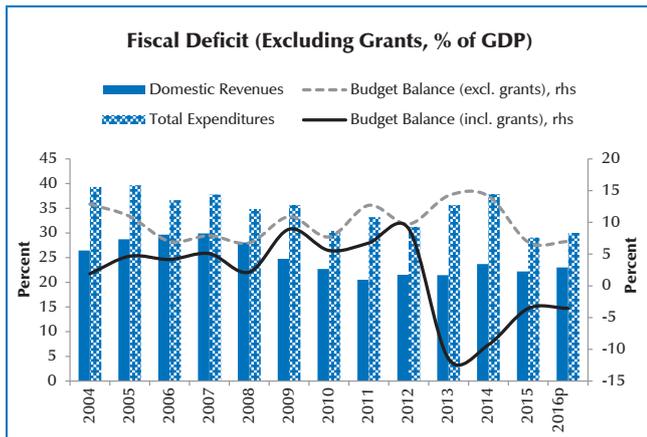


FIGURE 14. The fiscal deficit is improving thanks to new measures adopted...

Source: Ministry of Finance and World Bank staff calculations

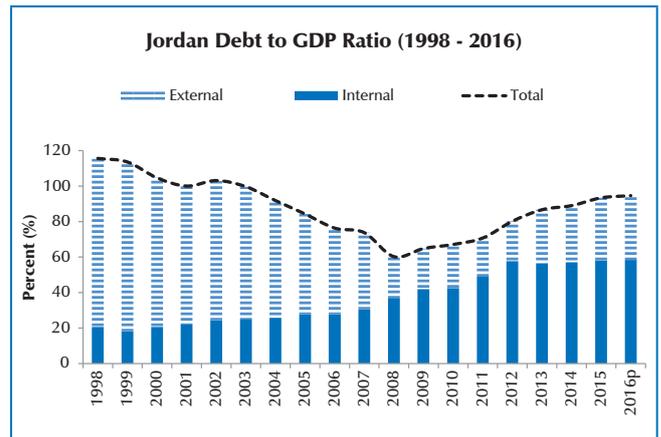


FIGURE 15. ...while the debt-to-GDP ratio expected to increase again in 2016

Source: Ministry of Finance and World Bank staff calculations

2016. At 13,000 work permits issued by this time, take-up of work permits by Syrian refugees was slower than expected and the waiver was extended a further three months. A number of concerns plague Syrian refugees from seeking work permits. First, most Syrian refugees work by taking on casual and informal jobs which can no longer be possible once a permit is obtained. Moreover, having a permit necessitates an employer willing to support the contract which is not usually the case in the sectors in which Syrian refugees are mostly working, namely: construction, hospitality, cleaning and agriculture. Second, permits require workers to be legally tied to their employers. Third, from a monetary perspective, some refugees fear the loss of the financial aid they are receiving from UNHCR upon obtaining a work permit, despite assurances from UNHCR that those eligible for assistance would be not be disqualified from receiving it. Syrian refugees also fear potential renewal fees that they would be subject to annually.

Fiscal Policy

10. The government’s fiscal position has improved in the first eight months of the year as new measures kick-in. The fiscal (primary) deficit, including grants, improved by 0.75 (0.56) percent of GDP (pp) to reach 1.34 percent of forecasted GDP during 8M-2016, despite a 0.26 pp reduction in grants. Excluding grants, fiscal aggregates reported a

larger improvement with the fiscal (primary) deficit registering improvements of 1.00 pp (0.81 pp), with interest payments 0.2 pp lower (Figure 14). The improvement in the fiscal balance was led by a pick-up in domestic revenues mostly due to higher non-tax revenues followed by tax revenues driven by higher collected taxes on income and profits. The revenue pick-up also reflects the effects of a number of fiscal measures that were introduced by the authorities as part of an agreement with the IMF that were effective as of July 1st, 2016 and were introduced to improve the fiscal position. Such measures included increasing the prices of cigarettes, the tax on alcohol, raising the transfer fees on car sales, the removal of 2015 Goods and Sales Tax exemptions, reducing tax exemptions on imported used cars.²

11. Despite improvement in the fiscal balance, gross public debt continues to rise with pressures stemming from the Water Authority of Jordan (WAJ) whose debt is government-guaranteed. By the end of August 2016, debt registered \$36.2 billion (93.9 percent of adjusted and forecasted GDP) compared to US\$ 35.1 billion by end of 2015 (93.4 percent of GDP) (Figure 15). WAJ borrowing has added to the vulnerability towards debt levels

² Permanent measures adopted: (i) An increase in: a. cigarettes prices by JD 0.05/packet; b. cigarettes prices by JD 0.10/packet in Aqaba zone; c. diesel, kerosene and gasoline prices by JD 0.025/liter; d. the special sales tax on wines and spirits; (ii) The removal of 2015 GST exemptions including on clothes, shoes, watches, jewelry; (iii) adding an extra fee for “transfer of titles” on used vehicles; and (iv) reducing the depreciation allowance on used imported cars.

in Jordan given pressures on its cost recovery stemming from higher operating costs providing for Syrian refugees, and capital expenditure costs that were previously off-balance sheet. Having achieved cost recovery in 2015, the National Electric Power Company of Jordan (NEPCO) is expected to achieve a profit in 2016 and no longer contributing new debt. The World Bank's Programmatic Energy and Water Sector Reforms Development Policy Loan supports improving the financial viability and increasing efficiency gains in both water and energy sectors. With respect to Jordan's debt composition, the share of domestic currency debt increased from 62.3 percent at end-2015 to 63.2 percent by end-August 2016 as Jordan diversifies its local-currency denominated debt instrument mix. In addition to re-introducing 6-month Treasury bills, 2 and 3-year Treasury bonds, and 5-year floating rate Treasury Bonds at limited sizes, Jordan introduced 10-year Treasury Bonds in September 2016. A total of JD 910 million worth of 10-year Treasury Bonds were issued in September and October (up to 25 October) at a weighted average interest rate of 6.45 percent for the last issue. Additionally, Jordan issued its inaugural Sukuk in May 2016 as financing for NEPCO. The five-year JD 75 million issuance was priced at 3.5 percent and had a 2.7 coverage ratio. A second JD 34 million Sukuk was issued as a sovereign local currency Sukuk in October 2016 with a 3.3 coverage ratio. The Central Bank of Jordan issued "Saving Bonds for Individuals", the first government bonds for individuals, amounting to JD 28 million, aiming to provide individuals with secure long and mid-term saving instruments with fixed returns at an interest rate of 4.25 per cent for 5 years. On the foreign currency debt front, Jordan issued USD 1 billion worth of 10-year Eurobonds in October 2016 at 5.75 percent coupon and 5.8 percent yield, in a transaction that was four times oversubscribed. Finally, Jordan published a Medium-term Debt Management Strategy at the end of September 2016.

12. A year following the satisfactory completion of the IMF Stand-by Arrangement (SBA), the IMF Board approved an Extended Arrangement for Jordan under the Extended Fund Facility (EFF) in August 2016. The three-year US\$ 723 million Arrangement focuses on maintaining macroeconomic

stability and fiscal consolidation with the aim to reduce debt-to-GDP ratio to a more sustainable 77 percent by 2021. The Program is focused on broadening the tax base, addressing tax incentives, income taxation, improving tax administration and monitoring growth in spending. In addition, the EFF provides a broader structural reform agenda that is intended to stimulate inclusive growth particularly as related to boosting the business environment, strengthening the financial sector, improving access to finance, and supporting the water and energy sectors.³

External Position

13. Jordan's trade-in-goods balance has narrowed despite improvements in non-energy imports and weaker exports, due to pricing pressures on potash and route closures. The trade in goods deficit narrowed by 9.8 percent in 8M-2016 yoy, as the 3.8 percent total export decline was outweighed by a 7.6 percent reduction in imports

³ Structural benchmarks include: (i) Under fiscal framework and management: to submit to Parliament a new tax exemptions framework to reduce GST exemptions, a new income tax law, and a draft budget law for 2017 in line with program understandings and projections, an organic budget law; implement new income tax law, rationalize the GST and customs duty systems based on IMF technical assistance, comply with requirements of phase II of the road map for International Public Sector Accounting Standards; (ii) debt management: public a public debt management strategy (by end-September 2016 and an update by end-June 2017), approve a plan to reorganize the Public Debt Directorate and finalize its reorganization by end-June 2017; (iii) water and energy sectors: public studies on cross-subsidization and options for price adjustments in response to oil price changes, adopt an automatic electricity tariff adjustment mechanism with effective implementation on 1 January 2017, submission to Cabinet and publication on an updated action plan on reducing the water sector's losses; (iv) financing sector and access to finance: implement a risk-based framework for offsite AML/CFT supervision for banks and money exchange firms, submit to parliament amendments to the Deposit Insurance Corporate Law, amend and enact the Insolvency Law, enact the Secured Lending Law, publish a study assessing key issues and challenges to promote financial inclusion, amend the Insurance Law to allow for the transfer the supervision of the insurance sector to the Central Bank of Jordan and finalize the transfer; (v) business environment: submit to Parliament a draft Inspection Law, address shortcomings in the Investment-Window procedures by automating and integrating the services provided by the Jordan Investment Commission. Source: IMF Jordan Staff Report, September 2016.

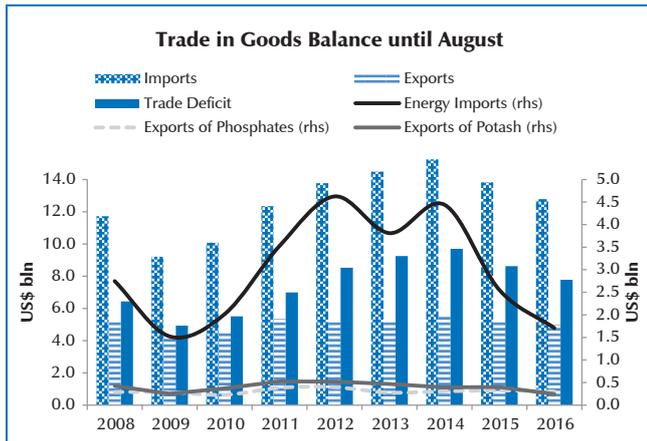


FIGURE 16. Lower energy imports drive the narrowing of the trade-in-goods deficits...

Source: Central Bank of Jordan and World Bank staff calculations

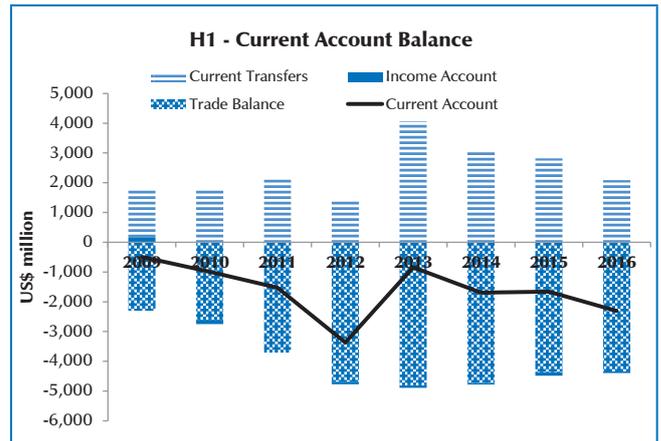


FIGURE 18. Current account widening due to reduced current transfers...

Source: Central Bank of Jordan and World Bank staff calculations

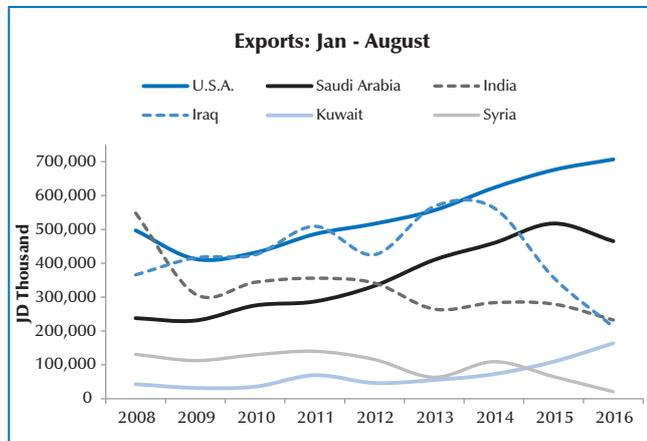


FIGURE 17. ... as domestic exports continue to be negatively impacted by route closures

Source: Department of Statistics and World Bank staff calculations

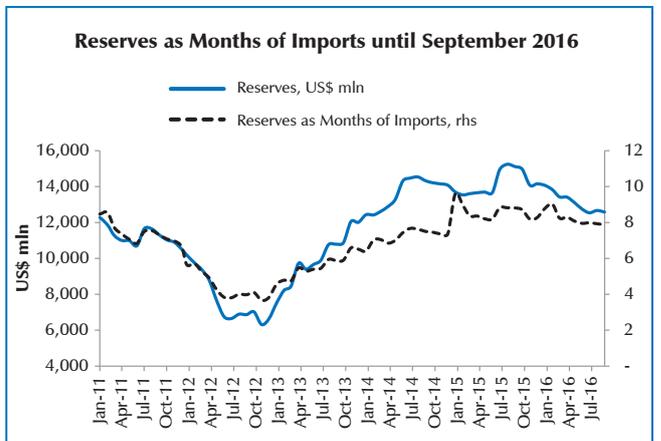


FIGURE 19. ...with these pressures resulting in lower reserves

Source: Central Bank of Jordan and World Bank staff calculations

(Figure 16). The decline in exports was driven by a 38.9 percent slump in potash exports. The potash industry was hit by global oversupply resulting in strong price competition and high reserves in importing countries, prompting Cabinet to discuss mitigating measures. Additionally, the closure of the borders to Iraq in July 2015 and Syria (which itself affected bilateral trade and transit trade to Lebanon, the European Union and Turkey) has negatively affected trade increasing export time and cost. Domestic exports to Iraq and Syria dropped by 40.6 percent and 68.3 percent respectively in 8M-2016 yoy (Figure 17). Exports continue on alternative trade routes (e.g., Kuwait). While exports to Saudi Arabia have seen negative growth of 10.1 percent in 8M-2016 yoy, a pick-up in exports to Kuwait of 49.6 percent has more than compensated. Exports to the EU are expected to be buoyed by a new arrangement of relaxed rules of

origin for industrial products applied to Jordan (Refer to paragraph 8). With respect to imports, low oil prices and the exchange rate appreciation compared to the Euro have put downward pressure on imports by value but have benefited importers. In 8M-2016, energy imports of goods were down 33.0 percent compared to the same period in 2015 with non-energy imports decreasing by 1.8 percent.

14. Pressures on the current account and reserves stem from lower remittances and travel receipts. The current account widened by 3.3 percentage points of GDP in H1-2016 yoy driven by lower current transfers (including a 0.3 percentage point of GDP (pp) reduction in remittances) and less service receipts (led by a 0.4 pp detraction in travel receipts) despite narrower trade in goods balance and income account (Figure 18). Current account

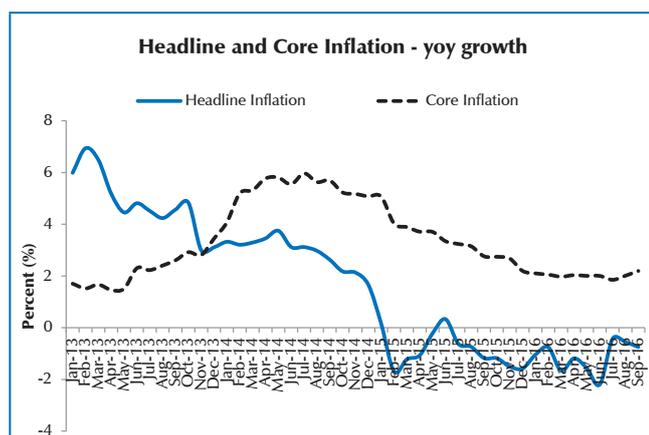


FIGURE 20. Headline inflation remains in the negative due to food and fuel prices...

Source: Department of Statistics and World Bank staff calculations

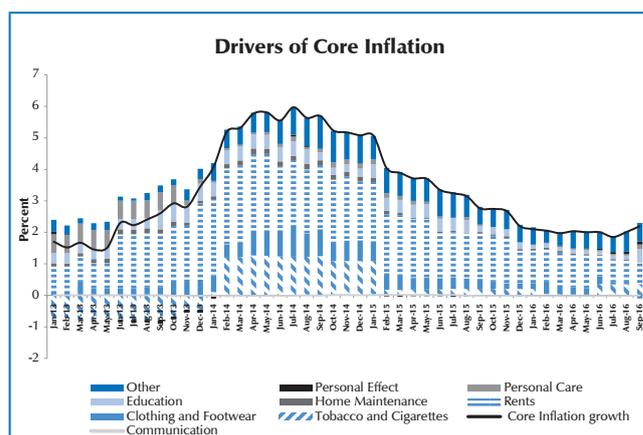


FIGURE 21. ...while core inflation is driven up by rents and tobacco and cigarettes prices

Source: Department of Statistics and World Bank staff calculations

components continue to reveal slower performance than in 2015 and reflect the impact of protracted low oil prices on average on Jordan via the GCC. Remittances dropped by 4.0 percent in 9M-2016 compared to a 1.8 percent increase during the same period in 2015. The decline in remittances could reflect the worsening economic situation in the Gulf because of persistently low oil prices. It could also reflect the holding back of sending remittances by Jordanian nationals in the Gulf given the uncertainty of the economic situation in the oil-exporting countries they work in and the potential impact on their employment. While travel receipts have also been decreasing comparing to 2015, the decline has been slowing down as 2016 progresses. Tourist receipts, affected by a slower tourist season (Refer to paragraph 4), registered a lower decline in 9M-2016 shrinking by 1.2 percent compared to a 7.2 percent reduction in 9M-2015. Such pressures have affected the stock of foreign reserves held at the central bank which has declined to US\$ 12.6 bln (7.9 months of imported goods) by September 2016, 11.1 percent lower than end-2015 (Figure 19).

Monetary Policy and Finance

15. The change in consumer prices remains negative, although some pressures on prices are

introduced due to fiscal measures implemented by the government. The cumulative growth of headline inflation as measured by the Consumer Price Index for 9M-2016 yoy stands at negative 1.1 percent (Figure 20). The decline in consumers' prices decelerated in September 2016 as inflation registered negative 0.7 percent yoy compared to negative 2.2 percent yoy in June 2016 (the lowest recorded since 2010). The deceleration was mainly due to lower drops in food prices and transportation costs in Jordan. Food prices dropped by 4.8 percent yoy in September 2016 compared to a 5.2 percent yoy decline in June 2016. Furthermore, prices of transportation and fuel and lighting dropped by 1.6 and 0.8 percent (yoy) in September 2016 compared to 8.6 and 6.5 percent (yoy) drops in June 2016, respectively. Inflationary pressures are stemming from 12.1 percent higher personal effect compared to 3.6 percent in June 2016, and from 4.8 percent higher cigarette and tobacco prices reflecting the increase in cigarette prices as part of revenue-enhancing measures adopted by the government as of July 2016. Moreover, core inflation (excluding food and energy products) recorded 2.2 percent (yoy) in September 2016, compared to its 2016 cumulative yearly average of 2 percent. Core driven by rents (although pricing pressures here have abated) and tobacco and cigarettes (Figure 21). Despite persistent deflation, monetary policy action has been unchanged since the last rate cuts in July 2015 although in real terms, and due to the slowdown in deflation, interest rates were lower as of June 2016 (Figure 22). Personal loans and credit growth from

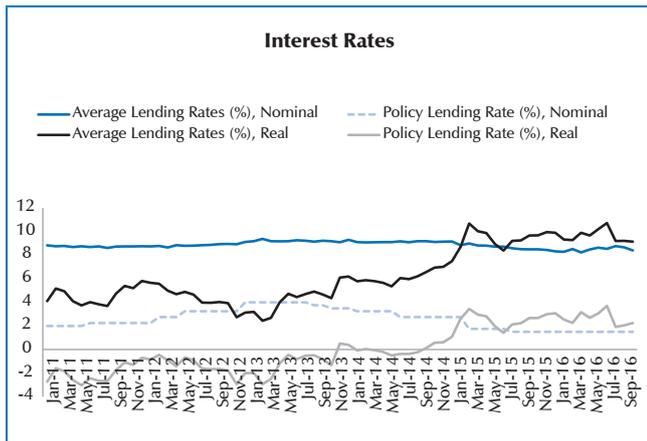


FIGURE 22. While nominal rates remain broadly flat...

Source: Central Bank of Jordan, Department of Statistics and World Bank

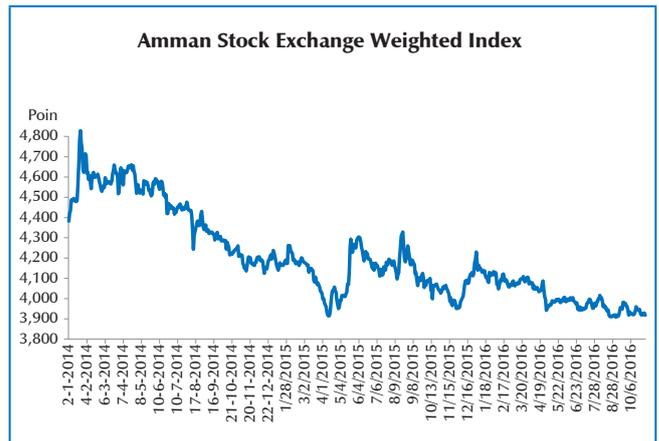


FIGURE 24. Stock exchange index continues to lose momentum

Source: Central Bank of Jordan, Department of Statistics and World Bank

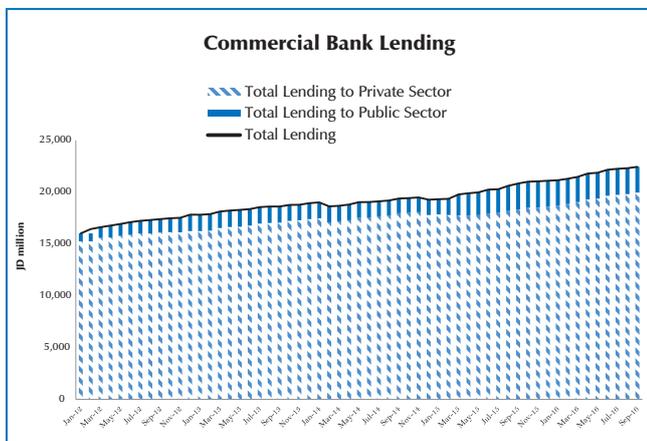


FIGURE 23. ...commercial lending to the private sector has been growing at a faster rate in 2016

Source: Central Bank of Jordan and World Bank staff calculations

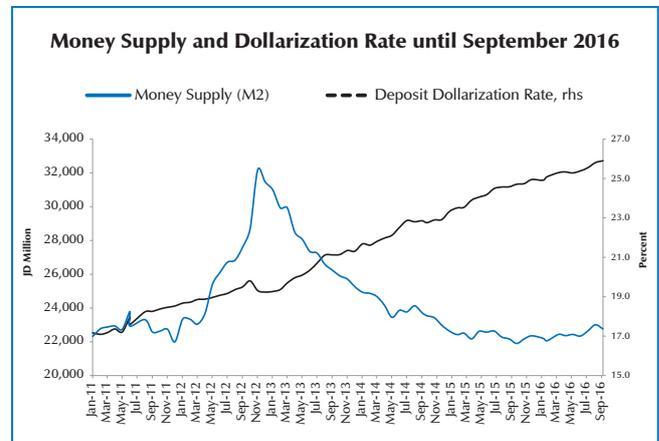


FIGURE 25. Dollarization slightly higher than 2015 average

Source: Amman Stock Exchange and World Bank staff calculations

commercial banks to the private sector⁴ increased to 13.9 percent and 9.0 percent, in September 2016 (yoy) (Figure 23).

16. Lower investor confidence is reflected in slower activity in the Amman Stock Exchange and a modest rise in dollarization rate of deposits. The Jordan Strategy Forum’s Jordan Investment Confidence Index reveals a 0.45 percent reduction in the index for May 2016 month-on-month stemming from lower confidence in the monetary and stock exchange subindices (the change in real economic subindex is positive). The Amman Stock Exchange Index (ASEI) decreased by 7.4 percent from end-2015 to end-October 2016 as a result of 2.3, 15.7, and 14.4 percent decreases in the banking, services

and industry sectors, respectively (Figure 24). Compared to an average of 17.5 percent in 2014, dollarization of deposit hovered around 17.0 percent during 2015 and most of 2016, increasing to 17.4 percent in September 2016 (Figure 25).

17. Amid repeated economic shocks, Jordanian banks are stable, profitable, liquid and adequately capitalized. Banks’ nonperforming loans (NPL) ratio continued to improve for the fourth year in a row to 4.8 percent by end-H1-2016 from 8.5 percent end-2011 and the lowest since 2008 (4.2 percent) (Table 1). Banks’ Return on Equity (ROE) and Return on Assets (ROA) both improved to 11.5 percent and 1.5 percent respectively by end-H1-2016 (compared to 11.0 percent and 1.4 percent respectively end-2015), whereas the capital adequacy and leverage ratios both slightly retracted

4 Private sector here being defined as financial institutions, private sector (resident) and private sector (non-resident).

Table 1. Financial Soundness Indicators.

(in percent unless otherwise stated)	2009	2010	2011	2012	2013	2014	2015	June-2016*
Nonperforming Loans/Total Loans	6.7	8.2	8.5	7.7	7.0	5.6	4.9	4.8
Provisions (in percent of classified loans)	52.0	52.4	52.3	69.4	77.0	77.6	74.7	76.5
Risk-weighted Capital Adequacy Ratio	19.6	20.3	19.3	19.0	18.4	18.4	10.1	18.4
Leverage Ratio	13.0	13.1	13.1	13.3	12.9	12.5	12.7	12.6
ROE	8.8	8.8	8.3	8.6	9.9	11.0	10.3	11.5
ROA	1.1	1.1	1.1	1.1	1.2	1.4	1.3	1.5
Net Profits Before Taxes (in JD million)	460.4	523.4	516.6	587.8	719.5	822.1	862.0	483.9
Liquidity Ratio	159.1	161.4	152.9	143.5	149.1	152.2	149.0	140.7
Growth Rate of Total Assets	7.4	9.6	7.9	4.3	9.1	4.9	5.1	1.3
Growth Rate of Customer Deposits	12.1	10.9	8.3	2.4	10.5	9.3	7.7	1.9
Growth Rate of Credit Facilities	2.1	8.6	9.8	12.5	6.3	5.2	9.6	4.2

* Preliminary and not annualized.

Source: Central Bank of Jordan

to 18.4 percent and 12.6 percent, respectively, by end-H1-2016 compared to end-2015. For the first time since 2012, banks' exposure to sovereign debt is lower at the end of the year compared to the previous year. By end-2015, this accounted for 40.6 percent of total assets (and further to 40.4 percent by end-January 2016) compared to 40.8 percent end-2014. Jordan's foreign asset position stood ground. The net foreign asset position of commercial banks stands at minus US\$ 2.4 billion by end-July 2016 compared to minus US\$ 2.8 billion end-2015.

PROSPECTS

18. While growth in 2016 is expected to remain flat, the medium-term appears more promising yet projections are still subject to downside risk. The baseline scenario assumes no worsening of the geopolitical situation. It incorporates the impact of fiscal measures assumed under the new IMF arrangement and World Bank energy and water sector Development Policy Loan associated reforms. Agreement on the IMF arrangement itself is expected to unlock grants and concessional financing for Jordan. Growth is expected to achieve 2.3 percent in 2016 from 2.4 percent in 2015 given the slow momentum witnessed. Jordan's growth forecast of 2.3 percent for 2016 is in line with the average growth rate for the Middle East and North Africa.⁵ In the medium-term, economic activity is projected to rebound slightly, to an average of 2.7 percent over 2016-2018. This comes on the back of expected impact from the implementation of growth-enhancing measures adopted by the government, those agreed with the IMF, and the impact of improved access to European markets for Jordanian exports. Despite expectations of higher oil prices, pressures on the external account are expected to subside as of 2017 with, a pick-up in exports and investment due to diversification efforts and the opportunities afforded by the EU's Rules of Origin relaxation and energy supply diversification plans, and abatement in the slowdown of remittances and travel receipts.

19. Manifestation of further security spillovers lead downside risks to Jordan. Higher frequency of security incidents are materializing in and around Jordan. Should these further materialize, this could further depress consumer and investor confidence and undo efforts to boost economic activity and attract investment. Containing the fiscal deficit

and implementing the new IMF program could be challenging particularly given the scope and scale of the measures agreed. Finally, Jordan's external position would face further pressures if expected grants and concessional financing do not materialize. Counterbalancing the large downside risk would require continued implementation of structural reforms to improve the functioning of the labor market, improve the investment climate and unlock access to finance which are vital to stimulate economic activity, and improve welfare.

⁵ MENA average growth rate for 2016 projected at 2.3 percent. Source: World Bank. MENA Economic Monitor. October 2016..

SPECIAL FOCUS

ADVANCING HUMAN CAPITAL DEVELOPMENT IN JORDAN THROUGH EDUCATION SECTOR REFORMS⁶

While Jordan has invested heavily in its education sector, such investments have not yielded desired outcomes. Given the importance of human capital development for Jordan's growth, this Special Focus presents a public expenditure review of basic and secondary education and makes recommendations around key issues that would require continued attention as Jordan prepares to implement its ambitious National Strategy for Human Resource Development, released in September 2016. While the strategy covers human resource development more broadly, the analysis and findings presented below provide the Ministry of Education with suggested directions in aligning public financing for education towards achieving Jordan 2025. As these products collectively suggest, reforms that place the focus on improving education outcomes, and not just distribution of inputs, will propel education to meet the pressing challenges of the economic and sociodemographic environment.

⁶ This Special Focus is authored by Samira Halabi (Education Specialist) and Dina Abu Ghaida (Lead Economist) at the World Bank, based on Education Sector Public Expenditure Review for the Hashemite Kingdom of Jordan. 2016. Report No: ACS18935. World Bank, Washington, DC.

Context

20. Jordan has invested significant national resources in providing education services (3.5 percent of GDP for pre-tertiary education) – comparable to international averages and above what might be expected given its per capita GDP. Education in Jordan has witnessed steady reform, driven by multi-donor support to the Ministry's development program, Education Reform for the Knowledge Economy (ERfKE) in its two phases. It has made impressive strides in terms of schooling access and attainment – enrolment rates are on par with comparator countries, with the exception of pre-primary enrolment. Even in this sub-sector, however, Jordan succeeded in expanding access to pre-primary education from 50 percent in 2009 to 60 percent in 2015. The Jordanian educational ladder consists of 2 years of pre-school education (KG1 and KG2) for 4-5 year-olds, followed by 10 years of compulsory basic education (grades 1-10) for 6-15 year-olds. Following the compulsory cycle, students can choose to enter either comprehensive secondary education or applied secondary education (the latter provided in training centers and as apprenticeships). Comprehensive secondary (hereafter referred to simply as secondary) education lasts 2 years and includes both a vocational and an academic track that students sort into. The Ministry of Education (MOE) regards academic and vocational secondary education as having a common educational base with additional specialized coursework, whereas applied secondary education is geared towards training and preparation for the workplace. Tertiary education therefore follows comprehensive secondary education only; access to tertiary education is determined through a high-stakes secondary school leaving exam, the tawjihi.

Table 2. Gross Enrolment Ratios for Jordan and Comparators, 2012-13.

Gross enrolment ratio	Jordan	Tunisia	Croatia	Thailand
Pre-primary	34.2	40.0	63.31	118.52
Primary	98.4	110.3	96.82	92.85
Secondary	87.8	90.6	98.43	86.98
Tertiary	46.6	35.2	61.63	51.23

Source: UNESCO Institute of Statistics

21. Primary, secondary, and tertiary gross enrolment rates are somewhat comparable to the rates in comparator countries⁷ (see Table 2), but there are considerable within-country differences by governorate and gender. Enrolment in basic education is near universal across all governorates (average national GER of 99.4 percent). In terms of the kindergarten GER, there is a more than twenty percentage point gap between the top governorate Maan (GER of 52 percent) and the bottom governorate Mafraq (GER of 30 percent). Similarly, there are wide regional disparities in the secondary GER averages, with Maan with a GER of 73 percent compared to 83 percent in Jarash. There are, in other words, no clear patterns in variation of GER across different levels of education amongst the governorates. But ten to twenty percentage point gaps demonstrate large geographic variation in GERs for a relatively small country such as Jordan. GERs show some variation by gender as well. GERs are slightly higher for girls than boys at the kindergarten and basic education levels, and by the time students reach secondary education, the gap has widened to an 8.7 percentage point gap in GERs in favor of females over males (figures not shown here).

22. More than half of schools in Jordan are run by the Ministry of Education, with the private sector playing a sizeable role in Amman especially. Schools in Jordan are run either by the Ministry of Education; other governmental entities (such as the Ministry of Religious Endowments, Ministry of

Higher Education, Ministry of Social Development, and Ministry of Defense); the private sector; or the United National Relief and Works Agency (UNRWA), which runs schools for Palestinian refugees. Public schools are co-educational only through grade 4 (and in some communities, only through grade 2) after which girls are taught in separate schools predominantly by female teachers and boys by male teachers. Jordan had a total of 6,614 schools in academic year 2013-14, of which 3,694 (or 56 percent) were run by the Ministry of Education and 2,708 (or 41 percent) by the private sector. Other governmental entities were only in charge of a total of 38 schools, and UNRWA administered 174 schools. The share of MOE-administered schools in total number of schools is highest in Mafraq at 87.9 percent, and lowest in Amman at 36.7 percent. Amman has by far the highest share of private schools amongst all governorates, amounting to 58.8 percent of all schools.

23. Student learning outcomes, however, remain below international averages, affecting competitiveness of Jordan's labor force, with wide disparities across governorates. Internal efficiency, measured by dropout and progression rates, and external efficiency, measured by employability of graduates, are low. Furthermore, low education quality has likely contributed to the increasing share of enrolment in private instead of public education, so that today the majority of schools in Amman, for example, are private schools. Average student performance as measured in international learning assessments is also relatively low. Figure 26 shows Jordan's below-average performance in international mathematics, science, and reading assessments. Although it outperforms other MENA countries in

⁷ These comparators are a subset of those chosen for the Jordan Systematic Country Diagnostic (SCD). The criteria employed in choosing comparator countries for the SCD were: small, upper-middle/high income, ambitions for manufacturing, dependent on current or capital inflows, and energy importers.

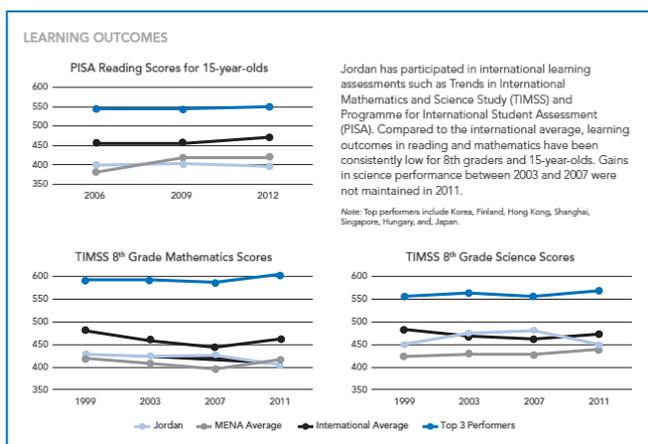


FIGURE 26. Results of Jordan's Performance on International Learning Assessments

Source: Calculations based on available years of TIMSS (Trends in International Mathematics and Science Study) and PISA (Program for International Student Assessment).

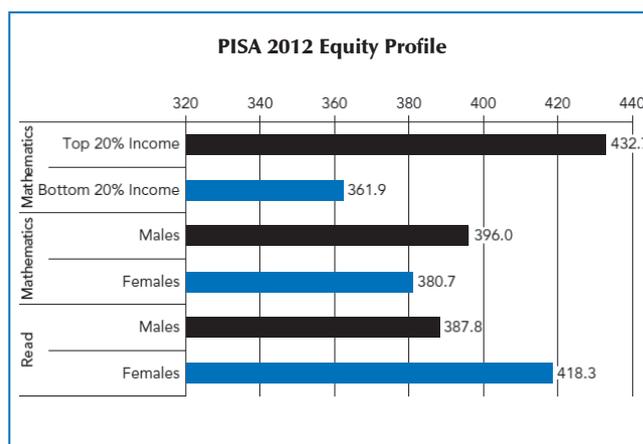


FIGURE 27. Programme for International Student Assessment (PISA) 2012 Equity Profile

Source: Calculations based on PISA 2012 data for Jordan

mathematics and science, gains have been relatively small and unsteady. In addition, over half of 12th grade students fail the tawjihi, the secondary school leaving exam.

24. Many university graduates are out of work and there is a lack of skilled technicians. Youth unemployment stands at around 30 percent. As Box 3 of this Monitor describes, the outlook for job creation for more educated Jordanians is bleak. Out of the 13,498 jobs lost by Jordanians between 2007 and 2014, 37.8 percent had bachelor degrees and above and 25.4 percent had secondary level education. Job prospects improved for Jordanians with basic education only. This depicts shifts in the labor market dynamics in Jordan. According to World Bank estimates, additional years of education are negatively correlated with full-time employment and positively associated with having a public sector job⁸. These relationships call into question expected patterns of returns on education.

25. Wide disparities in educational outcomes by socioeconomic status, gender, and geography limit social mobility. Figure 27 points to students in the top 20 percent income bracket outperforming those in the bottom 20 percent by a large margin

in PISA, the international learning assessment. The tawjihi pass rates (Annex 1), which determine access to university education, are generally low in the public sector (51.4 percent, with 1,289 secondary schools participating compared to 65.1 percent in 173 private schools). They also vary by governorates, location, school ownership, and gender. These pass rates, while indicative, do not control for the different factors at play and their individual association with pass rates. They also do not allow for an assessment of the potential correlation with school size, class size, or student-ratio. Annex 2 provides the results of regressing the tawjihi pass rates on different school characteristics. The results show that, controlling for the other factors taken into account, tawjihi pass rates are not associated with school size, class size, and student-teacher ratio. The largest negative association with tawjihi pass rates is found with residing in Aqaba, Jarash, Maan, Madaba, or Zarqa (by comparison with Amman); attending a rented school, as opposed to a school owned by MOE; and attending a male school, as opposed to a female school. The school attributes of school size, class size, and student-teacher ratio are not predictive of one measure of learning outcomes – tawjihi pass rates – while the school’s governorate, whether it is rented or not, and whether it is a male school are good predictors. In summary, pass rates for the secondary school leaving exam are not associated with school size, class size, and student-teacher ratio, while being negatively correlated

8 Krishnan, Nandini, Gabriel Lara Ibarra, Ambar Narayan, Sailesh Tiwari, and Tara Vishwanath. 2016. Uneven Odds, Unequal Outcomes: Inequality of Opportunity in the Middle East and North Africa. Directions in Development. Washington, DC:World Bank. doi:10.1596/978-1-4648-0786-2. License: Creative Commons Attribution CC BY 3.0 IGO

with location in certain governorates, male schools, and rented schools.

26. The public system has been severely strained as it provides around 150,000 Syrian refugee students with access to education at all levels. The drive to accommodate as many students as possible within existing infrastructure constraints has led to increases in the number of double-shift schools, reducing instructional time for all students.

27. School size in Jordan is small on average, and class size and student-teacher ratio are today comparable to OECD averages. School size, class size, and student-teacher ratio are key education system indicators that the Jordanian Ministry of Education is concerned with – particularly in the context of an influx of Syrian refugee students into the public education system. In fact, school size in Jordan is small on average, and class size and student-teacher ratio are today comparable to OECD averages – and all three indicators are on a decreasing trend. Very small schools are mainly a rural phenomenon but also result from the need to resort to renting buildings due to lack of land for construction of schools. Overcrowded classrooms are very much an urban phenomenon limited to a few governorates.

28. Under the current leadership, Jordan has taken bold steps to address some of the structural issues that impact the quality and efficiency of education, including 1) reforming teacher recruitment and selection processes to raise quality 2) establishing an accountability system to assure school quality, and 3) consolidating smaller schools in favor of better staffed and better equipped schools with free transportation.

As a measure to improve teacher selectivity, the MOE reformed its teacher selection process in 2015. Previously, teacher vacancies had been filled by applicants to the Civil Service who met minimum qualification requirements on a first-come, first-serve basis. Currently, all applicants undergo a rigorous and selective examination process, and only the top performers are selected as teachers. This reform was a welcome step to raise teacher quality, which, among schooling inputs, matters most to student achievement than any other

aspect. A teacher is estimated to have two to three times the impact on student performance of any other school factor, including services, facilities, and even leadership. In 2016, the MOE officially established a school accountability system reporting directly to the Minister to incentivize stakeholders, particularly school principals and field directors, to improve quality. Schools are assessed against a holistic quality framework which is underpinned by four critical domains: teaching and learning; the student environment; community relationships; and leadership and management. This public and professional accountability is expected to drive up learning and quality. The Ministry has also embarked on a school consolidation program to reduce the number of small schools. In early 2016, the MOE had provided students from 28 small schools (less than 19 students) with either means of transportation or a transportation allowance to attend larger schools.

29. Evidence suggests that cognitive skills have large economic effects on individual earnings and on national growth⁹ and that workers' productivity depends both on years of education and what is learned at school.^{10,11} Research also suggests that relatively small improvements in the skills of a nation's labor force can have very large impacts on future well-being.¹² The following sections highlight select issues from a public financing perspective and makes recommendations to strengthen the effectiveness of education spending.

9 Hanushek, Eric A., and Ludger Woessmann. 2007. "The Role of Education Quality for Economic Growth." Policy Research Working Paper No. 4122, World Bank, Washington, DC.

10 Heckman, James J., Anne Layne-Farrar, and Petra Todd. 1995. "Does Measured School Quality Really Matter? An Examination of the Earnings-Quality Relationship." NBER Working Paper Series No. 5274, National Bureau of Economic Research, Cambridge, MA

11 Murnane, Richard J., John B. Willett, and Frank Levy. 1995. "The Growing Importance of Cognitive Skills in Wage Determination." *The Review of Economics and Statistics* 77 (2): 251–66.

12 OECD. 2010. *The High Cost of Low Educational Performance: The Long-Run Economic Impact of Improving PISA Outcomes.*

Overview of Public Education Spending

30. Jordan spends comparable shares of GDP and total public spending on education as the OECD averages, and higher than expected shares when taking its GDP per capita into account. Capital spending in the education sector is classified both under the Ministry of Education as well as under the Ministry of Planning and International Cooperation, with the bulk being treasury-financed spending (as opposed to loans) under the Ministry of Education.

31. The share of capital spending in total education spending is relatively low. This contributes to the fact that recurrent spending on education in Jordan is substantial and equivalent to the country's budgetary commitment (on a recurrent basis) to defense, with other sectors lagging significantly behind. Within the education sector, basic education captures the majority of capital spending and exhibits relatively high recurrent unit costs. As Table 3 shows, MOE expenditures amounted to roughly 943.3 million Jordanian dinars (JD) in 2013, which translates to 4.0 percent of gross domestic product (GDP) and 11.1 percent of total public expenditures. Table 3 also shows that the share of public education spending in GDP and as a share of total spending has been relatively stable since 2008. This pattern

is roughly comparable to the corresponding OECD average 2011 shares of education spending, which are 4.2 percent of GDP and 9.5 percent of total public expenditure (OECD 2014).

32. Jordan spends more than expected for its level of GDP per capita on primary and secondary education. In Jordan, this spending is driven largely by recurrent and not capital expenditures, as detailed in the following section. There is some evidence that the amount of public resources spent on education depends to some degree on the level of economic development of the country. In other words, countries with different levels of GDP per capita do not spend the same shares of GDP on education. Instead, in richer countries, the share of GDP allocated to public primary education tends to be lower than in poorer countries, while the reverse is observed for secondary education. Figure 28 provides a scatter plot of World Bank data on GDP per capita against UNESCO Institute of Statistics data on public spending on primary education as a share of GDP, as well as a fitted line representing the expected level of public spending as a function of GDP per capita. The line slopes downwards, indicating a smaller share of GDP for primary education the richer the country. Jordan lies above the fitted line, implying that the country spends more than expected for its level of GDP per capita on primary education. Figure 29 provides the parallel scatter plot and fitted line for secondary education, and again Jordan lies above the line, indicating higher than expected spending on secondary education for its per capita GDP.

Table 3. Ministry of Education Expenditures (as share of GDP) and Total Education Expenditures (2008-13).

(JD million)	2008	2009	2010	2011	2012	2013
Nominal GDP	15,593	16,912	18,762	20,477	21,965	23,852
Total public expenditures*	5,432	6,031	5,708	6,797	6,946	8,508
-- as % of GDP	34.8	35.7	30.4	33.2	31.6	35.7
Ministry of Education expenditures	590.5	625.1	639.7	766	834.4	943.4
-- as % of GDP	3.8	3.7	3.4	3.7	3.8	4.0
-- as % of total public expenditures	10.9	10.4	11.2	11.3	12.0	11.1

* includes transfers to NEPCO in 2012-2013

Source: Ministry of Finance. General Government Finance Bulletin, Studies and Economic Policies Directorate, Vol. 17, No. 6, pages 10, 18; and Ministry of Finance. June 2014. General Budget Final Accounts for Fiscal Year 2013, pages 503-506

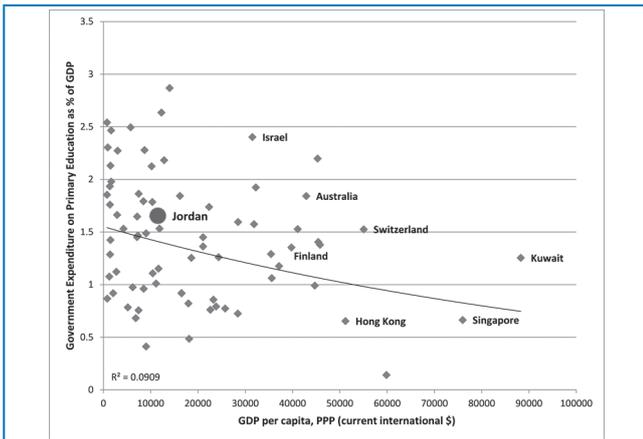


FIGURE 28. Correlation between GDP per capita and government spending on primary education as a share of GDP, 2014

Source: Heejin Kim, Janice and Quentin Wodon. 2015. *Public Education Cost Benchmarking for Jordan*, World Bank, Figure 1(a), page 2.

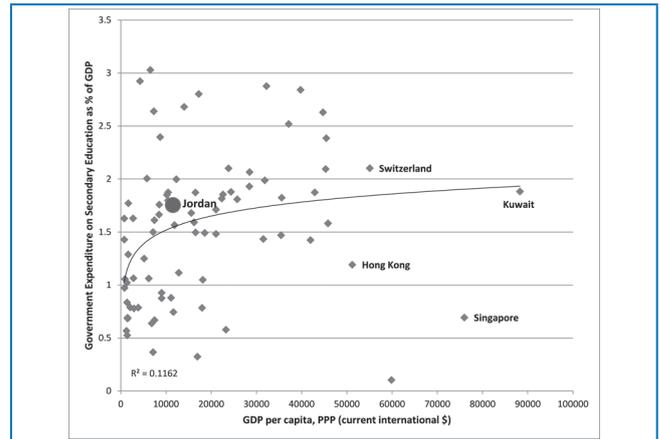


FIGURE 29. Correlation between GDP per capita and government spending on secondary education as a share of GDP, 2014

Source: Heejin Kim, Janice and Quentin Wodon. 2015. *Public Education Cost Benchmarking for Jordan*, World Bank, Figure 1(b), page 2.

33. Total capital spending on education amounts to only 5.7 percent of total spending on education in 2013. By comparison, the OECD average is higher at 7.4 percent of total education spending on non-tertiary education. In terms of capital spending, budget data distinguish first between capital spending financed by the treasury versus by loans, with treasury-financed spending being the overwhelming majority in 2013 (over 97 percent). The big spending entities in terms of treasury-financed capital spending are the Ministry of Finance and the Ministry of Public Works and Housing, with the Ministry of Education ranking only 8th at 3.9 percent of capital spending out of the treasury. Thus, loan-financed capital spending amounted to 17.9 percent of total education sector capital spending. As it turns out, MOPIC financed construction of 25 schools partially out of the treasury in addition to loans.

34. Substantial donor-financed capital investments remain off-budget, distorting overall actual costs. For example, between 2002 and 2014, USAID invested US\$458 million in the education sector. Recent achievements include construction and furnishing of 27 new schools; rehabilitation and expansion of 97 existing public schools; renovation of playgrounds and/or provision of sports kits at 100 schools; and training of 20,000 educators in induction, in-service, leadership, and mentorship programs.

35. The Jordanian budgetary commitment to the education sector is demonstrated by education’s share in total recurrent spending, at roughly 13 percent, which is substantial and equivalent to that of defense, with other ministries and budgetary entities lagging significantly behind. As Table 4 shows, the highest share of recurrent spending is by the Ministry of Finance (over 40 percent), followed by the Ministry of Defense and the Ministry of Education. The Ministry of Finance’s large share in recurrent spending can be explained by the fact that it includes debt interest payments (over 30 percent of Finance’s spending) and pension payments (over 40 percent of Finance’s spending).

36. Wide discrepancies in unit costs across education levels suggest that more balanced spending may be necessary. Combining data on education current spending and numbers of enrolled students at the different levels of education, Table 5 presents the recurrent unit cost of education at each level. The table takes only recurrent cost into account as capital spending tends to be “lumpy” resulting in potentially wide fluctuations in the unit cost from year to year, or alternatively contested methodologies of amortization. Taking unit costs for a basic education student as the comparator in each year, it is clear that a child in kindergarten costs substantially less, and even a student at the secondary level expends fewer resources. The

Table 4. Total Recurrent Spending by Budget Entity (2013).

Budget entity	Current Expenditures (JD)	Percentage Share (%)
Ministry of Finance/HQ	2,448,535,998	40.43
Ministry of Defense	834,000,000	13.77
Ministry of Education	803,890,217	13.27
Ministry of Interior/General Security	502,986,420	8.31
Ministry of Health	407,579,785	6.73
Ministry of Interior/Darak Forces	153,220,031	2.53
Ministry of Interior/Civil Defense	145,400,000	2.40
Royal Medical Services	143,100,000	2.36
Ministry of Social Development	106,910,096	1.77
Ministry of Higher Education and Scientific Research	63,919,313	1.06
All other budget entities	446,578,840	7.37
Total	6,056,120,700	100.00

Source: Ministry of Finance. June 2014. General Budget Final Accounts for Fiscal Year 2013, pages 209-10

Table 5. Unit Cost, Current Expenditure (current JDs).

Level of education	2012	2013
Kindergarten	131	115
Basic	538	597
Secondary	484	477
Vocational	782	

Source: Ministry of Finance. June 2014. General Budget Final Accounts for Fiscal Year 2013 and MOE EMIS

discrepancy between the basic education and Kindergarten education is to be expected, though arguably in Jordan it is relatively wide as Kindergarten enrollment is not universal. A lower unit cost for secondary students compared to basic students is, however, unexpected as secondary students require more specialized teaching and learning materials, for example. By way of comparison, the unit cost of a pre-primary pupil in the OECD is 10 percent lower than a primary student, and a secondary student is 10 percent higher.

37. Compensation captures a high share of recurrent spending in the education sector in Jordan, leaving few resources for non-wage inputs. The share of teachers in total education sector staff is 10 percentage points higher than the OECD average. The teacher pay scale and allowances in

Jordan reward initial qualifications, seniority, and personal teacher attributes, as opposed to being an instrument for policy makers to incentivize better teaching performance or other desired education sector outcomes. Teachers in Jordan are relatively well-paid, based on comparisons with other tertiary-educated workers in the economy, relative to per capita GDP, and taking teaching time into account.

38. Teachers' salaries represent the largest single cost in formal education and have a direct impact on the attractiveness of the teaching profession. They influence decisions to enroll in teacher education, become a teacher after graduation (as graduates' career choices are associated with relative earnings in teaching and non-teaching occupations, and their likely growth over time), return to the teaching profession after a career

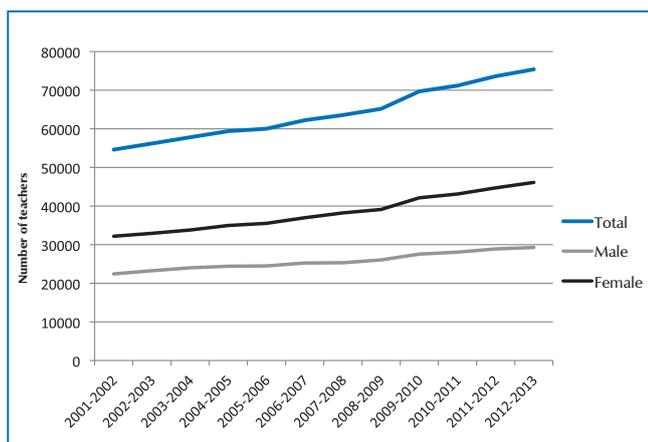


FIGURE 30. Number of Ministry of Education Teachers, 2001-13

Source: EMIS, MOE

Table 6. Main components of education sector staff compensation, 2013.

Education staff remuneration	Share of total (%)
Wages	36.2
Additional allowance	36.6
Cost of living allowance	24.1
Family allowance	1.4

Source: Ministry of Finance. June 2014. General Budget Final Accounts for Fiscal Year 2013, pages 158-174

interruption, and/or remain a teacher (as, in general, the higher the salaries, the fewer the people who choose to leave the profession). Since compensation and working conditions are important for attracting, developing, and retaining skilled and high-quality teachers, policy makers carefully consider teachers' salaries as they try to ensure both quality teaching and sustainable education budgets.

39. 92.3 percent of total recurrent spending was dedicated to worker compensation in 2013, with non-wage recurrent spending amounting to 7.7 percent. The non-wage recurrent spending includes spending on rent, utilities, maintenance, and cleaning – i.e. basic operations of educational institutions – as well as direct teaching inputs such as stationery, learning materials, and textbooks. By contrast, the 2011 OECD average share of compensation in total recurrent spending was 78.9 percent, leaving 21.1 percent for non-wage inputs.

40. The number of teachers has grown consistently over the last decade in line with student numbers, so that MOE teachers amounted to a total of 54,609 in academic year 2001-02 (of whom 32,184 were female and 22,425 male) and reached 75,401 in 2012-13 (46,120 female and 29,281 male), Figure 30. This translates to an average annual growth rate of 3 percent over the period 2001-13. However, the number of female teachers grew at a faster rate than male teachers, so that the average annual growth rate for female teachers was 3.3 percent compared to 2.5 percent for male teachers.

41. While wages and “additional allowances” constitute the bulk of education staff remuneration, financial incentives need to be better designed to affect learning outcomes. Wages constitute 36.2 percent of total education staff remuneration, so-called additional allowance¹³ another 36.6 percent, cost of living allowance 24.1 percent, and next in size in terms of share of total is the family allowance at 1.4 percent of total, with all other allowances representing 1 percent or less of the total (See Table 6). This approach to allowances blunts their usefulness in terms of achieving certain desired results, such as location of teachers in certain areas, or teaching of certain subjects, or motivating certain behaviors of teachers. For example, additional payments in OECD countries are most often awarded for particular responsibilities or working conditions, such as teaching in more disadvantaged schools, particularly those located in very poor neighborhoods or those with a large proportion of students whose language is not the language of instruction. These schools often have difficulties attracting teachers and are more likely to have less-experienced teachers. In addition, half of OECD countries provide additional payments for special activities, e.g. sports and drama clubs, and teaching students with special needs in regular schools.

13 Additional allowances can include allowances for staff who have supervision or training roles, location and relocation allowances, and rank allowances for department heads or school principals.

42. Ensuring that teachers are efficiently deployed to where their skills are most needed is another priority area for teacher reform in Jordan. Absent a purposeful allocation, teachers tend to gravitate towards better-off schools and easiest to teach subjects, widening learning inequalities and creating shortages in critical teaching areas. With regards to the former, Jordan has already begun to address this challenge by providing monetary bonuses and subsidized housing to incentivize teachers in taking up posts in hard-to-staff schools. Yet, further incentives might be needed to attract the best teachers to low-performing schools. For example, high-performing education systems including Australia, New Zealand, and the United States provide scholarships, travel stipends, and promotion opportunities as additional incentives to attract talented teachers to disadvantaged areas.

43. Mechanisms to incentivize teachers to take up teaching posts in critical subjects are absent. Jordan has identified important teacher shortages in critical subjects such as mathematics, science and technology. Teacher reform should focus on introducing effective incentive packages to offset shortages in these critical subjects by attracting highly qualified teachers and even mid-career professionals. A number of education systems have designed and implemented incentives of this type, offering Jordan a wealth of experiences for guiding its policy reform. For example, in the US State of Utah, mathematics and science teachers receive a US\$ 5,000 bonus on top of their base salary. In the State of New York, teachers for shortage subjects (mathematics, science, and special education) receive housing assistance of up to US\$ 15,000. Similarly, the United Kingdom covers a significant portion of qualified mathematics, science, special education and technology teachers' tuition expenses as an incentive to attract them into these subjects.

Impact of Syrian crisis

44. As part of the Jordan Compact, the Kingdom committed to ensure that all Syrian

children in Jordan will be in education in the 2016/17 school year, provided the international community funds the costs involved for their education. Under the program of support to "Accelerating Access to Quality Formal Education", the MoE and UNICEF are targeting some 81,000 Syrian refugee children who remain out of school, of which 50,000 are eligible to attend formal education and 31,000 require learning opportunities and pathways back into the formal system wherever possible. As of September 2016, an estimated 75,000 more Syrian children will receive an education through the MoE. Donor support to priority education needs defined by the Government amount to USD 271 million out of USD 313.4 million requested.

45. The ratio of Syrian to Jordanian students in host community MOE schools is roughly 1:10, a pattern which has implications for the cost and quality of service delivery. According to the Government's Jordan Response Plan for the Syria Crisis 2016-2018, Jordan hosted about 630,000 Syrian refugees by the end of 2015, 83 percent of whom settled in host communities, particularly in the urban area of Amman and the northern governorates of Jordan, with the remainder in refugee camps. Syrian children, if attending school, are either in schools in the refugee camps, or integrated into Jordanian public and private schools. In most instances where additional Syrian students result in overcrowding in public schools, a second shift is introduced that is dedicated to the Syrian students. Data at the end of 2014 indicate a total of 129,058 Syrian refugee children in public schools in Jordan, of which 23,226 (18 percent) are in refugee camp schools; 59,627 (46 percent) in public schools (regular shift); and 46,205 students (36 percent) in second shifts in public schools. The number of Syrian refugee children in public schools went up to 145,458 by the end of 2015, but the breakdown of 18 percent enrolled in camps and 82 percent in host communities remained. For students in refugee camp schools and in public school second shifts, additional teachers are hired. For students in regular shift public schools, an important concern is overcrowding and the impact this would have

on the quality of education for all students in the class, both Jordanian and Syrian.

46. The question of the unit cost of a basic student has gained importance as the Jordanian education system absorbs the influx of Syrian refugee children. It became necessary to estimate in some manner the additional financial cost incurred by the Jordanian public education system in order to accommodate the Syrian children, and the approach deemed most appropriate for some time relied on using the number of enrolled Syrian students and the unit cost of a student in the Jordanian system to estimate the total cost of Syrian enrollment. At the time, the MOE preferred to calculate the unit cost not only based on recurrent costs, however, factoring in instead estimates on depreciation of physical infrastructure as well as other costs, resulting in higher unit costs than those reported above. With time, the MOE became very concerned with erosion of certain service standards in the education sector in terms of class size and student-teacher ratio as a result of the Syrian refugee influx, taking these issues into account in estimating the financing needs for absorption of Syrian students into the Jordanian system.

47. The Jordan Response Plan 2016-2018 estimates education sector needs by carrying out an education sector vulnerability assessment at the district level by using the three indicators of school size, class size, and student-teacher ratio. It defines the national standard for class size at 27, thereby identifying vulnerability to crowding in classes to be most severe in seven districts of the four governorates with high concentrations of Syrian refugees, i.e. Amman, Zarqa, Irbid, and Mafraq. The assessment further finds that 150 new schools would be needed to meet a national standard of 19 classes per school, which translates to a school size of 513 (assuming an average class size of 27). These schools would be located primarily in the same four governorates with highest concentrations of Syrian refugees. Finally, the assessment finds that an additional 8,600 teachers would be needed to meet a national standard of 17 students per teacher. In other words, the MOE is aiming to absorb the Syrian students while maintaining its current standards

for class size and student-teacher ratio. In addition, new schools to be constructed are to accommodate above 500 students, which is greater than the current average school size and in line with efficiency and quality gains.

48. Rather than relying on the unit cost approach, the Plan proposes a number of projects that aim to improve access to quality and inclusive education for Syrian refugees and vulnerable Jordanians. The Plan includes boosting the capacity of the public education system with additional learning spaces, remedial/catch-up classes for those children who have missed out on weeks or months of schooling, and access to improved and diversified certified alternative learning opportunities for children and youth. Projects are also to deliver capacity building of teachers to safeguard the quality of education. The resulting three-year Plan starts with a baseline number of 156,663 Syrian children enrolled in education services (whether formal, non-formal, or informal), and targets increases in enrolment to 222,000 in 2016; 248,000 in 2017; and 272,800 in 2018. The increased enrolment is not expected to result from influx of additional Syrian refugees into Jordan, but rather from increased enrolment rates of Syrian children already in Jordan.

49. In August 2016, Jordan signed a grant agreement with the U.S., Britain, Norway and Switzerland that will provide \$100 million to help place Syrian refugee children in school. A range of projects are proposed in the Plan, spanning improving the capacity of education authorities to ensure the continuous delivery of quality inclusive education services; enhancing access to safe and protective learning spaces; and increasing provision of adequate, protective, and safe learning spaces and facilities. In terms of associated costs, an estimated US\$850 million is needed over the 2016-2018 period, with over US\$470 million dedicated to facilities, i.e. construction of 150 new schools and additional classrooms or renovation of 450 priority schools. The fact that attention is being paid not only to construction of new schools but also to adding classrooms to existing schools is warranted given the relatively small average school size in Jordan. In other words, the Plan recognizes the necessity for a

dual approach that is based on detailed analysis of the needs on the ground in specific locations in the country.

Recommendations and Next steps

50. As a first priority, there is a need to consolidate at the Ministry of Education, if not management of capital spending, at least the accounting of capital spending. Currently, no single government entity, neither the MOE nor MOPIC, has a complete picture of capital spending for the education sector, i.e. including financed by the treasury as well as loans and donors. While there may be reasons for managing funds from different sources by different ministries, the Ministry of Education is the appropriate government entity for oversight of all capital spending, including determining priority needs and deploying resources accordingly. Another set of issues concerns capital investments in the education sector, and the need to tackle the small school size, rented schools, as well as localized overcrowding.

51. MOE should strengthen its planning capacity by utilizing existing data and employing more robust planning tools. The Ministry of Education today has an Education Management Information System that is capable of supplying much useful data for planning purposes in terms of numbers of students, teachers, and classrooms, amongst other information. However, in order to make decisions regarding expanding existing schools or building new ones, the MOE requires a geographic database that maps schools across the country in addition to the EMIS. Ideally, it also requires relatively detailed population data and population projection data. The MOE has begun working on a school mapping as it recognizes that overcrowded classrooms are not the norm but rather specific to certain areas of the country. However, the question remains whether the data from this school mapping will be used for purposes of decision

making regarding expansion of existing schools or establishment of new ones. Anecdotal evidence suggests that too often in Jordan, communities insist on expansions of schools and construction of new ones and politicians comply rather than risk losing favor with communities.

52. By focusing seriously on lagging regions, MOE could address variation across governorates in terms of enrolment rates in pre-primary and secondary education, as well in tawjihi pass rates. There is a clear need for the MOE to try and understand the reasons behind this geographic variation better and to try to address them. The fact is that governorates do vary widely in terms of population density, for example, with 70 percent of the population estimated to reside in just 3 governorates (Amman, Irbid, and Zarqa). At the same time, it is not only population density that plays a role in terms of learning outcomes, as the governorates with lower tawjihi pass rates vary in this respect as well. Yet the MOE treats all governorates in the same manner and its departments are organized by level of education and pedagogical theme instead of including consideration of lagging regions, for example.

53. The budgeting process is not conducive to tackling the issue of geographic variation in education sector outcomes. Discussions with MOE staff indicate that education sector budget preparation is done very much on an annual historical basis and based simply on demographic needs. The budget preparation process may be described as follows: in April each year, the MOE Finance Unit solicits budget requests for the following year from the 43 Education Directorates in Jordan. The Directorates prepare their requests based on the student numbers they anticipate for the following year. The Finance Unit compiles all requests and provides them to the individual Ministry Departments for their review. In July, a first draft of the Ministry budget is then submitted to the General Budget Directorate. In other words, Education Directorates mostly request additional teachers and other standard inputs based on projected enrollment for the following year.

54. There is little effort at prioritization of certain line items above others. In terms of budget execution, every month the Education Directorates submit their payment requests, which are compiled in the Ministry and submitted to the Ministry of Finance. Every year, certain line items run out of funds and transfers from other line items that have under-disbursed are made. For example, in 2014 the funds for water and electricity costs were depleted, and transfers were made out of the funds for textbooks. Here again, – with the exception of salaries, which are always the first responsibility in terms of disbursement. Instead, arguably a more “projectized” approach, one that the Ministry has recently employed in addressing the Syrian refugee students crisis, is likely more appropriate. Given the recent experience with devising a 3-year plan for the Syrian refugee students, education sector stakeholders in Jordan seem well poised for similar planning for lagging regions in the country.

Appendix

Annex 1. Tawjihi Results, by School Characteristics, 2013.

	Tawjihi Pass Rate		No. of Schools		
Overall	51.4		1289		
Ministry of Education	49.4		1082		
Private	65.1		173		
Ministry of Education:					
<i>Governorate</i>	Tawjihi Pass Rate	No. of Schools	<i>School ownership</i>	Tawjihi Pass Rate	No. of Schools
Ajloun	48.5	41	Owned	49.5	1063
Amman	53.4	251	Owned & rented	49.7	11
Aqaba	40.4	29	Rented	41.3	8
Balqa	50.7	89	<i>School gender</i>		
Irbid	51.4	195	Female	58.3	283
Jerash	43.3	48	Male	40.1	474
Karak	51.4	82	Co-educational	55.3	325
Maan	40.5	49	<i>Type of secondary school</i>		
Madaba	39.6	36	Academic	48.6	891
Mafraq	50.8	141	Academic & technical	54.2	165
Tafilah	53.4	28	Technical	47	26
Zarqa	43.4	93			
<i>Geographic location</i>					
Urban	51.6	528			
Rural	47.4	554			

Source: EMIS and MOE

Annex 2. Regression results for tawjihi pass rates and school characteristics, 2014.

	Coefficient	Standard Error	t-statistic	p-value
Governorate				
Ajloun	-0.06	0.04	-1.62	0.105
Aqaba	-0.19	0.04	-4.66	0
Balqa	-0.02	0.03	-0.87	0.387
Irbid	-0.05	0.02	-2.6	0.009
Jerash	-0.12	0.03	-3.65	0
Karak	-0.07	0.03	-2.25	0.024
Maan	-0.21	0.04	-5.95	0
Madaba	-0.15	0.04	-3.88	0
Mafraq	-0.05	0.02	-1.85	0.065
Tafilah	-0.06	0.04	-1.31	0.19
Zarqa	-0.11	0.03	-4.27	0
Geography				
Village	-0.04	0.02	-2.45	0.014
School ownership				
Owned & rented	0.01	0.06	0.12	0.902
Rented	-0.17	0.08	-2.26	0.024
School gender				
male	-0.18	0.02	-10.9	0
mixed	0	0.02	-0.26	0.792
Type of education				
Academic and technical	-0.06	0.02	-3.07	0.002
Technical	-0.06	0.05	-1.27	0.204
Total number of students	0	0	4.59	0
STR	-0.03	0	-8	0
Class size	0.01	0	3.23	0.001
_cons	0.8	0.04	20.68	0

Source: Authors' analysis based on EMIS and MOE Tawjihi data

THE ECONOMIC IMPACT OF THE ARAB SPRING ON JORDAN¹⁴

This special focus estimates the output forgone due to the shocks that have happened since the onset of the Arab Spring in 2011. In particular, it adopts the “Synthetic Control” methodology, that constructs a counterfactual of how the Jordanian economy would have performed had the Arab Spring and related events not occurred. Results reveal that each Jordanian citizen is estimated to have lost approximately US\$ 575 per year on average from 2011 to 2015. To recuperate these losses, authorities are encouraged to adopt sound macroeconomic policies, strengthen their external position through attracting higher foreign direct investment and exports, benefit from the available human capital skills more aptly by strengthening the business environment, and maintain an acceptable level of foreign reserves. These policies should also be complemented by increased assistance from the international community.

Context

55. Economic growth has decelerated since the start of the Arab Spring (AS) in 2011. The uprisings, which were sparked on December 17, 2010 by the self-immolation of Mohamed Bouazizi in Tunisia, triggered a domino effect in several Arab countries, including Bahrain, Egypt, Libya, Syria and Yemen. While the political environment in Jordan was not majorly impacted by the AS apart from the 2011 protests, the Jordanian economy suffered. Growth per capita averaged -4.3 percent during the period 2011-2015 down from a 3.1 percent average over the five years preceding the uprisings. In particular, since 2011 the Jordanian economy has faced severe challenges brought by (i) the huge influx of Syrian refugees, (ii) insecurity in neighboring Syria and Iraq and (iii) the disruption of Egyptian gas inflow

¹⁴ Authored by Samer Matta, Economic Analyst, World Bank.

to Jordan which obliged the government to resort to more expensive energy sources, among other things.

56. This special focus estimates the economic cost of the Arab Spring. To the best of our knowledge, there are no studies that quantified the economic impact of the Arab Spring spillovers on Jordan. This piece thus aims to fill this gap by quantifying the output forgone due to the Arab uprisings between 2011 and 2015.

Empirical Methodology

57. In order to estimate the economic cost of the AS, this paper employs the Synthetic Control Method (SCM) that estimates year-by-year how the Jordanian economy would have performed if the Arab Spring and related events that followed did not occur (i.e. investigating Jordan’s counterfactual had the situation remained unchanged). The SCM is a generalization of the matching and difference-in-difference (DiD) techniques conventionally employed in micro-econometrics. This approach is also well suited for macroeconomic applications when the number of observations in both the treated and control groups is relatively small.¹⁵

58. The SCM has been widely used in various social science disciplines over the past few years.¹⁶ In particular, it was adopted to evaluate the impact of: the Arab Spring on the Tunisian economy (Matta, et al., 2016), terrorism in Spain (Abadie and Gardeazabal, 2003), civil wars (Bove et al., 2014), trade openness (Nannicini and Billmeier, 2011), economic liberalization (Billmeier and Nannicini, 2013), natural resource discoveries (Smith, 2015), inflation targeting (Lee, 2011), natural disasters

¹⁵ For a detailed methodology of the SCM and the corresponding mathematical derivations, see Abadie et al. (2010). For details about the advantages of using the SCM, the reader is referred to pages 4 and 9 of Costalli et al. (2014) and section 4.1 of Matta et al. (2016).

¹⁶ The SCM was considered by Athey and Imbens (2016) to be the most important innovation in the program evaluation literature over the last decade.

(Cavallo et al., 2013) and fiscal consolidation (Kleis and Moessinger, 2016), on economic activity. Moreover, Hope (2016) and Mäkelä (2016) estimated the impact of joining the European Monetary Union on current account balances and long-term government bond yields, respectively. In a different context, Jinjara et al. (2013) used this technique to examine the effect of changes in the capital account regime on capital inflows in Brazil between 2008 and 2011. Furthermore, this approach has been used to evaluate a range of treatments and policy changes in the health (Bauhoff, 2014; Kreif et al., 2015) and labor sectors (Bohn et al., 2014; Calderón, 2014), among others.

59. In essence, the SCM is a data driven approach that estimates, based on a weighted average of non-treated units (in our case countries) that were not impacted by the treatment (in our case the Arab Spring), a counterfactual with approximately the same characteristics as the treated unit (in our case Jordan) during the pre-intervention period. In this context, we develop “Synthetic Jordan” which approximates the estimated counterfactual for Jordan in the absence of the Arab Spring, using country-level panel data for Jordan and all the other countries in the world. Once, a counterfactual is developed prior to 2011, the effect of the Arab Spring is then calculated as the difference between the actual and Synthetic GDP per capita during the period 2011-15 (post-Arab Spring period).

Data

60. Synthetic Jordan is constructed using the April 2016 version of the World Development Indicators (WDI) published by the World Bank from 1990 to 2010. Our outcome variable is real GDP per capita while the set of covariates, based on which Jordan and its synthetic counterpart are matched (prior to 2011) includes: investment, consumption, exports, imports (all as a ratio of GDP), secondary school enrollment, net fuel exports, money supply and the type of political

regime. The first four variables are chosen because they are components of the main variable of interest, real GDP per capita.¹⁷ Secondary school enrollment is included in the set of covariates because it is a key driver of future economic growth (Barro, 1991). Moreover, net fuel exports as a share of GDP is considered a control because the Arab Spring might have impacted oil markets and consequently the global economy as it affected Libya and Bahrain, two major oil exporting countries.¹⁸ In addition, Klien and Olivei (2008) argued that the depth of the financial sector, which can be proxied by money supply (Khan et al., 2001), influences economic growth hence the choice of money supply as a control. Finally, to control for political and institutional factors which might impact economic activity (Acemoglu et al., 2001; Góes, 2016) I build a panel structural vector autoregression (SVAR), polity2 score is added which is widely used to measure a country’s political regime (Aidt et al., 2010).¹⁹ For each of these variables, we account for possible different underlying trends by dividing our pretreatment period by half and then taking the decadal average over each sub-period as a covariate (Matta et al., 2016). Finally, and in order to maximize the match between the outcome variable of the treated country and its synthetic counterpart during the pre-political turmoil period, four-year period averages of per capita GDP are added to the set of covariates.

61. Control countries that were impacted by exogenous shocks are omitted to avoid biased results. As explained by Abadie et al. (2010), control countries should not have been exposed to a major exogenous shock from 2011 onwards, otherwise these may impact the per capita GDP path of

17 We also intended to control for fiscal policy using the fiscal balance, in addition to the variables that compose the supply side of GDP (industry, agriculture and services), however data for these variables were missing for many countries in our dataset. In cases where data were available, we experimented with different sets of covariates and the results were almost unchanged.

18 Net Fuel Exports (as a % of GDP) is the difference between Fuel Exports (as a % of GDP) and Fuel Imports (as a % of GDP), both taken from the WDI database.

19 All the variables are downloaded from the WDI database except for the polity2 index which is taken from the Polity IV Project.

Table 7. Country Weights in the Synthetic Jordan.

Control Country	Weight (%)
China	13.8
Djibouti	21
Grenada	8.6
Guyana	35.6
Hong Kong	4.5
Moldova	13
Zimbabwe	3.5
Total	100

Source: Author's own calculations

Table 8. Averages of GDP per capita Characteristics Between 1990-2010 (Percent of GDP, unless stated otherwise).

	Actual	Synthetic Control
Real GDP per Capita (US\$)	3,429.8	3,469.8
Consumption	98.7	86.6
GCF	27.5	27.6
Exports	50.1	60.6
Imports	76.3	74.7
Net Fuel Exports	-10.2	-9.3
Secondary School Enrollment (\$)	86.0	67.9
M2	118.5	81.9

Source: Author's own calculations

Synthetic Jordan, leading to a biased estimate.²⁰ For that reason, the following were excluded from the sample: (i) countries that were impacted, directly or indirectly, by the Arab Spring and (ii) countries that were hit by an unexpected exogenous shock (such as natural disasters, conflicts or adverse economic spillovers from neighboring countries) after 2010. For a list of the omitted countries and a brief

²⁰ Ideally, we would have restricted our set of potential control units to countries in the MENA region that share similar characteristics with Jordan (e.g. language, culture and weather). However, this is not feasible as most MENA countries have been impacted by the Arab Spring (either directly or indirectly) and therefore we would not be able to construct a synthetic Jordan. Consequently, our set of controls consisted of the global sample of economies, "as this helps to regain comparable GDP levels in the comparison countries" (Billmeier and Nannicini, 2013, p. 992).

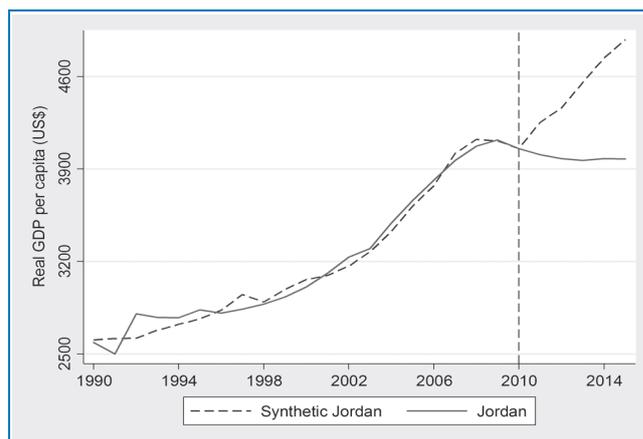


FIGURE 31. Real GDP per capita: Jordan vs Synthetic Jordan

Source: Author's own calculations

explanation on why they were excluded, please refer to Annex 3 in the Appendix.

Results

62. Table 7 shows that Synthetic Jordan is best reconstructed as a weighted average of seven countries, while Table 3 displays the average pre-2011 values of the variables of interest for Jordan and the estimated Synthetic Jordan. In general, Table 8 suggests that the constructed synthetic Jordan matches the actual economy reasonably well during the pre-2011 period.

63. Each Jordanian citizen is estimated to have lost approximately US\$ 2,877 cumulatively from 2011 to 2015. Figure 31 depicts the paths of per capita GDP path of actual and Synthetic Jordan, which are very similar up to 2010, but diverge markedly thereafter implying that the events that happened since the onset of the Arab Spring have adversely impacted the Jordanian economy. The divergence reaches a difference of US\$ 901 per capita in 2015.

64. While the SCM calculates the magnitude of the difference between the actual real GDP per capita compared to its synthetic counterpart since 2011, it does not estimate standard errors. Consequently, the SCM obstruct us from

Table 9. DiD Estimates.

Dependent Variable	$\log(Y_{i,t})$
β_1	0.003 (0.051)
β_2	0.362 (0.043)
β_3	-0.129** (0.056)
β_4	-0.138** (0.056)
N	52
R2	0.41

Source: Author's own calculations. *, **, *** indicate significance levels of 10%, 5%, and 1%, respectively. Robust standard errors are in parenthesis.

making formal statements regarding the statistical significance of the results. To address that, a Difference-in-Difference (DiD) model for the actual and counterfactual GDP per capita corresponding to Jordan is estimated following Campos et al. (2014). Consequently, we estimate the following model:

$$\log(Y_{i,t}) = c + \beta_1 \cdot \text{Treatment}_i + \beta_2 \cdot \text{Post}_t + \beta_3 \cdot (\text{Treatment}_i \times \text{Post}_t) + \beta_4 \cdot (\text{Treatment}_i \times \text{Post}_{T < t \leq T+5}) + \varepsilon_{it}$$

where:

$Y_{i,t}$ represents the real GDP per capita of unit i (Jordan or its synthetic Jordan) at time $1990 < t \leq 2015$.

Treatment_i is a dummy variable that takes the value 1 if i belongs to Jordan and 0 if it belongs to Synthetic Jordan.

Post_t is a dummy variable that takes the value 1 if the observation is after 2011 and 0 otherwise.

65. Results show that the lost output as a result of the 2011 uprisings were further exacerbated by the adverse events that followed. Coefficients of interest are β_3 and β_4 : The former can be interpreted as the economic impact of the Arab Spring during the event year (i.e.), while the latter captures the effect of any factors that might have negatively (or positively) impacted economic performance over the next four years. Table 9 reports the estimation

results and shows that β_3 is significantly negative suggesting that the economy lost output because of the protests that happened in Jordan and across the MENA region in 2011. Meanwhile, the significantly negative β_4 indicates that the Jordanian economy was further impacted by the different shocks that happened since 2012 which are directly related to the Arab Spring. These events include, (i) the large inflow of Syrian refugees in 2012-2013 (World Bank, 2016), (ii) the disruption of Egyptian gas inflow to Jordan in 2013-2014 and (iii) the trade route closures with Syria and Iraq as a result of the worsening security situation in these two countries since 2015.²¹ Overall, the DiD estimates, which support the SCM results, indicate that the Arab Spring and the subsequent events that followed adversely affected economic activity in Jordan.

Some Policy Recommendations to Boost Recovery

66. In this section, some policy recommendations are proposed based on literature to support Jordan's recovery back to its counterfactual. According to Loayaza et al. (2007), countries that accumulate foreign exchange reserves during stable periods tend to recover faster from exogenous shocks than countries that do not as reserves tend to smooth the adverse impact of sudden reversals in foreign inflows. In other words, accumulating foreign reserves during tranquil periods acts as insurance against rapid inflow reversals during periods of turmoil. As such, the increase in the stock of foreign exchange reserves held at CBJ is recommended to buttress against potential future shocks given the highly volatile regional environment Jordan faces.

67. The government can also play a major role in spurring recovery through its macro policies.

²¹ It is hard to disentangle the individual effect of each of these events as they have coincided with each other.

According to the standard conception, sound policies following shocks (financial crises, civil wars and currency crisis) are those that “can influence the reaction to the shock” (Bleaney, 1996, p. 465) by restoring macroeconomic stability, thus reducing uncertainty which correlates negatively with the level of productivity and investment (Fischer, 1993). Such policies include fiscal consolidation, inflation and exchange rate stability, among other things.

68. In addition to the above local factors, external conditions can have a major influence on a domestic economy following the recent events.

Collier and Hoeffler (2004) argued that external aid has a considerable effect in boosting growth following post-instability situations. While the international community has been helping Jordan withstand the large influx of Syrian refugees since 2011, much effort is still needed. Another global link that might positively impact the pace of economic recovery is trade openness, particularly through higher exports. As argued by Elbadawi and Soto (2013) trade affects growth by increasing productivity, expanding markets and spreading technological innovation, among other things. In that spirit, the recent relaxed rules of origin deal signed with the EU is likely to increase exports and consequently speed-up the pace of economic recovery.

69. Lastly, Jordan can benefit from its highly educated population to recover. As suggested by Gennaioli et al. (2013), entrepreneurship is a main channel through which education boosts economic activity. In particular, highly skilled entrepreneurs tend to be innovative economic agents who are likely to find new ways of overcoming problems, hence boosting productivity, creating jobs and consequently helping the overall economy. Moreover, higher levels of education allow individuals to cope more efficiently with sudden changes in the economic environment. In the context of Jordan, the primary school enrollment, a widely used proxy for human capital, stood at 88.7 percent in 2012. This suggests, that if utilized efficiently, Jordanians are able to find new and productive ways to boost the economy. However, a weak business environment is preventing skilled labor from fully realizing its potential. As such, improving the investment climate (which is

low and has deteriorated over the past few years)²² is critical to spur the growth and employment that Jordan’s economy urgently needs.

22 Jordan’s ranking in the World Bank Group’s Doing Business rankings decreased from 107 in 2015 to 113 in 2016.

Appendix

Annex 3. List of Omitted Countries.

Country	Exogenous Shock After 2010
Bahrain	Directly impacted by the Arab Spring since 2011
Côte d'Ivoire	Impacted by the Second Civil War in 2011
Egypt, Arab Republic	Directly impacted by the Arab Spring since 2011
Guinea	Hit by Ebola in 2014
Honduras	Honduras was affected by the tropical storm Ernesto in 2012
Iraq	Subject to multiple security shocks
Islamic Republic of Iran	Impacted by the sanctions imposed since 2012 on the energy and financial sectors
Japan	Hit by the Fukushima Daiichi nuclear disaster in 2011
Lebanon	Indirectly impacted by the arab spring since 2011
Morocco	Indirectly impacted by the arab spring since 2011
Thailand	Hit by unprecedented floods in 2011
Tunisia	Directly impacted by the Arab Spring since 2011
Ukraine	Impacted by the conflict since 2011
West Bank and gaza	Conflict with Israel
Yemen Republic	Directly impacted by the Arab Spring since 2011

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DATA APPENDIX

TABLE 10. Selected Economic Indicators.

	2013	2014	2015	2016	2017	2018
	Act.	Act.	Act.	Proj.	Proj.	Proj.
Real sector	(annual percentage change, unless otherwise specified)					
Real GDP	2.8	3.1	2.4	2.3	2.6	3.1
Real GDP per Capita	-0.3	0.3	0.0	0.3	0.9	1.7
Agriculture (share of GDP)	3.1	3.3	3.3	3.3	3.3	3.2
Industry (share of GDP)	25.0	25.2	25.2	25.2	25.2	25.1
Services (share of GDP)	56.0	55.8	55.9	55.7	56.0	56.1
Net taxes (share of GDP)	15.9	15.7	15.6	15.8	15.6	15.5
Money and prices	(annual percentage change, unless otherwise specified)					
CPI Inflation (p.a)	4.8	2.9	-0.9	-0.7	2.8	2.9
Money (M2)	9.7	6.9	8.1	7.3	7.4	8.0
Investment & saving						
Total Investment	28.1	28.0	23.6	23.7	24.2	24.8
Gross National Savings	17.6	20.7	14.4	13.4	15.2	17.6
Government finance	(percentage of GDP, unless otherwise specified)					
Total revenues and grants	24.1	28.6	25.5	26.4	26.8	27.0
Domestic Revenue (excluding grants and privatisation)	21.5	23.7	22.2	23.0	23.5	23.8
o/w. tax revenue	15.3	15.9	15.4	15.6	15.9	16.2
Foreign Grants	2.7	4.9	3.3	3.4	3.3	3.2
Total expenditure and net lending	35.7	37.9	29.1	30.0	30.8	30.8
Current ¹	31.4	33.4	25.0	25.8	26.5	26.5
o/w wages and salaries	5.0	4.9	4.7	4.7	4.5	4.5
o/w interest payment	3.1	3.6	3.4	3.5	3.6	3.7
o/w Transfer to utilities (NEPCO and WAJ)	6.0	7.0	0.1	0.0	0.0	0.0
Capital & Net Lending	4.3	4.5	4.1	4.2	4.3	4.3
Overall balance (deficit (-), excl. grants) ²	-14.2	-14.2	-6.9	-7.0	-5.8	-3.6
Overall balance (deficit (-), incl. grants) ²	-11.5	-9.3	-3.6	-3.5	-2.5	-0.5
Primary Balance (deficit (-), excl. grants) ²	-11.1	-10.5	-3.5	-3.5	-2.2	0.1
Primary Balance (deficit (-), incl. grants) ²	-8.4	-5.7	-0.1	-0.1	1.1	3.3
External sector	(percentage of GDP, unless otherwise specified)					
Current Account	-10.4	-7.3	-9.2	-10.3	-9.0	-7.2
Net Exports	-29.6	-26.4	-22.9	-23.4	-21.9	-20.3
Export FOB	42.4	43.3	37.6	34.7	36.3	37.8
Import FOB	72.0	69.7	60.5	58.1	58.2	58.1
Net Income and transfers	19.2	19.1	13.7	13.1	12.9	13.1
Net Private Investments (FDI and Portfolio)	10.2	8.6	7.1	7.0	7.1	8.1
Gross Reserves ³ (Months of Imports GNFS ⁴)	5.9	6.7	7.5	7.2	7.1	7.2
Total Debt	(in million US\$, unless otherwise specified)					
Total Debt Stock	29,192	31,984	35,126	36,916	38,344	38,921
Debt to GDP Ratio (%) ⁵	86.7	89.0	93.4	94.6	93.9	90.4
Memorandum Items:						
Nominal GDP (Billion JD)	23.9	25.4	26.6	27.6	28.9	30.5
GDP (in million US\$)	33,679	35,917	37,612

Source: Government Data and World Bank Staff Calculation. Projections are as of 1 September 2016.

¹ Includes adjustment to other receivables for 2012 (0.4% of GDP) and transfers to NEPCO and WAJ. As of 2015, NEPCO and WAJ reverted to government-guaranteed borrowing from commercial banks. The government transferred 0.1 % of GDP to WAJ in 2015.

² Includes fiscal gap of 1.5% of GDP in 2017 and 3.3% of GDP in 2018

³ Reserves exclude bank deposits in foreign currencies

⁴ GNFS: Goods and Non-Factor Services.

⁵ Government and guaranteed gross debt. Includes NEPCO and WAJ estimated borrowings for 2016-2018.

SELECTED SPECIAL FOCUS FROM RECENT JORDAN ECONOMIC MONITORS

SPRING 2016 JEM: “THE CHALLENGE AHEAD”

Enhancing Municipal Service Delivery Amidst Urban Displacement in Jordan: (Special Focus) Responding to one of the largest refugee crisis in modern history, humanitarian agencies have played a colossal role in providing basic subsistence and protection for hundreds of thousands of Syrian refugees who sought refuge in Jordan. However, with eighty per cent of refugees living in host communities, the pressure on local resources and services was mounting, underscoring the need for addressing capacity gaps at the local level - something that could not be sustained through a humanitarian response. The Emergency Services and Social Resilience Program (ESSRP) was launched as a multi-donor platform to meet this need. The Project proved critical in helping local authorities cope with the social and political risks associated with the refugee crisis and served as an innovative approach to dealing with urban displacement. It also brought to the fore the challenges associated with working through a local government system that is constrained by systematic inefficiencies and structural issues, undermining its responsiveness and highlighting the need for critical reforms.

FALL 2015 JEM: “A HICCUP AMIDST SUSTAINED RESILIENCE AND COMMITTED REFORMS”

Tech startup ecosystem in Jordan: (Special Focus)
A new wave of entrepreneurship and innovation is emerging in both developed and emerging economies, spurred by digital entrepreneurs. Various developments, particularly those led by Information and Communications technology (ICT), have reduced the cost of innovation and market access substantially, allowing small tech businesses to compete with established industries. Today a startup can be created with just a laptop and Internet connection. This has led to the surge of tech startup ecosystems worldwide, where communities of entrepreneurs interact. Jordan in particular could benefit from this phenomenon, particularly for job creation. Tech startup founders are predominantly university-educated, a factor that could alleviate the country’s high unemployment rate among those with a college degree. The innovation that startups bring can also be beneficial to the country’s tech hub aspirations by making the sector more dynamic and sustainable. Jordan is no stranger to the tech ecosystem having spawned one of the most successful startups in the region; Maktoob. It now needs to leverage this early mover advantage by finding solutions to constraints like talent, space and funding that are hindering the development of its tech startup ecosystem.

SPRING 2015 JEM: “PERSISTING FORWARD DESPITE CHALLENGES”

Access to Finance in Jordan: (Special Focus) Access to finance is underdeveloped in Jordan where firms rate their inability to receive credit as the second overall obstacle to their operations. This status quo is of particular concern for micro-, small-, and medium-sized enterprises (MSMEs), which make up over 90 percent of the Jordanian economy and are major contributors to its competitiveness and employment potential. The situation has only worsened since 2006, with basic Access to Finance indicators deteriorating for firms across the country, of varying size and age, and in different sectors. The Jordanian authorities, including the Central Bank of Jordan, have introduced several measures to improve access to finance but instrumental structural reforms are still needed to instigate transformational improvements across the board.

SPRING 2014 JEM: “RESILIENCE AMID TURMOIL”

Updating Poverty Estimates at Frequent Intervals: Preliminary Results from Jordan: (Special Focus 1) Jordan, not unlike many countries, relies on infrequent household expenditure and income surveys (HEIS) to estimate poverty in the country. In Jordan, the last HEIS survey dates from 2010 so that the last official poverty estimates is also from that year. When policy decisions are made in 2014, they are therefore based on rather dated estimates of poverty. Not only has Jordan suffered from a series of negative shocks, the Government has also introduced major mitigation programs (e.g., the petroleum cash compensation transfer). Have these programs been successful in protecting the poor? Is Jordan still progressing in its fight against poverty? To help answer these

questions, World Bank staff developed an alternative method for estimating poverty by imputing household consumption data into the Employment-Unemployment Survey, which is conducted every quarter. This approach offers alternate annual poverty estimates for Jordan. Based on this new approach, estimates for 2011 and 2012 point to a small decrease in the poverty rate compared to 2010. Previous Bank research revealed, however, that a third of the population lived below the poverty line in at least one quarter of the year. Hence, while progress continues in tackling chronic poverty, transient poverty affects a large swath of the population, which points to a large share of vulnerable Jordanians.

Syrian Refugees and Labor Market Outcomes in Jordan: (Special Focus 2) A large influx of refugees into a country occurring over a relatively short time is bound to have a major impact on the host country's labor market. While in principle both positive and negative impacts could arise from such a shock, ultimately the net impact on the Jordanian labor market remains an empirical question. Official data are utilized to examine the impact on three labor market indicators – labor force participation, the employment rate and the unemployment rate – while accounting for economic activity through using construction permits as a control variable, at the level of governorates. The Vector Autoregression (VAR) methodology has been adopted on panel data that involves a cross-section of governorates in Jordan, during the time period Q4 2007 to Q3 2013. We find evidence suggesting that the Syrian refugees are causing a reduction in the national labor force participation rate of Jordanians. Preliminary analysis reveals this could be the result of refugees willing to work for relatively low wages, causing a large increase in discouraged Jordanian workers (as these have a reservation wage that they perceive cannot be satisfied under the current environment and therefore prefer to drop out of the labor force altogether; since these discouraged workers are no longer searching for jobs, they are not counted in the rank of the unemployed). Given Jordan's previously low labor force participation rate prior to the Syrian conflict, the recent drop in the participation rate is a source of concern.

SELECTED RECENT WORLD BANK PUBLICATIONS ON JORDAN

Title	Publication Date	Document Type
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Learning or Leaning: Persistent and Transitory Spillovers from FDI	2016/03/02	Working Paper
Plunging Oil Prices Bring Gains and Losses to the Middle East and North Africa Region	2015/01/29	Press Release
Jordan Economic Monitor, Fall 2014: Steady and Moderate Growth Continues	2014/12/10	Report
Jobs or Privileges: Unleashing the Employment Potential Of the Middle East and North Africa	2014/11/01	Jordan Issue Brief
Doing Business 2015: going beyond efficiency – Jordan	2014/10/01	Working Paper
Jordan Economic Monitor: Steady and moderate Growth continues	2014/04/01	Report
Jordan Economic Monitor: Resilience amid turmoil	2014/04/01	Report
Jordan country opinion survey report (July 2013 - June 2014)	2014/03/14	Working Paper
Jordan Economic Monitor: Moderate Economic Activity With Significant Downside Risk	2013/10/31	Report
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Doing business 2013 : Jordan – smarter regulations for small and medium-size enterprises : comparing business regulations for domestic firms in 185 economies	2012/23/10	Working Paper
Soft skills or hard cash? What works for female employment in Jordan?	2012/19/10	Working Paper
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