



Darkening Horizons

AN OVERVIEW OF KEY DEVELOPMENT INDICATORS IN LEBANON

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List of Acronyms

GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
HIFPA	Hizballah International Financing Prevention Act
ILO	International Labour Organization
MENA	Middle East and North Africa
MOE	Ministry of Environment
MOF	Ministry of Finance
MOPH	Ministry of Public Health
OECD	Organization for Economic Cooperation and Development
SME	Small and Medium-sized Enterprises
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organization

About this Report

This report is an internal document that serves to steer the strategy and work of the Institut des Finances Basil Fuleihan. It presents a selection of key economic, social and environmental indicators related to Lebanon's state of development, with the aim to raise awareness about challenges facing the country since 2011, alerting to the gravity of the state of deterioration but also highlighting opportunities for action to exit the crisis, building on the positive repercussions that the election of a new President of the Republic and the formation of a new Government have opened up in 2016. If adequate policy choices and corrective actions are not guaranteed to eliminate the existing danger, they could however put Lebanon back on the path of economic competitiveness, sustainable development, and regional and global prominence. This is the essence of the message relayed by the Institute's team to partners inside and outside Lebanon.

Selected indicators are sourced from national data and statistics as well as from numerous reports published in recent years by local, regional, and international institutions that have documented Lebanon's situation and compared its progress and failure to that of regional countries and the rest of the world. The project team selected the clusters that have the most significant impact of public finances and constitute a major risk on long-term development perspectives.

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The commitment of time, advice and reviews from all contributors is highly valued.

Introduction

In 2016, Lebanon ranked as the 40th most fragile state in the world out of 144 countries.¹ At the current rate of deterioration, Lebanon can be expected to reach Somalia's (reportedly the most fragile state) current state of fragility in 12 years – a figure that excludes any potential crisis that could plunge the economy further down an accelerated state of decline. Lebanon's state of fragility is deeply rooted in the various political, economic, social and security crisis that have hit the country in the last decade.

Even though the year 2011 marked a breaking point with a previous period of high growth, Lebanon has been facing for a long time major structural challenges that inhibited its economic development. These challenges included a gross public debt that has risen to alarming levels (148% of GDP) and twin deficits i.e. budget and trade deficits. Furthermore, the absence of a government budget approved by Parliament between 2006 and 2017 and the lack of policies that could stimulate real economic growth further highlighted the political inability to create a strong, competitive business environment in Lebanon. The economy's heavy reliance on real estate and tourism sectors as main growth drivers made it vulnerable to political and security crises, which have been abundant within the country and across the Arab region in recent years. For instance, the real estate sector accounted for an average of 17.9% of GDP between 2004 and 2011, even though it employed on average 8.9% of the Lebanese labor force in 2009.² Moreover, international reports indicated a continuous decline in the competitiveness of the local business environment due to widespread corruption, staggering bureaucracy, and weak infrastructure.

The Lebanese economy has deteriorated even further since 2011 due to the repercussions of the Syrian refugee crisis and the influx of more than 1.5 million displaced.³ While growth rates averaged around 7.6% during the five years preceding the unrest in Syria, GDP growth has declined to around 1.5% in recent years and the quality of public services and governance has massively deteriorated.⁴ Poverty has worsened among Lebanese with more than 170,000 additional Lebanese pushed into poverty between 2011 and 2013, adding to the previous 1 million poor.⁵ According to the World Bank's latest reports, direct costs on Lebanon's public finances

¹ The Fund for Peace Organization assigns a fragility score to each country. See: The Fund For Peace, *Fragile States Index 2016* (Washington, DC: The Fund For Peace, 2016), accessed November 10, 2017, <http://library.fundforpeace.org/library/fragilestatesindex-2016.pdf>

² Central Administration of Statistics, Multiple Indicators Cluster Survey 2009, http://www.cas.gov.lb/images/Mics3/CAS_MICS3_survey_2009.pdf

³ Government of Lebanon and The United Nations, Lebanon Crisis Response Plan 2017-2020, report (Government of Lebanon and the United Nations), 8, accessed November 10, 2017, <http://www.un.org.lb/library/assets/LCRP%20Short%20version-015625.pdf>

⁴ International Monetary Fund, *Lebanon - Selected Issues (IMF Country Report No. 17/20)*, report, 7, January 2017, accessed November 8, 2017, <http://www.imf.org/external/pubs/ft/ar/2017/eng/assets/cr1720.pdf>

⁵ The World Bank, *Lebanon - Economic and Social Impact Assessment of the Syrian Conflict (Report No. 81098-LB)*, report, 1, September 20, 2013, accessed November 8, 2017, <http://documents.worldbank.org/curated/en/925271468089385165/pdf/810980LB0box379831B00P14754500PUBLIC0.pdf>

were estimated at \$1.1 billion in lost revenue and \$1.5 billion in increased expenditures. The direct effects have yielded a total loss of \$13.1 billion since 2012, of which \$5.6 billion (equivalent to 11% of GDP) were lost in 2015 only.⁶ The indirect costs were estimated at \$2.5 billion in additional government spending to restore the quality of public services to pre-crisis levels.

The degradation of the environment at several levels (water and air pollution, soil deterioration, etc.) is resulting in higher health costs for citizens and for the state, with health spending per capita rising by 23% between 1995 and 2014.⁷

Despite the various challenges, the seeming end of a long political stalemate that witnessed the election of a new President after more than a two-year vacuum and the nomination of a consensual government offer the country a unique window of opportunity to tackle longstanding and pressing development issues, alongside the prospects of the upcoming elections in 2018.

⁶ The World Bank, *Lebanon - Economic and Social Impact*, 1, see also: International Monetary Fund, *Lebanon - Selected Issues (IMF Country Report No. 17/20)*, 7

⁷ "Health expenditure per capita (current US\$)," The World Bank, accessed November 8, 2017, <https://data.worldbank.org/indicator/SH.XPD.PCAP>.

Lebanon's Unstable Economy

Lebanon's economy, although long thought resilient, is in crisis, characterized by deep and long growth stagnation, with a growth rate estimated at around 1% in 2016 and a debt burden surpassing 148% of GDP.⁸ The surge in the already elevated debt-to-GDP ratio has heightened existing macro-fiscal risks. Pressures on public finances are further exacerbated by the adoption of a new salary scale bill for the public sector that has been approved by the Parliament (July 2017), while the fiscal measures destined to finance it were invalidated in September 2017 by the Constitutional Council,⁹ leading to a nationwide strike and to the issuance of an amended law by the Parliament.

1. ECONOMIC SLOWDOWN AND INFLATION

Since 2012, the growth rate has not surpassed 2%,¹⁰ way below the average rate needed for recovery, which is estimated at 4%.¹¹ Local consumption to gross domestic product (GDP) has, in turn, been negatively affected, falling from 69% to 66% between 2013 and 2015 (Figure 1).¹²

The economy's reliance on tourism and real estate as traditional growth drivers is unsustainable and keeping the economy and job creation well below potential (Figure 1).

Highlights



- During 2016, the economy has recorded the lowest growth rate in a decade, at 1%
- Total revenues dropped to 18.9% of GDP in 2015, the lowest in a decade and interest payments increased by 6.5%
- Fiscal revenues are expected to remain low, accounting for 19.6% of GDP at the end of 2016
- Lebanon has incurred a cumulative loss of almost 30% GDP because of the Syrian crisis
- Funding to mitigate the impact of the Syrian crisis has remained short of estimated needs,

⁸ Lebanese Ministry of Finance, *Public Finance Monitor*, report, December 2016, accessed November 8, 2017, <http://www.finance.gov.lb/en-us/Finance/Rep-Pub/DRI-MOF/PFR/Public%20Finance%20Monitor/Monthly%20PFM%20-%20December%202016%20-%20Final%20Version.pdf>

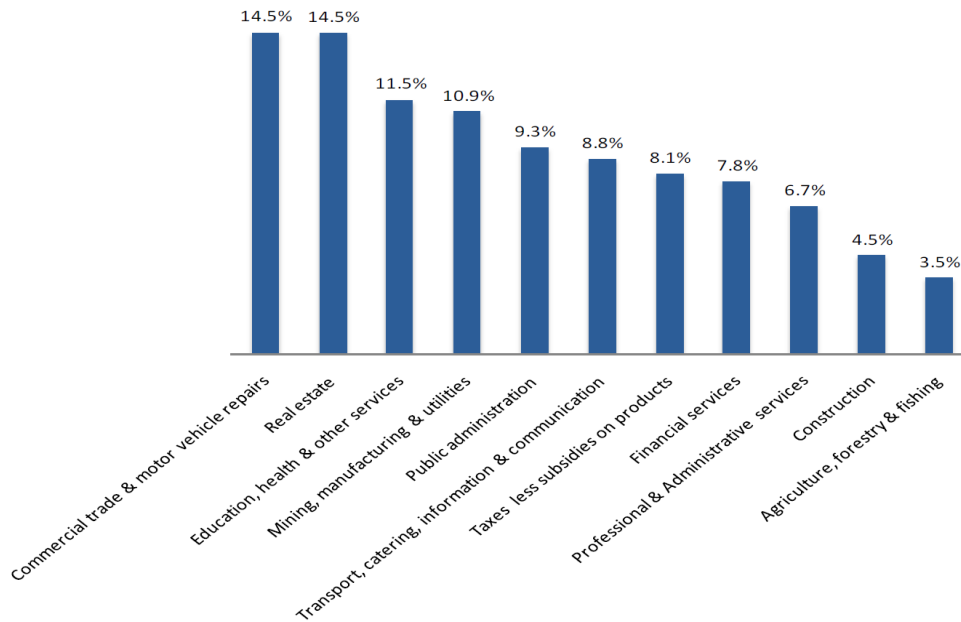
⁹ The tax hike law was passed in the absence of a state budget (Lebanon has not had a state budget since 2005), which, according to the Constitutional Council, violates Article 83 of the Constitution.

¹⁰ "GDP growth (annual %)," The World Bank, accessed November 8, 2017, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=LB>.

¹¹ International Monetary Fund, Lebanon: 2016 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Lebanon (IMF Country Report No. 17/19). Accessed November 10, 2017. <https://www.imf.org/en/Publications/CR/Issues/2017/01/24/Lebanon-2016-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-44572>

¹² Ibid.

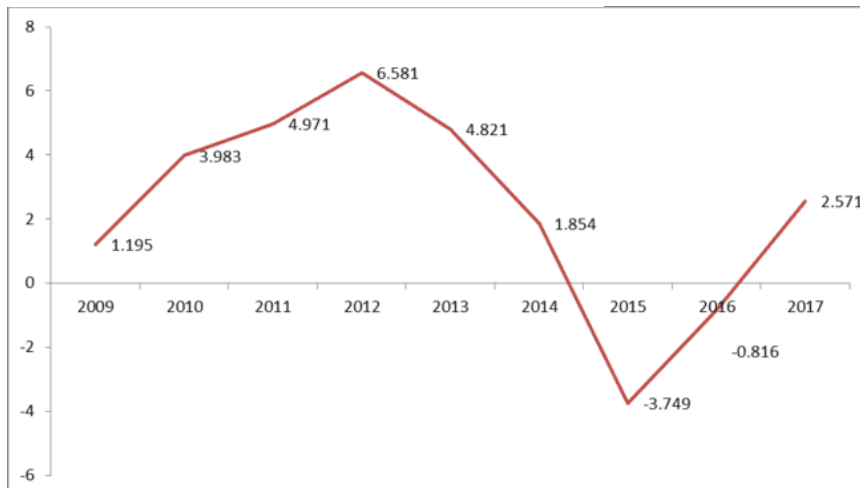
Figure 1: Percentage Shares of Activities in the GDP 2015



Source: Percentage Shares of Activities in the GDP 2015 (Central Administration of Statistics, 8)

Regional turmoil and protracted crisis have taken a toll on these drivers, leading to a major slowdown of economic activity. The negative consumer price index (deflation), coupled with economic contraction, illustrate the significance of the economic crisis (Figure 2).

Figure 2: Inflation, Consumer Prices Trend



Source: IMF World Economic Outlook Database:

<https://www.imf.org/external/pubs/ft/weo/2017/01/weodata/weorept.aspx?sy=2009&ey=2017&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=62&pr1.y=12&c=446&s=PCPI%2CPCPIPCH&grp=0&a=>

The Syrian refugee crisis has had further detrimental effects on Lebanon's GDP growth. While growth rates averaged around 5% between 2003 and 2010 (sometimes even going up to 10% in 2009), growth has fallen to between 1% and 2% since the start of the crisis in 2011.¹³ International humanitarian aid constituted a substantial part of Lebanon's growth rate. As a matter of fact, had it not been for this aid and its multiplier effect, growth in Lebanon would have been 1.3 percentage point lower than the country's average in 2014, meaning growth rates would be very close to 0.¹⁴

2. INCREASING DEBT BURDEN

The slowdown in GDP growth has negatively affected the evolution of debt. Almost half the progress achieved in the country's debt position between 2007 and 2012 has been reversed (Figures 2 and 3). As of 2012, and despite a strong track record of servicing debt under stressed conditions, debt interest has been increasing without any signs of potential stabilization. This increasing trend, if not reversed, exposes the country to a refinancing risk and heightens the risk of run-off debt and insolvency.

Figure 3: Lebanon Gross Public Debt and Net Public Debt 2005-16

	Dec-05	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16
Gross Public debt	179%	183%	169%	161%	144%	137%	134%	131%	138%	139%	142%	148%
Net Public debt	162%	170%	157%	142%	125%	117%	116%	112%	116%	120%	124%	129%

Source: Gross and Net Public Debt as Percentage of GDP (Lebanese Ministry of Finance, September 2017)

Public debt dynamics is coupled to a growing fiscal deficit that increased about 61% between 2014 and 2016¹⁵, at a time when the priority should be set on consolidation.

The ongoing erosion of Lebanon's already weak government finances and increased vulnerability to external shocks have lead Moody's to downgrade Lebanon's long-term issuer ratings from B2 to B3 and to change the outlook from stable to negative in August 2017. For 2018, Moody's estimates Lebanon's government debt to be the third highest among all rated sovereigns,¹⁶ and projects that it will remain close to 700% of government revenues. As the government currently allocates

¹³ "GDP growth (annual %)," The World Bank.

¹⁴ *IMF Country Report No. 17/20, Lebanon: Selected Issue*, 8

¹⁵ Lebanese Ministry of Finance, *Public Finance Monitor*, report, December 2016,

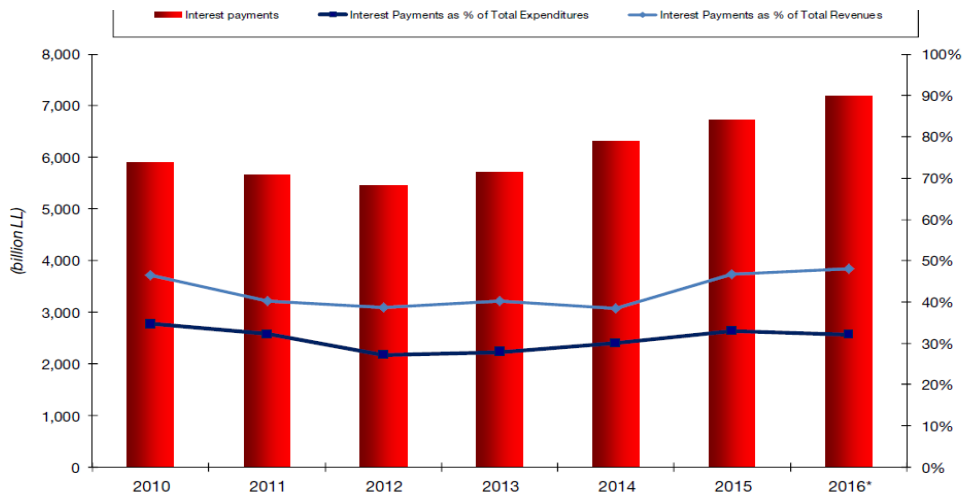
<http://www.finance.gov.lb/en-us/Finance/Rep-Pub/DRI-MOF/PFR/Public%20Finance%20Monitor/Monthly%20PFM%20-%20December%202016%20-%20Final%20Version.pdf>

¹⁶ "Moody's Downgrades Lebanon's Rating To B3, Changes Outlook To Stable From Negative," Moody's, August 25, 2017, accessed November 8, 2017, https://www.moody's.com/research/Moodys-Downgrades-Lebanons-Rating-To-B3-Changes-Outlook-To-Stable--PR_365093.

almost 45% of its revenues to repay debt, by end of 2015, foreign exchange reserves needed shoring up in face of declining capital inflows.¹⁷

With both interest to expenditures (32%) and interest to revenues (49%) being on the rise (see Figure 4), the government’s ability to increase capital investments is seriously undermined. Domestic debt considerably outweighs foreign debt, thus increasing the risk of structural breakdown in times of crisis. Indicators also show a critically low level of capital expenditure over several years (at about 1.1% of GDP),¹⁸ limiting the government’s maneuver to boost economic growth through capital expenditures and expansionary policy measures.

Figure 4: Interest Payments Trend



Source: Interest Payments as End of the Period (Ministry of Finance, Quarter II 2017, 2)

3. WORRYING TRADE DEFICIT

Over the past five years, Lebanon has been experiencing a worsening trade deficit, further exacerbated by the Syrian crisis that has led to the interruption of major trade routes. The trade deficit amounting USD 15,177 million in 2015, has nonetheless narrowed down by 12% from 2014 due to lower oil prices and the depreciation of the currencies of Lebanon’s major trading partners such as the European Union (Figure 5).

¹⁷ "Lebanon’s Economic Outlook - Spring 2016," The World Bank, accessed November 9, 2017, <http://pubdocs.worldbank.org/en/218531460208807979/Lebanon-MEM.pdf>.

¹⁸ International Monetary Fund, *Lebanon: 2016 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Lebanon (IMF Country Report No. 17/19)*, report (Washington, DC: International Monetary Fund, 2017), 33, January 2017, accessed November 10, 2017, <https://www.imf.org/en/Publications/CR/Issues/2017/01/24/Lebanon-2016-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-44572>.

Figure 5: Lebanon: Balance of Payments 2013-21

	2013	2014	2015	2016	2017	2018	2019	2020	2021
			Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
	(in millions of US Dollars)								
Capital and financial account	10,717	10,919	9,646	13,229	7,838	7,409	7,253	7,143	6,340
Capital account (net)	1593	1402	1833	1453	1453	1453	1453	1453	1453
Direct investment (net) 2/	9,125	9,518	7,813	11,776	6,385	5,956	5,800	5,690	4,887
Portfolio investment, loans and other (C&D) (net)	13,113	11,911	10,697	17,075	5,902	4,361	3,496	2,778	1,147
Government (net)	723	422	263	178	247	330	465	520	593
BdL	-198	-223	-216	-100	0	0	0	0	0
Banks (net)	5,027	6,870	4,286	3,966	2,163	2,249	2,339	2,433	2,530
Foreign assets of banks 3/	-1,539	2,915	822	127	-962	-990	-1,018	-1,047	-1,078
Nonresident deposits 4/	5,989	2,440	4,499	4,874	4,161	4,274	4,393	4,515	4,643
Nonbank private sector (net)	2,833	710	1,818	9,018	1,445	-308	-1,433	-2,339	-4,165

Adapted from: Lebanon: Balance of Payments 2013-21 (International Monetary Fund, 2017, 35)

Investments in Lebanon have decreased by 10% between 2013 and 2015, dropping from 2% to 1.8% of GDP.¹⁹ Despite the drop in oil price, with Lebanon being an oil importer, the trade balance deficit is expected to continue increasing over the 5 coming years (Figure 6).

Figure 6: Lebanon: Overall Balance of Payments 2013-21

	2013	2014	2015	2016	2017	2018	2019	2020	2021
			Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
	(in millions of US Dollars)								
Overall balance	1,734	3,431	-560	4,177	-1,454	-2,080	-2,462	-2,589	-3,369

Adapted from: Lebanon: Balance of Payments 2013-21 (International Monetary Fund, 2017, 35)

The economy being structurally and heavily dependent on capital inflows, lower remittances have also added pressure on the economy, threatening the central bank's foreign exchange reserves, which have decreased by 5.4% to reach \$30.6 billion by the end of 2015.²⁰ In 2016, faced with weaker capital inflows, Banque du Liban (BdL) financially engineered an unconventional swap that was able to boost its foreign exchange reserves and capitalization in local currency at commercial banks. As a result, gross foreign exchange reserves at BdL rose by 11.1 percent by end-2016 to reach US\$34 billion.²¹ However, the capital and finance surplus is expected to further decrease during the upcoming years (mainly due to a potential decrease in diaspora transfers to Lebanon) and in that case, would not be able to compensate the trade deficit. The decrease in remittances (linked to the crisis in GCC countries and to the HIFPA) substantially adds to the increase in trade deficit (\$14 billion in 2016) and to the rise of gross public debt, as seen in Figure 7.²² The deteriorating situation might force the central bank to resort to financial engineering methods once again but with no positive outcome guaranteed on monetary aggregates.

¹⁹ <http://data.worldbank.org/indicator>

²⁰ Lebanon's Economic Outlook - Spring 2016," The World Bank.

²¹ "Lebanon's Economic Outlook - April 2017." The World Bank. Accessed November 9, 2017.

<http://pubdocs.worldbank.org/en/495621492266516332/Lebanon-MEM2017-ENG.pdf>.

²² International Monetary Fund, *Lebanon: 2016 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Lebanon*, 8

Figure 7: Lebanon's Balance of Payments 2013-21

	2013	2014	2015	2016	2017	2018	2019	2020	2021
			Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
	(in millions of US Dollars)								
Current account (excl. official transfers)	-12,305	-12,649	-9,258	-9,052	-9,292	-9,489	-9,715	-9,732	-9,709
Goods (net)	-15,328	-15,023	-13,096	-14,506	-16,337	-16,861	-17,423	-18,025	-18,635
Exports, f.o.b.	5,182	4,557	3,987	3,734	3,891	4,284	4,723	5,214	5,649
Imports, f.o.b.	-20,510	-19,580	-17,083	-18,241	-20,228	-21,145	-22,146	-23,238	-24,284
Services (net)	2,777	1,568	2,187	2,838	3,667	4,089	4,577	5,042	5,494
Credit	15,708	14,706	15,744	16,474	17,537	18,321	19,412	20,488	21,601
Debit	-12,931	-13,137	-13,556	-13,636	-13,870	-14,232	-14,835	-15,446	-16,107
Memo: Tourism (net)	2,104	1,529	2,116	2,227	2,518	2,673	2,806	2,968	3,107
Income (net)	-1,356	-1,562	-1,735	-1,628	-1,231	-1,502	-1,825	-1,913	-1,952
Credit	1,967	2,483	2,342	2,259	3,026	3,435	3,947	4,277	4,499
Debit	-3,323	-4,046	-4,077	-3,887	-4,258	-4,937	-5,772	-6,190	-6,452
o/w: Interest of government debt	-475	-470	-544	-526	-587	-631	-685	-685	-729
Current transfers (net) 1/	1,601	2,368	3,385	4,245	4,609	4,785	4,957	5,163	5,385
Official (net)	-44	7	69	0	0	0	0	0	0
Private (net)	1,645	2,361	3,317	4,245	4,609	4,785	4,957	5,163	5,385

Adapted from: Lebanon: Balance of Payments 2013-21 (International Monetary Fund, 2017, 35)

4. AN ADDITIONAL BURDEN: THE FINANCIAL IMPACT OF THE SYRIAN CRISIS

Five years on, the Syrian conflict remains a substantive factor affecting Lebanon's economic outlook. Lebanon remains the largest host (on a per capita basis) for displaced Syrians, which has significantly strained already weak public finances in a situation of limited international assistance. Today, the refugee population accounts for one-third of the Lebanese population.²³ The country hosts more than 1.5 million refugees, with only 1.017 million registered with UN agencies.²⁴

The resulting increased demand on public services is estimated to have directly cost the government approximately \$400 million each year.²⁵ This cost is generally entirely borne by the government, except in particular cases like education and health, where a portion of the cost is borne by the donor community.

The World Bank estimates that Lebanon has incurred losses of \$14.4 billion since 2012, of which US\$ 5.6 billion pertains to 2015 alone.²⁶ These figures are equivalent to a cumulative loss of almost 30% of GDP and are lowering Lebanon's annual GDP growth rate by an average of 2.9 percentage points (Figure 8). Mitigating the environmental impact of the Syrian crisis on Lebanon (addressing solid waste, air quality, land use and ecosystems) is estimated at \$36 million for 2016 alone.

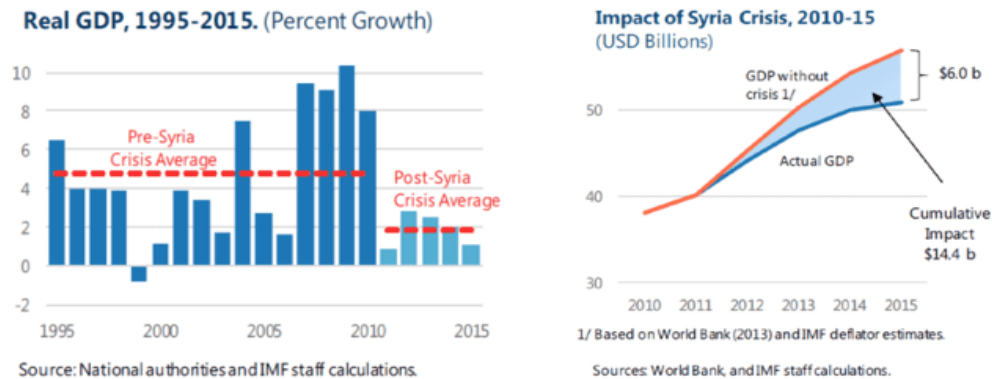
²³ <http://data.unhcr.org/syrianrefugees/country.php?id=122>

²⁴ Government of Lebanon and The United Nations, *Lebanon Crisis Response Plan 2017-2020*, report (The Government of Lebanon and the United Nations), 8, accessed November 10, 2017, <http://www.un.org.lb/library/assets/LCRP%20Short%20version-015625.pdf>

²⁵ *IMF Country Report No. 17/20, Lebanon: Selected Issue*, 8

²⁶ *Ibid.*, 8,

Figure 8: Impact of Syria Crisis on Lebanon's GDP



Source: Real GDP, 1995-2015; and Impact of Syria Crisis, 2010-15 (International Monetary Fund, 2017, 7)

External financing is currently mostly targeted at the 1.5 million refugees. However, local host communities need additional support as the crisis is estimated to have a direct impact on 336,000 Lebanese and indirect effects on 1.4 million Lebanese citizens.

As of September 2015, 79% of the displaced Syrians are women and children, representing the most marginalized and vulnerable people in society, and requiring greater volumes of social, welfare, and health services.²⁷

The funding needed for stabilization and humanitarian programs has increased by 10% between 2016 and 2017, as shown in Figure 9. This is a direct effect of the increase in marginalized populations due to the worsened living conditions across the different population groups.

Figure 9: Trends in Financing Needs for Lebanon due to Syrian Crisis

2015 - 2016	2017 - 2020
\$ 2.48 billion	\$ 2.75 billion

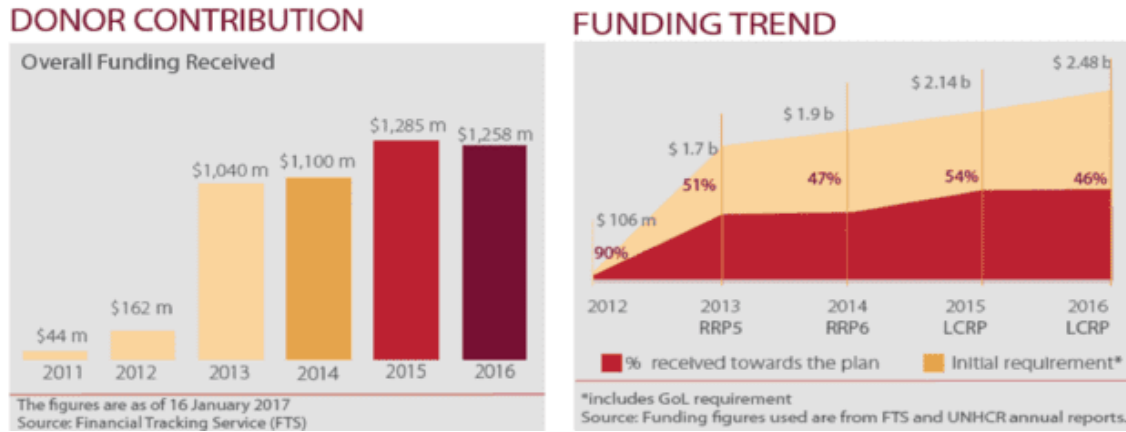
Adapted from: Lebanon Crisis Response Plan 2015-2016 (Government of Lebanon and the United Nations, 2015, 3) and Lebanon Crisis Response Plan 2017-2020 (Government of Lebanon and the United Nations, 2016, 10)

Less than 50% of needed financing has been secured among the international donor community (see Figure 10), which is increasing the pressure on the Lebanese Government and on host communities to pay for welfare, social, and healthcare services. Lebanon's status as Middle

²⁷ Government of Lebanon and The United Nations, *Lebanon Crisis Response Plan 2015-2016: Year Two*, report (Government of Lebanon and the United Nations, 2014), 91, December 2015, accessed November 10, 2017, <http://www.un.org.lb/library/assets/engbrochfullversion-065158.pdf>.

Income Country has been one of the most significant factors limiting its access to development financing.²⁸

Figure 10: Donor Contribution and Funding Trends in Lebanon



Source: Donor Contribution; and Funding Trends (Government of Lebanon and the United Nations, 2016, 10)

²⁸ Government of Lebanon and The United Nations, *Lebanon Crisis Response Plan 2017-2020*, 10

A Challenging Business Ecosystem

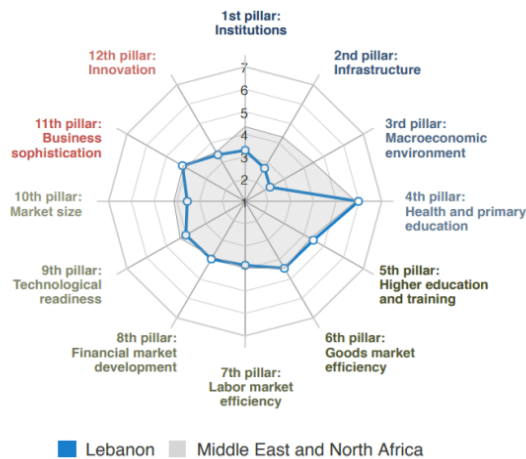
In 2017, Lebanon dropped four ranks (moving from 122 to 126 out of 190 countries) on the World Bank Ease of Doing Business Indicator,²⁹ standing just below the regional average for the Middle East and North Africa. The business climate remains sensitive to domestic and regional political and security crisis.

1. AN UNCOMPETITIVE BUSINESS ENVIRONMENT

Lebanon ranks 101st out of 140 in economic competitiveness.³⁰

Political instability, investment climate, power supply, corruption, and access to finance were identified by the Enterprise Survey data of 2013/14 as the top five obstacles to business operations.

Figure 11: Lebanon vs. MENA Global Innovation Index



Source: Performance Overview (Schwab and Sala-i-Martin, 2017, 234)

Weak governance and administrative complexity coupled to a low level of public investment and to antiquated competition and investment laws, have created structural rigidities in the Lebanese economy and impeded

²⁹ The World Bank, *Doing Business 2017*, report (Washington, DC: The World Bank, 2017), accessed November 10, 2017, <http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB17-Report.pdf>.

³⁰ Klaus Schwab and Xavier Sala-i-Martin, *The Global Competitiveness Report 2016–2017*, report (Geneva: World Economic Forum, 2016), 23, accessed November 10, 2017, http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf.

Highlights

- Lebanon ranks 126th out of 190 countries in ease of doing business
- Lebanon ranks 131st out of 138 countries in infrastructure
- Lebanon ranks 143rd out of 144 countries in the quality of electricity supply
- Lebanon ranks 13 out of 15 Arab countries on the World Economic Forum's Global Competitiveness Index
- The informal sector constitutes around 30% of GDP
- In 2016, 92% of Lebanese people said corruption had increased a lot in the 12 past months.

private investment. These factors have not only led to an economic contraction but have also had negative repercussions on the country's productive sectors. Economic activity has accounted losses estimated to \$1.8 billion and 388 enterprises were shut down between 2011 and 2015.³¹

Lebanon is also lagging behind at the regional level, compared to other countries of the Middle East and North Africa (Figure 11). Currently, it ranks 13 out of 15 Arab countries on the World Economic Forum's Global Competitiveness Index.

2. DEFICIENT INFRASTRUCTURE

The country has not seen improvements and developments in infrastructure since 2010, which has adversely affected the business climate and the economy's ability to attract investments. In 2016, Lebanon ranked 131st out of 138 countries in quality of overall infrastructure.³²

Lebanon's electricity sector is extremely underperforming, with the country ranking at 143rd out of 144 countries in the quality of electricity supply. The government is unable to provide uninterrupted electricity to all regions, which makes it resort to electricity rationing and power cuts of up to 12 hours a day in regions outside Beirut as well as to buying electricity from neighboring countries such as Syria.³³ Furthermore, Lebanon ranks 120th out of 144 countries for the quality of roads and 114th for mobile subscriptions per 100 people.³⁴ These figures highlight the extent to which the country's deficient infrastructure inhibits private sector investment, development and growth. The weak infrastructure makes land-based exports more time-consuming and less cost-competitive, therefore limiting local producers' ability to compete on regional and international scales.

3. LACK OF INNOVATION

Despite a capacity for innovation on the rise and a growing number of engineers and scientists according to the World Economic Forum, Lebanon lags behind in technology and innovation, ranking of 114 out of 139 in ICT use for business-to-business transactions, 117th in business-to-consumer Internet use, 134th in importance of ICTs to government vision and 131th in government procurement of advanced technology.³⁵ These factors highlight the country's difficulty to make use of technological innovations to stimulate growth. Internet and telecommunication infrastructure do not offer Lebanese enterprises a high-performing ecosystem as Lebanon

³¹ "Association of Lebanese Industrial Indicators," *Association of Lebanese Industrials*, accessed November 10, 2017, <http://www.ali.org.lb/ar/news/ali-mwshrt>.

³² Schwab and Sala-i-Martin, *The Global Competitiveness Report 2016–2017*, 234

³³ According to declarations of the Ministry of Finance to the press in August 2017

(<http://www.dailystar.com.lb/Business/Local/2017/Aug-08/415279-syria-supplying-more-electricity-to-lebanon.ashx>), Syria has started supplying Lebanon with 300 MW of electricity over high-voltage power lines that have remained intact despite a raging war.

³⁴ The World Bank, *Lebanon: Promoting Poverty Reduction and Shared Prosperity*, report (The World Bank, 2015), 51, June 2015, accessed November 10, 2017,

<http://documents.worldbank.org/curated/en/698161468179049613/pdf/97498-CAS-P151430-SecM2015-0202-IFC-SecM2015-0073-MIGA-SecM2015-0047-Box391476B-OUO-9.pdf>.

³⁵ http://www3.weforum.org/docs/GITR2016/GITR_2016_full%20report_final.pdf

continues to lag behind, raking 131st out of 134 countries in broadband speed in October of 2017, ahead of only Libya, Venezuela and Algeria.

And since SMEs make up 90% of the economy and are easily able to adapt to new demand in a favorable business environment, Lebanon can further improve its capacity to innovate (ranking 38/138) and as company spending on R&D (75/138).³⁶

4. THE COST OF CORRUPTION

According to Transparency International, Lebanon scores 28/100 and ranks 136th out of 176 countries on the Corruption Perception Index of 2016.³⁷ Also, in 2016, 92% of Lebanese people said corruption had increased a lot in the 12 past months and the payment of bribes is on the rise again.³⁸

Bureaucracy and widespread corruption have created significant barriers to market entry and have made it too expensive for new firms to compete (see Figure 12). The oligopolies that dominate around half of Lebanon's domestic markets discourage competition and investments in productive activities. Furthermore, the high concentration of informal employment in rural areas discourages the establishment and development of formal enterprises. The informal sector constitutes around 30% of GDP, which undermines the government's regulatory role and dissuades entrepreneurs and investors.³⁹

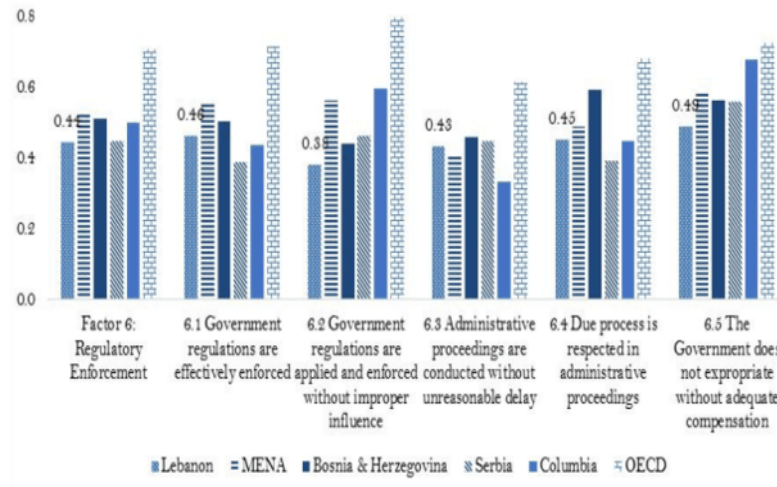
³⁶ Schwab and Sala-i-Martin, *The Global Competitiveness Report 2016–2017*, <https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1>

³⁷ "Lebanon," Transparency International, accessed November 10, 2017, <https://www.transparency.org/country/LBN>

³⁸ Coralie Pring, *People and Corruption: Middle East and North Africa Survey 2016*, report (Transparency International, 2016), 10-11.

³⁹ International Monetary Fund, Lebanon Staff Report for the 2011 Article IV Consultation, 10 January 2012, <http://www.finance.gov.lb/en-us/Finance/Rep-Pub/RI-MLI/Reports%20Issued%20by%20Multilateral%20Institutions/English/2011%20Article%20IV-%20Lebanon-%20Staff%20Report.pdf>

Figure 12: Regulatory Enforcement in Lebanon



Source: Lebanon: Promoting Poverty Reduction and Shared Prosperity (Le Borgne, Eric, and Thomas J. Jacobs, 2015, 68)

Unemployment and Limited Social Protection

The Syrian crisis has taken a major toll on the Lebanese labor market. Yet, Lebanon was already suffering from pre-existing market challenges, mainly related to limited job creation and to a relatively high level of informal employment. Estimated at 11% prior to the crises, the average unemployment rate remained especially high among youth (34%) and women (18% v/s 9% among men) between 1990 and 2010.⁴⁰

As well, about half of the Lebanese lack formal social protection,⁴¹ indicating that the system is fragile and scattered and benefits only a few segments of the population, and not necessarily the poorest or the most socially vulnerable.

1. THE LABOR MARKET IMPEDED BY INFORMALITY

Between 1990 and 2010, the Lebanese working age population (15 years of age and above) grew fast, at about 4 per cent per year, according to the ILO.

Informal employment remained relatively high among the working age population. The share of informally-employed persons was estimated at about half, with about 66% of total private sector informal employment concentrated in agriculture, construction and commerce.⁴² For the other half, most jobs are concentrated in the trade sector (61%) and in services (30%), as shown in Figure 13 below.

For instance, in Tripoli, within the participating labor force (46% of the working age population), 20% are employers and 22% are self-employed - both are largely informal.⁴³

⁴⁰ Salem Ajluni and Mary Kawar, *Towards Decent Work in Lebanon: Issues and Challenges in Light of the Syrian Refugee Crisis*, report (International Labour Organization, 2015), 2015, accessed November 12, 2017, http://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/publication/wcms_374826.pdf.

⁴¹ Sawsan El Masri, "Gaps and Efforts in Social Protection," Social Watch, accessed November 20, 2017, <http://www.socialwatch.org/node/11031>. See also: Assadissa, no.4 (2013): 2013, accessed November 12, 2017, <http://www.institutdesfinances.gov.lb/english/article.aspx?pageid=6464>.

⁴² Informality is defined by the ILO by the absence of explicit and registered work contracts and/or the absence of social security coverage for workers on the job. See: International Labour Organization Regional Office for Arab States, *Towards Decent Work in Lebanon: Issues and Challenges in Light of the Syrian Refugee Crisis*, 2015, accessed December 21 2017, http://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/publication/wcms_374826.pdf

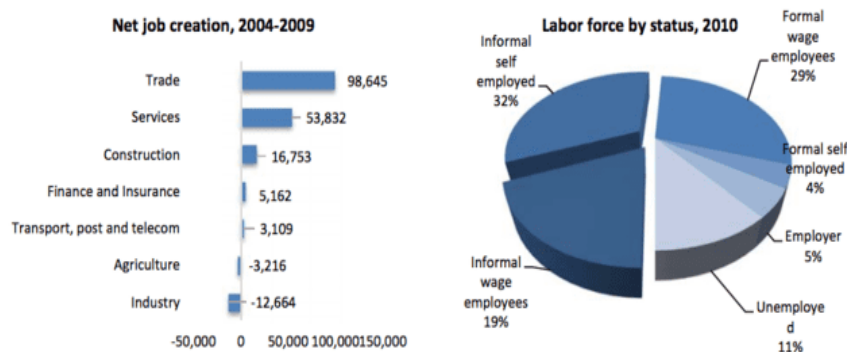
⁴³ The World Bank, *Jobs for North Lebanon*, report (The World Bank, 2017), 31, September 2017, accessed November 12, 2017,

Highlights



- Half of the Lebanese labor force is informally employed
- High and long term unemployment estimated at 20%
- Between 1997 and 2009, real GDP grew by an average of 4.4% per year, with employment a mere 1.1%
- The number of jobs openings per year is 6 times lower than the number of new graduates entering the labor market
- Syrian labor constitutes around 35% of the workforce
- Average growth in worker productivity turned negative after 2010

Figure 13: Net Job Creation 2004-09, Labor Force by Status 2010



Source: WB staff calculations based on data from CAS (left); Staff calculation based on Employee-Employer Survey 2010 for Lebanon (right).

Adapted from: Net Job Creation in Lebanon, by Sector, 2004-09; and Characteristics of the Labor Force in Lebanon, 2010 (Le Borgne and J. Jacobs, 34)

Low labor productivity may be attributed to Lebanon's slow growth trap characterized by relatively low rates of real economic growth and weak global competitiveness scores. However, even during periods of rapid economic growth, employment growth remained weak with rates consistently lower than GDP growth. Between 1997 and 2009, real GDP expanded by an average of 4.4% per year, whereas employment only grew by 1.1%.⁴⁴ In fact, low labor productivity in Lebanon is also correlated with the low levels of private and public investment and insufficient business competition in the domestic market. Due to political instability, investments were targeted towards short-term financial instruments and real estate, leading to non-productive investments that failed to enrich labor productivity.

Average growth in worker productivity turned negative after 2010, suggesting increasing employment in relatively low quality, low-paying jobs in informal activities.⁴⁵

Highlights

- Only 50% of the Lebanese population is covered by social insurance
- Out-of-pocket spending constitutes 36% of total health expenditures
- Only 20% of the labor force benefits from pensions
- More than 80% of over-65 population have no pension or health coverage
- Lebanon is probably the only upper middle income country without pensions for private sector workers

<http://documents.worldbank.org/curated/en/800821506102645484/pdf/119940-WP-PUBLIC-sept-27-3am-v2-Leb-Jobs-for-North-Full-report.pdf>

⁴⁴ Le Borgne, Eric, and Thomas J. Jacobs. *Lebanon: Promoting Poverty Reduction and Shared Prosperity*. Report. Washington, DC: The World Bank, 2016. 34. Accessed November 15, 2017.

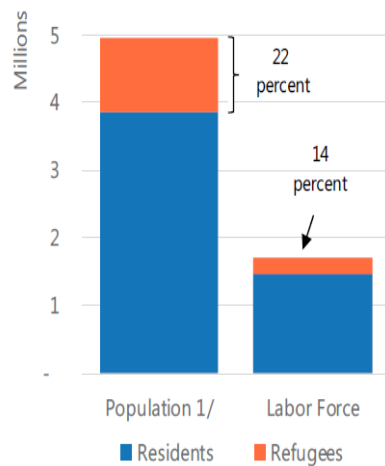
<http://documents.worldbank.org/curated/en/951911467995104328/pdf/103201-REPLACEMENT-PUBLIC-Lebanon-SCD-Le-Borgne-and-Jacobs-2016.pdf>.

⁴⁵ Ajluni and Kawar, *Towards Decent Work in Lebanon*, 26

2. HIGH AND LONG TERM UNEMPLOYMENT

High and long term unemployment is estimated at 20%. This figure was significantly impacted by the Syrian Displacement Crisis, with unemployment prior to the crisis estimated at 11%.

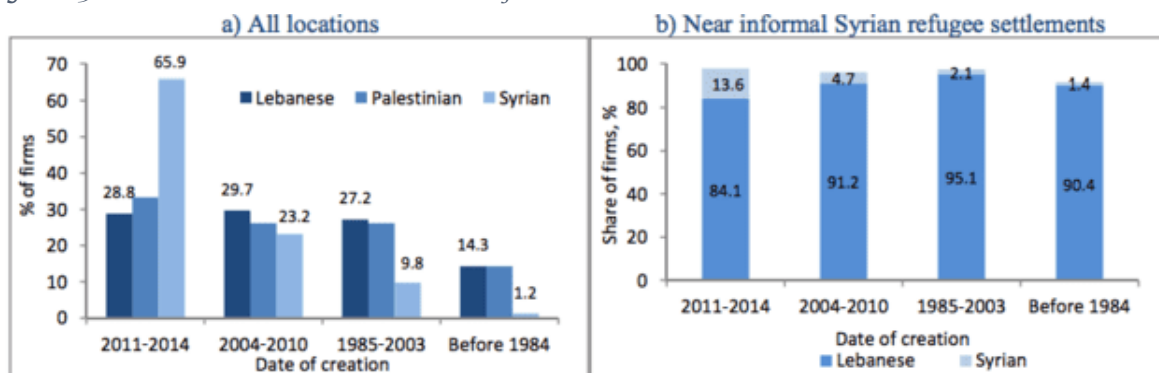
Figure 14: Syrian Refugees in the labor force (2014)



1/ UN Department of Economic and Social Affairs (UNDESA)
Source: ILO and IMF staff calculations

Source: Syrian Refugees in the Labor Force (2014); (The World Bank, *Lebanon: Selected Issues*, 9)

Figure 15: Trends in Creation and Shares of Firms



Source: WB staff calculations from Lebanon Enterprise Survey – Informal Sector 2013/14.

Women and youth unemployment have drastically increased since the start of the crisis to reach respectively 18% and 34%. It is estimated that the unemployment rate for youth under 30 years is

at 45%, with unemployment being especially high for the most educated youth. There are also long average unemployment periods of about 13 months for men and 10 months for women.⁴⁶ Furthermore, the average number of skilled workers in the private sector decreased from 19.3 workers per company in 2009 to 9.5 workers per company in 2013.⁴⁷

Every year, 23,000 new students enter the labor market, while the average number of jobs available locally stands at around 3,400. The displacement crisis further aggravated the employment situation. It is estimated that Syrian labor constitutes around 35% of the workforce, a main factor driving skilled Lebanese youth to emigrate.⁴⁸

For instance, when surveyed, 75.9% of businesses in Beirut and Mount Lebanon reported that they employed a higher percentage of unskilled workers, comprising approximately 32% of their current workforce, with approximately 21% of their current workforce being Syrian.⁴⁹

3. SOCIAL SECURITY AND PENSIONS LIMITED IN SCOPE AND COVERAGE

Given the high level of informality, a significant number of Lebanese workers do not have access to formal social protection, raising the question of vulnerability, marginalization and poverty for a significant share of the population. Out-of-pocket spending on health services is estimated to constitute 36% of total healthcare expenditures, a figure that is almost double the global out-of-pocket spending of 19%.

Only half of the Lebanese population is covered by social insurance of which 47.8% are covered by the National Social Security Fund, 30.8% are covered by the military, 16.3% are covered by the private sector, and 5.1% are dependent on different systems.⁵⁰ The currently available social insurance system is inequitable, costly, and exclusive, putting increased pressure on the Ministry of Public Health to make up for the difference.

⁴⁶ See: The World Bank, *Lebanon: Economic and Social Impact Assessment of the Syrian Conflict* (Report no.81098-LB), report (Washington, DC: The World Bank, 2013), 83, 2013, accessed November 13, 2017,

<http://documents.worldbank.org/curated/en/925271468089385165/pdf/810980LB0box379831B00P14754500PUBLIC0.pdf>

⁴⁷ <http://data.worldbank.org/indicator>

⁴⁸ The World Bank, *Lebanon - Country Partnership Framework for FY17-FY22*, report (Washington, DC: The World Bank, 2016), 11, accessed November 13, 2017,

<http://documents.worldbank.org/curated/en/111451467996685776/Lebanon-Country-partnership-framework-for-FY17-FY22>.

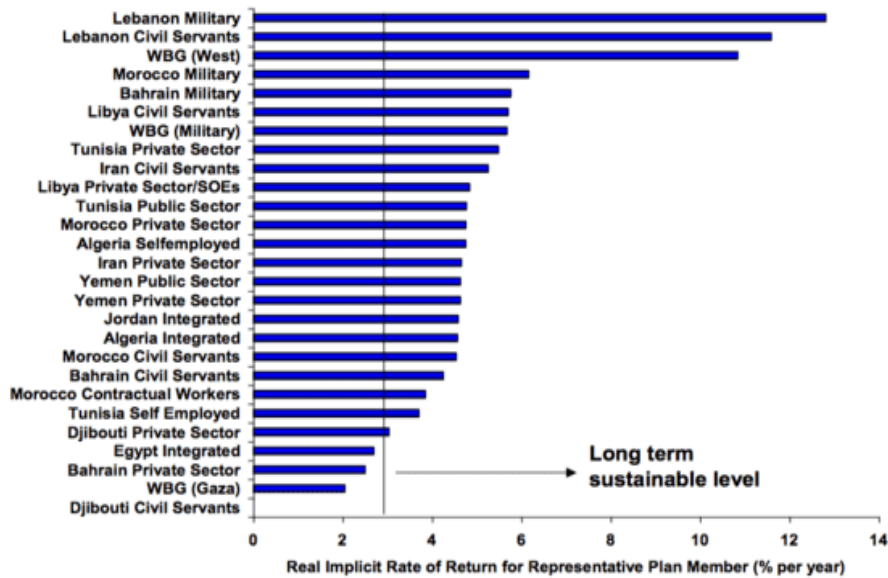
⁴⁹ Building Markets, *Market Overview: Small and Medium Enterprises in Beirut and Mount Lebanon*, report (Building Markets, 2016), 21, 2016, accessed November 13, 2017,

<http://data.unhcr.org/syrianrefugees/download.php?id=10797>.

⁵⁰ The World Bank, *Lebanon Economic Monitor: The Great Capture*, report (Washington, DC: The World Bank, 2015), 32, 2015, accessed November 13, 2017,

<http://documents.worldbank.org/curated/en/397721468185952923/pdf/101022-WP-PUBLIC-disclosed-11-18-4am-DC-time-11am-Beirut-Box393257B-The-World-Bank-LEM-Fall-2015.pdf>

Figure 16: Implicit Rates of Return on Contributions of Mandatory Pension Schemes



Source: Implicit Rates of Return on Contributions of Mandatory Pension Schemes (Rached, 2012)

The pension system covers only 20% of the labor force. More than 80% of over-65 population have no pension or health coverage – with Lebanon being one of the few upper middle income countries without pensions for private sector workers. The End-of-Service-Indemnity program for formal private-sector employees, managed by the National Social Security Fund (NSSF), covers only around 30% of the labor force. The pension system is therefore unsustainable, having a very high rate of return (12%) versus a relatively low rate of financial sustainability (3%), as shown in Figure 15 below.⁵¹

⁵¹ Assadissa, no.4 (2013): 2013

Rising Poverty and Social Disparities

Since 2011, poverty in Lebanon has increased by 110%. The number of poor and vulnerable people has surpassed 3.3 million, accounting for more than 55% of the population residing in Lebanon (including refugees). These disparities underscore the serious, long-term social crisis that Lebanon is facing. About 27% of the population lives below the poverty line of \$3,150 per capita per year and 10% of Lebanese are extremely poor (<\$2.4/day).⁵² These figures signify the shrinking middle class and the decreasing capability of local host communities to cope with the Syrian refugee crisis. The situation requires intensive, long-term government efforts to alleviate and reduce the risk of the social crisis.

1. MILLIONS BELOW THE POVERTY LINE

1.5 million Lebanese citizens, 1.5 million Syrian refugees, and 320,000 Palestinian refugees lived rough conditions and are in need (Figure 16). Only 2.8 million are targeted for service delivery, economic recovery and social stability by humanitarian assistance programs.⁵³ According to UNHCR, 70% of registered refugees were living below the poverty line in 2015, which marks a substantial increase from 49% in 2014.

Figure 17: Populations in Need by Nationality in Lebanon

Population in need	TOTAL	Female	Male	Children
Vulnerable Lebanese	1,500,000	745,875	753,938	467,250
Displaced Syrians	1,500,000	781,368	718,632	795,817
Palestine Refugees	320,174	161,688	158,486	122,050
TOTAL	3,320,174	1,688,931	1,631,055	1,385,117

Source: Population in Need (Government of Lebanon and The United Nations, 2015-2016, 16)

2. HIGH CONCENTRATION OF REFUGEES IN LEBANON'S POOREST AREAS

The concentration of refugees in Lebanon's poorest communities aggravates the situation. More than two thirds of Syrian refugees live in the Bekaa and the North, where 38% and 36% of the population live below the poverty line respectively, as shown in Figure 17. This high concentration leads to a shift in the demographic balance and has as well as direct, adverse effects on

Highlights



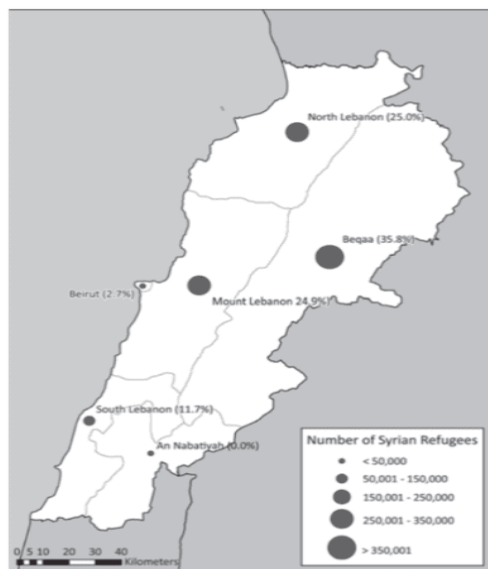
- Poverty in Lebanon has increased by 110% since 2011
- About 27% of the population lives below the poverty line of \$3150 per capita per year
- 1.5 million Lebanese lived under the poverty line in 2016
- 70% of registered refugees lived below the poverty line in 2015, a substantial increase from 49% in 2014
- The poorest 20% of the population consume about 8% of the total consumption, while the top 20% of the population consume about 40%.

⁵² The World Bank, *Lebanon - Country Partnership Framework for FY17-FY22*, 10

⁵³ Government of Lebanon and The United Nations, *Lebanon Crisis Response Plan (2017-2020)*, 10

employment, the provision of basic services, and the use of natural resources among the local host communities.

Figure 18: Syrian Refugees in Lebanon



Source: Estimations based on ProGres data.

Source: Syria Regional Refugee Response (UNHCR)

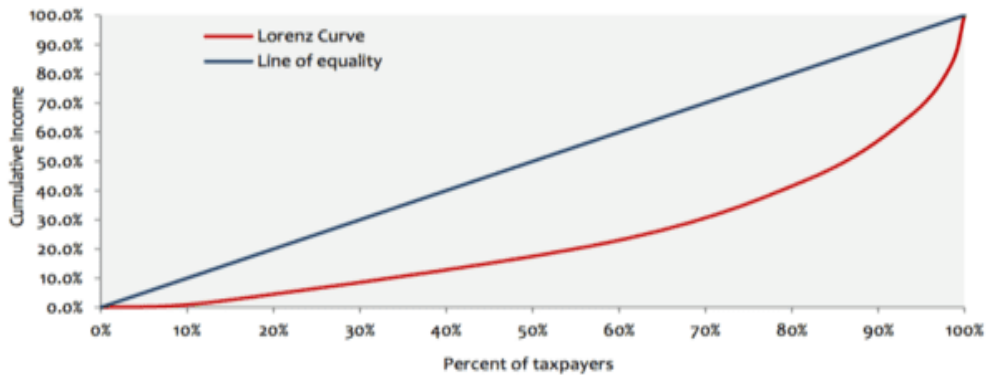
3. INCOME INEQUALITY

Lebanon is witnessing an increase in income inequality, which contributes to a shrinking of its middle class and exacerbates the social crisis. The Gini coefficient of per capita consumption, which measures the level of inequality, is at 0.32.⁵⁴ This means that the poorest 20% of the population consume about 8% of the total consumption, while the top 20% of the population consume about 40%. The inequality is also highlighted by Lebanon's 2015 Human Development Index. After accounting for inequality in income distribution between regions and social classes, Lebanon's index for 2015 falls from 0.76 to 0.6.⁵⁵ Figure 18 shows Lebanon's Lorenz curve based on income tax declarations. The data used in the calculations of the curve does not account for the informal sector employees, whose wages are largely in the lower income bracket. This means that Lebanon's Lorenz curve is shifted even more away from the line of equality, reflecting major national inequality levels.

⁵⁴ The Gini coefficient is measured as a ratio with values between 0 and 1, with 0 representing perfect equality and 1 representing perfect inequality.

⁵⁵ United Nations Development Programme, *Human Development Report 2016*, report (New York: United Nations Development Report, 2016), 207, 2016, accessed November 13, 2017, http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf

Figure 19: Lebanon Lorenz Curve Based on Income Tax Declarations



Source: Lorenz curve based on income tax declarations (2014); (Saliba, Sayegh, and Salman, 7)

The general characteristics of poor households in Lebanon further exacerbate the situation. Family sizes range from 5 to 8 members per family, and the main income is provided by the head of the household.⁵⁶ If available, the income of the remaining members is usually marginal and irregular. The average poor Lebanese family is thus susceptible to poverty and income unsustainability.

Most strikingly, Lebanon's inequality data does not only reflect the substantial disparities in the distribution of wealth but also reflects considerable disparities in the distribution of wages. It is estimated that 0.3% of adults account for 48% of the country's wealth. Additionally, 2% of private sector workers account for 17% of total national wage, while 59% of workers account for less than 22% of total wages.⁵⁷

⁵⁶ Nupur Kukrety, Oxfam, and Issam Fares Institute - American University of Beirut, *Poverty, Inequality and Social Protection in Lebanon*, report (Oxfam, 2016), 8, January 2016, accessed November 13, 2017, https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/rr-poverty-inequality-social-protection-lebanon-200116-en_0.pdf.

⁵⁷ Edwin Saliba, Walid Sayegh, and Talal F. Salman, *Assessing Labor Income Inequality in Lebanon's Private Sector*, report (Beirut, 2017), 6, February 2017, accessed November 13, 2017, <http://www.finance.gov.lb/en-us/Finance/Rep-Pub/DRI-MOF/Thematic%20Reports//Assessing%20Labor%20Income%20Inequality%20in%20Lebanon%E2%80%99s%20Private%20Sector.pdf>

Losing Grounds in Quality Education

Even though Lebanon has long differentiated itself through its human capital wealth and positioned itself at the forefront of primary and university education in the region, the country has witnessed, in recent years, a decline in several indicators related to the provision and quality of basic education as well as to public and private investment in education and research and development. Today, Lebanon lags behind in multiple areas including primary education enrollment, student dropouts, and the quality of public education.

1. LOW PRIMARY EDUCATION ENROLLMENT AND COMPLETION RATES

Lebanon lags behind in primary education enrollment (87%) when compared to the Middle East average of 90%. The country lags even further behind in its primary education completion rate of 78%, which is much lower than the regional average of 92%. Lebanon recorded a net primary enrolment rate of 82% in 2015, much lower than the net rate of 91% in 2011.⁵⁸ The decrease in primary education enrollment and completion rates is resulting in a decrease in secondary education enrollment in later years (69% net secondary enrolment rate in 2011 versus 64% net secondary enrolment rate in 2012), which in turn has adverse effects on the productivity and quality of human capital.⁵⁹

2. PUBLIC EDUCATION INFLATION

The average number of students per teacher in public schools is estimated at 7.3. The average number of students in public schools is of 250.⁶⁰ These low figures raise questions as to the efficiency of government expenditures in public education.

3. POOR QUALITY OF EDUCATION

The quality of education in Lebanon is also witnessing a declining trend. Lebanese students obtained disappointing results in the Programme for International Student Assessment (PISA) in 2015, all below the OECD average: 386 in science literacy (compared to an average of 493 points in OECD countries), 347 in reading comprehension (compared to an average of 493 points in OECD countries) and 396 in mathematics

⁵⁸ School Enrollment, Primary (% Net), accessed November 13, 2017,

<https://data.worldbank.org/indicator/SE.PRM.NENR>

⁵⁹ Net Enrolment Rate, Secondary, Both Sexes (%), accessed November 13, 2017,

<https://data.worldbank.org/indicator/SE.SEC.NENR?locations=LB>.

⁶⁰ <http://www.crdp.org/files/201712140900311.pdf>

Highlights



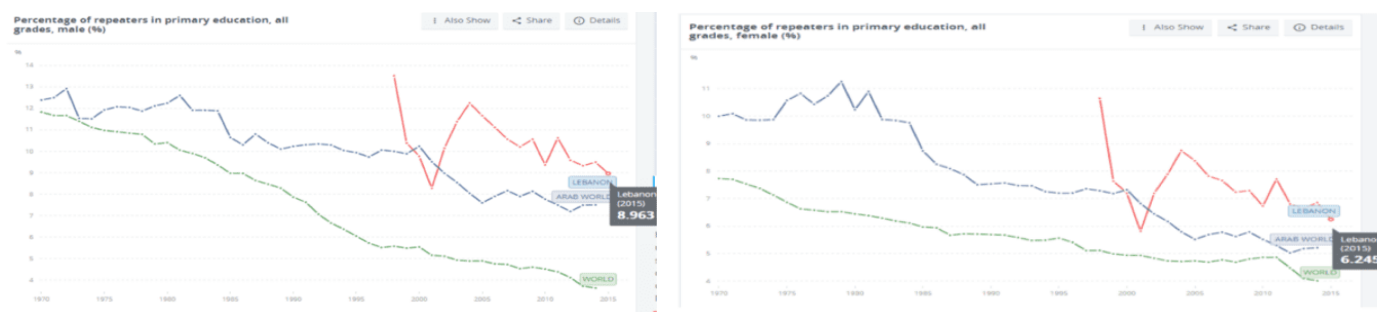
- Lebanon's primary education enrollment is 3% lower than the average primary education enrollment in the Middle East
- Number of primary school dropouts has nearly doubled since 2004
- 77% of Syrian refugee youth participate in labor force compared to 8% of Lebanese youth
- Lebanon ranked 66th out of 72 countries in the 2015 PISA exams
- Lebanon ranked 91st out of 138 countries in the quality of scientific research institutes

(compared to an average of 490 points in OECD countries).⁶¹ The poor quality of results can be attributed to the mounting pressures that the education sector has been facing to provide and invest in education for marginalized Lebanese and Syrian displaced students. The enduring nature of the crisis and the increased demand for education are creating adverse effects on the quality of public education, while more efforts should be invested in updating the curricula.

4. INCREASING STUDENT DROPOUTS DIRECTLY RELATED TO THE SYRIAN CRISIS

The number of primary school dropouts has increased in Lebanon, with 8,075 students dropping out in 2014, compared to 5,850 students in 2009 and 4,298 students in 2004.⁶² These numbers are highly correlated with the influx of Syrian refugees, primarily the very high number of refugee children who drop out of school to look for work, which in turn pushes child labor on an upturn curve. 77% of the Syrian refugee youth participate in the labor force compared to only 8% of the Lebanese youth.⁶³

Figure 20: Percentage of Repeaters in Primary Education by Gender



Source: Percentage of Repeaters in Primary Education – All Grades, Male (%); Percentage of Repeaters in Primary Education - All Grades, Female (%); (The World Bank)

5. LOW RESEARCH AND DEVELOPMENT

Lebanon is not performing well in research and development on a global scale, ranking 91st out of 138 in the quality of scientific research institutes and 75th in terms of private investments in research and development⁶⁴. Multiple indicators such as patent registration activity, the size of the Information Communication Technology (ICT) sector, and the degree of cooperation between universities/research institutes and industrial sectors highlight a surplus of human capital that the Lebanese economy does not make use of. The size of the ICT market remains very small (1% of

⁶¹ OECD, *PISA - Results in Focus*, report (OECD, 2016), 5, 2016, accessed November 13, 2017, <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf>.

⁶² Early School Leavers from Primary Education, accessed November 13, 2017, <http://data.uis.unesco.org/?queryid=142>.

⁶³ Human Rights Watch, *Growing Up Without an Education*, report, accessed November 14, 2017, <https://www.hrw.org/report/2016/07/19/growing-without-education/barriers-education-syrian-refugee-children-lebanon>

⁶⁴ Schwab and Sala-i-Martin, *The Global Competitiveness Report 2016–2017*, 235

GDP), according to data released by the Investment Development Authority of Lebanon.⁶⁵ Lebanon is also behind in patenting activity relative to its regional counterparts (Jordan obtained a rank of 52nd), obtaining a rank of 99th in the Networked Readiness Index of 2015.⁶⁶ The lack of investment and use of human capital is reflected in a strong desire to leave Lebanon in pursuit of career opportunities (Figure 20). The American University of Beirut reported to the QS World University Rankings that only 45% of its graduates live in Lebanon, indicating substantial brain drain.

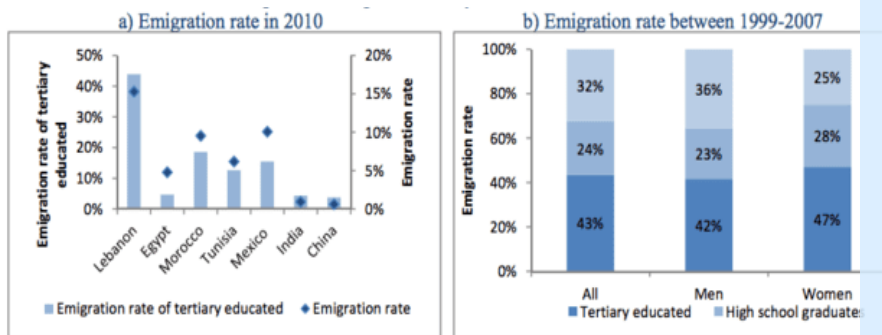
⁶⁵ Investment Development Authority of Lebanon, *ICT Sector Statistics*, report (Investment Development Authority of Lebanon, 2016), 2, November 2016, accessed November 14, 2017, <http://investinlebanon.gov.lb/Content/uploads/SideBlock/161111013350694~ICT%20Statistics%202016.pdf>

⁶⁶ "Network Readiness Index," World Economic Forum, accessed November 14, 2017, <http://reports.weforum.org/global-information-technology-report-2015/network-readiness-index/>

The Environment and Health at Risk

Since 2015, Lebanon has witnessed a severe waste management crisis that resulted in disastrous effects on the environment. The increase in illegal landfills and waste incineration centers near residential areas has further aggravated the situation. Air and water pollution have reached alarming rates, raising worrying concerns of public health. Multiple national plans were prepared by different stakeholders but they all failed to materialize and reduce environmental pollution. As direct result, Lebanon has been identified as the primary polluter the Mediterranean Basin and has lost three points on the Environmental Performance Index, compared to 2014.⁶⁷ It is ranked today 94th out of 180 countries. The degradation of the environment at several levels (Figure 21) is resulting in higher health costs for citizens and for the state.

Figure 21: Emigration Rates in Lebanon vs. Developing Countries



Source: Left panel is from the WDI. Right panel is adapted from Kasparian (2009) and shows the emigration rate between 1999 and 2007 by gender and skill group.

1. WASTE CRISIS

The uncontrolled and continuous dumping (without sorting) of 2.5 million tons of solid waste per year, coupled to the existence of a high number of landfills in residential and coastal areas, has catastrophic consequences on local and regional communities. The mismanagement of the waste crisis has led to an increased contamination of land and soil in addition to surface and

⁶⁷ Data, Environment Performance Index, 2016, accessed November 14, 2017, <http://www.epi.yale.edu/country-rankings>. See also: "Country Rankings," Environment Performance Index, 2014, accessed November 14, 2016, <http://archive.epi.yale.edu/epi/country-rankings>.

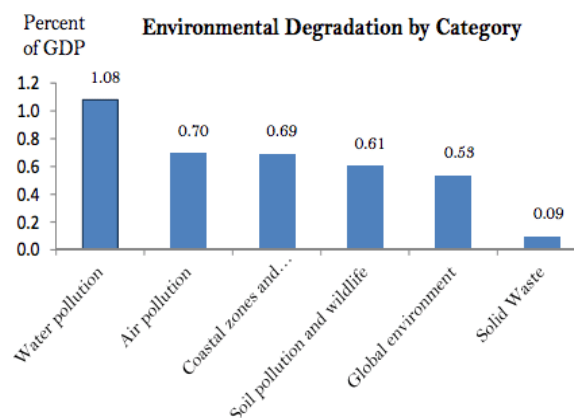
Highlights



- Spending on Municipal Solid Waste by municipalities has increased by 40% between 2012 and 2013
- Water contamination has reached levels ten times higher than the WHO guidelines for some chemicals
- Since 2011, air pollutants have increased by 20%
- In 2015, Informal Tented Settlements have reached around 80% of agricultural lands
- The electricity gap is now double that of 2010
- The percentage of illegal connections to the grid reaches 82% in Beirut and Mount Lebanon
- Health expenditures increased by 72%

groundwater pollution (Figure 22). It made Lebanon a primary contributor to water pollution and to the killing of marine life in the Mediterranean and to air pollution. Burning waste has raised the level of toxic substances in the air between 98 and 110%, seriously threatening public health.⁶⁸

Figure 22: Environmental Degradation by Category



Source: World Bank (2011a).

The Syrian crisis has resulted in an overstressing of existing solid waste management infrastructure, as collection, sorting and disposal facilities become overstretched. For instance, spending on Municipal Solid Waste by municipalities has increased by 40% between 2012 and 2013.⁶⁹

2. UNPRECEDENTED LEVELS OF WATER POLLUTION

Drinking water in Lebanon is considered “*unhealthy for drinking*”. Many Lebanese households do not rely on the public water supply networks for their drinking water needs. About 22% of households are not connected to public water supply systems, which increases their dependence on private suppliers. From a public health perspective, not all the private providers of water are regulated, and so the risk on the public health increases.⁷⁰ This signifies the urgent need for the establishment and treatment of drinking water systems accessible for the entire population. For

⁶⁸ Rana Serhan, "Lebanon Suffers Pollution by Land, Sea and Air - Citizens' Average Age Down by 25%," *National News Agency*, March 18, 2016, accessed November 14, 2017, <http://nna-leb.gov.lb/en/show-news/58657/Lebanon-suffers-pollution-by-land-sea-and-air-Citizens-39-average-age-down-by-25>

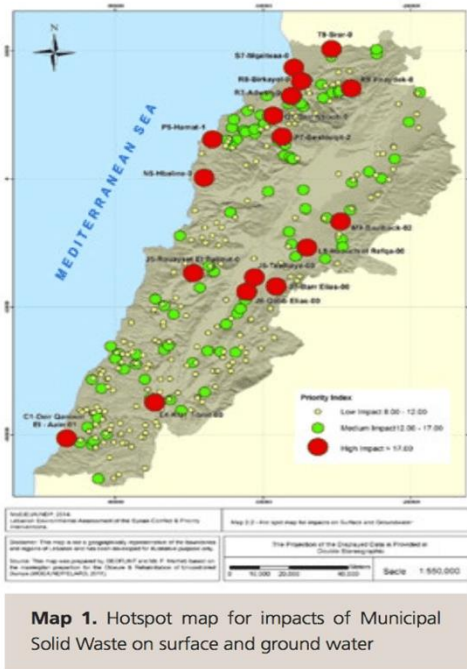
⁶⁹ Lebanese Ministry of Environment, *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions Updated Fact Sheet*, report, 2, December 2015, accessed November 15, 2017, <http://www.moe.gov.lb/getattachment/dd4e6574-a959-47c1-b2ed-1fc1847b7515/Updated-Fact-Sheet-December-2015-Environmental-Ass.aspx>

⁷⁰ Institute of Health Management and Social Protection (IGSPS), Lebanese Ministry of Public Health, and The World Health Organization (WHO), *National Health Statistics Report in Lebanon*, report (Beirut: Saint-Joseph University, 2012), 139, 2012, accessed November 15, 2017, <https://igsp.usj.edu.lb/docs/recherche/recueil12en.pdf>.

example, over the past 4 years, there has been 92 cases of cancer in the town of Bekaa⁷¹. This figure is likely to increase with the diversion of sewage networks, industrial waste, and industrial residues towards the Litani River, resulting in its subsequent contamination. The rate of turbidity in the Litani River has reached more than 300%, whereas the rate of turbidity in drinking water should not exceed 33%.

Demand for water has also increased by 28% since 2011, whereas a number of wells in different Lebanese regions recorded a decrease of 1-20 meters in water level in 2014.⁷² This is aggravating current stress on water resources, specifically on groundwater resources and is accompanied by a deterioration of water quality with high levels of contamination detected, ten times higher than the WHO guidelines for some chemicals (Figure 23).⁷³

Figure 23: Hotspot Map for Municipal Solid Waste Impact on Surface and



Source: Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions, Updated Fact Sheet - December 2015

3. AIR QUALITY DETERIORATION

It is estimated that the Syrian conflict has resulted in an increase of up to 20% in emission of air pollutants in Lebanon leading to a significant degradation of air quality, therefore increasing the

⁷¹ *An-Nahar* (Beirut), August 12, 2016.

⁷² Lebanese Ministry of Public Health

⁷³ Lebanese Ministry of Environment, *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions Updated Fact Sheet*, 2

risk of high-cost respiratory and cancer diseases.⁷⁴ In 2016, Lebanon ranked 118th out of 180 countries in air quality.

4. AGRICULTURE AT RISK

Water pollution yields a crisis in the agriculture sector as it threatens the safety and quality of Lebanese agricultural products. This is not only disastrous for the health of the Lebanese citizens but also economically detrimental to those who benefit from exporting Lebanese products.

In addition to the risk on agriculture induced by water pollution, there is a significant increase in the settlement of refugees and vulnerable communities on agricultural lands, mainly in the Bekaa and Akkar, which represent Lebanon's largest agricultural regions. Informal Tented Settlements (ITSs) have reached around 80% in 2015 only.⁷⁵

In 2015, two million vulnerable people were concentrated in the 251 cadasters over the Lebanese territory, representing a total surface of 1075km² or 10.3% of the Lebanese territory - an increase of 2% within one year.

This is putting Lebanon under several agricultural and environmental risks, mainly:

- i) Putting lands out of production;
- ii) Water contamination due to incremental wastewater discharges, sludge disposal and waste disposal;
- iii) High risk of flooding from the clogging of waterways and river banks from accumulated waste; and
- iv) Abusive felling of forest areas to meet fuel needs of the displaced populations.

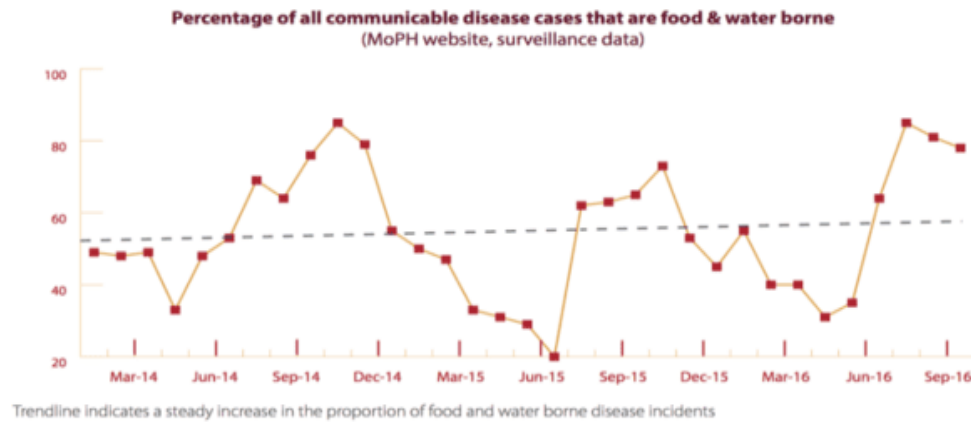
This exponential increase of number of ITSs is expected to continue as the conflict extends, and as the displaced population is growing and resorting to less expensive types of shelter than those available in housing market. In fact, the number of displaced population living in ITSs has increased from 160,894 persons in 2014 to 194,290 persons in 2015 (Figure 24).⁷⁶

⁷⁴ Lebanese Ministry of Environment, The European Union, and United Nations Development Programme, *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions*, report (Wide Expertise Group, 2014), 8, accessed November 15, 2017, <http://www.undp.org/content/dam/lebanon/docs/Energy%20and%20Environment/Publications/EASC-WEB.pdf>.

⁷⁵ Lebanese Ministry of Environment, *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions Updated Fact Sheet*, 6

⁷⁶ Lebanese Ministry of Environment, *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions Updated Fact Sheet*, 6

Figure 24: Percentage of Communicable Diseases in Lebanon 2014-16



Source: Ministry of Public Health

5. OUTDATED ENERGY PRODUCTION V/S INCREASED CONSUMPTION

Inefficient, outdated processes of energy production have positioned Lebanon at the 171st rank out of 180 countries in Carbon dioxide per kilowatt of electricity produced.⁷⁷ Power production is resulting in a financial burden on the national economy exceeding \$330 million per year.

Since 2011, consumption has increased by 480 Megawatts, nearly equivalent to the current deficit in supply which means the electricity gap is now double that of 2010. The percentage of illegal connections to the grid ranges from 36% in the North of Lebanon, to 82% in Beirut and Mount Lebanon, with a national average of 45%.⁷⁸

Lebanon's renewable energy consumption (as a percentage of total energy consumption) decreased from 11.34% in 1990 to 3.20% in 2016.⁷⁹ The decrease in renewable energy consumption reflects a greater reliance on fossil fuels and therefore a more polluted environment as well as high electricity prices and low access to electricity.

6. INCREASING HEALTH COSTS AND RISKS FOR INDIVIDUALS

The deterioration of the environment and of food safety has led to a drastic increase in health bills. Health spending per capita increased from \$361 per person in 1995 to \$621 in 2011 (Figure 25),

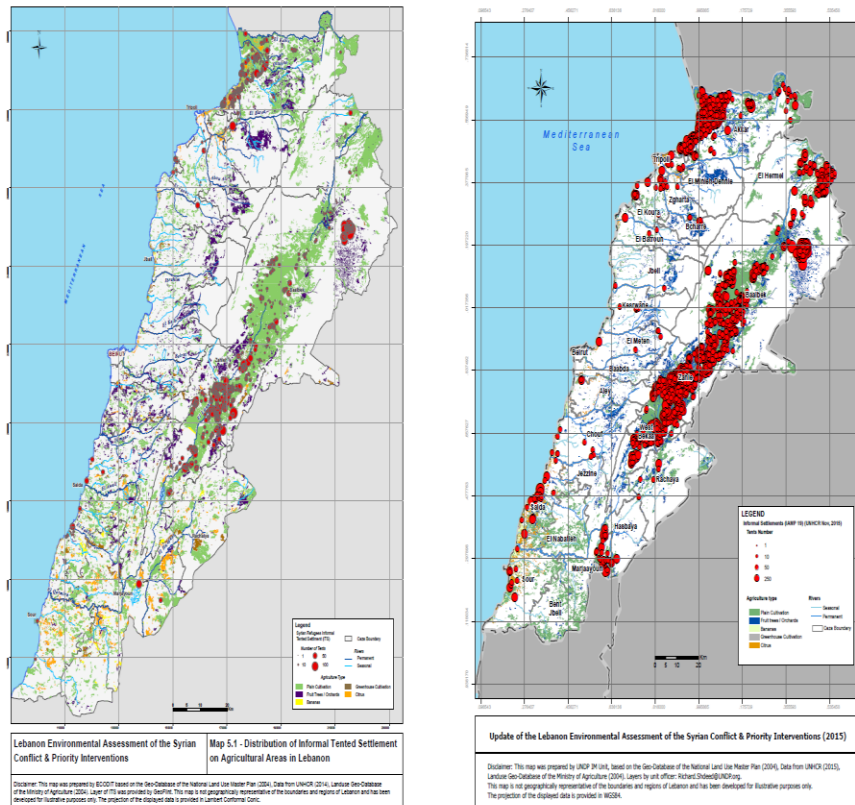
⁷⁷ <http://www.moe.gov.lb/getattachment/14886926-f01f-4976-9994-f3cdc1bb0eff/EPI-Lebanon-2016-En.pdf.aspx>

⁷⁸ Ministry of Energy and Water and United Nations Development Programme, *The Impact of the Syrian Crisis on the Lebanese Power Sector and Priority Recommendations*, report (2017), 3, accessed November 15, 2017, http://www.lb.undp.org/content/lebanon/en/home/library/environment_energy/The-Impact-of-the-Syrian-Crisis-on-the-Lebanese-Power-Sector-and-Priority-Recommendations.html.

⁷⁹ Renewable Energy Consumption (% of Total Final Energy Consumption) - Lebanon, accessed November 15, 2017, <https://data.worldbank.org/indicator/EG.FEC.RNEW.ZS>

which is almost 3 times the average health expenditures in the MENA region (\$220), mainly due to the high risk of cancer, gastrointestinal problems, respiratory diseases, and bacterial diseases.⁸⁰

Figure 25: Distribution of Informal Tented Settlements in Lebanon



Source: Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions, Updated Fact Sheet - December 2015

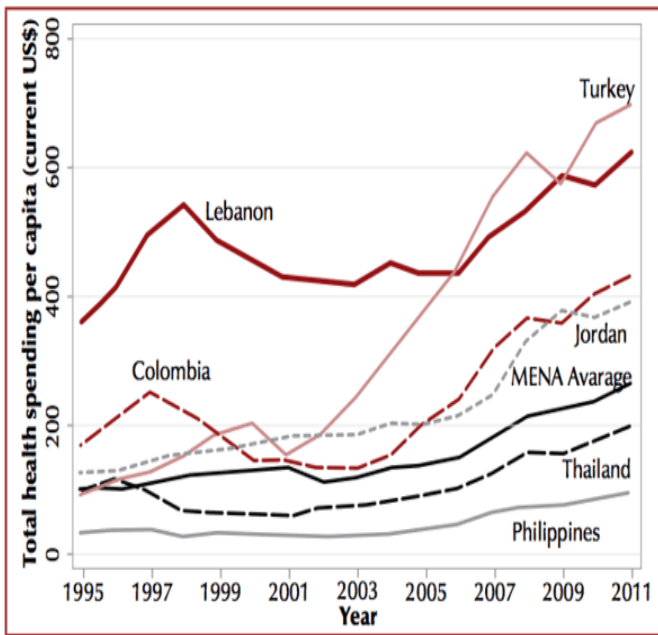
Indeed, the environmental challenges presented in this section are highly correlated with increased risk of cancer, primarily pancreas and skin cancer in males. It is also associated with congenital abnormalities such as nervous system birth defects and with increased risk of respiratory conditions such as asthma. Incineration is highly correlated with increased risk of stomach and larynx cancer. It is also associated with cardiac defects and increased respiratory wheezing in children.⁸¹

⁸⁰ "Health Expenditures Increased by 70 Percent in 16 Years," *Lebanon News*, November 30, 2015, accessed November 15, 2017,

<http://www.businessnews.com.lb/cms/Story/StoryDetails.aspx?ItemID=5251>.

⁸¹ Nadeen Hilal et al., *K2P Evidence Summary: Approaching the Waste Crisis in Lebanon: Consequences and Insights into Solutions*, report (Beirut: Knowledge to Policy (K2P) Center, 2015), 2, accessed November 15, 2017,

Figure 26: Total Health Spending per Capita Lebanon vs. Developing Countries



Source: Total health spending per capita (current US\$): Lebanon, MENA average, and other countries; 1995-. (The World Bank, 2015, 32)

In addition, public hospitals have accumulated a deficit amounting \$15 million since the onset of the Syrian crisis (MoPH records). A sharp rise in communicable diseases such as measles and the emergence of previously absent diseases such as Leishmaniasis were also reported among displaced population communities and transmitted to close Lebanese hosting communities. Today, the World Bank Environmental and Social Impact Assessment study estimates that it would take an additional \$2.5 billion (equivalent to 5% of Lebanon's GDP) to bring service quality back to pre-crisis levels.⁸²

<https://website.aub.edu.lb/k2p/products/Documents/K2P%20Evidence%20Summary%20Waste%20Management%20Final%20Dec%202014%202015.pdf>

⁸² World Bank. *Lebanon - Country Partnership Framework for FY17-FY22*, 2016. Accessed November 13, 2017. <http://documents.worldbank.org/curated/en/111451467996685776/Lebanon-Country-partnership-framework-for-FY17-FY22>.

⁸⁵The Lebanese Ministry of Environment, The European Union, and United Nations Development Programme. *Lebanon: Environmental Assessment of the Syrian Conflict & Priority Interventions*, report. (Wide Expertise Group, 2014), 8, accessed November 15, 2017. <http://www.undp.org/content/dam/lebanon/docs/Energy%20and%20Environment/Publications/EASC-WEB.pdf>.

The Way Forward

While this report does not aim at providing a roadmap for addressing the various issues raised, it highlights key sectors and initiatives that may need to figure on the priority list of any development plan:

- 1- Address financial management deficiencies to reduce macro-economic vulnerabilities and send a strong signal to the donor community about Lebanon's capacity to take on serious transformational corrective actions.
- 2- Strengthen procurement functions and consolidate audit and control to curb corruption.
- 3- Build human capacity at all levels of the state, especially in leadership highly and technical areas, to promote excellence in public service delivery and improve overall governance and effectiveness in the public sector.
- 4- Reengineer the civil service towards a competencies based approach, from recruitment to career development.
- 5- Strengthen the capacity of institutions in charge of providing national data to improve the decision and policy-making process and stimulate an informed debate around public policy choices.
- 6- Improve the business climate to attract productive investments and expand economic opportunities, addressing primarily the macro-fiscal framework, energy gaps, ICTs and infrastructure deficiencies, notably transportation.
- 7- Alleviate poverty through better provision of public services and job creation.
- 8- Modernize the education curricula to better meet the changing needs of the job market.
- 9- Devise comprehensive sectoral strategies to encourage job creation.
- 10- Address environmental issues to protect Lebanon's natural resources, including water, soil, etc. and avoid further deterioration of public health and of the well-being of citizens.
- 11- Mobilize the international community to help offset the impact of the regional conflicts, notably the impact of the Syrian Displaced crisis, as Lebanon cannot shoulder such a burden alone.

Bibliography

- Berthélemy, Jean-Claude, Sébastien Dessus, and Charbel Nahas. *Exploring Lebanon's Growth Prospects*. Working paper no. Policy Research Working Paper 4332. August 2007. Accessed November 20, 2017. <http://documents.worldbank.org/curated/en/215971468263723336/pdf/wps4332.pdf>.
- The Fund For Peace. *Fragile States Index 2016*. Washington, DC: The Fund For Peace, 2016. Accessed November 10, 2017. <http://library.fundforpeace.org/library/fragilestatesindex-2016.pdf>.
- Schwab, Klaus, and Xavier Sala-i-Martin. *The Global Competitiveness Report: 2015–2016*. Geneva: World Economic Forum, 2015. Accessed November 8, 2017. http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf.
- Government of Lebanon, and The United Nations. *Lebanon Crisis Response Plan (2017-2020)*. Accessed November 8, 2017. http://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/publication/wcms_542062.pdf.
- International Monetary Fund. *Lebanon - Selected Issues (IMF Country Report No. 17/20)*. Report. 7. January 2017. Accessed November 8, 2017. <http://www.imf.org/external/pubs/ft/ar/2017/eng/assets/cr1720.pdf>.
- International Monetary Fund, Lebanon Staff Report for the 2011 Article IV Consultation, 10 January 2012, <http://www.finance.gov.lb/en-us/Finance/Rep-Pub/RI-MLI/Reports%20Issued%20by%20Multilateral%20Institutions/English/2011%20Article%20IV-%20Lebanon-%20Staff%20Report.pdf>
- The World Bank. *Lebanon - Economic and Social Impact Assessment of the Syrian Conflict (Report No. 81098-LB)*. Report. 3. September 20, 2013. Accessed November 8, 2017. <http://documents.worldbank.org/curated/en/925271468089385165/pdf/810980LB0box379831B00P14754500PUBLIC0.pdf>.
- "Health expenditure per capita (current US\$)." The World Bank. Accessed November 8, 2017. <https://data.worldbank.org/indicator/SH.XPD.PCAP>.
- Public Finance Monitor*. Report. December 2016. Accessed November 8, 2017. <http://www.finance.gov.lb/en-us/Finance/Rep-Pub/DRI-MOF/PFR/Public%20Finance%20Monitor/Monthly%20PFM%20-%20December%202016%20-%20Final%20Version.pdf>.
- "GDP growth (annual %)." The World Bank. Accessed November 8, 2017. <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=LB>.
- Central Administration of Statistics. *Lebanese National Accounts 2004-2015: Comments and Tables*. Report. Beirut: Central Administration of Statistics. 8. Accessed November 10, 2017. <http://www.cas.gov.lb/index.php/national-accounts>.
- Central Administration of Statistics, *Multiple Indicators Cluster Survey 2009*, page 75. Accessed December 20, 2017. http://www.cas.gov.lb/images/Mics3/CAS_MICS3_survey_2009.pdf
- "Moody's Downgrades Lebanon's Rating To B3, Changes Outlook To Stable From Negative." Moody's. August 25, 2017. Accessed November 8, 2017. https://www.moodys.com/research/Moodys-Downgrades-Lebanons-Rating-To-B3-Changes-Outlook-To-Stable--PR_365093.

- The International Monetary Fund. *Lebanon: 2016 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Lebanon (IMF Country Report No. 17/19)*. Report. Washington, DC: International Monetary Fund, 2017. 33-34. January 2017. Accessed November 10, 2017. <https://www.imf.org/en/Publications/CR/Issues/2017/01/24/Lebanon-2016-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-44572>
- "Lebanon's Economic Outlook - Spring 2016." The World Bank. Accessed November 9, 2017. <http://pubdocs.worldbank.org/en/218531460208807979/Lebanon-MEM.pdf>.
- "Lebanon's Economic Outlook - April 2017," The World Bank, accessed November 9, 2017, <http://pubdocs.worldbank.org/en/495621492266516332/Lebanon-MEM2017-ENG.pdf>.
- Westall, Sylvia. "Syria Refugees Set to Exceed a Third of Lebanon's Population," Reuters. July 3, 2014. Accessed November 10, 2017. <http://www.reuters.com/article/us-syria-crisis-lebanon/syria-refugees-set-to-exceed-a-third-of-lebanons-population-idUSKBN0F818T20140703>.
- Government of Lebanon, and The United Nations. *Lebanon Crisis Response Plan 2017-2020*. Report. Government of Lebanon and the United Nations, 2017. 8. Accessed November 10, 2017. <http://www.un.org.lb/library/assets/LCRP%20Short%20version-015625.pdf>.
- Government of Lebanon, and The United Nations. *Lebanon Crisis Response Plan 2015-2016*. Report. Government of Lebanon and the United Nations, 2014. 15. Accessed November 10, 2017. <http://www.un.org.lb/english/lcrp>.
- Government of Lebanon, and The United Nations. *Lebanon Crisis Response Plan 2015-2016: Year Two*. Report. Government of Lebanon and the United Nations, 2014. 91. December 2015. Accessed November 10, 2017. <http://www.un.org.lb/library/assets/engbrochfullversion-065158.pdf>.
- The World Bank. *Doing Business 2017*. Report. Washington, DC: The World Bank, 2017. 219. 2017. Accessed November 10, 2017. <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB17-Report.pdf>.
- Baller Silja, Dutta Soumitra, Lanvin Bruno, World Economic Forum, *The Global Information Technology Report 2016 - Innovating in the Digital Economy*. Accessed December 21, 2017, page 126: http://www3.weforum.org/docs/GITR2016/GITR_2016_full%20report_final.pdf
- Schwab, Klaus, and Xavier Sala-i-Martin. *The Global Competitiveness Report 2016–2017*. Report. Geneva: World Economic Forum, 2016. Xiii. Accessed November 10, 2017. http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf.
- "Association of Lebanese Industrials Indicators." Association of Lebanese Industrials. Accessed November 10, 2017. <http://www.ali.org.lb/ar/news/ali-mwshrt>.
- The World Bank. *Lebanon: Promoting Poverty Reduction and Shared Prosperity*. Report. The World Bank, 2015. 51. June 2015. Accessed November 10, 2017. <http://documents.worldbank.org/curated/en/698161468179049613/pdf/97498-CAS-P151430-SecM2015-0202-IFC-SecM2015-0073-MIGA-SecM2015-0047-Box391476B-OUO-9.pdf>.
- Pring, Coralie. *People and Corruption: Middle East and North Africa Survey 2016*. Report. Transparency International, 2016. 5.
- Ajluni, Salem, and Mary Kawar. *Towards Decent Work in Lebanon: Issues and Challenges in Light of the Syrian Refugee Crisis*. Report. International Labour Organization, 2015. 21. 2015. Accessed

- November 12, 2017. http://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/publication/wcms_374826.pdf.
- Assadissa, no. 4 (2013). 2013. Accessed November 12, 2017. <http://www.institutdesfinances.gov.lb/english/article.aspx?pageid=6464>
- The World Bank. *Jobs for North Lebanon*. Report. The World Bank, 2017. September 2017. Accessed November 12, 2017. <http://documents.worldbank.org/curated/en/800821506102645484/pdf/119940-WP-PUBLIC-sept-27-3am-v2-Leb-Jobs-for-North-Full-report.pdf>.
- Lebanon: Economic and Social Impact Assessment of the Syrian Conflict (Report no.81098-LB)*. Report. Washington, DC: The World Bank, 2013. 2013. Accessed November 13, 2017. <http://documents.worldbank.org/curated/en/925271468089385165/pdf/810980LB0box379831B0P14754500PUBLIC0.pdf>.
- The World Bank. *Lebanon - Country Partnership Framework for FY17-FY22*. Report. Washington, DC: The World Bank, 2016. 2016. Accessed November 13, 2017. <http://documents.worldbank.org/curated/en/111451467996685776/Lebanon-Country-partnership-framework-for-FY17-FY22>.
- Building Markets. *Market Overview: Small and Medium Enterprises in Beirut and Mount Lebanon*. Report. Building Markets, 2016. 2016. Accessed November 13, 2017. <http://data.unhcr.org/syrianrefugees/download.php?id=10797>.
- The World Bank. *Lebanon Economic Monitor: The Great Capture*. Report. Washington, DC: The World Bank, 2015. 32. 2015. Accessed November 13, 2017. <http://documents.worldbank.org/curated/en/397721468185952923/pdf/101022-WP-PUBLIC-disclosed-11-18-4am-DC-time-11am-Beirut-Box393257B-The-World-Bank-LEM-Fall-2015.pdf>.
- United Nations Development Programme. *Human Development Report 2016*. Report. New York: United Nations Development Report, 2016. 207. 2016. Accessed November 13, 2017. http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf.
- Kukrety, Nupur, Oxfam, and Issam Fares Institute - American University of Beirut. *Poverty, Inequality and Social Protection in Lebanon*. Report. Oxfam, 2016. January 2016. Accessed November 13, 2017. https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/tr-poverty-inequality-social-protection-lebanon-200116-en_0.pdf.
- Saliba, Edwin, Walid Sayegh, and Talal F. Salman. *Assessing Labor Income Inequality in Lebanon's Private Sector*. Report. Beirut, 2017. 6. February 2017. Accessed November 13, 2017. <http://www.finance.gov.lb/en-us/Finance/Rep-Pub/DRI-MOF/Thematic%20Reports//Assessing%20Labor%20Income%20Inequality%20in%20Lebanon%20E2%80%99s%20Private%20Sector.pdf>.
- School Enrollment, Primary (% net). Accessed November 13, 2017. <https://data.worldbank.org/indicator/SE.PRM.NENR>.
- Pupil-Teacher Ratio, Tertiary. Accessed November 13, 2017. <https://data.worldbank.org/indicator/SE.TER.ENRL.TC.ZS?locations=LB>.
- OECD. *PISA - Results in Focus*. Report. OECD, 2016. 5. 2016. Accessed November 13, 2017. <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf>.
- Early School Leavers from Primary Education. Accessed November 13, 2017. <http://data.uis.unesco.org/?queryid=142>.

- El Masri, Sawsan. "Gaps and Efforts in Social Protection." Social Watch. Accessed November 20, 2017. <http://www.socialwatch.org/node/11031>.
- Growing Up Without an Education*. Report. Accessed November 14, 2017. <https://www.hrw.org/report/2016/07/19/growing-without-education/barriers-education-syrian-refugee-children-lebanon>.
- Investment Development Authority of Lebanon. *ICT Sector Statistics*. Report. Investment Development Authority of Lebanon, 2016. 2. November 2016. Accessed November 14, 2017. <http://investinlebanon.gov.lb/Content/uploads/SideBlock/161111013350694~ICT%20Statistics%202016.pdf>.
- "Network Readiness Index." World Economic Forum. Accessed November 14, 2017. <http://reports.weforum.org/global-information-technology-report-2015/network-readiness-index/>.
- "Data." Environment Performance Index. 2016. Accessed November 14, 2017. <http://epi.yale.edu/country-rankings>.
- "Country Rankings," Environment Performance Index. 2014. Accessed November 14, 2016, <http://archive.epi.yale.edu/epi/country-rankings>
- Serhan, Rana. "Lebanon Suffers Pollution by Land, Sea and Air - Citizens' Average Age Down by 25%." National News Agency. March 18, 2016. Accessed November 14, 2017. <http://nna-leb.gov.lb/en/show-news/58657/Lebanon-suffers-pollution-by-land-sea-and-air-Citizens-39-average-age-down-by-25>.
- Lebanese Ministry of the Environment. *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions Updated Fact Sheet*. Report. December 2015. Accessed November 15, 2017. <http://www.moe.gov.lb/getattachment/dd4e6574-a959-47c1-b2ed-1fc1847b7515/Updated-Fact-Sheet-December-2015-Environmental-Ass.aspx>.
- Institute of Health Management and Social Protection (IGSPS), The Ministry of Public Health, and The World Health Organization (WHO). *National Health Statistics Report in Lebanon*. Report. Beirut: Saint-Joseph University, 2012. 139. 2012. Accessed November 15, 2017. <https://igsp.usj.edu.lb/docs/recherche/recueil12en.pdf>.
- An-Nahar* (Beirut), August 12, 2016.
- The Lebanese Ministry of Environment, The European Union, and United Nations Development Programme. *Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions*. Report. Wide Expertise Group, 2014. 8. Accessed November 15, 2017. <http://www.undp.org/content/dam/lebanon/docs/Energy%20and%20Environment/Publications/EASC-WEB.pdf>.
- Ministry of Energy and Water, and United Nations Development Programme. *The Impact of the Syrian Crisis on the Lebanese Power Sector and Priority Recommendations*. Report. 2017. 3. Accessed November 15, 2017. http://www.lb.undp.org/content/lebanon/en/home/library/environment_energy/The-Impact-of-the-Syrian-Crisis-on-the-Lebanese-Power-Sector-and-Priority-Recommendations.html.
- Renewable Energy Consumption (% of Total Final Energy Consumption), Lebanon. Accessed November 15, 2017. <https://data.worldbank.org/indicator/EG.FEC.RNEW.ZS>.
- "Health Expenditures Increased by 70 Percent in 16 Years ." *Lebanon News*, November 30, 2015. Accessed November 15, 2017. <http://www.businessnews.com.lb/cms/Story/StoryDetails.aspx?ItemID=5251>.

- Hilal, Nadeen, Racha Fadlallah, Diana Jamal, and Fadi El-Jardali. *K2P Evidence Summary: Approaching the Waste Crisis in Lebanon: Consequences and Insights into Solutions*. Report. Beirut: Knowledge to Policy (K2P) Center, 2015. 2. Accessed November 15, 2017. https://website.aub.edu.lb/k2p/products/Documents/K2P%20Evidence%20Summary%20Waste%20Management_Final_%20Dec%2014%202015.pdf.
- Lebanese Ministry of Finance. "General Debt Overview." General Debt Overview. September 2017. Accessed November 15, 2017. <http://www.finance.gov.lb/en-us/Finance/PublicDebt/PDTS/Documents/General%20Debt%20Overview%20Updated%20as%2030%20September%202017.pdf>.
- Lebanese Ministry of Finance. *Debt and Debt Markets*. Report. Issue no.41. Quarter II, 2017. Beirut: Lebanese Ministry of Finance, 2017. 2. 2017. Accessed November 15, 2017. <http://finance.gov.lb/en-us/Finance/PublicDebt/DebtReports/Documents/Debt%20and%20Debt%20Market%20Reports%20QII%202017.pdf>.
- "Inflation, Consumer Prices (Annual %) - Lebanon." The World Bank. Accessed November 15, 2017. <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG>.
- The World Justice Project. *Rule of Law Index 2014*. Report. Washington, DC, 2014. Accessed November 15, 2017. https://worldjusticeproject.org/sites/default/files/files/wjp_rule_of_law_index_2014_report.pdf.
- Le Borgne, Eric, and Thomas J. Jacobs. *Lebanon: Promoting Poverty Reduction and Shared Prosperity*. Report. Washington, DC: The World Bank, 2016. 34. Accessed November 15, 2017. <http://documents.worldbank.org/curated/en/951911467995104328/pdf/103201-REPLACEMNT-PUBLIC-Lebanon-SCD-Le-Borgne-and-Jacobs-2016.pdf>.
- Rached, Mounir. *Social Security and Pensions in Lebanon: A Non-Contributory Proposal*. Report. Beirut: Lebanese Economic Association, 2012. 49. Accessed November 15, 2017. <http://www.databank.com.lb/docs/Non%20Contributory%20Pension%20Report.pdf>.
- Rached, Mounir. *Social Security and Pensions in Lebanon: A Non-Contributory Proposal*. Report. Beirut: Lebanese Economic Association, 2012. 49. Accessed November 15, 2017. <http://www.databank.com.lb/docs/Non%20Contributory%20Pension%20Report.pdf>.
- Syria Regional Refugee Response. Accessed November 15, 2017. <http://data.unhcr.org/syrianrefugees/country.php?id=122>.
- Percentage of Repeaters in Primary Education - All Grades, Female (%). Accessed November 16, 2017. <https://data.worldbank.org/indicator/SE.PRM.REPT.FE.ZS?locations=LB-1A-1W>.
- Percentage of Repeaters in Primary Education – All Grades, Male (%). Accessed November 16, 2017. <https://data.worldbank.org/indicator/SE.PRM.REPT.MA.ZS?locations=LB-1A-1W>

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