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), Samer Matta (Economic Analyst) and Jana Harb (Economic Analyst), under the general guidance of Eric Le Borgne (Lead Economist) and Auguste Tano Kouame (Global Practice Manager). The Special Focus was prepared by Victor Mulas (ICT Innovation Specialist) and Michael Minges (Consultant) with Mikel Gastelu-Iturri (JPO). May Ibrahim (Senior Executive Assistant) provided Arabic translation and Zeina El Khalil (Communications Officer) print-produced the report.

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i. After four years of a steady recovery, Jordan’s economy is expected to slowdown in 2015 due to the effects of security spillovers particularly in the first half of the year. These included repercussions, particularly on tourism and trade, from the worsening of security situation in Syria and Iraq and total trade route closures with these two countries. With over 631,000 registered Syrian refugees, Jordan grapples with a range of development challenges including worsening unemployment (average rate in the first half of 2015 (H1-2015) reaching 12.5 percent compared to 11.9 percent in H1-2014).

ii. The modest recovery to 3.1 percent real growth in 2014 was unexpectedly cut short in Q1 and recovered slightly in Q2 2015. From the production side, the slowdown to 2.2 percent growth year on year (yoy) in H1-2015 (the slowest since H1-2010) was led by a contraction in ‘hotels and restaurants’, construction, and agriculture (by 4.3 percent, 1.0 percent and 0.8 percent respectively), while growth was spurred largely by ‘mining and quarrying’ and finance, insurance and business services. From the demand side, growth was driven by net exports, while private demand remained flat, and public investment and government consumption subtracted from growth (in real terms) over the first half of 2015 compared to H1-2014. Real GDP growth is projected at 2.5 percent in 2015, 100bps below the previous forecast, dragged down by Q1’s events.

iii. Declining commodity prices, a strong exchange rate and a negative output gap sustain a deflationary environment. Headline consumer prices contracted by 0.7 percent yoy compared to August 2014 and minus 0.6 percent on a period average (p.a) basis. Core inflation continues to abate, to 3.1 percent in August 2015 yoy, reflecting the fading impact of one-off demand and supply shocks.

iv. Monetary policy remains expansionary while tight fiscal policy persists. In line with a deflationary environment and widening output gap, the Central Bank of Jordan cut policy rates by 25 bps in July 2015 (to a cumulative 125 bps since July 2013). The central government fiscal deficit improved in the first seven months of 2015 largely driven by lower expenditures outweighing a fall in revenues as a share of GDP and is projected to reach 4.1 percent of GDP for the year. Combined with moderate growth, this will push the debt-to-GDP ratio higher. The IMF Stand-By Arrangement was completed successfully disbursing close to US$ 400 million in August 2015.

v. The current account is expected to widen in 2015 as lower energy imports will be more than offset by conflict-related trade disruptions and lower transfers. The current account deficit narrowed in H1-2015 (to 4.2 percent of GDP) due to a 6.3 percentage points of GDP fall in imports of goods and services (driven by lower energy imports) partly offset by a 4.3 percentage points of GDP fall in exports of goods and services on account of trade disruptions and softer grants and remittances. For the year, the current account deficit is expected to reach 7.1 percent of GDP, partly due to the fading impact of lower oil prices—as these started to decline in June 2014—and higher non-oil imports.

vi. Jordan’s main challenge continues to be the management of security spillovers from Syria and Iraq. The baseline, which forecasts real GDP growth of 3.7 percent in 2016, assumes that
H1-2015 events were largely one-off occurrence except for lingering effects on trade. Any further exacerbation presents the largest downside risk, followed by a sharp rebound in international oil prices. The availability of external financing given weak global capital market conditions are also to be monitored. Structural reforms particularly on the energy diversification and improving business climate fronts bode well for medium-term growth.
أسعار النفط العالمية. كما من الضروري رصد توافر التمويل الخارجي نظراً لضعف ظروف الأسواق الرأسمالية العالمية، أما الإصلاحات، وبالأخص في ما يتعلق بتوزيع مصادر الطاقة وتطوير مناخ أنشطة الأعمال، فتبشر خيراً بالنسبة للنمو على المدى المتوسط.
المتوقع أن تتباطأ وتيرة النمو الاقتصادي الأردني في العام 2015، بسبب التداعيات الأمنية، وخاصة في النصف الأول من السنة، فقد أثرت تلك التداعيات على أثر التطورات الأمنية في سوريا والعراق، والتي زادت سوءاً، والإغلاق الجمركي للأردن، بتضييق السلامة التجارية بين سوريا والعراق، على قطاعات النشاط الاقتصادي في الأردن. ومع ذلك، لا يزال النمو المالي الرئيسي، والتجارة، يتبعه ارتفاع حاد في النشاط الاقتصادي، بما في ذلك زيادة معدل البطالة الذي سجل في النصف الأول من عام 2015، بنسبة 3.9%. بالنسبة المئوية، بـ 11.9% بالنسبات المقارنة بـ 2014.

مع مرور أربع سنوات من الاحتكاك المستمر، من المتوقع أن ينخفض الناتج المحلي الإجمالي بـ 2.7 نقاط مئوية من الناتج المحلي الإجمالي في الأردن. ذلك يعني أن الناتج المحلي الإجمالي سينخفض بنسبة 4.1% بالنسبة للềnون العام 2015، وذلك لانعكاس النزاعات، والنزاعات التجارية. ومع ذلك، لا يزال النمو المالي الرئيسي، والتجارة، يتبعه ارتفاع حاد في النشاط الاقتصادي، بما في ذلك زيادة معدل البطالة الذي سجل في النصف الأول من عام 2015، بنسبة 3.9%. بالنسبة المئوية، بـ 11.9% بالنسبات المقارنة بـ 2014.

vi. يُمين التحدي الأكبر في الأردن ومعالجة التداعيات الأمنية من زوايا الأزمة في سوريا والعراق. تفرض التاعدات الأمنية في الأردن، بتضييق السلامة التجارية بين سوريا والعراق، على قطاعات النشاط الاقتصادي، بما في ذلك زيادة معدل البطالة الذي سجل في النصف الأول من عام 2015، بنسبة 3.9%. بالنسبة المئوية، بـ 11.9% بالنسبات المقارنة بـ 2014.

iii. يؤدي ارتفاع أسعار النشاط السلبي، وقوة سعر الصرف والديون، على النشاط الاقتصادي، إلى استمرار التداعيات الأمنية. شهدت أسعار المستهلكات انخفاضًا بنسبة 2% بالنسبة للناتج المحلي الإجمالي في العام 2015، أي أقل مما كان متوقعاً في السابق بما يعادل 100 نقطة مئوية.

vi. يؤدي ارتفاع أسعار النشاط السلبي، وقوة سعر الصرف والديون، على النشاط الاقتصادي، إلى استمرار التداعيات الأمنية. شهدت أسعار المستهلكات انخفاضًا بنسبة 2% بالنسبة للناتج المحلي الإجمالي في العام 2015، أي أقل مما كان متوقعاً في السابق بما يعادل 100 نقطة مئوية.

ب. استعداد التدابير المحتملة لمواجهة التحديات. النشاط الاقتصادي يتأثر بالإغلاق الجمركي للأردن، والإغلاق الجمركي مع البلدان الأخرى، والنزاعات التجارية. ومع ذلك، لا يزال النمو المالي الرئيسي، والتجارة، يتبعه ارتفاع حاد في النشاط الاقتصادي، بما في ذلك زيادة معدل البطالة الذي سجل في النصف الأول من عام 2015، بنسبة 3.9%. بالنسبات المئوية، بـ 11.9% بالنسبات المقارنة بـ 2014.

vi. يؤدي ارتفاع أسعار النشاط السلبي، وقوة سعر الصرف والديون، على النشاط الاقتصادي، إلى استمرار التداعيات الأمنية. شهدت أسعار المستهلكات انخفاضًا بنسبة 2% بالنسبة للناتج المحلي الإجمالي في العام 2015، أي أقل مما كان متوقعاً في السابق بما يعادل 100 نقطة مئوية.
Output and Demand

1. Jordan’s economy has witnessed a hiccup in its otherwise steady growth trajectory, reflecting the manifestation of risks of security spillovers (Figure 1). While real GDP growth in 2014 registered 3.1 percent, inching up steadily for the fourth consecutive year, the modest recovery was cut short in H1-2015 which registered 2.2 percent growth yoy (the slowest since H1-2010). This slowdown reflects material repercussions from heightened security incidents particularly in Q1-2015 which saw 2.0 percent growth (halting the rising growth momentum of the previous three quarters), partly related to worsening developments in Syria and Iraq and their repercussions. While some recovery was witnessed in Q2-2015 with 2.4 percent quarterly yoy growth, spillovers from the Syria crisis continue to plague Jordan both on the security front, the disruption of trade routes which were exacerbated with the total closure of land routes to Iraq and Syria in 2015, and the presence of more than 631,000 Syrian refugees.¹

2. While different sectors of the economy posted uneven performance, the main drags on growth resulted from the real estate and tourism sectors (Figure 2). The slowdown was predominantly led by a contraction in hotels and restaurants and construction, followed by agriculture by 4.3 percent, 1.0 percent and 0.8 percent respectively in H1-2015 yoy, largely mirroring reduced number of tourists of 10.2 percent over the first 8 months (8M) of 2015 compared to 8M-2014 given heightened security developments in Q1-2015. The number of construction permits issued was 16.1 percent lower in 7M-2015 compared to the same period of 2014. Given the slowdown in both real estate and tourism sectors, the Cabinet approved a number of incentives to stimulate these sectors including reducing electricity tariffs for hotels by 50 percent as of May 1, 2015 until end-2016.² The real estate incentive package includes exempting home buyers from registration fees for apartments and individual houses for the first 150 square meters up to 180 square meter properties (those that exceed 180 square meters are subject to registration fees on the whole area) valid until end-2015.³ Growth was spurred largely by mining and quarrying followed by producers of private non-profit services to households, and finance, insurance and business services as the largest positive contributors growing by 16.5, 6.2 and 5.8 percent respectively in H1-2015 compared to the same period of 2014. The mining and quarrying sector reflected greater production of phosphate and potash; during 7M-2015, the sector’s production quantity index was 16.3 percent higher, with phosphate and potash production higher by 22.4 and 11.4 percent, respectively, compared to the same period of 2014.

¹ UNHCR reports 631,335 registered Syrian refugees as of 4 October 2015.

² Other incentive measures for the tourism sector include granting the Tourism Promotion Authority budget to promote tourism, canceling tourist visas for all nationalities coming through the Jordanian Tourism agencies, canceling visa fees for tourists who buy a unified ticket for touristic sites provided they stay in Jordan for at least three consecutive nights, reducing visa fees from JD 40 to JD 10 for travelers coming via land provided they stay three consecutive nights, and the design of an emergency plan for the sector.

³ Other incentive measures for the real estate sector include allowing non-Jordanian individuals and non-performing companies to sell to non-Jordanians before the end of the periods stated in the rent of immovable property law on the basis of exceptional circumstances and to enable them to complete other projects, the exemption of non-Jordanian individuals from fines stated in Article 13 of the rent of immovable property law, and the issuance of JD 200 million of Treasury bonds for the payment of financial claims on the government consisting of acquisition allowances of land and income and sales tax refunds valued at JD 150 mn and JD 50 mn respectively.
3. On the demand side, growth was predominantly fueled by an improvement in net exports overall over the first half of the year. With lower global oil prices translating into lower oil imports, the trade balance narrowed by 11.9 percent in H1-2015 yoy, the main driver of growth from the expenditure side. While lower global oil prices led to higher disposable income for households, private demand which was subdued in 2014, was flat in H1-2015 although it had fueled growth in Q1-2015 (Figure 3). Despite the catch up effect of public investment in Q2-2015 (34.9 percent growth yoy), overall public investment was lower in real terms in H1-2015 (by 2.6 percent), as was government consumption (by 4.7 percent) due to rationalized expenditures as a result of the adopted fiscal consolidation measures (Refer to paragraph 6).

Labor and Employment

4. Labor market outcomes showed mixed results in the first half of 2015. While the unemployment rate deteriorated to an average of 12.5 percent from 11.9 percent in H1-2014, the labor force participation rates (LFPR) improved from an average of 36.3 percent in H1-2014 to 36.8 percent in H1-2015 (Figure 4 and Figure 5). On a quarterly basis, Q2-2015 saw an improvement in the labor market compared to the first quarter of the year. Unemployment improved from 13.0 to 11.9 percent as did the LFPR from 36.0 to 37.6 percent over this time which could reflect a slight pick-up in the economy in Q2-2015 compared to the Q1-2015 slowdown. The unemployment rate among the population 15-24 years old remained broadly stable around 30.0 percent in H1-2015 (against 30.8 in H1-2014) with women’s unemployment rate at 21.1 percent in H1-2015 (10 bps above the H1-2014 average). Geographically, the governorate of Maan recorded the highest average rate of unemployment for H1-2015 at 16.7 percent, followed by Tafiela at 15.5 percent, and Mafraq at 14.9 percent.
Fiscal Policy

5. The central government fiscal deficit improved in the first half of 2015 despite fewer grants (as a share of GDP). The improved fiscal deficit (including grants) in 7M-2015 was largely driven by lower expenditures (by 1.22 pp of GDP) which outweighed a 0.63 pp fall in revenues compared to 7M-2014 (Figure 6). The deficit reached 1.38 percent of GDP during 7M-2015 narrowing by 0.43 pp compared to the same period of 2014. The primary balance surplus increased by 0.49 pp of GDP during 7M-2015 narrowing by 0.43 pp compared to the same period of 2014. The primary balance surplus increased by 0.49 pp of GDP during this period despite the 0.16 pp drop in foreign grants. Grants are expected to be sharply lower in 2015 from 4.9 percent of GDP in 2014 to a re-estimated 2.8 percent of GDP in 2015. As a relief to the consolidated fiscal balance, the National Electric Power Company (NEPCO), which in the previous two years had resorted to government transfers to fund its deficit, reverted to commercial bank borrowing in 2015, thanks to a significant improvement in its financial standing (reflecting a combination of reforms, policy measures, and lower oil prices). NEPCO is thus no longer impacting the fiscal balance but its debt is government guaranteed.

6. Despite a narrower fiscal deficit, the gross debt to GDP ratio is expected to continue rising until end-2015 due to the forecasted slowdown in growth (Figure 7). The ratio increased to 89.0 percent of GDP in 2014 from 86.7 percent in 2013 and is forecast at 89.4 percent by end-2015. The stock of gross debt increased by 5.9 percent since end-2014 reaching US$33.9 billion at end-July 2015, of which 61.9 percent in Jordanian Dinar...
and remaining in foreign currency. Net debt (i.e. excluding gross bank deposits) declined, however, from US$32 billion at end-2014 to US$30.6 billion at end-July 2015. In 7M-2015, the government issued JD1.45 billion of Treasury bills and bonds compared to redemptions of JD1.96 billion, with the Treasury bills and bonds portfolio largely held by the banking system (71 percent) and constituting 81 percent of debt in local currency. On June 30, 2015 the Jordanian Government issued US-guaranteed dual-tranche US$1.5 billion Eurobonds. The first tranche consisted of a US$1 billion 2.578 percent coupon 7-year tenor. The second tranche was a US$500 million 3.0 percent coupon 10-year tenor. The issuance yields had 45 and 60 bps spreads over the corresponding UST rates respectively. The Ministry of Finance has announced an expected US$500 million Eurobond to be issued in October 2015 without a US-guarantee. The Ministry of Finance is also working on issuing its inaugural Sukuk in Jordanian Dinar in Q4-2015, diversifying its investor pool.

7. The Jordanian government and the IMF successfully completed the three-year SBA program on July 31, 2015. The IMF released close to US$400 million in August 2015, the final disbursement under a US$2 billion SBA. The SBA which was approved on August 3, 2012, supported the thwarting of a fiscal crisis in Jordan particularly at a difficult time in the region, focusing on fiscal consolidation by enhancing revenue mobilization (such as through a new income tax law and improving filing compliance) and improving the efficiency and progressivity of fiscal spending (such as eliminating petroleum product subsidies and replacing these by a cash transfer program to compensate middle and lower income households). The SBA also included structural reforms in the energy and water sectors including calling for diversification of energy sources (such as LNG and the new Aqaba terminal) and for an increase of the electricity tariff as part of the Government’s medium-term plan to achieve cost recovery for NEPCO. January 2015 saw a 7.5 percent average increase in the electricity tariff. Jordan continues to implement broader policy and structural reform programs in the two sectors, despite the temporary relief arising from the fall of oil prices. To support these reform programs, the World Bank approved on September 18, 2015, a US$250 million loan to finance the First Programmatic Energy and Water Sector Reforms Development Policy Loan (DPL) intended to improve the financial viability of the electricity and water sectors and increase efficiency gains in those sectors (Box 1). Close IMF engagement with Jordan continues through Post-Program Monitoring and the Government’s possible consideration of a successor program.

8. Despite reduced exports of goods, the trade in goods balance has significantly narrowed on account of lower energy imports. At minus US$7.1 billion over the first seven months of 2015, the trade in goods balance was 15.7 percent tighter compared to the same period of 2014. Reduced energy imports of 44.2 percent account for this result mirroring the drop in international oil prices (Figure 8). Overall, imports of goods were 12.5 percent lower, with non-oil imports higher by 0.5 percent, counterweighing the 7.0 percent drop in total exports of goods. Domestic exports of crude phosphates were 4.0 percent higher, crude potash 3.3 percent lower and related chemical inorganic products 50.8 percent lower in the first 7 months of 2015 compared to the 2014 corresponding period, with exports of clothes 10.8 percent higher. Given the total closures of land trade routes between Jordan and Iraq and Syria, domestic exports to Iraq shrank by 33.8 percent, and those to Syria, which particularly affect agricultural exports, contracted by 40.7 percent. Domestic exports to the USA and Saudi Arabia, both overpassing Iraq as Jordan’s largest exports destinations, increased by 8.9 percent and 8.2 percent respectively. The government of Jordan has negotiated with Kuwait to facilitate exports via land routes to Iraq. The Ministry of Industry and Trade is also attempting to break into new export routes.

4 At US$56.1/barrel, the average crude oil price in the first half of 2015 was almost half the H1-2014 average price of US$108.9/barrel.
Recent Economic and Policy Developments

9. In line with a tighter trade in goods deficit, the current account deficit narrowed despite lower current transfers. The current account deficit improved by 0.4 pp from 4.6 percent of GDP in H1-2014 to an estimated 4.2 percent in H1-2015 driven by lower imports (6.3 pp of GDP) despite lower exports (4.3 pp of GDP). Lower imports were the results of both a 5.6 pp lower imports of goods due to 47.6 percent decrease in imports of crude oil and petroleum products due to lower international oil prices, and a 0.7 pp lower imports of services in the first half of 2015. Exports suffered due to a 1.6 pp decrease in exports of goods largely affected by trade route closures, and a 2.7 pp downfall in the exports of services driven by a 15.7 percent (or 1.3 pp) drop in tourism inflows in H1-2015 yoy. Through August 2015, travel receipts were still weaker although witnessing some recovery at 8.8 percent below the same period in 2014 (Figure 9).

The energy and water sectors have suffered from structural inefficiencies which have resulted in large and unsustainable fiscal costs. Jordan’s historic vulnerability to global fuel prices fluctuations, coupled with the frequent interruptions in the import of piped natural gas from Egypt from 2011 onwards prompted Jordan to import more expensive diesel and fuel oil. The Government’s initial decision not to pass-through the higher fuel costs to final consumers resulted in a significant increase in the National Electricity Power Company’s (NEPCO) operating losses. As a result, NEPCO has been running deficits equivalent to around 4-5 percent of GDP per year since 2011 and has accumulated total operating losses of about JD4.7 billion by end of 2014, for which debt servicing has until recently been directly covered by the budget. On the water front, Jordan has historically grappled with water scarcity and is the second most water scarce country in the world1. High subsidies in the water sector result in inefficient use of resources. Jordan has become more dependent on non-conventional, and often very energy-intensive, water infrastructure causing the water sector to add further budgetary losses equivalent to 1.2 percent of GDP in 2014.

To improve these inefficiencies and to create fiscal space, reforms have been undertaken, in part supported by the World Bank. These developments from 2011 and onwards encouraged the Government to develop and implement programs to gradually reform its electricity and water subsidies and diversify and reduce the cost of energy supply. This was planned to be achieved through the development of domestic renewable energy resources and alternate natural gas supply options for power generation, and implementation of water sector reforms that aim to optimize the allocation of water resources, while reducing the use of energy in the sector. In order to support these reform programs in the water and energy sectors, the World Bank approved a US$250 million loan to finance the First Programmatic Energy and Water Sector Reforms Development Policy Loan (DPL) on September 18, 2015.

The focus of the reforms in the energy and water sectors is to improve the financial viability and increase efficiency gains in both sectors. Specific policies in the electricity sector supported by the proposed DPL aim to restore the electricity sector to full cost recovery in 2017 through a coordinated program of tariff adjustments and cost reduction measures including (i) implementation of a five-year (2013-2017) electricity tariff adjustment plan; (ii) development of a floating terminal in the port of Aqaba, which started operation in July 2015, to import Liquefied Natural Gas and increase its share fuel supply by more than 70 percent instead of more expensive diesel; and (iii) scaling up development domestic renewable energy resources which is expected to reach 10 percent of the power generation mix by 2017. The implementation of these DPL-supported policies and achievement of their results could yield significant increase in revenues and cost savings totaling JD1.7 billion2 in the electricity sector over the 2015-2017 period. On the water sector front, the DPL supports (i) the Government’s plan to reform water tariffs to achieve operation and maintenance cost recovery in the water sector by 2017, (ii) enacting a series of water sector policies that aim to scale up implementation of energy efficiency and renewable energy in the water sector to achieve annual energy efficiency savings of 50 GWh in 2017, and (iii) optimizing the allocation of water resources to increase the use of surface water by municipalities and the volume of treated wastewater used for non-domestic consumption.

Such reforms are expected to result in significant fiscal space. The successful implementation of the reform programs in the water and energy sectors will decrease their burden on future government budgets. The resulting increase in fiscal space will allow the Government to invest in pro poor programs and other more inclusive programs that will improve the standard of living of the population in Jordan. Combined with other reforms in improving the business climate and in line with Vision 2025 (Box 3), the economy would achieve a higher growth path.

1/ His Majesty King Abdullah II’s speech, United Nations 21st Conference of the Parties in Paris, 30 November 2015.
2/ World Bank calculations

markets particularly to Africa to counter the decline of exports to Syria and Iraq in coordination with the Jordan Chamber of Commerce although such measures are expected to take time to materialize.
Current transfers declined by 1.4 pp in H1-2015 driven down by lower public transfers (0.8 pp) as a result of lower grants as a share of GDP. By August 2015, remittances receipts increased by 1.5 percent to reach JD1,798.3 million in the first eight months of 2015 compared to the same period of 2014.

10. While the net foreign assets of banks weakened, the CBJ’s foreign currency reserves have increased. By end-August 2015, the net foreign asset position of commercial banks registered minus US$3.4 billion compared to minus US$2.8 billion at end-2014 reflecting higher FX reserves with the CBJ. Foreign currency reserves ended August 2015 at US$15.2 billion, above the IMF’s estimated reserve adequacy floor, an increase of US$1.2 billion (8.3 percent). De-dollarization has largely continued. At end-August 2015 the de-dollarization of deposits reached 17.0 percent, 50 bps lower than the end-2014 ratio.

Monetary Policy and Finance

11. Inflation is subdued and has been in deflationary territory for most of 2015 primarily due to the effects of a low international oil price, a strong currency, and a negative output gap. Headline consumer prices registered -0.7 percent in August 2015 yoy, and -0.6 percent on a period average basis reflecting lower commodity prices which particularly affect transportation and fuels and lighting, although their downward push on inflation is being mitigated on a year on year basis given the price of oil’s descent started in since mid-2014 (Figure 10). Core inflation continues to abate registering 3.1 percent in August 2015 yoy. Core inflation had been mainly driven by one-off demand and supply shocks on housing/rents, tax measures on alcohol and cigarettes, and “clothing and footwear”, all of which have now dissipated (Figure 11). Core inflation has continued declining from 5.4 percent as of August 2014 to 3.8 percent as of end-August 2015 on a period average basis.

12. In line with this deflationary environment and a widening output gap, the Central Bank of Jordan continued its expansionary policy through July 2015. The output gap has been negative since 2013 and has been widening since 2014 at an average of -1.01 percent of potential output in 2014 (Box 2). Most recently the CBJ reduced all monetary policy...

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5 Core inflation is here defined as headline inflation minus energy and food items in the consumer price index (specifically transport, fuels and lighting, and food and non-alcoholic beverages) netting out items with temporary price volatility.

6 The influx of Syrian refugees has abated since 2014, reducing demand on real estate. The increase on customs duties on imported clothes from 5 to 20 percent was introduced in September 2013. Higher taxes on cigarettes were introduced in February 2014.
policy instruments by 25 bps effective July 9, 2015 resulting in a rediscount rate of 3.75 percent, overnight window facility rate of 1.5 percent, overnight repo rate of 3.5 percent, and the one week repo rate of 2.5 percent. Real policy rates, however, remain elevated by historical standards at this stage of the business cycle (Figure 12). The cost of borrowing in Jordanian Dinar was correspondingly lower through July 2015 with the average Treasury Bonds rate 119 bps lower by end-July 2015 at 3.05 percent compared with the end-2014 average rate although the average Treasury Bond rate reached 5.30 percent in August 2015.

13. Despite some pick-up in May and August, the equity market has mostly been weaker in 2015, comparatively better than many countries’ markets that suffered from widespread selloffs. By end-September 2015, the Amman Stock Exchange Index (ASEI) was 4.3 percent below its end-2014 level (Figure 13). In fact, out of all working days in 2015, the ASEI only surpassed its end-2014 value 13 percent of the time indicating a weaker index for most of the year with a plummeting trend in the first quarter consistently reflecting weaker investor sentiment in light of above-mentioned events. The insurance component of the ASEI was the only component almost entirely outperforming its end-2014 level (98 percent of the time) gaining 2.0 percent value by end-September 2015. This stands in contrast to the services subcomponent that was consistently performing worse than the end-2014
Policy makers are interested in how much spare capacity exists in the economy in order to design appropriate economic policies. One way is to estimate the difference between potential output (with fully employed factors of production) versus actual output.

As there are significant uncertainties surrounding output gap estimates, alternative estimation techniques are employed. The output gap for Jordan is estimated on annual data over the sample period 1975-2017 as well as on quarterly data over the sample period Q1-1992 to Q1-2016. The Hodrick-Prescott (HP) filter, a de-trending statistical method, is employed using three standard smoothing parameters. To minimize the end-point bias that the HP filter is normally susceptible to, the annual sample period is extended through 2017 while the quarter sample period is extended through Q1-2016 using World Bank staff projections. The 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 alternative estimation methods yield different magnitudes of the output gap in most periods; nevertheless, the trajectories they generate are highly correlated. From the mid-1990s until mid-2000s, the economy was running below its potential and the output gap was widening until 2004, when a high growth period ensued and lasted until 2009 (Figure 15). The output gap trajectory reverted in 2004 and by 2009 it had reached 5.43 percent of potential output (on average across the four estimation methodologies).

Since 2013 the economy has been below its potential and the output gap has been widening. The magnitudes of the quarterly output gap estimates from the different HP filters are very close (Figure 14). However, depending on the smoothing parameter adopted, output in 2014 is estimated at above or below potential. The output gap from the HP filter with a smoothing parameter of 1600, the standard parameter used in the literature for quarterly data, is negative in all quarters of 2014. This is in line with the annual data. Output gap further widens to reach -1 percent of potential output in the first quarter of 2015 which is the lowest gap since the fourth quarter of 2006. The gap narrows by the second quarter of 2015 but is still negative at -0.42 percent of potential output. All estimation methods reveal that, following the sharp and persistent economic slowdown of 2010, the large positive output gap that existed in 2009 starts narrowing, turns negative in 2013 and further widens in 2014 (Figure 15). The output gap estimates for 2014 from the different methods range from -0.29 percent to -1.36 percent of potential output with an average of -1.01 percent.

Despite the uncertainty in estimating a country’s output gap, the various estimates shown above all indicate that Jordan’s economy is currently operating below its full capacity. This is further reinforced by other capacity indicators, such as in the labor market.
value, having lost 21.0 percent of its value by end-September 2015.

14. **Jordan’s banking sector is largely resilient.**
In 2014, banks’ nonperforming loans (NPL) ratio had improved for the first time since 2011 at 5.6 percent, further improving to 5.4 percent by end-June 2015, compared to 7.0 percent end-2013 and the lowest since 2008 (4.2 percent). Banks’ Return on Equity (ROE) and Return on Assets (ROA) also both improved reaching 11.0 percent and 1.4 percent respectively by end-June 2015, the highest rates since 2008 (Table 1). The capital adequacy ratio decreased to 17.8 percent by end-June 2015 compared to end-2014 while the leverage ratio decreased from 12.9 percent end-2013 to 12.5 percent mid-2015 yet still above the 3 percent level stipulated by Basel III. Banks’ exposure to sovereign debt has been increasing steadily since June 2012, however, accounting for 42.1 percent of total assets by end-August 2015 compared to 40.8 percent end-2014.

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**TABLE 1. Financial soundness indicators (in percentage unless otherwise indicated).**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Nonperforming Loans/Total Loans</td>
<td>4.2</td>
<td>6.7</td>
<td>8.2</td>
<td>8.5</td>
<td>7.7</td>
<td>7.0</td>
<td>5.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Provisions (in percent of classified loans)</td>
<td>63.4</td>
<td>52.0</td>
<td>52.4</td>
<td>52.3</td>
<td>69.4</td>
<td>77.0</td>
<td>77.6</td>
<td>77.6</td>
</tr>
<tr>
<td>Risk-weighed Capital Adequacy Ratio</td>
<td>18.4</td>
<td>19.6</td>
<td>20.3</td>
<td>19.3</td>
<td>19.0</td>
<td>18.4</td>
<td>18.4</td>
<td>17.8</td>
</tr>
<tr>
<td>Leverage Ratio</td>
<td>12.9</td>
<td>13.0</td>
<td>13.1</td>
<td>13.1</td>
<td>13.3</td>
<td>12.9</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>ROE</td>
<td>11.5</td>
<td>8.8</td>
<td>8.8</td>
<td>8.3</td>
<td>8.6</td>
<td>9.9</td>
<td>11.0</td>
<td>11.0</td>
</tr>
<tr>
<td>ROA</td>
<td>1.4</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.2</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Net Profits Before Taxes (in JD million)</td>
<td>564.3</td>
<td>460.4</td>
<td>523.4</td>
<td>516.6</td>
<td>587.8</td>
<td>719.5</td>
<td>822.1</td>
<td>442.8</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>141.2</td>
<td>159.1</td>
<td>161.4</td>
<td>152.9</td>
<td>143.5</td>
<td>149.1</td>
<td>152.2</td>
<td>150.6</td>
</tr>
<tr>
<td>Growth Rate of Total Assets</td>
<td>11.4</td>
<td>7.4</td>
<td>9.6</td>
<td>7.9</td>
<td>4.3</td>
<td>9.1</td>
<td>4.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Growth Rate of Customer Deposits</td>
<td>13.2</td>
<td>12.1</td>
<td>10.9</td>
<td>8.3</td>
<td>2.4</td>
<td>10.5</td>
<td>9.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Growth Rate of Credit Facilities</td>
<td>17.2</td>
<td>2.1</td>
<td>8.6</td>
<td>9.8</td>
<td>12.5</td>
<td>6.3</td>
<td>5.2</td>
<td>5.1</td>
</tr>
</tbody>
</table>

*Preliminary

Source: Central Bank of Jordan

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7 Banks’ sovereign debt exposure is computed as the ratio of commercial banks’ aggregate investment in claims on public sector and deposits at CBJ relative to total assets.
15. **After four years of gradual recovery, Jordan’s economy is expected to slowdown in 2015 due to the effects of security spillovers particularly in the first quarter.** Real GDP growth is projected at 2.5 percent in 2015, 100 bps below our Spring 2015 forecast. This growth reduction is fully accounted for by the first quarter’s unexpected events. Our baseline takes the view that the H1-2015 underperformance is largely a one-off occurrence except for some spillovers on trade resulting from the total closure of trade routes with Iraq and Syria in Q2-2015. Continued positive impact from low international oil prices, their effect on improving private disposable income and the twin deficits, and the impact of higher investments notably in energy diversification and positive impacts of recent incentive measures by the government towards the real estate and tourism sectors are expected to support growth in 2015. Going forward, GDP growth is forecast at 3.7 percent and 4.0 percent in 2016 and 2017, respectively, as the economy adjusts and tends towards potential output and as Vision 2025—Jordan’s 10-year blueprint for social and economic development launched in May 2015—yields fruit (Box 3). However, the probability distribution of our 2016 and 2017 forecasts are tilted downwards given the risks in the region. The Government is particularly concentrating on mega projects and the expansion in renewable energy projects in parallel to improving the labor force participation rate in different sectors of the economy with a focus on small and medium enterprises (SMEs). Inflation is expected to remain subdued in 2015 due to continued low oil prices, a larger output gap than previously forecast, weaker real estate demand (including from a slower influx of Syrian refugees) and lower global food prices (15 percent of Jordan’s imports are food). Inflation is expected to pick-up as of 2016 as the oil price slowly readjusts and the economy accelerates.\(^8\)

16. **Given lower grants and expected flat remittances, the current account is expected to widen in 2015 before resuming tightening as of 2016, despite a narrowing trade balance.** The current account deficit is forecast to increase from 6.8 to 7.1 percent of GDP in 2015. The trade deficit is estimated to narrow from 25.9 pp in 2014 to 20.6 pp in 2015 largely due to a sharp reduction in the value of energy-imports which offset lower exports including to Iraq and Syria, particularly given the hitherto low oil prices. The sharp contraction in grants from 4.9 percent of GDP in 2014 to a forecast 2.8 percent of GDP in 2015 contributes to the wider current account deficit and affects the fiscal balance. Nevertheless, the fiscal balance (including grants) is projected to narrow to 4.1 percent of GDP in 2015 due to the impact of tighter expenditures with the primary balance shifting to a surplus as of 2015. However, due to weaker growth and in part reflecting Eurobond and inaugural Sukuk issuances slated for Q4-2015, the gross debt to GDP ratio is expected to rise to 89.4 percent in 2015 from 89.0 end-2014 before starting its downward trend in 2016 supported by higher growth and a contained increase in the debt stock given primary surpluses and lower debt incurred by NEPCO.

17. **Jordan’s main challenge continues to be the impact of security spillovers from Syria and Iraq.** These are serious risks as manifested with repercussions on tourism, trade and investment in H1-2015. Although not expected in H2-2015, should the global price of oil rebound this would erode part of the pick-up in private demand, contribute to higher inflation and put pressure on...
the twin deficits. This pressure, previously a larger and significant risk factor, is now being mitigated as Jordan reduces its oil price exposure via energy diversification efforts and energy sector reforms such as NEPCO tariff adjustments. The availability of external financing is a downside risk given uncertain global capital market conditions. This pertains to lower grants expected in 2015 compared to 2014 and to the availability of private sector financing to support an announced non-US guaranteed Eurobond transaction in October. While the Federal Open Market Committee’s (FOMC) September 2015 meeting did not raise interest rates, there are expectations it could still do so before the end of the year. Should this materialize, however, it is not expected that the pass through would be significant for Jordan, at least not in the short-term. Markets also expect the FOMC to tighten rates very gradually and in small increments.

18. **Structural reforms particularly in energy diversification and improving the business climate bode well for medium-term growth provided Jordan can weather the challenges of a precarious neighboring security situation.** As such, progress on the energy diversification front is welcome to reduce Jordan’s dependency on more expensive and polluting diesel and fuel oils which it has resorted to since disruptions of natural gas from Egypt as of 2011. The LNG terminal at Aqaba has been operational since July 2015 and is expected to yield savings of JD820 million over the 2015-2017 period. As part of its energy strategy, Jordan is projected to increase its share of natural gas supply for power generation from 7 percent in 2014 to 70 percent by 2017 and is also expected to build up the share of renewable power in the generation mix to 10 percent by 2017. On the business climate front, the Government has been designing different initiatives to enhance the business environment by reviewing procedures and related legislation with expected implementation in Q4-2015.

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The Jordanian government launched Vision 2025 “Blueprint”, a new ten-year strategy in May 2015. The vision and strategy which includes more than 400 policies and procedures was designed in an extensive consultative process involving the private sector and citizens. Implementation of the strategy is expected over three executive development plans, with the first for 2016-2018 finalized end-September aligned with the 2016-2018 budget. The strategy acknowledges the need for strong partnership among key stakeholders and for its effective implementation. Depending on progress achieved, it offers two scenarios with the targeted scenario achieving real growth rates of 7.5 percent by 2025 with the baseline scenario achieving a 4.8 percent growth rate.

Vision 2025 places citizens at the heart of the development process, defining its main goal as improving the welfare of citizens, with society, business and government as the other three main pillars. Relatedly, it stresses improving basic services to citizens, creating a balanced society with opportunities available to all, more equal development by bridging gaps between governorates and giving citizens more of a voice. The strategy presents current social and economic outcomes across a number of macroeconomic and development indicators such as in health, education and employment and social outcomes related to the rule of law, citizenship and poverty, and compares these across countries for benchmarking purposes. It also highlights the business environment and government performance including in the provision of services and management of resources and presents desired outcomes for indicators for each pillar (Refer to Figure 16).

The strategy is guided by seven core principles. These “principles for collective action” stress the rule of law including improving the transparency and accessibility of government information, improving meritocracy by moving away from favoritism towards equal opportunity, and promoting a more participatory culture, away from entitlement and to active citizenship. Excellence is another embedded principle, setting higher standards to achieve global best practice levels across the economy and services. The strategy focuses on improved competitiveness to shift from a small, domestic economy to a dynamic regional hub. Sustainability features as a key principle as well, with a focus on achieving sustainable and inclusive growth as well shifting towards institutionalized rather than personalized decision making.

Vision 2025 calls for a transformation of Jordan’s model of development to achieve growth and prosperity based on competitiveness and providing more employment opportunities. The strategy identifies priority export markets beyond the current regional crisis with a target to become a regional hub for the GCC, Palestine, Iraq, Syria, Egypt and Libya and the farther markets of Turkey and Iran. It also identifies priority clusters to drive growth and create jobs both building on existing strengths and identifying opportunities in new clusters based on emerging trends. The clusters are grouped in construction and engineering and housing, transportation and logistics, tourism, healthcare and health building on existing strengths and identifying opportunities in new clusters based on emerging trends. The clusters are grouped in construction and engineering and housing, transportation and logistics, tourism, healthcare and health

Prospects | 19
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.

I. Introduction

19. Entrepreneurship and innovation are emerging in urban areas in both developed and emerging economies. Various developments, particularly those led by ICT, have reduced the cost of innovation and market access substantially, allowing
digital entrepreneurs to compete with established industries. Today a tech startup can be created with just a laptop and Internet connection. This has led to a surge of tech startups in cities worldwide, where communities of entrepreneurs interact in urban environments (Figure 17).

20. **Tech startups generate new sources of competitiveness through innovation and disruptive business models.** Distinct from the 1990’s technology wave, startups today are linked to local challenges and applied to real industries. The Internet is triggering innovations across a range of industries including hotels, transport, real estate and education (Table 2). Countries that can harness their tech ecosystem effectively will generate innovation and competition across the economy.

21. **Tech ecosystems also create new sources of employment.** Tech startups grow rapidly, and though many fail, overall job creation is increased.¹⁰ For instance, in New York City, the tech ecosystem developed practically from scratch. Between 2008-2013, employment generated by the tech ecosystem grew more than the city and national average, creating over 50,000 jobs directly and three times as many (150,000) indirect jobs in the non-tech industry.¹¹

### TABLE 2. Startup innovation in traditional business.

<table>
<thead>
<tr>
<th>Traditional Industry</th>
<th>Startup Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>Airbnb</td>
</tr>
<tr>
<td>Taxis</td>
<td>Uber, Lyft</td>
</tr>
<tr>
<td>Radio</td>
<td>Pandora, Spotify</td>
</tr>
<tr>
<td>Real Estate (Office Space)</td>
<td>WeWorks</td>
</tr>
<tr>
<td>Access to Finance</td>
<td>Kickstarter</td>
</tr>
<tr>
<td>Vocational Education</td>
<td>General Assembly</td>
</tr>
</tbody>
</table>

*Source: Mulas, V. (2014) Innovation Within Cities*

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Unemployment rate by education level, total, ISCED 5-6, 2013

**FIGURE 18. Unemployment among startup founders.**

*Source: Adapted from Eurostat, DOS, SCI and Wamda*

Percentage of tech entrepreneurs with a university degree, 2015

**FIGURE 19. Education levels among startup founders.**

*Source: Adapted from Eurostat, DOS, SCI and Wamda*

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22. The Middle East and North Africa (MENA) region and Jordan, in particular, could benefit from this trend for job creation. MENA is characterized by high unemployment, particularly among young people with a university degree (Figure 18). Traditional business models are failing to absorb this potential talent pool. If nations in MENA can successfully harness the tech
ecosystem, there could be significant job gains, given that tech startup founders are overwhelmingly college-educated (Figure 19). One attraction is that small homegrown digital businesses can be started quickly with few resources.

23. **Jordan’s technology sector is mature and can serve as a platform for the development of a robust startup tech ecosystem.** More than 500 companies in Jordan’s ICT sector are significant contributors to the economy, its competitiveness and job creation. From 2001 to 2013, ICT export revenues (both hardware and services) grew at an annual average rate of 39 percent and in 2013 accounted for 51 percent of the total, surpassing domestic revenues for the first time. In 2013, the ICT sector accounted for 11,637 direct jobs. The total multiplier effect of the ICT sector on employment (including indirect and induced jobs) is estimated to be around 80,000 jobs.\(^{12}\) However, the sector has reached a plateau. Its revenue share of GDP has been shrinking and while its contribution to total services exports has recovered slightly since 2010 it is still below the high achieved in 2005. Employment in the sector has also been stagnant over the last few years.

24. **Encouraging Jordan’s startup tech ecosystem could also help address some of the ICT sector’s challenges.** Tech startups can revive the domestic market by stimulating demand for online services, making the Jordanian sector more sustainable. Innovation generated by digital entrepreneurs can in turn make the export market more competitive. For this to happen mindsets need to change regarding development of the tech sector. The previous emphasis on attracting foreign investment from ICT multinationals for a few large companies to develop export-driven services needs to be modified to encourage additional small domestic entrepreneurs who need venture capital to scale up and grow.

25. **The tech startup ecosystem meshes well with Jordan’s 2025 vision and strategy.**\(^{13}\) Startups can strengthen the country’s goal of developing as a MENA tech hub by injecting innovation, vibrancy and sustainability. The ecosystem also enhances links between tech and other sectors due to disruptive business models targeting many industries. Indeed Jordan 2025 (Box 3) suggests a number of initiatives that would benefit the tech ecosystem such as increasing seed and venture capital funding for startups, raising the share of small businesses in government tenders and developing an entrepreneurship mentality in universities. The Government has tasked the Information and Communications Association of Jordan (int@j) to develop a new REACH 2025 initiative to elevate the ICT sector to the next level and further develop the ICT cluster as per Jordan 2025. It has also restructured the National Council for Competitiveness and Innovation to be headed by the Prime Minister with 19 members from the private sector and 17 members from the public sector. As part of its work, the council will focus on the nine priority clusters that were classified in Jordan 2025.

### II. Startup Tech Ecosystem

26. **The startup tech ecosystem refers to the elements that are essential for nurturing small digital businesses so that they can scale and eventually be acquired or become publicly listed companies.** Instagram, a photo sharing application for mobile phones, is a good example of this model. Two colleagues moonlighting from their regular jobs founded Instagram in 2010.\(^{14}\) They received an injection of seed money from the creator of Mosaic, one of the first web browsers. After two more rounds of funding from venture capitalists, Instagram was acquired for US$1 billion in 2012 by social networking giant Facebook.

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\(^{12}\) See “Jordan ICT Sector Profile” at: [http://www.intaj.net/sites/default/files/jordan_ict_sector_profile.pdf](http://www.intaj.net/sites/default/files/jordan_ict_sector_profile.pdf)


The tech startup ecosystem has distinctive terminology and concepts. One way of understanding the tech aspect of startups is that if the Internet did not exist, it is unlikely these companies would exist either. There is no official definition of a startup. One proposal suggests that a startup is less than three years old, not gone public or been acquired, has no more than 80 employees or revenue that exceeds US$20 million. Special spaces have sprung up to serve the needs of the startup. Co-working offices have open plans and broadband Internet access. An incubator offers office space plus training over a fixed period. Like an incubator, an accelerator provides workspace as well as mentoring and funding in exchange for equity in the startup. Funding options are split into early and later stages. Early stage includes seed money to build and deploy an initial product. The money could come from the startup founder’s own resources or friends and family. Another source are angels, typically successful serial entrepreneurs or early stage venture capital funds. Later stage funding comes after the startup has demonstrated commercial potential and often flows in several rounds termed Series A for the first, Series B for the second and so on. This is usually provided by venture capital funds managed by investment specialists who understand the tech sector and the risks involved; they often play an active role in the finances of the startup. Another source of investment is crowd funding. This is carried out through special Internet platforms allowing the startup to solicit funding from small investors in exchange for equity.

### Markets

27. **Key ecosystem attributes include markets, the business environment, spaces, networking, and funding.** Markets are needed for purchasing startup products and supplying labor; spaces where startups can work and network; the business environment including government procedures and Internet access; networking for startups to interact with each other as well as mentors and investors and funding for startups to scale. In most developed countries, the ecosystems have generally evolved organically in urban areas clustering around innovation districts. The challenge for policymakers and other stakeholders hoping to assist the ecosystem is identifying the proper balance, scope and dimension without interfering with the organic and often haphazard nature of innovation.

28. **In order to scale up, tech startups need demand for their products as well as a source of labor.** Most startup services are related to cellphone users and online audiences, so the size, dimensions and growth of the mobile and Internet market are critical. On the supply side, established IT firms and the higher education system are the two most important suppliers of talent to the startup ecosystem. IT firms are also a possible funding source and place of employment for failed startups.

29. **Jordan has one of the highest levels of cellphone ownership in the MENA region creating an attractive opportunity for tech startups (Figure 20).** Mobile phones are virtually ubiquitous with 97 percent of Jordanian adults owning one in 2014. This supports the tendency in Jordan towards products and apps that target mobile consumers. The percentage of the adult population using the Internet was 44 percent in 2014, similar to Egypt but much lower than Lebanon and half the rate in Gulf countries (Figure 21). Internet penetration rose by 4 percent in Jordan in 2014 but at that rate, it would still not catch up with the Gulf nations until after 2020. Coupling this with the relatively small population is a big factor for many Jordanian startups targeting the wider Middle Eastern online market of 150 million. Jordanian Internet users have one of the highest rates of shopping over the web in MENA with 27 percent purchasing a product online in 2014.

30. **Among MENA countries for which data is available, Jordan leads in the percentage of the labor force with tertiary education (28 percent).** Almost half the university age population in Jordan is enrolled (Figure 22). There were 248,919


18 http://data.worldbank.org/indicator/SL.TLF.TERT.ZS
undergraduate students during the 2012-2013 academic year, with one quarter enrolled in business administration programs. Science, Technology, Engineering and Mathematics (STEM) programs also account for around one quarter. Perception of the quality of business schools is average, ranking 43rd among 143 countries (Figure 23).

31. One challenge is that startups need more than tech skills, with entrepreneurs citing a shortage of marketing and sales expertise as a significant gap (WAMDA 2015). But only 0.8 percent of the Jordanian workforce has skills in those areas. Another challenge is retaining talented employees as staff head abroad for higher salaries forcing some startups to fold. Many university graduates also prefer a job with the government or a large firm rather than becoming an entrepreneur or working for a startup company.

32. Established ICT firms are important sources of talent, mentorship and funding as well as a possible source of employment for startups that have failed. Jordan’s ICT sector is active in supporting the tech ecosystem. The industry is represented by the Information and Communications Association of Jordan (int@j), which lobbies for policies favorable to the sector. The country’s mobile operators have been supportive through several initiatives. Zain’s ZINC provides startups with access to the latest technologies while Umniah offers an opportunity for Jordanian startups to be incubated in Silicon Valley; the mobile operator also recently launched an innovation center.

- Cisco, the ICT equipment manufacturer, announced a US$10 million five year investment plan targeting job-creation in Jordan in May 2011 and in 2014, it revealed a US$6 million investment in a Jordanian venture capital fund.
- Intel, the semiconductor manufacturer, is involved in several initiatives related to the tech ecosystem. In partnership with USAID’s

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22 http://www.oasis500.com/orangefab/
Jordan Competitiveness Program (JCP), Intel is supporting technology entrepreneurship in education by providing 1,500 hardware development kits to universities as well as technical training.

Its venture capital arm, Intel Capital, has invested in two Jordanian startups.

- The Microsoft Innovation Center (MIC) aims to foster innovation and capacity for Jordan’s software sector. MIC offers software training to students and entrepreneurs as well a program for interns.

Spaces

33. Specialized spaces have emerged in Jordan targeting the unique requirements of tech startups. The Jordan Enterprise Development Corporation (JEDCO), a government organization supporting entrepreneurs, launched the country’s first incubator targeting the tech sector in 2003. Known as iPARK, it forms part of the Jordan Innovation Network Centres (JICs) along with five other facilities across the country. iPARK is owned by the Higher Council on Science and Technology and located at Amman’s El-Hassan Science City. It offers 45 independent office units designed to serve startup needs during their first two years of operation. Since it was launched, iPARK has incubated 38 companies, with 28 currently in their program. According to iPARK, its incubated companies are valued at over US$50 million and today employ over a thousand people. iPARK believes that its approach of mixing seasoned entrepreneurs with new startups is vital for success because of the mentoring opportunities that it offers.

34. The last few years has seen the emergence of startup spaces in Amman driven by the private sector. Zee Launch Pad, founded in 2012, is a co-working space providing freelancers, entrepreneurs and startups, and SMEs a cost-effective alternative to renting offices. The facility has capacity to host around 100 people and features private meeting rooms and an opportunity to network through various events. Mobile operator Umniah opened The Tank in 2014 providing office space as well as

26 https://www.microsoftventures.com/locations/mic/jordan
28 http://www.ipark.jo/
29 Professor Issa Batarseh, Princess Sumaya University of Technology, Jordan (2011).
31 http://www.zeelaunchpad.com
networking opportunities. Launched in November 2014, the Zain Innovation Campus (ZINC) is the company’s initiative to support entrepreneurship, with the aim of nurturing startups in an environment that is equipped with the latest technologies such as 3D printers and a virtual reality room.

35. A key milestone in Jordan’s tech startup ecosystem was the 2010 launch of Oasis500, the first and to date, only accelerator in the country with King Abdullah II Fund for Development (KAFD) as anchor founder. The name originates from the goal of accelerating 500 startups in six years. Along with financial backing, Oasis500 provides startups with training, mentorship and incubation. It is also gender friendly with over a third of startups incubated by Oasis500 led by women (Brault 2013). Oasis500 requires applicants to first participate in six-day intensive boot camps. Qualified startups then move on the next stage receiving US$15,000 and three months of mentorship in exchange for 10 percent equity. Startups that demonstrate growth qualify for a second round of investment up to JD50,000 (US$70,000), another three months of incubation, and a chance to pitch to a global network of investors. Up to date, about 1,000 candidates have taken part in the boot camps out of which almost 90 startups have been selected and around 40 have received external funding estimated at US$18 million.

36. The Plug and Play Tech Accelerator Program is a partnership between Umniah, USAID and Int@j that incubates Jordanian startups in Silicon Valley. Selected startups are sponsored to join Plug and Play’s 3-month startup acceleration program in Sunnyvale, California, where they have access to hundreds of investors, corporations and mentors, exposure at its events, regular educational seminars and workshops and office space. The program was launched in 2014 and provides startups with US$30,000 in exchange for 10 percent equity. So far, seven startups have participated. It is also worth noting that Jordan launched King Hussein Business Park, a special tech development zone and home to several leading ICT firms as well as several accelerators and funding organizations.

Funding

37. Tech startups face barriers in obtaining funding since their business models are novel and they have few if any assets to pledge as collateral. Commercial banks are often unwilling to provide loans. As a result, most Jordanian startups depend on their personal savings or family and friends to launch their business.

38. In recent years, there has been an increase in funding options geared to the tech ecosystem. Examples include accelerators providing seed funding for the startups they nurture, a number of new regional venture capital funds geared to the tech sector that provide investment in exchange for equity, Internet firms that partner with startups and online platforms for startups to raise money from small individual investors. Accelerator Oasis500 provides seed funding of around US$15,000 to qualified startups and up to US$70,000 for others that demonstrate serious market potential. Jordanian startups accelerated abroad have also received seed funding; 500 Startups in California invested US$100,000 in three Jordanian companies it accelerated in exchange for five percent equity.

39. A number of venture capital funds have sprung up in the MENA region over the last few years to offer financing to Jordanian startups in exchange for equity. They generally provide early stage financing. Badia Impact Fund, established in 2012, has an office in Amman and has provided early funding to a number of startups. A number of business angels have also invested in Jordanian startups.

36. http://plugandplaytechcenter.com/2014/05/14/innovative-jordan/
stage funding to eight Jordanian startups.\textsuperscript{37} Dash Ventures also has an Amman office and has invested in several Jordanian startups, typically as part of a consortium. Dubai-based Mena Venture Investments (MVI) was established in 2010 to provide angel funding for startups throughout the region; it has over 70 investments including 13 Jordanian startups.\textsuperscript{38} A few other regional funds have invested in some Jordanian startups. Though investment by regional funds is often at the early stage, they have joined with other investors to provide larger amounts. For example, Badia has been part of consortiums that invested US$2 million each in Jordanian startups ArabiaWeather\textsuperscript{39} and Wysada.\textsuperscript{40}

40. **Venture funds from outside the region have invested in a few Jordanian startups particularly for meeting the higher funding requirements of later stages.** These funds generally invest higher amounts than the regional venture capital funds. The venture capital arm of US semiconductor giant Intel has invested several million dollars in two Jordanian startups.\textsuperscript{41} The biggest tech startup venture capital deal in Jordan was funding for MarkaVIP, a luxury goods e-commerce site. In 2011, San Francisco-based Lumia Capital raised US$5 million in a first round of funding while a Dutch venture capital firm Prime Ventures led a second round raising US$10 million in 2012.\textsuperscript{42}

41. **Crowd funding has emerged as an alternative source of investment for some Jordanian startups particularly through the Eureeca platform.**\textsuperscript{43} Five Jordanian Internet-based startups have raised money on Eureeca with a total amount of US$730,000. All exceeded the amount requested with equity offered ranging from 4.5 percent to 18 percent valuing the companies at between US$1 - US$4 million.

42. **Established Internet and media companies are another source of funding and potential buyout acting as a holding company for the startups in their portfolio.** Most of these companies are headquartered in Dubai. MENA Apps, established in 2011 with a focus on media, has an Amman office; it has eight companies in its portfolio most of which are Jordanian startups.\textsuperscript{44} Jabbar Internet Group, spun off from Maktoob, has invested in over a dozen companies in the region and provided seed funding for Jordanian startups.\textsuperscript{45} Media giant MBC established a venture capital arm in 2012 and has three Jordanian startups in its portfolio.\textsuperscript{46} twofour54, an Abu Dhabi based media group has invested in Jordanian content startups who have since moved there.\textsuperscript{47}

43. **Most of the investors funding startups in Jordan do not reveal the amount individual startups receive.** Based on secondary sources, it is estimated that Jordanian tech startups received between US$40-50 million in funding between 2010 and mid-2015. It should be noted that around half was allocated to just two companies with the remainder split between about 40 others. Average investment therefore was below US$ one million suggesting that most Jordanian startups are struggling to receive later stage funding.

44. **There have been recent developments to replenish venture capital funds operating in the region.** US Internet equipment giant Cisco revealed in March 2014 it was allocating US$6 million to Badia Impact Fund.\textsuperscript{48} In May 2015, the International

\textsuperscript{37} http://www.siliconbadia.com

\textsuperscript{38} http://mvi.vc/company

\textsuperscript{39} https://www.pehub.com/2014/12/arabiaweather-scores-2-mln/

\textsuperscript{40} http://www.reuters.com/article/2014/10/27/idUSnMKWRghNta+1e4+MKW20141027

\textsuperscript{41} http://www.intel.com/pressroom/capital/pdfs/Intel_Capital-ThreeInvestments_WorldEconomicForum.pdf

\textsuperscript{42} http://techcrunch.com/2012/04/25/markavip-secures-10-million-as-the-middle-east-takes-off/

\textsuperscript{43} http://www.crowdfundinsider.com/2015/04/65543-weziwezi-claims-most-funded-campaign-on-eureeca-crowdfunding-platform/

\textsuperscript{44} http://menaapps.com/contact-us/

\textsuperscript{45} http://www.jabbar.com

\textsuperscript{46} http://www.mbc.net/en/corporate/ventures/portfolio

\textsuperscript{47} http://www.twofour54.com/en/what-we-do/investments

Finance Corporation (IFC) announced a US$10 million investment in Wamda Capital’s drive to raise US$75 million in venture capital funds for startups in Egypt, Lebanon and Jordan.49

Business Environment

45. Tech startups are impacted by different aspects of the environment for carrying out business in a country. Registering and operating an enterprise needs assistance from lawyers and accountants; marketing may need the help of advertising agencies. The ease by which businesses can be registered dictates whether startups become a formal part of the economy or stay on the fringes as informal entities. Laws relating to foreign ownership, protection of minority interests, banking and bankruptcy affect the unique tech ecosystem investment climate characterized by tranches of private capital lending, lack of physical assets to pledge as collateral and frequent startup failure. The Internet environment is also relevant for tech startups where business models are dependent on good quality and inexpensive access.

46. Jordan’s flexible and open-minded business practices and cultural norms is an advantage compared to neighboring countries. There are no foreign ownership restrictions, it boasts trade agreements with the United States, Canada, Singapore, Greater Arab Free Trade Area (GAFTA) and the European Union and is a member of the World Trade Organization. It also fosters an increasing number of entrepreneurs from Iraq, Syria and other Arab nations with political instability and where the startup ecosystem is less evolved (Levitz 2014).

47. Despite these advantages, Jordan is ranked 113th (2016 Doing Business report) in the world for Doing Business and 10th in the MENA region (Figure 24). There are a number of obstacles to overcome to improve the business environment for digital businesses. Registering a business requires 7 procedures and 12 days. Employment taxes are high discouraging hiring of new staff. Particularly onerous are taxes on the mobile communications sector, 16 percent on devices and a 24 percent tax on mobile calls, in addition to VAT.50 This inhibits take-up of smartphones and usage, impacting startups developing services targeted at mobile phones. The main business obstacle reported by almost a third of Jordanian firms is access to finance (Figure 25).

48. While the quality of Jordanian broadband networks is good compared to the region, pricing is high. Average wired broadband download speed in Jordan in July 2015 was 8 Mbps ranking it 119th out of 198 countries (Figure 26). Wireless


broadband speed should be enhanced due to the recent introduction of fourth generation (4G) mobile networks in the country.\textsuperscript{51} Affordability needs to be improved: a monthly 1 Mbps wired broadband connection cost US$28 in 2015, high compared to the region (Figure 27).\textsuperscript{52}

Networking

49. Ample opportunities for networking are essential for a successful tech ecosystem. Startups need to interact with others to exchange ideas, learn and obtain funding. Connectors such as accelerators, universities, serial entrepreneurs, investors and the government can play a key role in this process as focal points for bringing together different stakeholders in the ecosystem.

50. Formal and informal relations between successful entrepreneurs and younger startups are prevalent in the Jordanian tech ecosystem. These relationships include successful founders launching new startups, mentoring and investing in others and providing staff that then goes on to launch their own startup. Maktoob has been highly influential with links to 19 Jordanian startups (Figure 28).

51. Many of the institutions involved in Amman’s startup ecosystem organize events to exchange information, present leading entrepreneurs and provide opportunities for startups to pitch to investors. The Tank, the innovation center launched by Umniah organizes seminars. In July 2014, PlugandPlay Jordan organized a “Tech Accelerator Program” to link startup entrepreneurs with potential investors. In addition to networking events, Oasis500 organizes one to two workshops per month on various topics such as online media and publishing, creative industries and business and entrepreneurship. Organizations such as Endeavour and WAMDA are also active producing

\begin{itemize}
\item Jabbar Internet Group
\item Souq
\item Tahadi
\item Sukar
\item Cashu
\item Araby.com
\item Noqoush
\item Marka VIP
\item GamesXP
\item FoodLve
\item Aqar Estate
\item gate2play
\item Zaytouneh
\item Khodarji
\item Arabia Weather
\item Nibras
\\end{itemize}


\section*{FIGURE 26. Broadband speed.}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig26.png}
\caption{Average download speed, July 2015}
\end{figure}

\textit{Note: In the left chart 198 countries included in fixed broadband and 110 countries in mobile broadband. In the right chart, fixed refers to cheapest price for 1 Mbps download speed and mobile refers to at least 1GB of data usage per month. Source: Adapted from Ookla}

\section*{FIGURE 27. Broadband prices.}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig27.png}
\caption{Broadband pricing per month, 2015, US$}
\end{figure}

\textit{Source: Adapted from OGERO, ETISALAT, Pars Online, Telecom Egypt and Orange Jordan}

\section*{FIGURE 28. Links between Maktoob and other Jordanian startups.}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig28.png}
\caption{Source: Endeavor Jordan
reports on the tech ecosystem in Jordan.

Results

52. National statistical systems are not sufficiently refined to generate official data on tech startups. This would require business demography data on the number of new enterprises each year broken. Even if this data were available, it would be difficult to identify tech startups since they can be classified across different industries. Therefore, the development and impact of tech startups is difficult to precisely determine and instead information compiled from a number of primary and secondary sources is used.

53. The milestone event in Jordan’s tech startup history began when two young entrepreneurs, founded Maktoob in 2000, the first Arabic-language web-based email service. A decade later, Yahoo acquired the company for US$164 million, making it the leading example of a successful Jordanian exit. Following the sale of Maktoob, the founders went on to launch Jabbar Internet Group, which has invested in 15 digital companies since its inception. The example of Maktoob has inspired a number of entrepreneurs in Jordan and the startup scene is more mature than others in the region.

54. There is no precise figure for the number of startups in the country. Estimates vary from over 300 (Rahal 2014) to less than 100. Oasis500 has accelerated 97 startups. The number of startups receiving funding (excluding seed investment from Oasis500) between 2008 and mid-2015 was 29 of which Oasis500 accelerated a dozen. Direct job creation is estimated to be over 500.

55. There have not been any successful exits since Maktoob. One reason is a shortage of funding. While there appears to be adequate seed investment, larger amounts are scarcer with less than a dozen startups receiving more than US$1 million. Another challenge is that exit possibilities are constrained. Public offerings are rare and established IT firms seem unwilling to acquire tech startups.

56. Some Jordanian startups have attracted millions of dollars in funding and established a regional presence reflecting the necessity to expand to the wider Arab market to achieve high growth (Table 3). Other notable startups include Madfoo3atCom, founded in 2011 and accelerated at Oasis500 which won a tender from the Central Bank of Jordan to create a nationwide electronic payment platform. Akhtaboot, founded by two entrepreneurs in 2007, employs over 50 people for its online recruitment site linking job seekers to employers in Jordan and across MENA. I3zif, an online music school founded in 2012 offers its video tutorials to Jordanian public schools.

III. Tech Startup Ecosystem SWOT Analysis

55 https://angel.co/jordan
57 http://www.endeavor.org/entrepreneur/mohamad-haj-hasan/
58 http://www.wamda.com/2014/02/online-arabic-music-school-i3zif-kicks-off-the-year-with-3-ambitious-new-goals

53 Although companies state they are in the technology industry, they are statistically classified in industries that do not fall under the InfoComm sector. For example, coupon sites link shoppers to merchants through the web but are classified as advertising agencies, harking back to the age when product promotions came in newspaper inserts. Streaming video services are classified as videotape and disk rental services, the industry where movie and TV show rentals first started out in. Ride sharing services connecting riders to drivers are classified as taxi services, interesting considering that many taxi companies have protested against these types of services. E-commerce is another problem area where a purely online shop would be statistically included in the retail trade industry and not the InfoComm sector. There is an ISIC sub-division covering business to consumer e-commerce but data is not often available at this level of disaggregation. These examples illustrate the limitations of industry classifications.
57. Jordan has been witnessing the emergence of a vibrant tech startup ecosystem. While the initial ICT strategy was using outsourcing as a platform to tap into the global information economy, the government has increasingly recognized the value of its own latent potential to trigger innovation through entrepreneurship. The Arabic web portal Maktoob was launched in Jordan and acquired in the largest tech deal in the region and reportedly, 75 percent of Arabic web content is produced in Jordan.  

58. This tech experience coupled with high levels of education compared to other countries in the region along with strong government support are strengths underpinning its evolving tech startup ecosystem. The government’s REACH program was instrumental in nurturing the country’s ICT sector through initiatives in the field of training, infrastructure and sector liberalization and King Abdullah has been encouraging startup entrepreneurship, visiting Silicon Valley to drum up support. Talent-wise Jordan leads the region in the share of its university-educated workforce. Jordan has over a dozen years of experience with startups with Maktoob the prime example.

59. Jordan’s small domestic market is a weakness in terms of demand for innovative services and building scale for startups. This is compensated to some extent by having startups target the Arab market and has influenced the country’s aspirations to become a regional hub, reflected by its outsourcing sector. But the downside is that once Jordanian tech firms become successful they tend to leave. Maktoob has moved to Dubai along with its original founders who now operate their new company from there. Another challenge is that though the ecosystem is growing, one of the key elements, a variety of spaces for startups and related services such as incubation and acceleration, is lacking. There is only one dedicated accelerator in the country, a couple of incubators and limited co-working spaces for independent, small entrepreneurs. This is exacerbated to some extent by programs where startups are incubated overseas where they often want to stay. The goal of Oasis500 to nurture 500 startups will take years given that it only has capacity for around a dozen per cycle. Funding is almost universally cited as a constraint in all developing country startup ecosystems. Though Jordan ranks first for the share of startups that had received follow-on funding in MENA (Wamda), there is a mismatch between early stage and later stage funding for startups.

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**TABLE 3. Notable startups in Jordan.**

<table>
<thead>
<tr>
<th>Startup</th>
<th>Description</th>
<th>Founded</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather site</td>
<td>20 million unique users and 7th most popular site in Jordan while over half its visitors are from Saudi Arabia. Has raised over US$2 million in venture capital.</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>Online private sales</td>
<td>Over 5 million visits a month. 500+ employees across the region. Raised US$15 million in venture capital.</td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>Luxury home goods e-commerce site</td>
<td>Employs 75 people with fulfillment centers in London, Hong Kong, Istanbul, Jordan, UAE and KSA. It received over US$5 million in venture capital funding, one of the largest amounts raised by an e-commerce start-up in the Middle East.</td>
<td>2012</td>
<td></td>
</tr>
</tbody>
</table>

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60. The regional Internet market is an opportunity that Jordan has long experience with. The Arab speaking community in the Middle East has some 150 million Internet users and penetration is forecast to reach half the region’s population by 2017.\(^{61}\) Online shopping is rising and smartphone penetration increasing. Jordan has been tapping into this for years; 90 percent of the country’s startups reportedly target overseas markets.\(^{62}\) Though Jordan will face growing competition from startups in other countries targeting the Arab online community it has a first mover advantage and needs to ensure it leverages that into the future.

61. Jordan’s tech startup ecosystem faces several threats including regional instability, talent drain and competition from other tech hubs in the region. Strife in neighboring countries and its impact on Jordan, whether real or perceived, remains an ongoing challenge threatening investment and the attraction of talent to the startup ecosystem. Entrepreneurs and successful startups moving abroad affect the evolution of the ecosystem. Take Foodlve, a startup offering recipes online. Founded by Nadia Shomali, accelerated at Oasis500, Foodlve received additional seed funding and then sold 10 percent of equity to crowd funders. It is now headquartered in Silicon Valley. If role model entrepreneurs leave, Jordan risks creating the image as a place to launch a digital business but not for it to scale, detrimental to the aspiration of becoming a regional tech hub. The loss of post-accelerated startups also limits the economic and employment impacts of the tech ecosystem. According to a survey of regional startups that have received funding, the top two destinations in the region they were interested in were Saudi Arabia (9 percent) and UAE (42 percent) compared to only 9 percent for Jordan (Wamda).

IV. Policy Reform Options

62. Fostering the development of a tech startup ecosystem requires an integrated approach. Ecosystems are communities with a variety of stakeholders (e.g., academia, private sector, public sector, financing entities, entrepreneurs, etc.) interacting with each other. A policy program to support the development of the ecosystem requires an integrating approach that addresses the weaknesses identified in the ecosystem (see SWOT analysis above) and works with the ecosystem stakeholders. This requires coordination of stakeholders and catalyzing actions from the government to address these challenges. An example of an integrated policy approach is the Lebanon Mobile Internet Ecosystem Program supported by the World Bank (Box 5).

63. Jordan’s ecosystem requires policies to support its growth and sustainability. To support this, a program for ecosystem sustainability is recommended including the following actions:

- Co-creation of an Innovation Hub with ecosystem stakeholders that serves as a forum to design and implement policies to support the tech startup ecosystem and


**BOX 5. Tech Startup Supporting Policy Program in Lebanon - MIEP**

The Mobile Internet Ecosystem Program was designed as a World Bank lending project to support the development of the tech startup ecosystem in Lebanon with focus on mobile internet.

The objective of the program is to: i) increase local entrepreneurship and innovation, ii) enhance employability for the youth, and iii) retain talent in Lebanon. The program will be implemented by the Mobile Innovation Hub (MiHub), an NGO owned by the ecosystem stakeholders (eg, academia, private sector, financing, civil society) and where the government is present.

The program has three lines of action to support the ecosystem:
1. Creation of the community of entrepreneurs by developing community building events (eg., meet-ups, workshops, trainings, and competitions with acceleration)
2. Strengthening of the tech skills pipeline, working with universities through apprentices programs, middle and high schools to introduce tech skills and rapid tech skills training programs (eg. coding bootcamps)
3. Introducing innovation in local industries by connecting entrepreneurs with established industries through open innovation processes and experimentation labs for new technology testing and prototyping in real industry environments.

These lines of action are dynamic and will be modified or additional actions will be added by the MiHub as required by the ecosystem needs.

engage stakeholders. Innovation hubs serve as intermediaries of the ecosystem and allow the government to identify gaps in the ecosystem, coordinate actions of the ecosystem actors (avoiding redundancies) and foster collaboration and public-private participation models to support the community of entrepreneurs (Box 6). With the Innovation Hub model, institutional arrangements, business plan and program of activities are designed and owned by the ecosystem stakeholders, with the government acting as catalyzer and supporter of their actions.

- **Creation of a tech skills pipeline that prepares talent for entrepreneurship and technology needs and feeds ecosystem growth.** The skills pipeline must be addressed at different levels. At the university level, it is needed to address the gap of practical education. An example is apprentice programs between universities and industry where students develop real projects before graduation. At the middle and high school level, students can develop coding and hardware skills by introducing open source programing and open hardware training within the existing curriculum. Finally, rapid training programs, such as coding boot camps, train non-technical university students, who may be unemployed, with tech skills providing rapid access to the market.

- **Creation of a space and finance pipeline so startups can scale up and grow in Jordan.** Although there are collaboration spaces, Jordan needs more organic spaces that are community driven. Events, meet ups and ad hoc training support the development of these communities. Step out spaces may also be needed to allow for startup growth. Seed investment pipelines outside of government funding are needed to support scaling up. Both space and finance pipelines can be catalyzed through PPPs initiated by the government with seed funding.

- **Promoting and legitimizing the ecosystem by providing active marketing support to entrepreneurs and developing a Jordan Tech Ecosystem brand.** This is needed to bring legitimacy to entrepreneurs, change the mentality of youth (to see startups as something desirable) and build the image of Jordan as a tech hub, attracting international networks of entrepreneurs and investors to the ecosystem. Improving the business climate and the ease of doing business would also support this effort.

64. **To maximize the impact of Jordan’s tech ecosystem on the economy, additional policies are needed to connect local industry and entrepreneurs and generate social innovation.** Specific policy actions can help connect local industry to entrepreneurs and develop innovations that increase the competitiveness of these industries. This
includes implementing open innovation processes with existing industry, labs to experiment with new technology approaches to industry processes (e.g., digital manufacturing), and customized accelerator programs directed at specific industries (e.g., a “fintech” accelerator for the finance industry). Similarly, government can leverage the tech startup ecosystem by introducing open innovation for service delivery and competitions for startups to address public challenges. Municipal governments can act as catalysts of a government open innovation policy by presenting urban challenges and providing testing facilities and spaces for entrepreneurs. By leveraging open innovation through municipal governments, Jordan can expand the entrepreneurship ecosystem beyond Amman, where it is mostly concentrated (Box 6).

**BOX 6. Local Innovation Hub**

Although there is no common definition of an innovation hub, this concept can be applied to define the evolution of collaboration spaces into community managers that coordinate or integrate many of the other functions of collaboration spaces such as coworking spaces, maker spaces, fablabs, accelerators, living labs, and urban labs (see source below for description of these spaces). Innovation hubs’ main function is to coordinate all actors of the ecosystem and help manage the community of tech-innovators and entrepreneurs to grow sustainably. Many of these innovation hubs enjoy the participation of the most relevant actors of the technology innovation ecosystem, including entrepreneurs, universities, private sector, collaboration spaces, accelerators, incubators, other providers of seed capital, community managers, and government — particularly city government. Some of these innovation hubs have collaboration spaces in their facilities, such as co-working and maker spaces, while others coordinate their functions with those spaces. Typically, these hubs will phase out their other functions when there are enough offerings for the community provided by third parties. Examples vary from Ruta N, Medellin (which is part of the city government), to NUMA in Paris (which is a grass-root hub built with the community of local entrepreneurs), with Forum Virium, Helsinki, as a middle point (a PPP model owned 50 percent by the city and 50 percent by the ecosystem’s stakeholders). Citilab, Hospitalet de Llobregat, Waag Society, Amsterdam, and Urban Lab, Barcelona, are other examples of innovation hubs. The World Bank designed and implemented the innovation hub model in the Lebanon: Mobile Internet Ecosystem Project (see Box above).
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### Table 5. Jordan: Selected Economic Indicators, 2012-17.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP</td>
<td>2.7</td>
<td>2.3</td>
<td>2.5</td>
<td>3.7</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Real GDP per Capita</td>
<td>0.4</td>
<td>0.6</td>
<td>0.8</td>
<td>1.4</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Agriculture (share of GDP)</td>
<td>3.3</td>
<td>3.1</td>
<td>3.3</td>
<td>3.3</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Industry (share of GDP)</td>
<td>25.1</td>
<td>25.0</td>
<td>25.2</td>
<td>25.6</td>
<td>25.6</td>
<td>25.8</td>
</tr>
<tr>
<td>Services (share of GDP)</td>
<td>71.5</td>
<td>71.9</td>
<td>71.5</td>
<td>71.1</td>
<td>71.1</td>
<td>70.6</td>
</tr>
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<td><strong>Money and prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI Inflation (p.a.)</td>
<td>6.3</td>
<td>6.9</td>
<td>2.9</td>
<td>-0.1</td>
<td>2.9</td>
<td>2.7</td>
</tr>
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<td>Money (M)</td>
<td>7.4</td>
<td>8.7</td>
<td>6.5</td>
<td>6.8</td>
<td>7.3</td>
<td>6.2</td>
</tr>
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<td><strong>Investment &amp; saving</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Investment</td>
<td>26.9</td>
<td>28.1</td>
<td>28.0</td>
<td>27.4</td>
<td>28.0</td>
<td>28.7</td>
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<tr>
<td>Gross National Savings</td>
<td>11.7</td>
<td>17.8</td>
<td>21.2</td>
<td>20.3</td>
<td>21.2</td>
<td>22.2</td>
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<td><strong>Government finance</strong></td>
<td></td>
<td></td>
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<tr>
<td>Total revenues and grants</td>
<td>23.0</td>
<td>21.3</td>
<td>21.5</td>
<td>23.7</td>
<td>23.9</td>
<td>24.9</td>
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<tr>
<td>Domestic Revenue (excluding grants and privatisation)</td>
<td>21.5</td>
<td>21.3</td>
<td>22.7</td>
<td>23.9</td>
<td>24.9</td>
<td>24.9</td>
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<tr>
<td>o/w tax revenue</td>
<td>15.3</td>
<td>15.3</td>
<td>15.9</td>
<td>16.1</td>
<td>16.3</td>
<td>16.5</td>
</tr>
<tr>
<td>Foreign Grants</td>
<td>1.5</td>
<td>2.7</td>
<td>4.9</td>
<td>2.8</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Total expenditure and net lending</td>
<td>32.0</td>
<td>35.6</td>
<td>37.7</td>
<td>31.0</td>
<td>30.9</td>
<td>31.1</td>
</tr>
<tr>
<td>Current*</td>
<td>25.9</td>
<td>31.3</td>
<td>33.2</td>
<td>27.3</td>
<td>26.3</td>
<td>26.2</td>
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<tr>
<td>o/w wages and salaries</td>
<td>5.0</td>
<td>5.0</td>
<td>4.5</td>
<td>4.9</td>
<td>4.9</td>
<td>4.9</td>
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<tr>
<td>o/w interest payment</td>
<td>2.7</td>
<td>3.1</td>
<td>3.6</td>
<td>4.3</td>
<td>3.3</td>
<td>3.6</td>
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<tr>
<td>o/w Transfer to utilities (NEFCO and WAJ)</td>
<td>0.3</td>
<td>0.9</td>
<td>7.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Capital &amp; Net Lending</td>
<td>3.1</td>
<td>3.3</td>
<td>4.5</td>
<td>3.9</td>
<td>6.6</td>
<td>6.9</td>
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<tr>
<td>Overall balance (deficit (-), excl. grants)**</td>
<td>-10.3</td>
<td>-14.1</td>
<td>-14.0</td>
<td>-5.8</td>
<td>-6.3</td>
<td>-5.3</td>
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<tr>
<td>Overall balance (deficit (-), incl. grants)</td>
<td>-9.0</td>
<td>-11.4</td>
<td>-9.1</td>
<td>-4.1</td>
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<td>-2.0</td>
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<td>Primary Balance (deficit (-), excl. grants)</td>
<td>-1.8</td>
<td>-11.0</td>
<td>-10.3</td>
<td>-2.6</td>
<td>-2.9</td>
<td>-1.9</td>
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<tr>
<td>Primary Balance (deficit (-), incl. grants)</td>
<td>-6.2</td>
<td>-12.2</td>
<td>-12.2</td>
<td>-0.5</td>
<td>0.6</td>
<td>1.6</td>
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<td><strong>External sector</strong></td>
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<tr>
<td>Current Account</td>
<td>-1.2</td>
<td>-1.0</td>
<td>-0.3</td>
<td>-0.6</td>
<td>-1.9</td>
<td>-1.6</td>
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<tr>
<td>Net Exports</td>
<td>-25.0</td>
<td>-24.5</td>
<td>-25.9</td>
<td>-20.6</td>
<td>-19.7</td>
<td>-18.3</td>
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<tr>
<td>Export FOB</td>
<td>18.2</td>
<td>18.5</td>
<td>18.3</td>
<td>17.7</td>
<td>16.1</td>
<td>14.9</td>
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<tr>
<td>Import FOB</td>
<td>7.3</td>
<td>7.3</td>
<td>7.3</td>
<td>6.8</td>
<td>6.8</td>
<td>6.8</td>
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<tr>
<td>Net Income and transfers</td>
<td>12.8</td>
<td>19.2</td>
<td>19.1</td>
<td>13.5</td>
<td>12.9</td>
<td>12.1</td>
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<td>Net Private Investments (FDI and Portfolio)</td>
<td>6.3</td>
<td>10.5</td>
<td>7.9</td>
<td>7.0</td>
<td>7.1</td>
<td>8.1</td>
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<tr>
<td>Gross Reserves (Months of Imports GNFS***)</td>
<td>5.4</td>
<td>5.5</td>
<td>5.6</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
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<tr>
<td><strong>Total Debt</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total Debt Stock</td>
<td>23,554</td>
<td>23,152</td>
<td>31,985</td>
<td>36,161</td>
<td>34,636</td>
<td>35,468</td>
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<tr>
<td>Debt to GDP Ratio (%)</td>
<td>80.2</td>
<td>86.7</td>
<td>89.0</td>
<td>85.4</td>
<td>85.8</td>
<td>81.6</td>
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<td><strong>Memorandum Items</strong></td>
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<td>Nominal GDP (Billion JD)</td>
<td>22.0</td>
<td>23.5</td>
<td>25.8</td>
<td>27.1</td>
<td>28.7</td>
<td>30.7</td>
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<tr>
<td>GDP (in million US$)</td>
<td>31,012</td>
<td>33,678</td>
<td>35,917</td>
<td>36,504</td>
<td>40,585</td>
<td>43,518</td>
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* Includes adjustment to other receivables for 2012 (0.4% of GDP) and transfers to NEFCO and WAJ. As of 2013, NEFCO and WAJ will revert to government-guaranteed borrowing from commercial banks.
** Includes fiscal gap of 2018 (0.8% of GDP) and 2017 (1.6% of GDP)
*** GNFS: Goods and Non-Factor Services.
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.
JORDAN ECONOMIC MONITOR | A HICCUP AMIDST SUSTAINED RESILIENCE AND COMMITTED REFORMS

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