

# LEBANON ECONOMIC MONITOR

A GEO-ECONOMY OF RISKS AND REWARD

Spring 2016



**Global Practice for Macroeconomics & Fiscal Management, GMFDR  
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# PREFACE

The *Lebanon 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 Lebanon. It places them in a longer-term and global context, and assesses the implications of these developments and other changes in policy on the outlook for Lebanon. 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 Lebanon.

The *Lebanon Economic Monitor* is a product of the World Bank's Lebanon Macro-Fiscal Management (MFM) team. It was prepared by Wissam Harake (Country Economist), Samer Matta (Economic Analyst) and Zeina Hasna (Economic Analyst), under the general guidance of Eric Le Borgne (Lead Economist) and Auguste Kouame (Global Practice Manager). Thomas Farole (Lead Economist at GPSJB) and Wissam Harake (Economist at GMF-MENA) authored the Special Focus on industrial zones, while Victor Mulas (Senior Operation Officer, Innovation Labs), and Michael Minges (Senior ICT Consultant) with Elene Allende (ICT Consultant) authored the Special Focus on tech startups. May Ibrahim (Senior Executive Assistant) provided Arabic translation, Nada Abou-Rizk (Program Assistant) provided French translation and Zeina El Khalil (Communications Officer) print-produced the report.

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## LIST OF KEY ABBREVIATIONS USED

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

## EXECUTIVE SUMMARY

**I. The geo-economy presents Lebanon with challenges associated with being a nexus for regional fault lines and risks from its dependence on capital inflows.** Despite markedly improved security conditions since the start of 2015, anxiety over regional turmoil and potential spillover effects persist. All the while, Lebanon continues to be, by far, the largest host of Syrian refugees (in proportion to the population). In addition, the economy's dependence on its diaspora to finance internal and external imbalances exposes Lebanon to economic and political conditions beyond its influence. Despite these challenges and risks, the political process remains impaired with the vacant presidency completing its second year with uncertain prospects of a near-term resolution. On the other hand, a short-term solution has been found to the garbage crisis that has left piles of trash uncollected on the streets across the country since summer 2015.

**II. In 2015, improved security conditions have been more than offset by a deteriorating political environment, leading to a further slowdown in an already sluggish economy.** Bank staff revised downward the 2015 real GDP growth to 1.5 percent from two percent forecast in fall 2015. A resurgent tourism sector and sustained private lending continued providing a much needed push to the economy. The real estate sector, on the other hand, acted as a drag, with registration fees and cement deliveries contracting in 2015 by 9.4 percent and 8.6 percent, respectively.

**III. The decline in oil prices has so far had net positive effects on the Lebanese economy, freeing up resources to improve both internal and external balances.** Fiscally, lower oil prices helped lead a decline in transfers to Electricité du Liban (EdL) in 2015. This, however, was more than offset by lower revenues due primarily to lack

of the one-off measures that boosted revenues in 2014 (e.g., collection of telecom arrears). As a result, the overall fiscal deficit is estimated to have widened by 0.7 percentage points (pp) of GDP in 2015, while the primary surplus, which excludes interest payments, is estimated to have shrunk by 1.2 pp of GDP. On the external accounts, a broad contraction in imports, driven by lower oil prices and a cheaper euro, is estimated to have induced a 3.5 pp of GDP narrowing of the current account deficit. This, however, was more than offset by lower capital inflows adversely affecting the net foreign assets' position of the country. As a result, foreign exchange reserves at Banque du Liban (BdL) declined by 5.4 percent to US\$ 30.6 billion by end-2015. Less supportively, falling oil prices, along with the depreciation of the euro, induced price deflation in 2015, which at 3.7 percent held down nominal GDP growth, driving the debt-to-GDP ratio higher by 3.1 pp in 2015 to reach 148.7 percent.

**IV. The growth outlook remains subdued as the Syrian conflict, the domestic political impasse, and some of the negative effects of falling oil prices provide significant headwind.** In contrast to the former drags on growth that have been present for the past couple of years, the negative impact of low oil prices are a new development for 2016. As fiscal buffers in the GCC countries erode and spending cuts ensue, remittances to Lebanon and services exports to the GCC (e.g., consulting services) are expected to decelerate. This will impart further strain on the balance of payments that is already under pressure due to lower inflows. Consumption, which is partially driven by remittances, will also be negatively impacted, offsetting the initial increase in real purchasing power that resulted from lower oil prices. Overall, we project that growth will inch up only marginally to 1.8 percent this year, helped by a continued resurgence in tourism. Over the medium

term, we expect real GDP growth to be around 2.5 percent. The return to potential output growth critically hinges on a resolution of the conflict in Syria as well as a marked improvement in the political situation in Lebanon.

**V. Spatial industrial policies, most notably the development of industrial parks and special economic zones, offer Lebanon a viable tool to support increased investment and competitiveness in the industrial sector** (Special Focus #1). Under suitable conditions, industrial zones have proven successful in various locations and industries across the world. Benefits can include, the concentration and specialization of infrastructure, regulatory facilitation and specialized customs, trade and financial regimes.

**VI. The geo-economy also presents an opportunity in the form of tech startup ecosystems, where communities of entrepreneurs interact, becoming a viable source for high-skill job creation in Lebanon** (Special Focus #2). Information and Communications Technology (ICT) has dramatically reduced the cost of innovation and market access, allowing small tech entrepreneurs to compete with established businesses. Lebanon's tech scene is becoming increasingly attractive driven by the example of successful startups that have tapped regional and global markets. Additionally, innovative initiatives by the country's central bank in facilitating venture capital financing have been notable.

والاتصالات بشكل ملحوظ في تقليص كلفة الابداع والنفوذ إلى السوق، ممّا سمح لأصحاب المبادرات الصغار في مجال التكنولوجيا بمنافسة المؤسسات القائمة. وفي هذا السياق، تزداد جاذبيّة قطاع التكنولوجيا في لبنان نظراً إلى المثل الذي تضربه المؤسسات الناشئة الناجحة التي استفادت من الأسواق الاقليمية والعالمية. إلى ذلك، تجدر الإشارة إلى المبادرات الإبداعية من قبل المصرف المركزي من أجل تسهيل تمويل رأسمال استثماري.

## الملخص التنفيذي

في البلد. ونتيجةً لذلك، انخفض معدل احتياطي النقد الأجنبي في مصرف لبنان المركزي بنسبة ٤,٥ بالمئة، ليبلغ ٣٠,٦ مليار دولار أميركي في نهاية العام ٢٠١٥. كما أدى هبوط أسعار النفط وانخفاض قيمة اليورو إلى انكماش في الأسعار بمعدل ٧,٣ بالمئة في العام ٢٠١٥، مما أبطأ نمو الناتج المحلي الإجمالي ورفع معدل الدين إلى الناتج المحلي الإجمالي بنسبة ١,٣ نقطة مئوية في عام ٢٠١٥ ليبلغ ١٤٨,٧ بالمئة.

**iv.** تبقى آفاق النمو محدودةً نظرًا إلى النزاع السوري، واستمرار المحنة السياسية المحلية، وظهور بعض الآثار السلبية لتدهور أسعار النفط، ما يعصف في اتجاه معاكس للنمو. في مقابل الأعباء السابقة التي تثقل كاهل النمو والتي كانت قائمة منذ بضعة أعوام، يُعتبر الوجود السلبي لتراجع أسعار النفط تطورًا جديدًا للعام ٢٠١٦. مع تآكل المصدات المالية في دول مجلس التعاون الخليجي والتخفيضات في الموازنة الناجمة عنه، يُتوقع أن تتراجع الحوالات المالية إلى لبنان وصادرات الخدمات إلى مجلس التعاون الخليجي (مثلًا، خدمات استشارية)، مما يفرض مزيدًا من الضغوط على ميزان المدفوعات الذي هو أصلًا عرضة للضغوط بسبب انخفاض تدفق الإيرادات. كما سيتأثر الاستهلاك القائم بشكل جزئي على الحوالات المالية سلبيًا، في مواجهة الزيادة الأولية في القدرة الشرائية الفعلية الناجمة عن تراجع أسعار النفط. وبشكل عام، نتوقع ألا يزداد النمو سوى بشكل هامشي ليكون بنسبة ٨,١ في المئة في هذا العام، بدعم من قطاع السياحة الذي يشهد انتعاشًا متواصلًا. على الأمد المتوسط، يتوقع أن يبلغ نمو إجمالي الناتج المحلي الفعلي حوالي ٥,٢ في المئة. ويعتمد العائد على نمو الإنتاج المحتمل بشكل كبير على تسوية النزاع في سوريا والتحسين الملحوظ في الوضع السياسي في لبنان.

**v.** تزود السياسات الصناعية، وبشكل خاص تطوير المناطق الصناعية والاقتصادية الخاصة، لبنان بأداة قابلة للاستمرار من أجل دعم الاستثمار والتنافسية في القطاع الصناعي (تقرير خاص # ١). على ضوء ظروف مؤاتية، أثبتت المناطق الصناعية نجاحها في عدة مواقع وصناعات عبر العالم. وتشمل الامتيازات تركّز البنى التحتية وتخصّصها، والتسهيلات النظامية، والجمارك المتخصصة، والنظم التجارية والمالية.

**vi.** كما يُشكّل الاقتصاد الجغرافي فرصة على شكل نظم بيئي لشركات تكنولوجيا ناشئة، حيث تتفاعل مجموعات أصحاب المبادرات، فتصبح مصدرًا لخلق فرص العمل العالية المهارة في لبنان (تقرير خاص # ٢). ساهمت تكنولوجيا المعلومات

**i.** ينطوي الاقتصاد الجغرافي في لبنان على تحديات عديدة نظرًا إلى موقعه الجغرافي في قلب الشروخ والمخاطر، بسبب اعتماده على التدفقات الرأسمالية الداخلة. بالرغم من تحسّن الظروف الأمنية منذ بداية العام ٢٠١٥، تبقى المشاغل إزاء الظروف الاقليمية وآثار انتشار الأزمة المحتملة قائمة. ولا يزال لبنان، إلى حد كبير، أكبر دولة مستضيفة للاجئين السوريين (نسبة إلى عدد سكّانه). إلى ذلك، يعتمد الاقتصاد اللبناني على المغتربين اللبنانيين لتمويل الاختلالات الداخلية والخارجية، مما يعرض البلد إلى ظروف اقتصادية وسياسية لا يمكنه السيطرة عليها. وفي ضوء هذه التحديات والمخاطر، تبقى العملية السياسية مشلولة، فالفرغ الرئاسي يطوي عامه الثاني من دون تبلور أي بريق أمل للتوصل إلى حل وشيك. من جهة أخرى، تمّ التوصل إلى حل قصير الأمد لأزمة النفائات التي أدت إلى تراكم القمامة في الشوارع في البلد برمتها منذ صيف ٢٠١٥.

**ii.** في العام ٢٠١٥، قابل تحسّن الظروف الأمنية تدهور البيئة السياسية، مما أدى إلى تباطؤ أكبر للاقتصاد الكسول. وقد أعاد البنك الدولي النظر في توقعات النمو الفعلي لإجمالي الناتج المحلي للعام ٢٠١٥ وفق توجهه تراجع، مقارنة بتوقعات خريف العام ٢٠١٥، ليكون النمو بنسبة ٥,١ في المئة. كما استمرّ انتعاش القطاع السياحي واستدامة القروض الخاصة في منح الاقتصاد الاندفاع اللازم. ومن جهة أخرى، شكّل قطاع العقارات عبئًا على الاقتصاد، مع تقلص رسوم التسجيل وعمليات تسليم الإسمنت بنسبة ٤,٩ و ٦,٨ في المئة على التوالي.

**iii.** حتى يومنا هذا، كان لتدهور أسعار النفط آثار إيجابية صافية على الاقتصاد اللبناني، مع تخصيص الموارد من أجل تحسين الموازين الداخلية والخارجية. على المستوى المالي، أدى هبوط أسعار النفط إلى انخفاض في التحويلات إلى شركة كهرباء لبنان في العام ٢٠١٥. لكن، قابل ذلك انخفاض في الإيرادات، يعود بشكل أساسي، إلى إجراءات استثنائية رفعت الإيرادات في العام ٢٠١٤ (مثلًا، جمع متأخرات الاتصالات السلكية واللاسلكية). ونتيجةً لذلك، يُقدّر ازدياد العجز المالي العام بنسبة ٧,٠ نقطة مئوية من إجمالي الناتج المحلي في العام ٢٠١٥، بينما يُقدّر تقلص الفائض الأولي الذي يستثني تسديدات الفوائد بنسبة ٢,١ نقطة مئوية من إجمالي الناتج المحلي. بالنسبة إلى الحسابات الخارجية، يُقدّر بأنّ التقلص الواسع في الواردات، الناجم عن انخفاض أسعار النفط وتراجع سعر صرف اليورو، قد ولد انكماشًا في عجز الحساب الجاري في العام ٢٠١٥ بنسبة ٥,٣ في المئة. ولكن بمقابل ذلك، أثر انخفاض تدفق رأس المال بشكل سلبي على صافي الأصول الأجنبية

# RÉSUMÉ

**I. La géo-économie confronte le Liban à des défis associés à son emplacement géographique, au cœur des lignes de faille, et aux risques liés à sa dépendance aux flux entrants de capitaux.** Malgré l'amélioration significative des conditions de sécurité depuis le début de l'année 2015, les préoccupations quant aux circonstances régionales et à l'impact d'un éventuel débordement, persistent alors que le Liban continue, et de loin, à être le pays hôte qui accueille le plus grand nombre de réfugiés syriens (relativement à sa population). En outre, la dépendance de l'économie libanaise sur sa diaspora pour financer les déséquilibres internes et externes expose le Liban à des conditions politiques et économiques hors de son contrôle. Malgré ces risques et ces défis, le processus politique demeure paralysé par la vacance présidentielle pour une deuxième année consécutive, sans solution imminente qui pointe à l'horizon. Par ailleurs, une solution à court terme a été trouvée pour la crise des déchets qui ont laissé des tas d'ordures non collectés dans les rues à travers tout le pays depuis l'été 2015.

**II. En 2015, une amélioration des conditions de sécurité a été plus que contrebalancée par un environnement politique en détérioration, ralentissant davantage une économie déjà atone.** Les employés de la Banque Mondiale ont revu à la baisse la croissance réelle du PIB en 2015 de 1.5 pour cent contre des prévisions de deux pour cent durant l'automne 2015. Un secteur touristique renaissant et des prêts privés soutenus continuent à apporter l'élan nécessaire à l'économie. Par ailleurs, le secteur foncier a constitué un boulet pour l'économie nationale, avec les frais d'enregistrement et les livraisons de ciment se contractant en 2015 de 9.4 pour cent et de 8.6 pour cent, respectivement

**III. Jusqu'à présent, le déclin des prix de pétrole a eu un impact positif significatif sur**

**l'économie libanaise, libérant des ressources pour améliorer les soldes internes et externes.**

Sur le plan financier, la baisse des prix de pétrole a contribué à une diminution des transferts pour le compte d'Electricité du Liban en 2015. Toutefois, cela a été plus que contrebalancé par une dégradation des revenus en raison, essentiellement, du manque de mesures exceptionnelles qui avaient augmenté les revenus en 2014 (p. ex., collecte des arriérés de télécom). En conséquence, le déficit financier global devrait s'être creusé de 0.7 points de pourcentage (pp) du PIB en 2015, alors que le surplus primaire excluant le paiement d'intérêts devrait avoir baissé de 1.2 pp du PIB. Concernant les comptes externes, une large contraction des importations due essentiellement à la baisse des prix de pétrole et du taux de change de l'euro devrait avoir provoqué une baisse de 3.5 pp du PIB du déficit des comptes courants. Toutefois, cela a été plus que contrebalancé par la baisse des flux entrants de capitaux qui affecte négativement la position nette en avoirs étrangers du pays. En conséquence, les réserves en devises étrangères à la BdL se sont rétractées de 5.4 pour cent pour atteindre US\$ 30.6 milliards vers la fin de l'année 2015. Sur une note moins encourageante, la baisse des prix de pétrole, ainsi que la dépréciation de l'euro, a provoqué une déflation de prix en 2015, qui, à 3.7 pour cent, a maintenu à la baisse la croissance nominale du ratio dette-PIB plus élevé de 3.1 pp en 2015 pour atteindre 148.7 pour cent.

**IV. Les perspectives de croissance demeurent faibles en raison du conflit syrien, de l'impasse politique locale et de certains impacts négatifs de la chute des prix de pétrole.** Outre les anciens boulets au pied de la croissance traînés durant les quelques dernières années, l'impact négatif de la baisse des prix de pétrole représente un nouveau développement pour l'année 2016. Alors que les amortisseurs fiscaux dans les pays du CCG s'érodent

et que des réductions budgétaires s'en suivent, les transferts vers le Liban et les exportations de services vers le CCG (p. ex. services de consultation) devraient se ralentir, ce qui exercerait, sans doute, une plus grande pression sur la balance des paiements qui est déjà confrontée à maintes contraintes en raison du déclin des flux entrants. La consommation, partiellement orientée par les transferts, sera également affectée d'une manière négative, contrebalançant ainsi la hausse initiale du pouvoir d'achat réel résultant de la baisse des prix de pétrole. En général, la croissance ne se concrétiserait que d'une manière marginale de 1.8 pour cent par an, soutenue par une réémergence continue du secteur du tourisme. A moyen terme, la croissance réelle du PIB devrait être de 2.5 pour cent. Le retour à une éventuelle croissance de la production repose largement sur une résolution du conflit en Syrie, ainsi que sur une nette amélioration de la situation politique au Liban.

**V. Les politiques industrielles spatiales, particulièrement les parcs industriels et les zones économiques spéciales, dotent le Liban d'un outil viable pour soutenir la hausse des investissements et la compétitivité dans le secteur industriel** (Centre d'intérêt spécial #1). Dans des conditions appropriées, les zones industrielles se sont avérées une réussite dans plusieurs endroits et industries à travers le monde. Les avantages comprennent la concentration et la spécialisation des infrastructures, la facilitation réglementaire et les douanes spécialisées, ainsi que les régimes financiers et de commerce.

**VI. La géo-économie représente également une opportunité sous forme d'écosystèmes de jeunes entreprises de technologie où des communautés d'entrepreneurs interagissent, devenant une source viable pour la création d'emplois hautement qualifiés au Liban** (Centre d'intérêt spécial #2). La Technologie de l'Information de la Communication (TIC) a réduit, d'une manière significative, le coût de l'innovation et de l'accès au marché, permettant aux petits entrepreneurs de technologie de faire la concurrence avec les entreprises déjà établies. Le secteur de la technologie au Liban devient de plus en plus attrayant, mené par

l'exemple de jeunes entreprises à succès qui ont tiré parti des marchés régionaux et globaux. En outre, il est à noter des initiatives innovatrices lancées par la banque centrale du pays qui consistent à faciliter le financement du capital de risque.

# RECENT ECONOMIC AND POLICY DEVELOPMENTS

**1. Lebanon at the nexus of regional fault lines suffers geo-economic tremors.** While security conditions have improved markedly since the start of 2015, anxiety over regional conditions and potential spillovers prevail. The direct Russian intervention on the side of the Syrian government has affected the balance of power but did not resolve it definitively to the government's favor. This naturally translated into increased confidence by proponents of the Syrian government in Lebanon (March 8 alliance) at the expense of its opponents (March 14 alliance). Similarly, the equally unexpected announcement of Russian partial withdrawal from Syria, has reversed this effect, causing confusion all around. Meanwhile, the Kingdom of Saudi Arabia has recently taken measures that could negatively impact Lebanon's economy and its citizens. These include the formal cancelation of a belated three billion dollar weapons grant, which was promised three years ago. In addition, the Kingdom, along with other Gulf countries, issued warning for citizens against visiting Lebanon.

**2. Perceived endemic corruption<sup>1</sup>, the failure of key government services and the annulment of the democratic process continue to erode State structure.** A vacant presidency is close to ending its second year with uncertain prospects of a near-term resolution, while the self-extending parliament persists to elude an agreement on a new parliamentary election law. The breakdown in the political process is augmented with a failure of key government services; the garbage crisis that has left piles of trash uncollected on the streets across the country since summer 2015, has been characterized by nontransparent deals aimed at finding short-term solutions that have so far only reinforced the

perception of corruption and incompetency. In March 2016, a short-term resolution was reached, involving two new landfill locations that has finally allowed the removal of trash accumulations which have acquired international notoriety. Additionally, intermittent supply of electricity and water compound failures to deliver basic government services. All the while, Lebanon remains the largest host of Syrian refugees (in proportion to the population); according to the UNHCR, as of January 31, 2016, the number of registered Syrian refugees was 1.1 million, which represents 24.5 percent of the total Lebanese population.<sup>2</sup> This represents the highest refugee-to-population ratio in the world, and despite significant strain on already weak public finances, the country has received limited international assistance.

## Output and Demand

**3. Despite a near-complete absence of economic reforms in the face of large shocks, real GDP growth since 2011 remained positive, albeit sluggish and below potential.<sup>3</sup>** While traditional drivers—real estate, construction, finance and tourism—have suffered greatly from the regional turmoil, support for the economy has originated from other sources, including, Syria-related economic

<sup>2</sup> This takes into consideration the suspension of new registration as per Government of Lebanon's instructions starting 6 May 2015. Accordingly, individuals awaiting to be registered are no longer included.

<sup>3</sup> National accounts data since 2011 are World Bank staff estimates based on our coincident economic indicator (for details, see Matta, S. (2014) *New Coincident and Leading Indicators for the Lebanese Economy*, World Bank Policy Research Working Paper No. 6950), pending final GDP estimates from CAS for 2011 to 2015.

<sup>1</sup> Le Borgne and Jacobs (2016), *Lebanon: Promoting Poverty Reduction and Shared Prosperity*, Systematic Country Diagnostic, World Bank, Washington DC.

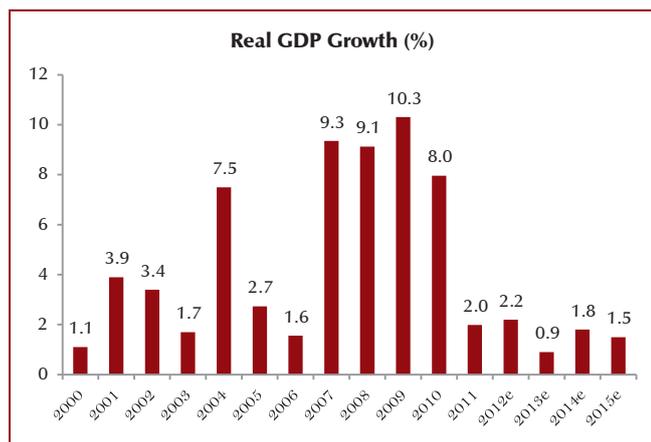


FIGURE 1. A deceleration in economic activity in 2015 ...

Source: Lebanese authorities and WB staff calculations.

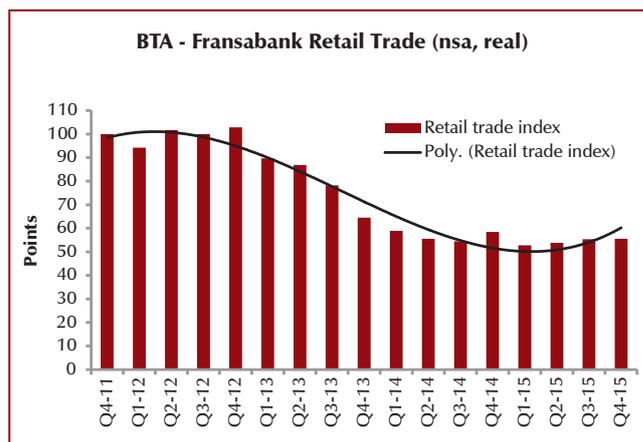


FIGURE 3. Retail trade stabilizes ...

Source: BTA-Fransabank.



FIGURE 2. ... despite a rebound in tourism, which nonetheless remains below pre-crisis levels ...

Source: Lebanese authorities and WB staff calculations.

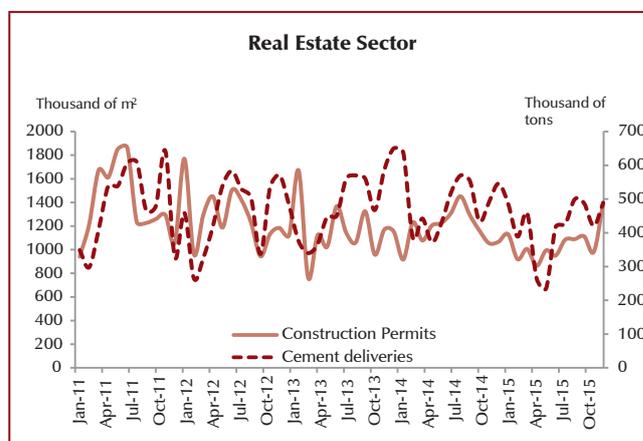


FIGURE 4. ... as the real estate sector regresses.

Source: Banque du Liban.

activity in Lebanon<sup>4</sup>, private consumption, in addition to periphery sectors such as pharmaceuticals<sup>5</sup> and the ICT sector; the percentage of individual using the internet jumped from 52 percent in 2011 to 74.7 percent in 2014, while fixed broadband subscriptions almost trebled to reach over 1.1 million persons, and mobile-cellular telephone subscriptions expanded by 127 percent over the same period.<sup>6</sup> Nonetheless, this remains insufficient to regain pre-crisis growth rates or even reach potential output. The geo-

economy, focused specifically on the ICT, industrial and agriculture sectors, offers untapped possibilities using local resources and talents that will enhance sustainable growth and generate much needed employment.

**4. In 2015, improved security conditions have been more than offset by a deteriorating political environment, leading to a further slowdown in an already sluggish economy.** Real GDP growth in 2015 is estimated at 1.5 percent<sup>7</sup>, compared to 1.8 percent in 2014 (Figure 1). The tourism sector regained impetus in 2015, albeit from low levels, with

4 Positive economic impact and contribution of Syrian nationals in consequence of the war in Syria has been expounded on in the Spring 2015 issue of the Lebanon Economic Monitor.

5 According to Société Générale de Banque au Liban, in its *EcoNews*, No. 36, publication in September 2015, pharmaceutical output and capacity have increased significantly over the past five years following a series of new investments in the industry geared mainly towards export markets.

6 Source: International Telecommunication Union (ITU).

7 This is a World Bank staff estimate based on our coincident economic indicator. Bank staff revised downward the 2015 real GDP growth to 1.5 percent from 2 percent forecast in fall 2015 due to a sharp and unexpected decline in economic activity in Q3 2015. Data updates also led to a slight revision in 2014 GDP growth from 2 percent to 1.8 percent.

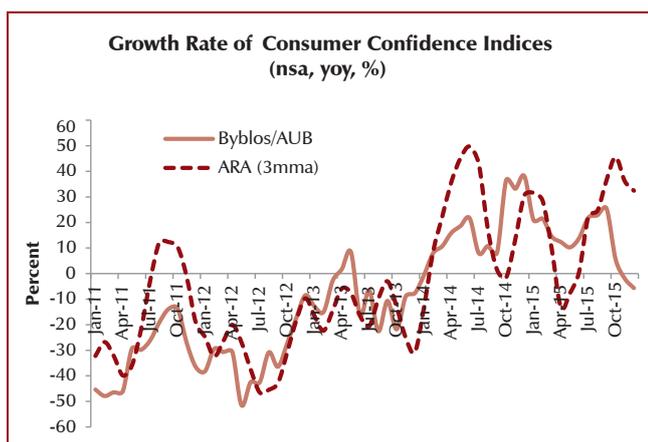


FIGURE 5. Consumer sentiment is volatile.

Source: Byblos Bank, ARA Marketing Research and Consultancy and Bdl.

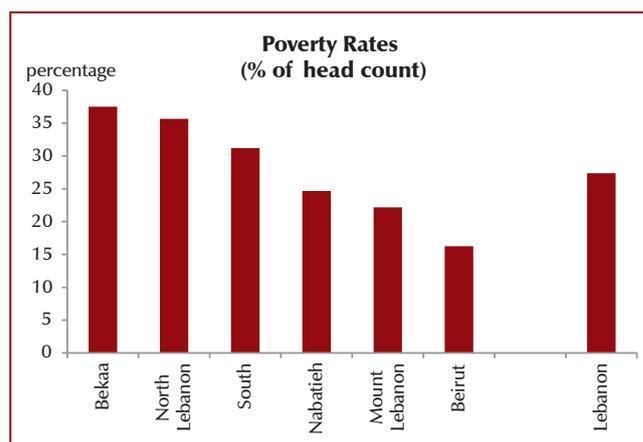


FIGURE 6. Poverty rate highest in the Bekaa and North 2011/12.

Source: Lebanese authorities and WB staff calculations.

tourist arrivals increasing by 12 percent, compared to a 4.1 percent rise in 2014 (Figure 2). At around 1.5 million tourist arrivals, this marks the highest level since 2011. The hotel occupancy rate also rose, but by a less impressive 4.5 percentage points (pp), suggesting that the additional tourist arrivals are for the most part Lebanese expatriates who refrained from visiting in earlier years due to security conditions. Moreover, after falling sharply since end-2012, the retail index appears to have stabilized (Figure 3); the loss of higher purchasing power consumers (i.e., the gulf tourist) has been partially replaced by the large contingency of displaced people (i.e., Syrians, Iraqis). On the other hand, evidence point to a sharp decline in the real estate sector, a traditional driver of the economy; construction permits and cement deliveries both underwent respective contractions of 8.9 percent (yoy, for the period January-November) and 8.6 percent in 2015, compared to respective 4.8 percent expansion and 5.4 percent contraction in the corresponding periods in 2014 (Figure 4). Periphery sectors have also maintained much needed support to the economy in 2015. A sharp 56.7 percent growth in exports of pharmaceutical products, one of few export categories to have experienced any growth in 2015, suggests that the local pharmaceutical industry continues to be a positive contributor to GDP. Prospects are encouraging for the industry as it stands to benefit from reforms initiated by the Ministry of Health that allows the substitution of cheaper generic drugs for brand-name drugs in prescriptions.

**5. From the demand side, private consumption and the external sector drove growth in 2015.** Improved security conditions and lower oil prices helped partially offset the negative impact on consumer sentiment caused by the deteriorating political climate. The three-month-moving average for the Byblos/AUB consumer confidence index<sup>8</sup> rose by 12.8 percent in 2015, while the ARA index increased by 18 percent (Figure 5), but both remain highly volatile. Moreover, private lending toward consumption and real estate purchases continues to expand, albeit at a decelerated rate, motivated by a BdL stimulus package in 2015; commercial banks' claims on residents grew by 6.4 percent (yoy) by January 2016, compared to 9.5 percent in January 2015. Anecdotal evidence suggests that private demand is also supported by Syrian investment and consumption, concentrated in the informal sector; as the Syrian turmoil endures, Syrians in Lebanon are gradually shifting their economic role from being mainly consumers reliant on handouts to income earners, albeit for many, confined within the informal sector. This includes the establishment of micro and small businesses that sell goods (including those originating in Syria) at lower prices targeting the

<sup>8</sup> The Byblos Bank/AUB CCI comprises two sub-indices: the Byblos Bank/AUB Present Situation Index and the Byblos Bank/AUB Expectations Index. The former represents consumers' opinion about current economic conditions, while the latter reflects consumers' outlook about the future of the economy.

Syrian community (ILO, 2014<sup>9</sup>). However, Lebanese businesses, which are not able to compete at those prices are negatively impacted. The external sector has also been a positive contributor to real GDP growth due to falling merchandise imports and a tourism-led rise in exports of services that offset a contraction in merchandise exports. This resulted in a narrowing of the trade deficit in goods and services. Public investment, on the other hand, lagged in 2015 due to the political paralysis. Investment as a whole remained weak; the BLOM purchasing managers' index (PMI)<sup>10</sup> continues to be in a state of contraction, averaging 48.5 in 2015, compared to 47.6 in 2014.

## Poverty and Labor

**6. About 27 percent of the population in Lebanon were poor according to the most recent household budget survey in 2011/12.** The highest poverty rates were in North Lebanon and Bekaa regions, while the largest poverty count was observed in the most populous Mount Lebanon region (Figure 6). The unemployment rate was about 9 percent, based on the same household survey, which predates the impact of regional hostilities, including the influx of refugees. Poverty rates were significantly higher for workers employed in the agricultural and construction sectors who are paid on weekly or daily basis.

**7. In view of their protracted presence, Syrian nationals have *de facto* become part of the labor market.** With around half of the working age

Syrian refugees economically active (ILO, 2014),<sup>11</sup> by end-2014 the labor supply in Lebanon is estimated to have expanded by 50 percent (IMF, 2014<sup>12</sup>). The majority of Syrian refugees are low- to semi-skilled workers, engaged primarily in construction, agriculture, and personal and domestic services. In 2013, the average monthly income of employed Syrian refugees was LBP 418,000 (US\$ 278), about 38 percent below the official minimum wage (ILO, 2014). The vast bulk of refugee employment, regardless of the level of education attained, focused on the informal sector (ILO, 2015)<sup>13</sup>. It is unclear to what extent low-skilled refugees have been competing with Lebanese nationals since, even prior to the crisis, the low-skilled labor market was dominated by foreigners (e.g., Syrians, Bangladeshi, Ethiopians, Filipinos). As such, it is more likely that low-skilled foreign labor in Lebanon, including other Syrians who were present before 2011, will bear the brunt of the competition from refugees. This can explain the lack of significant tensions between the refugees and host communities, considering the sheer number of refugees.

**8. Employment growth has been concentrated in low productivity activities as higher productivity have not grown proportionally.** Over the past decade, trade accounted for about 47.3 percent of all new employment, public and private services for 34.7 percent and construction for nearly 10 percent (ILO, 2015). Thus, relatively low productivity activities dominated employment growth, while growth in productive activities such as communications, financial services, agriculture and manufacturing was marginal. Moreover, since foreigners labor dominated low skilled (less productive) activities, high GDP growth rates have not translated into significant job creation for the Lebanese. In fact, the long-run employment-growth

9 International Labor Organization, 2014, *Assessment of the Impact of Syrian Refugees in Lebanon and Their Employment Profile*.

10 The PMI is an indicator that is based on a monthly survey of business conditions in the Lebanese private sector. It is a composite index calculated as a weighted average of five individual sub-components: New Orders (30 percent), Output (25 percent), Employment (20 percent), Suppliers' Delivery Times (15 percent) and Stocks of Purchases (10 percent). A value of the PMI above 50.0 signals an improvement in business conditions from the previous month, while a drop in the PMI below the 50.0 threshold indicates a slowdown in business activity (BLOM Bank, 2013).

11 International Labor Organization (2014), *Assessment of the Impact of Syrian Refugees in Lebanon and Their Employment Profile 2013*. The study surveyed the employment profile of refugees and the impact of their economic participation on the host communities' livelihoods. Data was collected from 400 households, which included a total of 2,004 individuals.

12 IMF (2014), *Article IV Consultation and Selected Issues*, July, Washington DC.

13 ILO (2015), *Towards Decent Work in Lebanon: Issues and Challenges in Light of the Syrian Refugee Crisis*, Beirut, Lebanon.

elasticity is estimated to be 0.2 (World Bank, 2012<sup>14</sup>), much lower than an estimated MENA average of 0.5 (IMF, 2014).

## Fiscal Policy

**9. In 2015, the overall fiscal balance is estimated to have widened slightly, while a primary surplus was maintained.** The overall fiscal deficit widened slightly to an estimated 7.3 percent of GDP, compared to 6.6 percent of GDP in 2014 (Figure 7). This small relapse is led by the primary balance (i.e., excluding interest payments), which is estimated to have shrunk by 1.2 pp to reach 1.4 percent of GDP, albeit remaining in surplus for the second year in a row since 2011. The declining primary surplus was driven by a fall in revenue collection, specifically, non-tax revenues; a 2.2 pp decline in total revenues to 21.6 percent of GDP in 2015 was led by a contraction in both telecom transfers and treasury revenues; the fall in the former was due to the lack of one-off measures, which in 2014 included the collection of telecom arrears that helped improve the fiscal balance. The slowdown in economic activity has induced a general softening in total revenues compared to the previous decade's average of 23.4 percent of GDP. On the expenditures side, primary spending is estimated to have fallen by 1.5 pp to reach 27.3 percent of GDP in 2015. This is a key benefit of lower oil prices, which effected a decline in transfers to structurally loss-making Electricité du Liban, the state-owned power company, from around 4.6 percent of GDP in 2014 to around 2 percent of GDP in 2015.

**10. Price deflation and sluggish growth helped thrust the debt-to-GDP ratio higher.** Total public debt is estimated to have reached 148.7 percent of GDP (US\$70.3 bln) by end-2015, compared to 145.6 percent of GDP at end-2014 (Figure 8). This comes despite a primary surplus for the second year in a row. Instead, price deflation at 3.7 percent in

2015 further held down nominal GDP expansion, which was already subject to anemic growth, forcing the debt-to-GDP ratio higher.

**11. Two sizable Eurobond issues by the Ministry of Finance highlight large financing needs.** The government continues to primarily finance the fiscal deficit by issuing Treasury bills and Eurobonds. In February 2015, the government raised US\$ 2.2 billion through a dual-tranche Eurobond issuance.<sup>15</sup> This was followed by another Eurobond issue in November for the amount of US\$1.6 bln, intended to swap bonds maturing in January 2016 as well as for additional financing.<sup>16</sup> The stock of debt outstanding remains mostly in local currency, whereby, by end-2015, 62 percent of gross public debt is denominated in LBP.

**12. Longstanding structural bottlenecks in public finance are important manifestations of the perceived endemic corruption and political malfunction, impeding the development of the country.** Since 2005, budgets have not been ratified by parliament due to discord regarding accountability over previous fiscal accounts. Moreover, none of the post-war budgets were voted within the constitutional period and the last officially closed fiscal accounts are those of 2003, although those from 1993 till 2003 need major adjustments. Spending has been conducted largely through treasury advances and ad-hoc measures in times of pressures. This leaves fiscal policy without an anchor. Even prior to 2005, fiscal policy has been missing a medium-term perspective. The lack of proper oversight and extra-budgetary entities that receive significant government funding help entrench a culture of non-transparency and encourage corruption in fiscal affairs.

<sup>14</sup> World Bank (2012), "Republic of Lebanon—Good Jobs Needed: The Role of Macro, Investment, Education, Labor and Social Protection Policies", December, Washington DC.

<sup>15</sup> Despite it being one of the largest issues by the government and occurring during a period of regional turmoil, it was oversubscribed. The issue consisted of two tranches: US\$ 800 million for a maturity of 10 years at 6.2 percent and, significantly, US\$ 1.4 billion for a 15-year maturity at 6.65 percent.

<sup>16</sup> This came in the form of a three-tranche issue, consisting of (i) US\$ 500 mln maturing in 2024 at an interest rate of 6.25 percent, (ii) US\$ 500 mln maturing in 2028 at 6.65 percent and (iii) US\$ 600 mln maturing in 2035 with a 7.05 percent yield.

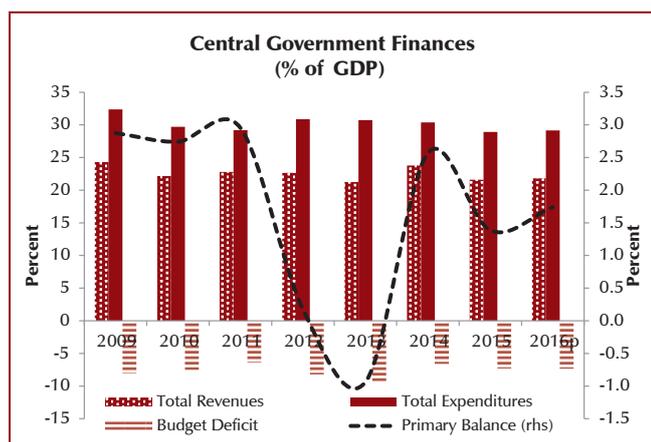


FIGURE 7. Fiscal deficit widens in 2015...

Source: MoF and WB staff calculations.

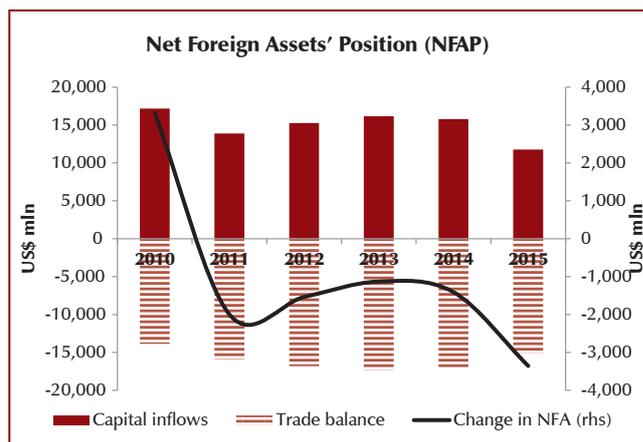


FIGURE 9. Regression in capital inflows exacerbated in 2015...

Source: BdL and WB staff calculations.

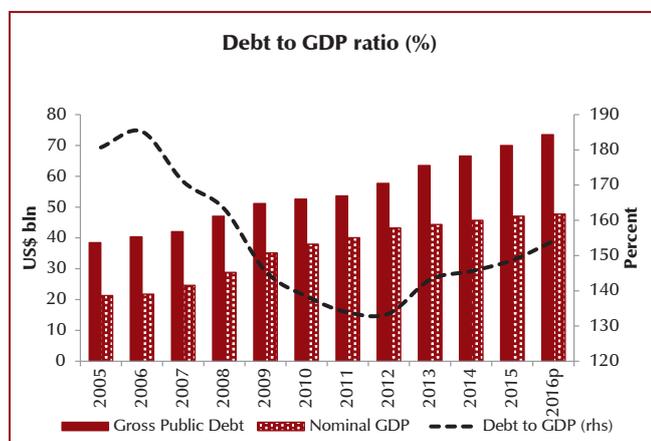


FIGURE 8. ... as debt- to-GDP rises.

Source: BdL, CAS and WB staff calculations.

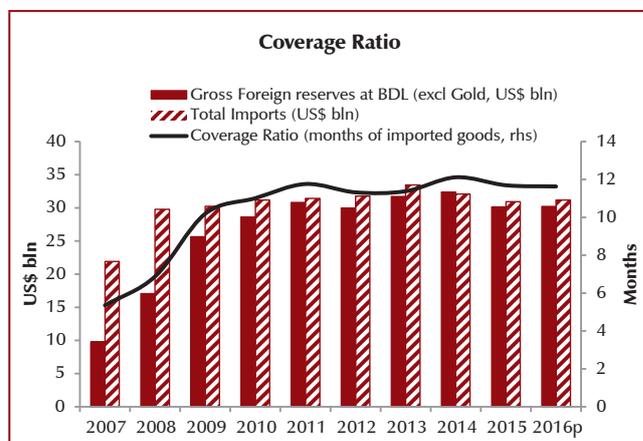


FIGURE 10. ... inducing a decline in gross foreign reserves at BdL

Source: BdL, Lebanese Customs and WB staff calculations

## External Sector

**13. Lebanon's current account balance improved in 2015 but remains a source of considerable risk.** The current account deficit decreased by an estimated 3.5 pp in 2015, reaching 23.2 percent of GDP; a deficit that remains among the largest in the world, exposing the country to significant refinancing risks. The improvement is a result of a 4.4 pp decline in total imports to around 65.7 percent of GDP. This is entirely due to a large contraction in the value of merchandise imports, encompassing a broad range of goods and driven by lower commodity prices, especially fuel products<sup>17</sup>, and the depreciation of the euro. Meanwhile, in May 2015, exporters of merchandise goods were severely afflicted by the

17 The average price for crude declined by almost half in 2015.

closure of the last remaining Syrian routes, through which they could access the GCC market. On August 10 2015, the government agreed to subsidize the cost of exporting goods to Arab countries through the sea, over a period of 7 months.<sup>18</sup> Despite this, volumes exported showed a yoy decline of 23.6 percent during the period September-December 2015, compared to a yoy contraction of 10 percent for the period May-August 2015. Remittances in 2015 is estimated to have held at 3.4 percent of GDP, not yet seriously impacted by low oil prices, but lower than the previous decade's average of 6.1 percent of GDP due to sluggish global conditions.

**14. For the fourth consecutive year, a shortfall in capital inflows led to a deterioration in Lebanon's net foreign asset position.** The

18 The total subsidy amount was set at US\$14 million.

economy is structurally and heavily dependent on capital inflows to finance its current account deficit.<sup>19</sup> In 2015, the deceleration in capital inflows has been more pronounced than in the previous three years, with inflows regressing by 25.4 percent. This more than offset an improving trade balance, draining the economy of around US\$ 3.4 billion in foreign assets, compared to a depletion of US\$ 1.4 billion in 2014 (Figure 9). Since 2012, leading sectors towards which the majority of foreign capital has traditionally gravitated have suffered a significant decline in activity, becoming a less attractive destination for FDI (e.g., real estate, tourism). However, net FDI in 2014 (the latest available full-year data) grew by 30 percent to US\$ 1.2 billion (2.6 percent of GDP), equivalent to 2.6 percent of GDP, and the first such increase since 2010. Nevertheless, it remains well below pre-crisis levels, where between 2000 and 2010, FDI averaged 9.5 percent of GDP. The presence of Syrian refugees has partially compensated for the overall loss of inflows since 2010; international aid targeting Syrian refugees provides additional support to the balance of payments.<sup>20</sup> Support is also generated by the wide spread between domestic and international interest rates that reached an average of 415 basis points (bps) during January-October 2015.<sup>21</sup>

**15. A decrease in gross foreign reserves at the central bank mirrored lower inflows.** Gross foreign exchange reserves at BdL fell by 5.4 percent to reach US\$ 30.6 billion by end-2015. In the previous two years, the deceleration of capital inflows did not reflect on gross reserves, as banks repatriated foreign assets in search of higher yields in the face of globally depressed rates. This resource, however, is exhaustible and subject to a reverse dynamic upon normalization of global interest rates. Nonetheless,

19 The current account deficit has averaged 17.8 percent of GDP during the past ten years.

20 Inflows to Lebanon have also included international aid targeting Syrian refugees, albeit via various international organizations and not through the government, which continues to appeal for assistance. A United Nations Development Program (UNDP) study assesses the impact on the Lebanese economy of international humanitarian aid delivered via UN agencies to the Syrian refugees in Lebanon. It estimates that this aid, estimated at over a billion dollars between 2012 and 2014, has a multiplier effect that added 1.3 pp to 2014 GDP growth.

21 This is the interest rate differential between the 3-month Lebanese T-bill and the 3-month LIBOR.

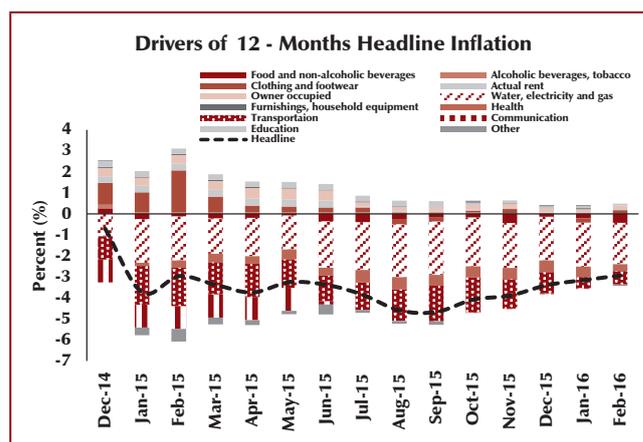


FIGURE 11. Inflation at a historical low in 2015.

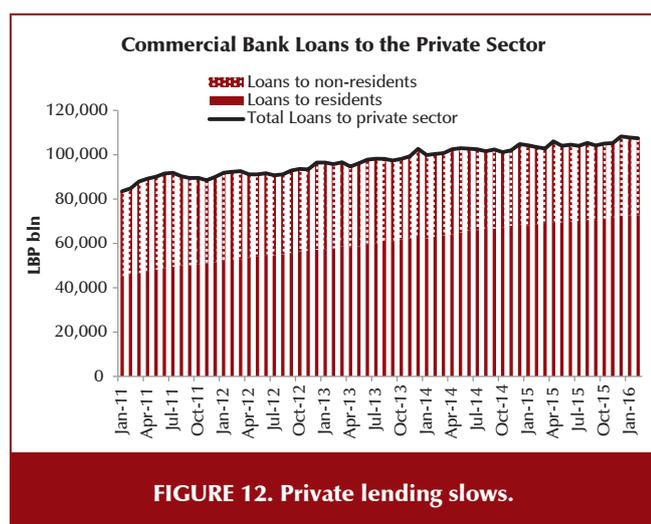
Source: CRI and CAS.

gross foreign reserves at BdL remain large, equivalent to 11.7 months of imports (Figure 10).

## Money and Banking

**16. In 2015, Lebanon's inflation rate reached a record low in the post-war period.** Headline CPI inflation is estimated at -3.7 percent in 2015, undergoing a 4.9 pp decline relative to 2014. The deflationary trend cut across most categories (Figure 11), reflecting the decline in the global prices for energy, food and commodities as well as an appreciating effective exchange rate given the country's peg to the dollar. The continued negative output gap has also weakened prices as evident from a low core inflation (excl. fuel and food), which averaged 0.1 percent. Moreover, with the influx of Syrian refugees sharply lower in 2015 than in 2014, supply-side factors that previously pushed inflation upwards (e.g., the sudden and massive increase in housing demand), has waned off.

**17. Exchange rate stability, a negative output gap and price deflation constitute the motivations for the central bank for expansionary monetary policy in 2015.** The dollarization rate—a key gauge of confidence in Lebanon—registered 65 percent by January 2016, a decrease of 84 bps from January 2015. Simultaneously, real GDP growth continues to lag behind the 1993-2014 average rate of 4.4



**FIGURE 12. Private lending slows.**

Source: BdL and WB staff calculations.

percent, and well below potential, generating a negative output gap.<sup>22</sup> These, along with record price deflation, allowed the BdL to extend its loan subsidy program in 2015 for the third year running,<sup>23</sup> with an additional injection of US\$ one billion. These packages have been vital for buttressing the real estate sector by boosting domestic demand after demand from Lebanese expatriates and foreign buyers dropped sharply.

**18. To maintain the peg, BdL ensures banks offer attractive dollar spreads to finance the current account.** Under sustained severe fiscal needs and a banking sector balance sheet that is over three times GDP, the BdL ensures that banks keep attracting foreign deposits and that the public sector gross financing needs are met. For the former, BdL introduced various subsidized refinancing schemes as well as new certificate of deposits for the 15-year, 20-year and 30-year tenors, lengthening the maturity structure. As to public finance, BdL bids on the TBs primary market and acts as a buyer on the secondary sovereign debt market. In absence of government, the central bank has been the principal regulator of private demand (i.e. the stimulus

22 For a more in-depth analysis on the output gap, please refer to Box 1 in the Fall 2015 issue of the Lebanon Economic Monitor.

23 This program was launched by the BdL in 2013 and continued in 2014 in the amounts of US\$ 1.46 billion and US\$ 800 million, respectively. While the real estate sector has been the principal beneficiary, BdL's subsidized loans also targeted start-ups and venture capital (relatively nascent in Lebanon), with yet undetermined effect.

packages) as well as the financial sector's stabilizer of last resort, multiplying the financial burdens on BdL. The resulting banking-sovereign feedback loop, however, is a source of significant macroeconomic risk (Le Borgne and Jacobs, 2016<sup>24</sup>).

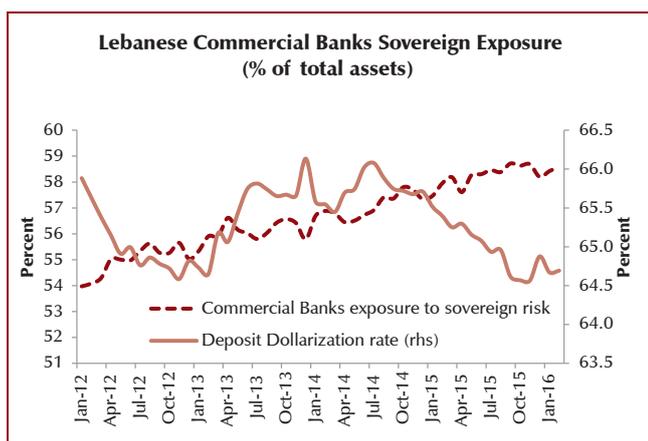
**19. Lending to the resident private sector continued to expand in 2015, albeit at a decelerated rate.** The stock of commercial banks' credit to the private sector increased by a sluggish 3.4 percent (yoy) in January 2016, compared to 4.3 percent (yoy) in January 2015 (Figure 12). However, this comes with a couple of caveats. First, with a deflationary environment, the change in real private lending was larger. Second, this conceals diverging dynamics; while claims on non-residents contracted by 2.4 percent (yoy) over the same period, those on residents grew by 6.4 percent (yoy). Part of the growth in credit to residents, which nonetheless signaled a deceleration from 9.5 percent (yowy) growth in January 2015, was related to the BdL's stimulus packages. The deceleration possibly reflects declining marginal returns to the stimulus package as the pool of viable borrowers shrinks. Going forward, authorities need to exert scrutiny and caution to risks associated with the over-leveraging of households. In precaution of such risks, BdL introduced in 2014 a number of macroprudential measures.<sup>25</sup>

## Financial Markets

**20. Lebanon's banking sector is liquid, profitable and well regulated, but highly exposed to the public sector.** Banks are well capitalized and resilient owing to prudent investments and conservative regulation by BdL and the Banking Control Commission. In 2014 (latest available), the tier one capital-to-risk-weighted-asset ratio was

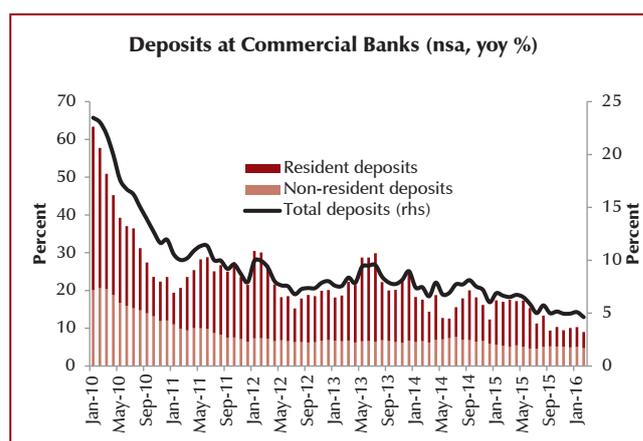
24 *Lebanon: Promoting Poverty Reduction and Shared Prosperity*, Systematic Country Diagnostic, World Bank, Washington DC.

25 To limit leverage risks on the consumer side and the fallout impact on banks, in 2014, BdL instructed banks to require a minimum down-payment of 25 percent for any car or housing loan and to limit the value of the loan such that the monthly installment does not exceeding 45 percent of family income (35 percent for a housing loan).



**FIGURE 13. Lebanese banks' sovereign debt exposure increases in 2015...**

Source: BdL and WB staff calculations.



**FIGURE 14. ... while deposit growth decelerates.**

Source: BdL and WB staff calculations.

12.8 percent, which was double what is required by Basel III. The liquid asset-to-total deposit ratio,<sup>26</sup> an indicator of short-term liquidity, stood at 70.3 in January 2016, compared to 68.5 in January 2015. Moreover, banks' profits continue rising while non-performing loans (NPLs) are low and return on equity is in the double digits.<sup>27</sup> Nonetheless, commercial banks are highly exposed to sovereign credit risk as they are a large investor in public debt.<sup>28</sup> In fact, Lebanese banks' sovereign debt exposure<sup>29</sup> increased slightly from 57.3 percent end-2014 to 58.4 percent at end-January 2016 (Figure 13). In an attempt toward diversification, banks expanded regionally, an effort that has been severely compromised by the recent regional upheaval.<sup>30</sup>

**21. Deposit growth decelerates.** Commercial banks' balance sheets continued to grow, rising by 6 percent (yoy) in January 2016, compared to 6.9 percent in January 2015. Deposits constitute the principal funding source for commercial banks,

with the deposit-to-total liabilities ratio<sup>31</sup> at 83.2 percent by January 2016. However, there has been a discerned slowdown in deposit growth, with total private sector deposits at commercial banks increasing by 5.1 percent (yoy) in January 2016, compared to 6.9 percent a year earlier; resident and non-resident private deposits increased by 5 percent (yoy) and 5.3 percent (yoy), respectively, undergoing respective declines of 0.8 pp and 6.4 pp compared to January 2015 (Figure 14).

**22. With global interest rates lingering at record lows, the Lebanese banking system continues to be an attractive destination for depositors.** Non-resident deposits have been a vital factor in the stability of the banking sector, and in fact the whole economy, constituting 21 percent of total private deposits (end-January 2016). Attracted by interest rate spreads<sup>32</sup>, new private deposits at commercial banks<sup>33</sup> have averaged a significant 7.8 percent of GDP annually since 1994. In fact, between 2003 and 2010 total new private deposits (TD) averaged 19.4 percent of GDP, while non-

<sup>26</sup> Liquid assets consist of commercial banks' deposits with central bank, Treasury Bills in LBP held by commercial banks and Eurobonds held by commercial banks.

<sup>27</sup> There has been some deterioration in profitability and NPL ratios since the beginning of the Syrian crisis in 2011.

<sup>28</sup> Interest income, as obtained from BilanBanques, amounted to 66.15 percent and 66.31 percent of total consolidated banks' income in 2013 and 2014, respectively.

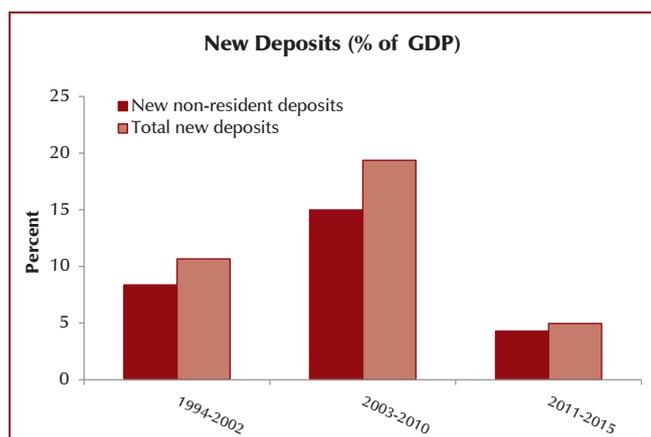
<sup>29</sup> The sovereign debt exposure is computed as a ratio of commercial banks' aggregate investment in Treasury bills, Eurobonds and deposits at BdL relative to total assets.

<sup>30</sup> Expansion of Lebanese commercial banks in Turkey continues, however, helping to increase profitability.

<sup>31</sup> This is the ratio of total private and public sector deposits at commercial banks to commercial banks' balance sheet.

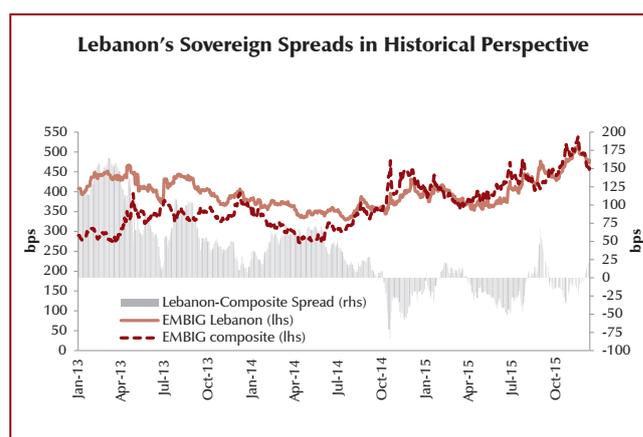
<sup>32</sup> The main interest rates that matter in this arrangement are the international dollar rate, a local rate on dollar deposits and a local rate on LBP deposits. A spread between the local and international dollar rates attracts deposits in dollar, while a spread between LBP and local dollar rates encourages deposits in local currency. Nonetheless, like much of the country, Lebanon's banking system is highly dollarized (65 percent dollarization rate).

<sup>33</sup> New deposits are calculated as deposits minus interest paid on the previous year's deposits.



**FIGURE 15. New deposits at commercial banks affected by regional crisis.**

Source: BdL and WB staff calculations.



**FIGURE 16. Falling risk premium on Lebanese Eurobonds translated into narrowing spreads.**

Source: JP Morgan and WB staff calculations.

resident new private deposits (NRD) averaged 15 percent (Figure 15). These ratios have declined sharply since, due primarily to the regional turmoil, and secondarily, to the unsustainability of such high levels. During the crisis period of 2011-2015, however, TD and NRD shares of GDP fell to 5 percent and 4.3 percent, respectively. Despite this deterioration, Lebanon's financial sector retains key advantages. To begin with, exceptionally low global interest rates preclude competitive alternatives in international markets. Furthermore, non-resident deposits, which are largely sourced from Lebanese expatriates, are resilient to shocks due to the diaspora's familiarity with the country's political and security volatilities. Additionally, the BdL has demonstrated its readiness to be the ultimate guarantor of the financial sector via its large foreign exchange reserves, and good crisis management overall.

**23. Spreads on Lebanese Eurobonds turned negative in 2015 and early 2016, whereas the stock market index fell slightly** (Figure 16). The negative EMBIG spread likely reflects an improvement in the overall security conditions along with a worsening of macroeconomic fundamentals in key emerging economies. Amid a global stock market selloff, the Beirut Stock Exchange BLOM Index declined by 5 percent (yoy) in February 2016, while market capitalization fell by 5.8 percent to reach US\$ 11.1 billion, equivalent to around 24 percent of 2015 GDP. Average monthly trading value over the February

2015-February 2016 period also declined by 13.9 percent, compared to the previous year.

## PROSPECTS

**24. The regional turmoil, especially the war in Syria, poses serious security threats in Lebanon and the recent relative clam is not a guarantee of stability.** A key assumption underlying projections for the Lebanese economy regards the Syrian conflict and its spillovers. World Bank staff projections assume that current conditions hold, i.e., spillovers continue to be contained without precluding the occurrence of occasional serious security events. Relative to our Fall 2015 issue of the *Lebanon Economic Monitor*, real GDP growth for 2016 is estimated to be 0.7 pp lower at 1.8 percent, reflecting the prolonged political crisis in the country. Over the medium term, we expect real GDP growth to be around 2.5 percent. The return to potential output growth critically hinges on a resolution of the conflict in Syria as well as a marked improvement in the security and political situations in Lebanon.

**25. Absent significant structural reforms on either revenue or spending, Lebanon's public finances are projected to remain structurally weak.** The overall fiscal deficit is expected to continue widening over the medium term. Current spending is projected to grow as a result of increased debt servicing due to pass through from higher global interest rates (i.e., US. Federal Reserve Board-related) and higher oil prices that will reflect on transfers to EdL. Moreover, assuming political paralysis eases by 2017, we expect some limited public sector wage increases as well as higher transfers to municipalities. In addition, and despite the expected return of positive inflation in 2016, the trend for debt-to-GDP ratio based on current policies and real GDP growth rates, remains unsustainable and is expected to notably worsen once global dollar interest rates start normalizing (a pace which is expected to start with a tightening of policy rates by the U.S. Federal Reserve Board).

**26. The conduct of monetary policy is likely to become more challenging due to conflicting objectives.** BdL, whose primary objective is to maintain the stability of the peg to the dollar, is expected to become confronted over the short to medium term with challenges to its expansionary policies (secondary objective) from a number of factors. First, expected normalization of global interest rates will ultimately require domestic interest rates to increase in order to maintain exchange rate stability. Second, the enthusiastic response to BdL initiatives (subsidized loans) has helped boost economic activity but, after several years of such lending, more attention will need to be paid to the issue of household leveraging and repayment capacity. The expanded use of macroprudential tools shows that BdL is vigilant to these risks. Hence, while monetary policy has been one of the few effective countercyclical policy tools during the ongoing period of sluggish growth, it will likely become less potent economic stimulant going forward.

**27. While Saudi measures so far could negatively impact confidence and increase political tensions, they remain economically manageable.** Gulf travelers no longer top the list of Arab visitors to Lebanon. In fact, in 2015, Iraqis comprised 40 percent of Arab tourists, followed by Jordanians (16.2 percent) and Egyptians (15.7 percent), whereas Saudi nationals comprised only 9.9 percent<sup>34</sup>. Admittedly, the spending power of Gulf tourists is over-proportional to their numbers, but the sharp decline in the quantity over the past few years limits the negative impact of the travel bans.

**28. The main threat to the economy emanates from the possibility of mass dismissal of Lebanese**

<sup>34</sup> Source: BLOMINVEST Bank, 2015: *Another Recovery Year for the Lebanese Tourism Sector*, February, 2016.

**expatriates from the Gulf countries.** In addition to the human factor, where many Lebanese have made the Gulf countries their home for decades, the impact on remittances presents macroeconomic challenges in the short- to medium-term. In a simulation exercise of such a shock (Box 1), GDP growth would be expected to be 2.1 pp lower in the first year, driven by contracting private consumption. This would arrive at a time of already sluggish economic activity causing a contraction in the real GDP growth. In addition to growth effects, financing needs would also increase, which would reflect on the debt-to-GDP ratio.

**29. Geo-economic risks can be hedged with geo-economic return.** Lebanon's exposure to risks associated with the regional turmoil is significant and growing. A particular concern is macroeconomic risk emanating from the country's dependency on inflows to finance persistent and sizable twin (fiscal and current account) deficits. The geo-economy offers untapped possibilities using local resources and talents that will go some way in mitigating this dependency. In this issue of the Lebanon Economic Monitor, we expound on two such prospects. The first is a project that was recently launched by the Ministry of Industry for the development of industrial zones across the country. The second is the clustering potential for the ICT sector. Both are important sources of job creation for skilled labor, an outcome that has evaded post-war Lebanese growth. They would also be a step toward sustainable growth since such sectors are less prone to external shocks compared to Lebanon's traditional drivers—tourism and real estate. Furthermore, human and financial capital can be tapped locally, while the export market is a realizable potential, enfeebling the dependence on capital inflows and lessening balance of payments risks. Such a vision is necessary for Lebanon to exit a socially and economically bankrupt model, whereby human capital is exported in return for inflows that finance rent-seeking activities that aggravate imbalances.

**BOX 1. A Simulation for the Economic Impact of Lower Remittances.**

This box presents an analysis on the economic implications of a large decline in remittances, given the possibility of mass termination of contracts for of Lebanese expatriates from the Gulf Cooperation Council (GCC) countries. This has become a primary concern fueled not only by rumors but also small scale dismissals of Lebanese expatriates primarily from the UAE. To do so, the World Bank's macro-fiscal framework is used to simulate one such "termination" scenario, which is then compared to the baseline scenario\* that does not assume a mass dismissal. In those simulations, the main channels through which lower remittances will impact the Lebanese economy are through (i) more stressed balance of payments and (ii) a decline in private consumption as expatriates tend to support their families living in Lebanon.\*\*

To explore the relationship between remittances and consumption, we run three different Autoregressive Distributed Lag (ARDL) models, each with a separate dependent variable that proxies for private consumption: VAT revenues, cleared checks and the number of new passenger car sales. In each of these regressions, our main explanatory variable is the amount of remittances sourced from the quarterly bulletins of Lebanon's central bank, the Banque du Liban (BdL). In addition, we control for economic activity using the World Bank Coincident Indicator Index. To perform our analysis, we use quarterly data between Q1-2009 and Q4-2014, where all the variables are transformed into log terms after being seasonally adjusted.

In summary, our estimation results suggest that a one percent increase in the q-o-q growth of remittances, is associated with a statistically significant 0.08 (0.16) percent increase in the q-o-q growth of VAT revenues (number of new passenger car sales) with a four- (two-) quarter lag. On the other hand, when using cleared checks as a dependent variable, the remittances' coefficient is found to be statistically insignificant. To quantify the impact on private consumption, we take the average of the two significant coefficients, such that a one percent increase in the growth of remittances is associated with a 0.12 percent increase in private consumption growth. Consequently, a large drop in remittances' inflows in 2016, which in this simulation we assume it to be at 20 percent of GDP, will lower our baseline private consumption growth projection by 2.4 pp of GDP. Given that private consumption accounted for an estimated 85 percent of GDP in 2015, a 20 percent decline in remittances is estimated to induce a 2.04 pp fall in the projected GDP growth, relative to the baseline.

Under the termination scenario, GDP growth would be expected to be reduced by 2.1 pp, 0.7 pp and 0.3 pp in 2016, 2017 and 2018, respectively, compared to the baseline (Table 1 below). In addition, and compared to the baseline scenario, lower remittances will reduce the growth of VAT revenues relative to GDP by 0.3 pp, 0.5 pp and 0.3 pp in 2016, 2017 and 2018, respectively, driving an equal widening of the fiscal deficit. In parallel, lower remittances will have an adverse impact on the current account balance, which is projected to deteriorate beyond the baseline projections by further one pp of GDP, 0.8 pp of GDP and 0.5 pp of GDP over the next three years. Gross reserves are also expected to be negatively affected over the medium term. Finally, and due to lower growth and larger financing needs, debt as a ratio of GDP will increase, compared to the baseline scenario, by an additional 6.7 pp, 9 pp and 7.2 pp in 2016, 2017 and 2018, respectively.

**TABLE 1. Macroeconomic impact of a 20 pp of GDP fall in remittances.**

Macroeconomic Indicator	Termination Scenario: Induced Change		
	2016	2017	2018
Real GDP growth (pp)	-2.1	-0.7	-0.3
Overall fiscal balance (pp of GDP)	-0.3	-0.5	-0.3
Primary fiscal balance (pp of GDP)	-0.4	-0.5	-0.5
Current account balance (pp of GDP)	-1	-0.8	-0.5
Remittances (pp of GDP)	-0.5	-0.6	-0.6
Gross reserves (months of imports)	-0.7	-0.8	-0.8
Debt-to-GDP ratio (pp)	6.7	9	7.2

\* The baseline scenario in this simulation is what is used to generate the forecasts in this issue of the LEM.

\*\* "The literature tends to emphasize that remittances increase family consumption and are not invested in productive assets" (Bouhga-Hagbe, 2006, p. 5)

# SPECIAL FOCUS

## I. INDUSTRIAL PARKS AND SPECIAL ECONOMIC ZONES IN LEBANON<sup>35</sup>

### Abstract

*Lebanon's industrial sector in Lebanon has lagged, both on a regional and global comparative basis. Lebanon's macroeconomic structure, being heavily dependent on tourism and real estate at the expense of industry and agriculture, renders the economy vulnerable to political and economic shocks. In this context, Lebanon needs to focus on its industrial potential and provide solutions to the numerous constraints hindering its industrial establishments from functioning at their full capacity. One possibility to strengthen the industrial sector is via spatial industrial policies, most notably, industrial parks and special economic zones (SEZs), which support increased investment and competitiveness in the industrial sector. Special care should be allotted to fiscal incentives which evidence suggest are ineffective and might instead lead distortions such as the relocation of existing businesses to the zones rather than the establishment of new business. Under suitable conditions, industrial zones have proven successful in various locations and industries across the world which make them an attractive tool in Lebanon.*

### Introduction

**30. Lebanon's industrial sector has lagged, both on a regional and global comparative basis.** Lebanon's macroeconomic structure is one that is heavily based on services at the expense of industry and agriculture. This exposes the country to a number of vulnerabilities, including volatility in growth and sizable macroeconomic imbalances that subject the economy to the risk of forced adjustment. It also acts as a drag on technological upgrading and productivity growth in the economy.

**31. In this context, Lebanon may stand to benefit at the macro level from policies that reinforce the competitiveness of the industrial sector.** More specifically, an enhanced industrial sector will generate a growth dividend as total factor productivity responds positively to increased physical and human capital. Additionally, more exports and larger FDIs will strengthen the country's balance of payments, whose imbalances threaten the exchange rate and expose Lebanon to the risk of a sudden stop.

**32. Aside from much needed transversal reforms, including to the investment climate and trade among others, spatial industrial policies – most notably the development of industrial parks and special economic zones (SEZs) are increasingly seen as offering potential to support increased investment and competitiveness in the industrial sector.** This note provides a high level overview of the potential relevance of such spatial instruments in Lebanon, along with some messages for design and implementation.

<sup>35</sup> The authors are Thomas Farole (Lead Economist at GPSJB) and Wissam Harake (Economist at GMF-MENA).

**33. Special care should be allotted to fiscal incentives which evidence suggest are ineffective as a source of differentiation, with the end result merely an increasing ‘race to the bottom’ and transfer of rents from governments to private investors.** In general, fiscal incentives should not be excessive and should be well targeted and consistent with the national economic/industrial strategy that the government is pursuing. This is so as to not cause distortions whereby the incentives lead to relocation of existing businesses to the zones rather than the establishment of new business. Moreover, these fiscal incentives are bound to cause additional transfer of resources from the more taxed, less privileged majority to the less-taxed elite.

## Industrial Sector Performance – the Macro-Economic Case for Intervention

### Growth

**34. Between 2000 and 2015, value added in the industrial sector averaged 17.4 percent of nominal GDP, compared to 68.3 percent and 4.9 percent for the services and agriculture sectors, respectively.** The industrial sector in Lebanon performs poorly both globally (Figure 17) and compared to various relevant groupings (Figure 18); as a percentage of nominal GDP, value added in the industrial sector in Lebanon significantly lags the MENA average, is below the bottom 10 percent group of countries, and in the lower 20th percentile of upper middle income countries, of which Lebanon is a member. Instead, it is comparable with low income countries, where the agriculture sector dominates. Lebanon’s industry also ranks lowest relative to a group of comparator countries: Bosnia

and Herzegovina, El Salvador, Georgia and Jordan.<sup>36</sup> For the most part, this comparison holds for the manufacturing sector as well. As such, effective investment in industry and manufacturing has a potential for higher-than-average returns due to low starting levels.

**35. As it stands, the structural composition of the Lebanese economy is not conducive for job creation, even during robust growth periods.** While real estate and construction exert a sizable influence on the aggregate economy, combining to account for an average of 17.1 percent of real GDP between 2004 and 2011, they employed an average of only 7.8 percent of the Lebanese workforce between 2004 and 2009. The real estate sector, in particular, has accounted for anywhere between 50 and 70 percent of total gross fixed capital formation since 1997. The disconnect between robust activity in real estate and job creation also holds true for the region at large; a World Bank study<sup>37</sup> showed that while the real estate sector accounted for around 33 percent of FDI inflows to the Middle East and North Africa (MENA) region, it contributed to only 5 percent of job creation between 2003 and 2011. In comparison and over the same period, manufacturing accounted for a much lesser 20 percent of FDI inflows to MENA but generated 55 percent of the employment.

**36. The high dependence on the real-estate and tourism sectors also renders the economy vulnerable to exogenous shocks.** In Lebanon, hotels, restaurants and domestic trade (wholesale and retail) combined to account for an average of 16.8 percent of GDP between 2004 and 2011.

<sup>36</sup> Comparator countries were chosen from the Find My Friends World Bank database using the following filtering criteria: (a) middle (lower and upper) income countries, (b) emerging and developing countries as classified by the IMF, (c) non commodity countries, (d) countries with a population of between two and eight million, and (e) countries that have an agricultural sector whose value added is less than 10 percent of GDP. This generated the following group of countries for Lebanon: Bosnia and Herzegovina, Bulgaria, Georgia and Jordan. However, we substitute El Salvador for Bulgaria to provide broader regional representation. Moreover, El Salvador, along with Bosnia and Georgia is a post-conflict country, making it particularly relevant for Lebanon.

<sup>37</sup> World Bank (2011), *Investing for Growth and Jobs*, Middle East and North Africa region, pages 30-34.

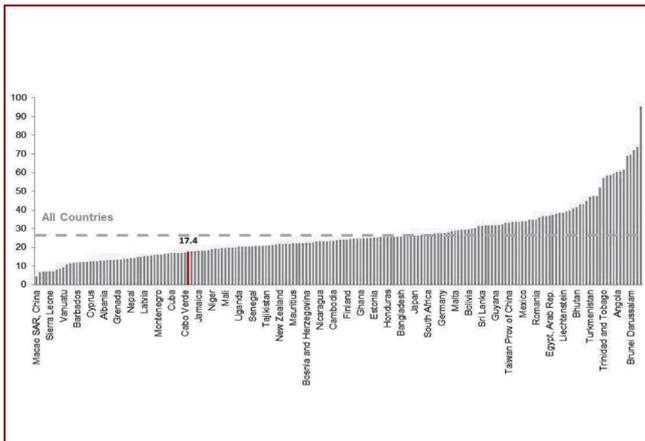


FIGURE 17. Value added for the industrial sector in Lebanon and the world, average for 2000-2015 (percent of nominal GDP, current \$US).

Source: World Development Indicators, Find My Friends.

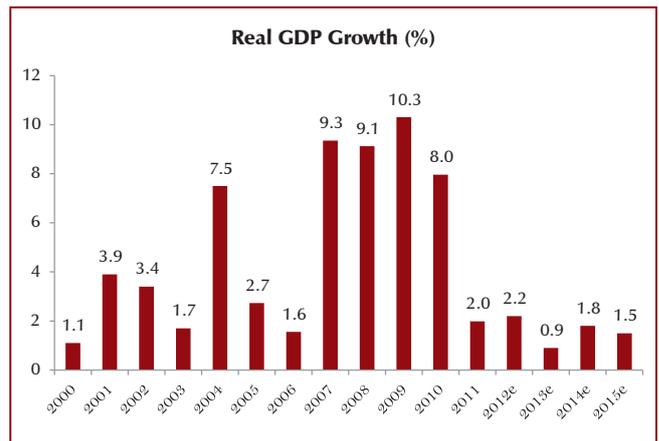


FIGURE 19. Real GDP growth highly volatile ...

Source: Lebanese authorities and WB staff calculations.

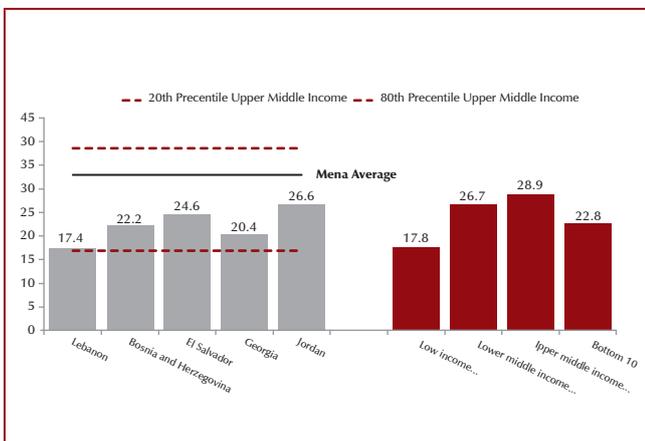


FIGURE 18. value added for the industrial sector in Lebanon and comparable countries, average for 2000-2015 (percent of nominal GDP, current \$US).

Source: World Development Indicators, Find My Friends.

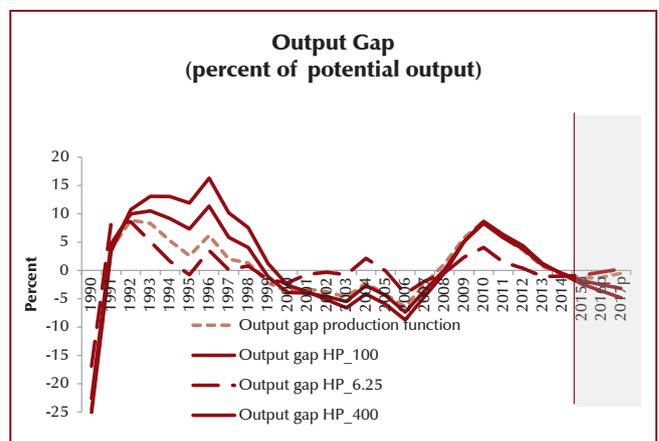


FIGURE 20. ... reflecting output gap volatility.

Source: Lebanese authorities and WB staff calculations.

This leaves the economy highly susceptible to political and security shocks. Deteriorating security and political conditions have a disproportionately negative impact on these sectors, compared to manufacturing and industry, thus generating significant volatility in economic activity between 2000 and 2014 (Figure 19). In an estimation exercise for potential output for Lebanon,<sup>38</sup> we see that post-war period is characterized by a heavy fluctuation for the output gap<sup>39</sup> (Figure 20).

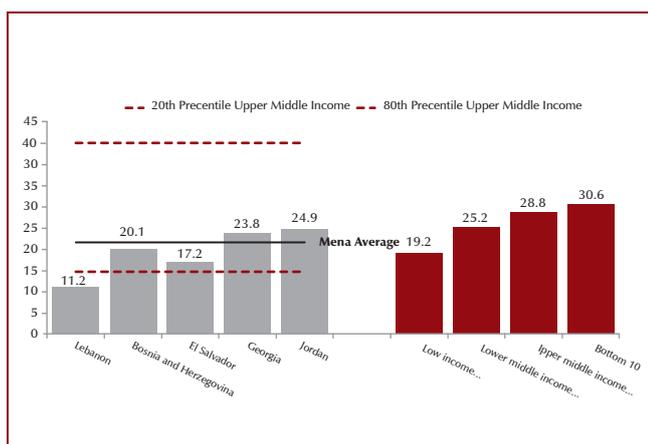
## Macro-economic imbalances

37. **Lebanon suffers from persistent and significant macroeconomic imbalances, especially sizable fiscal and current gap account deficits, elevating the risk of forced adjustment.** For the time period 2010-2015, exports of goods from Lebanon averaged 11.2 percent of GDP, ranking lowest amongst comparator countries and relevant groupings (Figure 21) and driving one of the most acute current account deficits in the world (Figure 22).

38. **As a result, Lebanon is structurally and heavily dependent on capital inflows to finance its imbalances.** Since 2012, however, leading sectors towards which the majority of foreign capital

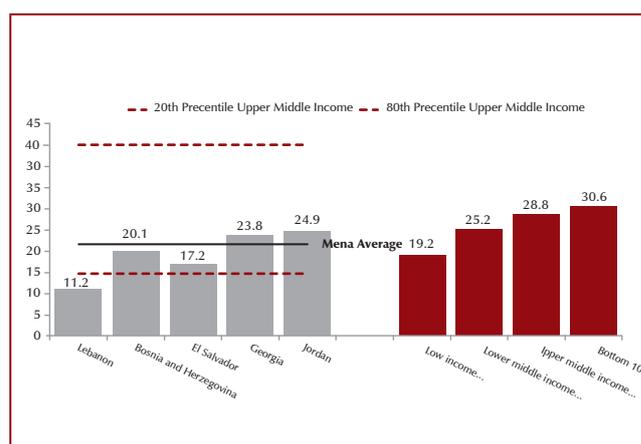
38 World Bank, *Lebanon Economic Monitor*, Fall 2014.

39 A positive output gap in this case denotes that the economy is ramming above potential, while a negative output gap indicates that it economic activity is below potential.



**FIGURE 21. Exports of merchandise goods for Lebanon and comparable countries, average for 2010-2015 (percent of nominal GDP).**

Source: World Development Indicators, Find My Friends.



**FIGURE 22. The current account balance for Lebanon and comparable countries, average for 2010-2015 (percent of nominal GDP).**

Source: World Development Indicators, Find My Friends.

had gravitated (e.g., real estate, tourism) suffered a significant decline in activity, becoming a less attractive destination for FDI. Net FDI in 2014 (the latest available full-year data) registered US\$ 1.2 billion, equivalent to 2.6 percent of GDP, compared to an average of 9.5 percent of GDP between 2000 and 2010. This has forced Lebanon to become more dependent on short-term capital inflows, exposing it further to a sudden stop scenario.

### 39. Industrial parks and special economic zones in theory offer the potential to address both growth and macroeconomic vulnerability issues linked to weak industrial sector performance.

To the degree that they attract new investments – particularly from foreign enterprises – that introduce new technologies to the domestic economy, industrial parks and SEZs support growth both through an accumulation of physical capital as well as an increase in total factor productivity (TFP) (Wang, 2013).<sup>40</sup> An indicator of productivity is the share of medium- to high-technology in manufacturing; currently, for Lebanon this share is about half of the OECD average, and ranks about half-way in the region (Figure 23). Moreover, the shift in economic activity toward the more resilient industrial sector, will help establish a more diversified economy, enabling Lebanon to better absorb the shocks to which the country is frequently exposed. This can be

maximized by focusing on Lebanon's comparative advantages in high value-added sectors (a knowledge economy).

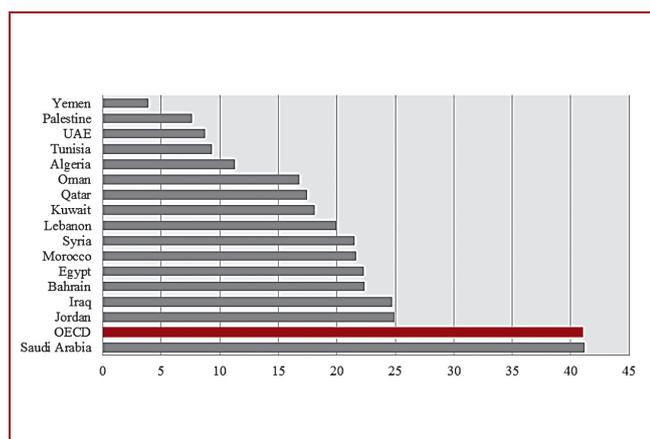
**40. Industrial parks and SEZs may also offer a strategy to mitigate macroeconomic vulnerabilities via a number of channels.** As with the potential productivity gains noted above, exploiting these gains depends on the degree to which these instruments facilitate competitiveness and (especially) attract FDI.

1. In raising net exports, the current account deficit can be lowered.
2. An increase in FDI will strengthen the balance of payments, providing exchange rate support.
3. In decreasing dependence on short-term inflows, FDI helps lower the risk of a sudden stop.

**41. Jayanthakumaran (2003)<sup>41</sup> undertakes a cost-benefit analysis for SEZs in South Korea, Philippines Indonesia, Malaysia, Sri Lanka and China.** The author finds that SEZs lead to an increase in foreign exchange earnings and raise taxes and other revenues. Achieving such outcomes in Lebanon could contribute to lower the persistent and large fiscal deficit.

40 Jin Wang, (2013), *The economic impact of Special Economic Zones: Evidence from Chinese municipalities*, Journal of development economics, v. 101, March 2013, p. 133-147.

41 Kankesu Jayanthakumaran (2003), *Benefit-Cost Appraisal of Export Processing Zones: A Survey of the Literature*, Development Policy Review, 2003, 21 (1): 51-65.



**FIGURE 23. Share of medium- and high-technology activities in manufacturing value added.**

Source: UNIDO industrial statistics, 2014.

## Spatial Industrial Policy Instruments – An Introduction to Industrial Parks and SEZs

**42. Industrial parks and SEZs should be seen within the context of spatial industrial policy – i.e. as instruments that aim to improve the environment for investment and productivity in specific locations.** There are several reasons why it may be appropriate to take an explicitly spatial approach to industrial policy, for example:

- to unlock latent agglomeration potential
- to maximize the positive externalities that may accrue from existing agglomerations
- to offset negative externalities that may exist from existing market outcomes, distortions or government failures (e.g. pollution, congestion)
- to concentrate infrastructure investment, policy reform, and/or other support where there are barriers to delivering it on an economy-wide basis.

**43. Spatially targeted industrial support has**

**long featured in the toolbox of both industrial and regional development policymaking.** At one of the spectrum is support to clusters, which may or may not have an explicit infrastructural component. Spatially targeted industrial infrastructure covers a wide spectrum of instruments ranging from basic industrial parks to export processing zones (EPZs) to large-scale special economic zones (SEZs) that operate on a city-region scale.

**44. What all these zone types feature in common is the spatial concentration of firms and infrastructure.** As further features are added to this core infrastructure, usually to overcome constraints to the operating environment for businesses, the nature of the offering widens (Table 2). The features include the following:

- **Concentration of infrastructure:** The foundation of all zones is the provision of industrial infrastructure that is targeted to a defined spatial area. The rationale is three-fold. First, the spatial targeting allows governments to concentrate scarce resources where they can have the biggest impact. Second, it allows for more effective planning of industrial development, reducing negative externalities of congestion and environmental damage that may result from less planned development. Finally, they offer the potential for exploiting positive spillovers that result from co-location of firms, particularly within related and supporting industries (i.e. clusters), including the development of deep, specialized markets for labor and suppliers, as well as information spillovers and coordination potential.
- **Specialized infrastructure and services:** Industrial parks often offer specialized services to firms operating in the facilities, particularly where zones are designed to support specific clusters. Such services typically involve access to public or ‘club goods’ which benefit all firms but which no individual firm (particularly SMEs) would invest in alone. These may include common effluent treatment facilities, common processing facilities, design and testing facilities, etc. More generalized services like engineering,

TABLE 2. Summary of requirements of different forms of industrial parks infrastructure.

	Clusters	Industrial parks	Export processing zones	Special economic zones
Basic infrastructure	✓	✓	✓	✓
Specialized infrastr. and services	✓	✓	✓	✓
Regulatory facilitation	✓	✓	✓	✓
Regulatory simplification			✓	✓
Specialized trade regime (.Multi-user (indust./commer./resid			✓	✓
Independent governance				✓

Note: dark blue shading indicates standard feature; light blue indicates a feature that exists in some cases

human resources (labor recruiting and training), and financial services, may also be offered particularly in zones catering to foreign investors and/or where such services are unavailable from local markets surrounding the zones.

- **Regulatory facilitation:** While many basic industrial parks stop at the provision of infrastructure, many zones aim to facilitate the process of legal and regulatory compliance of tenants, including business registration and licensing, obtaining construction and operating permits, and any required permits related to labor (e.g. visas and work permits). Such facilitation is most common in EPZ and SEZ arrangements, where the target tenant is most often a foreign investor with less experience in managing the domestic regulatory environment.
- **Regulatory regime simplification:** Beyond facilitation, many zones seek to simplify and liberalize regulatory requirements for investors to reduce the regulatory burden of business establishment and operation. Simplification usually involves establishing a separate set of rules – a separate regulatory regime – for the zone and thus is almost never part of a standard industrial park arrangement.
- **Specialized customs, trade, and financial regimes:** In order to facilitate trade, particularly in zones targeting export-oriented industry,

it is common for zone programs to establish a specialized customs regime. Such a regime typically involves an environment allowing for duty-free imports of inputs to the production process and no restrictions (quotas, duties, etc) on exports. It may also allow firms to operate outside normally rules with regard to operating with foreign currency, currency convertibility, and repatriation of funds if these are unduly restrictive. Note that some aspects of the customs regime can be implemented in a basic industrial park environment if the country has a customs law that allows, for example, for the operation of bonded warehouses and duty-drawback mechanisms.

- **Specialized fiscal and labor regimes:** Common to almost all EPZs and SEZs but not typically part of a basic industrial park program is a fiscal regime that provides a number of incentives designed to attract investment. This may include reduction or elimination of corporate taxes, VAT, and other taxes (e.g. local taxes); it may also reduce or eliminate as well as labor contributions like pensions and social security and provide subsidies for training and capital investment. Such a specialized fiscal regime is not typically part of a basic industrial park program, although investors in an industrial park may qualify for many of the incentives if they are available more broadly through the national investment regime. Finally, EPZs and SEZs often sometime

**BOX 2. Lessons learned from international experiences with industrial parks and SEZ.**

- **Comparative advantage:** Successful industrial parks often cater to specific industrial clusters. Where zone initiatives have been successful is where the emphasis has been on: i) industrial clusters that are in line with national or regional comparative advantage; and ii) where they are clearly linked into a wider national industrial strategy. Examples include Bangladesh and many of the EPZs in Central America, which built infrastructure to support a specific global positioning in the apparel sector. By contrast, less successful zone initiatives in many parts of Africa have ended up catering to a diverse set of capital intensive sectors that mainly served to facilitate imports.
- **Strategic locations:** Industrial parks and SEZs are most successful when they take advantage of strategic locations. This typically includes metropolitan regions and key trade-related infrastructure, but can also include locations with good access to immobile, strategic (typically, natural) resources. By contrast, many countries that have launched programs have attempted to use part of the program as a regional development tool, to attract investment into 'lagging' or peripheral regions. Many countries, including Turkey, Thailand, Russia, South Africa, and Bangladesh among others, have found that while industrial parks flourished in favorable locations, they languished in less favorable ones, even when additional fiscal incentives were on offer.
- **Critical infrastructure:** While most zones offer infrastructure that is of higher quality than is typically available in the country, in some cases (for example in some zones in Nigeria, Ghana, and Senegal) infrastructure inside the zones is a mirror of the worst experiences in the country more widely, including water shortages, electricity failures, and health, safety, and environmental shortfalls. Thus, zone development must prioritize critical supporting infrastructure – both inside and outside the industrial park – along with or even ahead of the development of land and factory shells. This is what is referred to in China's industrial parks as "five connections and a levelling" – power, water, telecommunications, roads, and ports, along with basic land preparation – as the fundamental infrastructural responsibility of governments in industrial zone development.
- **Regulatory simplification:** Successful industrial parks not only offer facilitation through 'one-stop' investor services but actually simplify the requirements and procedures involved in business start-up, construction, and operations. This can be done through legal mechanisms that actual change the regulatory requirements of firms operating within zones, as is the case in many SEZ programs. But it can also be achieved through concerted efforts to improve procedures within each relevant agency. In this regard, one can look to reforms in Chinese industrial parks to see an example of successfully married process reengineering and automation of business compliance burdens, resulting in significant reductions in administrative processing times – see, for example, the 'Digital Beijing Initiative' of the Zhongguancun e-Park in Beijing.
- **Role of the private sector:** While many successful industrial zone programs have been led by government, commercial orientation and private sector participation in development and operation of successful zones is often critical to ensure speed of implementation, financial risk-sharing, technical expertise, and appropriate market signals. Fiscal, customs, and other incentives must be designed to attract the right kind of productivity-enhancing investments rather than short-term or rent-seeking investments.
- **Regulatory autonomy and coordination:** While a number of regulatory models exist for overseeing industrial parks, the most effective approach tends to be establishing a single national regulatory authority (rather than individual zone authorities) that is independent from an individual ministry. This provides autonomy and minimizes political interference. Examples here include the industrial zone and free zone regimes in Thailand, Costa Rica, Dominican Republic, Jordan, Philippines, and Korea. It is also critical, in cases where more than one zone program exists, to ensure a formal mechanism exists to facilitate coordination.
- **Local economy linkages:** Particularly in SEZs and industrial zone initiatives targeting foreign investors, active efforts should be made to promote linkages between zone-based firms and the domestic economy, including suppliers and labor markets. Initiatives may include local supplier development, job training, and technology transfer programs. Regulatory improvements in the local economy outside the zones can also be critical to enable local firms to respond to the new opportunities offered by zone investments.

established with a specialized regime for labor, allowing investors to benefit from access from reduced regulatory protections<sup>42</sup> and/or greater flexibility in bringing in foreign workers.

**45. Specialized zone programs have a long history.** The first modern industrial free zone was established in Shannon, Ireland, in 1959. Before the 1970s, most zones were found in industrial countries. Since the 1970s, however, starting with East Asia and Latin America, zones have been designed to attract investment in labor-intensive manufacturing from MNCs. These zones became a cornerstone of trade and investment policy in countries shifting away from import-substitution policies and aiming to integrate into global markets through export-led growth.

**46. The popularity of such regimes over recent decades stems from the catalytic role they have in supporting the growth of manufacturing exports in a number of places.** Most notably, the success of China, and before that East Asia neighbors Taiwan, Korea, and Japan, was based in part on using industrial parks to support the development of export-oriented manufacturing. In Latin America, the Dominican Republic, El Salvador, and Honduras, among others, used *zonas francas* (“free zones”, generally using the EPZ model) to take advantage of preferential access to the U.S. market. Their zones generated large-scale manufacturing sectors in economies previously reliant on agricultural commodities. In the Middle East and North Africa, EPZ and SEZ regimes played an important role in catalyzing export-oriented diversification in countries like the Arab Republic of Egypt, Morocco, and the United Arab Emirates.

**47. Despite these successes, however, it is important to keep in mind that industrial parks, at least those involving specialized regimes like EPZs and SEZs, have had a mixed record overall.** Many programs have suffered from controversial land acquisition and allocation practices, and delayed

investment and failure to attract sufficient investments have resulted in many zones being considered ‘white elephants’ (Farole, 2011; Saleman and Jordan, 2013). Moreover, given the large investments in taxpayer money going into these programs, the payoff in terms of investment, job creation, and exports has too often failed to materialize.

## Industrial Parks and SEZs in Lebanon

**48. Lebanon has had a program of industrial zones for several decades.** An industrial zone strategy was developed by IDAL in 1995, which aimed to support industrial development and a more balanced geographical distribution of industrial investment through the provision of specific infrastructure and financial incentives. The Ministry of Industry was granted the right to establish industrial zones in 2005 through Decree #14283. Specifically this decree grants the right for Ministry of Industry to establish and operate public “industrial centers” throughout Lebanon.

**49. According to data from the Ministry of Industry, 131 industrial zones have been established either by decree or a decision from a Higher Council.** Nearly half are in Beirut and Mount Lebanon, close to one-quarter are in North Lebanon, and the remainder are split between Bekaa and South Lebanon & Nabatiyeh. The existing zones are largely linked to location requirements defined around environment impacts of industries. Industries in Lebanon are split into five categories, in decreasing order of environment impact. Factories in the first 3 categories can only operate in industrial zones while those in the fourth and fifth categories can operate in industrial zones only if the zones pertain to their relative industry.

**50. In terms of fiscal incentives, the benefits existing industrial zones receive are not specific to industrial zones per se, but rather pertain to a certain location and/or industry.** For example:

<sup>42</sup> While specialized labor regimes were common in traditional EPZs of the 1970s-1990s they are increasingly less common today, where zones are expected to adopt not just ILO-compliant labor regimes but to ensure that the regimes in the EPZs and SEZs do not differ substantively from those in the domestic economy.



of municipal lands at very low prices to industries that relocate to the zones. Afore-mentioned space and scale externalities will also be in effect.

**53. The Ministry of Industry is developing master plans and feasibility studies for the three mentioned industrial parks, with technical assistance by UNIDO and funding from the Italian Government.** The master plans will be comprehensive, setting the ground for commencing infrastructure construction in the three locations. These studies will cover legal/regulatory, financing, financial and management aspects of the zones development and operations, and include market/demand assessments and the preliminary design of on-site infrastructure. The project findings, conclusions and recommendations will inform investment decisions by the government or private sector investors. It is expected that these activities will pave the way for the allocation by the Council for Development and Reconstruction (CDR) of seed funding for industrial infrastructure building, through bilateral contribution from the Italian government and other sources. In a second phase, these funds will capitalize on the present UNIDO ongoing project outcomes and be utilized as a stimulus for encouraging private investments in industrial infrastructure

**54. In addition to industrial parks, Lebanon also has established special economic zones, or ‘free economic zones’, which operate under the office of the Prime Minister.** The first of these, the Logistics Free Zone, is based in Beirut and operated by the Port of Beirut. This zone, established by law in 1995 but launched only in 2007, is designed under a ‘freezone’ model, which aims to attract foreign and domestic investment in trade-related activities, including transport, transit, and logistics. It offers 100 percent foreign ownership and customs exemptions.

**55. In 2008, the government passed a law for the establishment of the Tripoli Special Economic Zone (TSEZ), to be established on a 50-hectare site adjacent to the Port of Tripoli in the North of the country.** This SEZ is expected to go beyond the trading and logistics role of the Logistics Free Zone

in Beirut and develop an industrial park to attract foreign and domestic investments on manufacturing and related activities. The SEZ includes an extremely generous set of fiscal incentives<sup>44</sup> in addition to labor regulatory incentives. Indeed, the provision of a 100 percent corporate tax exemption without time limits and a 100 percent exemption of withheld taxes and social security contributions for employees is almost unheard of these days, even within the SEZ environment. The TSEZ Law also includes the establishment of Tripoli Special Economic Zone Authority as a distinct, autonomous legal entity (reporting to the Prime Minister’s office) for oversight of the TSEZ program.

## Constraints to Manufacturing in Lebanon – Is there a Case for Spatial Industrial Infrastructure?

**56. In thinking about what role industrial parks and SEZs may play in supporting the competitiveness and sustainability of Lebanon’s manufacturing sector, one of the most important lessons from global experiences of zone programs is to focus on the problems to be solved.** What are the constraints that are holding back investment by the private sector (domestic and private) and what are the factors that drive up costs in the manufacturing sector and thus impede competitiveness?

<sup>44</sup> This includes (i) 100 percent customs exemption on imported raw material; (ii) duty free export of finished goods; (iii) duty free import of construction material, equipment, office machinery and spare parts; (iv) 100 percent exemption on VAT and excise tax for goods and services destined for exports; (v) 100 percent exemption on corporate profit tax (provided that not less than 50 percent of the workforce is Lebanese and the value of fixed assets or capital is greater than USD 300,000); (vi) 100 percent exemption on withheld tax on salaries for employees of tenants and on social security contributions; (vii) 10 percent exemption on building permit fees and built property tax; and (viii) 100 percent exemptions on shares and bonds issued by companies within TSEZ.

57. Data from the most recent World Bank Enterprise Surveys (2013) can be instructive in understanding the constraints facing the sector. Overall, evidence from the survey suggests that currently, due the different investment climate constraints facing manufacturing sector in Lebanon, capacity utilization<sup>45</sup> in food and non-food manufacturing is at 60 percent and 68 percent respectively and falling to 33 percent in Bekaa Valley. Unsurprisingly it is the small businesses most affected with capacity utilization at an average of 67 percent versus 82 percent for large firms.

58. As might be expected, political instability is far and the most important constraint identified by enterprises – close to 60 percent of all enterprises identified political instability as the single biggest obstacle they face. Corruption, too, stands out – it is identified as a major constraint by more than 60 percent of establishment, although as the top obstacle by less than 7 percent. Beyond these two, however, inadequate access to quality, affordable electricity stands out, particularly for firms in the manufacturing sector, where it is identified a major constraint by 70 percent of firms and as the top obstacle by more than 16 percent. Figure 25 shows that for manufacturing enterprises, once removing political instability and corruption, electricity is far and away the biggest constraint. Moreover, while access to finance and high taxes are second and third on the list, land issues are also highlighted as a significant constraint.

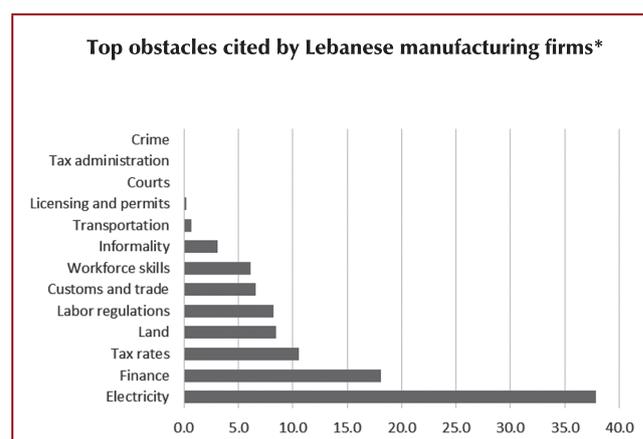


FIGURE 25. Top obstacles identified by Lebanese manufacturing establishments\*.

\* Note: excludes 'political instability' and 'corruption'  
Source: World Bank Enterprise Surveys (2013)

59. Looking at the issue of electricity in more detail, Table 3 shows that Lebanon's manufacturing sector is particularly hard hit. Lebanese manufacturing firms face long wait to obtain electricity connections to their establishment – in the case of the food manufacturing sector an average of 130 days, compared with 56 days for all firms in Lebanon and just 13 days for firms in Jordan. More importantly they face poor service. Manufacturing firms face on average more than 300 hours per month of electricity outages – more than 10 hours per day – with cost impact equivalent to more than 8 percent of annual sales. This is almost three times the global average. As a result, 86 percent of manufacturing firms own generators and rely on them for around half of their power supply. This will have a significant cost impact on

TABLE 3. Assessment of electricity constraints identified in Enterprise Surveys (2013).

	Avg hours of electricity outages per month	Losses from electricity outages (% of annual sales)	Days to obtain electricity connection	Electricity identified as a major constraint
All countries	16.6	2.6	32.0	32.0
Middle East & North Africa	114.4	4.7	41.1	40.5
Lebanon - all enterprises	262.6	5.7	56.0	55.1
Lebanon - manufacturing	331.5	8.1	84.7	69.8
Lebanon - food & manufacturing	323.4	6.6	129.9	77.6

Source: World Bank Enterprise Surveys (2013)

45 These estimates are at a 90% confidence level.

production, particularly in key processing sectors like food, chemicals, and metals.

**60. After removing political instability and corruption, land is the fourth biggest constraint facing Lebanese manufacturing establishments.** There are three main ways in which land impedes manufacturing processes in Lebanon from operating at their full capacity. The first way is through the scarcity of empty and well-located land plots for industrial operations; the second is through the high prices of available land plots; and the third is through the dominating incentive to engage in real estate activities rather than manufacturing activities.

**61. A survey carried out as part of the feasibility study for the Tripoli SEZ<sup>46</sup> also highlighted electricity quality and pricing as the most important constraint facing manufacturing firms.** This survey, however, also identified access to and cost of industrial land as the second biggest constraint facing firms.

**62. The prominence of these infrastructure related constraints suggests that industrial parks could play an important role in facilitating competitiveness, provided they can solve the electricity problem.** However, it is important to note that setting up of an industrial zone will not automatically resolve electricity constraints. Substantial targeted investments will be required to ensure the industrial parks have access to sufficient electricity resources to support the type of industrial activities they are housing. Moreover, the problem with electricity in Lebanon is not one of access and quality alone. Rather, high prices are the most significant constraint facing industrial users. In the current form, there is nothing in the industrial zone or SEZ programs that would resolve the electricity pricing constraint. This would require either some fiscal incentive (subsidy) or deregulation (e.g. within the SEZ program) to enable private provision of electricity<sup>47</sup>.

46 USAID (2011) Feasibility Study for the Tripoli Special Economic Zone, Phase 1 Main Report, Sibley International.

47 And to make this viable for a private investor would likely require a mechanism to sell excess power back into the grid. This type of liberalization is common in many SEZs around the world.

**63. However, it is also clear from the assessment of enterprise constraints in the manufacturing sector that basic industrial parks alone may not be sufficient to overcome some of the competitiveness challenges, particularly for firms looking to compete in export markets.** Indeed some of the constraints identified highlight the importance of going beyond simply infrastructure provision, including the potential role for regulatory regimes more common in SEZs. For example:

- *Corruption and links to regulatory environment:* While firms do not identify licensing and permitting as a specific constraint, they do indicate high prevalence of requirements to pay bribes for obtaining construction permits (42 percent of firms report expecting to give a bribe), obtaining electrical connection (17 percent) or an operating license (12 percent). Such a situation could be attenuating in an industrial zone environment with a dedicated 'one-stop' facilitation arrangement, and even more so in a regime which streamlined regulatory processes.
- *Crime:* More than 30 percent of manufacturing firms in Lebanon identify crime, theft, and disorder as a major constraint. A fenced-in industrial park environment would help shield firms from such risks through improved infrastructure and central security.
- *Customs and Trade Regulations:* While customs and trade regulations are not identified as a high priority constraint, they are still identified as major constraints by some 20 percent of manufacturing firms, and more than 35 percent of all large firms in the country. A specialized regime, under an SEZ or EPZ model (like what would be in place in TSEZ) would mitigate this constraint both through a more liberalized regulatory environment as well as the provision of on-site customs services.

**64. In addition to these determinants of competitiveness, there is also a strong argument to be made for investment in industrial parks to mitigate serious environmental externalities**

imposed by the industrial sector, including toxic emissions, effluent release, and groundwater overuse and contamination, among others. Well-developed industrial parks can help support improved environmental practices, in part through investment in common-use infrastructure and services, and can also provide an opportunity for more effective enforcement of environmental compliance.

## Some Messages for Industrial Zone and SEZ Development in Lebanon

**65. Considering the key constraints holding back competitiveness of Lebanon's industrial firms, there appears at least to be a *prima facie* case for the use of both industrial parks and SEZs to address different aspects of the investment climate for different types of investors.** However, spatial industrial infrastructure interventions are costly and often difficult to get right. In a resource constrained environment it will be important to consider very carefully the scale and most appropriate design of interventions, as well as the mechanics of implementation. Bearing in mind the lessons learned from global experience with industrial parks and SEZs, following are some messages for the government of Lebanon to consider in developing further these programs:

### Treat land as a strategic resource

**66. Given the shortage of quality industrial land in Lebanon and the experiences to date with industrial parks, it is important that Lebanon's industrial parks programs treat land as a strategic resources and carefully avoid creating incentives that distort the efficient use of land.** Indeed, economic zone programs around the world are rife with examples of land speculation by private and public interests that exploit land designations and incentives that are made

available. A notorious example of this comes from India, where the 2005 SEZ Act, which offered possibility to automatically convert agricultural land to much more valuable industrial land, resulted in widespread land-grabbing and dispossession of small farmers. The outcome was largely speculation, with most developers sitting on the land and very little industrial development taking place.<sup>48</sup> Keeping industrial zone development in the hands of the government, however, is not a foolproof solution. While it may dampen speculation it may also result in land availability driving projects rather than development being prioritized in the most strategic locations (see below). Instead, what is needed is a balanced approach that incentivizes owners of land (private or public) to engage in strategic development. In some countries, incentives and land use derogations for industrial parks are linked with explicit development commitments – landowners, and even developers on leased land within zones, may forfeit their benefits or even face land repossession if they fail to undertake agreed upon investments within a specific time period. This type of 'use it or lose it' approach is common in many local zoning regulations around the world and has been applied in economic zones in many countries, including Jordan and Rwanda.

### Select sites carefully, prioritize, and pilot

**67. With at least 72 identified industrial parks in the country, prioritization is a must, particularly where the government is intending to lead development or even to support private sector development through basic or connective infrastructure provision.** Prioritization will require making choices about where zones are most likely to attract sufficient volume of investment. Despite the interests in using industrial parks to seek 'balanced' regional development, commercial viability is most likely in locations close to larger metropolitan areas or key trade infrastructure. Pilots

48 See Mitra, S. (2008). 'Special Economic Zones in India: White Elephants or Race Horses'. Available at: <http://ssrn.com/abstract=969274>; Levien, M. (2012). 'The Land Question: Special Economic Zones and the Political Economy of Dispossession in India'. *Journal of Peasant Studies*, 39(3-4): 933-69.

should focus on these more attractive locations in order to demonstrate proof of concept.

**68. Private sector-led investments may also confer obligations on public investment, so even here the development of a clear national industrial development masterplans should determine the staging of investments.** Such an approach can also help guide private investments to locate along prioritized development zones or corridors (see example from Thailand in Box 3).

### Establish a careful collaboration with the private sector

**69. The global experience of industrial zone development suggests there is no clear ‘best practice’ when it comes to driving development of zones through the public or the private sector.** Some of the recognized success stories (e.g., China and Mauritius) have been led mostly by the public sector. In other parts of East Asia, both private (e.g., the Philippines) and public (e.g., South Korea and Taiwan) models have been successful. In Latin America, the turnaround of many zone programs during the 1990s can be partly attributed to the dynamic role of the private sector. In Africa, both models have been tried and neither has been a success. What seems to matter is not so much who runs the program but how—their objectives, incentives, and capacity. However, there are three

reasons why private sector participation should be encouraged: i) *financing and risk mitigation* – given the significant investments required in many industrial parks (particularly large-scale SEZs), private sector finance can play an important role to mitigate risk; ii) *technical expertise* – industrial zone development and management is not an area where most governments have expertise; therefore, private sector participation in development and operations can reduce implementation time and risk; and most importantly, iii) *market signal* – the willingness of the private sector to invest in industrial parks provides an important signal to indicate the commercial feasibility of zones.

**70. This last point may be particularly important for Lebanon, as it seeks to prioritize which locations are most likely to support commercially viable industrial parks.** With a dynamic set of industrial entrepreneurs, Lebanon has the possibility to engage the private sector in a cooperative (public-private) approach to zone development. Evidence from a recent program in India (Box 4) suggests that a carefully constructed set of incentives can deliver highly successful results through public-private cooperation.

### Go beyond basic infrastructure

**71. The analysis of industrial sector constraints shows that infrastructure matters, but**

#### BOX 3. Provision of off-site infrastructure in Thailand.

Thailand’s industrial estates law guarantees provision by government and state-owned utilities of offsite infrastructure up to the entrance to an industrial estate, while the developer or factory owner, in the case of a private zone, must fund and carry out all onsite development. Thailand’s law, however, does not guarantee immediate provision of off-site infrastructure, and development of offsite infrastructure might not take place for several years according to various agencies’ and parastatals’ budgets and plans for development of roads, power lines, and water systems. The law does allow a private developer to accelerate the development schedule, especially for electricity and water, by providing immediate funding for the requested development, which is reimbursed over time once industrial estate tenants begin to purchase power and water and sanitation services.

The option for private financing of offsite infrastructure in Thailand, together with the potential delays if government funds are required, provide a powerful incentive for developers to situate their industrial estates close to major roads, ports, power plants, and/or rail lines. Though free to do otherwise, developers will have to carefully weigh and incur the costs and delays of doing so. These costs, however, will be borne entirely by the private developer so will have little or no effect on approval decisions by government.

Source: IEAT

**BOX 4. A tale of two programs in India.**

In India, the government has strongly promoted the use of SEZs. Between 2005 and 2012, fully 580 SEZs were approved, but only 124 became operational, and most of those were IT office parks under 20 hectares. Many were speculative investments spurred by the ability of SEZs to make compulsory purchases of land 'in the public interest'. Relatedly, a scheme for apparel industry parks offered generous grants of up to 75% of infrastructure costs, but ran into problems (with only two built in total): government picked locations, and the parks risk being 'white elephants'. The parks were simply not relevant enough for the private sector.

India's more recent Scheme for Integrated Textile Parks (SITPs) has taken a more collaborative approach. Government doesn't pick the locations, but instead invites prospective firms upfront, and then underwrites firms who collectively pick a location and construct common infrastructure. The firms themselves have to put in equity and take out loans for at least half the cost, and the government funds the remaining cost with grants. The grants are performance-based and come in 5-6 tranches as the firms complete the park and show they're serious. Since 2005, about 40 of these parks are either under construction or operational. By 2013, private investments had reached four times the amount of government grant disbursements, and approximately 42,000 jobs had been created, at a cost of approximately R150,000 per job.

The program has also had the effect of ensuring that developments take place only in the most attractive locations and avoids the problems of long-delayed investment or dormancy that was common in the SEZ program. This was achieved by requiring that to receive government grants, the group of private entrepreneurs looking to develop the park are required to form a special purpose vehicle (SPV). The grant is disbursed only after the SPV, procures and pays for the land at the chosen location. Thus, prospective investors have to put their own money at stake to buy the land – this helps ensure public investment flows to locations with demonstrated private sector financing in place.

Source: Jordan, L. and Saleman, Y. (2013) Industrial parks where firms need it: A new way to attract investment, CIIP Note, World Bank, Washington, DC.

**it is also clear that infrastructure is just a part of the solution to the competitiveness challenges of Lebanon's manufacturing sector.** Industrial parks, even in their broadest form, cannot address all the constraints. But a program that uses the tools available to it, and coordinated with other interventions, has the potential to be effective. This may require a combination of regimes, including industrial parks and SEZs (see below on coordination), provided they

are well tailored and don't offer skewed incentives.

### Avoid reliance on excessive fiscal incentives

**72. Across the world, fiscal incentives tend to be the area in which most effort and resources are committed to underpin and differentiate an**

**BOX 5. China's industrial parks - infrastructure ++**

China has had one of the largest and most successful networks of industrial parks, with more than 900 zones employing 40 million people\*. Beyond the high profile SEZs, the success of China's program has been the development of smaller-scale industrial parks, catering mainly to the SME sector. Such zones have included many highly specialized clusters ('specialty cities' focusing on specific products like footwear, toys, etc.) that link SMEs with each as well as upstream and downstream along the value chain.

The recipe for these industrial parks starts with basic industrial infrastructure, but goes well beyond it. All industrial parks are provided with the standard 'five connections and a levelling', including energy, water, telecommunications, roads and ports, along with land preparation. They also typically include low cost factory shells, security, and often low cost (or free) workers accommodation adjacent to the factories. This is supported in most industrial parks with technical training and technology transfer facilities.

Taken together, the offering helps overcome many of the barriers to SME investment and growth by providing a 'plug and play' environment that minimizes investment requirements and risks.

\* Stein, H (2009) "Africa, industrial policy and export processing zones: lessons from Asia" in Noman, A. Botchway, K., Stein, H and Stiglitz, J. (eds) (2012). Good Growth and Governance in Africa: Rethinking Development Strategies, Oxford University Press: Oxford

**industrial zone or SEZ program.** In the competitive environment of investment attraction, governments make a fair argument that if their neighbors are offering incentives it is difficult for them not to offer something similar. However, the arguments against fiscal incentives are pretty conclusive. Most research suggests that fiscal incentives are ineffective as a source of differentiation, with the end result merely an increasing ‘race to the bottom’ and transfer of rents from governments to private investors. In general, fiscal incentives should not be excessive and should be well targeted and consistent with the national economic/industrial strategy that the government is pursuing. This is so as to not cause distortions whereby the incentives lead to relocation of existing businesses to the zones rather than the establishment of new business. In addition, macroeconomic stability should not be compromised or aggravated. In the case for Lebanon, fiscal sustainability has been a significant vulnerability since the 1990’s, with revenue extraction based mostly on regressive policies. As such, these fiscal incentives are bound to cause additional transfer of resources from the more taxed, less privileged majority to the less-taxed elite. This should be considered in light of the fact that the decision to establish new viable businesses in SEZs or industrial parks depends more on favorable market conditions and not so much on fiscal incentives.

## Consider the opportunities for policy experimentation

### 73. Most countries use industrial parks simply

**as tools for infrastructure provision and use SEZs simply as instruments of trade and investment policy.** But countries that have had the most transformational success with industrial parks. But the countries that have been most successful with SEZs (see Box 6) used their zones expressly as a vehicle pilot policy reforms. Indeed, industrial parks (and particularly SEZs, with their independent legal regime) are ideal for experimentation, not only because of their enclave nature, but also because they have built-in compliance mechanisms on the firms and investors operating in them (e.g. the ability to issue licenses, to monitor firms in a short timeframe, and ultimately to revoke a license or terminate a lease). This latter benefit is relevant in Lebanon not just in SEZs but also in industrial parks.

**74. In the Lebanese context, such potential for experimentation may be particularly important given the political space for reform at the national level is so constrained.** Thus, giving local autonomy (with checks and balances) through an industrial parks and/or SEZ program offers the potential for the emergence of innovative solutions involving the public and private sectors. This could involve, for example, approaches to combining refugee and Lebanese labor, innovative skills development programs, or incentives to promote formalization. It could also involve experimental programs that link fiscal incentives for upgrading technology and obtaining quality certifications with support for facilitation export market access. One can also imagine using the industrial parks to pilot mechanisms to incentivize and enforce environmental and social compliance.

#### BOX 6. Using zones to pilot reforms.

**China** famously used their SEZs, particularly Shenzhen, to as experimental ‘laboratories’ for economic reforms that would have been politically risky to adopt on the national level. Sweeping reforms were introduced through Shenzhen, including the abolition of price controls, the introduction of the first labor contracts along with pensions and labor insurance, the privatization of SOEs, and opening up the banking system to foreign investment. Most recently, the government is piloting full flotation of the Yuan in the Shenzhen SEZ.

**Mauritius** used their EPZ regime over several decades as a bulwark for reform, introducing labor reforms and gradually shifting the economy’s focus from import substitution to export promotion. Indeed, with its most recent ‘duty-free island’ initiative, it is clear that the reforms once started inside the EPZs have now encompassed the country.

Source: Farole, T., Norman, M., and Kilroy, A. (2014) “Special Economic Zones and Cities: opportunities and benefits for South Africa”, World Bank Cities Support Program to National Treasury.

**BOX 7. The conflicts of multiple and overlapping zone regimes - the case of Vietnam.**

Vietnam has embraced the concept of industrial zone development, creating an estimated 223 industrial and Export Processing Zones, 13 Coastal Economic Zones, 26 Bordergate Economic Zones, two High-Tech Zones and 600 small-and-medium-enterprise industrial parks since 1991. Vietnam's wide range of zone types is however governed by a complex regulatory structure that crosses a number of national ministries and agencies and includes significant roles for subnational entities.

At the highest level, the Ministry of Planning and Investment (MPI) is responsible for Export Processing Zones, Industrial parks, and (Coastal) Economic Zones; the Ministry of Trade has primary jurisdiction over Bordergate Economic Zones; the Ministry of Science over High-Tech Zones; and the Ministry of Agriculture over High-Tech Agriculture Zones. In addition, the SME industrial parks / clusters are regulated at the provincial level and do not report in to any ministry. Export Processing Zones were defined at Law as being 'governed under central authority,' yet the MPI is responsible for preparing master plans in consultation with provincial People's Committees and are administered by individual EPZ Management Committees, while industrial parks are administered by Industrial Zone Management Boards. While a 2008 law aimed to simplify the network by creating single, provincial management committees for all types of SEZs, multiple exceptions were made and new complexities introduced.

In the case of Vietnam competition across government Ministries, combined with a tendency to 'decentralize the details,' contributed to unnecessary complexity. Although this decentralization was effective in some respects (creating healthy competition amongst provinces), it also contributed to a proliferation of zones models. The regulatory differences between each are often small; the important difference being who controls them (the Prime Minister directly, various Ministries, provinces, etc.). This has led to a complex array of choice (and scope for bargaining) for investors, resulting in a politicized process, with many inefficient investments getting approval.

## Avoid proliferation and ensure coordination

**75. Finally, as Lebanon pursues the opportunities to develop industrial parks and SEZs, careful coordination among ministries will be critical to success.** As noted previously, various initiatives related to industrial parks and SEZs have been launched by, among others the Ministry of Industry, IDAL, the Prime Minister, and the Central Bank, as well as by the private sector (e.g. Association of Lebanese Industrialists). By and large these initiatives have been uncoordinated and not linked to any national industrial policy. This creates a risk of proliferation, overlaps, and even conflicts that could undermine the overall effectiveness of the initiatives.

## II. TECH STARTUP ECOSYSTEM: THE CASE OF LEBANON<sup>49</sup>

### Abstract

*A new wave of entrepreneurship driven by small digital businesses is sweeping both developed and emerging economies. Information and Communications Technology (ICT) has dramatically reduced the cost of innovation and market access, allowing small tech entrepreneurs to compete with established businesses. 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. Lebanon in particular can benefit from this phenomenon, particularly for job creation. Tech startup founders are predominantly young and have a college degree, generating employment for educated youth. The innovation that startups generate also helps make the tech sector more dynamic and sustainable. Lebanon's tech scene is becoming increasingly attractive driven by the example of successful startups that have tapped regional and global markets and the innovative initiative by the country's central bank in facilitating venture capital financing. The nation now needs to leverage these developments by finding solutions to constraints hindering the blossoming of its tech startup ecosystem.*

<sup>49</sup> The authors are Victor Mulas (Senior Operation Officer, Innovation Labs), and Michael Minges (Senior ICT Consultant) with Elene Allende (ICT Consultant).

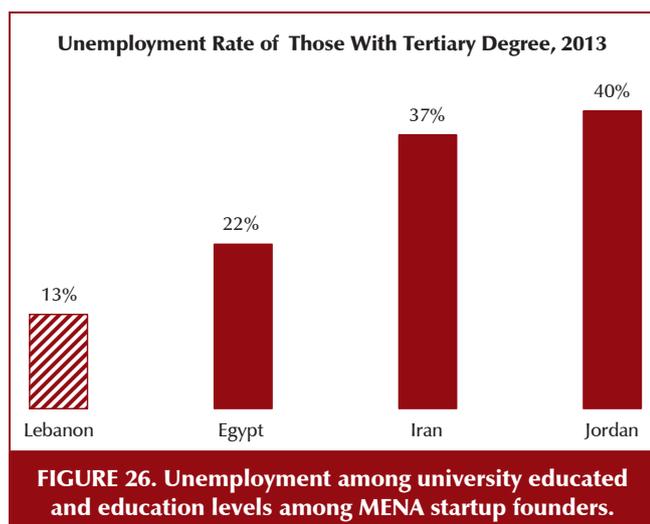
### Introduction

**76. A new type of digital entrepreneurship and innovation is emerging in urban areas in both developed and developing economies.** Various developments, particularly those led by Information and Communication Technology (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.

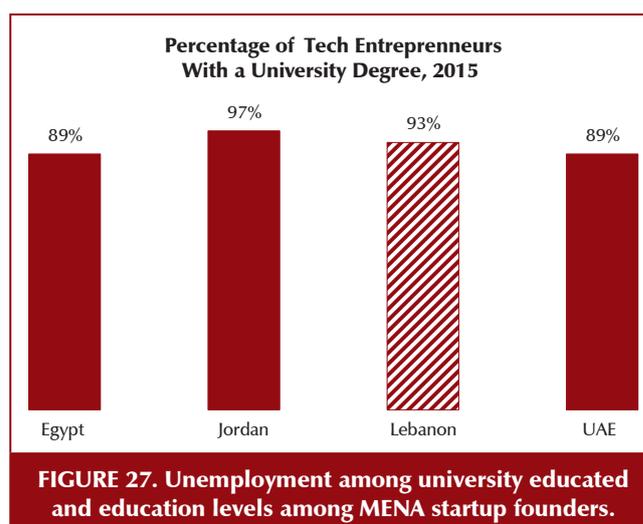
**77. Tech ecosystems also create new sources of employment.** Tech startups grow rapidly, and though many fail, overall job creation is increased.<sup>50</sup> The Middle East and North Africa (MENA) region could benefit from this trend for job creation. MENA is characterized by high unemployment, particularly among young people with a university degree (Figure 26). Although the figure for Lebanon is one of the lowest in MENA, still some 13 percent of the labor force with a university education is unemployed. 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 27). One attraction is that small homegrown digital businesses can be started quickly with few resources. As the founder of an Egyptian mobile application startup notes: "We are lucky that we don't need the support of anything except good wattage, as opposed to manufacturing goods or opening a store. Those kinds of businesses need the support of the government."<sup>51</sup>

<sup>50</sup> Research into the United States job market found that job gains among young tech firms outweigh job losses from early-stage firm failures. See: Hathaway, Ian, 2013, *Tech Starts: High-Technology Business Formation and Job Creation in the United States*, Ewing Marion Kauffman Foundation Research Paper, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2310617](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2310617)

<sup>51</sup> Seligson, Hannah, 2011, *Egypt's Entrepreneurs Look Beyond the Revolution*, The New York Times, July 16, <http://www.nytimes.com/2011/07/17/business/global/egypts-entrepreneurs-look-beyond-the-revolution.html>.



Note: Data Lebanon refers to 2012.  
Source: Adapted from Eurostat and WAMDA.



Note: Data is from a survey of 455 tech startup founders.  
Source: Adapted from Eurostat and WAMDA.

**78. Tech startups can stimulate innovation in Lebanon's ICT sector.** Lebanon's Information and Communication (InfoComm) services sector had a value added of LBP 1,978 (US\$ 1.3) billion in 2013, contributing 2.8 percent of GDP, a ratio that has not varied much over the last decade (CAS 2014). It is dominated by communications services accounting for around three-quarters of ICT service revenue. Tech startups can help diversify the sector from traditional software development and retail trade of IT equipment into consumer-oriented applications and services. There is also great potential for exporting these services throughout the region.

**79. Lebanon has an entrepreneurial culture with a diverse population that is prone to innovation and where risks associated with running a business is the norm.** The country's waves of emigration have given it considerable exposure overseas. The last forty years triggered an ongoing exodus to North America, the Gulf States, Europe and Australia with over 600,000 Lebanese residing abroad in 2012.<sup>52</sup> This makes Lebanon open to new ideas and creates contact with other nations. Many of the founders of the country's leading tech startups have lived or studied abroad, exposing them to global digital trends and triggering thinking on how these trends can be adapted to regional circumstances. Apart from creating a bridge between

Lebanon and the rest of the world, the diaspora have a huge impact on the country's economy. In 2014, remittances accounted for US\$ 7.7 billion or 17 percent of the country's GDP, the highest ratio in MENA.<sup>53</sup>

## Tech Startup Ecosystem

**80. The tech startup ecosystem refers to the elements that are important for nurturing small digital businesses so that they can scale and eventually be acquired or become publicly listed companies.** 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

52 Migration Policy Centre, 2013, *Lebanon*, [http://www.migrationpolicycentre.eu/docs/migration\\_profiles/Lebanon.pdf](http://www.migrationpolicycentre.eu/docs/migration_profiles/Lebanon.pdf)

53 The World Bank, 2014, *Migration and Development Brief 23*, <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1288990760745/MigrationandDevelopmentBrief23.pdf>

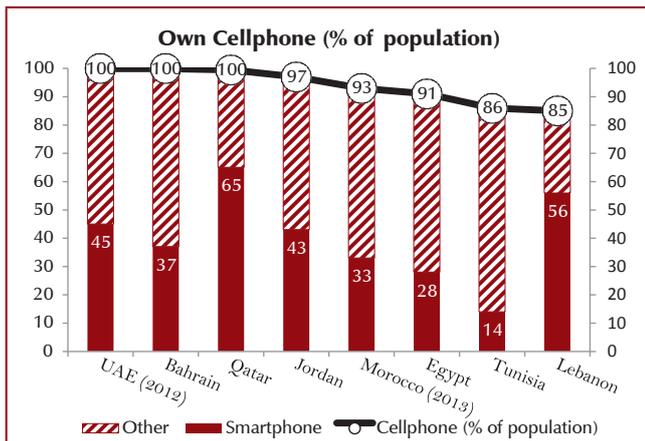


FIGURE 28. Cellphone and internet penetration, 2014.

Note: Data for Egypt, Jordan, Lebanon and Tunisia refer to population 18 and older. Data for Morocco refer to population residing in electrified areas.  
Source: Pew 2015 and national ICT regulatory agencies.

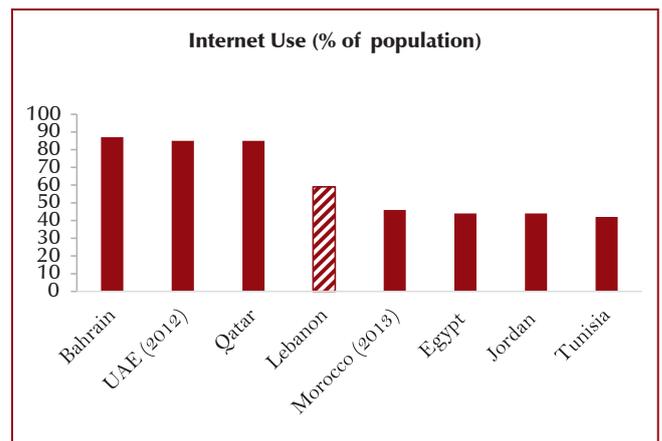


FIGURE 29. Cellphone and internet penetration, 2014.

Note: Data for Egypt, Jordan, Lebanon and Tunisia refer to population 18 and older. Data for Morocco refer to population residing in electrified areas.  
Source: Pew 2015 and national ICT regulatory agencies.

clustering around innovation districts.<sup>54</sup> 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.

## Markets

**81. 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 ICT firms and the higher education system are the two most important suppliers of talent to the startup ecosystem. ICT firms are also a possible funding source and place of employment for failed startups.

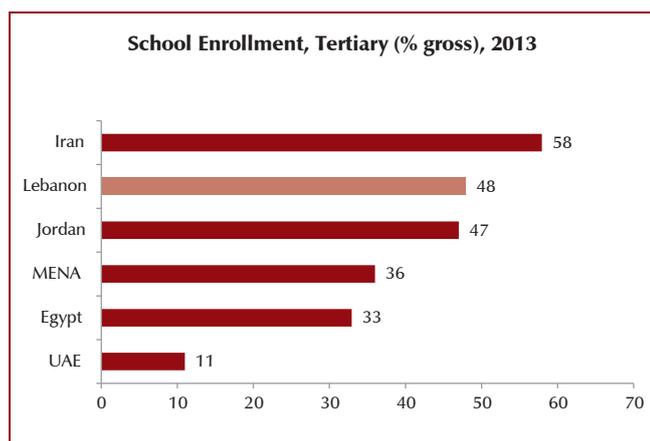
**82. Mobile phone ownership was 85 percent among Lebanese adults in 2014, one of the lowest rates in the MENA region** (Figure 28). The main reason is that unlike most other countries, there is

insufficient competition in its mobile sector. Under a duopoly arrangement, companies manage the mobile networks for the government with market share about evenly divided. Government control of the sector has kept tariffs relatively high, repressing growth and inhibiting innovation.

**83. On the other hand, at 59 percent of the adult population, Internet usage in Lebanon is positioned between high levels in the Gulf and the other MENA countries** (Figure 29). The relatively high education level and inexpensive fixed broadband tariffs have driven take-up. Mobile Internet is also popular with 56 percent of cellphone users having a smartphone. However only two percent of Lebanon’s Internet users shop online with trust and payment concerns holding back the development of e-commerce in the country.

**84. Lebanon has the highest tertiary education enrolment rate in the Arab world** (Figure 30). According to an opinion survey, the quality of the education system is assessed as one of the best in the region, ranking 28<sup>th</sup> out of 143 countries (Figure 31). The challenge for the ecosystem is not so much fresh talent as experienced workers. Startups sometimes find it difficult to recruit staff

54 Katz, Bruce, and Julie Wagner, 2014, *The Rise of Innovation Districts: A New Geography of Innovation in America*, Brookings Institution Metropolitan Policy Program, <http://www.brookings.edu/about/programs/metro/innovation-districts>.



**FIGURE 30. Tertiary school enrollment and quality of business schools.**

Source: Adapted from World Bank and World Economic Forum.

with industry experience.<sup>55</sup> Another issue is that many university students aspire to comfortable jobs working for business or government rather than being their own bosses or taking a risk working for a startup. The country's universities need to do more to promote entrepreneurship as a viable career.<sup>56</sup>

**85. Several Lebanese universities have activities relating to entrepreneurship.** There are 31 private universities operating in Lebanon and one public university (Lebanese University).<sup>57</sup> Most are based on French and American university models. Some of the leading universities with programs in support of entrepreneurship and innovation include:

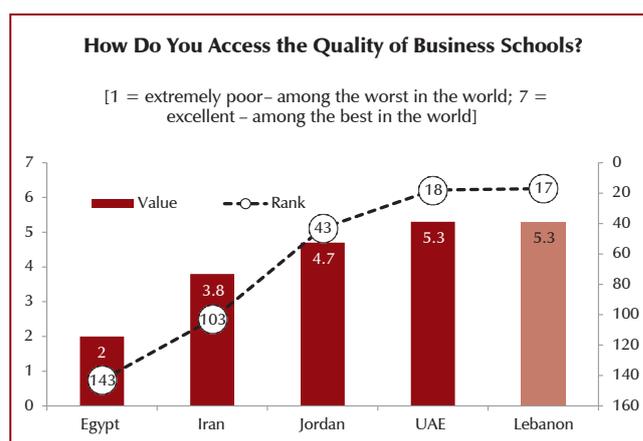
- *Saint Joseph University (USJ):* Berytech, involved in all facets of the ecosystem, was an initiative of USJ, the largest private university. Two incubators have been developed alongside its campuses.
- *American University of Beirut (AUB):*<sup>58</sup> The Darwazah Center for Innovation Management and Entrepreneurship carries out research, field studies, benchmarks and organizes seminars and

55 Talty, Alexandra, 2013, *Beirut Has a Vibrant, Growing Tech Scene*, Techonomy, May 28, <http://techonomy.com/2013/05/beirutyes-beiruthas-a-vibrant-growing-tech-scene/>.

56 Sioufi, Maya, 2012, *Emerging Entrepreneurs*, Executive Magazine, December 5, <http://www.executive-magazine.com/business-finance/business/entrepreneurs-lebanon-developing>.

57 <http://www.higher-edu.gov.lb/english/default.htm>

58 <http://www.aub.edu.lb/osb/darwazah/Pages/home.aspx>



**FIGURE 31. Tertiary school enrollment and quality of business schools.**

Source: Adapted from World Bank and World Economic Forum.

workshops. The center also holds an innovation contest where students pitch their tech startup ideas for the chance to win US\$ 15,000.<sup>59</sup> A number of startup founders are AUB graduates.

- *Beirut Arab University (BAU):* The Center for Entrepreneurship (CFE) was established in September 2011<sup>60</sup>. CFE aims to promote entrepreneurship by identifying individuals with entrepreneurial potential, providing them with relevant input and equipping them with pertinent skills. CFE offers counseling, training, funding, incubation and mentorship. The facilities include a workspace, computer lab, access to databases and an entrepreneurship library.
- *Haigazian University:* Launched a three-year program on social entrepreneurship in 2012 supported by USAID.<sup>61</sup>

**86. The Investment Development Authority of Lebanon (IDAL) is actively encouraging investments in the ICT sector.** It offers incentive schemes providing investors with work permits and establishment-fee reductions. There is also a proposal awaiting approval by the Council of Ministers that would allow startups to benefit from

59 <https://www.aub.edu.lb/news/2014/Pages/darwazah-contest.aspx>

60 <http://www.bau.edu.lb/Library/Files/Uploaded%20Files/CFE.pdf>

61 National News Agency, 2014, *Haigazian University Organizes Social Entrepreneurship Competition*, April 4, <http://nna-leb.gov.lb/en/show-news/24635/>.

tax breaks and other incentives.<sup>62</sup> According to IDAL, there are around 300 ICT enterprises in Lebanon and 4,421 people employed in the sector.

**87. The country's telecommunication operators have not been especially active in supporting the tech startup ecosystem.** One reason may be that the sector structure is not particularly conducive to innovation and risk. Wired telecommunication operator Organisme de Gestion et d'Exploitation de l'ex Radio Orient (OGERO) is owned by the government whereas the two mobile companies operate the networks through management agreements. None of the telecommunication operators plays an extensive direct role in the startup ecosystem nor does it appear that there is much job movement between them and startups.

**88. Berytech has been at the center of Lebanon's tech startup ecosystem evolution.** It emerged from St. Joseph University in 2001 as a non-profit with several banks and large private companies as shareholders. A big believer in clustering, Berytech aims to enhance Lebanon's ICT sector by supporting entrepreneurs in technological poles where they can interact with like-minded businesses and academia. The first pole was created at Mar Roukoz in 2002, next to the engineering faculty of the university. Berytech Technology and Health was launched in 2006, in Mathaf, adjacent to the medical faculty and is aimed at entrepreneurs in the health field. Berytech's latest venture is an urban cluster as one of the three partners in the Beirut Digital District (BDD) being constructed in the center of the city and a stone's throw from the main St. Joseph campus. The seven-story Berytech Digital Park opened in BDD in January 2013 and houses accelerators, startups and established IT firms. Other Berytech initiatives include the country's first venture capital fund in 2009, which has invested US\$ 6 million in 15 ventures. Berytech has helped launch over 90 startups, hosted over 200 companies, trained over 3,000 entrepreneurs and created over 1,500 jobs.

**89. Some multinational IT corporations in Lebanon are supporting the tech ecosystem.**

<sup>62</sup> <http://www.bdlaccelerate.com/tag/startups/>

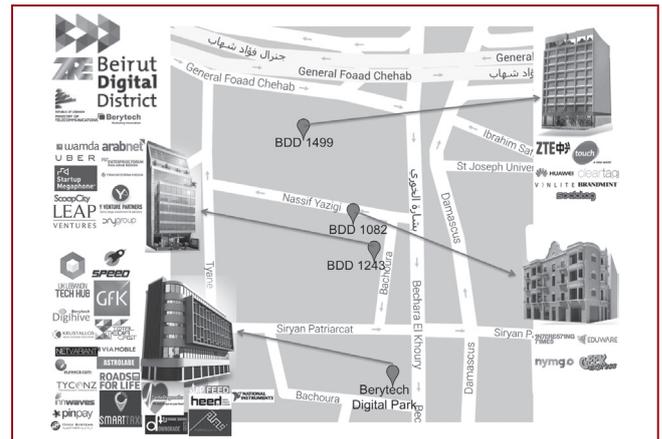


FIGURE 32. Beirut Digital District.

Source: Adapted from <http://beirutdigitaldistrict.com>.

Cisco assists the AMIDEAST Entrepreneur Institute, which helps to train entrepreneurs active in the ICT field.<sup>63</sup> Intel has sponsored a boot camp for aspiring startups.<sup>64</sup> Microsoft offers its startup-oriented Bizspark software in partnership with Berytech.<sup>65</sup>

## Spaces

**90. Workspaces are critical for participants in the tech ecosystem with their characteristics varying according to different needs.** Spaces range from offices for established firms and organizations to co-working and flexible offices for startups as well as specialized spaces such as incubators and accelerators. Ideally, groups of tech organizations should be nearby each other to leverage clustering effects. This can happen organically or through creation of special technological parks, zones or districts.

**91. The Beirut Digital District (BDD) is a large redevelopment project in the Bachoura neighborhood in the center of the city that aims to become the heart of Lebanon's tech ecosystem.** The project is a public private partnership between

<sup>63</sup> <http://amideast.org/lebanon/professional-development/amideast-entrepreneur-institute>

<sup>64</sup> <http://berytch.org/intel-and-berytch-partner-to-launch-first-ideation-camp-in-lebanon/>

<sup>65</sup> <http://berytch.org/microsoft-bizspark/>

ZRE, a real estate firm, Berytech, and the Ministry of Telecommunications. BDD consists of several new and renovated buildings covering three city blocks aimed at both established ICT firms and startups as well as other organizations involved in the ecosystem. There are also plans for furnished apartments and a hotel as well as amenities such as retail shops, exhibition spaces, an auditorium, gym, and kindergarten spread over the landscaped and pedestrian oriented area. The first building was completed September 2012 and by June 2015 there were three others including the Berytech Digital Park (BDP) and the renovated BDD 1082. Another building will be ready next year and the flagship BDD Hub complex is scheduled for completion in 2018. The existing buildings are fully occupied and already home to multinational and Lebanese IT companies, startups, accelerators, venture capital firms and other entrepreneur-oriented institutions. By 2016, 55 companies and 700 employees are expected to be working at BDD.

**92. A number of co-working spaces exist providing an affordable option for startups to mix in an entrepreneurial environment.** They are often founded by the tech ecosystem community such as tech firms, venture capitalists and entrepreneur support groups. Located in the Hamra neighborhood of Beirut, *AltCity* was founded in 2012 and offers entrepreneurs co-working space, workshops and networking events. *AltCity* also runs an acceleration boot camp (see below). *Coworking+961*<sup>66</sup> is an initiative of MIT Enterprise Forum and Bader located in the Sursock Palace in Beirut's Achrafieh neighborhood, launched by Hala Fadel of Leap Ventures. The name is a play on Lebanon's telephone dialing country code. *Coworking+961* offers fast Internet, mentorship, workshops, networking and office services. One of its noteworthy alumni is Hind Hobeika, founder of *Instabeat*.<sup>67</sup> Launched in 2012 and located on the fifth floor of a downtown Beirut office building, *Cloud5* is operated by real estate firm *Solidere* with *Wamda*, *Cisco*, *AMIDEAST*, *Microsoft* and *MEVP* as founding partners.<sup>68</sup> It offers

66 <http://www.coworking961.com>

67 <http://www.wsj.com/articles/arab-tech-startups-begin-to-attract-u-s-venture-capital-1415705692?mod=e2tw>

68 <http://www.solidere.com/cloud5/#/about>

open office space and a conference room. *DigiHive* is operated by Berytech and located in Berytech Digital Park in BDD.<sup>69</sup> In addition to workspace, members have access to meeting rooms, access to Berytech's entrepreneurship programs and use of a lab for product design and testing. It offers daily, weekly and monthly memberships.

**93. Government incubators help to provide support for entrepreneurs outside Beirut.** They employ traditional models of long term nurturing of entrepreneurs and small enterprises alongside academic institutions or larger businesses and are not characteristic of tech startup incubation, which is generally for a short period. The *Business Incubation Association of Tripoli* (BIAT) consolidates incubation services in Northern Lebanon.<sup>70</sup> It provides hosting facilities, business consulting, legal assistance, financing, marketing and mentorship for companies. The non-profit organization was established with the support of a European Union project at the Ministry of Economy and Trade of Lebanon. The *South Business Innovation Centre* (SouthBIC) is located in Sidon with two outreach locations in Tyre and Nabatieh.<sup>71</sup> The Sidon location has an industrial incubation facility designed to assist companies with a manufacturing focus. SouthBIC provides office space, mentoring, marketing and financial training, as well as exhibition facilities for companies established in Sidon and the South of Lebanon, across all sectors. SouthBIC is funded by the European Union.

**94. Lebanon has historically lacked acceleration facilities.** *Seeqnce* ran a program in Beirut offering seed funding and graduated eight startups in 2012.<sup>72</sup> It was cited as one of the ten best in MENA.<sup>73</sup> Due to the security situation, *Seeqnce* discontinued the face-to-face program and is now focusing on virtual acceleration through its *Alice* portal.<sup>74</sup>

69 <http://blog.berytch.org/berytch-dighive/>

70 <http://www.biatcenter.org/index.php/cms/services/7>

71 [http://www.southbic.org/services.php?item\\_id=4](http://www.southbic.org/services.php?item_id=4)

72 <http://www.economist.com/node/21560243>

73 <http://www.wamda.com/2011/09/meet-the-top-ten-accelerators-in-mena>

74 <http://blogs.wsj.com/middleeast/2014/01/20/going-down-the-tech-rabbit-hole-with-beirut-s-alice/>

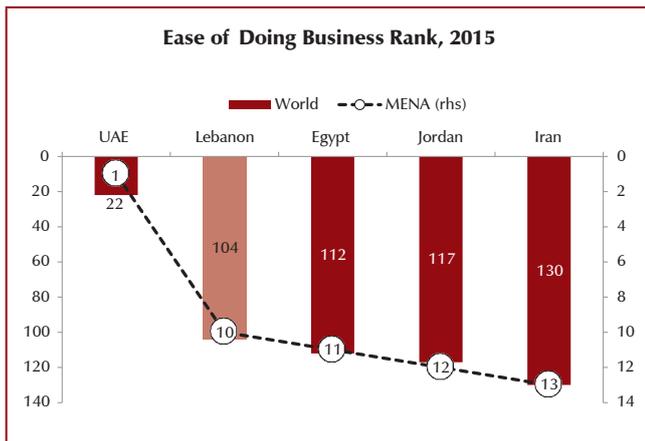


FIGURE 33. Doing business and business constraints, 2015.

Source: Adapted from World Bank Doing Business and Enterprise Surveys.

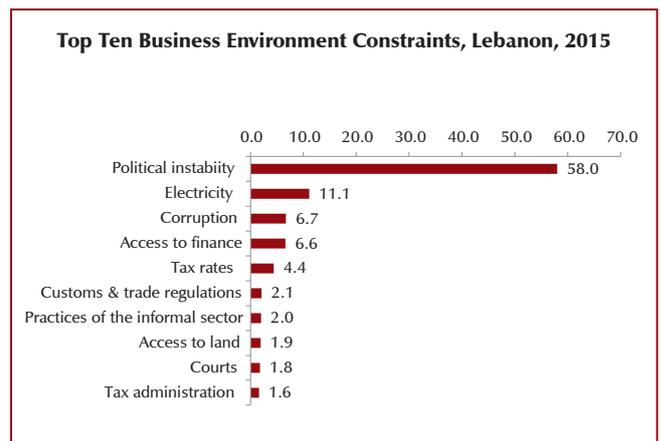


FIGURE 34. Doing business and business constraints, 2015.

Source: Adapted from Enterprise Surveys.

**95. Several initiatives have been launched or announced with the potential to significantly increase acceleration for startups in Lebanon:**

- The *UK Lebanon Tech Hub* was launched in April 2015.<sup>75</sup> Created by Banque Du Liban and the United Kingdom Government, the Tech Hub offers a 2-year program of mentoring, networking and services for entrepreneurs free of charge. The first cycle selected 45 Lebanese companies with high growth potential; 15 companies with higher potential will have the opportunity to participate in the second phase based in London. A new office for Lebanese entrepreneurs in London’s Tech City enables them to leverage the rich ecosystem resources of the city as a catalyst for global growth.
- In addition to its co-working space, *AltCity Bootcamp* was launched in 2015.<sup>76</sup> After a two-week introductory program, top startups can go on to receive additional support including up to US\$ 25,000 of seed funding in exchange for equity (2-12 percent). The program aims to accelerate 30 startups a year.
- *Speed@BDD* is an initiative of Middle East Venture Partners, the Bader Young Entrepreneurs Program and Lebanon for

Entrepreneurs.<sup>77</sup> Speed invests US\$ 30,000 in startups in return for ten percent equity. Services offered include product development, mentoring, marketing, accounting, and legal services. Speed will have two cycles per year with the top teams eligible for follow-on acceleration in Silicon Valley.

- A regional accelerator that recently expanded to Beirut, *Flat6 Labs*<sup>78</sup> is partnering with Arabnet.<sup>79</sup> For each startup selected, an investment of US\$ 10,000-15,000 in seed funding is made in exchange for a minor equity stake in the company. Startups receive four months of mentorship, training from industry experts, legal support and an office space.
- In 2016, the business school L’École Supérieure des Affaires (ESA) announced plans for “Smart ESA”, an incubator and accelerator in Beirut. Project partners include BDL, the French Embassy, the French Ministry of Foreign Affairs and the Regional Chamber of Commerce and Industry of Paris and Ile-de-France. The program will be located on the ESA campus and last nine-months. Startups will be able to take advantage of overseas networking opportunities through the Agence Universitaire de la Francophonie

75 <http://www.uklehub.com>

76 <http://www.altcity.me>

77 <http://speedlebanon.com>

78 <http://www.flat6labs.com/location/beirut/>

79 <http://www.flat6labs.com/press/flat6labs-announces-a-startup-accelerator-in-lebanon-in-partnership-with-arabnet/>

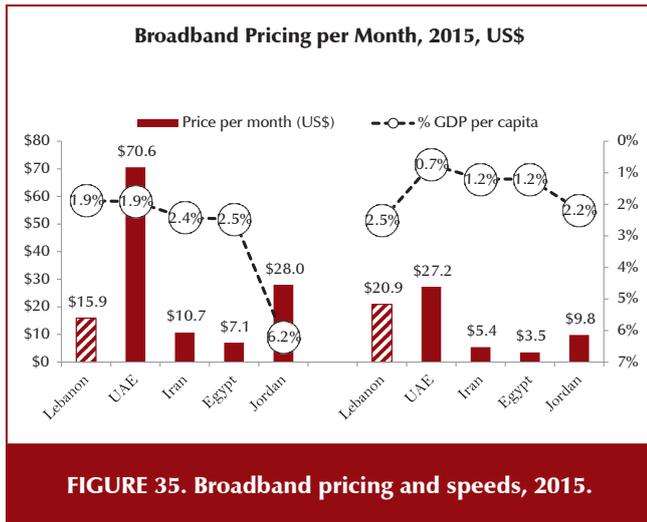


FIGURE 35. Broadband pricing and speeds, 2015.

Note: Fixed broadband pricing refers to advertised speeds of at least 1 Megabit per second (Mbps) whereas mobile pricing refers to at least 1 Gigabit (GB) of data. Source: Adapted from operators.

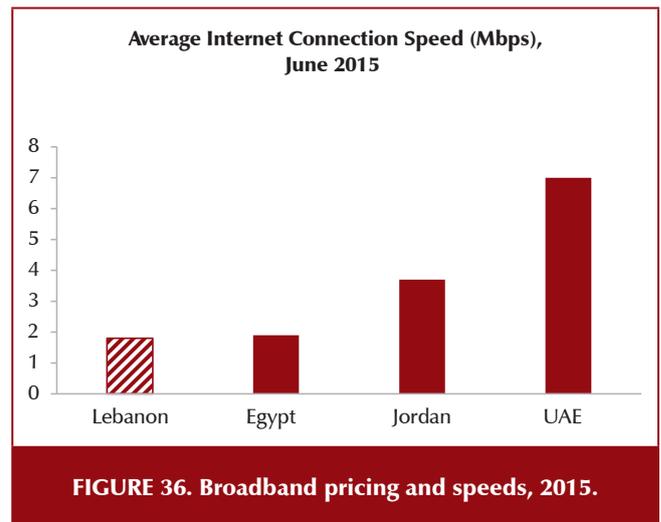


FIGURE 36. Broadband pricing and speeds, 2015.

Source: Adapted from Akamai.

(AUF) and France Tech, a French government initiative that supports startups.<sup>80</sup>

## Business Environment and Support

96. **The business environment for Lebanese tech startups could be improved.** The country ranks 104th out of 189 countries in the World Bank’s 2015 Doing Business Report (Figure 33), down two positions from the previous year. Areas relating to the startup tech environment include starting a business (ranked 119), protecting minority investors (106), enforcing contracts (110) and resolving insolvency (136), all areas where Lebanon’s score is worse than its overall rank. These impact the ability of startups to register their business in order to attract funding and discourage risk taking if insolvency, inevitably common among startups, is not dealt with efficiently. Among the top ten business constraints, an exogenous factor, the political situation is ranked highest by some margin (Figure 34). Access to finance, which is often a concern among tech startups, is only reported to be an obstacle by seven percent of enterprises.

80 <http://www.businessnews.com.lb/cms/Story/StoryDetails.aspx?ItemID=5406>

97. **In general, Internet affordability and quality in Lebanon is poor compared to other MENA countries.** Affordability of a monthly fixed broadband subscription is relatively good (Figure 35). However, Lebanon fares poorly compared to other countries in the region for mobile broadband affordability and broadband speeds (Figure 36). One factor is that the telecommunication market structure is outdated. The main fixed telecommunications is government owned Organisme de Gestion et d’Exploitation de l’ex Radio Orient (OGERO) and the two mobile companies operate the network on behalf of the government. This problem has been recognized for some time but no action has been taken. Reforms to increase competition through the participation of the private sector are overdue. Lack of public sector investment in ICT infrastructure and limited competition has negatively affected influenced network quality and pricing. The average Internet speed in Lebanon is 1.8 Megabits per second (Mbps), lower than other MENA countries. Less than 10 percent of the available capacity of the Internet cables is made available to the market.<sup>81</sup>

81 <http://www.executive-magazine.com/economics-policy/four-reasons-lebanons-internet-is-so-slow>

## Networking

**98. Well-functioning tech ecosystems are characterized by continuous connections between entrepreneurs and other players facilitated by an active event scene.** Many of the startup spaces mentioned above organize ongoing event programs to connect entrepreneurs with founders, experts and investors. There are also a number of conferences, competitions, workshops and other events connecting the Lebanese tech startup ecosystem:

- Beirut based *ArabNet* hosts an annual tech conference in the city with dozens of speakers and side events.<sup>82</sup> It also hosts competitions including the opportunity for winners to participate in a free three-month startup program in Silicon Valley. According to its surveys of the competitions, over a third of finalists met investors, more than two thirds met new clients, and more than four fifths received media exposure with the finalists creating some 250 jobs across the region and collectively receiving more than \$7 million in funding.<sup>83</sup> It was initially an event company but now ArabNet also has a portal with a directory of startup firms and a quarterly magazine.<sup>84</sup>
- *Bader* organizes the annual Networking 961 conference as well as its StartUp Cup business model competition and another competition for startups in the creative industries.<sup>85</sup>
- The *MIT Enterprise Forum for the Pan-Arab Region*, based in Beirut, hosts and supports various events such as the Euromed Roadshow and the ArabNet conference.<sup>86</sup>
- *Wamda* organizes MixNMentor events, several of which have been held in Beirut.<sup>87</sup>

82 <http://communicateonline.me/events-awards/what-to-expect-at-arabnets-sixth-annual-beirut-conference>

83 <http://communicateonline.me/events-awards/arabnet-beirut-2015-to-boost-lebanese-startups#sthash.NzoTqJcK.dpuf>

84 <https://startupdb.arabnet.me/?country=lb>

85 <http://baderlebanon.com/programs/>

86 <http://www.mitefarab.org/events/>

87 <http://www.wamda.com/mixnmentor>

- The *Banque du Liban Accelerate* event in November 2014 was one of Lebanon's first international startup conferences bringing together over 1,600 entrepreneurs, investors, and startup specialists from 25 countries.<sup>88</sup> It provided an opportunity for BDL to publicize its recent policy allowing banks to invest in startups.
- The country's tech ecosystem has also been promoted abroad through events such as *Startup Lebanon* held in New York City in May 2015.<sup>89</sup> Organized by the American Lebanese Chamber of Commerce, the event brought together leading Lebanese startups, the tech diaspora and international investors. A similar event was held in Singapore in September 2015.

**99. There are a number of other support programs for startups in Lebanon:**

- *Bader* is an organization established in 2005 to promote entrepreneurship in Lebanon. It has a number of initiatives under its Young Entrepreneur Program including scholarships, workshops, the annual Networking 961 event for the startup community, a StartUp Cup competition for best business model, and a creative awards competition for startups working in creative industries. Bader also works with local, regional and global organizations to establish partnerships and expand exposure for Lebanese startups. Bader has also funded three startups.
- *Endeavor* is a non-profit organization that mentors and helps accelerate high-impact entrepreneurs from around the world. It has chosen a number of Lebanese entrepreneurs for its program.<sup>90</sup>
- *Lebanon for Entrepreneurs* (LFE) was launched in 2013 by Lebanese diaspora organizations Lebnet, LIFE, and SEAL.<sup>91</sup> It aims to leverage the diaspora's contacts, particularly in Silicon Valley

88 <http://www.bdlaccelerate.com>

89 <http://startuplebanon.info>

90 [http://endeavor.org/entrepreneurs?country\\_filter=Lebanon&industry\\_filter=](http://endeavor.org/entrepreneurs?country_filter=Lebanon&industry_filter=)

91 <http://www.lfepartnership.com>



Source: BDL.

to assist Lebanese startups. LFE is one of the partners in the SpEED@BDD accelerator that will send its top startups to Silicon Valley for additional mentoring.

## Funding

**100. A noteworthy development for startup funding was the central bank (Banque du Liban) Intermediate Circular No. 331 of August 2013 allowing banks to invest in Lebanese startups with up to 75 percent of the investment guaranteed (Figure 37).<sup>92</sup>** The ruling potentially makes available around US\$ 400 million assuming all banks invested 3 percent of their capital. Some banks have already been making investments in startups. This includes BLC, which provided US\$1.5 million to Cinemoz, a Lebanese video streaming service.<sup>93</sup> Other banks that do not have the expertise to evaluate startups have been pooling capital into recently launched venture capital funds that already exceed US\$170 million for potential startup investment:

- In December 2013, Middle East Venture Partners, a Lebanese venture capital firm, announced its

<sup>92</sup> <http://www.bdl.gov.lb/circulars/intermediary/5/37/0/Intermediate-Circulars.html>

<sup>93</sup> <http://www.bankaudi.com.lb/GroupWebsite/openAudiFile.aspx?id=2454>

US\$ 50 million IMPACT Fund with commitments from four anchor banks.<sup>94</sup>

- In February 2015, Berytech launched Berytech Fund II with US\$ 51.5 million in commitments from 19 banks and financial institutions.<sup>95</sup> In addition, IM Capital, a Berytech subsidiary is managing US\$ 15 million provided by the United States Agency for International Development (USAID) targeting startups announced in April 2015.<sup>96</sup>
- In March 2015, Leap Ventures announced a \$71 million fund.<sup>97</sup>

**101. Meanwhile local and regional equity investment funds have been active in Lebanon's startup scene, providing over US\$ 10 million since 2010 (Table 4).**

**102. International crowd funding sites have been used by some startups.** Despite being based in Lebanon, crowd-investing platform Eureeca<sup>98</sup> has not made any investment in local startups. Zoomaal<sup>99</sup>

<sup>94</sup> <http://www.mevp.com/impact.aspx>

<sup>95</sup> <http://beryttechfund.org>

<sup>96</sup> <http://im-capital.com/>

<sup>97</sup> <http://www.wamda.com/2015/03/leap-ventures-71m-fund->

<sup>98</sup> <http://eureeca.com/Default.aspx>

<sup>99</sup> <https://www.zoomaal.com/>

TABLE 4. Investment groups funding Lebanese startups.

INVESTOR	DESCRIPTION	INVESTMENTS
Berytech Fund	Lebanese venture capital fund launched in 2008 investing in tech startups. ✓	Lists 15 companies in portfolio including 12 startups in Lebanon.*
Middle East Venture Partners (MEVP)	Beirut headquartered venture capital firm founded in 2010 and focused on early and growth stages investments primarily in the Middle East. Offices in Dubai and Silicon Valley. ✓	Lists 19 companies in portfolio including seven Lebanon-based startups.
Bader Fund	Its Building Block Equity Fund raised US\$7.5 million dollars to support small and medium enterprises. The fund is managed by Middle East Venture Partners.	Has invested US\$ 1.1 million in three Lebanese startups.**
MENA Venture Investments (MVI)	Angel fund established in 2010 and based in Dubai specializing in early stage investments throughout MENA.	Lists 70+ companies in portfolio including two Lebanese startups.***
Wamda Capital	Headquartered in Dubai, it is an early stage fund focused on the MENA region.	Lists 10 companies in portfolio including two based in Lebanon.****

Source: World Bank research.

\* [http://berytch.org/berytch\\_entity/fund/](http://berytch.org/berytch_entity/fund/)

\*\* <http://baderlebanon.com/building-block-equity-fund/>

\*\*\* <http://mvi.vc/>

\*\*\*\* <http://staging.wamda.com/page/capital>

is a Lebanese crowd-funding (funders do not receive equity) platform launched by Wamda, MEVP, HIVOS and Cairo Angels and Sawari Ventures. It mainly raises money for community development projects of which some may have startup aspects. On the other hand, international crowd platforms have been used by several Lebanese startups. Roadie Turner used Kickstarter to raise \$178,613<sup>100</sup> while Instabeat raised US\$ 56,374 on Indiegogo<sup>101</sup> with both exceeding their target amounts. Angel investors have been notable for providing seed funding to a

number of Lebanese startups particularly members of the tech diaspora such as Georges Harik, one of Google's first ten employees and Hala Fadel, a partner at Leap Ventures,

**103. The government loan program known as Kafalat provides entrepreneurs with low interest loans.**<sup>102</sup> There are different programs depending on the nature of the business with a couple focusing on innovative startups of which several have received loans from this facility. The EU has

TABLE 5. Examples of successful Lebanese startups.

Product	Purpose	Conception	Status
 <b>anghami</b> <small>Music Unlimited.</small>	First legal music streaming service in MENA.	Founded by Eddy Maroun and Elie Habib in 2012.	Raised US\$ 2.8 million in two rounds of Series A funding.*
 <b>Instabeat</b> <sup>®</sup>	Swimming self-tracker that attaches to goggles.	Founded in 2011 by Hind Hobeika.	Received seed funding of US\$ 100,000; US\$ 56,374 on a crowd-funding platform; and Series A funding. In addition, Hobeika won US\$ 50,000 at the MIT Arab Business Plan Competition.**
 <b>شاهية</b> <small>shahiya.com</small>	Online food recipe network.	Founded by Carole Hani, Hala Labaki, and Daniel Neuwirth in 2010.	Received US\$ 500,000 in venture funding in 2012 and acquired by Japanese recipe portal Cookpad for US\$ 13.5 million in 2014.***

Source: World Bank research.

\* <https://www.crunchbase.com/organization/anghami>

\*\* <http://www.instabeat.me/blog/2014/01/21/award-winning-startup-funding-instabeat-product-delivered-worldwide/>

\*\*\* <http://www.wamda.com/2014/11/japan-cookpad-acquire-lebanon-shahiya-enter-arab-world>

100 <https://www.kickstarter.com/projects/roadietuner/roadie-tuner-the-ultimate-guitarist-tool>

101 <https://www.indiegogo.com/projects/instabeat#/story>

102 <http://kafalat.com.lb>

**BOX 8. Creativity Meets Technology.**

Some feel that tech is the natural extension of the creative industries:

“..one should not forget the rich tradition in Lebanon as concerns the press, publishing, literary and musical production, publicity and marketing. The computer industry is but the continuation of this tradition of creativity using 21st century technical means” <sup>(a)</sup>

Lebanon’s history of involvement with the creative industries—media, design and fashion—can have important linkages to the tech sector and be leveraged to widen the scope and appeal of the ecosystem.

Berytech launched the Beirut Creative Cluster in 2012 as a support mechanism for creative industries, particularly media.<sup>(b)</sup> It aims to help entrepreneurs working in design, content and digital media through business development. It works closely with Beirut Design Week (BDW), the largest design festival in MENA, taking place in the city every year. The event brings together thousands of visitors “to strengthen the creative economies, develop entrepreneurship, and promote Lebanon’s innovative culture.”<sup>(c)</sup> BDW 2015 included a session on the maker movement and the use of digital fabrication for creating affordable designs. One of the speakers was Guillaume Crédoz a freelance architect and designer who founded FreshlyBakedToday, a 3D printing hub in a former bakery in Beirut’s Mar Mikhayel neighborhood featuring a workshop and gallery for digitally fabricated artifacts.<sup>(d)</sup> Crédoz launched MENA’s largest 3D printer during BDW, designed and built in Lebanon.<sup>(e)</sup> Incidentally, Crédoz’s 3D printers were used for the first model of Instabeat’s swimming monitor, nominated for a design award for wearable technologies.<sup>(f)</sup>

Beirut has often been described as the region’s most fashionable city with over 40 fashion businesses.<sup>(g)</sup> Many of the country’s budding fashion entrepreneurs look to Lebanon’s Elie Saab, founder of a globally recognized fashion house, for inspiration.<sup>(h)</sup> Technology plays a growing role in the fashion value chain, linking textile producers to designers and merchandizers to consumers. Collaborations between the fashion world of designers, photographers, models and the entrepreneurs and web designers from the tech world can spur creativity:

“Fashion and creative industries such as the textiles and clothing, footwear, and leather sectors, operate at the crossroads between arts, business, and technology. They are in a strategic position to link creativity to innovation at a time when culture-based creativity is an essential feature of business innovation in the new economy.”<sup>(i)</sup>

The link between creative industries and tech is starting to have an impact. Beirut is considered the website design capital of the Arab world<sup>20</sup> and fashion startup Mistile won the Pan Arab Web Award for best e-commerce site.<sup>21</sup> If the ecosystem can successfully exploit the country’s creative tradition, Lebanon could carve a niche as MENA’s creative industry tech hub.

<sup>(a)</sup> Salim Edde as quoted in: Hill, Stephen, 2008, Creative Lebanon A Framework for Future Prosperity, British Council, <http://portal.unesco.org/culture/en/files/40735/12699563115lebanon-creative-lebanon-full-report.pdf/lebanon-creative-lebanon-full-report.pdf>.

<sup>(b)</sup> <http://berytech.org/beirut-creative-cluster/>

<sup>(c)</sup> <http://beirutdesignweek.org/about/>

<sup>(d)</sup> Anderson, Brooke, 2013, Bakery’ brings 3-D printing to the masses, The Daily Star, April 13, <http://www.dailystar.com.lb/Culture/Lifestyle/2013/Apr-13/213551-bakery-brings-3-d-printing-to-the-masses.ashx#axzz2tqbZRChi>.

<sup>(e)</sup> Baghdadi, Alexis, 2015, Lebanon Builds the MENA’s Biggest 3D Printer, Arabnet, May 24, <http://news.arabnet.me/lebanon-builds-the-menas-biggest-3d-printer/>.

<sup>(f)</sup> Schaer, Cathrin, 2013, In Beirut, Where Fashion Lives Dangerously The New York Times, September 23, <http://www.nytimes.com/2013/09/24/fashion/Beirut-Where-Fashion-Lives-Dangerously.html>.

<sup>(g)</sup> <http://endeavor.uberflip.com/i/518538-endeavor-lebanon-fashion-study>

<sup>(h)</sup> [http://ec.europa.eu/growth/sectors/fashion/index\\_en.htm](http://ec.europa.eu/growth/sectors/fashion/index_en.htm)

<sup>(i)</sup> <https://www.notjustalabel.com/editorial/london-meets-beirut>

played a supportive role in the program. Kafalat will also operate the World Bank US\$ 30 million iSME Programme.<sup>103</sup> There have been two successful exits, both in 2014. Food recipe platform Shahiya was sold to Japan's Cookpad for US\$ 13.5 million, just four years after launch and France's Webedia acquired a majority stake in digital media company Diwaneer for US\$ 5 million.<sup>104</sup>

## Impact

**104. Given the elusive definition of startup, it is difficult to estimate their number.** According to ArabNet<sup>105</sup>, there are currently 160 tech startups in Lebanon. Most of the startups are in the areas of software (23), mobile apps (18), ecommerce (16) and entertainment (13). It is estimated that among those, around 30 have received equity funding of some type.

**105. Several Lebanese entrepreneurs are noteworthy examples of the tech ecosystem model where promising startups receive rounds of funding to grow their business and become established companies (Table 5).** They are characterized by two interlinked factors underpinned by Lebanon's small market size: foreign exposure by having studied or worked overseas and targeting regional and global markets.

**106. All of the founders have been abroad.** The founder of Instabeat spent a summer interning in Germany and four months in Qatar participating in the Stars of Science TV reality show where she won third place.<sup>106</sup> Founders of Anghami and Shahiya studied in Europe and the United States. This has provided experience with regional and global digital

103 <http://www.worldbank.org/en/news/press-release/2013/02/13/world-bank-loan-offers-new-hope-lebanon-unemployed-youth>

104 <http://corp.diwaneer.com/Corporate-News/French-digital-publisher-Webedia-acquires-majority-stake-and-injects-5-million-Diwaneer-Media-Company>

105 <https://startupdb.arabnet.me/>

106 <http://www.instabeat.me/blog/2014/02/03/passion-stories-hind-hobeika-founder-instabeat/>

trends and a better understanding of adapting products to wide audiences.

**107. All of the products target wider regional or international markets, due in large part to Lebanon's small size.** To some extent, they all are variations of popular digital products and services. Anghami's ("my tunes" in Arabic) music streaming service is similar to popular global products (e.g., Spotify) but which for various reasons had limited popularity in MENA (e.g., geographical access restrictions, lack of Arabic music). Similarly Shahiya's ("appetite" in Arabic) recipe website targets regional consumers interested in Middle Eastern cuisine. Instabeat is aimed at global markets and is based on popular self-tracking exercise devices such as Fitbit exploiting the void in tracking swimming.

## Conclusions

**108. Lebanon's tech ecosystem has arguably been one of the top performers in MENA when measured in relative terms of startups attracting funding and adding jobs.** Despite the unsettled security situation, relatively poor Internet connectivity and until recently, limited acceleration facilities, a number of Lebanese entrepreneurs, working out of home or co-working spaces, have launched digital businesses, quite a few of which have obtained funding and some of which have achieved significant regional and even global reach. Anghami has over five million users in the region for its streaming music service despite only launching in 2012.<sup>107</sup> Shahiya, started in 2010, is the world's top Arabic recipe website and was sold in 2014 for US\$ 13.5 million.<sup>108</sup> Working out of co-working space, Instabeat raised US\$ 2 million for its swimming tracker and is now selling them online to natation enthusiasts around the world.<sup>109</sup>

107 <http://www.uabonline.org/en/events/conferences/smallandmediumenterprises/655/1>

108 <http://baderlebanon.com/mevp-and-building-block-equity-fund-invested-shahiya-exits-for-13-5m/>

109 <http://www.wsj.com/articles/arab-tech-startups-begin-to-attract-u-s-venture-capital-1415705692>

**TABLE 6. Lebanon tech startup ecosystem SWOT.**

Strengths		Weaknesses	
➤ Cultural affinity such as entrepreneurship		➤ Telecom environment	
➤ Education		➤ Business environment	
➤ Recent initiatives (BdL 331, BDD) and growth of entrepreneurship support institutions		➤ Small market	
➤ Diaspora		➤ Limited online shopping	
		➤ Lack of maturity in ecosystem supportive elements (e.g., accelerators, VC, angels, etc.)	
		➤ Limited pipeline of entrepreneurs due to size of economy and attraction of talent by other regional hubs	
Opportunities		Threats	
➤ Regional and global markets		➤ Regional instability	
		➤ Brain drain	
		➤ Possible financial bubble due to oversupply of funds	

*Source: World Bank research.*

**109. Recent private sector and government initiatives in support of the Lebanese tech ecosystem are unparalleled in MENA and if successful, could transform Beirut into one of the leading innovation hubs in the region.** BDD is one of biggest tech-driven real estate projects in the region and is unique in that unlike suburban tech parks, it is being built in the heart of the city. Several buildings have already been completed and are home to a range of established and new digital businesses as well as incubators, accelerators and venture capital funds. The BdL’s 2013 regulation allowing banks to invest in startups has triggered over US\$150 million of commitments for new venture capital funds. These developments are underpinned by among the highest Internet penetration in the region and the potential of global markets through the extensive Lebanese tech diaspora. Thus, many of the ingredients for a blooming tech ecosystem are in place.

**110. It is useful to identify Lebanon’s strengths in the tech ecosystem space, address its weaknesses, gauge the opportunities and assess threats.**

**111. A diverse historical heritage and liberal society predisposes Lebanon to have a successful tech ecosystem.** It has one of the best educational

systems in the Arab world and is the most liberal state in the MENA region, with a western oriented, mainly private sector driven economy. A multi-language society, Lebanon has a highly entrepreneurial mindset. Its huge diaspora is one of its major strengths, as a link to other markets. Lebanese startups have also learned how survive under difficult circumstances, an important skill.<sup>110</sup>

**112. The relatively low reliability and quality of the country’s telecommunication networks are one of the main, and to some<sup>111</sup>, the primary barrier facing Lebanon’s tech ecosystem.** The need for increasing competition has already been proposed within the country and needs to be enacted so that other actions to enhance the ecosystem can have greater impact.

**113. The business environment needs to be more efficient and optimized for the tech sector.** In 2015, Lebanon ranked 104th on the World Bank Doing Business index and it cannot aspire to being a regional tech hub until the process of operating a business in the country improves. This includes facilitating registration, allowing it to be carried out online and reducing the time it takes for it to

110 <http://www.bdllaccelerate.com/qa-with-mark-haidar/>

111 <http://muftah.org/problem-lebanese-startups-slow-internet-connection-speeds/#.VZWgumA7P2w>

**BOX 9. World Bank tech ecosystem support for Lebanon.**

The World Bank Group (WBG) has been actively supporting the tech startup ecosystem in Lebanon. It is currently implementing the iSME project to support equity investment for financially viable, new and existing innovative firms.\* The key beneficiaries of the project are potential and existing entrepreneurs with new commercial ideas, many of whom would otherwise seek opportunity abroad, and existing SMEs that are on the verge of expansion. The project will finance the iSME funding program, which will provide concept grants to stimulate the generation of ideas and equity investment to support early stage growth. The project was ratified by Parliament in October 2014.

The WBG also designed the Mobile Internet Ecosystem Project (MIEP), which despite its eventual cancellation, included in the preparation stages testing for the supported mechanism established in its design and the co-creation of the Mobile Innovation Hub (MiHub) with the ecosystems stakeholders, resulting in a neutral forum for the ecosystems to coordinate their actions and programs. The original MIEP objective was to strengthen innovation and entrepreneurship in the Lebanese wireless space.\*\* Components included skills development, bolstering the mobile Internet industry through a Mobile Internet Hub (MiHub) and enhancing the enabling environment. The project was approved by the Council of Ministers but is pending Parliamentary ratification. In the meantime, the Ministry of Telecommunications and the Bank are developing actions to establish the MiHub and build a community of stakeholders.

In addition to these activities, the International Finance Corporation (IFC) has engaged in one equity investment (US\$ 2 million) in a Lebanese mobile software firm, Mobinets.\*\*\*

\* <http://www.worldbank.org/projects/P127306/lb-innovation-sme-growth?lang=en>

\*\* <http://www.worldbank.org/projects/P131202/lb-mobile-internet-ecosystem-project-miep?lang=en>

\*\*\* [http://www.ifc.org/wps/wcm/connect/region\\_ext\\_content/regions/europe+middle+east+and+north+africa/ifc+middle+east+north+africa+and+southern+europe/news/ifc+helps+create+jobs+in+lebanese+it+sector](http://www.ifc.org/wps/wcm/connect/region_ext_content/regions/europe+middle+east+and+north+africa/ifc+middle+east+north+africa+and+southern+europe/news/ifc+helps+create+jobs+in+lebanese+it+sector)

be competed from nine days to. There should be a one-stop shop for tech startups where all business formalities are quickly completed in a single process and where assistance is available. While it may be difficult to implement these changes across all business sectors, it could be applied to the tech sector as flagship project.

**114. The security situation inhibits investment and the attraction of foreign talent among other things.** Nevertheless, government should counteract such perceptions with reality through a marketing campaign to promote Lebanon's tech ecosystem. For example, there are more than twice as many murders in the United States than Lebanon, which has the same rate as Israel, Jordan and Egypt.<sup>112</sup> As one foreign reporter notes: "Personally, I have never felt in danger in Beirut."<sup>113</sup>

**115. Brain drain will always be a threat particularly given the ease by which Lebanese assimilate abroad.** Some startups will inevitably leave but the government needs to ensure the

country benefits from tech through hybrid solutions. One is by encouraging entrepreneurs to go abroad for training and mentoring but providing incentives for their return. Another is that even if startups do move offshore because of funding or market reasons, efforts should be made to maintain links in areas such as back office work or design work. A third would be facilitating startups going public by strengthening links between the Beirut Stock Exchange and the tech sector. BdL 331 has a limit of seven years for a bank's investment in a startup. This will mean that either startups will have to be acquired or go public. Creating a public listing option for startups on the BSE where both Lebanese and foreigners could purchase stocks in tech companies would strengthen synergies with BdL 331 and would encourage startups to remain in the country. These kinds of hybrid solutions could create a new model for a globalized developing country tech ecosystem.

## Recommendations

**116. Fostering the development of a tech startup ecosystem requires an integrated approach.**

112 <http://data.worldbank.org/indicator/VC.IHR.PSRC.P5>

113 <http://techcrunch.com/2015/04/03/beirut-bright-future-as-a-tech-hub-for-mena-if-its-politicians-will-allow-it/#.4ytfae:Szix>

**BOX 10. A Central Bank Keen About Tech Startups.**

Banque du Liban (BdL) is one of the most pro tech startup central bank in the world. Its Circular 331 is a groundbreaking initiative for pumping funding into the tech ecosystem. BdL's partial tech investment guarantee has reduced the venture capital gamble particularly critical for Lebanon that has a high country risk rating.\* BdL's support does not stop there. An ardent supporter of the ecosystem, BdL has been active in other aspects of the ecosystem. This includes organizing networking happenings such as hosting the annual Accelerate event and collaborating with the overseas Startup Lebanon conferences. Lebanon's central bank has also cooperated with others on the UK Tech Hub and Smart ESA acceleration facilities. In addition, BdL has published several reports on the country's tech startup environment. The rationale for BdL's support is that the tech sector contributes to high value added and generation of wealth, driving economic growth in a sustainable way.

\* <http://www.oecd.org/tad/xcred/crc.htm>

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 integrated 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. BdL has thus far acted as the main catalyzer for the ecosystem. Its initiatives go beyond addressing the financing gap through Circular 331 with BdL supporting multiple areas of the ecosystem through the activities of UK Tech Hub, the Alt City Bootcamp program, Startup Lebanon or the accelerators benefiting from Circular 331 (Box 10).

**117. The following policy support actions could complement the program of the BdL and address existing challenges:**

- **Improvement of the Internet infrastructure, availability and quality of broadband and reduction of prices.** The major weakness of the ecosystem is the poor Internet connectivity in the country. This increases costs for startups and sometimes limits the possibility of expansion of the ecosystem throughout the country. Reform of the telecommunications sector into more efficient market structure would allow for an organic solution to this chronic problem.
- **Creation of a tech skills pipeline that prepares talent for entrepreneurship and feeds ecosystem growth.** The skills pipeline must be

addressed at different levels. At the university level, the gap in practical education needs to be addressed. 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 programming 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 facilitating access to the market (Box 11).

- **Development of spaces so startups can scale up and grow.** Lebanon needs to develop a wide variety of collaboration spaces and networking events, resulting in a cohesive community of entrepreneurs. There are still gaps that need to be addressed regarding space. Both early stage startups and scale startups lack affordable space beyond the accelerator and incubator programs. As the ecosystem expands, demand for both types of space will grow.
- **Creation of homegrown mentorship and angel investment.** Local mentorship and angel investment will be key to provide sustainability to the ecosystem. Research has shown that mentors that come from within ecosystem (i.e., local successful startups) are key for startups to succeed.<sup>114</sup> Lebanon would benefit from policies to foster the retention and attraction of successful entrepreneurs to become mentors

114 <http://techcrunch.com/2015/03/22/mentors-are-the-secret-weapons-of-successful-startups/>

**BOX 11. Rapid Tech Skills Training for Employability.**

Coding boot camps can result in rapid employability when a startup ecosystem is matured enough to generate employment. As tech startups grow, they require talent to support technical tasks. However, the costs of skilled talent or of in-house training can be prohibitive for startups. These are often basic tech tasks (e.g., web development, programming, etc.) that can be learnt in structured programs lasting a few months. Coding boot camps provide such structured programs. They are typically linked with the local demand to provide practical learning and address employers' needs. In a mature ecosystem, such as New York, the employment rate of coding boot camps is over 90 percent.

To understand the applicability of coding boot camps to employment in emerging countries, the World Bank is currently undertaking an activity on Rapid Skills Technology Training for Youth Employment. The activity's goal is to identify the key success factors for rapid employability and to test this approach for low-income youths in Beirut as well as Medellin, Colombia and Nairobi, Kenya.

Source: Rapid Skills Technology Training for Youth Employment, <http://www.decodingbootcamps.org/about/>

and angel investors as well as to develop the culture of mentorship and angel investment locally beyond Circular 331 mechanisms.

- **Attraction of talent for support infrastructure.** As the ecosystem ripens, support infrastructure (e.g., accelerators, training programs, investment, etc.) also needs to mature in order to address the more complex needs and sophistication of startups. This will require high-level talent that understands the local ecosystem and can also provide internationally competitive training and mentorship to the new wave of startups.

- **Linkages to international talent and networks.** Attraction of international talent and access to international networks would reinforce the ecosystem and its supporting infrastructure. For instance, the Startup Chile<sup>115</sup> proved to be a successful mechanism to develop local startups through exposure to international top-notch talent attracted by the program. Startup Chile also served to create an international brand and a network of talent for support infrastructure in Chile.

**118. To maximize the impact of Lebanon's tech ecosystem on the economy, additional policies are needed to connect local industry and entrepreneurs and generate social innovation.**

**BOX 12. Municipal Governments as Catalyzers of Entrepreneurship Ecosystems.**

Municipal governments have the potential to catalyze local innovation through open processes for public and social challenges. An example is the activity developed by the World Bank and the Government of Chile in Gran Concepcion, a city of about one million inhabitants located south of Santiago, the capital of the country.

The initiative introduced open innovation processes in the municipal government of Gran Concepcion by training officials in these methodologies and developing an open competition with university students to address social challenges in the transportation sector. The challenge included questions such as "how to improve the quality of public transportation?" or "how to foster the use of alternative modes of transportations, other than cars (e.g., bicycle, etc.)?"

This resulted in startup projects addressing public transport challenges that were tested and adopted by the municipal government. More importantly, the activity served to kick-start the tech startup ecosystem in the city (which did not exist before) through continuing the process of open innovation for urban and local challenges. The city developed a local innovation hub and continues to develop competitions on public and social challenges creating additional batches of entrepreneurs and attracting university students into developing startups in the city.

Source: Smart City Gran Concepcion, <http://innovatingcities.org/chile/en/>

115 <http://startupchile.org/about/>

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 technological approaches to industry processes (e.g., digital manufacturing and creative industries), 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 catalyzers 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, Lebanon can expand the entrepreneurship ecosystem beyond Beirut, where it is currently mostly concentrated (Box 12).

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## DATA APPENDIX

TABLE 7. Lebanon: Selected Economic Indicators, 2013-2018.

	2013	2014	2015	2016	2017	2018
	Est.	Est.	Est.		Proj.	
<i>(annual percentage change, unless otherwise specified)</i>						
<b>Real sector</b>						
Real GDP	0.9	1.8	1.5	1.8	2.3	2.5
Real GDP per Capita	-0.1	0.8	0.5	0.9	1.3	1.5
Agriculture (share of GDP)	4.8	4.9	5.0	5.1	4.9	4.8
Industry (share of GDP)	22.1	23.2	22.5	22.9	22.9	22.9
Services (share of GDP)	73.2	71.9	72.5	72.1	72.1	72.3
<b>Money and prices</b>						
CPI Inflation (p.a)	2.7	1.2	-3.7	1.5	2.5	3.0
Money (M3, including non-resident deposits)	9.0	6.0	5.1	6.0	8.0	8.0
<i>(percent of GDP, unless otherwise specified)</i>						
<b>Investment &amp; saving</b>						
Gross Capital Formation	30.4	31.2	27.6	27.9	29.0	29.0
o/w private	28.5	29.6	26.0	26.3	27.4	27.4
Gross National Savings	3.8	4.5	4.4	6.6	6.5	5.9
o/w private	15.7	15.6	10.1	12.3	13.6	13.1
<b>Central Government Finance</b>						
Revenue (including grants)	21.2	23.8	21.6	21.8	23.3	23.1
o/w. tax revenues	15.1	15.1	14.2	14.2	15.6	15.7
Total expenditure and net lending	30.7	30.4	28.9	29.2	32.0	31.9
Current	28.8	28.8	27.3	27.5	30.4	30.3
o/w Interest Payment	8.5	9.2	8.7	9.1	10.6	10.7
Capital & Net Lending (excl. foreign financed)	1.9	1.6	1.6	1.6	1.6	1.6
Overall balance (deficit -)	-9.5	-6.6	-7.3	-7.4	-8.7	-8.8
Primary Balance (deficit -)	-0.9	2.6	1.4	1.7	1.9	1.9
<b>External sector</b>						
Current Account Balance	-26.6	-26.7	-23.2	-21.3	-22.5	-23.1
o/w Export (GNFS)	45.7	40.0	39.6	41.0	41.9	42.6
o/w Import (GNFS)	75.4	70.2	65.7	65.4	67.8	68.9
Remittances	5.5	3.7	3.4	3.0	3.0	3.0
Trade Balance (GNFS)	-29.7	-30.2	-26.2	-24.4	-25.9	-26.3
Gross Reserves (months of imports GNFS) /1 /2	11.4	12.1	11.7	11.6	11.3	11.4
<b>Total Public Debt</b>						
Total Debt Stock (in million US\$)	63,490	66,564	70,009	73,515	77,803	82,347
Debt-to-GDP ratio (percent)	143.1	145.6	148.7	154.1	157.3	159.7
<b>Memorandum Items:</b>						
Nominal GDP (in billion LBP)	66,861	68,939	70,980	71,914	74,541	77,739
GDP (in million US\$)	44,352	45,731	47,085	47,704	49,447	51,568

Source: Government data, and World Bank staff estimates and projections

/1 Gross Reserves (months of imports GNFS) = (Gross Res. excl. Gold / Imports of Goods &amp; Services)\*12

/2 Total Imports using the BOP data from the Quarterly Bulletin of BDL

# SELECTED SPECIAL FOCUS FROM RECENT LEBANON ECONOMIC MONITORS

## FALL 2015 LEM: THE GREAT CAPTURE

Elite Capture and the Hollowing of the State: An Overarching Constraint to Lebanon's Development (Special Focus 1): Lebanon's post-war governance endures systemic failures. Intuitionised confessionalism intended as protection for the mosaic of communities in a country that lacks a demographic majority has developed into pervasive elite capture and patronage system. This elite commands the main economic resources, generating large rents and dividing the spoils of a dysfunctional state. In the process, the public sector has become increasingly governed by bribery and nepotism practices, failing to deliver basic public services and incapable of resolving the most urgent needs. This has culminated in the comprehensive breakdown in the political process, with the three branches of government either vacant or effectively idle, and the only national plebiscite abrogated. This has triggered a series of protests and civil disobedience measures targeting the ruling political class with emphasis on corruption and incompetence. Current conditions are unsustainable, and without significant political and economic reforms, a widening and worsening of socio-economic unrest is not unfathomable.

Lebanon's Health Sector: Modest Reforms despite the Challenges (Special Focus 2): This special focus provides an overview of the health sector in Lebanon and highlights both successes and challenges facing the system. Lebanon's trends in health outcomes, inputs and spending are analyzed over time and compared to a number of countries with similar levels of income and health spending, as well as to the averages for the Middle East and North Africa (MENA) region. Global comparisons are presented for

each of these measures based on the latest available year of data (generally 2011). Key challenges are highlighted; (i) low public spending on health which hinders the Ministry of Public Health's (MoPH) ability to adequately respond to the health needs of low income groups; (ii) high household out-of-pocket spending on health subjecting low income groups to financial hardship; (iii) disproportionate allocation of resources on expensive curative care; and (iv) emerging epidemiologic and population trends associated with unprecedented influx of refugees having significant implications on the delivery and financing of the health sector. Despite the challenges and prolonged periods of instability, the MoPH embarked on several successful reforms that contributed to the resilience of the system in the face of the crisis.

## SPRING 2015 LEM: THE ECONOMY OF NEW DRIVERS AND OLD DRAGS

The Trade Impact of the Syrian conflict on Lebanon (Special Focus 1): We explore the trade effect of the Syrian war on Lebanon up until the second half of 2014. A dissection of the data reveals that, so far, the war seems to have affected neither merchandise nor services exports at the aggregate level. At the same time the relative stability of merchandise imports is likely a result of increased demand due to refugee inflow being offset by higher transit costs through Syria as well as depressed Syrian production. A gravity-type trade model confirms these findings,

suggesting also that Lebanese trade seems to have been less negatively affected by the Syrian war than other Syria's neighbors. An empirical analysis using micro level exporter data substantiates this finding. While Lebanese exporters to Syria have suffered from a drop in demand in the Syrian market (but less so than their Jordanian counterparts), other Lebanese exporters have started to export to Syria to fill the gap in Syrian production. Further econometric analysis suggests that Syrian refugees in Lebanon provide important impetus to Lebanese services exports.

Challenges in the Lebanese energy sector (Special Focus 2): The Lebanese electricity sector has been underperforming and in crisis for several decades, requiring urgent action to avoid further deterioration of the quality of electricity delivery. The macroeconomic impact has been massive; accruing debt on investments in and transfers to Electricité du Liban's (EdL) amounts to 40 percent of Lebanon's gross public debt and is escalating rapidly as transfers now account for over half of the fiscal deficit. Some of the measures needed to improve EdL's financial situation are well known, such as increased investment, tariff reforms and corporatization of EdL. Political and confessional obstacles, however, have so far hindered any progress.

Water in Lebanon – Coupling Infrastructure with Institutional Reform (Special Focus 3): Despite the relative availability of water resources, the Lebanese water sector has not achieved suitable levels of service provision and is not in line with the level of economic development reached by the country. The cost of inaction in the water sector is estimated at about 1.8 percent of GDP, or 2.8 percent of GDP if the cost of environmental degradation is included. Several factors have led to this situation and require sustained attention. These include: (i) low continuity of water supply due to small storage capacity, large amount of water lost to the sea, growing demand for water and deficiency of the existing water networks; (ii) unfinished reform agenda that contributed to institutional uncertainty and fragmentation of functions particularly relating to wastewater and irrigation; (iii) an irrigation sector that is characterized by inadequate water storage capacity, lack of proper maintenance and a heavy reliance on

subsidies; and (iv) regional water establishments (RWE) that severely lack management and financial autonomy and are impeded by limited inter-agency coordination and weak central government oversight. Moving forward, the Government must

## FALL 2014 LEM: DOWNSIDE RISKS MATERIALIZE

Towards an Effective Social Safety Net in Lebanon (Special Focus): Lebanon's social safety nets (SSNs) fail to protect poor and vulnerable Lebanese as it consists of a multitude of small and poorly targeted programs that suffer from low coverage, high leakage, and limited benefit levels, while large budgetary resources are expended on universal subsidies which are pro-rich and crowd out other social spending. With poverty incidence elevated and broadly unchanged for the past 25 years, Lebanese citizens revealed in a World Bank (2014d) survey of country stakeholders that social protection ranked second in their development priorities. International experience reveals that carefully designed SSNs can help prevent shocks from pushing vulnerable households into poverty, help tackle the problem of spatial pockets of poverty in slums and rural areas, and also can help break the cycle of intergenerational poverty. With these objectives in mind, in 2011 the Ministry of Social Affairs embarked on a modernization of Lebanon's SSN system, starting with the introduction of the National Poverty Targeting Program. The NPTP is the first means-tested targeting social assistance program in Lebanon. With the Syrian crisis pushing vulnerable households into poverty, the NPTP has been scaled up to cover more beneficiaries as part of a three year emergency project to help mitigate the impact of the Syrian crisis on Lebanese households. Most recently, the institutionalization of the NPTP into a permanent program with an annual budgetary allocation has been proposed by members of Parliament, which if approved would constitute a

significant positive step forward in the effectiveness of Lebanon's SSN system.

## SPRING 2014 LEM: A SLUGGISH ECONOMY IN A HIGHLY VOLATILE ENVIRONMENT

A Sovereign Wealth Fund for Lebanon: Issues and Preliminary Recommendations (Special Focus 1): As Lebanon contemplates prospects of sizeable hydrocarbon discoveries, the country is in the process of designing an institutional framework to manage these resources. One such issue is the establishment of a Sovereign Wealth Fund (SWF), as required by the 2010 Hydrocarbon Law. This Special Focus provides an overview of the various types of SWFs that have been established across countries, draws lessons from these experiences, highlights some pitfalls, and presents preliminary recommendations for Lebanon as it moves towards establishing its SWF. Key among these recommendations is that the Lebanese SWF's design should include (i) integration with the budget system, (ii) some (limited) flexibility in operational rules, (iii) no (or limited) earmarking but no extra-budgetary spending, (iv) coherence with country investment strategy, and (v) transparency and accountability.

New Coincident and Leading Indicators for the Lebanese Economy (Special Focus 2): Weak economic statistics in Lebanon impede economic analysis and decision making. To remedy this, World Bank staff developed two indicators of economic activity for Lebanon: a coincident indicator (WB-CI) and a leading indicator (WB-LI). These indicators, which are based on an expanded NBER-Conference Board methodology, reveal promising statistical properties that should make them valuable coincident and leading (one-year ahead) indicators for the Lebanese economy. Based on these indicators, GDP growth for 2012 and 2013 is estimated to be, respectively, 2.2

and 0.9 percent while growth in 2014 is predicted to reach 1.5 percent. Aside from having a high degree of accuracy, both indicators are of relatively high (monthly) frequency and are available with a relatively small time lag (2-3 months), which make them ideally suited for economic analysts, investors, and policy makers alike. In contrast to the BdL-CI, the WB-CI points to a deceleration in economic activity during the first ten months of 2013, which, if sustained over a few more months, would warrant a different monetary policy stance than the one based on the BdL-CI. This monetary policy example highlights the critical importance of having accurate, high frequency, and timely economic indicators.

# SELECTED RECENT WORLD BANK PUBLICATIONS ON LEBANON

(for an exhaustive list, please go to:

<http://go.worldbank.org/8700A29QW0><http://go.worldbank.org/5N4AMNJXV0>)

<b>Title</b>	<b>Publication Date</b>	<b>Document Type</b>
Lebanon - Promoting poverty reduction and shared prosperity: systematic country diagnostic (English)	2016/01/01	Publication
The welfare of Syrian refugees: evidence from Jordan and Lebanon (English)	2015/12/22	Publication
Snapshot of poverty and labor market outcomes in Lebanon based on household budget survey 2011-2012: central administration for statistics and World Bank	2015/12/08	Working Paper
Lebanon economic monitor, April 2015: the economy of new drivers and old drags	2015/04/2015	Working Paper
Lebanon - Urban Transport Development Project: procurement plan (English)	2015/02/2015	Procurement Plan
MENA Quarterly Economic Brief, January 2015: Plunging Oil Prices	2015/01/29	Brief
Economic effects of the Syrian war and the spread of the Islamic state on the Levant	2014/12/01	Policy Research Working Paper
Lebanon Economic Monitor: Fall 2014 (English)	2014/10/31	Brief
New coincident and leading indicators for the Lebanese economy (English)	2014/06/01	Policy Research Working Paper
Lebanon Economic Monitor: Spring 2014 (English)	2014/04/30	Brief
Lebanon Economic Monitor: Fall 2013 (English)	2013/10/31	Brief
Lebanon - Economic and social impact assessment of the Syrian conflict (English)	2013/09/20	Board Paper
Lebanon Economic Monitor: Spring 2013 (English)	2013/06/25	Brief
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Supporting innovation in SMEs in Lebanon through a public/private equity fund : the iSME fund (English)	2013/02/01	Brief
Doing business 2013: Lebanon - smarter regulations for small and medium-size enterprises: comparing business regulations for domestic firms in 185 economies (English)	2012/10/23	Working Paper
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Status of Projects in Execution (SOPE) - FY10: Middle East and North Africa region - Lebanon (English)	2010/10/03	Annual Report
Lebanon - Statistical capacity building with the Central Administration of Statistics: report on gender statistics (English)	2010/08/28	Working Paper



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