



Executive Summary

Lebanon: Economic and Social Impact Assessment of the Syrian Conflict

September 2013



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- i. **At the request of the Government of Lebanon, the World Bank, in collaboration with the UN, the EU, and the IMF, has undertaken a rapid Economic and Social Impact Assessment (ESIA) of the Syrian conflict on Lebanon for the 2012-2014 period.** The report's current (first) phase is limited to quantifying the impact and stabilization needs of Lebanon. Based on priorities set by the Government, a second phase will focus on the identification of policy recommendations, programs and projects to mitigate the impact of the Syrian conflict.
- ii. **This rapid ESIA differs in important ways from typical impact and needs assessments due to the nature of the shock that Lebanon is facing.** Key differences are that the shock is (1) *ongoing*—Lebanon has been, and continues to be, subject to the spillover effects of conflict in a neighboring country, but it is neither in a post-disaster situation, nor is it in a post-conflict situation; (2) of *uncertain magnitude*, both in terms of duration and size—the start of the spillover is diffuse while the end date unknown, and the size of the shock depends to a large extent on the intensity of the (ongoing) conflict in Syria; (3) *temporary*—Lebanon is not facing a permanent shock, as is the case with a natural disaster or a (direct) war; (4) *without material damages* to Lebanon's infrastructure, housing, capital or human stock. Losses, instead, are on flows, such as loss of economic activity, income, access to and quality of public services. Based on a request from the Government of Lebanon, the ESIA is a rapid assessment, having been completed at very short notice, in light of the ongoing degradation of the situation. As such, while comprehensive in its aggregate (net) economic impact assessment, it provides a detailed assessment of selected, highly impacted, sectors. The report does not address security-related impacts which are the subject of assessments of other expert agencies and organizations.
- iii. **The initial spillovers from the Syrian conflict were primarily of a humanitarian nature and related to the influx of refugees into Lebanon.** Since the onset of the Syrian crisis, Lebanon has generously maintained an open border policy and has permitted refugees to temporarily but freely settle across the country. To assist Lebanon in coping with the humanitarian dimension of the refugee influx, the international community, through the UNHCR and UN partner agencies, promptly established operations in Lebanon. By August 2013, the refugee influx had expanded dramatically—to 914,000 equivalent to 21 percent of Lebanon's pre-crisis population—and led to the largest humanitarian emergency operation of its kind for many years. Based on current trends, a total of 1.3 million Syrian-conflict refugees are projected to have entered Lebanon by end-2013 (as presented in the Regional Response Plan 5 in June 2013). Projections for 2014 are subject to significant uncertainty. To address this, two scenarios are analyzed. A *baseline refugee influx scenario* forecasts 1.6 million refugees by end-2014 (37 percent of Lebanon's pre-crisis population). For illustration and sensitivity purposes, a lower probability/higher impact scenario is also used (*high refugee influx scenario*).
- iv. **With the escalation of the Syrian conflict, spillovers onto Lebanon have rapidly moved beyond the humanitarian to the economic and social spheres where large, negative, and growing spillovers are occurring** (Table 1). In summary, this report finds that during the 2012-2014 period, the conflict may (1) cut real GDP growth by 2.9 percentage points each year, entailing large losses in terms of wages, profits, taxes, or private consumption and investment; (2) push approximately 170,000 Lebanese into poverty (over and above the 1 million currently living below the poverty line) and double the unemployment rate to above 20 percent, most of them unskilled youth; and (3) depress government revenue collection by USD1.5 billion while simultaneously increasing government expenditure by USD1.1 billion due to the surge in demand for public services, bringing the total fiscal **impact** to USD2.6 billion. Across all key public services, the surge in demand is currently being partly met through a decline in both the access to and the quality of public service delivery. It is estimated that an additional spending of USD2.5 billion would be required for **stabilization**, i.e., to reinstate the access to and quality of public services to their pre-Syrian conflict level.

Let us elaborate:

- v. **The conflict in Syria—a country that is closely linked, through historical, social and economic ties to Lebanon—is severely and negatively impacting the Lebanese economy.** Lebanese growth is estimated to be down by 2.9 percentage points, generating billions of dollars in lost economic activity over 2012-2014 impact assessment period—Table 1. The largest impact arises through the insecurity and uncertainty spillovers which profoundly and negatively affect investor and consumer confidence. The resulting lower economic activity is putting downward pressure on government revenues which, combined with rising demand for public services stemming from the large refugee influx, is damaging Lebanon's structurally weak public finances.
- vi. **The impact of the Syrian conflict is also particularly pronounced in the trade sector, affecting goods and services trade, and in particular the large tourism sector.** An economy with a large trade sector, Lebanon is significantly exposed to Syria not only due to its role as a trading partner, but also because a sizable share of Lebanese trade transits through Syria and because of the risk a destabilized Syria creates for Lebanon's large services exports, especially tourism, with the number of international visitors having steadily declined since 2010. The first half of 2013 witnessed sharp reductions in trade flows, particularly for food products and consumer goods. While Lebanon was traditionally a net food importer from Syria, the country posted its first food trade surplus in 2012. Conversely, trade disruptions are pushing up domestic prices of some staples such as wheat flour, which has important implications on welfare, particularly for poor households.
- vii. **Lebanon's public finances were structurally weak prior to the Syrian shock and are now becoming severely strained, with the deficit estimated to widen by USD2.6 billion over the 2012-14 period**—(Table 3, baseline refugee influx projections). Following half a decade of robust growth, Lebanon experienced a remarkable decrease in its debt-to-GDP ratio, from about 180 percent in 2006, to 134 percent at the eve of the Syrian conflict in 2011. The country's improved public finances, however, were to a large extent due to a cyclical improvement, as strong structural reforms envisaged as part of the Paris III conference have yet to be fully implemented. The Syrian conflict shock is putting Lebanon's public finances under severe and rapidly escalating strains, unsustainable given Lebanon's initial weak public finances. On the revenue side, spillovers from the conflict are estimated to cut USD1.5 billion in revenue collection over 2012-14, due to a combination of direct impact on key sectors (e.g., tourism) and indirect impacts through weaker economic activity. On the expenditure side, total budgetary spending by the Government alone is estimated to grow by up to USD1.1 billion over 2012-2014 because of the Syrian conflict and the associated sharp increase in demand for and consumption of public services by refugees from Syria. The wider fiscal deficits, lower economic growth, and rising interest risk premium due to the Syrian conflict have halted Lebanon's remarkable progress in reducing its debt-to-GDP ratio; for the first time since 2006, Lebanon's debt ratio rose again in 2012 with further increases projected through 2014.
- viii. **Over 2012-14, the Syrian conflict is estimated in health, education and social safety nets to have a fiscal cost of USD308-USD340 million while USD1.4-1.6 billion (3-3.4 percent of GDP) will be needed for stabilization**—i.e., to restore access to and quality of these services to pre-conflict levels—including USD166-242 million for short-term job creation (Tables 1 and 2). The conflict is estimated to negatively and materially affect the poverty, livelihoods, health and human capital conditions of the Lebanese people. By end-2014, some 170,000 additional Lebanese will be pushed into poverty (over and above the current 1 million below the poverty line). Furthermore, an additional 220,000-324,000 Lebanese, primarily unskilled youth, are expected to become unemployed, thus doubling the unemployment rate to over 20 percent. The influx of refugees has challenged the already weak public social services sector in Lebanon and social tensions, including gender issues, among refugees and Lebanese communities are on the rise.

- The increase in demand for *health* services caused by the Syrian conflict is straining Lebanon's health system.** The conflict in Syria is impacting Lebanon's health system through: (1) increased demand for health care services; (2) increased unpaid commitments of the Ministry of Public Health (MOPH) to contracted hospitals; (3) shortages in health workers including specialists and nurses; (4) a sharp rise in communicable diseases (the number of measles cases, for example, increased from 9 in 2012 to 1,456 in 2013) and the emergence of previously absent diseases, such as leishmaniasis (420 cases); and (5) increased risks of epidemics such as water-borne diseases, measles, and tuberculosis. Overcrowding, lack of water and sanitation infrastructure and other poor environmental conditions also pose significant risks to increased infections, as outbreaks of lice and scabies among refugees have shown. Thus, demand for health services has markedly increased over the past 6-12 months—in December 2012 alone 40 percent of primary health care visits were for Syrian refugees. In addition, strong demand for hospital care is crowding hospitals and compromising access to healthcare, thus exerting financial pressure on hospitals, increasing costs, and generating medication shortages. In the medium- to long-term, the impact of delayed health care could result in increased overall levels of morbidity, particularly for the vulnerable. The fiscal impact has been estimated to be USD38 million in 2013 and USD48-69 million in 2014, depending on refugee projections. Health care costs needed to restore the system to its pre-refugee access and quality levels is estimated at USD177 million in 2013 and USD216-306 million in 2014, depending on the refugee projections.
- The increase in demand for *education* services arising from the Syrian children refugees is leading to mounting fiscal costs, an adverse effect on quality of public education, and a significant need for non-formal education.** Prior to the Syrian conflict, basic education enrollment in Lebanon had been stable at over 90 percent for a decade, with gender parity achieved. Although public schools only accommodated 30 percent of total students, they catered predominantly to children of lower socio-economic status. Since the onset of the Syrian conflict, and the influx of refugees into the country, the Ministry of Education and Higher Education (MEHE) provided open access to refugees in its public school system. In 2012, 40,000 refugee children were accommodated in public schools for a budgetary cost of USD29 million. An additional USD24 million in costs were financed by donors through UN agencies, which the MEHE would otherwise have had to bear. These costs are projected to continue to escalate: in the coming academic year 90,000 refugees are expected to enroll, and, by 2014 that number would reach between 140,000 and 170,000. The latter figure amounts to 57 percent of public school students in Lebanon. Therefore, MEHE's stabilization needs amount to USD183 million in 2013 and between USD348-434 million in 2014, depending on the refugee influx scenario. These figures do not reflect the 65 percent of refugees who are not expected to enroll in formal schooling, thus creating significant needs for non-formal/out-of-school education, necessary to control the onset of child labor and other negative social consequences.
- As a result of the Syrian conflict, it is expected that by end-2014, some 170,000 additional Lebanese citizens will be pushed into poverty while the existing poor will fall deeper into it.** Prior to the Syrian conflict, poverty in Lebanon was significant and regional disparities in living conditions were acute. Nearly 1 million Lebanese were estimated to be poor (living on less than USD4 per day). *Social safety nets* (SSN) were weak, fragmented and poorly targeted. For this reason the Ministry of Social Affairs (MOSA) was in the process of implementing reforms to its SSN system. To date, the MOSA has noted a 40 percent increase in the utilization of its health and social programs. To stabilize the situation, USD176 million will be required till end-2014, of which over USD50 million is needed to scale up the National Poverty Targeting Program for poor and vulnerable Lebanese.
- The Syrian spillovers are further exacerbating already difficult *labor market* conditions and are expected to result in further unemployment and informality.** Prior to the Syrian crisis,

labor market conditions in Lebanon were already dire. High unemployment rates coexisted with mismatches in the labor market and a high prevalence of low-quality and low-productivity jobs. The influx of Syrian refugees is expected to increase labor supply by between 30 and 50 percent—with the largest impacts on women, youth, and unskilled workers. Such a massive increase in the number of individuals looking for jobs at a time when economic activity is subdued is expected to have major effects on labor market outcomes. The overall unemployment rate and the share of informal work in total employment could both increase each by up to 10 percentage points. Stabilizing the situation by implementing a comprehensive package of active labor market programs to improve livelihoods and earnings opportunities over the short-term would require resources in the order of USD166-242 million.

ix. **Over the period 2012-14, the fiscal cost of the Syrian conflict on *infrastructure* is estimated at USD589 million, while USD1.1 billion would be required for stabilization, including USD258 million for current spending** (baseline influx scenario). The country's infrastructure (defined for the purposes of this report as water and sanitation, municipal services, electricity and transport), already severely constrained, was ill-prepared to cope with increased use resulting from the surge in refugees. The cash-strapped and under-capacitated local and municipal governments and establishments are severely impacted by the crisis as they now extend basic services and tend to the immediate needs of both refugees and host communities. Tables 1 and 2 provide a sector breakdown of these impacts and stabilization (needs) assessments. Detailed tables identifying the various components of the impact and stabilization assessments are available at the beginning of each sector chapter.

- ***Water supply and sanitation systems, already facing acute pre-crisis challenges in balancing supply augmentation with demand management, must now meet an additional estimated water demand of 26.1 million m3/year***, equivalent to 7 percent of the pre-crisis demand. The cumulative fiscal impact over 2012-14 reaches approximately USD18 million (baseline influx projection). Between 2012-14, an estimated USD340-375 million will be required for stabilization interventions to reinstate pre-crisis levels of WSS service to host and refugee communities. These include: (1) humanitarian relief interventions such as distribution of bottled and tanked water, chlorination kits and storage tanks to the most vulnerable populations; (2) additional capital and operation and maintenance costs, provision of urgent equipment, and additional short-term infrastructure for restoring water supply infrastructure; and (3) acceleration of infrastructure investments and institutional reforms such as storage and transfer infrastructure, distribution network rehabilitation and replacement, water and wastewater treatment and irrigation expansion and improvement.
- ***A markedly visible decline in the level and quality of solid waste management and municipal services has resulted from the sudden and sharp increase in demand and utilization by Syrian refugees.*** Lebanon's local governments and municipalities are highly dependent on central government transfers, have a weak local revenue base, and have a backlog of investment needs that far exceed available resources. Solid waste generation has doubled in several areas, which is contributing to ground water contamination, pollution of water resources and spread of water-borne disease. Both municipal revenues and expenditures are expected to see a major shortfall in 2013 and 2014. This will further restrict the capacity of municipalities to deliver basic services and fund minimum maintenance of their already dilapidated assets. The cumulative fiscal impact over 2012-14 on solid waste management reaches USD71 million (baseline influx scenario). It is estimated that between USD193-206 million would be required over 2012-14 for stabilization interventions in the municipal sector including: (1) the closure and rehabilitation of open and uncontrolled municipal solid waste dumps; (2) establishing composting, separating and landfilling facilities, and; (3) extending financial support to host municipalities to cover the expected additional operational and capital expenditures.

- **Increased electricity demand due to the incoming Syrian refugee population is estimated at 213 megawatts (MW) by end-2013 and between 251 to 362 MW by end-2014**, depending on the refugee projection. Even prior to the Syrian crisis, Lebanon's electricity sector had insufficient installed capacity, low efficiency, high losses and inadequate infrastructure, resulting in poor reliability, inadequate levels of supply and extensive load shedding. The current fiscal cost of providing electricity to the refugees is estimated at USD170 million for 2013 and USD314-393 million for 2014, depending on the projected influx of refugees. The interventions required to reinstate pre-crisis levels of electricity service to the Lebanese population and meet the needs of refugee communities include: (1) capital investment in generation capacity and associated transmission and distribution networks; and (2) institutional capacity and technical assistance for project preparation and implementation. It is estimated that between USD310-440 million would be required by end-2014 for stabilization interventions.
- **Regions with high influx of refugees such as Akkar, Zahleh, and Ba'albek, will witness traffic increase of more than 50 percent on some roads, resulting in accidents and the rapid deterioration of the transport network.** Lebanon's transport network is generally in fair to poor condition and is over-saturated, particularly in the Greater Beirut Area. While the Syrian crisis did not have direct fiscal impact on the government expenditures in the sector, it has affected Lebanon's transport sector in the form of: (1) increased wear and tear of the road and transport network; (2) substantial increase in traffic volumes causing congestion; and (3) a near halt of Lebanon's thriving transit business particularly for freight. The Greater Beirut Area will witness a 15-25 percent traffic increase which can reduce speeds and increase travel times by about 20-30 percent during the peak hours. Transit trucking services have decreased by over 65 percent following the crisis, particularly for Lebanese trucks. In order to restore transport sector performance to pre-crisis levels, investments ranging between USD246-525 million would be required over the period 2013-14 for the baseline and high refugee influx scenarios respectively. These investments can be categorized as follows: (1) asset preservation primarily including enhanced road maintenance; (2) capacity increases including network reconstruction, widening and expansion; and (3) public transport solutions such as mass transit.

To conclude:

- x. ***Such large and growing impact and stabilization costs are unsustainable given Lebanon's weak public finances and need to be promptly addressed. With a debt-to-GDP ratio of 134 percent in 2012 and an overall fiscal deficit of 8.6 percent of GDP, Lebanon cannot—and should not be expected to—shoulder on a sustained basis the impact and stabilization costs described above on its own.***
- xi. ***Furthermore, the Syrian conflict at large has challenged the already delicate societal and inter-communal balance in Lebanon. As noted throughout the report, overcrowding, saturation of basic services and competition for jobs are among the root causes for social tensions between host and refugee communities. Maintaining and promoting greater social cohesion is important to reduce the negative social and economic impacts of this crisis.***
- xii. ***While the scope of the present report is limited to the quantification of the impact and stabilization costs, several options could significantly reduce the costs imposed on Lebanon. These include receiving external financing from the international community and introducing policy reforms to improve the efficiency of public service delivery. In practice, some combination of the various options will probably be required. Sustainable social cohesion will also need to be sought by investing in conflict mitigation mechanisms, processes and capacities at all levels, and through conflict sensitive programming.***

Table 1: Lebanon: Quantified Impact Assessment of the Syrian Conflict Spillovers

	2012	2013	2014		Cumulative 2012/14
			Baseline Refugee Influx	High Refugee Influx	Baseline Refugee Influx
			(in millions of Lebanese Pounds)		
Impact Assessment	94,343	475,745	781,984	973,041	1,352,072
Human Development & Social Impact	62,032	162,754	238,801	287,807	463,587
Health	9,088	57,999	71,688	103,705	138,775
Education	43,994	95,206	153,113	184,102	292,313
Poverty and Social Safety Nets 1/	8,950	9,550	14,000	...	32,500
Infrastructure Impact	32,311	312,991	543,183	685,235	888,485
Electricity	24,120	256,275	473,355	592,448	753,750
Water and Sanitation	8,191	7,571	11,337	14,698	27,099
Solid Waste Mangement & Municipal Services	-	49,145	58,491	78,089	107,636
			(in millions of US dollars)		
Impact Assessment	63	316	519	645	897
Human Development & Social Impact	41	108	158	191	308
Health	6	38	48	69	92
Education	29	63	102	122	194
Poverty and Social Safety Nets 1/	6	6	9	...	22
Infrastructure Impact	21	208	360	455	589
Electricity	16	170	314	393	500
Water and Sanitation	5	5	8	10	18
Solid Waste Mangement & Municipal Services	-	33	39	52	71
			(in percent of GDP, unless otherwise indicated)		
Impact Assessment	0.1	0.7	1.1	1.4	1.9
Human Development & Social Impact	0.1	0.2	0.3	0.4	0.7
Infrastructure Impact	0.0	0.5	0.8	1.0	1.3
Economic impact (public and private; in percent)	-2.9	-2.9	-2.9	-2.5	...
Real GDP growth rate: No Syrian Conflict Spillovers (in percent)	4.3	4.4	4.4	4.4	...
Real GDP growth rate: Actual and Projected (in percent)	1.4	1.5	1.5	1.9	...
Fiscal impact (change in overall fiscal balance due to conflict spillover)	1.1	2.1	2.6	2.6	5.8
Revenue: foregone due to conflict spillover	0.9	1.3	1.3	1.0	3.4
Expenditure: increment due to conflict spillover	0.2	0.9	1.3	1.6	2.4
			(in millions of US dollars)		
Memorandum item:					
Nominal GDP (actual and projected)	42,945	45,203	47,230	47,408	...
Nominal GDP (counter-factual: no Syrian conflict spillover)	44,088	47,662	51,157	51,157	...

Source: World Bank staff calculations and projections.

1/ No high scenario has been calculated for Poverty and SSNs in 2014.

Table 2: Lebanon: Quantified Stabilization (Needs) Assessment of the Syrian Conflict Spillovers

	2012	2013	2014		Cumulative 2012/14
			Baseline Refugee Influx	High Refugee Influx	Baseline Refugee Influx
		(in millions of Lebanese Pounds)			
Stabilization (Needs) Assessment	309,734	1,237,495	2,205,928	3,145,052	3,753,157
Human Development & Social	237,373	643,389	1,230,226	1,480,770	2,110,988
Health	56,578	267,031	326,018	461,271	649,626
Education	145,692	275,245	524,903	654,999	945,840
Employment and Livelihoods 1/	250,875	364,500	250,875
Poverty and Social Safety Nets 2/	35,103	101,114	128,430	...	264,647
Infrastructure	72,361	594,106	975,702	1,664,282	1,642,169
Electricity	58,793	322,605	85,928	281,903	467,325
Water and Sanitation	8,141	133,866	370,893	422,854	512,900
Solid Waste Mangement & Municipal Services	5,427	72,511	212,859	232,607	290,797
Transportation infrastructure	-	65,125	306,023	726,918	371,148
Current spending	205,003	641,581	1,156,239	1,370,995	2,002,823
Capital spending	104,731	595,913	1,049,690	1,774,056	1,750,334
		(in millions of US Dollars)			
Stabilization (Needs) Assessment	205	821	1,463	2,086	2,490
Human Development & Social	157	427	816	982	1,400
Health	38	177	216	306	431
Education	97	183	348	434	627
Employment and Livelihoods 1/	166	242	166
Poverty and Social Safety Nets 2/	23	67	85	...	176
Infrastructure	48	394	647	1,104	1,089
Electricity	39	214	57	187	310
Water and Sanitation	5	89	246	281	340
Solid Waste Mangement & Municipal Services	4	48	141	154	193
Transportation infrastructure	0	43	203	482	246
Current spending	136	426	767	909	1,329
Capital spending	69	395	696	1,177	1,161
		(in percent of GDP)			
Stabilization (Needs) Assessment	0.5	1.8	3.1	4.4	5.4

Source: World Bank staff calculations and projections.

1/ Stabilization costs for 2014 baseline and high scenarios include the needs for 2013.

2/ No high scenario has been calculated for Poverty and SSNs in 2014.