

# THE DEMOCRATIC ECONOMY

الاقتصاد الديمقراطي

02 / 04 / REPORT 2021

THEME 02

TOWARDS A  
DEMOCRATIC ECONOMY

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Democratic  
Currencies,  
Technology  
& Innovation

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## Report

### Theme Two

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# About

## The Democratic Economy

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The Democratic Economy Initiative is a year-long conversation that tackles different key components needed to pave the way for a democratic economy in Lebanon.

Under the umbrella of the initiative, four thematic conferences are taking place covering the different components including: Solidarity Economic Enterprises; Digital Currencies, Technology, and Innovation; Reimagining MSMEs; Alternative Syndicates and Social Solidarity Structures.

The aim of the initiative is to bring together an eclectic audience including academics, activists, NGOs, international donors, community members, technologists, practitioners and researchers, located both locally and globally, to engage in meaningful dialogue around the existing socio-economic realities in Lebanon, to collectively ideate and recommend contextual and practical solutions, pathways and options.

This report discusses the second thematic conference around Democratic Currencies and Technological Innovation, which was held over three consecutive days: June 22, 23, and 24, 2021. It conveys the main findings of the conference and reflects on possible solutions and recommendations.

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## Acknowledgements:

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Art directed by Carole kaakour and implemented by Mostafa Olwan.

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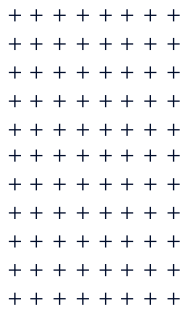
**The views, thoughts, and opinions expressed by the speakers during the conference belong solely to the speakers themselves and do not necessarily reflect those of the Democratic Economy initiative (TDE) and its members. TDE also assumes no responsibility for speakers invited to participate in the conferences. Moreover, reference by the speaker to any specific product, process, service, or organization does not constitute or imply endorsement, recommendation, or favoring by the TDE initiative.**

## Summary:

The existing capitalist monetary system has proven that it does not align with the benefit of the people. This is one of the reasons for the growth of interest in democratic economies that recommend shifting decision-making power from corporate managers and shareholders to a larger group of public stakeholders, including all the workers, suppliers, and clients. This report focuses on digital currencies as a type of democratic currencies and looks into the possibility of initiating other forms of technological and socio-economic innovations in Lebanon to face the existing crisis.

The financial and economic challenges that the country is facing are mainly monopolies and privatization, lack of relevant monetary and financial policies, in addition to unequal wealth and income distributions and the collapse of the banking sector. Consequently, many Lebanese have turned into mining cryptocurrencies in order to gain some freedom and secure remittances in dollars. After the banks had swallowed their savings, blockchain technology gave hope to the people. The crypto and digital currencies present many advantages such as being a direct link between the sender and receiver and allowing people to transfer money without paying high fees to financial institutions. However, they are associated with many risks and disadvantages like increasing wealth gaps and relying on computing power which makes them not accessible for everyone. Therefore, creating alternative currencies and cooperative organizational models that can address inequality, poverty, and coercion is essential for building a democratic economy.

In fact, blockchain can create currencies that challenge the existing hierarchies and power structures and build a radical democratic alternative that privileges social cooperation. Blockchain technology can pave the way for changes in how the government and systems function. It might improve database management and government record keeping, leading to improvement in healthcare services, elections systems, and financial structures. However, it is not always the case as it can be used to create cryptocurrencies such as bitcoin that increases wealth gaps and inequalities. By the same token, the report discusses social innovation and explores different case studies of successful initiatives worldwide. Finally, under the current system, the privately created currency is issued by the central bank and through the banking sector as loans. The failure to exercise democratic control over money issues has resulted in privatizing the benefits of the money system and socializing the risks. Thus, the solution relies on creating radical alternatives and other forms of currency



# List of speakers



## Adam Borstein

Leads the Innovative Finance & System Change Team for the Danish Red Cross. Prior to joining the Danish Red Cross, Adam was based in Washington, DC where he was CFO for Ashoka, a foundation that supports social entrepreneurs. Preceding Ashoka, Adam was a Senior Advisor at USAID and led the Innovative Finance team for the Global Fund to Fight AIDS, TB, and Malaria. In the past, Adam was Head of Mongolia for International Finance Corporation (IFC) in Ulaanbaatar, Mongolia. Before moving into the humanitarian sector, Adam was Senior Vice President with Hong Kong-based private equity fund China Development Industrial Bank where he co-managed a US\$1B program. Before entering private equity, Adam founded a venture capital fund in Shanghai, PRC, and held roles as a global macro hedge fund trader and equity analyst in New York and Hong Kong.

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## Aleeza Howitt

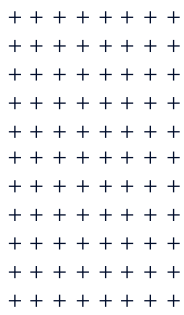
Specializes in the intersection of alternative currencies, mutual credit, universal basic income, and inclusive & decentralized technology and governance systems. Aleeza is a contributor to the Trustlines Network and helps coordinate pilots. She is also a Ronin Institute Scholar, a board member of the U.S. Basic Income Guarantee Network (USBIG), and a co-founder of the crypto-art projects Astro Ledger and GraffitiETH.

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## Ali Askar

The Chief Technology Officer and Quantitative Analysis division leader at GIV Capital. Being able to research and think out of the box, he learned the ins and outs of computer communication security at a very young age. His passion for computer technology had led him to join the Communication and Electronics Engineering program at Beirut Arab University in which he graduated from, Ali had helped many organizations and governmental agencies as a technical consultant before joining several companies as Giv Capital, Zero & One, and Net360. Moreover, he holds the AWS Solution Architect and IBM Hyperledger Blockchain Developer and Architect badges. Strategic Planning, Civic Engagement, Volunteering, and NGO Management.



# List of speakers



## Ali Sabbagh

is the The founder of Le Grand Mint was born on June 3rd, 1978 in Saida, Lebanon. At the age of 12, the German citizen emigrated to Germany with his parents and attended secondary school at Ostpark there until 1990, switched to commercial school in 1993 and learned the profession of freight forwarder from 1995, which is today's silver coin producer and numismatics dealer until 2001. Ali Sabbagh founded Le Grand Mint in 2014. To this day he heads the online trade of the modern numismatics company, the father of two daughters of two takes care of the creative and production-related processes of the noble silver pieces from the creative house, Le Grand, from the idea of a motif design to the implementation of the silver coins mint.

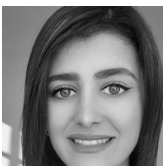
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## Daniel Knobelsdorf

is the team leader for the Trustlines community initiative in Venezuela, and the curator of the Trusted Seed of Commons Stack – an altruistic and innovative community aiming to empower the commons with the new tools of token engineering. He's also an alumnus and advisory board member of the Young Leaders of the Americas Initiative (YLAI), an ambassador of OpenExO and ConsenSys, alumnus and scholar of Singularity University, and a steward of Ethereum Caracas and the B Corps movement in Venezuela.

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## Dina Abou Zour

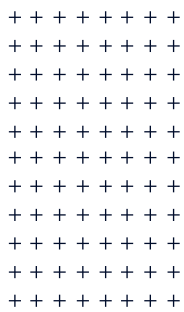
is a registered lawyer at the Beirut Bar Association with a master's degree in comparative law. She is also a founding member of Depositors Union, and a civil society activist, with experience in GBV and child protection and the Syrian refugee's crisis.

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## Eléonore Blanc

The cryptocurrency industry is made of visionaries and ruthless moneymakers, the perfect mix for a monetary revolution, and Eléonore is all in. Thrilled to be part of an ongoing social and financial experiment, she's passionate about p2p cash, voluntarism, and economic freedom. In 2019, she founded CryptoCanal, to offer education, marketing, and business development services. She's worked with industry leaders such as BTC.com, Luno, OKEx, Bitcoin.com, Cyber Capital, Satoshi's Angels, and HubSecurity. She teaches a monthly Crypto 101 event and offers an in-depth class for more advanced cryptocurrency investors.



# List of speakers



## Francesca Walters

is the Partnerships Lead at EduPact, an initiative launched by a team of volunteers from Impact Lebanon. Her position requires the construction of a strong network of NGOs, grassroots organisations, and apolitical institutes that work together to offer free educational and learning support to all students, aged 18 and under, in Lebanon. EduPact’s partners are selected based on the services that can be exchanged between the organisations. These range from identifying disadvantaged students in Lebanon, to free volunteer teacher training, and the referral of students to EduPact. Walters achieved her BA (Hons) in Middle Eastern Studies at the School of Oriental and African Studies (SOAS). Upon her return to Lebanon, she began a career in radio as the former morning show host of Virgin Radio Lebanon. Following that success, Walters relocated to the United Kingdom where she co-founded #NoBeef – [www.0beef.com](http://www.0beef.com) in an effort to encourage individuals to reduce their impact on climate change by limiting their intake of beef and other meats. Today, Walters is a full-time volunteer at EduPact alongside pursuing an MA in Creative Writing at the University of Surrey.

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## Hala Nasrallah

is a journalist, a developer, and a self-taught coder. Later on, she got a scholarship from Consensus Academy, which is the first academy that specialized in programming according to the Ether network protocol. She strongly supports Bitcoin as a global standard that should be adopted as a digital financial asset alternative to gold for international reserves as well as the need to be adopted as (1st money layer) which means to treat bitcoin as a financial medium on the earth. She worked as a journalist for MIT Technology Review Arabic, and published technological papers on the Al Jazeera website. She is currently completing her master’s thesis in the field of “Cyborg Anthropology” and the future of human life in the midst of the digital age.

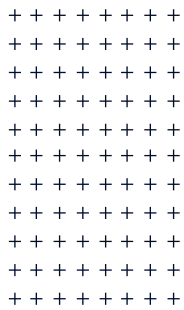
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## Mark Saroufim

is a Machine Learning Engineer on the Pytorch team at Facebook. In the past, Mark has worked at his own company yuri.ai, Graphcore, Microsoft, NASA, and graduated from AUB. He regularly publishes his writings on technology on [marksaroufim.substack.com](http://marksaroufim.substack.com), videos on <https://www.youtube.com/user/marksaroufim>, and is the author of a robotics textbook [robotoverlordmanual.com](http://robotoverlordmanual.com)





# List of speakers



## Dr. Layal Mansour

is a specialist in monetary economics, financial policies, and economic crises in dollarized countries, from Lyon 2 University, France. She conducted her postdoctoral research on forecasting future financial crises, at the American University of Beirut (AUB). She is a lecturer in economics at the Lebanese American University (LAU), and has been a visiting professor at George Washington University in the United States since 2016. Her research includes forecasts of monetary and geopolitical crises, and they are presented at international conferences. She is currently doing economic studies for the UAE government through a research and studies center in Abu Dhabi. She also played the role of an economic researcher/adviser to international organizations. Dr. Mansour proposed a law to adopt the “Currency Board” system in Lebanon, adopted by Representative Paula Yacoubian (National Alliance) and registered in the Lebanese Parliament’s office under No. 697/2020.

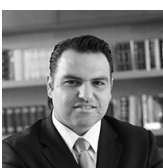
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## Nir Kshetri

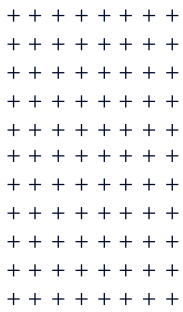
is a Professor at the University of North Carolina-Greensboro and a research fellow at Kobe University. He has authored eleven books and about 180 academic articles. His books and articles have been translated into Arabic, Chinese, German, Spanish, French, Japanese, Portuguese, and other languages. He has been ranked #6 in the world in research on blockchain in management (Technological Forecasting & Social Change 2021), the most published and second most cited author in research on blockchain in logistics and supply chain management (IEEE Transactions on Engineering Management, 2020), and second most cited and sixth most published author in blockchain research (Central University of Tamil Nadu, 2020). Nir was the winner of IT Professional’s Most Popular Paper Award in 2020, 2019, and 2018 and Outstanding Contribution in Authorships award in 2020 and 2019. His works have millions of readers. Nir’s work has been featured by hundreds of media outlets such as Wall Street Journal, Foreign Policy, Public Radio International, Scientific American, and Bloomberg TV.

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## Dr. Patrick Mardini

is the president and founder of the Lebanese Institute for Market Studies – LIMS, where he works with a team of researchers on designing specific policy reforms to address economic, financial, and monetary challenges facing Lebanon. He is also a research associate at the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise. His research is in the field of the banking crisis, economic recessions, and monetary reforms. He also published on institutional factors preventing competition and on the danger of government intervention in a sectarian society. She is often invited to lecture in Africa, Asia, Europe, North America, and the Middle East.



# List of speakers



## Omar Assaf

is a social entrepreneur who founded and contributed to the establishment of emerging companies in the field of informatics services, mobile application development, and software solutions, where he led the development of products and businesses as Executive Assistant of the CEO of Pious Technologies, where he was responsible for the external relations and represented the company in more than 8 countries He held various positions in the United Nations High Commissioner for Refugees (UNHCR) and the United States Agency for International Development (USAID), focusing on projects directed towards youth and women development, and participated in establishing and managing the regional office of Basma and Zeitouneh Organization in North Lebanon. He participated in many civic initiatives focusing on education, and continued to work in managing relief, education, psychosocial support, and livelihood projects, and in 2015 established in Tripoli, Lebanon, the SHiFT – Social Innovation hub, an incubator and business center to support business initiatives and social impact in marginalized and post-conflict areas.

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## Raissa Achkar

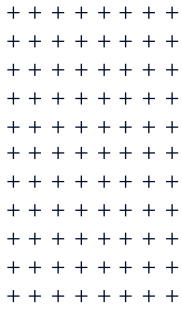
is a member of Lebanon Volunteer Community (LVC), a collective of Lebanese (& allies) volunteers who work at Google. She joined Google in Dublin, Ireland as a Sales Account Manager in 2017 and has worked on both the MENA and the French markets. In addition to her client responsibilities, Raissa has been involved in a series of initiatives with LVC aimed at helping NGOs & organisations accelerate efforts to rebuild Beirut. Initiatives include Crisis shelter maps, training programs for NGOs, fundraisers, and leveraging maps data. She previously worked in research and business development in Beirut’s startup ecosystem as well as missions for monitoring and evaluation for NGOs in Beirut & Tripoli. She also has experience in banking having worked at HSBC NYC in their equity research team. She was an active volunteer having served in the Lebanese Red Cross Gemmayze Sector for 3 years as an Emergency Medical Technician and warehouse manager. Raissa is an American University of Beirut (AUB) Alumni and received a BA in Economics in 2014.

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## Rida Mawla

is a financial Modeling expert who juggles Innovation, Energy and Public Policy. Rida is an experienced consultant and entrepreneur with a diverse skill set. He works at the intersection of strategy, optimization, and innovation. He is part of Alex the CFO, an on-demand, cloud-based CFO Service that is growing regionally. He also consults for the World Bank’s Energy team focusing on reforming the power sector in Lebanon. He holds an MS in Operations Research from Columbia University and a BA in Physic from Earlham College.



# List of speakers



## Roy Ahawo

is a dynamic professional with over 7 years of experience in Finance, IT, project management, innovation, and process improvement, with expertise working with humanitarian organizations. He is currently an Innovation Officer with Kenya Red Cross Society where he is involved in developing innovative approaches in project management. Roy is currently a PhD researcher focusing on digital transformation in the humanitarian setup, holds a master's degree in Innovation and Entrepreneurship Management and a bachelor's degree in Business Administration major in Finance and minor in IT. Roy has 3 publications that focus on humanitarian innovation and holds memberships with the Computer Society of Kenya. He is also passionate about the growth mindset as a transformational tool.

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## Dr. Saifedean Ammous

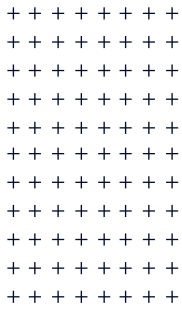
is the author of *The Bitcoin Standard: The Decentralized Alternative to Central Banking*, the first and most popular study of the economics of bitcoin. Dr. Ammous holds a PhD in Sustainable Development from Columbia University, where his doctoral thesis studied the economics of biofuels and alternative energy sources. He also holds an MSc in Development Management from the London School of Economics, and a Bachelor of Engineering from the American University of Beirut. He teaches economics and writes on monetary economics and the economics of bitcoin, on his online platform, [saifedean.com](http://saifedean.com)

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## Samer Al Ayash

is a member of Lihaqqi and Mechanical Engineer. He participated in writing several papers and articles, and in discussion panels about the alternative economy, economical justice, cryptocurrency, and proposing solutions for the Lebanese crisis in economy, energy, and finance.



# List of speakers



## Tomás Rodríguez

is in charge of communications and promotion strategies for the Trustlines community initiative in Venezuela. Over the past few years, he's worked with different blockchain and fintech initiatives to help them find ways to communicate more effectively with their audiences, making financial tools more understandable and promoting adoption for the broader public. He also leads projects and efforts related to drinkable water and access to it, working hand in hand with many organizations within Venezuela to provide knowledge and tools to people in great need.

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## Ziad Abichaker

is the CEO Cedar Environmental – Lebanon. Ziad is a multi-disciplinary engineer who specializes in building Municipal Recycling Facilities on the communal level going against the trend of a central Mega Recycling Plant. Recently, Ziad and his engineering team, after four years of research, developed a new technology that transforms plastic bags into solid plastic panels, dubbed ECO-BOARD, used outdoors to replace wooden and steel panels. They have won the 2013 International Energy Globe Award for this revolutionary process. Currently, they are transforming that technology from using fossil fuels to generate the required energy to biomass, a renewable energy source

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# Introduction

The existing capitalist monetary system has proven that it does not align with the benefit of the people [3]. This is one of the reasons for the growth of interest in democratic economies that recommend shifting decision-making power from corporate managers and shareholders to a larger group of public stakeholders, including all the workers, suppliers, clients, and the larger public such as the local governmental entities, local councils and non-profit organizations [6]. As opposed to political and extracted economies and their attempts to attain power control in the country, a democratic economy is a gateway for progression. It relies on the energy of advocates, activists, and grassroots members and organizers [6]. The capital ownership that comes with the industrial traditional economies has normalized the absence of justice and equality when it comes to the public. This has created a window of opportunity for advocates and activists to introduce practical alternatives which will help in alleviating the socio-economic issues facing us. These issues vary from lack of job opportunities, to consistent demolition of ecosystems, and much more [2].

One thing that activists, scholars, economists and grassroots' initiatives agree on is the fact that what is called the "denaturalization of money" should be reversed and questioned as to why and how it is produced, by whom, and how it is being distributed [3]. Many alternatives have been placed on the table as a solution to the centralization that banking systems impose on the transaction of money between individuals or entities/ organizations. These practical solutions consist of, but are not limited to: (1) rethinking payment infrastructures, (2) introducing new monetary theories, (3) and introducing communal currencies that make room for sustainable change [3].

Digital money is the new means of payment, and a store of value. They range from decentralized digital tokens such as bitcoin at one end of the spectrum to central bank digital currencies at the other. Bitcoins and their many look-alikes, known as crypto assets, are viewed as volatile, and speculative assets as they have no 'intrinsic value' and are free. While there is no Central Bank or governments to intervene in these digital currency markets, central authorities are looking for ways to control them.

In addition to rethinking monetary systems in times of crisis,



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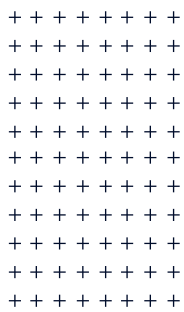
innovation must be considered as a trigger for economic fluctuations which in turn alleviate the consequences of the socio-economic issues the world is currently facing [4]. Countries who have consistently strived for improved national innovation systems seem to be less affected by economic crises; Innovations vary from being technological and socio-economic to being strategic [4]. Such examples of social innovation in Lebanon and around the world can be inspiring at times of crisis. This is why, it is important to highlight the lessons learned and challenges faced in order to come up with solutions that suit each context based on its needs.

This report focuses on digital currencies as a type of



democratic currencies, and looks into the possibility of initiating other forms of technological and socio-economic innovations in Lebanon to face the existing crisis.

Throughout the conference, speakers explored the different facets and realities of cryptocurrencies in Lebanon. In addition to identifying several shared practices from different contexts worldwide; highlighting different models that can possibly be applied. All of the sessions culminated in recommendations regarding the implications of digital currencies in addition to those of innovations.



# Snapshot of the current economic and financial situation

## REALITIES ON THE GROUND

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The current economic situation in Lebanon is strongly influenced by the existing political and economic structures which are founded on an alliance between governmental entities and economic and financial entities such as central banks and commercial banks. Lebanon portrays an economic system which is driven by neoliberal and capitalist policies that acts as a trigger to the current ongoing economic crisis. The central bank has been losing a lot of its financial resources until today mostly because of the absence of capital control. A portion of the pre-existing capital was spent on subsidies, another was spent by the government to cover its expenses and debt, some

were withdrawn from the banks, and others were transferred abroad.



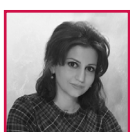
“wrong policies have been practiced for over 30 years”

Samer Al Ayash

**“The main financial and economic challenges the country is facing can be divided into four categories:**

**Monopolies and privatization:** The neglected ongoing financial and banking crisis in Lebanon has been masked by unregulated methods, weak decision-making, and banks stumbling. Its implications are mostly costing small depositors, the middle class, and the working class. The concept of monopolizing industries in addition to privatizing public assets and services has been normalized in Lebanon for a long time. Moreover, the banking sector functions in a way that hinders growth and prosperity after it had long offered imaginary interest rates discouraging investments in productive sectors. This keeps the banks and the ruling class in power to control the finance sector of the country.

**Lack of Relevant Financial and Monetary Policies:** The central bank has lost its creditworthiness and is resorting to printing money to ‘handle’ the collapse. This time-wasting tactic is dramatically decreasing the value of the local currency and driving up the prices turning basic commodities into luxury products. The situation is alarming and it is becoming harder by the day for the country’s inhabitants to afford the minimum fundamental needs.



“Lebanon will reach a period where there is no control of inflation”

Dr. Layal Mansour

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The banking system in Lebanon has informally adopted laws and regulations that have depreciated the value of deposited dollars since October 2019 [19]. The actions, circulars and decisions that the Lebanese Central Bank BDL has been relying on for 30 years and has been making lately are considered illegal [11]. The state government is being funded contrary to the monetary law and it is simply based on the accumulation of fake profits and a Ponzi scheme that benefited the ruling class and the oligarchies. Banks were creating capital and liquidity out of thin air. Moreover, the decisions that BDL has been issuing regarding printing more paper is considered mis-informed and delusional since this is playing a part in increasing the inflation rates according to some experts.

**Wealth, Distribution, and Inequality:** Lebanon has been characterized by extreme inequality in both wealth and income. According to a study published in 2018 by the World inequality lab between 2005 and 2016, the top 10 percent of the country’s richest individuals earned between 49 and 54 percent of national income, and the poorest 50 percent of the population earned between 12 and 14 percent. The already extreme and endemic income and wealth inequalities are to worsen, had there not been a radical economic and political change.

**BANKING SECTOR DILEMMAS**

The existing monetary crisis is a result of several factors, including the Ponzi scheme where new money is borrowed to pay existing creditors. In addition to that, the crisis has been stimulated by the neglect of the ruling class who have collided and ignored the public’s welfare for years. The engineered financial schemes which include the unofficial and illegal capital controls have strongly affected the small and middle-class depositors. On the other hand, the big depositors who are around 0.86% holding more than 50% of the deposits, were always able to transfer their money abroad and withdraw it in fresh dollars.

The central bank’s decisions are violating the Constitution and the code of currency as the legal procedures that regulate the banking sector do not allow for the conversion of accounts without the approval of depositors. The depositors have characterized BDL’s

latest circulars, such as circular 158, by being ambiguous and lacking transparency. This circular has stated that depositors can start withdrawing their money in USD in limited amounts, but it has already been rejected by multiple lawyers and depositors.



“We are not close to the collapse, we have already collapsed and right now we are going deeper!”

Dina Abou Zour



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“Lebanon’s economy is rent-seeking, which means we rent and do not produce”.  
Dr. Patrick Mardini

## RECOMMENDATIONS IN DISCUSSION

There is an urgency to support the process of building a democratic economy on a solid foundation of transparency in order to alleviate the effects of this ongoing financial crisis:

### Currency Board

Lebanon is a country that has a banking crisis, a public-debt crisis, a currency crisis, in addition to economic recession. This calls for more seriousness in handling this collapse, and one of the recommendations is to implement the currency board. The currency board imposes discipline, helps in increasing a country’s GDP, reforms the system, and dilutes the corruption which plays a role in economic growth. In some countries like Argentina, Estonia, Bulgaria, and Lithuania, the implementation of the currency board has contributed to the stabilization of their exchange rate which had been fluctuating dramatically. In Argentina for example, research shows that the implication of the currency board was successful in stabilizing their situation and decreasing inflation [7]. Once the currency board is in place, the local currency will be stabilized, attracting foreign investment and injecting foreign currencies in the market.

In the case of Lebanon, it is said that it currently has the best ground to apply the currency board for many reasons, one of them being the fact that its people are well educated and paralinguistic. In addition to that, there is an on-going suggestion by the French that suggests initiating the currency board in another country. For example, it could be started in Switzerland and then it must follow the Swiss law and the risk of breach and corruption would become minimal. Switzerland would be controlling the Lebanese currency and international members could be assigned rather than members of Lebanon. There must be members from the IMF, in addition to Lebanese and international experts working on this hand in hand in order to ensure its effectiveness.

However, others argue that the goods are expensive not only because of the currency depreciation but also because Lebanon relies heavily on imports. Moreover, main services and products are usually provided by monopolies or oligopolies, minimizing consumers’ chances of finding alternatives at better prices. Also,

the productive sectors, mainly agriculture and industry have been severely under-developed at the expense of the services sector which is considered a pillar of the Lebanese economy. This is why, applying the currency board or using cryptocurrencies without tackling the financial and economic problems at their roots will not solve the crisis. [12]

While currency boards have a long history and were implemented in many countries as mentioned previously; they were not always successful. For instance, Argentina lacked a clear long-term transition perspective and shifted to a flexible exchange rate.

Moreover, the currency board presents many disadvantages and limitations such as the seigniorage problem as mentioned by Dr. Nasser Saidi; currency boards earn interest on foreign currency holdings instead of using these holdings to make investments at home which can have a multiplier effect and contribute to job creation. Also, the currency board cannot serve as the lender of last resort, making the banking crises even more difficult to solve. The weakness of the banking sector in Lebanon would make it more dangerous to implement such a policy. To sum it up, a currency board without sound and sustainable macroeconomic policies can lead to further depreciation of the currency and further deterioration of the socio-economic situation. However, the implementation of sound economic policies will obviate the need for a currency board. A stable local currency requires the reform of public finances and a strict fiscal discipline in addition to the reform of the banking sector, amendment of money and credit code, and strengthening BDL’s governance. [14]

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## RECOMMENDATIONS IN DISCUSSION

### Better Monetary Policies and Reforms

The collapse is becoming more severe day by day, with a passive government and a governor not being transparent or taking the right measures. In fact, the government has not had a real plan ever since the crisis has started. In collusion with the ruling class, they are still resorting to policies that further incapacitate the public's welfare. To stop the depreciation of the Lira, the central bank should put in place a new monetary policy. While some experts argue that printing money will lead to further depreciation of the Lira and hyperinflation, others consider that inflation is mainly caused by political factors, and monopolists who set the prices whether directly or indirectly.

Lebanon is in desperate need of restructuring its debts, financial engineering operations, and fiscal reforms in a way that promotes the growth of a sustainable economic model.

This economic model must have strong foundations that support Lebanon's productive sectors making it a competitive economy that not only produces for local use, but also exports to the international community. The new policies and capital controls must also promote equity and justice among any depositor no matter the size of their investment. This way, they can all have the same access and opportunities with their deposits.



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# Blockchain: from governance to trade

## DEFINING BLOCKCHAIN: ADVANTAGES VERSUS RISKS

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A blockchain is a distributed database without a centralized server where data is added by members of a peer-to-peer network [9]. These records are not under the control of a single party and are impossible to alter. Moreover, blockchain creates trust between different entities and improves security and privacy. It enables real time data sharing between organizations very quickly, in an efficient way by reducing manual tasks and thus costs. However, it is important to note that different types of cryptocurrencies vary in the features they provide their users with. For instance, there are certain types of cryptocurrencies that are designed to be stable and you can trust them as much as you trust the mechanism that makes them stable. Some of those are backed by reserves, others are algorithmically determined, or stabilized in a decentralized manner. Another point to note is that blockchain, compared to other technologies such as Holochain, is a slower processor due to the fact that all the nodes have to retain the information of everyone's state before any transaction happens. In technologies like Holochain, the latter is not necessary as long as the data is tamper-proof [21].

Moreover, blockchain's standards are still not mature and currently in the process of development. Adding to that, policy and regulations about this new technology vary from a country to another entailing very high risk. Also, energy requirements can be higher, sometimes more than electricity requirements of an entire country.

## APPLICATIONS IN COMMUNITY SETTINGS (EXAMPLES FROM THE WORLD)

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Blockchain technologies have been implemented as solutions in many areas of the world. Here are some examples:

**Trustlines**, a project Aleeza Howitt works on, uses blockchain technology but is run in a completely opposite way than bitcoin and other volatile cryptocurrencies. It functions on the foundations that money should be people-powered and run in bottom-up monetary systems rather than top-down which is the prevalence in the existing fiat schemes.

The way that Trustlines envisions their platform is as a mutual credit network based on individual trusted relationships and individual trustlines. A trustline is two credit lines that are issued bilaterally, back and forth between two people/entities that trust each other. What makes Trustlines unique is that compared to other mutual credit networks, it is more decentralized because it is based on bilateral relationships and it lives off a blockchain.

**Professor Nir Kshetri** gave the example of mining cobalt in Congo. He mentioned that the Democratic Republic of Congo will be piloting a scheme that uses Blockchain technologies to ensure that mining is not being done by children. This plan is going to be done using on-ground monitoring systems to check that there is no child labor and the entire process is eco-friendly.

**Red Cross Kenya**, they were trying to use Blockchain as a way to help local communities in acquiring their basic necessities. This community project basically provides tokens on mobiles on an app called Sarafu. Every one Sarafu is equal to one Kenyan shilling and these funds originate from donors. These tokens are for people to use freely without any third-party interfering with their decisions to buy their necessities from Kenyan markets and they are able to multiply the Sarafu points they have by engaging in activities that generate income or simply through their businesses. This project came to life after most people were suffering below the poverty line due to several factors such as government policies and the pandemic.

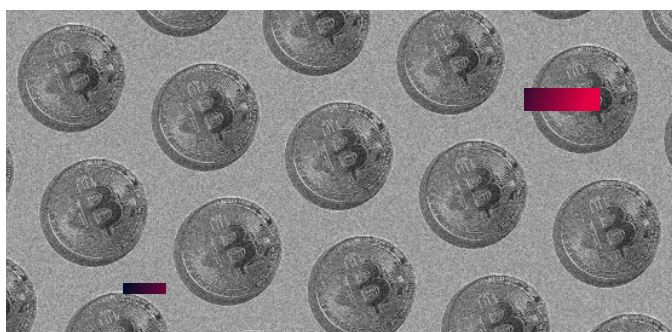


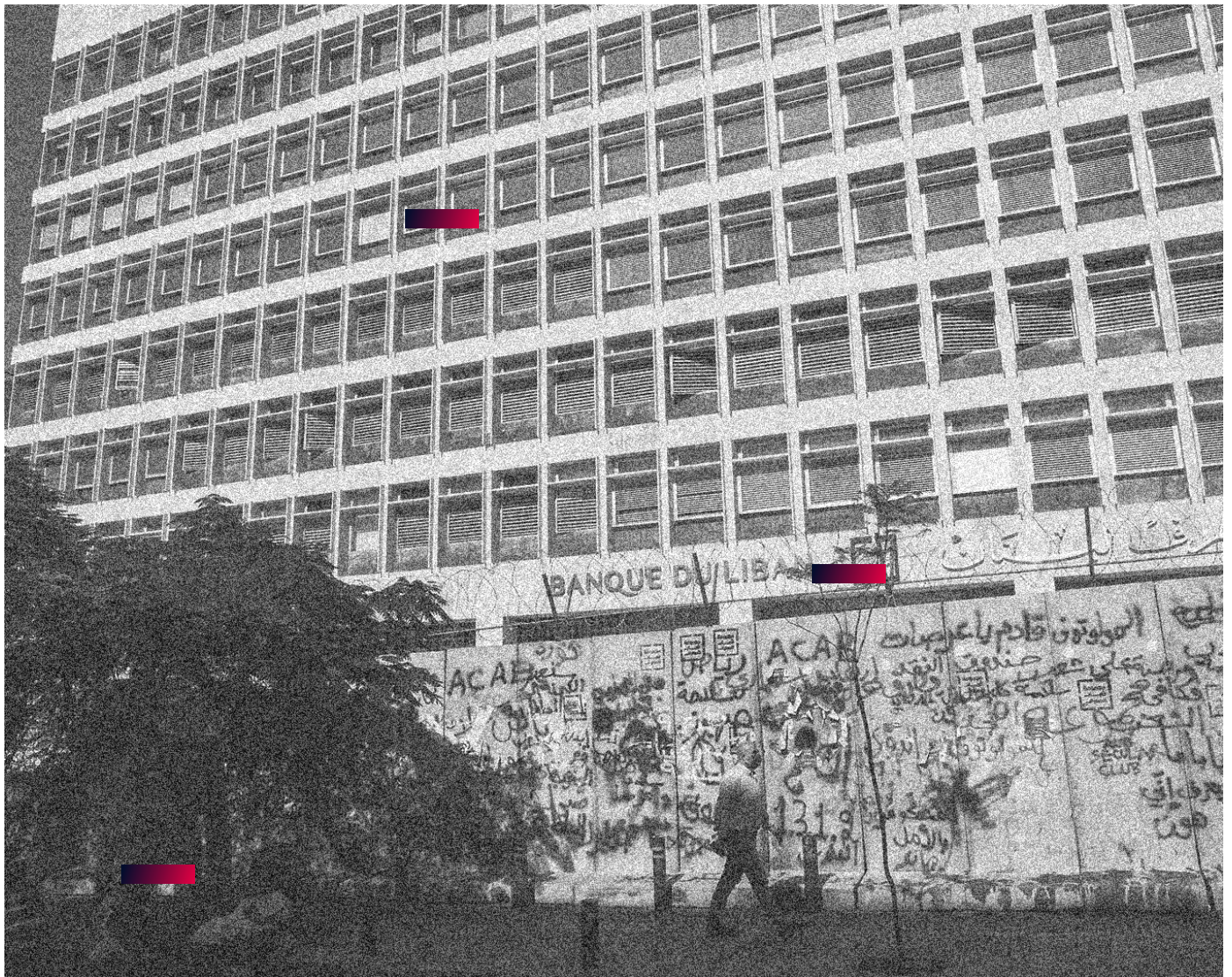
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## PROSPECTS OF BLOCKCHAIN IN LEBANON

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In the past couple of years, many Lebanese have turned to mining cryptocurrencies in order to gain some freedom and secure remittances in USD. After the banks had swallowed their savings, blockchain technology gave hope to the people. Other than mining crypto for profits, there have been some feasibility studies by UNDP on how crypto-based solutions and renewable energy might be an answer to the existing crises that Lebanon is witnessing in the electricity sector. This was encouraged after the sector started collapsing and especially when the coping strategies used to compensate for the electricity shortage dramatically increased the rates of pollution in the country [17].



Banque Du Liban

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# Exploring alternative currencies

## DEFINITIONS: CRYPTOCURRENCIES VERSUS DIGITAL CURRENCIES

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Digital currencies are encrypted into becoming cryptocurrencies, which are very unpredictable and volatile for investors in the global market [19]. To identify a cryptocurrency, one has to look at whether it is based on blockchain technology, and whether it is following cryptography. The blockchain technology allows this type of currency to be transferred smoothly. In fact, these currencies function like money where they define value that can be transferred from one entity to another [18].

## BACKGROUND AND RATIONALE BEHIND CRYPTOCURRENCIES

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Cryptocurrencies are portable, durable, recognizable, scarce and can be divisible into proper smaller denominations. They satisfy all the requirements of the so-called 'money'. Cryptocurrencies can also play an important role in international trade. These types of currencies such as bitcoin have characteristics that make them ideal. For instance, all the transactions are irreversible and cannot be undone. Thus, money flows in one direction and in some systems, it is impossible to execute an inverse transaction. Also, most cryptocurrencies are deflationary in nature which is unusual in economic history making them the first example of such an approach. Some cryptocurrencies have a maximum supply that reduces over time which can ensure a stable purchasing power as long as demand is stable. This can also be linked to the argument of inflationary fiat currencies and its relevance.

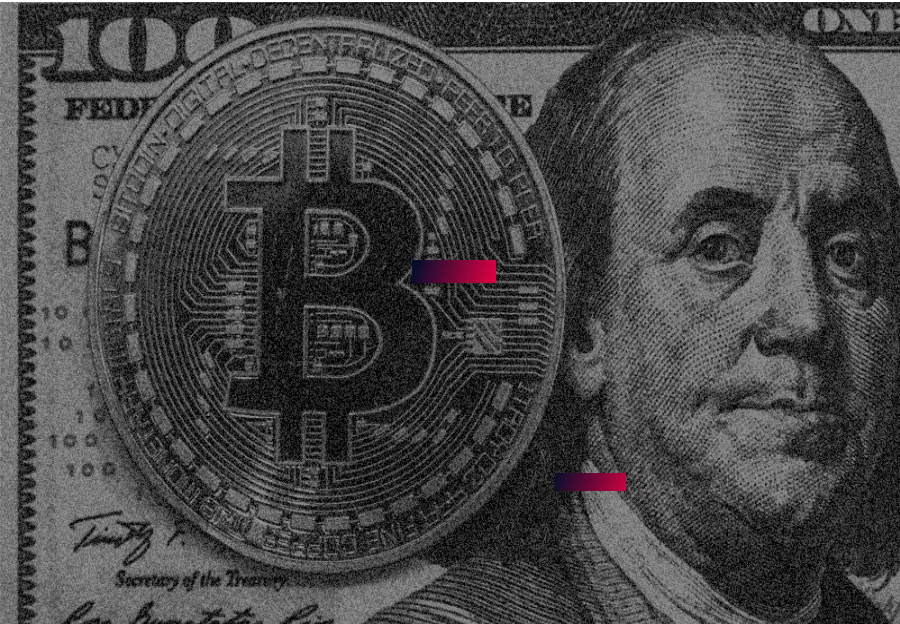


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## ADVANTAGES AND ASSOCIATED RISKS

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Different types of crypto and digital currencies have been used alternatively as a means of exchange over the years. The use of such currencies is associated with different advantages and risks listed below.

### ADVANTAGES:

#### 1- No third-party

Cryptocurrencies are not necessarily traded through a third party, there are mostly from one individual to the other. The direct relation of the sender and receiver and the transparency in the availability of data are the two major reasons that make the blockchain a solution especially in times of financial crises [20]. You can get bitcoin from freelancing on the internet or one of the other ways might be investing your time to get this bitcoin. Cryptocurrencies place more power in the hands of people and it tackles issues like hyperinflation and bank failure which has continued to occur lately. It also allows unbanked workers to conduct remittances without having to pay high fees to financial institutions. The recent blockchain technologies, used with alternative currencies, allow us to minimize the risk of fraud and corruption since they come with a strong security model.

#### 2- Sanctions for Mis-use

Although these sanctions are not formal, they do happen! Looking at robberies that happened in the past 10 years, any wallet that has been stolen would be marked as robbed and therefore not a single platform would add it in because of the reputation. This would be a sanctioned wallet and the sanction would be posed democratically, by the investors and not by a certain entity or government.

#### 3- Eco Friendly

With bitcoin, the only aspect which poses threats on the environment is the mining happening in China, and these were recently banned. Taking Iceland as an example, most miners use water dams to make hydropower plants. Also, in Armenia or Georgia, most miners are using rivers to create hydro-power plants. With the existing Fiat system, a big amount of energy is lost due to the dramatic presence of ATMs in every corner, or high lit towers which are usually banks or financial institutions.

However, according to the Cambridge Bitcoin Electricity Consumption Index, bitcoin-mining operations around

the world now use energy at the rate of nearly a hundred and twenty terawatt-hours per year. In fact, an article by The New Yorker (2021) titled **Why Bitcoin is Bad For the Environment**, states that this amount equates to what Sweden consumes annually in terms of electricity. The same article elaborates by mentioning that “a single bitcoin transaction uses the same amount of power that the average American household consumes in a month, and is responsible for roughly a million times more carbon emissions than a single Visa transaction“ [24].

### RISKS:

#### 1- Increases Wealth Gaps

For now, inequality is increasing because of the few who have the know-how to mine, trade and invest. Adding to that, the big crypto mining companies who own supercomputers, allowing them to mine faster thus earning a big share of the market. In this wise, cryptocurrencies can only recreate current wealth gaps. For instance, a big part of bitcoin has been mined already and this means those who were involved early in the game own most of the bitcoin wealth.

#### 2- Accessibility

Decentralized cryptocurrencies rely on computing power which is not accessible to everyone. Instead, large mining corporations get more control of decision making, usually deflecting it towards profit maximization. Cryptocurrencies have huge barriers to joining at the moment despite the fact that the original idea was that anyone can interact with blockchain and anyone can handle them using an anonymous or pseudonymous identity. dva

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## ADOPTING CRYPTOCURRENCIES IN LEBANON: FROM LEGALITY TO TRADE

With people losing confidence in the Lebanese banking system, more and more young Lebanese are turning to digital currencies as a way to shift their money in and out of the country. Investing in such currencies is found to be way easier and time saving. Despite the BDL banning banks from processing crypto-related transactions and issuing a warning regarding the use of cryptocurrencies, people are using it as a way to defeat informal capital controls. Nevertheless, the Lebanese laws do forbid the ownership, use, exchange of cryptocurrencies, but when it comes to their acknowledgment as a payment method, regulations only adopt legal tenders/fiat currencies (government issued currencies not backed by physical commodity) [22]. As a result, barter agreements can be used to regulate, for instance, the adoption of cryptocurrencies by retailers [22].

The use of digital currencies in Lebanon or in any other country threatens the function of the central bank as people become less dependent on the centralized currency and use peer-to-peer money. This might be the reason why some countries, such as China, have recently placed bans on any financial activity that is dependent on crypto, especially since it defies the top-down monetary systems. Lately, Russia has called for regulations to protect non-professional investors and thus the overall economic system [13]. Nevertheless, Estonia was one of the first countries to issue licenses to crypto businesses in 2017. More than 2,000 cryptocurrency licenses were issued in addition to offering digital residence, allowing entrepreneurs and companies to legally base themselves in Estonia [5]. Today, the government wants to turn regulations to zero and start licensing all over again with tighter regulations.

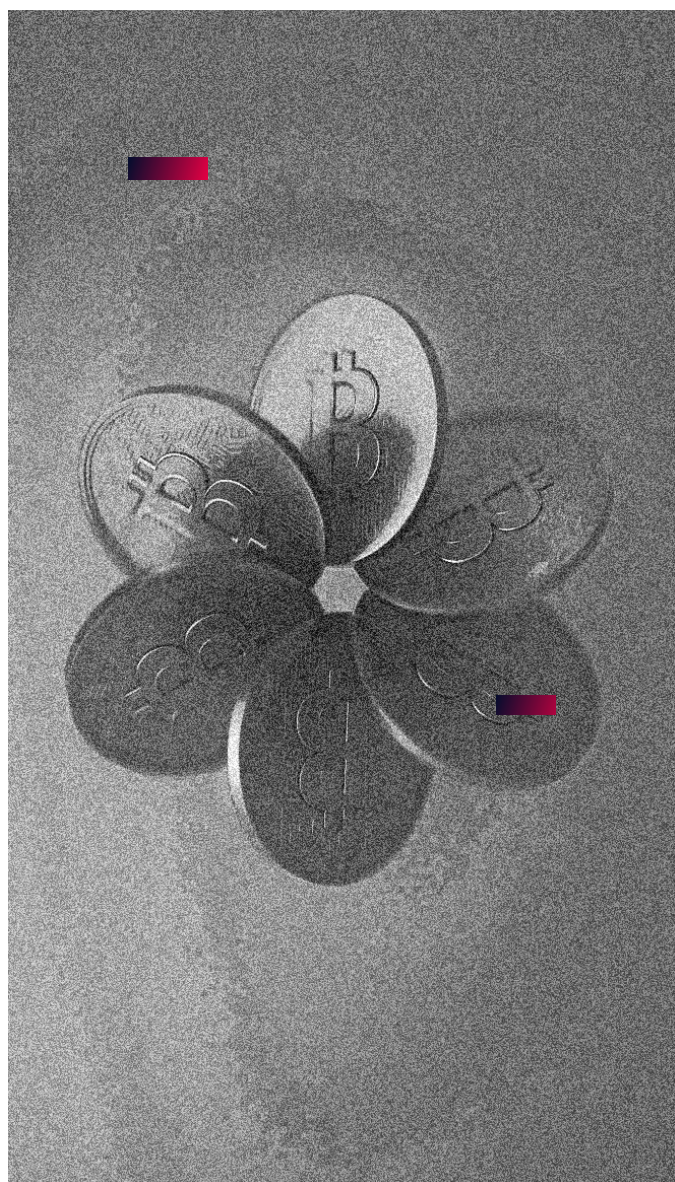


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# Exploring ecosystems of 'innovation'

Over the years, market studies and government policies have proven to be insufficient in tackling the existing socio-economic issues [8]. Social innovations were part of this conference for this reason, in addition to the fact that these initiatives are people-powered, requiring solidarity and cooperation in order to flourish. In times like these, these types of innovations work best in areas away from old governments and systems, where open spaces allow every local citizen to be part of the change [8]. Social innovation networks can create new development opportunities for the local communities by helping create collaboration or new relationships and thus meet local needs.

## DEFINITION OF SOCIAL INNOVATION

Top-down policies and technologies have proven their inability to instill social change, especially that they often lack participation of local communities in decision making. When working in developing countries, development initiatives must be considered to address the needs of the local citizens and highlight notions of equality, ownership, and commitment. Contributing towards tackling the problems and needs of a society is one of the characteristics that entails social innovation [1] which is distinguished from other types of innovation because it addresses gaps and needs in societies in a way that other business and technical innovation cannot [10]. Its effects are efficient, effective, and most importantly sustainable, which increases the value of the impact it creates on societies holistically and not on individuals and/or specific members of the society [1].





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### CASE STUDIES OF INNOVATION: LESSONS LEARNED

A large number of initiatives for poverty reduction around the world have been conducted using social innovation, although most of them are not labelled as social innovation (Millard et al., 2016). Social innovation can be simply done on a microscale in one’s own small circle, creating an impact that addresses this circle’s needs which in turn helps in its prosperity and sustainability. In general, this type of innovation comes as a window of opportunity that comes along as an answer to an existing crisis/problem. In these situations, it is important to have a mindset of problem-solving as well as a sense of community that allows space for change and growth.



“Waste crisis” and what I call “waste potential”.  
Ziad Abi Chaker

This notion is highly dependent on the foundations of social constructivism. Every relevant stakeholder in the community is part of the process, pouring their experiences, knowledge, and input to create better solutions and better impact. To be relevant to the context where development initiatives are applied, change makers really depend on gathering ideas from significant stakeholders in order to create a sense of community. In addition to that, it is important for social innovations to have a vision that allows them to keep expanding and be open for expertise outside their context. However, using the input from these expert communities might need to be amended in order to adapt to the needs on the ground.

A very important lesson to be channeled through social innovations is differentiating between the concepts of

solidarity versus charity. When the community learns how to feel responsible towards the problems in their own circles, this creates a sense of solidarity. This no longer becomes something you do once or twice as charity, but it rather becomes a mindset that every individual of the community has, which paves the path towards sustainable development. In summary, wanting to care for one’s self and for one’s own community is one way to move forward and to fight the existing problems and issues in solidarity.

Social innovation alone is not enough as change requires challenging and replacing the dominant institutions that are based on individualism, hierarchy, and competition. Thinking and organizing are the basis of transformative social innovation. Initiatives that tackle material, ecological and spatial matters are crucial when changing social relations and practices. Transformative change requires the participation of everyone in society. For instance, participatory budgeting brings changes in the lives of the people and considers their opinions. This is why promoting the idea of responsibility is essential when it comes to initiating social change in all members of the community. No matter what the age, gender, socio-economic background is, individuals spend more time caring for their communities and contributing towards creating a better future. The process of influencing and raising awareness on these matters can start as early as the school level with cooperation from ministries, curriculum developers, school administrators, teachers, and much more relevant stakeholders. Education has proved to be a core value in societies and that shows their potential in shaping them. Also, reference should be given to existing local organizations that support and believe in social innovation and share the purpose of standing together in solidarity in light of the current situation.

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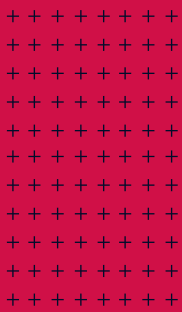
## PROSPECTS OF INNOVATION IN LEBANON

Many initiatives have started ever since the uprising and after the Beirut Blast and remain until this day, such as Daleel Tadamon, Beb w Shebek, and many more. The efforts placed in different areas (health, education, finance, construction...) have truly helped in getting the city on its feet again considering the support the community was getting from those in the ruling class. People tend to voluntarily put effort into their community when they feel affiliated or when they can relate to something, and they are also better motivated to participate when they have enough access to information. This is why people should reflect on their values and have enough knowledge when trying to drive change in order for it to be sustainable and meaningful to the community to which they belong.

More solidarity projects aimed for sustainability could be initiated in Lebanon knowing how its people are always fighting for a better future. Now, more than ever, people should resort to social innovation within the realm of solidarity in order to respond to the existing needs that should be prioritized.

The next section will explore alternative currencies as means to shift monetary transactions into the hands of people.





# Towards a more democratic economy: recommendations and implications

Neoliberal capitalism has been demonstrably unable to meet basic human needs in socially fair, ecologically responsible ways. Its obsession with the economic growth, thriving markets, and private accumulation, the system as a whole is set up to produce crises and crashes [23]. One solution to these problems is developing innovative cooperative finance and money systems, alternative currencies and co-operative organizational models that can address inequality, poverty, and coercion.

Some consider that blockchain is what democracy looks like in the age of technology while others are less optimistic about it. One sure thing is that blockchain can be used to create an alternative that privileges social cooperation, or a currency which at its heart has a set of features that can make it radically democratic and can challenge the existing hierarchies and power structures. The blockchain was designed to be decentralized in a way that gives everyone a say in its future. Giving power to the people

and allowing them to be involved in the decision-making process and to control the currency they use, would be democratic. However, the main problem would be the government's reaction, which in many cases stepped in to limit or ban the usage of cryptocurrencies.

The blockchain technology can pave the way for changes in how the government and systems function. It might improve database management and government record keeping, leading to improvement in healthcare services, elections systems, and financial structures. In the case of Lebanon, the use of blockchain and cryptocurrencies will protect the people from the depreciation of the Lebanese lira and will help them avoid expensive transfer fees. Moreover, using digital and decentralized currencies will allow them to escape the monetary control imposed by the Banque du Liban and the local banks [16].

**While many solutions were proposed in this report, ranging from general to specific. We contend that the following actions are required to move forward:**

- Develop a richer and broader discourse about finance and monetary systems in order to develop policies that are more focused on the social economic dynamics of money.
- Popularize and simplify these financial topics, allowing people to engage in the conversation and helping them become more aware in order to put for better financial and monetary regulations.
- Initiate new platforms for collaboration and activism that could facilitate online deliberation and discussions around alternative currencies. Money is a complex and adaptive system and democratic money reform can only succeed when collective unenlightenment around this system is exposed and confronted. Only by highlighting the immense social costs of this system and the possibility of developing new public policies and new models for

different monetary systems can change happen.

- Co-create new forms of economic and financial democracy that go beyond election times through organizing with people in cooperatives, and innovating in participatory self-help and mutual aid provisioning and digital platforms.
- Have extensive consultations with stakeholders in the digital transformation domain and the wider public before deciding on any policy action regarding the digital assets.
- Invest in research and development for blockchain technology, focusing on affordability, energy efficiency and overcoming technological constraints.

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- Increase digital literacy and include people in the discussions to develop regulatory frameworks, ensuring the usage of blockchains for democratic purposes.

- Use blockchain technology to respond to some challenges of the supply chain, such as integrating all supply chains in one system, facilitating the documentation and linking them together based on social and environmental standards. Blockchain-based applications also have the potential to provide a good infrastructure for registering and certifying at low cost the goods that are transferred between all parties.

- Use blockchain technology to reduce bureaucracy, paperwork and enhance the efficiency of procurement, logistics and reducing costs, improve security and minimize fraud.

- Verify the authenticity, origin, ethical standards, and method of production of goods and services.

- Blockchain technology can be used to prevent money laundry given its decentralized feature, allowing each user to validate changes making it incredibly secure.

- Provide easy access to affordable digital devices and acknowledge the people's right to be connected.

The financial crisis presents a historical moment to put forward radical alternatives. Under the current system, the privately created currency is issued by the central bank and through the banking sector as loans. This clearly exposed the fact that the failure to exercise democratic control over money issues has meant the benefits of the money system have been privatized, while the risks have been socialized. Those who lend and borrow the money that is created out of thin air are using social and public resources for private gain. While reforming the fiat money system is a political challenge, other forms of currencies, local and digital or other, can be created.

Blockchain systems should not be seen as a magic solution in the sense that inequalities and injustice will go away. It can be used to create 'shitcoin' that has little to no value or has no immediate, discernable purpose [15]. Yet, blockchain technology does offer more great tools for better protecting the people and empowering them to decide their own fate. Blockchain-based social networks could be new infrastructures for community currencies at a much larger scale than today. While the impact on the long run cannot be predicted, inspiring people to question how society currently operates will remain one of its main achievements.



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Over the course of a year, ongoing conversations and engagements between social innovators, technologists, grassroots, community actors, researchers, activists, and designers will be channeled towards defining socio-economic issues and exploring potential solutions and options.

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