



Contents

Forewo	ord	1
1.	Lebanon's Economy and Political System	3
1.1	Lebanon's Economy	3
1.2	The Labour Market	6
1.2.1	Overview of Lebanon's Labour Market	6
1.2.2	The Youth Labour Market	8
1.2.3	The KOF Youth Labour Market Index (KOF YLMI) for Lebanon	9
1.3	Lebanon's Political System	10
1.3.1	Overview of Lebanon's Political System	10
1.3.2	Politics and Goals of the Education System	11
2.	Formal System of Education	13
2.1	Pre-Primary Education	15
2.2	Primary and Lower Secondary Education	15
2.3	Upper Secondary Education	17
2.4	Postsecondary and Higher Education	18
2.5	Continuing Education (Adult Education)	19
2.6	Teacher Education	20
3.	The System of Vocational and Professional Education and Training	21
3.1	Technical and Vocational Education and Training (TVET)	21
3.2	Professional Education and Training (PET; Post-Secondary Level)	24
3.3	Regulatory and Institutional Framework of the TVET System	24
3.3.1	Central Elements of TVET Legislation	24
3.3.2	Key Actors	25
3.4	Educational Finance of the VPET System	27
3.5	Curriculum Development	27
3.5.1	Curriculum Design Phase	28
3.5.2	Curriculum Application Phase	28
3.5.3	Curriculum Feedback Phase	29
3.6	Supplying Personnel for the VPET System (Teacher Education)	30
4.	Major Reforms in the Past and Challenges for the Future	31
4.1	Major Reforms	31
4.2	Major Challenges	31
5.	References	33

List of Abbreviations

AUB American University of Beirut

BAU Beirut Arab University

BP Baccalauréat Professionnel

BT Baccalauréat Technique

CAP Certificat d'Aptitude Professionnelle

CERD Center for Educational Research and Development

CCE Center for Continuing Education

CCPE Center for Continuing and Professional Education

DS Dual System

DGHE Directorate General of Higher Education

DGTVE Directorate General of Vocational and Technical Education

EMIS Education Management Information System

GCI Global Competitiveness Index

GDP Gross Domestic Product

GII Global Innovation Index

GIZ German International Cooperation

DGVTE Directorate General for Vocational and Technical Education

ILO International Labour Organization

IPNET Institut Pédagogique National de l'Enseignement Technique

ISCED International Standard Classification of Education

KOF Swiss Economic Institute

LCRP Lebanon Crisis Response Plan

LET Licence d'Enseignement Technique

LT Licence Technique

MBST Market-Based Skills Training

MEHE Ministry of Education and Higher Education

MoA Ministry of Agriculture

MoL Ministry of Labour

MoSA Ministry of Social Affairs

NCVT National Centre of Vocational Training

NEO National Employment Office

NGO Non-Governmental Organization

OECD Organisation for Economic Co-operation and Development

PET Professional Education and Training

SAT Stochastic Assessment Test

UNESCO United Nations Educational, Scientific and Cultural Organization

UNICEF United Nations Children's Fund

UNRWA United Nations Relief and Works Agency

VET Vocational Education and Training

VPET Vocational Professional Education and Training

VPETA Vocational and Professional Education and Training Act

WEF World Economic Forum

YLMI Youth Labour Market Index

List of Figures

Figure 1: Employment by sector (as % of total employment), 1991-20196
Figure 2: YLMI Scoreboard: Lebanon versus the OECD average, 20179
Figure 3: YLMI Lebanon versus OECD average, 2000-201710
Figure 4: Lebanon's formal education system13
Figure 5: Curriculum Value Chain27
List of Tables
Table 1: Key Statistics and Information on Lebanon3
Table 2: Value added and employment by sector, 20185
Table 3: Labour force participation rate and unemployment rate by age in 20187
Table 4: Gross Enrolment Ration (GER) of the education levels by gender, 201514
Table 5: Net Enrolment Ration (NER) of the education levels by gender14
Table 6: Lessons taught per subject in a school week at the primary education level16
Table 7: Distribution VPET students with respect to the different education levels, year
2015/2016:
Table 8: Distribution of teaching at school and practical learning in the dual system29

Foreword

The increasing competitiveness of the world economy as well as the high youth unemployment rates after the worldwide economic crises have put pressure on countries to upgrade the skills of their workforces. Consequently, vocational education and training (VET) has received growing attention in recent years, especially amongst policy-makers. For example, the European Commission defined common objectives and an action plan for the development of VET systems in European countries in the Bruges Communiqué on Enhanced European Cooperation in Vocational Education and Training for 2011-2020 (European Commission, 2010). In addition, a growing number of US states and other industrialized, transition, and developing countries (for example Hong Kong, Singapore, Chile, Costa Rica, Benin and Nepal) are interested in either implementing VET systems or making their VET system more labour-market oriented.

The appealing outcome of the VET system is that it improves the transition of young people into the labour market by simultaneously providing work experience, remuneration and formal education degrees at the secondary education level. If the VET system is optimally designed, VET providers are in constant dialogue with the demand-side of the labour market, i.e. the companies. This close relationship guarantees that the learned skills are in demand on the labour market. Besides practical skills, VET systems also foster soft-skills such as emotional intelligence, reliability, accuracy, precision, and responsibility, which are important attributes for success in the labour market. Depending on the design and permeability of the education system, VET may also provide access to tertiary level education (according to the ISCED classification): either general education at the tertiary A level or professional education and training (PET) at the tertiary B level. PET provides occupation-specific qualifications that prepare students for highly technical and managerial positions. VET and PET systems are often referred to together as "vocational and professional education training (VPET)" systems.

Few countries have elaborate and efficient VPET systems. Among these is the Swiss VPET system, which is an example of an education system that successfully matches market supply and demand. The Swiss VPET system efficiently introduces adolescents to the labour market, as shown by Switzerland's 2007-2017 average youth unemployment rate of 8.1 percent compared to 14.8 percent for the OECD average (OECD, 2017).

Though not many countries have VPET systems that are comparable to Switzerland's in terms of quality, efficiency and permeability, many have education pathways that involve some kind of practical or school-based vocational education. The purpose of the CES Education System Factbook Series¹ is to provide information about the education systems of countries across the world, with a special focus on vocational and professional education and training.

In the CES Factbook Education Systems: Lebanon, we describe Lebanon's vocational system and dis-cuss the characteristics that are crucial to the functioning of the system. Essential components comprise the regulatory framework and the governance of the VPET system, the involved actors, and their com-petencies and duties. The Factbook also provides information regarding the financing of the system and describes the process of curriculum development and the involved actors.

¹ From 2013 to 2019, the Factbooks were produced within the framework of the Education Systems research division at the KOF Swiss Economic Institute. From 2020 they will be produced by the Chair of Education Systems (CES) group.

The Factbook is structured as follows: First, we provide an overview of Lebanon's economy, labour market, and political system. The second part is dedicated to the description of the formal education system. The third section explains Lebanon's vocational education system. The last section offers a perspective on Lebanon's recent education reforms and challenges to be faced in the future.

Suggested citation:

CES Chair of Education Systems (2020). CES Factbook Education Systems: Lebanon. CES Factbook Education Systems, ed. 1. ETH Zurich.

The Factbook Education Systems series have to be regarded as work in progress. The authors do not claim completeness of the information which has been collected carefully and in all conscience. Any suggestions for improvement are highly welcome!

Contact: factbook@ethz.ch

Lebanon's Economy and Political System

Table 1: Key Statistics and Information on Lebanon

Category	Outcome
Population	6'173'000 (2019 estimate)
Area	10'452 km ²
Location	Middle East
Capital City	Beirut
Government	Unitary parliamentary confessionalist constitutional republic
Official Language	Arabic ²
National Currency	Lebanese Pound (LBP), USD/LBP=0.0007 as of 26.10.2020

Source: Own table based on Encyclopaedia Britannica (2020) and Reuters (2020)

One of the main purposes of an education system is to provide the future workforce with the skills needed in the labour market. The particularities of a country's economy and labour market are important factors determining the current and future demand for skills. Therefore, these are briefly described in the first part of this Factbook. In addition, this part provides an overview of Lebanon's political system with an emphasis on the description of the education politics.

1.1 Lebanon's Economy

Lebanon's economy has traditionally been open and dynamic. After gaining independence from France in 1943, the Lebanese economy developed into a role model for the Arab world with its decentralized and deregulated nature (Corm, 1998, p. 116). Because of its well-developed infrastructure, very low

² A law determines French usage per article 11 of the constitution. In 2004 about 20% of the population spoke French in their daily lives (Encyclopaedia Britannica, 2020).

levels of external debts and one of the strongest currencies worldwide, Lebanon drew the attention of foreign investors prior to the start of the civil war in 1975 (Corm, 1998, p. 117).

During the civil war, which lasted from 1975 until 1990, the Lebanese economy suffered heavily. It is estimated that the GDP per capita in 1990 declined to one third of the pre-war level (Dibeh, 2005, p. 1). Besides the loss of GDP per capita, the destruction of physical assets was immense as it is figured that approximately USD 25bn of physical assets were destroyed (Gressani & Page, 1999, p. 2).

With the Taef agreement, which marked the formal end of the civil war, a phase of relative economic stability was initiated (Dibeh, 2005, p. 1). The Lebanese government enacted a massive reconstruction plan under the name "Horizon 2000" (Dibeh, 2005, p. 1). This plan consisted of an infrastructure reconstruction programme for the period from 1993 until 2007 (Dibeh, 2005, p. 1). In addition to the infrastructure plan, the government set to combat inflation as a major target and ultimately pegged the Lebanese pound (LBP) to the US dollar (USD) in 1997 (Ghalayini, 2011). These measures led to a phase of high economic growth (World Bank, 2020).

Since the end of the civil war in 1990, the GDP per capita rose from USD 1'012 to USD 7'784 in 2019 (World Bank, 2020). This development is in-line with the general GDP increase in the Middle-East and North Africa during this period of time (World Bank, 2020). On average, growth rates were relatively high but volatile. After some double-digit annual growth rates after the end of the civil war, a period of slower growth started 1997 until 2006 with rates between -0.526% and 6.679% (World Bank, 2020). Another phase of high GDP growth started in 2007 until 2010 with rates in the range from 8% to 10% (World Bank, 2020). This upward trend ended abruptly with the war in neighbouring country Syria. The regional turmoil caused a severe slowdown of business activity and especially affected Lebanon's main growth drivers real estate, construction and tourism (World Bank, 2015, p. 11).

After years of stagnation, the GDP per capita even declined in 2019. This development was mainly caused by a shift in monetary policy which included a halt of subsidised lending that subsequently led to a massive decline in construction activity (World Bank, 2019, p. 1). Monetary policy had to be adjusted due to rising macroeconomic risks (World Bank, 2019, p. 1). Nowadays, Lebanon is one of the highest indebted countries in the world with a debt-to-GDP ratio of more than 150% (World Bank, 2020, p. 2). These problems further escalated in 2020 in the wake of deepening currency problems, political unrest and the COVID-19 health crisis.

Table 2: Value added and employment by sector, 2018

Sector	Lebanon: value added (%)	EU-28: value added (%)	Lebanon: employment (%)	EU-28: em- ployment (%)
Primary sector	3.3	1.6	13.8	4.2
Agriculture, hunting and forestry, fishing	3.3	1.6	n/a	4.2
Secondary sector	16.3	24.6	22.68	21.7
Manufacturing, mining and quarrying, other industrial activities	12.0	19.1	n/a	15.3
Of which: manufacturing	9.1	16.0	n/a	13.8
Construction	4.3	5.5	n/a	6.4
Tertiary sector	80.5	73.8	63.52	74.1
Wholesale and retail trade, repairs; hotels and restaurants; transport; information and communication	24.0	24.2	n/a	27.8
Financial intermediation; real estate, renting & business activities	n/a	27.6	n/a	16.7
Public administration, defence, education, health, other service activities	n/a	22.0	n/a	29.6

Source: own table based on World Bank (2020), UNSD (2020) and Eurostat (2018a; 2018b).

Table 2 displays the share of value added and employment by sector in % of total in 2018, both for Lebanon and the EU-28 countries. It is striking that the tertiary sector in Lebanon contributes more, in relative terms, to the total value added compared to EU-28 countries. This can be attributed to the fact that Lebanon has a relatively large financial sector. Furthermore, the secondary sector makes a much smaller contribution to the total value added than in the EU-28 countries. This is mainly due to an underdeveloped manufacturing industry whose growth has lagged behind for years, with the policy focus set on the service industry (World Bank, 2016). Consequently, Lebanon is heavily reliant on imports.

Figure 1: Employment by sector (as % of total employment), 1991-2019

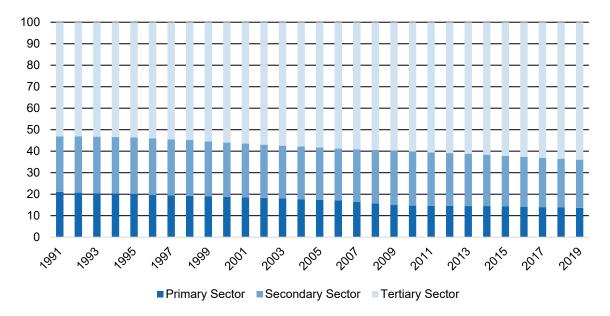


Figure 1 shows the evolution of employment by sector in Lebanon for the period 1991 until 2019. The relative distribution of employment between the three sectors remained relatively stable. The only significant change was the relative shift from the primary to the tertiary sector. This development can be seen in most countries all over the world. The share of employment in the secondary remained stable.

In the **Global Competiveness Index** of the WEF, Lebanon ranks 88th of 141 countries with 56.3 points in 2019. Compared to the previous year, the country fell from rank 80th and lost 1.4 points. The country has a relatively human capital good score (WEF, 2019, p. 342). According to the index, the country's major problems are macroeconomic stability due to high debt levels and low levels of checks and balances (WEF, 2019, p. 343).

In the **Global Innovation Index**, Lebanon is ranked 88th out of the total 129 inspected countries (Dutta, Lanvin, & Wunsch-Vincent, 2019, p. 282). When compared to other states in the region, it ranks 16 out of 19 countries examined in Northern Africa and Western Asia. Lebanon does relatively well in terms of creative output (Dutta, Lanvin, & Wunsch-Vincent, 2019, p. 282). In contrast, Lebanon's performance is among the worst in the area of institutions, where the political and economic environment in particular were assessed negatively (Dutta, Lanvin, & Wunsch-Vincent, 2019, p. 282).

1.2 The Labour Market

In the first part of this section, we describe the general situation of Lebanon's labour market. In the second part, we focus on the youth labour market in particular.

1.2.1 Overview of Lebanon's Labour Market

As there is currently no labour market information system in place, data on the labour market is scarce and mostly incomplete (ETF, 2015, p. 13). The labour market in Lebanon is characterised by its male dominance. Female participation in the labour market is among the lowest in the world (ETF, 2015, p. 13). Nevertheless, female employees that do participate in the labour market have, on average, a relatively high level of education (ETF, 2015, p. 13).

The cornerstone of employment protection in Lebanon is the Labour Law of 1946. Among other things, it regulates working hours, holiday entitlement, wages and the right to join trade unions (Takieddine & Abou Ali, 2020). The employment protection applies by law exclusively to Lebanese employees. This has a significant impact on the numerous foreign workers, some of whom, according to Human Rights Watch, work under exploitative conditions (Human Rights Watch, 2020).

The current labour law is considered an obstacle by both workers and employers. It is striking that, according to a World Bank survey, around 95% of the companies would employ more people if the laws were different (ETF, 2015, p. 13). Unsurprisingly, the Lebanese labour market is described as rather inflexible.

In 1946, when the Lebanese Labour Law came into effect, the Lebanese government introduced a minimum wage, which saw its most recent adjustment in 2012. Since then, the minimum wage has been fixed at 675'000 Lebanese pounds, which corresponds to 450 dollars when the official exchange rate is used (Khater, 2018, p. 7). This means that the relative value of the minimum wage has declined to around 110 dollars, which represents a significant loss of purchasing power.

Trade unions representing workers' interests are active in the country. They have relatively little power, however, as only a small proportion of the labour force is represented. The largest trade union is the General Confederation of Lebanese Workers with around 60'000 members, which is approximately 2.5% of all workers (ETF, 2015, p. 12).

Since the beginning of the regional turmoil, it has become increasingly difficult to do business in Lebanon. This is shown by the Doing Business Report 2020, in which Lebanon has slipped from 103rd to 143rd place over the last decade (World Bank, 2020, p. 4). The country also performs below average in a regional comparison and is behind countries like Jordan, Egypt, Turkey and Saudi Arabia (World Bank, 2020, p. 6).

Table 3: Labour force participation rate and unemployment rate by age in 2018

			Unemployment rat (in %)	е
Age group	Lebanon	OECD average	Lebanon	OECD average
Total (15–64 years)	50.7	72.8	6.2	5.6
Youth (15–24 years)	29.7	48.1	15.4	11.7
Adults (25–64 years)	n/a	78.4	n/a	4.7

Source: own table based on World Bank (2020) and OECD (2020).

Table 3 gives an overview of the Lebanese labour force participation and unemployment rates in 2019. Lebanon has – compared to the OECD average - a lower participation rate in all age groups for which data is available. The low participation rate of the youth is particularly striking. This rate is almost half as high as the OECD average. This is due to the fact that the economy has not been able to create enough jobs recently, which has disproportionately affected the youth and women the most (ETF, 2015, p. 7).

1.2.2 The Youth Labour Market

The KOF Swiss Economic Institute developed the KOF Youth Labour Market Index (KOF YLMI) to compare how adolescents participate in the labour market across countries (Renold et al., 2014). The foundation for this index is the critique that a single indicator, such as the unemployment rate, does not suffice to describe the youth labour market adequately nor provide enough information for a comprehensive cross-country analysis. To increase the amount of information analysed and to foster a multi-dimensional approach, the KOF YLMI consists of twelve labour market indicators 3 that are grouped into four categories.

The first category describes the *activity state* of youth (ages 15-24 years old) in the labour market. Adolescents are classified according to whether they are employed, in education, or neither (unemployed, discouraged and neither in employment nor in education or training; see info box to the right). The category *working conditions* and the corresponding indicators reflect the type and quality of jobs the working youth have. The *education* category accounts for the share of adolescents in education and training and for the relevance of their skills on the labour market. The fourth category, *transition smoothness*, connects the other three categories by capturing the school-to-work transition phase of the youth. Each country ob-

Dimensions of the KOF YLMI

Activity state

- Unemployment rate
- Relaxed unemployment rate⁴
- Neither in employment nor in education or training rate (NEET rate)

Working conditions

Rate of adolescents:

- with a temporary contract
- in involuntary part-time work
- in jobs with atypical working hours
- in work at risk of poverty⁵
- vulnerable unemployment rate⁶

Education

- Rate of adolescents in formal education and training
- Skills mismatch rate

Transition smoothness

- Relative unemployment ratio⁷
- Long-term unemployment rate8

Source: Renold et al. (2014).

tains a score of 1 to 7 on each particular indicator of the KOF YLMI. A higher score reflects a more favourable situation regarding the youth labour market and a more efficient integration of the youth into the labour market.

One of the major drawbacks of the KOF YLMI is data availability. When data is lacking, a category can occasionally be based on a single indicator or must be omitted entirely when not a single indicator for that category exists in a given country. A lack of indicators can make comparisons across certain countries or groups of countries problematic and sometimes even impossible.

³ The data for these indicators are collected from different international institutions and cover up to 178 countries for the time period between 2005 and 2016.

⁴ It is calculated as the number of unemployed and discouraged workers as a share of the entire labour force. Discouraged workers have given up the search for work (not actively seeking), although they have nor job and are currently available for work (also: "involuntary inactive").

⁵ Those who cannot make a decent living out their earnings, being at risk of poverty as a percentage of the working population.

⁶ Share of the employed population working on their own account or those working in their family business and thus contributing to the entire family income. Both are less likely to have formal work arrangements and are therefore less protected by labour laws and more exposed to economic risk.

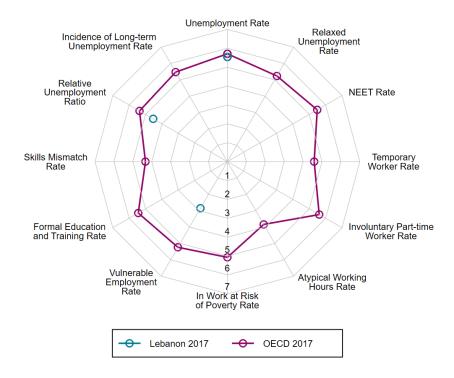
⁷ Is defined as the youth unemployment rate (15-24 years) as a share of the adult unemployment rate (25+). If the youth cohort is affected in the same way than the adult group with respect to unemployment, then the relative unemployment ratio will be equal to one. If the youth are relatively more affected, then the ratio will be bigger than one.

⁸ Those unemployed for more than one year (52 weeks) in the total number of unemployed (according to the ILO definition).

1.2.3 The KOF Youth Labour Market Index (KOF YLMI) for Lebanon

Figure 2 shows the different dimensions of the KOF YLMI for Lebanon as well as the OECD average for the year 2017 in a spider web.

Figure 2: YLMI Scoreboard: Lebanon versus the OECD average, 2017

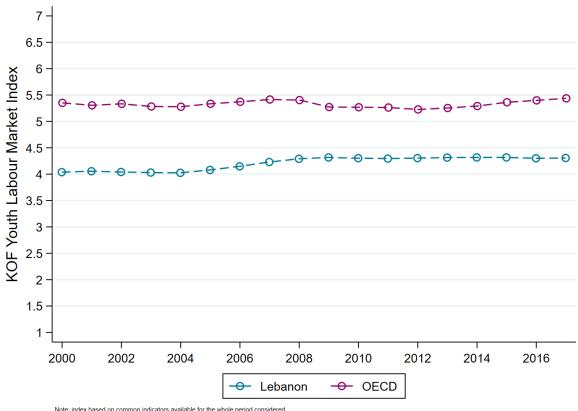


Source: Own figure based on: KOF Swiss Economic Institute (2020).

Since only three indicators of the YLMI are available for Lebanon, a holistic assessment of the youth labour market is difficult. With a score of 5.54, the unemployment rate is the highest available indicator and only slightly lower than the one of the OECD average (5.71). The other two indicators (Vulnerable Employment Rate and Relative Employment Ratio) are both below the OECD average. The vulnerable employment rate exhibits the least favourable score, which indicates that the Lebanese workers are less likely to have formal work arrangements and are therefore less protected by labour laws and more exposed to economic risk.

Figure 3 shows the evolution of the YLMI of Lebanon and the OECD average between 2000 and 2017.

Figure 3: YLMI Lebanon versus OECD average, 2000-2017



Hote. Index based on common indicators available for the whole period considered

Source: Own figure based on: KOF Swiss Economic Institute (2020).

As can be seen in figure 3, the trend of the aggregated KOF YLMI of Lebanon suggests that the youth labour market is in a more precarious state compared to the OECD average. In the year 2007, the gap somewhat tightened and from 2008, the Lebanese YLMI remained more or less constant. Since the improvement of the youth labour market situation in OECD countries from 2012 on, the gap has widened again.

1.3 Lebanon's Political System

Understanding the basics of a country's political system and getting to know the political goals with respect to its education system are crucial points for the understanding of the education system in a broader sense. In the first part, we explain Lebanon's political system in general. The politics and goals regarding the education system will be referred to in the second part.

1.3.1 Overview of Lebanon's Political System

Lebanon is a parliamentary republic. The President is elected every six years by Parliament for a single term of office. The constitution of 1924 divides power into three different branches: the executive, the legislative and the judicial branch (Lebanese Republic, 1926).

A Parliament consisting of 128 members elected directly by a national suffrage every four years represents the legislative branch (Lebanese Republic, 2017). The seats in the parliament are divided between Muslims and Christians which is defined in article 24 of the constitution (Lebanese Republic, 1926). The members of parliament appoint one of their own as the president of the parliament as well as the vice-

president, the bureau committee and specialized committees, whose role it is to deliberate on legislative projects and raise them to the general assembly to submit them to the vote (Lebanese Republic, 1926).

The executive power is headed by the President of the Republic, the Head of State and Supreme Commander of the Armed Forces (Lebanese Republic, 1926). The executive power is represented by the government headed by the President of the Republic as the number one authority and the guarantor of the Constitution (Lebanese Republic, 1926). The President, elected by the Chamber of Deputies for a non-renewable six-year term, appoints the Head of Government after binding parliamentary consultations (Lebanese Republic, 1926). The President of the Republic and the Council of Ministers together appoint the ministers and the President of the Republic then promulgates decrees for the formation of the Government (Lebanese Republic, 1926).

Lebanon has an independent judiciary with three types of courts: courts of first instance, courts of appeal and the Cassation Court (Library of Congress, 2020). While the Constitutional Council monitors the constitutionality of laws and the legality of the results of presidential and parliamentary elections (Lebanese Republic, 1926). In addition, the religious courts are formed to adjudicate on the civil status of each religious denomination especially in matters of inheritance, marriage and divorce (Library of Congress, 2020).

Religious freedom plays a central role in the constitution. This is necessary as the country is one of the most religiously diverse countries in the world with its 18 officially recognised religious groups. Among the recognized religions are 12 Christian groups, 4 Muslim groups, as well as Druze and Jewish groups (United States Department of State, 2017, p. 4). It is estimated that around 27% of the population are Sunnis and approximately the same amount Shias (Bugh, 2020). The rest of the Muslim community belongs to Alawites or Ismailis (Bugh, 2020). The largest Christian group is the Maronites which make up around 21% of the total population (Bugh, 2020). Other Christian communities include Greek Catholic with a share of around 5%, or Greek Orthodox with approximately 8% (Bugh, 2020). The rest is divided among smaller communities.

Widespread corruption is a major problem in the country and repeatedly causes political unrest. In 2019, mass protests against the economic problems and the rampant corruption of the ruling elite led to the resignation of the then existing government (BBC, 2020). This is also reflected in Transparency International's latest report on corruption, in which the country was ranked 137th out of 198 countries (Transparency International, 2020).

Like in the corruption index, Lebanon also fell back in the Economist's Democracy Index during the last decade. After the country reached a score of 5.82 in 2010, it declined to 4.63 in 2018 (Economist, 2019).

1.3.2 Politics and Goals of the Education System

The governance of the education system in Lebanon is highly centralised, which can be traced back to the French heritage of colonial rule (Vlaardingerbroek, Al-Hroub, & Saab, 2017, p. 256). The Ministry of Education and Higher Education, as the highest authority in the field of education, is responsible for shaping direction of the education system. Its responsibilities include the certification of teachers, curricula, the production of teaching materials and official examinations. The Ministry of Education and Higher Education has regional offices which assist the central authority in overseeing the system (ECR, 2020).

The Lebanese Association for Educational Studies published a national education strategy plan in 2006. This plan and the goals set are based on the fundamental principles set out in the constitution (LAES, 2006). The plan provides for four main principles, which are to be achieved through sub-objectives. The main principles include the following (LAES, 2006):

- Education available on the basis of equal opportunity

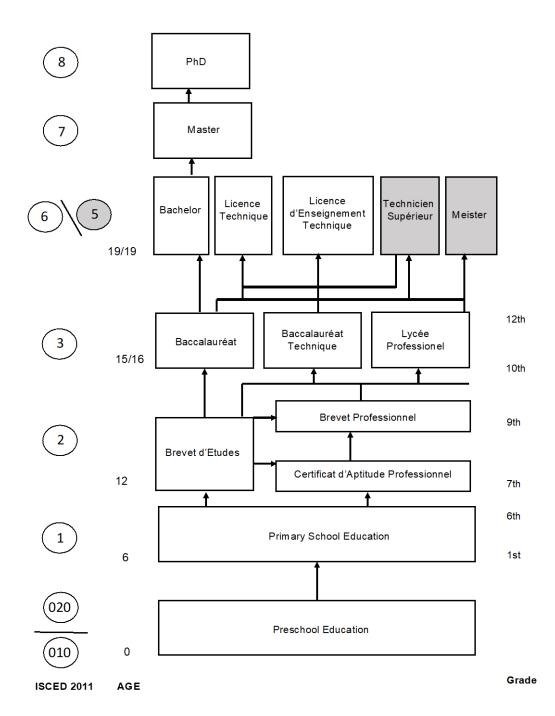
- Quality education that contributes to building the knowledge society
- Education that contributes to social integration
- Education that contributes to economic development

Since the start of the civil war in the neighbouring country of Syria in 2011, the Lebanese education system has been facing severe challenges. The main aspect is ensuring that all children and young people in Lebanon have access to schools. This problem became more and more acute due to the enormous number of refugees from Syria which overwhelmed the school system's capacity (MEHE, 2019, p. 1). In the so-called *Reaching All Children with Education Plan*, the Ministry of Education and Higher Education reiterated the above-mentioned principles of access provision and quality assurance in the Lebanese education system (MEHE, 2019, p. 1). To achieve these goals, the Ministry defined several measures for the timeframe 2014 until 2021. Among others, these measures include for example the provision of teacher-training, upgrade of school equipment or the enhancement of the monitoring system (MEHE, 2019).

2. Formal System of Education

The formal education system in Lebanon consists of five levels: pre-primary, primary, middle school (lower secondary), high school (upper secondary) and higher education. Compulsory education lasts for nine years between the age of six to 15 years (UNESCO-UNEVOC, 2019). Figure 2 shows a more detailed overview of the Lebanese education system with its various paths.

Figure 4: Lebanon's formal education system



Source: Own display based on Nuffic (2016) and UNESCO-UNEVOC (2019)

Table 4: Gross Enrolment Ration (GER) of the education levels by gender, 2015

Educational level	ISCED 2011	GER both sexes	GER male	GER female
Pre-primary Education	020	77.6%	79.9%	75.3%
Primary Education	1	92.4%	96.6%	88.3%
Lower Secondary education	2	67.6%	68.9%	66.3% (2013)
Upper Secondary Education	3	55.2%	54.4%	55.9%
Tertiary Education (2014)	5 – 8	42.8%	39.5%	45.6%

Source: own table based on Knoema (2020).

Table 5: Net Enrolment Ration (NER) of the education levels by gender

Educational level	ISCED 2011	GER both sexes	GER male	GER female
Pre-primary Education	020	74.8%	76.2%	72.9%
Primary Education	1	81.8%	84.7%	78.9%
Lower Secondary education	2	67.0%	67.4%	66.6%
Upper Secondary Education	3	57.3%	56.9%	57.7%
Tertiary Education (2014)	5 – 8	N/A	N/A	N/A

Source: own table based on Knoema (2020).

Table 4 shows the gross enrolment ratio (GER) ⁹ and table 5 the net enrolment ratio (NER) ¹⁰ of the respective education levels by gender. The NER quantifies the total number of students in the theoretical age group for a given education level enrolled at that level expressed as a percentage of the total population in that age group. The GER quantifies the number of students enrolled at a given education level— irrespective of their age— as a percentage of the official school-age population corresponding to the same level of education. For example, for the primary education level, the NER tells how many

⁹ The UNESCO Institute for Statistics (UIS) (2017) defines the gross enrolment ratio as the "number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education."

¹⁰ The UIS (2017) defines the net enrolment ratio as the "Total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group."

students in the typical primary school age are actually enrolled in primary school, while the GER sets the actual number of students in primary education—irrespective of their age—in relation to those who are in the official age to attend primary education¹¹. The GER and NER for female and male students is calculated accordingly, although only female and male students are taken into account for the computation in each case (Knoema, 2020).

In 2013, total expenditure of the Lebanese government on education was 2.43% of total GDP (8.6% of total government expenditure) (World Bank, 2020). The Ministry of Education and Higher Education (MEHE) is responsible for the administration and management of the formal education system at all levels. Moreover, cultural affairs that affect educational matters are administered by the Ministry of Culture, while sports and youth affairs are in the responsibility of the Ministry of Youth and Sports (UNESCO International Bureau of Education, 2011).

2.1 Pre-Primary Education

For children between birth and the age of four years, the ministries of Education, Health, and Social Affairs, municipalities as well as special international agencies help and advise parents so that the children can develop their physical, cognitive, psychological, and social abilities (State University, 2020). Pre-primary education (kindergarten) is entered by children at the age of four and lasts for two years until they reach the age of six years. Pre-primary education is not mandatory. The children spend at least four hours a day at kindergarten, for five days a week (UNESCO International Bureau of Education, 2011).

The main purpose of the pre-primary education in Lebanon is to gradually prepare the children for primary school. Thus, the children should be accustomed to move from the environment and daily routines at home to that of the school. This includes encouraging spontaneous acquisition of skills and the development of the children's spirit of cooperation and discipline. Furthermore, the activities in the kindergarten should help the children to have confidence in themselves and to express their feelings in order to become autonomous personalities (UNESCO International Bureau of Education, 2011).

In table 4, we see that in 2015, the GER at the pre-primary level was 77.6%. When this is broken down by gender, we obtain a GER for boys of 79.9% and 75.3% for girls, respectively. The NER of both sexes was 74.8% and 76.2% for boys and 72.9% for girls, respectively (see table 5) (Knoema, 2020).

2.2 Primary and Lower Secondary Education

At the age of six, children enter primary school which consists of two modules that each lasts three years (six years in total). It is the first phase of schooling that is mandatory for all Lebanese citizens. The contents at the primary and secondary level are taught in Arabic. However, French- and English lessons also start at the primary level (The Dutch Organisation for Internationalisation in Education, 2016).

¹¹ A gross enrollment ratio of 100 corresponds to a situation where each child in a given country is enrolled in the corresponding education level. A value above 100 could occur due to students who are older than the typical enrolment age for primary education (e.g. have to repeat grade, adult learners). A value below 100 implies that not everyone who is in the typical age for primary education is actually enrolled.

The objectives of primary school education mainly relate to basic education that is needed in society and at higher education levels. This includes language classes, the understanding of basic mathematical and scientific principles, knowledge of the social environment in Lebanon and practice of sports and artistic activities. Moreover, children should acquire basic communication skills so that they can effectively take part in the learning process. In addition, education at the primary level aims to stimulate the self-confidence, autonomy and cooperative work at school and in the society (UNESCO International Bureau of Education, 2011).

One lesson at primary school has a duration of 45 minutes and a typical day consists of six lessons (four and a half hours of schooling per day). Thus, a typical week of school consists of 30 lessons that in total sum up to 22.5 hours of schooling. An overview of the number of lessons per subject and week is given in table 6.

Table 6: Lessons taught per subject in a school week at the primary education level

	Grade					
Subject	1st	2nd	3rd	4th	5th	6th
Arabic	7	7	7	6	6	6
French or English	7	7	7	6	6	6
Civics, history and geography	3	3	3	3	3	3
Science	2	2	3	4	4	5
Math	5	5	5	5	5	5
Arts and diverse activities	4	4	3	4	4	3
Sports	2	2	2	2	2	2
Total lessons per week	30	30	30	30	30	30

Own table based on UNESCO International Bureau of Education (2011).

The curriculum prescribes to teach languages (Arabic, French or English) most often, followed by Math and Arts and diverse activities ¹² (UNESCO International Bureau of Education, 2011).

As shown in table 4, the GER of both sexes taken together was 92.4% at the primary level in 2015. As at the pre-primary level, the GER of boys (96.6%) at the primary education level was higher than the one of girls (88.3%). In 2015, the NER at the primary level was 81.8% (see table 5). When the GER is broke down by gender, we obtain a GER of boys of 84.7% and 78.9% for girls, respectively (Knoema, 2020).

¹² Among other things, diverse activities consist of music, handwriting, drawing and theatre

Primary school is concluded with an examination that leads to the basic school-leaving certificate (*brevet*). After primary education, pupils enter the lower secondary level (middle school) at an average age of twelve years. Middle school and primary education together form what is known as basic education (UNESCO International Bureau of Education, 2011). Education at the lower secondary level has a duration of three years and is mandatory. There are two pathways children can opt for: the general and the vocational. The general pathway is completed with the *Brevet d'Etudes* (The Dutch Organisation for Internationalisation in Education, 2016). The education at this level aims to provide a necessary and sufficient minimum degree of knowledge, form cultivated and civilized citizens and enable them to discover their individual abilities (UNESCO International Bureau of Education, 2011).

A peculiarity of the Lebanese education system is that children can already enter vocational education after completing primary education. This vocational track has the intention to prepare students for practical professions. At the lower secondary education level, the vocational pathway consists of two stages. The first one lasts two years and is completed with the certificate *Certificat d'Aptitude Professionelle*. Subsequently, an advanced vocational programme can be entered which is concluded with the award of the *Brevet Professionelle*. This programme also has a duration of two years. Note that both programmes can also be entered after the completion of the *Brevet d'Etudes* (The Dutch Organisation for Internationalisation in Education, 2016).

As can be seen in table 4, the GER at the lower secondary level was 67.6% in 2015¹³. The latest data on the NER is only available for the year 2011 (see table 5). At that time, the NER equalled 67.0% for both sexes taken together. As at the pre-primary and primary education level, the NER of male pupils (67.4%) was higher compared to the one of women (66.6%). However, the difference of 0.8 percentage points appears to be negligible (UNESCO International Bureau of Education, 2011).

2.3 Upper Secondary Education

Education at the upper secondary level is not compulsory. The admission is granted for holders of the *Brevet d'Etudes* (The Dutch Organisation for Internationalisation in Education, 2016). Students that have chosen the general pathway at the lower secondary level can continue the general pathway at the upper secondary level which is concluded with the *Baccalauréat* (sometimes called *Bac* II, *Baccalauréat Libanais* or *Baccalauréat Général*). The admission rules require the students to have completed the *Brevet d'Etudes*. The programme lasts for three years and is mainly intended to prepare the students for tertiary education. While the curriculum at the basic education levels is mainly fixed, pupils at the (general) upper secondary education level can opt for different focuses. The curriculum of the first year is the same for all students. In the second year, students can choose between an arts- or a science subject cluster. In the final year, there are even three subject clusters that can be selected: arts and literature, sociology and economics, and life sciences and general sciences (The Dutch Organisation for Internationalisation in Education, 2016). Each school week consists of 35 lessons of 45 minutes each (UNESCO International Bureau of Education, 2011).

Besides the general pathway, youths that have completed the *Brevet Professionnel* (BP) at the lower secondary level can continue with the vocational path at the upper secondary and enter the track that confers the *Lycée Professionnel*. After completion of this programme, students can enter the job market or continue their professional education with the so-called Meister programmes. As an alternative track after middle school, students can choose the pathway of technical upper secondary education that is completed with the *Baccalauréat Technique* (BT). The main difference between these two options is

¹³ It would be interesting to know the reason for the drop in the GER from primary- to lower secondary education. At the time of writing, there was no available information on this issue.

that after completion of the BT, students can continue with the technical education at the tertiary level. Furthermore, the programmes that are completed with the *Lycée Professionnel* are organized as dual systems that focus on on-the-job training (in chapter 3.1, we elaborate on this in more detail). Note that holders of the *Brevet d'Etudes* also have the opportunity to switch from the general path at the lower secondary level to the technical path one level higher and do the *Baccalauréat Technique* (The Dutch Organisation for Internationalisation in Education, 2016).

As depicted in table 4 and 5, the GER at the upper secondary level was 55.2% in 2015. In contrast to the prior education levels, the GER for female students (55.9%) was slightly higher than the one of the male students (54.4%). The latest update of the NER was done in 2011 and equalled 57.5% (Knoema, 2020).

2.4 Postsecondary and Higher Education

The tertiary education system can be divided into an undergraduate- and a postgraduate level. At the undergraduate level, there is a university pathway and a pathway of post-secondary technical education. Education at the tertiary level has been influenced by various systems, in particular the French, Arabic and American systems. Some of the institutions offer a pure form of those systems, but most are a combination of them (The Dutch Organisation for Internationalisation in Education, 2016).

In order for an institution at the tertiary education level to be officially classified as a university, it must have at least three faculties. In addition to this condition, the institution in question must each have a faculty of humanities and a faculty of natural sciences. Besides universities, there are University Colleges and University Institutes that are required to have a minimum of one faculty. Moreover, they usually only issue bachelor's degrees, while Universities are authorized to issue all academic degrees from bachelors to doctorates (The Dutch Organisation for Internationalisation in Education, 2016). Private universities can be further classified into Catholic, Muslim, and other private institutions that are neither related to a religion nor to a political group (non-sectarian institutions). For instance, with 8'000 students and 800 faculty members, the American University of Beirut (AUB) is one of the most important private, non-sectarian institution in the whole Middle East area (American University of Beirut, 2020). Although the Lebanese University is the only public university in Lebanon, approximately 39% of all university students in Lebanon study there. The education provided at the Universities, University Colleges and University Institutes falls under the purview of the Directorate General of Higher Education which belongs to the Ministry of Education and Higher Education (The Dutch Organisation for Internationalisation in Education, 2016).

After having completed the general pathway at the upper secondary level, holders of the Baccalauréat can enter the university and work towards a Bachelor's/License at a theoretical age of 19. As mentioned, the Lebanese University is the only public university in the country. In principle, every holder of the Baccalauréat is admitted to the Lebanese University, although some faculties have introduced entrance examinations in order to achieve a certain enrolment quota (The Dutch Organisation for Internationalisation in Education, 2016). Moreover, most of the private institutions require additional criteria (besides the Baccalauréat) for the admission to their programmes. Some universities make use of selection mechanisms such as language proficiency tests and some of the American Universities require students to exceed a certain score-level in the Stochastic Assessment Test (SAT) (Al-Hroub, Saab, & Vlaardingerbroek, 2017). As in most other countries, the university pathway is organised in 3 cycles: Bachelor, Master and PhD. The first degree is the bachelor's (in French: licence) and lasts for three years. Some of the institutions use the ECTS system where a bachelor normally consists of 180 ECTS. However, the majority of the Lebanese university system has its own credit system which can be used to derive the nominal duration of the programme. In a year of full-time studying, students usually earn 33 credits. Thus, a three-year Bachelor's programme usually consists of 99 credits. However, there are

also bachelor's degrees that last more than three years. Among others, the Bachelor's programmes in dentistry, pharmacy and engineering have a duration of five years (The Dutch Organisation for Internationalisation in Education, 2016).

After the Bachelor's, students can continue their academic education by entering a Master's programme that lasts between one and two years. There is the possibility for students to choose between programmes with or without a final paper, which influences the time needed to complete the Master's. In line with the French education system, there are some institutions that provide different Master's programmes within a certain field: On the one hand, there is the *Master de Recherche* (research master) and on the other hand, the *Master Professionnel* which is a profession-oriented Master's programme. Holders of a Master's degree are eligible for PhD programmes that usually last between three and five years (The Dutch Organisation for Internationalisation in Education, 2016).

Besides the academic pathway at the tertiary level, Lebanon also has a PET system. Holders of the *Baccalauréat* or *technical Baccalauréat* can apply for a professional education programme at the short-cycle tertiary level (ISCED 5) that is completed with the Higher Technical Diploma (*Diplôme de Technicien Supérieur*) and lasts two to three years. Following this, students can continue their PET studies and enrol in programmes that are either completed with the Technical Diploma (*Licence Technique*) or with the Technical Education Diploma (*Licence d'Enseignement Technique*, LET) at the tertiary level (ISCED 6). The *Licence Technique* has a duration of one year, while the LET lasts for two years. However, the programme can also be entered by *Baccalauréat* (general and technical) holders immediately after the completion of the upper secondary education. In this case, the programme can be finished within four years (International Labour Organization, 2018).

The PET system is under the purview of the Directorate General for Vocational and Technical Education (DGVTE), which is part of the MEHE. PET programmes are offered at both public and private technical schools (The Dutch Organisation for Internationalisation in Education, 2016). Students that choose to continue their vocational education at the upper secondary education level can enrol in so-called Meister programmes that can be classified as lying within the post-secondary non-tertiary education level (ISCED 5) (UNESCO, 2018). Chapter 3.2 provides a more in-depth analysis of the VPET system.

As depicted in table 4, the GER at the tertiary education level was 42.8% in 2014. The gender breakdown shows that the GER of the female students (45.6%) was higher compared to the GER of male students (39.5%) (Knoema, 2020).

2.5 Continuing Education (Adult Education)

Most of the large institutions that provide education programmes at the tertiary level also offer continuing education programmes in Lebanon. The minimum requirement for most of these programmes is to have completed the upper secondary education level. For instance, the Center for Continuing and Professional Education (CCPE) of the Beirut Arab University (BAU) offers courses that aim to support the lifelong learning and training of professionals with various qualifications, regardless of their age (Beirut Arab University, 2017). Similarly, the Haigazian University provides programmes at their Center for Continuing Education (CCE) with the goal to provide high-quality educational opportunities for adults (Haigazian University, 2020).

2.6 Teacher Education

In Lebanon, teacher training lies are the responsibility of the Center for Educational Research and Development (CERD) and is conducted at teacher training colleges. The qualifications required to teach are dependent on the education level at which the teachers will carry out their profession. For primary school level, students must hold the Certificate of Teaching Ability (*Certificate d'Aptitude Pédagogique*) that is issued by the primary teaching training colleges. The program that is completed with the latter certificate lasts for three years. The minimal requirement to enter such a program is the *Brévet d'Etudes*. In order to be allowed to teach at the lower secondary level, students must be holders of the Baccalauréat and need to complete the *Certificate d'Aptitude Pédagogique*. This program for future teachers at the lower secondary level is provided by the Middle Teacher Training College and has a duration of two years. As at the primary and lower secondary level, aspiring teachers at the upper secondary level must be holders of the *Certificate d'Aptitude Pédagogique*, issued by the Pedagogique for the upper secondary level is received, the teachers-to-be must hold a bachelor's degree (UNESCO International Bureau of Education, 2011).

The curriculum of the teacher training programs consists of academic theory, technological subjects, learning techniques and practical applications, environmental and health education and general concepts and issues that cover subjects such as government systems and rights (UNESCO International Bureau of Education, 2011).

3. The System of Vocational and Professional Education and Training

This section of the Factbook describes the vocational education and training (VET) system at the upper secondary level and the professional education and training system (PET) at the tertiary level in more detail. Thereby, the term vocational and professional education and training (VPET) refers to both, the VET and the PET system.

3.1Technical and Vocational Education and Training (TVET)

One peculiarity of the Lebanese education system is that its VET programmes already start at the lower secondary level. As already discussed in chapter 2.2, the vocational pathway at the lower secondary level consists of two stages. The first stage lasts for two years and is completed with the certificate CAP. Subsequently, an advanced vocational programme can be entered which is concluded with the award of the BP. This programme also has a duration of two years. The entry requirements are the successful completion of the school-leaving certificate at the primary education level. Both programmes may also be entered after the completion of the *Brevet d'Etudes* (The Dutch Organisation for Internationalisation in Education, 2016). Students can choose among six specializations in the CAP while the BP has 15 specializations including hospitality, basic accounting, and cosmetology (Loo & Magaziner, 2017).

After the completion of the *Brevet Professionnel*, VET-students can choose between a technical and a vocational pathway within the VPET system at the upper secondary level. The vocational path refers to manual trades and other occupations where no substantial general knowledge is required. On the other hand, the curricula in the technical education pathway cover contents ranging from scientific knowledge to high-level techniques (UNESCO-UNEVOC, 2019).

Students that opt for the technical pathway at the upper secondary level can enter the BT. In order to be admitted to this programme, students must either hold the BP or the *Brevet d'Etudes*. Students that are exempted from taking the official exam for the *Brevet d'Etudes* need to show a proof from an official sealed school that they passed the 9th grade. However, these students need to pass an additional official exam at the end of the first year in order to get the "Preparatory Technical Rehabilitation Certificate" (UNESCO, 2018). Students can continue with the technical education at the tertiary level after completion of the BT (The Dutch Organisation for Internationalisation in Education, 2016).

Students that decide to continue their VET studies at the lower secondary level with vocational education can enter the path which concludes with the *Lycée Professionnel* (LP), which is organised as a dual system. This dual system (DS) was introduced in 1996 with the support of the German International Cooperation (GIZ) (International Labour Organization, 2018). The admission requirements are the same as for the BP, but without the required additional exam after the first year that leads to the "Preparatory Technical Rehabilitation Certificate". The courses in the DS combine vocational education and apprenticeships in one course. Programmes are offered for eight occupations that students can choose from: industrial mechanic, industrial electric, restaurant service, heating and sanitary/plumping, woodworking,

production cook, metal construction and maintenance (UNESCO, 2018). After the completion of the DS, students have two alternatives to proceed with their VET studies. First, they have the possibility to receive the BT if they complete an additional examination for general subject. Second, they can enrol in *Meister* programmes at the short-cycle tertiary level (ISCED 5). Since the Lebanese VET system is very flexible, students that have completed the first year of the BT have the possibility to switch to the DS (UNESCO-UNEVOC, 2019).

In the first year of the DS (LP), content is taught in the classroom without any real practical application. The goal is to strengthen the students' basic and theoretical skills necessary to exercise their occupation later. In the subsequent second and third year, students are taught theoretical knowledge in a classroom setting and develop practical skills through practical experience at companies (UNESCO, 2018).

In the year 2015/2016, there were 75'691 students enrolled in the VPET system at all levels. Compared to 542'753 students that are enrolled in Universities and programmes where general education is taught, the percentage of students enrolled in the VPET system equals 12%. However, with a share of 25%, VPET enrolment at the upper secondary level is higher compared to the lower secondary- and tertiary level (UNESCO, 2018). The rather low share of students that enrol in the VPET system can be partly explained by its low status among the Lebanese population since there is a strong association between academic failure and VPET in the public. In fact, there is some evidence that this relationship exists: Vlaardingerbroek and El-Masri (2008) find that a large fraction of VET students that enrolled for the BT barely passed the Brevet d'Etudes (Al-Hroub, Saab, & Vlaardingerbroek, 2017).

Table 7 shows the distribution of all these students (100%) with respect to the different programmes and education levels for the school year 2015/2016.

Table 7: Distribution VPET students with respect to the different education levels, year 2015/2016:

Programme	Educational level	ISCED 2011	% ¹⁴
Brevet Professionnel	Lower secondary education	2	16.08%
Preparatory Technical Rehabilitation Certificate	Lower secondary education	3	0.06%
Baccalauréat Technique	Upper secondary education	3	53.38%
Lycée Professionnel	Upper secondary education	3	1.33%
Technicien Supérieur	Short-cycle tertiary education	5	21.88%
Meister	Short-cycle tertiary education	5	0.06%
PET (LT, LET)	Tertiary level	6	6.48%

Own Table based on UNESCO (2018).

As we can see in table 7, the largest fraction (53.38%) of all VPET students is enrolled in BT programmes at the upper secondary level, followed by the *Technicien Supérieur* (21.88%) at the short-cycle tertiary level and the BP at the lower secondary education level. What stands out is the low relative amount of students that follow the vocational pathway: 1.33% of all the VPET students were doing the LP at the secondary education level and only 0.06% were enrolled in Meister programmes in the school year 2015/2016 (UNESCO, 2018). One explanation for this low enrolment is the limited number of targeted occupations in the vocational path. Based on estimates from an interview provided by the DGTVE to the International Labour Organization (ILO) on November 3rd, 2017, the most popular VPET occupations include business, accounting administrative and secretarial work, information technology, and industry occupations. However, there are no exact figures available that substantiate these estimates (International Labour Organization, 2018).

Besides the formal VPET, there are two additional systems: the non-formal and the informal VPET system. Non-formal VPET is mostly provided by registered public and private schools and serves as complementary or alternative education to formal education. The non-formal sector is institutionalized and falls within the competence of the DGVTE. The courses are categorized into short-, mid-, and long-term courses whose duration ranges from 300 hours for three months to 900 hours for nine months. The completion of the courses is rewarded with official certificates issued by the DGVTE.

The informal VPET sector mainly takes place in the work environment, NGOs, the family, or the local community, and mainly refers to different forms of practical training (e.g. informal apprenticeships) (UNESCO-UNEVOC, 2019). Informal apprenticeships typically take place entirely at the workplace without any complementary classroom-based schooling. Compared to the non-formal VPET system, they exhibit a lower degree of formality and their duration is not specified. Although reliable data is not existent, it is suspected that informal apprenticeship still represent the main source of skill acquisition for

¹⁴ Due to rounding differences, individual percentages do not add up to 100%.

some occupations in certain sectors, including crafts, construction and automobile maintenance. Compared to the non-formal VPET system, these exhibit a lower degree of formality and their duration is not specified (UNESCO, 2018).

One example of a non-formal VPET programme is the market-based skills training (MBST) which is a key component of the Lebanon Crisis Response Plan (LCRP). The LCRP is a joint plan between the Lebanese government and its national and international partners with the objective to implement solutions for the humanitarian crisis which emerged from the Syrian civil war (United Nations, 2020). The MBST is offered outside the formal VPET system and aims to promote employability by providing short-term courses. MBST courses consist of 15-144 hours over a length of three months. Normally, 66% of the total programme is dedicated to on-the-job training while the remaining 33% consists of classroom-based teaching. Approximately 90% of the MBST courses are for free or only charge a nominal fee (International Labour Organization, 2018).

3.2 Professional Education and Training (PET; Post-Secondary Level)

As already discussed in chapter 2.4, Lebanon also has a PET system. Holders of the Baccalauréat or technical *Baccalauréat* can apply for a professional education programme at the short-cycle tertiary level that is completed with the Higher Technical Diploma (*Diplôme de Technicien Supérieur*). This programme lasts for two years. Following this, students can continue their studies at the tertiary level (ISCED 6) and enrol in programmes that are either completed with the Technical Diploma (*Licence Technique*) or with the Technical Education Diploma (*Licence d'Enseignement Technique*, *LET*). The *Licence Technique* has a duration of one year, while the LET lasts for two years. However, the programme is also open to *Baccalauréat* (general and technical) holders immediately after the completion of the upper secondary education. In this case, the programme can only be finished within four years (International Labour Organization, 2018).

Holders of the *Lycée Professionnel* can continue their vocational training and enrol in so-called Meister programmes that can be categorized to the short-cycle tertiary education level (ISCED 5). The Meister course lasts for two years and is the highest level that can be achieved on the vocational education pathway. In order to fulfil the admission requirements, students must either have completed the LP with at least two years of practical experience, a BT with at least three years of practical experience or they must be holders of the (general) *Baccalauréat* with at least five years of practical experience (UNESCO, 2018).

3.3 Regulatory and Institutional Framework of the TVET System

3.3.1 Central Elements of TVET Legislation

In general, Lebanon does not have a unified vision to ensure coherent programming of its VPET system. The MEHE developed the National Education Strategy Framework in 2010, but the VPET system was not addressed in this framework. For the years 2011-2014, the Strategic Multi-Annual Action Plan for the VPET system that aimed to modernise the VPET system was approved by the MEHE. However, as of 2020, this plan has not been implemented yet (International Labour Organization, 2018).

The key document that refers to the Fields, Levels and Certificates of technical and vocational education that is used as a fundament for the definition of the VPET system as described in the previous two chapters (3.1 and 3.2) is the decree No. 8950 which entered into force in 2012¹⁵ (UNESCO-UNEVOC, 2019). The decree defines the vertical and horizontal progression within the qualification system and outlines admission requirements for each level. Still, the decree 8950 is lacking a determination of the recognition and equivalence of the VPET programmes and the specification of the competencies which are needed at each level (International Labour Organization, 2018).

3.3.2 Key Actors

Government

The ministry which is responsible for the whole organization of the education system from preschool level to university is the MEHE. The DGTVE belongs to the MEHE and is responsible for the organization of the VPET programmes. On the one hand, this includes the direct administration of the organization of VPET programmes that are provided by public schools. On the other hand, the DGTVE also need to monitor private VPET institutions and providers which also include NGOs. In the scope of the competences of the DGTVE, the administration of the official exams, the issuance of certificates and diplomas belong to its core functions (UNESCO-UNEVOC, 2019).

While the provision of technical education is centrally organized at the DGTVE, vocational education is supplied by many different providers with a low degree of coordination among each other. Beside the DGTVE, the Ministry of Agriculture (MoA) also provide technical education. In the case of vocational education, there are the Ministry of Agriculture (MoA), the National Employment Office (NEO), the National Centre of Vocational Training (NCVT) and local and international NGOs support and supply education and training courses (International Labour Organization, 2018).

The provision of higher education lies under the purview of the DGHE which belongs to the MEHE. This directorate supervises all the institutions that provide higher education and also regulates the private institutions that offer higher education programs. As already mentioned, the Lebanese University is the only public university in Lebanon, is autonomous and has its own governance system. One key activity of the DGHE is to facilitate the transition of VPET students from upper secondary level to VPET programmes at the post-secondary and tertiary education level (International Labour Organization, 2018).

The provision of the demand-driven workforce management is the responsibility of the NEO which belongs to the Ministry of Labour. One of their activities is to support NGOs that support VPET programmes that are considered important for the labour markets and the economy as a whole. The NEO supports programmes offered by NGOs that last 3-9 months and issues certificates for the graduates, but these are not recognized by the MEHE (UNESCO-UNEVOC, 2019). Over 40 NGOs were supported by the NEO that provide vocational training in which 800-1200 trainees took part in 2016/2017. The NEO funds approximately LBP 600'000 (USD 396, exchange rate as of 18.10.2020) per student and year to NGOs. However, the selection process of partner NGOs does not follow a systematic procedure. (International Labour Organization, 2018).

There are fast-tracked vocational training programmes at the community level that are provided by the NCTV. These programmes have a duration of three to nine months with less than 100 trainees in 2016/2017. After completion of such courses, students receive a certificate issued by the NCVT. However, due to funding shortfalls, these vocational training courses suffer from outdated curricula, poor

¹⁵ Website link: www.vte-lb.org

infrastructure and equipment and low quantity and quality of teachers and trainers (International Labour Organization, 2018).

The MoSA supports projects that facilitate the revitalisation of local craft industries by offering informal vocational training courses either through NGOs or in social development training centres. Between 2015 and 2016, approximately 351 trainees were enrolled in short-term, informal craft training courses. The courses mainly focus on the production of kilims, soap and wax products and sewing. Courses on wood, brass, glass or pottery are not provided by the MoSA due to budget limitations (International Labour Organization, 2018).

The VPET education in the agricultural sector is overseen by the MoA which consists of a General Directorate of Agriculture that is responsible for 31 agricultural centres and seven agricultural technical schools (UNESCO-UNEVOC, 2019). During the academic year 2016/2017, approximately 252 students were registered in those seven agricultural technical schools. The public agricultural technical education suffers from insufficient funding, partly due to the lack of administration by the department in charge of the VPET system and the MoA. Moreover, despite a declining interest in agriculture among students, the MoA is not able to provide other technical education due to the aforementioned budget deficits (International Labour Organization, 2018).

Education and training providers

The NCVT and the NEO both have tripartite boards of directors that also consists of employers and workers organizations. The goal is to improve the responsiveness of the programmes to the labour market needs. However, the activity of employers in the board of directors remains low and ensuring their engagement has been a challenge (International Labour Organization, 2018). Moreover, there is a higher TVET¹⁶ Council that also consists of social partners whose mission is to support the directorate in policy-making and strategic planning. However, because the Council has not met since 2000, the systematic collaboration with social partners has remained weak (International Labour Organization, 2018).

There are several NGOs and other organizations that support the Lebanese government with projects regarding the formal VPET system but also technical and vocational education and training outside the formal system (e.g. ILO, UNICEF and UNESCO). For instance, the United Nations Relief and Works Agency (UNRWA) provides TVET programmes for Palestinian refugees. UNRWA offers technical and vocational training in the Siblin Training Centre (STC) that has two campuses, one in the south and one in the north of Lebanon. Moreover, it provides counselling services for employment placements in its four employment service centres that have been established together with help of the ILO. There were 432 VPET students in twenty specialisations that graduated at the Siblin Training Centre in Saida, southern Lebanon (UNRWA, 2019). However, these certifications issued by the UNRWA are not officially recognized by the DGTVE (International Labour Organization, 2018).

In the Lebanese education system, there are public and private VPET providers. Students of private VPET schools are required to sit for one official examination at the end of each school year. These providers mainly consist of NGOs that are independent in terms of funding and management. However, they need the official accreditation from the DGTVE before they are allowed to operate in the VPET system. Moreover, they need to operate in a school certified by the government and registered with the DGTVE. Furthermore, the work of the private institutions is monitored by the DGTVE. They need to submit an annual report on general activities and pending needs and they need to draft their own qual-

¹⁶ The acronym TVET that stands for technical and vocational education and training can be used interchangeably with VPET.

itative subject self-evaluation which is attached to the report. Nevertheless, due to a shortage of personnel, the DGTVE is lacking follow-up mechanisms for the quality assurance of private schools (International Labour Organization, 2018).

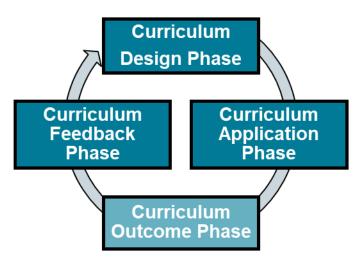
3.4 Educational Finance of the VPET System

The expenditure on education equalled 8.6% of total government expenditure (2.43% of total GDP) in 2013 (World Bank, 2020). The expenditure refers to spending on public schools, Universities and VPET institutions. The financing process in the VPET system goes as follows: The directors of these public VPET providers submit their financial needs to the finance department at the DGTVE, which then forwards those documents to the MEHE. The latter ministry consolidates and finalises the budget requests and submits them to the Minister of Finance, the Council of Ministers and subsequently to the parliament for consent (International Labour Organization, 2018). The funding for public VPET institutions has two main sources: tuition fees and the budget allocated from the DGTVE. The tuition fees cover the running expenses and thus only leaves little room for investments for upgraded infrastructure or updating teaching methodologies. The budget from the DGTVE is spent for staff salaries with less than 7% available for equipment, training and maintenance needs. The DGTVE does not provide any funds to private VPET providers, but the NEO and the MoSA incentivise some NGOs to provide VPET courses (International Labour Organization, 2018).

3.5 Curriculum Development

The curriculum is a central element for the functioning of a TVET system because it defines the framework and the (quality) standards for the education system. The development of a curriculum can be decomposed into a three-step process with a curriculum design, a curriculum application, and a curriculum feedback phase. This theoretical concept is called the Curriculum Value Chain and is depicted in the picture below (CVC; for more details see Renold et al., 2015; Rageth & Renold, 2019).

Figure 5: Curriculum Value Chain



Source: Renold et al. (2015) and Rageth & Renold (2019).

In the curriculum design phase, the relevant actors decide upon VET curriculum content and qualification standards. Therefore, the discussion in the respective subchapter below focuses on the degree and

the amount of stakeholder participation concerning curriculum design in Lebanon. The curriculum application phase revolves around the implementation of the curriculum. Because learning environments differ substantially across countries, especially with respect to the prevalence of workplace learning, the curriculum application phase subchapter in this factbook focuses on those learning environments. Specifically, it addresses where learning takes place and whether the curriculum dictates both school and workplace learning or only one of the two. Finally, curriculum outcomes can be collected and analysed in the curriculum feedback phase. This evaluation process is important because it may render a more refined curriculum design than was possible in the first place.

3.5.1 Curriculum Design Phase

The design phase is crucial for the whole curriculum process. In order to ensure that the skills taught in the VPET programmes correspond to the needs of the labour market, experts from companies should be involved in defining the qualification standards and learning contents of the curricula.

In the Lebanese VPET system, the Department of Curriculum and Education Techniques that belongs to the Technical Department of the DGTVE is responsible for the development and preparation of the curricula. In particular, it specifies teaching aids and books, determines the teaching methodologies and creates model questions for the official examinations that are provided to the Examinations Committee at the DGTVE. In order to ensure conformity with the curricula, the department supervises VPET providers.

One main problem with the curricula is that they are partially no longer up to date. Due to the absence of the collaboration with social partners (i.e. employer's and worker's organisations), most of the curricula are not based on competencies that are required on the labour market. In 2014, there were some reforms introduced for the *Technicien Supérieur* and the LT, which were followed by reforms for the BP and BT in 2016. These reforms mainly consist of two aspects: the incorporation of the teaching of soft skills in the curricula and new necessary specialisations that emerged due to the economic structural changes. The new specialisations include electro-mechanics, sustainable and renewable energy development and IT (smartphone application development) (International Labour Organization, 2018).

3.5.2 Curriculum Application Phase

The way in which a curriculum is implemented—especially with respect to learning environments—is important to achieve the intended learning outcome.

As already discussed in the previous chapters, the Lebanese VPET system can be divided into a vocational and a technical pathway. The technical pathway consists of classroom-based teaching of contents, while the vocational pathway is organized as a dual system and combines apprenticeships and theoretical vocational education in one course (International Labour Organization, 2018). The following table shows the distribution of teaching at school and practical learning in the dual system (Lycée Technique).

Table 8: Distribution of teaching at school and practical learning in the dual system

Year	Time at School	Time at Company	Total # of hours per year
Year 1	5 days/week		1'200
Summer 1		2 months	320
Year 2	2 days/week	3 days/week	1'200
Summer 2		2 months	320
Year 3	2 days/week	3 days/week	1'200
Total 3 years			4'240

Source: Own table based on UNESCO (2018).

In the first year of the LP, the students only go to school without any practical learning at the companies. In the 2nd and 3rd year, each week is divided into two days at school and three days at the company. Moreover, during the summer between the school years, students spend two months at the workplace with the company (UNESCO, 2018).

3.5.3 Curriculum Feedback Phase

The curriculum feedback phase deals with the question, whether and how educational outcomes are analysed. Based on this, the curriculum could be re-worked and improved.

The number of public VPET providers has massively increased from 60 in 2001-2002 to 162 in 2018. However, this expansion happened without the review of the economic and demographic conditions in the respective areas which led to an inconsistent standard of VPET provision. Therefore, the Action Plan for TVET (2011-2014) demanded the establishment of a Quality Assurance Agency for the VPET system. Moreover, the LCRP (2017-2020) also highlighted the necessity of the enhancement of quality of education services within the VPET system. However, the DGTVE only has a few quality assurance mechanisms in place due to the lack of necessary staff and the required institutional structures (International Labour Organization, 2018).

The revision of the efficiency of public training providers, student attendance, examinations and curricula falls in the responsibility of the General Education Inspectorate of the Central Inspection at the DGTVE. The inspectorate is highly understaffed since there are only five inspectors for all 162 public VPET providers. As a result, there is only one visit (per school) a year.

The education supervisor at the DGTVE regularly visits the schools based on an annual work plan and drafts individual school reports. These visits include meetings with the principal, teachers and students in order to assess curriculum implementation, teaching methods and examination results. Since there is a shortage of educational supervisors (two supervisors), this work of revising the schools remains very limited (International Labour Organization, 2018).

An additional problem related to the curriculum feedback phase and the corresponding quality assurance of the curriculum implementation is the absence of an education management information system (EMIS) within the DGTVE that results in a limitation of collection of statistics on VPET providers and students. Consequently, data-driven planning and decision making has so far been limited (International Labour Organization, 2018).

3.6 Supplying Personnel for the VPET System (Teacher Education)

The formation of the VPET teachers is in accordance with teacher education at the different education levels discussed in chapter 2.6. The Center for Educational Research and Development that operates under the supervision of the MEHE, develops materials for continuing teacher training. However, actual programmes are very limited. Most TVET teachers have an academic background and have completed university degrees or the *Technician Supérieur*. Hence, VPET teachers are often lacking specific skills for the respective area of teaching (UNESCO-UNEVOC, 2019).

4. Major Reforms in the Past and Challenges for the Future

4.1 Major Reforms

The National Education Strategy Framework in 2010 did not contain any reforms or renewals for the VPET system. The Strategic Multi-Annual Action Plan for the VPET system was approved by the MEHE and aimed to modernise the VPET system in the period between 2011-2014. However, this reform has never been implemented (International Labour Organization, 2018).

The most relevant reform for the VPET system is the still ongoing National Strategic Framework for Technical and Vocational Education and Training (2018-2022). This reform was developed by the Lebanese government with the support of United Nations Children's Fund (UNICEF) and ILO. Furthermore, many other stakeholders were involved in the development process, including ministries (MEHE, MoL, NCVT, MoA, NEO), representatives of the private sector and non-governmental companies (International Labour Organization, 2018).

One main objective of this reform is to promote a VPET system that trains workers with the skills and abilities that are in demand on the labour market and that companies need for their business. This commitment is articulated in the framework along the following pillars: (i) expanded access and service delivery; (ii) enhanced quality and relevance of VPET provision and (iii) improved VPET governance and systems. In line with the UN Sustainable Goals, the strategic framework also prioritises equal access to the VPET system for all, independent of gender, economic and social class or other characteristics of individuals or population groups. Furthermore, lifelong learning is an important aspect of the framework, so that workers can always meet the new demands of the labour market (International Labour Organization, 2018).

The National Strategic Framework for VPET also aims serve as a basis for improved cooperation between government institutions and the private sector. It will also serve as a national reference for institution-specific action plans. This includes, inter alia, the strengthening of partnerships with employers and workers' organisations. To measure progress of the respective institution-specific action plans, appropriate performance indicators are used and targets are defined (International Labour Organization, 2018).

4.2 Major Challenges

Some challenges in Lebanese VPET system have been explicitly or implicitly mentioned in this Factbook. However, the following section will provide a comprehensive overview of the major challenges the VPET system is facing according to the National Strategic Framework (2018-2022).

Low prestige of VPET

The VPET system generally struggles with image issues and low wages for vocational and technical occupations. VPET graduates compete for jobs in various sectors in which low-skilled migrants and refugees also participate. In addition, there is a lack of information on the flexible VPET pathways that are available (UNESCO-UNEVOC, 2019).

Lack of inclusiveness

VPET providers have difficulties in implementing gender equality support measures, resulting in fewer female students being trained in VPET programmes. Moreover, most programmes are not accessible to disabled students (UNESCO-UNEVOC, 2019).

Quality of training, trainers, and equipment

Initial and continuing vocational education and training does not adequately equip students with the competencies that are in demand on the labour market. This can be partly explained by the lack of adequate qualification, anticipation and assessment systems. Teachers and trainers are rarely supported by additional qualification measures and therefore often do not have the pedagogical skills or the technical and industrial expertise to teach appropriate VPET contents. Furthermore, institutional equipment is often deprecated and does not function properly (UNESCO-UNEVOC, 2019).

Financing

The funds for the VPET system are not performance-based and to a large extent centralised. This obstructs the advantageous development of innovative and cost-effective practices (UNESCO-UNEVOC, 2019).

Governance and Provision of Services

The various actors in the field of technical and vocational training have not yet reached joint agreements on the provision of adapted courses throughout the country, based on regional needs and sector-specific priorities. Consequently, there are many under-utilised providers with small exposure to the labour market and students (UNESCO-UNEVOC, 2019).

Relations with the private sector

There is not yet full involvement of the private sector in the strategic planning and decision making regarding VPET curricula and the provision of work-based training opportunities (UNESCO-UNEVOC, 2019).

5. References

- Al-Hroub, A., Saab, C., & Vlaardingerbroek, B. (2017). The Lebanese Education System. In R. G. Sultana, *Career Guidance and Livelihood Planning across the Mediterranean* (pp. 255-265).
- American University of Beirut. (2020). *About AUB*. Retrieved from https://www.aub.edu.lb (September 22, 2020)
- BBC. (2020, August 5). *Lebanon: Why the country is in crisis*. Retrieved from BBC: https://www.bbc.com/news/world-middle-east-53390108
- Beirut Arab University. (2017). Undergraduate Catalogue 2017.
- Bugh, R. G. (2020, 08 24). *Lebanon*. Retrieved from Encyclopædia Britannica: https://www.britannica.com/place/Lebanon
- Corm, G. (1998). Reconstructing Lebanon's Economy. In N. Shafik, *Economic Challenges Facing Middle Eastern and North African Countries* (pp. 116-135). London: Palgrave Macmillan.
- Dibeh, G. (2005). *The Political Economy of Postwar Reconstruction in Lebanon.* Byblos: Lebanese American University.
- Dutta, S., Lanvin, B., & Wunsch-Vincent, S. (2019). *Global Innovation Index 2019*. Fontainebleau and Geneva: Cornell University and INSEAD.
- Economist. (2019). *The Economist Intelligence Unit's Democracy Index 2019.* London: Economist.
- ECR. (2020, August 18). *Lebanon Education*. Retrieved from European Committee of the Regions: https://portal.cor.europa.eu/divisionpowers/Pages/Lebanon-Education.aspx
- Encyclopaedia Britannica. (2020). *Lebanon*. Retrieved from https://www.britannica.com/place/Lebanon/Climate (October 26, 2020)
- ETF. (2015). Labour Market and Employment Policy in Lebanon. Turin: European Training Foundation.

- Eurostat. (2018a). Gross Value Added and Income by A*10 Industry Breakdown (nama_10_a10).
- Eurostat. (2018b). Employment by A*10 Industry Breakdowns (nama_10_a10_e).
- Ghalayini, L. (2011, Issue 14). The Impact of Dollarization on the Efficiency of Monetary in Lebanon: Interaction between Dollarization and Inflation. *Middle Eastern Finance and Economics*, pp. 128-139.
- Gressani, D., & Page, J. (1999). *Reconstruction in Lebanon: Challenges for Macroeconomic Management.* Washington: The World Bank.
- Haigazian University. (2020). *Continuing Education*. Retrieved from https://www.haigazian.edu.lb/continuing-education/ (September 23, 2020)
- Human Rights Watch. (2020, August 11). *Lebanon: Abolish Kafala (Sponsorship) System.*Retrieved from Human Rights Watch: https://www.hrw.org/news/2020/07/27/lebanon-abolish-kafala-sponsorship-system
- International Labour Organization. (2018). *National Strategic Framework for Technical and Vocational Education and Training in Lebanon, 2018-2022.*
- Khater, L. B. (2018). *Understanding Policy-Making in Lebanon*. Beirut: Issam Fares Institute for Public Policy and International Affairs.
- Knoema. (2020). *Education Statistics*. Retrieved from https://knoema.com/WBEDS2017Jun/education-statistics (September 17, 2020)
- KOF. (2020). KOF Youth Labour Market Index. Zurich.
- LAES. (2006). *National Educational Strategy in Lebanon*. Beirut: Lebanese Association for Educational Studies.
- Lebanese Republic. (1926). Constitution of Lebanon. Beirut: The Lebanese Republic.
- Lebanese Republic. (2017). *Electoral Law.* Beirut: The Lebanese Republic.
- Library of Congress. (2020, 08 24). *Introduction to Lebanon's Legal System*. Retrieved from Library of Congress: https://www.loc.gov/law/help/legal-research-guide/lebanon.php#:~:text=The%20judiciary%20in%20Lebanon%20is,having%20a% 20multilevel%20hierarchical%20structure.&text=the%20administrative%20court%20s ystem%20known,the%20religious%20court%20systems.

- Loo, B., & Magaziner, J. (2017). *World Education News and Reviews*. Retrieved from Education in Lebanon: https://wenr.wes.org/2017/05/education-in-lebanon (October, 2020)
- MEHE. (2019). Overall LCRP Education Sector Response Strategy. Beirut: Ministry of Education and Higher Education.
- OECD. (2020). Dataset: LFS by sex and age indicators. Retrieved from https://stats.oecd.org/Index.aspx?DataSetCode=LFS SEXAGE I R#
- Rageth, L., & Renold, U. (2019). The Linkage between the Education and Employment Systems: Ideal Types of Vocational Education and Training Programs. Journal of Education Policy. doi:10.1080/02680939.2019.1605541
- Renold, U., Bolli, T., Caves, K., Rageth, L., Agarwal, V., & Pusterla, F. (2015). Feasibility Study for a Curriculum Comparison in Vocational Education and Training. Zurich: KOF Studies. Retrieved from https://doi.org/10.3929/ethz-a-010713492
- Renold, U., Bolli, T., Egg, M. E., & Pusterla, F. (2014). *On the Multiple Dimensions of Youth Labour Markets A Guide to the KOF Youth Labour Market Index*. Zurich: KOF Swiss Economic Institute. Retrieved from https://doi.org/10.3929/ethz-a-010699115
- Reuters. (2020). *LBPUSD*. Retrieved from https://www.reuters.com/quote/LBPUSD (October 16, 2020)
- Reuters. (2020). *Quote*. Retrieved from https://www.reuters.com/quote/XOFUSD (October 16, 2020)
- State University. (2020). Lebanon Preprimary & Primary Education. Retrieved from https://education.stateuniversity.com/pages/828/Lebanon-PREPRIMARY-PRIMARY-EDUCATION.html (September 15, 2020)
- Takieddine, M., & Abou Ali, L. (2020, August 11). *Lebanon: Labour and Employment Comparative Guide*. Retrieved from mondaq: https://www.mondaq.com/employment-and-hr/883124/labour-and-employment-comparative-guide
- The Dutch Organisation for Internationalisation in Education. (2016). *Education system Lebanon-described and compared with the Dutch system*. Retrieved from https://www.nuffic.nl/sites/default/files/2020-08/education-system-lebanon.pdf (November 4, 2020)
- Transparency International. (2020, August 18). *Corruption Perception Index*. Retrieved from Transparency International: https://www.transparency.org/en/cpi/2019/results/lbn

- UNESCO. (2018). Work-Based Learning Study Reviewing Work-Based Learning (WBL) Programmes for Young People in Lebanon.
- UNESCO International Bureau of Education. (2011). World Data on Education VII Ed. 2010/11.
- UNESCO-UNEVOC. (2019). TVET Country Profile Lebanon.
- United Nations. (2020). Lebanon Crisis Response Plan 2017-2020 (2020 update).
- United States Department of State. (2017). *Lebanon 2017 International Religious Freedom Report*. Washington: United States Department of State.
- UNRWA. (2019). Retrieved from https://www.unrwa.org/tags/siblin-vocational-training-centre (Ocotober 23, 2020)
- UNSD. (2020). Gross Value Added by Kind of Economic Activity at current prices US dollars.

 Retrieved from http://data.un.org/Data.aspx?q=value+added&d=SNAAMA&f=grID%3a201%3bcurrID %3aUSD%3bpcFlag%3a0
- Vlaardingerbroek, B., & El-Masri, Y. (2008). Student Transition to Upper Secondary Vocational and Technical Education (VTE) in Lebanon: From Stigma to Sucess. *Journal of Vocational Education and Training*, pp. 19-33.
- Vlaardingerbroek, B., Al-Hroub, A., & Saab, C. (2017). *The Lebanese Education System.*Beirut: Lebanese American University.
- WEF. (2019). The Global Competiveness Report 2019. Geneva: World Economic Forum.
- World Bank. (2015). Lebanon Economic Monitor, Spring 2015. Washington: The World Bank.
- World Bank. (2016). Lebanon Economic Monitor Spring. Washington: The World Bank.
- World Bank. (2019). Lebanon's Economic Update, October 2019. Washington: World Bank.
- World Bank. (2020). Data. Retrieved from data.worldbank.org
- World Bank. (2020). Data. Retrieved from data.worldbank.org
- World Bank. (2020). *Economy Profile Lebanon: Doing Business 2020.* Washington: The World Bank Group.
- World Bank. (2020, 08 04). *GDP per capita (current US\$) Lebanon*. Retrieved from The World Bank: https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=LB-ZQ

World Bank. (2020). *Government expenditure on education, total (% of GDP)*. Retrieved from https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=LB (October 5, 2020)

World Bank. (2020). Lebanon's Economic Update, April 2020. Washington: The World Bank.

ETH Zürich Chair of Education Systems LEE F 134 Leonhardstrasse 21 8092 Zürich, Switzerland

www.ces.ethz.ch

Herausgeber: Chair of Education Systems CES Gestaltung: ETH Zürich Fotos: Photo by Jeremy Bishop on Unsplash

© ETH Zürich, Dezember 2020