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Syria

War on Development:
socioeconomic monitoring report of Syria
second quarterly report (April – June 2013)

October 2013



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Second quarterly report (April – June 2013)

Prepared by the Syrian Centre for Policy Research (SCPR) for the United Nations Relief and Works Agency (UNRWA) and the United Nations Development Programme (UNDP)

October 2013

Acknowledgments

UNDP and UNRWA would like to thank the Syrian Centre for Policy Research (SCPR) for its partnership and cooperation in developing this series of quarterly reports on the impact of the crisis on the Syrian economy. All three organisations are committed to providing reliable economic data and indicators to track the economic and social consequences of the armed-conflict and the resulting humanitarian emergency in Syria. These reports will provide a sustained focus on human development issues to ensure that the current and future development needs of the Syrian people remain in focus while the present emergency and relief operations are ongoing.

This report is the second quarterly report produced by SCPR for UNRWA and UNDP. The SCPR team members who contributed to this report are Nabil Marzouk, Zaki Mehchy, Rabie Nasser, Khuloud Saba, and Shamel Badran. The report also benefited from various background papers and experts consultations.

UNRWA would like to thank the European Union for the financial support it provided through its Instrument for Stability (IfS). This has enabled UNRWA to provide humanitarian, education, health and microfinance interventions to support the people of Syria. This grant has also enabled UNRWA to support this series of studies.

SCPR, UNRWA and UNDP would like to express their gratitude for the significant support of the experts in the Syrian Central Bureau of Statistics, the Planning and International Cooperation Commission and the Regional Planning Commission.

Disclaimer:

The analysis and policy recommendations of this report do not necessarily reflect the views of UNRWA or UNDP, or UNDP Executive Board Members or UN member states. The report is the work of SCPR supported by UNRWA and the UNDP Country Office in Syria

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Acronyms and abbreviations

CBS	Central Bureau of Statistics in Syria
CPI	Consumer Price Index
DSE	Damascus Stock Exchange
EU	European Union
GDP	Gross Domestic Product
GNI	Gross National Income
GoS	Government of Syria
HDI	Human Development Index
HDR	Human Development Report
IDP	Internally Displaced Persons
LFS	Labour Force Survey
MoET	Ministry of Economy and Trade
MoH	Ministry of Health
MoLA	Ministry of Local Administration
MoSA	Ministry of Social Affairs
NGO	Non Governmental Organization
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PHCs	Primary Health Centres
PL	Poverty Line
SCPR	Syrian Centre for Policy Research
SOE	State Owned Enterprise
SYP	Syrian pound
PICC	Planning and International Cooperation Commission
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
USD	United States Dollar
WDI	World Development Indicators
WFP	World Food Programme
WHO	World Health Organization
WHS	World Health Survey
WTO	World Trade Organization

Executive Summary

In order to assess the impact of the crisis on different socioeconomic elements and track key macroeconomic and social changes in Syria during the current crisis, UNRWA and UNDP commissioned a series of quarterly reports from the Syrian Centre for Policy Research (SCPR). This report is the second report in which the analysis and projections of SCPR indicate that:

Social impact

- The armed-conflict in Syria has exacted punishing socioeconomic harm on its citizens, with refugees from Syria now the fastest growing refugee population in the world. If this pace continues they will be the world's largest contemporary refugee population by the end of 2013.
- By the first half of 2013, the population of Syria had been hollowed-out by over eight percent and over a third (36.9 percent) left their normal place of residence, as 1.73 million refugees fled the country, while another 1.37 million migrated and a further 4.8 million people have been internally displaced.
- More than half the population now live in poverty, with 7.9 million people becoming poor since the beginning of the crisis, of whom 4.4 million now live in extreme poverty as households spent their savings and exhausted their coping strategies.
- By in 2013-Q2, as the armed-conflict continued amidst general economic collapse, the unemployment rate reached 48.6 per cent, with 2.33 million lost jobs putting at risk the welfare of almost 10 million dependents.
- Syria's human development index (HDI) lost 20.6 per cent of its value compared to 2010 and 23.1 per cent from its potential by mid-2013. This dramatic collapse in human development has been accompanied with an appalling lack of human security and a dramatic deterioration in equity and equality.
- Education is in the midst of a silent disaster. The school dropout rate reached 49 per cent, indicating that almost half of all Syrian school children are no longer being formally educated. At the same time, the educational system lost almost 3,000 schools as a result of damage and destruction, while another 683 provide shelter for IDPs. There is also a shortage of teachers as thousands have joined the throng of refugees and IDPs, while attendance of the regular teaching staff is often erratic due to the conflict.
- The health system is also facing significant collapse. Doctor/population ratios have fallen from 1:661 in 2010 to 1:4,041 by June 2013. Some 57 hospitals are damaged and 37 are out of service, while 593 primary care centres, which are the main source of medicines to the chronically ill, are affected. With 359 centres out of service, 203 unsafe and 31 damaged. Women are particularly at risk from the drop in attended deliveries and lack of access to pre- and post-natal services, while children face low vaccination rates, falling nutritional status and rising incidence of infectious illness and diarrhoea.
- The appalling loss in human life is the most horrendous aspect of the armed-conflict. Conflict-related deaths grew by 67 per cent in the first half of 2013, reaching an estimated 100,000 deaths over the course of the conflict. It is estimated that another 400,000 people have been maimed or injured during the conflict. Thus, more than two per cent of the population has been killed, maimed or wounded.
- Amidst such violence, there is an absence of human dignity and rights, with an often wilful disregard for humanity among combatants.

Economic impact

- The Syrian economy experienced massive de-industrialisation as a result of business closure and bankruptcy, capital flight, looting and destruction, with a total economic loss of USD 103.1 billion by 2013-Q2, which is equivalent to 174 per cent of the GDP of 2010 in constant prices.
- Damage to capital stock of USD 49.64 billion accounted for 48 per cent of this loss. This vanished capital will have to be replaced from new financing sources in any future rehabilitation and re-industrialisation of the Syrian economy.
- GDP contracted by 34.3 per cent in 2013-Q1 and 39.6 per cent in 2013-Q2 compared to the parallel quarters in 2012, with the total volume of GDP loss until 2013-Q2 estimated at USD 47.9 billion, of which USD 8.2 was lost in 2013-Q1 and USD 9.7 billion in 2013-Q2.
- While the value of GDP continues its spectacular collapse, the structure of GDP has changed dramatically, with agriculture accounting for 54 per cent of GDP in 2013-Q2, seasonally boosted by the peak harvest period. As the value creating private productive and service sectors continued to decline along with their share of GDP, government services, social services and NGO services assumed an increasing share of GDP during this period. Although, with the exception of NGO services, their GDP value declined.
- Private investment contracted substantially by 23.3 per cent in 2013-Q1, and by 12.8 per cent in 2013-Q2 compared to the same quarters in 2012. By 2013-Q2 total investment formed just 10.3 per cent of GDP, which is substantially below the normal annual depreciation rate of capital stock.
- Public investment retrenched by 23 per cent in 2013-Q1 and by 30 per cent in 2013-Q2 compared to the parallel quarters of 2012. Moreover, the government has reallocated significant resources from investment to current consumption, as well as to military expenditure.
- The budget deficit continued to grow in 2013-Q2 with public debt reaching 73 per cent of GDP, forced upward by the need to increase external borrowing. Moreover, the recent increase in public sector wages at the end of the second quarter is likely to further increase the deficit in the third quarter of 2013.
- Private consumption contracted by 40 per cent in 2013-Q1 and 47 percent in 2013-Q2 compared to the same quarters in 2012, reflecting the dire economic and financial circumstances facing Syrian households as the armed-conflict intensified in the first half of the year.
- While government expenditure on public consumption is vital to mitigate the drop in total demand, falling public revenue from taxes and state-owned enterprises, combined with the increasing cost of subsidies and reallocation of budget to military expenditure, resulted in the contraction of the public consumption share of GDP by 23 per cent in 2013-Q1 and 22 percent in 2013-Q2 compared with 2012.
- As the formal economy has imploded there has been a growth in informality, rent-seeking activities, criminal enterprise and economies of violence that will plague post-conflict economic regulation, reform, equity and development.

Introduction

After 27 months, the calamitous armed-conflict in Syria continues unabated, while increasingly drawing regional and international players into its military maw. The peaceful demonstrations that erupted in southern Syria in early 2011 calling for civil liberties and for political, social and economic change were quickly thwarted by government forces. For decades state institutions were unable to respond effectively to end the deprivation and marginalisation of large segments of the population. Even as the Syrian economy grew over the previous decade, and as the government implemented inconclusive and partial social and economic reforms, they passed many regions by or delivered meagre results that did not meet people's expectations of aspirations. (SCPR 2013a) The prolonged inability of the government to provide fundamental solutions for the needs of society is an underlying element in the turn toward armed-conflict.

Sadly, in the absence of statesmanship and diplomatic integrity, the international relations system has so far failed to serve the interests of the Syria people, who require an end to hostilities and an authentic political settlement if they are to re-establish and rebuild their lives and society. Regrettably, the engagement of regional and international actors in the conflict has succeeded in financing and fuelling its escalation.

The military violence has created a humanitarian calamity of widening proportions. Today, Syrians fleeing the conflict have become the most rapidly growing refugee population globally. While still significantly short of the more than five million Palestine refugees living in Jordan, Lebanon, Syria and Palestine as a result of the 1948 Arab-Israeli conflict, Syrian refugees will soon become the largest contemporary refugee population in the world. (UNHCR 2013)

This tragic humanitarian cost of the armed-conflict is just one dimension of widespread social, cultural and political degeneration, which also includes a catastrophic **war on development** and economic well-being from which it will take the Syrian economy decades to recover. The ongoing escalation of the conflict has resulted in armed parties destroying the economic and productive assets of the country, while diverting resources from productive to destructive activities. The continuation of such trends throughout 2013 will have calamitous impact on overall development within the country.

The report brings out the basic underpinnings of the economic destruction and degradation that has been wrought by this silent war on human and economic development. This is the second quarterly report commissioned by UNRWA and UNDP from the Syrian Centre for Policy Research (SCPR) to provide an on-going assessment of the evolving socioeconomic landscape in Syria during the current crisis by using available official updates and utilizing econometric models to estimate other key indicators.¹ It is hoped that these reports will provide an economic map and analytical tool by which different parties can plainly view the present risk and ruin in the economy to guide policies, programmes and interventions that can intercede under the current conditions, while providing an inclusive outlook for the future rehabilitation, reconstruction and development.

Complementing the first quarterly report this report builds on the framework, methodology and analysis developed in the Centre's earlier report on "Socioeconomic Roots and Impacts of the Syrian Crisis" that analysed the situation in 2012.² (SCPR, 2013a) It utilises a counterfactual methodology that compares the "crisis scenario", or the actual indicators that emerged during the crisis, with the

¹ The data sources in this report are mainly from the Central Bureau of Statistics, Planning and International Cooperation Commission, Ministry of Health, Ministry of Education, Ministry of Local Administration, Ministry of Social Affairs, the Central Bank of Syria and UN agencies. In addition, formal interviews were conducted with experts and key national informants.

² See, <http://unrwa.org/userfiles/2013071244355.pdf>, the report is also available in Arabic on <http://scpr-syria.org/>

"continuing scenario", or the indicators that would most likely have been achieved had the crisis not arisen. The report includes multiple macroeconomic and social performance indicators that were compiled and estimated based on official sources and in consultation with a number of experts. It also uses several models, such as financial programming, within a comprehensive developmental framework.

More specifically, this report investigates in-depth issues related to seasonality across quarterly periods, which is crucial to understand the impact of fluctuation in sectorial outputs on development. This report diagnoses the seasonal pattern of agriculture output, exports and imports, and private consumption. Additionally, besides projecting the indicators of 2013-Q2, the report revisits and re-evaluates the previous projections of 2012 and 2013-Q1 using updated data and information.

Section one of the report focuses on the economic indicators and the impact of the crisis on economic sectors, the public budget, prices, and employment. Section two covers the impact of the armed-conflict on human development indicators including demography, poverty, health, education, Human Development Index, and social solidarity.

I. Economic Impact of the Crisis

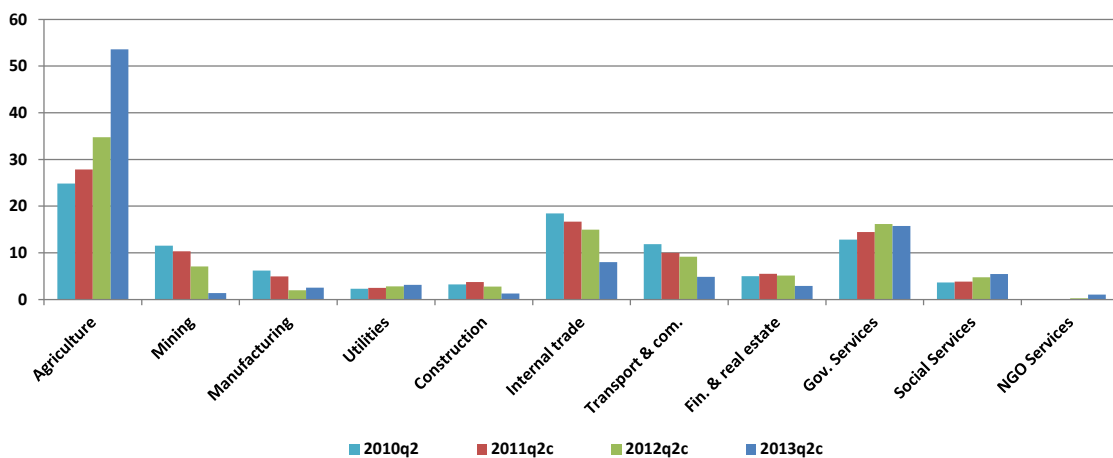
The report uses the most recent evidence on the economic situation in Syria to update our current knowledge on the economic state of the country since the emergence of the conflict in March 2011. This has been done by estimating economic losses until 2013-Q1 and projecting the additional losses for 2013-Q2. This section continues the narrative and analysis of economic growth/decline across different sectors. It takes into account how recent changes in the pattern of the conflict have essentially affected the economy. The main indicators of public finance, trade, prices, exchange rate, and employment are estimated and analysed in this section.

Destructive Restructuring

During 2013-Q2, the crisis of the Syrian economy continued its steep downward trajectory, with this slump increasingly hollowing out the wealth of the nation and compressing capital within both the private and public sectors. Manufacturing and mining (largely petroleum) have all but collapsed, with their share of GDP in 2013-Q2 at about four per cent. The armed-conflict has resulted in widespread physical damage to infrastructure, business, habitat and communications, while commercial services have contracted dramatically. Simultaneously, the international boycott has squeezed the export-import and finance and banking sectors. Amidst this economic catastrophe, the national economy can no longer meet the basic needs of the Syrian people.

The primary productive engines of the Syrian economy — including mining, manufacture, construction, internal trade, transport and communication, and finance and real estate services — are in state of ruin, tantamount to wholesale de-industrialisation that has precipitated a destructive restructuring of the economy. Except in a few economic enclaves, e.g. in central Damascus, Lattakia, Tartous, Sweyda and Qamishli, legitimate private sector business has limited opportunity to thrive. Many now struggle to survive in high-risk marketplaces that are no longer regulated, with markets increasingly populated by marginalised informal microentrepreneurs who seek to eke out a meagre living to provide for their families. Increasingly, business people are operating in markets punctuated by economies of violence, where racketeering, extortion, smuggling and criminality encroach on legitimate businesses and endanger the welfare of ordinary business folk.

Figure 1: Sectors' share of GDP in the second quarter between 2010-Q2 and 2013-Q2

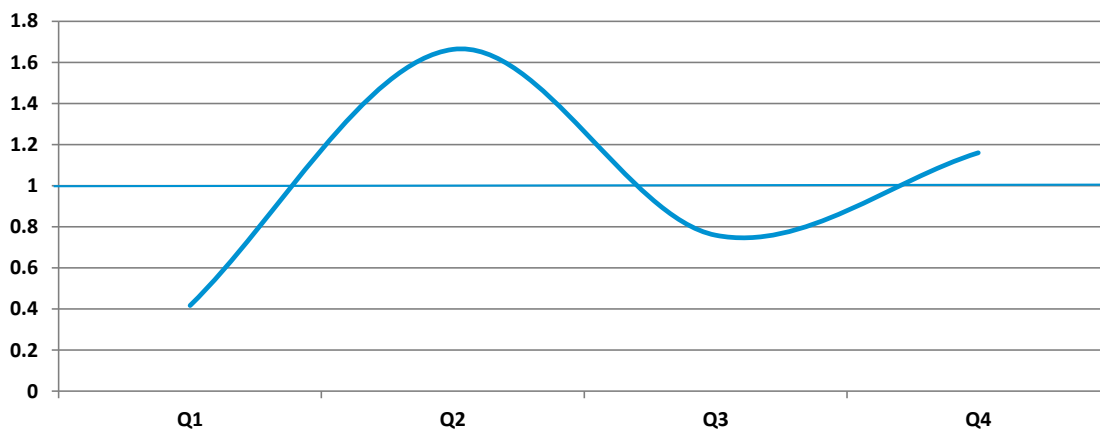


Source: SCPR estimations

Presently, the **structure of economy** has reached an underdeveloped nadir, characterised by the changing formation of the country's GDP. (Figure 1) Since the start of the conflict, the only economic sectors depicting a growing share of GDP were agriculture, government services, social services, NGO services and utilities. The rising agriculture share of GDP is unprecedented, with agriculture accounting for 54 per cent of GDP in 2013-Q2, doubling its share from 2010 and surpassing all other sectors as the main value-added component of GDP. However, although its share of GDP increased, the value of agricultural production decreased even as its share was ascending, with the value added of agricultural output falling from SYP 263 billion in 2011, to SYP 245 billion in 2012 and SYP 119 billion in the first half of 2013. Moreover, favourable climate ensured better agricultural output in the first half of 2013. The current centrality of agriculture, even if it is enabling tens of thousands of households to survive during the present conflict, does not signal a positive economic development. The agrarian sector continues to face climatic uncertainty, while the conflict continues to pose challenges to farmers gaining access to lands, markets, fuel, inputs and irrigation, as land and herds are under siege, looted or destroyed. Thus, agriculture is assuming a growing share of a failing economy.

The other growth sectors are all providing services helping Syrians to deal with the hardship of the current conflict, with social and NGO services providing significant financing of humanitarian interventions. Government service remains prominent, as its share of GDP has grown since 2010 and is now the third most significant component of GDP after internal trade and agriculture, but like agriculture it is a growing share of a much smaller economy. Thus, the value of government services shrank from SYP 228 billion in 2011, to SYP 190 billion in 2012 and to just SYP 67 billion for the first half of 2013. The economic power of government service is playing a significant strategic political role, as government services and procurement is crucial to maintain activities in other sectors, while its payroll makes it the county's largest employer. However, it is not inconceivable that in the future, the shrinking value and worth of government services due to declining public revenues could lead to a failure of state.

Figure 2: Agriculture production pattern 2011



Source: agricultural statistical abstract and authors' calculations

Fragile Economy

The report estimates the real economic growth/decline based on proxy indicators for each sector during 2011, 2012, and first and second quarters of 2013³ using econometric projections and a financial programming model. (See appendix) The report then estimates the structural changes in

³ Annual growth rates reported for 2011, 2012, with quarter-on-quarter growth rates for 2013-Q1 and 2013-Q2 compared with the same quarter in the preceding year.

Gross Domestic Product (GDP) in real terms. It also revises the previous quarterly report's estimations of 2012, and 2013-Q1 GDP. (SCPR, 2013b) In addition, it introduces the seasonality of agriculture GDP to give a more precise picture of quarterly economic activities during 2013 compared to 2012. This was done through adopting the pattern of agricultural seasonality in 2011, which shows that agriculture production peaks in the second quarter of the year and is lowest in the first quarter (Figure 2). The seasonality of agricultural GDP has a fluctuation effect on GDP across the different quarters. Thus, to clarify the impact of seasonality on the growth/contraction rates of GDP, the growth rates of the quarter on the same quarter in preceding year have been calculated.

Moreover, the results show real growth/contraction rates of GDP in Syria by each sector, reflecting the volume of the collapse in the Syrian economy during the ongoing crisis. The "continuing scenario" shows that, if the crisis had not emerged, Syria would have achieved an annual GDP growth rate of approximately 7.1 per cent in 2011, 6.5 per cent in 2012, 6.9 per cent in 2013-Q1, and 7.4 per cent in 2013-Q2. However, using the projections of the "crisis scenario", the GDP of Syria was estimated to have contracted by 3.7 per cent in 2011, followed by 27.7 per cent in 2012, 34.3 per cent in 2013-Q1, and 39.6 per cent in 2013-Q2. From the beginning of 2011 until 2013-Q2, GDP loss to the Syrian economy is estimated at SYP 1,370 billion in constant 2000 prices. (Table 1) This loss equates to 94.4 per cent of Syria's GDP in 2010, and at current prices the total GDP loss equals USD 47.9 billion.

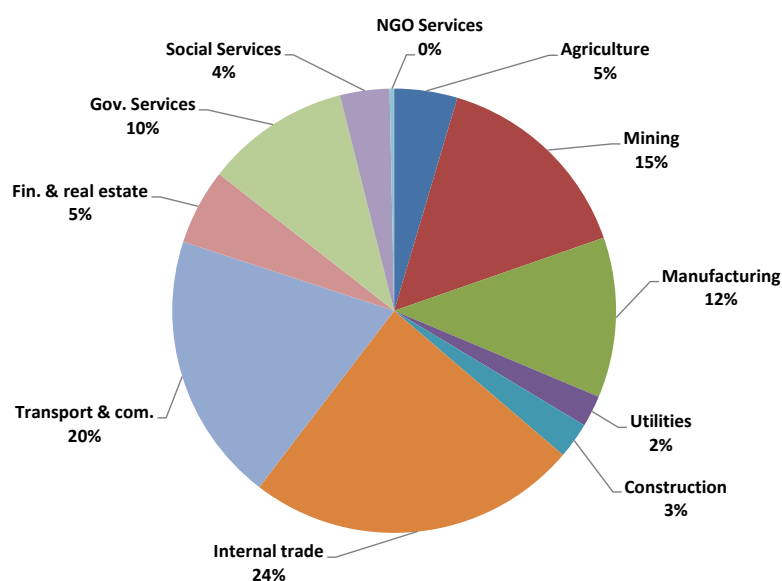
Table 1: GDP by sector 2010-2013-Q2 and estimated crisis impact, billions of SYP (in constant 2000 prices)

	Actual	Continuing Scenario				Crisis Scenario				Crisis Impact				
	2010	2011	2012	2013-Q1	2013-Q2	2011	2012	2013-Q1	2013-Q2	2011	2012	2013-Q1	2013-Q2	Until June 2013
Agriculture	240	263	276	30	121	263	245	24	95	0	31	6	26	63
Mining	186	185	185	46	46	163	83	6	2	23	102	40	44	208
Manufacturing	100	105	110	29	29	78	23	5	4	26	86	24	24	161
Utilities	37	42	48	13	13	39	33	7	6	3	14	7	8	32
Construction	52	54	55	13	14	59	33	5	2	-5	22	8	12	36
Internal trade	297	311	326	85	85	263	176	23	14	49	150	63	71	333
Transport & com.	191	208	227	62	62	158	108	14	9	51	119	48	53	271
Fin. & real estate	80	88	96	26	26	87	61	8	5	1	36	18	21	76
Gov. Services	207	230	257	71	71	228	190	39	28	3	67	32	43	145
Social Services	59	67	76	22	22	60	56	11	10	7	21	10	12	50
NGO Services	1	1	1	0	0	1	3	1	2	0	-2	-1	-2	-5
GDP	1,452	1,555	1,656	398	490	1,398	1,011	142	177	157	645	256	313	1,370

Source: SCPR' estimations based on preliminary data from the PICC and CBS.

The structure of total GDP loss across the various sectors did not change substantially between 2013-Q1 and 2013-Q2. The most significant loss was in trade which lost SYP 333 billion from 2011 until June 2013, accounting for 24 per cent of the contraction in GDP. Transport losses accounted for 20 per cent of total GDP loss over this period at SYP 271 billion, with mining (mainly petroleum) down by SYP 208 billion, accounting for 15 per cent of GDP loss. Manufacturing was down by SYP 161 billion, accounting for 12 per cent of GDP loss. This was followed by the government services sector which lost SYP 145 billion, accounting for 10.6 per cent of the total GDP loss (Figure 3). Thus, by 2013-Q2 the main GDP losses occurred in trade, transport, mining, and government services.

Figure 3: Sector structure of estimated total GDP loss (gain) 2011, 2012, 2013-Q1, and 2013-Q2



Source: SCPR estimation

The contraction of the economy escalated dramatically in the first half of 2013 compared to the first half of 2012, when GDP losses reached SYP 256 billion in 2013-Q1 and SYP 313 billion in 2013-Q2 at constant 2000 prices. Moreover, 2013-Q2 witnessed a substantial increase in agriculture GDP compared to 2013-Q1, as agriculture production reached its seasonal peak. However, it was substantially below its pre-crisis level. All other sectors witnessed contraction in the second quarter compared to 2013-Q1, with the exception of NGO services.

During the current crisis **Agriculture** was an economic mainstay during this period. Coinciding with the primary harvest period, agriculture accounted for 54 per cent of GDP in 2013-Q2, compared to 27 per cent in 2013-Q1. As a result, agriculture was a key contributor to seasonal employment and income during this period, stimulated by positive climatic conditions during the year. During this time agrarian production played a crucial role in alleviating food insecurity, providing jobs for low-skilled labour in rural areas, while mitigating poverty among households engaged in agricultural production. However, this relatively positive agricultural contribution to the economy did not prevent contraction in agriculture in 2013-Q1 and 2013-Q2 by 6.9 per cent in each quarter, compared to the same quarters in 2012. There was a reduction in plantation by 15 per cent compared to 2012, particularly for key crops such as wheat, barley, cotton and beet. This was especially low in Al Raqqa governorate where cultivation was down by 40 per cent. Moreover, while the overall climatic condition were positive, the yield per hectare also dropped due to poor security conditions which stopped farmers in conflict zones from having continuous access to their lands. Yield was also affected by scarcity and the increasing cost of fertilizers and energy. Poor security also affected the shipping and marketing of agricultural crops. This was compounded by the destruction and pillage of crops and animals and widespread damage to irrigation infrastructure.

In 2013-Q2, the price of fuel and fertilizers increased and pushed up the cost of agriculture activities by 19 per cent according to PICC estimations. In response, the government increased its purchase price on wheat bought from farmers. Before the crisis the farmers used to sell their main field crops directly to the government, however, due to security constraints, many farmers now sell their crops at lower prices to middlemen who sell it to the government or directly forward it to the wholesale market. During this period there was a shortage of animal products, especially meat, as the husbandry sector has been affected by smuggling, pillage, theft and lack of fodder, forcing the

government to allow meat imports. Thus, the increase in agriculture costs and scarcity has effectively increased the cost of agricultural products for consumers.

The **wholesale and retail trade sector**, which includes restaurants and hotels, witnessed a significant contraction in GDP during the first two quarters of 2013. This contraction is estimated at 48.7 per cent in 2013-Q1 and 67.7 per cent in 2013-Q2 compared to the parallel quarters in 2012. During the second quarter of 2013, the conflict led to a surge in consumer prices, scarcity of local commodities, reduced incomes, higher energy and logistics costs, currency depreciation, and restrictions on the movement of people and goods, all of which dramatically affected the internal trade sector. International sanctions continue to play a role in reducing the flow of goods, due to import-export restrictions, blocking financial transactions and insurance services, which has increased the cost of essential imports. Moreover, as one of the main employers of low-skilled workers, cutbacks and closures in the sector resulted in the shedding of tens of thousands of jobs.

Within the sector, the armed-conflict caused considerable geographic-based market distortion across the country, with wide variation in market prices, trade margins and mark-ups, sourcing of commodities and formality. The trade sector in many areas is in danger of being subsumed by economies of violence that have emerged through mushrooming black-markets for the exchange of illegal, smuggled and looted goods, which is often accompanied by racketeering, extortion and kidnapping. The weakening of contractual institutions and legal enforcement in such areas undermines the operations of legal enterprises and regular business networks. In 2013-Q2, the government maintained its intervention to stabilize market prices through subsidizing fuel derivatives, which are increasingly imported. But currency depreciation is pushing up the burden of maintaining subsidies, forcing the government to increase the price of fuel derivatives in order to decrease the load on the public budget. Moreover, in 2013-Q2, the government opened a limited number of outlets to directly sell basic imported commodities in several regions at subsidized prices.

The result of the conflict on the **tourism** sector during 2013-Q2 continued to be devastating, when the sector contracted by 76 per cent in the first half of 2013 compared to the first half of 2012, with the number of tourists, tourism revenue, and number of tourist nights all down.

The armed-conflict and insecurity resulted in a contraction in the **mining** sector GDP by 49 per cent in 2012, while it witnessed significant economic shock during 2013-Q2 when oil production dropped from 47,000 barrels per day during 2013-Q1 to just 18,000 during 2013-Q2. As the government lost control of many oil wells during this period, the parallel quarter comparisons are even more dramatic. Thus, GDP value was down by 71 per cent in 2013-Q1 and by 88 per cent in 2013-Q2, compared to the same quarters of 2012. This is a significant strategic and economic loss to the national economy which has lost its main source of foreign currency. To compensate for this the government has had to increase the importation of fuel derivatives, which has pushed up the subsidy bill. Moreover, energy shortage has affected all economic sectors and households, even as energy prices continued to increase during 2013-Q2, contributing to a further hike in the cost of living for all households and the cost of doing business for all enterprises.

As it had in 2013-Q1, contraction in the **manufacturing** sector continued in 2013-Q2 as the armed-conflict escalated and intensified in many regions. The GDP of the manufacturing sector contracted by 70.1 per cent in 2012, while comparing the parallel quarters of the previous year it contracted by 12.8 per cent in 2013-Q1 and 23.3 per cent in 2013-Q2.⁴ Overall, the closure and destruction of firms and infrastructure has been mounting due to military operations, widespread pillage and looting and bankruptcy, as well as the abduction of workers and managers. Contraction continued in the main

⁴ The report used preliminary results of the industrial survey in 2013 to estimate the private sector value added, while for the public sector, administrative data for the main State Owned Enterprises (SOEs) has been used.

industrial regions of Syria, particularly Aleppo, Rural Damascus and Homs. The decline was also mirrored in a sharp reduction in public and private investment and the loss of capital stock during the 2013-Q2. Moreover, the mass reduction in manufacturing production has resulted in a decreasing supply of domestically produced goods in the local market, with the scarcity of such goods contributing to price increases.

The **transport** sector has faced significant financial and physical damage stemming from the conflict and its GDP share contracted by 51.6 per cent in 2012. Comparing the parallel quarters across 2012 and 2013, the sector GDP contracted by an estimated 63 per cent in 2013-Q1 and by 46.9 per cent in 2013-Q2.⁵ In addition, the lack of fuel and maintenance services have contributed to the drop in commercial transport activities. During 2013-Q2 the sector continued to be burdened by conflict-related outcomes, including the looting of private and public vehicles, the insecurity and physical risk of travel, attacks on trucks and convoys carrying commodities, while international sanctions have reduced the need for transport services required for import-export activities at ports and airports.

The **communication** sector, including communication and mail services, was less affected than other sectors. The GDP of the communication sector contracted by 7.4 per cent in 2012, while small compared to other sectors, this was a significant economic downturn affecting the viability and continuity of many private businesses. Moreover, the downturn became more pronounced in 2013. Thus, comparing the parallel quarters in 2012 with 2013, the sector GDP contracted by an estimated 32.6 per cent in 2013-Q1 and 24.2 per cent in 2013-Q2. This contraction is explained by a number of factors, including, reduction in households and government incomes, restrictions on maintenance services, sanctions blocking the import of telecommunications equipment and devices and the destruction of infrastructure and telecommunications repeaters resulting from the armed-conflict.⁶

The **financial and real estate sector** GDP contracted by 30.2 per cent in 2012, and by a further 47.2 per cent in 2013-Q1 and 65.8 percent in 2013-Q2 compared to the same quarters in 2012. The reasons behind the escalation in 2013 are the substantial contraction in economic activities, the restrictions on financial transactions, deteriorating exchange rates and international sanctions on the finance sector. This was also affected by the Central Bank's failure to stabilize the financial system and maintain the value of the Syria pound, which has pitched many households on fixed incomes into poverty, including a mass of low-paid public sector workers. The dramatic drop in the supply of locally produced commodities and the increase in imports have intensified pressure on the exchange rate of the Syrian pound. Moreover, the reduction in real economic activities and the flight of private capital has raised monetary challenges for the banking system.

The **utility** sector contracted by 14.8 per cent in 2012 and by a further 18.8 per cent in 2013-Q1 and 32.9 percent in 2013-Q2, compared to the same quarters in 2012.⁷ The monthly production of electricity dropped substantially during 2013-Q2 due to scarcity of fuel and gas required to maintain the output of generating stations. Additionally, as in 2013-Q1, many regions suffered prolonged electricity outages and rationing, with complete blackouts in major conflict zones. Consumption was also affected by the destruction of electricity transfer and generating stations in the second half of the year, which included widespread damage to high-voltage cables that increased electricity wastage. While significant effort was made to repair damage, the armed-conflict prevented effective repair and maintenance of the electricity networks.

⁵ The main proxy indicators used to project GDP contraction in the transportation sector are taxes and fees on vehicles, number of passengers in railways and airports and volume of goods transported in railways, ports, and airports.

⁶ The main proxy indicators that have been used to project the decline in the sector include; numbers of subscribers with mobile phones and internet, number of locally paid phone calls, and number of mail box, parcels, and transactions.

⁷ The proxy indicator to estimate this decrease is electricity production per month.

Production in the **construction** sector is a partially dependent upon investments in other sectors. The construction sector GDP contracted by 44.2 per cent in 2012 as new private construction activities slowed down as the conflict escalated. Contraction continued in 2013 with a decline of construction GDP by 39.4 per cent in 2013-Q1 and by 72.5 per cent in 2013-Q2, compared to the parallel quarters in 2012. The sharp reduction of investment in other sectors, including public and private investment, is likely to continue in the near future, further diminishing the value-added of the sector.

On the public sector side, there was a significant increase in **government services** in 2011 as the Government of Syria (GoS) responded to the crisis. But this was not sustained in 2012, when the GDP share of public services contracted by 16.5 per cent. This continued in 2013, with a decline of 17.7 per cent in 2013-Q1 and 41.2 per cent in 2013-Q2, compared to the same quarters in 2012.⁸ This trend may be reversed in the third quarter, since the government increased the wages of government employees in June 2013 that will be implemented in July 2013.

Personal and **social services** contracted by 7.6 per cent in 2012, with a further contraction of 18.6 per cent in 2013-Q1, and 30.4 per cent in 2013-Q2 compared to the parallel periods in 2012. The contraction in personal services was largely a result of the general reduction in economic activities and reduced income among the population at large. However, the social services —including health and education — provided by the private sector and civil society grew in 2013-Q1 and 2013-Q2 as the number of displaced people increased. Yet, even with substantial donor investment in humanitarian assistance through the United Nations and other international organisation, increased social services did not climb sufficiently to meet the rising needs.

NGO services provided by civil society organizations increased substantially in the first half of 2013, rising by 200 per cent compared to the first half of 2012, as social groups, charities and other institutions reacted to provide humanitarian and social support. However, despite such growth the NGO share of GDP is still marginal.

Falling Demand

The reduction in domestic supply has sharply reduced sources of income in Syrian households that no longer have the means to consume at pre-crisis levels. On the demand side, **private consumption** is the main component of GDP, and it is considered a direct measure of household welfare. As a result of the conflict, private consumption contracted by 18.8 per cent in 2012. This trend sped in the first half of 2013 as private consumption tumbled by 40 per cent in 2013-Q1 and 47 per cent in 2013-Q2 compared to the parallel quarters in 2012. This dramatic drop in consumption reflects the dire humanitarian condition of Syrian households as a result of massive displacement from their communities and neighbourhoods, immense job loss, business closure and widespread destruction and looting of private properties. This huge fall in demand is a reflection of the economic and financial ruin of vast numbers of Syrian households who have lost their homes, exhausted their savings, face surging prices for basic goods and services, while they struggle to survive amidst the dangers of armed-conflict. Despite unparalleled support through subsidies, financial transfers and humanitarian aid by the government, United Nations organisations, international and local NGOs, charities and civil society organizations, this support barely compensates for the massive consumption gap that has opened since 2011. While millions of Syrians, both inside and outside the country, are now dependent upon government subsidies and humanitarian assistance, the only viable means of ending this situation is the recovery of domestic production, which will create job opportunities and increase the supply of domestic goods and services.

⁸ The main indicators to project the government services value added growth are wages and salaries in addition to the goods and services in the public budget.

The role of the government's **public consumption** is vital to mitigate the drop in total demand. Yet, falling public revenues, together with the increasing cost of subsidisation and the reallocation of part of the public purse to resources for military purposes, has resulted in the contraction of public consumption by eight per cent in 2012. This declined by a further 23 per cent in 2013-Q1 and 22 percent in 2013-Q2, compared to the parallel quarters of 2012. Even as it is declining, public consumption retains a significant role in supporting the economy by financing fuel and basic foods subsidies, along with wages to public sector employees, which support economic demand and lessens the cost of private consumption, while keeping tens of thousands from falling into abject poverty.

Investment is the engine of any economy, but it needs economic, social, and political stability to function effectively. The armed-conflict has placed a choke-hold on **Investment**, with **public investment** tumbling by 57 per cent in 2012, with a further decline by 23 per cent in 2013-Q1 and 30 per cent in 2013-Q2, compared to the same quarters of 2012. The conflict has dramatically impacted the government's ability to generate revenues and implement investment projects. Moreover, the government has reallocated investment budgets to current consumption, as well as to military expenditure, to safeguard its political and military position. Most significantly, **private investment** contracted by 70.1 per cent in 2012, and by 23.3 per cent in 2013-Q1 and 12.8 per cent in 2013-Q2, with private gross capital formation of just SYP 11 billion and SYP 10 billion in the first two quarter of 2013. By 2013-Q2 both public and private investment formed just 10.3 per cent of GDP, which is below the normal annual depreciation rate of capital stock.

Table 2: GDP by expenditure 2010-2013-Q2, billions of SYP in constant 2000 prices

	Actual	Continuing Scenario				Crisis Scenario				Crisis Impact				
	2010	2011	2012	2013 - Q1	2013 - Q2	2011	2012	2013 - Q1	2013 - Q2	2011	2012	2013 - Q1	2013 - Q2	Until June 2013
Consumption	1209	1267	1329	325	391	1193	1000	145	169	74	329	180	221	805
Public	255	281	309	85	85	293	269	52	51	-13	40	33	34	94
Private	955	986	1019	240	306	900	731	92	118	87	289	148	188	710
Gross capital formation	326	360	389	108	108	363	155	27	25	-3	234	81	84	396
Public	142	143	143	36	36	112	48	9	8	31	95	27	27	180
Private	191	204	218	58	58	172	51	11	10	32	167	47	48	294
Change in inventory	-8	13	28	14	14	80	56	7	7	-66	-28	8	8	-79
Net Foreign Export	-84	-72	-61	-35	-9	-158	-144	-29	-17	86	83	-6	8	170
Exports	399	407	415	78	104	372	192	36	48	35	224	42	55	356
Imports	483	480	477	114	113	530	336	65	65	-51	141	48	48	186
GDP (market prices)	1452	1555	1656	398	490	1398	1011	142	177	157	645	256	313	1370

Source: SCPR' estimations based on preliminary data from the PICC and CBS.

The country is also experiencing a growing trade deficit, with negative **net exports** (exports minus imports) reaching minus SYP 144 billion in 2012, minus SYP 29 billion in 2013-Q1 and minus SYP 17 billion in 2013-Q2. This deficit was driven by the turndown in the oil and manufacturing exports, which deprived the economy of crucial sources of hard currency.⁹ The lack of export capacity and the huge demand for the importation of essential goods, such as food and medicine, has created serious

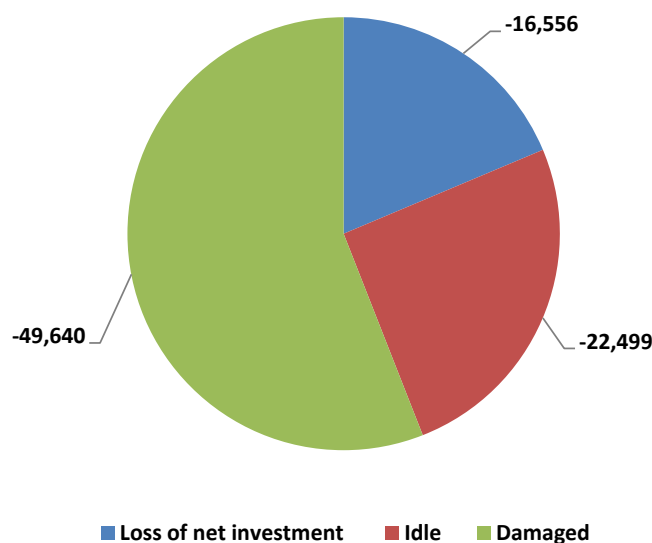
⁹ This report used the gravity model to project the exports and imports until 2012, however, in 2013 a proxy indicator of the exports and imports through ports have been used. Furthermore, the report estimated the pattern of seasonality of exports and imports across quarters based on monthly data of external trade from the Central Bank of Syria before the crisis.

challenge to economic sustainability which cannot be reversed without a recovery of domestic production.

Total Economic losses Reach USD 103.1 Billion

GDP loss is only one component of the total estimated economic loss in Syria. The other two components are damage to capital stock resulting from the armed-conflict and the increase in off-budget military expenditure. The capital stock losses were estimated using the counterfactual methodology, with the total loss of capital stock until 2013-Q2 estimated at USD 88.7 billion in current prices. (Figure 4) This loss consists of three components: First, is **reduction in net investment**, which equalled USD 16.6 billion and was already accounted for in the estimate of GDP losses. The second component is **idle capital stock** resulting from physical capital ceasing to contribute to production, services and value-added — which is also included in the calculation of GDP loss. This is estimated at USD 22.5 billion. The third component is **partial or full damage to capital stock** incurred as a result of the armed-conflict, which includes ruined public and private properties, equipment, and residential and non-residential buildings. This component was not included in the estimation of GDP loss, and thus it should be added to the total economic losses. It is estimated that the loss attributed to damage to capital stock is USD 49.6 billion.

Figure 4: Estimated loss of Capital Stock, from 2010to 2013-Q2 (USD millions) at current prices



Source: SCPR calculations based on (Nasser, Mehchy 2012b: capital stock estimation of Syria 1965-2010)

Rising outlays on the military expenditure is considered as part of economic loss, since this is generally a reallocation of budget resources from public good, including education, health and welfare, to weapons and security. Moreover, as outflows on military expenditure and manufacturing are treated as off budget items they are not reflected in the calculation of GDP loss. As transparent data is no readily available, it is difficult to estimate the extent of the increase in the military expenditure account. But by utilising cross-country empirical evidence, it is estimated that off budget military expenditure in Syria increased annually during the conflict by an average of 2.2 per cent of GDP in 2011, 8.8 per cent in 2012, and 13.2 per cent in the first half of 2013.¹⁰ However, the domestically financed military expenditure of armed-groups has not been estimated (SCPR, 2013a).

¹⁰ Calculations made by using data from Collier and Hoeffler, 2002b. In 2012 and 2013-Q1 intensive battle frontiers in Aleppo, Rural Damascus, Idlib, Der Ezzor, Al-Raqqqa and Homs continued

Thus, based on the foregoing analysis, the armed-conflict in Syria generated a total estimated economic loss of USD 103.1 billion by 2013-Q2, which is equivalent to 174 per cent of the GDP of 2010 in constant prices. (Table 3) The loss of GDP is 47 per cent of the total loss, damage to capital stock accounted for 48 per cent, while reallocation to increased military expenditure accounted for five per cent of total economic loss.

Table 3: Total economic losses in millions of USD (at current prices)

	2011	2012	2013 Q1	2013 Q2	Total
GDP loss	6,460	23,543	8,173	9,725	47,900
Capital stock damaged	5,144	22,711	14,589	7,196	49,640
Increase in military expenditure	951	3,246	602	728	5,526
Total economic losses	12,555	49,499	23,363	17,648	103,065

Source: SCPR estimations 2013.

Consequently, the prolongation of armed-conflict during the first half of 2013 continued the rapacious destruction of the country's national wealth, obliterating previously accumulated investments and the productive achievement of the past. Future economic recovery will require immense resources and the development of efficient new institutions if the Syrian economy is to be effectively rebuilt.

Unprecedented Fiscal Deficit and Public Debt

By its very nature, the armed-conflict poses paradoxical and incongruous fiscal challenges to the government which includes grappling with the difficulties imposed by sanctions, while at the same time struggling to contain the massive humanitarian needs resulting from continuous military operations that have ruined habitat, businesses and infrastructure.

Table 4: Revenue, expenditure and government budget deficit (in % of GDP), 2010-2013-Q2*

	Preliminary	Projected	Projected	Projected	Projected
	2010	2011	2012	2013 Q1	2013 Q2
Revenue	23.0	17.5	9.4	7.9	5.4
Oil-related proceeds	7.1	5.0	2.8	2.0	1.6
Non-oil tax revenue	9.5	8.5	4.9	4.9	3.0
Non-oil non-tax revenue	6.4	4.0	1.7	1.1	0.8
Expenditure	25.2	26.5	29.0	32.0	39.1
Current expenditure	16.4	19.6	24.9	27.5	33.9
Wages and salaries	10.8	13.6	15.8	18.5	17.3
Goods and services	1.3	1.4	1.5	1.7	0.8
Interest payments	0.8	0.9	1.2	1.6	3.2
Subsidies and transfers	3.5	3.7	6.3	5.8	12.6
Development expenditure	8.8	6.9	4.1	4.5	5.2
Budget balance	-2.2	-9.0	-19.6	-24.1	-33.7

Source: ibid

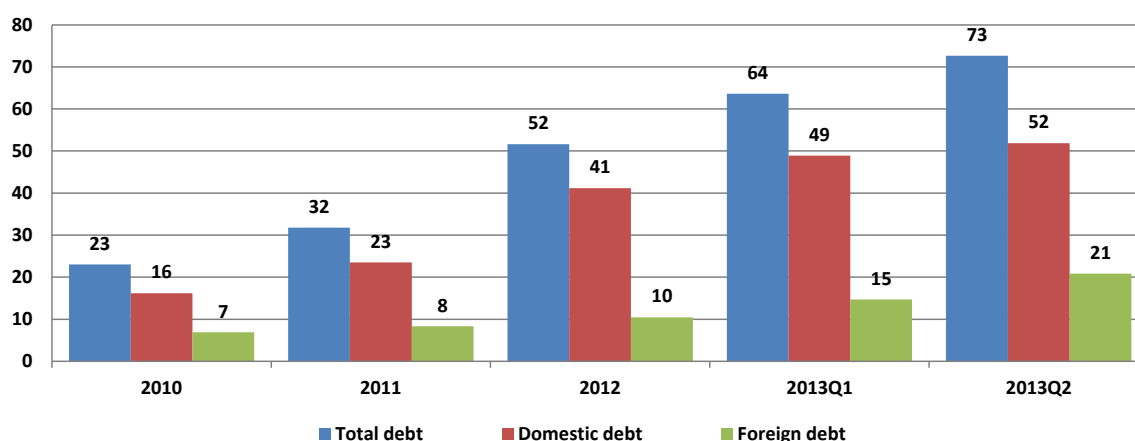
* GDP in 2013-Q1 and 2013-Q2 are seasonally adjusted

In 2013-Q2, the budget deficit continued to develop, growing 15-fold since 2010. At current prices, it increased to SYP 137 billion in 2013-Q1, rising to SYP 223 billion by 2013-Q2. This will grow more sharply in the third quarter due an increase in the public payroll as a result of public sector wage increases at the end of 2013-Q2. During this period, the deficit was equal to 24.1 per cent and 33.7 per cent of the seasonally adjusted GDP in current prices in the first and second quarters of 2013,

respectively. Despite government price hikes on several basic goods, the imposition of additional fees and selective increases in direct and indirect taxes, public revenue continued to shrink. Government revenues accounted for just 5.4 per cent of GDP in 2013-Q2 due to the sharp drop in oil-related revenue, non-oil taxes and revenues from state-owned enterprises. Public expenditure increased to 39.1 per cent of GDP in 2013-Q2, compared to 32 per cent in 2013-Q1. As a share of GDP, government subsidies and transfers, especially for fuel, basic food and electricity, have grown almost fourfold since 2010, with the current expenditure share doubling, while the public salary share has grown by 60 per cent. If off-budget subsidies are added, the deficit in 2013-Q2 is expected to increase to 52 per cent of GDP at current prices.

Thus, public expenditure remains a significant force mitigating total economic collapse. But this is a very brittle strategic instrument that is unlikely to be sufficiently malleable over the medium-term without massive subvention by the government's allies.¹¹ Since the beginning of 2013, Iran has provided Syria with USD 3.6 billion to purchase petroleum products and another USD 1 billion to buy other goods. Overall, as a percentage of GDP, public debt has increased substantially since 2010, as debt rose from 23 per cent of GDP to 73 per cent by 2013-Q2. (Figure 5) While domestic borrowing continues to be the main portion of the debt burden, the share of foreign debt is now growing substantially.

Figure 5: Total debt by domestic and foreign component (% of GDP), 2010-2013-Q2



Source: SCPR' estimations.

Sharp Deterioration in Exchange Rate

During 2013-Q2, the Central Bank of Syria continued its effort to mitigate the impact of the crisis on the **exchange rate** of the Syrian pound. Yet, this quarter witnessed substantial depreciation, with the Central Bank forced to devalue the official rate by 18.5 per cent in 2013-Q2 compared to 8.9 per cent in 2013-Q1. This has led to an overall depreciation of the official exchange rate by 115 per cent between March 2011 and June 2013. During this period there has been increased speculation against exchange rate variation.

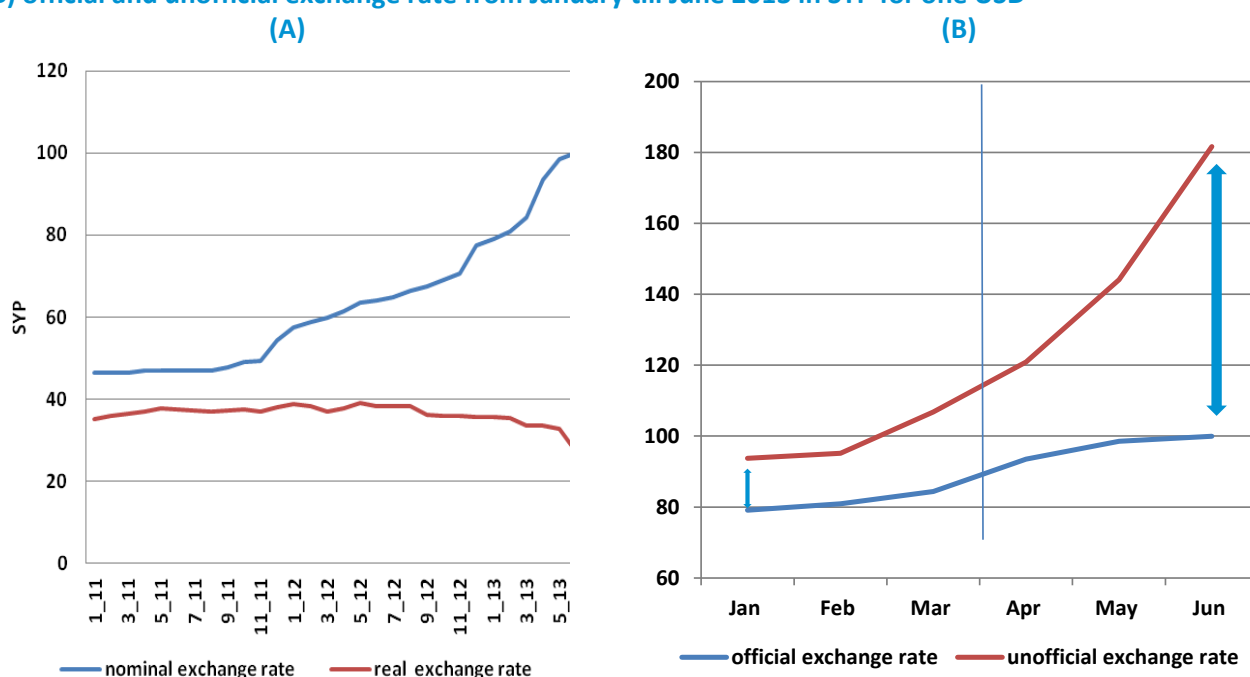
Theoretically, depreciation should contribute to increasing the competitiveness of exports and particularly the non-oil goods. However, the decrease in the value of the Syrian pound was accompanied with a relatively stagnant real exchange rate, which even appreciated during the

¹¹ Moreover, analysts expect the uncertainty of the crisis to worsen the management of the public budget, with deteriorating transparency, efficiency and equity reducing monitoring and accountability and fiscal management giving way to *ad hoc* decision-making.

second quarter to negatively affect non-oil exports that had already deteriorated due to sanctions and conflict-related damage. (Figure 6, A)

While the Central Bank’s regulated devaluation of the exchange rate was expected to limit speculation, the parallel market has expanded and the black market rate traded at an average of SYP 182 to one US dollar in June 2013 compared to an average in March of SYP 107. (Figure 6, B) This widening gap between the official and parallel market rates is expanding black market currency trading. Licensed exchange companies in Syria are allowed to deal with foreign currencies in rates that are close to the black market rate, e.g. the official exchange rate of SYP per one US dollar during 2013-Q2 was on average 67 per cent of the black market rate, whereas the average exchange rate of licensed companies during the same period was about 80 per cent. Such gaps are increasing speculation and illegal currency activity.

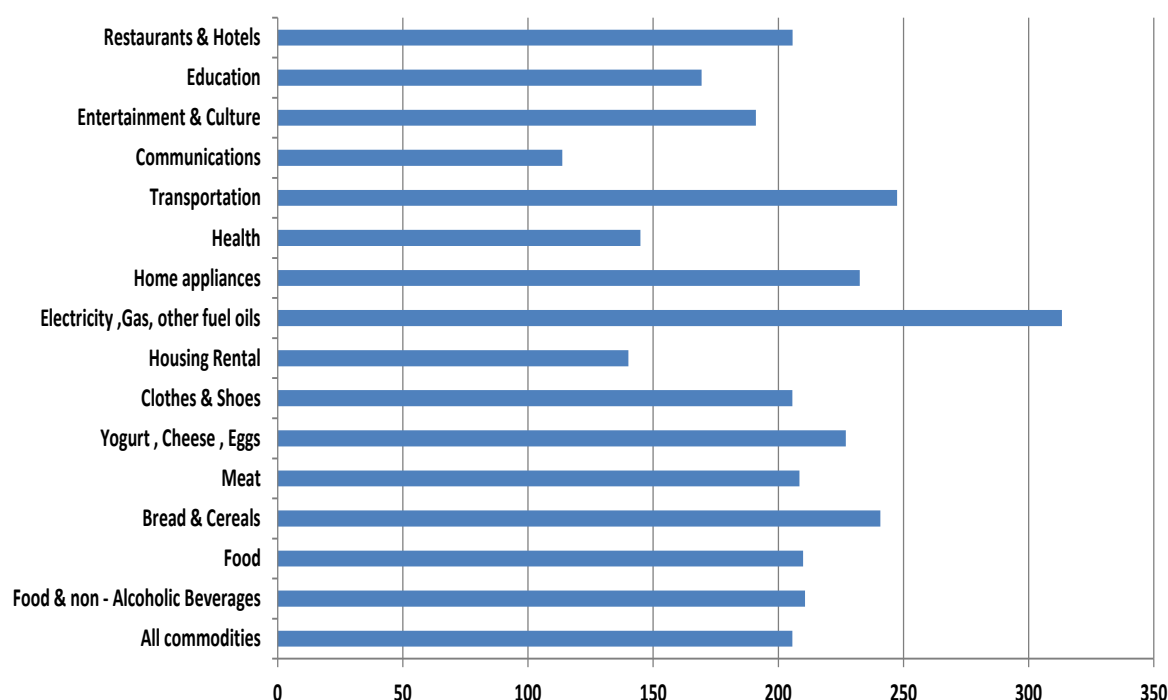
Figure 6: (A) Nominal and Real Exchange Rate from March 2011 to June 2013 in SYP for one USD, (B) official and unofficial exchange rate from January till June 2013 in SYP for one USD



Source: Central Bank of Syria and SCPR calculations

Based on SCPR estimations, the **consumer price index** (CPI) is expected to increase three-fold by the end of 2013-Q2 compared to the start of the conflict in March 2011. The estimation shows that the CPI is projected to increase 45.8 per cent during 2013-Q2 compared to the 2013-Q1. There are many factors pushing up the cost of prices to consumers, but they are all largely the outcome of the armed-conflict. Scarcity and insecurity are major determinants of rising prices that have been affected by the collapse of domestic production resulting from the flight of capital, business closure, shedding of jobs, looting and destruction. The scarcity of basic commodities in some regions due to the contraction of internal trade due to insecurity, hijacking and destruction of haulage vehicles has also contributed to the problem, as have lack of raw materials, equipment and strategic assets due to sanctions. In 2013-Q2, devaluation of the Syrian pound increased the prices of most goods, with fuel increasing by 70 per cent and cooking gas by 150 per cent during the quarter. Prices have also risen due to increased fees and direct and indirect taxes imposed by the government as it tries to bridge the budget deficit.

Figure 6: Inflation of main categories (March 2011 to March 2013)



Source: Central Bureau of Statistics and authors' calculations

*Official CPI used till March 2013, from April to June 2013 CPI is based on SCPR projections.

SCPR estimates indicate significant acceleration of prices in 2013-Q2, beyond the period from 2011-Q1 and 2013-Q1, when electricity and gas prices rose by 213 per cent. (Figure 6) During this period, prices nearly doubled for food, clothes and shoes, restaurants and hotels. The cost of vital services had also increased with education and health costs up by 69 per cent and 45 per cent, respectively. While all consumers are affected by these trends, most at risk are poor and vulnerable households whose expenditures are primarily devoted to food and basic goods.

Vanishing Job Opportunities

The armed-conflict has distorted the **labour market** in which almost half of the workforce is now unemployed. In many communities and regions across the country, there was partial and large-scale shutdown of economic activities which resulted massive job loss, with 2.33 million job opportunities disappearing. With fewer and fewer jobs available, there has been an enormous growth in informal economic activity and street-market microentrepreneurship as people seek basic ways to provide for themselves and their families. In some border areas and conflict zones, people now live precariously amidst the breakdown of the rule of law and the absence of law and order. Among such normative chaos economies of violence are common and insidious, with dark markets creating criminal and illegal employment in smuggling, extortion and racketeering, kidnapping, human trafficking, theft and looting. Such activities are often associated with criminal gangs, local extended family networks, tribal groups and armed militias. While far from economically prevalent, such groups are a powerful threatening force within the communities in which they live and operate.

Other forces of labour market distortion are the migration of skilled workers, the flight of capital and crisis in the educational system which is dissolving human capital. Moreover, as the crisis extends, remaining private sector activity is turning towards lower unskilled, labour-intensive activities with lower remuneration that contributes only marginally to improving the accumulation of human and financial capital.

Table 5: Impact of the crisis on the labour market (in thousands)

Employment Status	Continuing scenario				Crisis scenario			
	2011	2012	2013 - Q1	2013 - Q2	2011	2012	2013 - Q1	2013 - Q2
<i>Employed</i>	5,227	5,390	5,365	5,483	4,949	3,432	3,018	3,148
<i>Unemployed</i>	588	634	712	648	865	2,587	3,060	2,983
<i>Out of LF</i>	7,594	7,857	7,926	7,996	7,594	7,862	7,926	7,996
<i>Total Active Population</i>	13,409	13,881	14,003	14,127	13,409	13,881	14,003	14,127
<i>Unemployment Rate</i>	10.1%	10.5%	11.7%	10.6%	14.9%	43.0%	50.3%	48.6%

Source: SCPR estimations based on LFS (2006 – 2011), CBS

The 2011 labour force survey conducted by the Central Bureau of Statistics (CBS) showed that the employment rate decreased from 39 per cent in 2010 to 36.1 per cent in 2011, while the unemployment rate increased from 8.6 per cent in 2010 to 14.9 per cent in 2011. Taking this as a baseline, in order to assess the impact of the crisis on the labour market in 2012, 2013-Q1 and 2013-Q2, this study applies a counterfactual analysis similar to the one applied to the of estimate economic growth/decline. By comparing between "continuing" and "crisis" scenarios, the results show that the labour market lost 1.96 million job opportunities in 2012, increasing to 2.35 million by 2013-Q1, while decreasing to 2.33 million in 2013-Q2 mainly as a result of low-remuneration seasonal agricultural employment. However, during this period jobs continued to be shed in the non-agrarian sectors. This trend is reflected in unemployment ratios, with the unemployment rate rising from 43.0 per cent in 2012, to 50.3 per cent in 2013-Q1, while falling back to 48.6 per cent in 2013-Q2. (Table 5)

Based on the 2010 dependency ratio of 4.13 persons for each employed persons, the loss of 2.33 million job opportunities by the end of 2013-Q2 will have significant impact on the welfare of 9.64 million persons. While rebuilding the Syrian economy and getting such people back to work at the end of the crisis will require major investment of over USD 100 billion just to cover the economic losses incurred throughout the armed-conflict until now. However, international organisations could do much more with their humanitarian aid and interventions to support the livelihood and self-sufficiency of communities by public works activities for livelihood projects, job creation, microfinance, repair and maintenance of damaged habitat and community infrastructure. Much of this could be done through participatory methods to ensure the welfare and survival of people within the communities in which they live. There is not need for such interventions to wait for post-crisis solutions. They can be started now, since in addition to safeguarding people's welfare, they will foster and recreate a sense of social and community solidarity and belonging that have been undermined by the conflict. Moreover, appropriate early interventions can lay the foundation to build accountable, efficient and just peace-building institutions necessary for the post-conflict era.

II. Social Impact of the Crisis

The first quarterly report (SCPR, 2013b) showed the dramatic impact of the crisis by assessing social indicators related to education, health, human development index, poverty, demographic change and social cohesion. This report further analyses the impact of the conflict on these indicators, highlighting dramatic deterioration during 2013-Q2. While the humanitarian situation had already

reached catastrophic levels, the continuation of the crisis will continue to deepen this disastrous state of affairs with the looming collapse of the education and health systems, massive growth in the number of poor people, together with chronic social fragmentation and polarization within communities and society. Until Syrians are able to establish the mechanisms needed to create a credible peace-process, in cooperation with regional and international actors to end hostilities, this disaster will continue to develop in ways inimical to the interest and welfare of all people in the region. Already substantial loss of sovereignty, combined with social, economic and geographic fragmentation within Syria is an indication of significant state failure.

Forced Population Redistribution

The ongoing armed-conflict has brought about significant changes in demographic indicators. The **population growth rate** is estimated to have declined by 5.5 per cent in 2013-Q1 compared to the population at the end of 2012, as refugee flight increased significantly in this period. There was a further reduction of 0.7 per cent in 2013-Q2 compared to 2013-Q1. Thus, since the beginning of the crisis, the total population in Syria has been hollowed out by about 8.4 per cent compared to 2010, and by 13.8 per cent comparing projected population in 2013-Q2 according to this situation (in the "continuing scenario") if the conflict had not emerged.

By the end of June 2013, the total number of Syrian refugees in neighbouring countries reached 1.74 million people. The total number of Syrian refugees increased by 34 per cent compared to 2013-Q1. Lebanon hosted the highest number, increasing from 31.5 per cent of the total refugee population in 2013-Q1 to 33.8 per cent in 2013-Q2. While Jordan followed Lebanon as the next most important host of Syrian refugees, its share of the growing refugees population fell from 31.5 per cent in 2013-Q1 to 28.8 per cent in 2013-Q2. By 2013-Q2, Turkey hosted 23.1 percent of Syrian refugees, while Iraq accounted for 9.2 per cent, with the share of each country remaining fairly constant as the refugee population increased. (UNHCR 2013) The specific sociological characteristics of the Syrian refugee population indicate that 75 per cent of them are women and children, with almost half of them under 18 years old.

The volume of voluntary migrants was projected at 1.37 million persons in 2013-Q2, but this now slowing down as it grew by just three per cent on 2013-Q1.¹² The slowdown is linked to the decreasing number of people who have the financial resources needed to follow this path, combined with the increasing difficulty of finding employment in other countries.

However, the most dramatic demographic change is the rapid growth in the numbers of internally displaced people (IDPs), who accounted for 22.43 per cent of the population in 2013-Q2. Such people have been forced to move from their neighbourhoods, from place-to-place in search of security and a safe haven from the armed-conflict. Many households have moved multiple times to escape from danger or find shelter. According to the Ministry of Local Administration (MoLA), 4.8 million persons were IDPs by 2013-Q2, increasing by 22.4 per cent on 2013-Q1. Some 3.5 per cent of IDPs are sheltering in 867 government shelters. (MoLA, 2013) The two most significant concentrations of IDPs are in Aleppo (26 per cent) and rural Damascus (15.9 per cent), but IDPs are to be found wherever the conflict is intense or where there has been significant destruction of habitat and enterprise, including Deir Ezzor, Idlib, Homs, Hama and Dera'a.

By 2013-Q2, from the Palestine refugee population of 525,000 living in Syria, it was estimated that 400,000 required humanitarian assistance. More than 235,000 Palestine refugees were internally displaced within Syria, with over 200,000 were displaced within Damascus, while others were displaced in Aleppo, Lattakia, Homs, Hama and Dera'a. Many still remain in their original

¹² The authors estimated migration based upon the following assumptions: First, the loss of jobs in 2011, 2012 and the first half of 2013 had the same structure as the employment status in 2010; second, the highest decile in terms of the expenditure of workers who lost their jobs (13.98 per cent) had migrated; and, third, assuming a dependency ratio of 4:1, or four persons to one job.

communities which are at the centre of the conflict, where they face increasing hardship. Additionally, some 63,000 Palestine refugees from Syria requested humanitarian assistance in Lebanon, where UNRWA provides services to 45,000, while another 8,000 receive assistance in Jordan. (UNRWA July 2013)

Education: A Silent Disaster

The continuation of the armed-conflict through intensified violence, military operations, blockades and insecurity, combined with mass displacement and population movement across borders is having a catastrophic impact on the educational process and the educational system. The conflict has resulted in the widespread destruction of educational facilities and infrastructure, while educating children in an environment of pervasive violence and insecurity is unlikely to produce optimal educational outcomes. In July 2013, the Ministry of Education announced that 2,994 schools were partially or totally damaged and a further 683 schools were used to shelter IDPs. The vast majority of affected schools are located in the conflict zones of Aleppo, Idlib, Dera'a, and rural Damascus. In addition to schools, other educational infrastructure and assets have been damaged or destroyed, including warehouses and school buses. Moreover, increasing military operations and mushrooming violence in 2013-Q2 led to the cessation of regular schooling in some areas of Al-Raqqa, Aleppo, Deir Ezzor, Homs, and rural Damascus.

One of the key indicators of the mounting educational crisis is the burgeoning national **dropout rate**, which increased in the 2011/2012 school calendar from an estimated 31.7 per cent to 46.2 per cent in 2013-Q1, reaching 49 per cent in 2013-Q2.¹³ Thus, by the end of the 2012/2013 school calendar, it is projected that more than half of all school children will no longer attend school. Due to the regionalised nature of the conflict, the dropout rate varies substantially between governorates. The highest dropout rates are in Aleppo and Al Raqqa, where it is estimated that 94 per cent of children are not attending school, while the lowest rates are in Sweyda and Latakia where the dropout rate is estimated at just one per cent and 10 per cent, respectively. If this trend persists, an educational fissure will result in significant educational gaps and underdevelopment among different regions of the country that could harden existing cleavages, inequities and inequalities in the future.

But even in relatively safe areas, the quality of education is under stress due to overcrowded classrooms that is increasing with enrolment of IDP children. In some areas of rural Damascus schools are operating at more than double their normal capacity. Such pressure has led to the introduction of half-day schooling in 3,089 schools that will continue until the end of the current school year. The quality of education is also impacted by irregular teacher attendance and the stress of teaching in a traumatic war-torn environment. Moreover, there is a climate of fear among teachers who are often threatened and present vulnerable targets for opposition and government forces. According to the MoE, 222 teachers have been killed, while an increasing number have been injured, kidnapped or arrested. Female teachers face particular risk in schools from gender-based violence and assault, while parents are more likely to keep girl students from school for the same reason. More generally, teachers are also among the throng of fleeing refugees.

The situation of higher education facilities and infrastructure has been less affected than schools, as universities and institutions of higher education are located in the major urban centres. But enrolment and student attendance is down, while attendance fluctuates according to the security situation. Many graduate and post-graduate students have postponed their studies. While the higher education workforce, including professors, are subject to similar pressures affecting the school system, with low attendance, threats of violence, kidnapping, arrest, displacement and flight. All of which reduces the capacity and output of the higher education system and disrupts its processes, with fewer students graduating or attending higher education during this period.

¹³ These estimations are based on MoE in addition to SCPR calculations

Syria's future economic capacity, like that of all developing economies, is highly dependent upon the quality of its human capital and educational assets. The loss of security, the fragile economic situation, the hollowing out of employment and the displacement of the population is rapidly depreciating these valuable resources. SCPR has measured lost human capital as a factor related to lost years of schooling. Based on calculating each year of schooling as a factor of GDP, each year of schooling is valued of USD 680 per student.¹⁴ Taking into account the 2013-Q2 dropout rate of 49 per cent, this resulted in a human capital loss of USD 0.42 billion during the quarter, which increased the aggregate total human capital loss since the beginning of the crisis to USD 2.3 billion.¹⁵ Moreover, based on the counter-factual method, it is estimated that there was a 3.6 per cent reduction in the mean of "years of schooling" since 2011, which will have a significant impact on the quality of human capital, and, thus, on future economic growth, employment and productivity.

Shredded Health System

The armed-conflict has sundered the national health system through damage to medical facilities, destruction of healthcare infrastructure, flight of healthcare professionals, death and injury of medical staff and the collapse of the local pharmaceutical industry. It has also impaired the national healthcare profile due to the vast increase in the number of fatalities and injuries and disabilities in need of treatment, while challenging the capacity of the system to cope. Consequently, the public health system in many regions of Syria is in a state of collapse, creating enormous burdens on existing facilities, while private and civil society facilities have significant capacity limitations. By 2013-Q2, the Ministry of Health data showed that some 57 of the 91 public hospitals across the country were damaged, with 37 of them (41 per cent) out of service. But the impact of the conflict varies across the different geographic regions, for instance, by 2013-Q2 Al Raqqa governorate lost all its main public health facilities. (MoH, 2013) Moreover, health practitioners estimate that 70 per cent of private and public hospitals in the Aleppo governorate are out of service. In addition, the public ambulance service has also been severely constrained and is now unable to provide life-saving services in many regions.

The infrastructure of primary health care (PMC) has been seriously affected by the conflict. By 2013-Q2, some 593 PMC centres across the country had been affected with 61 per cent (or 359 centres) out of service, i.e. double the number in first quarter of this year. Another 34 per cent (or 203 centres) were unsafe and five per cent (or 31 centres) were damaged. The greatest numbers of affected centres were in Aleppo and Deir Ezzor governorates, where respectively 162 and 90 centres were affected. The lack of PHC facilities is impacting the health of the most vulnerable: with an alarming drop in vaccination coverage of children; reduced access of women to reproductive and prenatal services and reduction in the numbers of attended deliveries; insecurity is preventing many chronically ill people accessing medical care and medications provided through PHC centres, while many centres no longer have access to medicines for chronically ill outpatients. Increasing poverty and deteriorating living conditions are also taking a toll on people's health, particularly the health of children. The early warning alert response system ((EWARS) of WHO and MoH have identified increasing incidence of acute diarrhoea in children under five years of age in 2013-Q2, while there is an increasing incidence of measles as WHO and MoH endeavour to complete the measles vaccination campaign. (EWARS, Weekly Bulletin) Although influenza-like illnesses (ILI) and acute diarrhoea are the main reported illness, there were rising cases of brucellosis, bloody diarrhoea, meningitis and leishmaniasis registered.

¹⁴ The SCPR methodology determined the value of each school-year was calculated as an average between 2006 and 2010 by dividing the GDP at current prices over the total number of years of schooling. The result produced a value of USD 680 per year of schooling, which was then applied to the drop out rate.

¹⁵ The previous quarterly report applied the annual estimated student/year growth rate on the first quarter 2013. This report uses the quarterly estimated student/year growth rate on the first and second quarter of 2013.

The scarcity of medicines is exacerbated by the collapse of the local pharmaceutical industry in Aleppo and Homs. It is estimated that 90 per cent of the local pharmaceutical manufacturing industry has been disrupted and is no longer able to deliver supplies to the market. This situation is compounded by difficulties in transportation and storage and by international sanctions. Many secondary and tertiary health care facilities, both public and private, suffer from an inability to maintain a stable supply of anaesthesia, serums, and blood testing materials. In addition, many such facilities are targeted by military operations, violence against staff, looting of equipment and supplies.

The human capital of the health system was directly affected by the conflict, with the MoH reporting that by 2013-Q2 the average population/doctor is estimated at 4,041 people to one doctor, compared to 661 persons per doctor in 2010. The MoH indicated that there was a steady increase in assaults against medical care workers with 67 killed, 103 Injured and 21 kidnapped. (MoH, 2013) These numbers are significantly underestimated since they do not take into account those medical care professionals working in conflict zones or those that have been arrested. The changing doctor/population ratio is an indication that many doctors and other healthcare professionals have fled the country. The loss of such valuable human capital has serious implications for maintaining the quality of health care.

The dreadful death toll is one of the most tragic aspects of the armed-conflict, for which all parties to the conflict are responsible. The fragility of the healthcare system and inaccessibility to life-saving medical care and services added to this terrible levy, since many deaths and much suffering could have been avoided with appropriate care and access to trauma facilities. The first half of this year was a period of intensified conflict that saw a dramatic increase in the numbers of people killed. According to the United Nations, the number of fatalities soared by 67 percent between the end of 2012 and 2013-Q2. Increasing from 60,000 by 2012, to 80,000 in 2013-Q1 and to 100,000 by 2013-Q2. However, this body-count belies the full extent of the tragedy, as a greater number of individuals and families have been traumatised by injury sustained in the conflict, which has affected approximately 400,000 maimed, wounded and injured people.¹⁶ Thus, by 2013-Q2, over two per cent of the Syrian population were killed, maimed or injured in the conflict. Among the maimed and wounded are an increasing number of persons with life-long, life-changing disabilities and chronic conditions that were worsened by the lack of access to proper trauma and surgical care, shortage of medical staff and life-saving medicines. The impact of such injuries will continue to haunt these individuals and their families for the rest of their lives and significantly impair their future life chances.

Moreover, the psychological trauma of living with constant fear and violence has affected millions of Syrians, with whole communities living under conditions of continued and constant trauma, while women and girls face the risk of gender-based violence and violations.

More than Half the Syrian Population are Poor

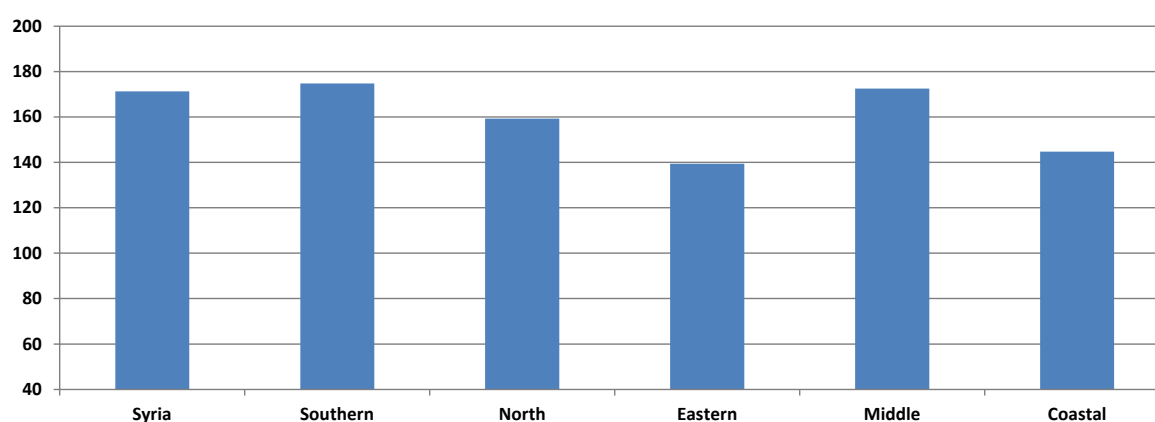
During 2013-Q2, money metric **poverty** continued to widen across the country as the result of rising prices for goods and services, job loss and increasing unemployment, growing numbers of IDPs who lost their properties and assets, and weakened economic activity. The first quarterly report indicated a notable increase in the percentage of Syrian population living under the upper poverty line from one third before the crisis to around half at the end of March 2013.¹⁷

¹⁶ Based on the assumption the number of mortalities to wounded persons is estimated on a conservative ratio of 1:4.

¹⁷ The *upper* money-metric poverty line reflects the actual consumption expenditure of the poor that satisfied a reasonable level of basic needs, while the *lower* poverty line calculates the essential food and non-food requirements of the poor.

Using the counterfactual methodology and a micro-simulation technique, a number of assumptions were made to determine the poverty rate. Assuming no change in expenditure distribution and based upon the estimated decrease in real household expenditure until the end of 2013-Q2 compared to the level prior to the crisis, it is estimated that an additional 7.9 million individuals became poor until 2013-Q2, with about 4.4 million persons becoming extremely poor and unable to fully meet their basic needs. During this period, the overall poverty level increased by 171 per cent compared to the poverty level in 2010. Between 2013-Q1 and 2013-Q2 poverty increased by 3.9 per cent. Consequently, by 2013-Q2 more than half of the Syrian population had descended into poverty. While the extent of poverty has increased across all regions of Syria, the rate of increase is more pronounced in the southern and middle regions, including the major population centres of Damascus, Homs and Hama. The rate of growth in poverty is also pronounced in the northern area of Aleppo and Idlib, while the rate of growth is slowest in the eastern and coastal areas. (Figure 7)

Figure 7: Percentage increase in overall poverty 2013-Q2 compare to 2010 across regions



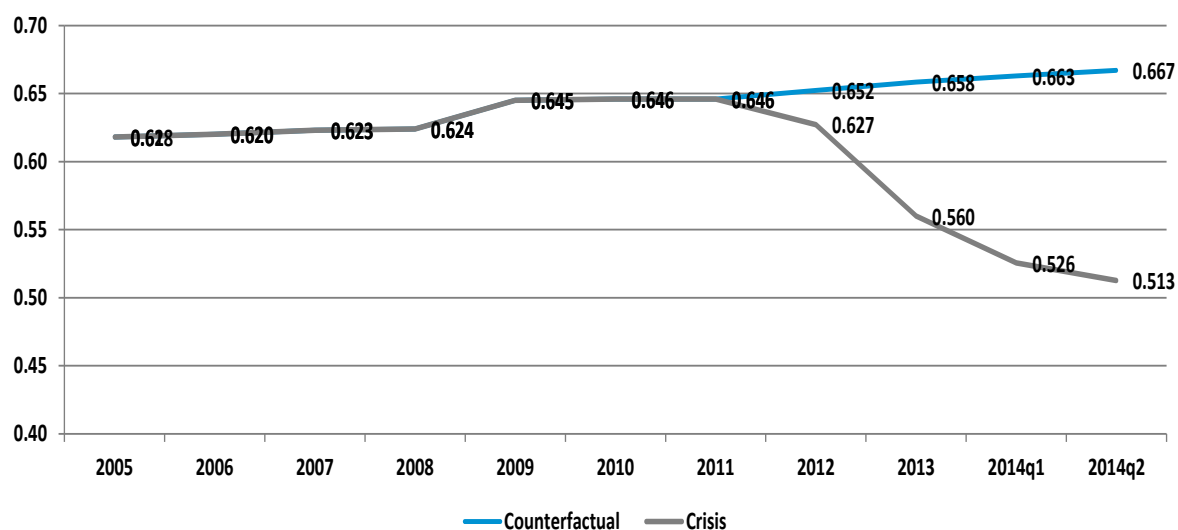
Source: SCPR calculations

Money-metric poverty has been accompanied by a sharp increase in multidimensional poverty, which includes people's living standards and access to health and education. This is also growing due to increasing violence, looting and military operations that have destroyed private properties and public infrastructure. Thus, living conditions have worsened amongst the vast majority of the Syrian population, who face increasing challenges accessing health and education services and decent living conditions. Moreover, the increasing numbers of IDPs and refugees will exacerbate poverty, with the majority suffering from lack of appropriate health and education, and many living in substandard living conditions.

Reversing Human Development

To assess the impact of the crisis on the development situation until 2013-Q2, the report applies the same counterfactual analysis of the **Human Development Index** (HDI) applied in the first quarterly report. This report modifies the earlier HDI record for Syria until 2011 based on the latest UNDP update. (UNDP, 2013) It also applies the accumulated impact of the dropout rate on the expected years of schooling, basing 2010 as a reference year. Similar to the first quarterly report, the GDP per capita was already estimated for "continuing" and "crisis" scenarios, and the life expectancy as a proxy for health is calculated based on the gain of life expectancy by reducing it for violent deaths (Ferguson et al, 2010) using the Eastern Mediterranean as reference for Syria. The results showed that estimated life expectancy in Syria fell back by 9.9 years in 2013-Q2 compared to 2010 and by two years compared to the first quarter of 2013.

Figure 8: HDI for Syria, 2005-2014



Sources: HDR 2011 and SCPR estimations (for HDI of 2012 – 2014)

The impact of ongoing crisis on the three components of HDI resulted in rolling back Syria’s human development record. The results show that in the "continuing scenario" the Syrian HDI would increase from 0.646 in 2011 to 0.667 by 2014-Q2, putting it in the “medium human development” group.¹⁸ (Figure 8) However, the "crisis scenario" indicated a projected drop in Syria’s HDI from 0.646 in 2011 to 0.526 in 2014-Q1 and to 0.513 in 2014-Q2 putting it among the “low human development” group. Consequently, the HDI of Syria is estimated to have lost 20.6 per cent of its HDI value compared to 2011, and 23.1 per cent from its potential until mid-2014.

This estimated HDI contraction indicates that Syria has lost decades of human development achievements since the beginning of the conflict. Approximately 51 per cent of the HDI difference between the “continuing” and “crisis” scenarios in 2013-Q2 is due to the deterioration in education, particularly the rapid increase in the dropout rate. Thus, rebuilding, rehabilitating and opening schools would have a notable positive impact on HDI. However, the longer a child’s dropout period, the more challenging it will be for them to return to school. Income contraction contributed to 22 per cent of total HDI loss, while health impacts contributed 27 per cent.

¹⁸ HDI 2014 measures human development indicators in 2013.

Concluding Summary

The armed-conflict in Syria is also a war on development. Its prosecution is obliterating physical, financial, human and social capital, with economic devastation and ruin as destructive to the country as warfare. This has resulted in a sectorial restructuring of the economy toward dependency on agriculture, which is subject to significant annual and seasonal fluctuation and low-productivity. This distorted pathway is promoted by de-industrialisation and rising informality, degrading infrastructure and services, weakening human capital, a low import-export regime and an insecure business environment. Moreover, rising economies of violence and rapaciousness are increasing Syria's economic fragility.

The report shows that total economic loss until 2013-Q2 reached USD 103.1 billion, which is equivalent to 147 per cent of Syria's GDP in 2010 in constant prices. GDP loss, estimated at USD 47.9 billion over the period, accounts for 47 per cent of the total economic loss. In 2013-Q2, GDP contracted by 39.6 per cent, compared to the parallel quarter of 2012. The loss of capital stock, due to damage and destruction, is assessed at USD 49.6 billion, accounting 48 per cent of the total economic loss, while additional military expenditures of USD 5.5 billion account for five per cent of this loss.

Total public debt is now at 73 per cent of GDP, while the CPI is projected to increase by a further 45.8 per cent in 2013-Q2 compared to the 2013-Q1. The total loss of job opportunities decreased slightly in the quarter due to short-term employment during the harvest season, although 2.33 million people were unemployed by 2013-Q2. This seasonal spike in agricultural employment brought the unemployment rate down from 50.3 percent in 2013-Q1 to 48.6 per cent in 2013-Q2, although there is every likelihood that this will rise again in the third quarter.

As a broad measure of social well-being, the Syrian HDI is estimated to have lost 20.6 per cent of its value compared to 2011, and 23.1 per cent from its potential in 2013-Q2. More than half of all Syrians are now poor and the population has been hollowed out by over eight per cent by 2013-Q2 due to the flight of 1.74 million refugees and the departure of another 1.37 million "voluntary" migrants. Moreover, the population pattern and settled communities have been disrupted by the displacement of 4.8 million people from their homes and neighbourhoods by violence, homelessness, fear and intimidation. The educational system is in a state of deep crisis with damage and destruction to 2,994 schools and other educational infrastructure, while the national dropout rate reached 49 per cent. Moreover, half of all school children are out of school and the quality of education is negatively affected by the absence and irregular attendance of teachers and the difficulties of teaching under traumatic psychological conditions.

In the health sector, by 2013-Q2, 57 hospitals were damaged, with 37 of them are out of services, with Al Raqqa losing all its main public health facilities. During this crisis, the doctor/population ratio fell from 1:661 in 2010 to 1:4,041 by 2013-Q2. At the end of this period, there were 100,000 conflict-related deaths, while another approximately 400,000 persons were injured during the conflict, many with life-long and life-changing disabilities and chronic conditions that will affect their future capabilities and burden the healthcare system. Disease and illness are on the rise, particularly among the vulnerable groups including women, children, IDPs, and refugees.

The armed-conflict has created a humanitarian calamity of startling proportions. Today, Syrians fleeing the conflict are the most rapidly growing refugee population worldwide. If local, regional and international actors are to act in the interests of the Syrian people then they must exert their full political and diplomatic leverage to end hostilities and create a credible negotiation process that can stop the dissolution of the country and bring hope to its entire people.

Methodology

These series of quarterly reports take into account seasonality to estimate the quarterly GDP in Syria, especially for the agriculture sector which fluctuates across the seasons. The seasonality of agriculture production in 2011 is used as a benchmark to weigh growth rates of the sector in the first and second quarters of 2013. The estimation of GDP real growth/contraction in 2012 and 2013 depends on a production approach to estimate the supply-side dynamic of different economic sectors. This approach faces three main challenges in Syria: first, National Accounts usually releases the annual output of different economic activities of a specific year in the second half of the following year; second, official statistics have never published a quarterly GDP; and, third, there is a lack of surveys and secondary data due to the difficulty of conducting such work under the prevailing circumstances.

The dynamics of crisis have increased the need of various stakeholders for updated estimation of the economic situation. In order to overcome the above challenges, the report used quantities of production of key goods and services as proxies to the growth/contraction of GDP by sectors. For instance, changes in the production of main crops are used as a proxy to estimate the growth of the agriculture sector, and changes of daily oil and gas production are used to estimate the growth/contraction in the mining sector. In several cases, econometric models were applied to estimate GDP. The team consulted sector experts to diagnose the main challenges for each sector and to check the reliability of GDP estimations. Annual growth rates of GDP in the first and second quarters in 2013 are now compared with GDP in the parallel quarters in 2012, unlike the previous report where the economic growth rates of the first quarter were calculated compared to the total GDP of 2012.

Moreover, the report used the financial programming, which is an integrated system of macroeconomic accounts that includes national accounts, balance of payments and fiscal and monetary accounts, which provide the information needed to assess the impact of the crisis on the Syrian economy and the options for policy adjustment. The tool also provides a framework for policy analysis and indicates key consistency checks. SCPR integrated capital stock calculations, money-metric poverty at the household level and labour market performance, with standard financial programming. The financial programming tool has been chosen over microeconomic time-series and CGE models as these do not efficiently account for dramatic changes in economic variables. The financial programming model more efficiently reflects the current situation of the Syria economy in a time of dramatic change.

In terms of the GDP components from the demand-side; the public consumption and investment elements are based on estimations of the public budget components, private investment is estimated by the changes in private output in real sectors, and exports and imports are estimated using the gravity model for Syria and checked with the quantities of imports and exports through ports. (Mehchy et al, 2013)

The estimation of capital stock and depreciation rates are based on the 2013 SCPR report (SCPR, 2013a). The total loss of capital stock is calculated on the loss of residential buildings (using updated estimations) and the loss in non-residential buildings, while equipments and tools are estimated using the output capital ratio. This loss consists of three main components: reduction in net investment due to the crisis; idle capital reflecting the cessation in production process; and, partial and total damages of the capital stock. The last component is not included in GDP loss and is thus added to overall economic loss.

The GDP in current prices is computed using the projections of GDP deflator which depends primarily on the Consumer Prices Index (CPI). Until March 2013, the CPI was produced by the Central Bureau of Statistics (CBS), and until June it was projected by SCPR team using the elasticity between CPI and nominal exchange rates in the first quarter of 2013. Within the framework of the financial programming model linking real sector, public budget, external sector, monetary sector, employment and poverty, the report estimated the number of lost jobs and unemployment rates until second quarter of 2013, using the elasticity of GDP with respect to employment.

The report projected public budget items depending on government decisions related to public expenditure in terms of wages, subsidies, and public investment, while the revenue projections depended on oil production, tax collection, and State Owned Enterprises performance. Consequently, the report computed the fiscal deficit which reflected an increase in public debt.

In terms of poverty, using national lower and upper poverty lines (based on poverty research from HIES surveys in 2009) and using elasticities of the real per capita expenditure to the poverty headcount ratios, the report estimated poverty rates in Syria until June 2013.

It should be noted that the estimation of losses in GDP, capital stock, employment, and poverty indices are the difference between the crisis scenario (real indices) and the continuing scenario, which include indices as if the crisis did not happened. That helps in estimating direct and opportunity loss of the conflict.

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