**AZERBAIJAN STATE MINISTRY OF EDUCATION**

**AZERBAIJAN STATE UNIVERSITY OF ECONOMICS**

**INTERNATIONAL CENTER FOR GRADUATED EDUCATION**

# MASTER'S DISSERTATION

**ON THE TOPIC**

# "ECONOMIC INEQUALITY AND UNIVERSAL BASIC INCOME"

**Abdurahmanov Kamran Vahid**

**BAKU – 2019**

**AZERBAIJAN STATE MINISTRY OF EDUCATION**

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# MASTER DISSERTATION

**ON THE TOPIC**

## "ECONOMIC INEQUALITY AND UNIVERSAL BASIC INCOME"

**Code and name of Programme:** 060409 Business Administration

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**BAKU – 2019**

# İQTİSADİ BƏRABƏRSİZLİK VƏ UNİVERSAL SADƏ GƏLİR

## XÜLASƏ

**Tədqiqatın aktuallığı:** Texnologiyanın sürətlə irəliləməsi və insanları əvəzləməsi, bərabərsizliyin artması yüksək dərəcəli işsizliklə üzləşmə təhlükəsi ortaya çıxarır. Çıxış yolunu iqtisadi literaturada Universal Sadə Gəlir sosial proqramının tətbiq edilməsi ilə görürlər. Tədqiqatda Azərbaycandakı iqtisadi bərabərsizliyin səviyyəsi və Universal Sadə Gəlirin tətbiqi imkanları araşdırılmışdır.

**Tədqiqatın məqsəd və vəzifələri:** Azərbaycanda gəlir bərabərsizliyində baş vermiş dəyişiklikləri analiz etmək, hazırda ölkədə olan gəlir bərabərsizliyi səviyyəsini müəyyən etmək, Universal Sadə Gəlir proqramının tətbiqinin mümkünlüyünü əsaslandırmaq, həmçinin Azərbaycan elm cəmiyyətinin diqqətini bu mövzuya yönəltməkdir.

**İstifadə olunmuş tədqiqat metodları:** Analitik və iqtisadi-statistik təhlil, müqayisəli təhlil, modelləşdirmə və s. digər riyazi-statistik metodlar.

**Tədqiqatın informasiya bazası:** Əsasən Dünya Bankının və UNDP-nin və digər mövzu üzrə əlaqəli nəşrlərdən, müxtəlif növ etibarlı internet resurslardan, Azərbaycan Dövlət Statistika Komitəsinin nəşrləri və məlumatları

**Tədqiqatın məhdudiyyətləri:** Gəlirlərin bərabərsizliyi ilə bağlı kəskin informasiya qıtlığının olması, istifadə olunmuş ədəbiyyatların əksərən ingilis dilli olması və yerli ədəbiyyatların çatışmazlığı

**Tədqiqatın nəzəri və praktiki nəticələri**. Azərbaycanda gəlirlərin bərabərsizliyi səviyyəsi daim aşağı səviyyədə olmuşdur. Tezisdə 2017-ci il üçün edilən hesablamalara əsasən Azərbaycanda gəlirlərin bərabərsizliyi səviyyəsi (Cini indeksi) 17.52%-dir. Göstəricinin reallığı əks etdirmədiyi və hesablamada istifadə olunan sorğuda metodologiya problemlərin olduğu nəticəsi ortaya çıxdı. Həmçinin, Universal Sadə Gəlir sosial proqramın Azərbaycanda tətbiqinin mümkünlüyü iki fərqli model hipotezik model əsasında göstərildi

**Nəticələrin elmi-praktiki əhəmiyyəti.** Gəlirlərin bərabərsizliyi ilə bağlı ölkədə ciddi məlumat (data) qıtlığının olduğunu, hesablanmış Cini indeksinin 17.52%-ə bərabər ola bilməyəcəyini, sorğunun metodologiyasında problemlərin olduğunu və həmin sorğunun mütəmadi olaraq keçirilmədiyini, həmçinin Dövlət Statistika Komitəsinin və digər araşdırmaçıların da Azərbaycandakı iqtisadi bərabərsizliyə qarşı naməlum səbəblərdən biganə yanaşmasını ortaya çıxarmış oldu. Tədqiqatda həmçinin Universal Sadə Gəlirin Azərbaycanda tətbiq edilməsinin mümkünlüyü göstərildi və bunun üçün iki fərqli hipotezik maliyyələşdirmə modeli quruldu, onların gəlirlərin bərabərsizliyində yaratdığı dəyişikliklər analiz edildi.

**Açar sözlər:** Azərbaycanda Gəlirlərin Bərabərsizliyi, Universal Sadə Gəlir, Lorens əyrisi, Cini indeksi.

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# INTRODUCTION

**Relevance of the research topic.** Considering increasing levels of inequality and automation, many people proposed the idea of Universal Basic Income as a solution. Idea which has accepted by different people from different parts of the political spectrum because of its reliability. In this paper, UBI's possibility in Azerbaijan and its income inequality reducing effects will be examined.

**Depth of study of the topic in the research area:** Universal Basic Income has long been debated in the literature but, studies to prove its possibility is still lacking. UBI idea is pretty mainstream at the moment, having really famous supporters such as Elon Musk, Mark Zuckerberg, Andrew Yang and many more and we can also find evidences in favour of basic income from famous economists like J.Galbraith, A.Atkinson, J.Tobin, P.Samuelson, M.Friedman, F.V.Hayek and etc. UBI has also modern supporters; famous names in the area are Guy Standing, Philippe Van Parijs, Yannick Vanderborght and etc.

**Purpose and objectives of the research:** Objectives of this research are examining income inequality levels in Azerbaijan throughout its history, measuring current level of income inequality here in Azerbaijan, discussing the possibility of UBI implications and its effects on income inequality in Azerbaijan and also raising awareness on the UBI discussion in the Azerbaijan scientific community.

**Object and properties of the research:** Calculation of current income inequality level in Azerbaijan, possibility of possibility of application of Universal Basic Income in Azerbaijan and its income inequality reducing effects are main objects of this paper. Property of the research is its implications on the society and the economy.

**Research methods:** Quantitative methods like mathematical calculations (specifically rectangles method), statistical and comparative analysis will be used on existing and calculated data. Base data which will be used in this paper will be taken from Azerbaijan State Committee on National Statistics.

**Research information base:** Numerous valid internet sources as well as the publications of World Bank, UNDP and on this topic will be used. The main data will be used in the paper is a survey on income groups which was published by Azerbaijan State Committee on National Statistics

**Research limitations:** Lack of data in the field, reliability issue of the existing data on income inequality, lack of prior research and especially national research in this particular area, time constraints.

**Scientific and practical value of the findings:** This paper illuminates the problems related to the data on income inequality and suggest two different funding methods of UBI policy for Azerbaijan.

**Structure and volume of the dissertation:** This paper has an introduction, 3 chapers, 9 tables, 6 figures and 3 pictures. In total: 70 pages and 43 different sources.

# CHAPTER I. UNIVERSAL BASIC INCOME: SURROUNDING ARGUMENTS

## 1.1. Economic inequality and automation: Rationales for Basic Income

The hierarchical structure that capitalist economies introduce has several peculiar characteristics. Although the hierarchy incentivises qualities like consistant development, innovation, productivity, striving for the top, being able to select the best from the rest, therefore improoving the overall well-being of the hierarchy members, it also produces inequality which remained unaddressed, could potentially bring the collapse of the whole structure.

Inequality and hierarchical structures in certain ways are main components and "driving forces" of our economy and society which need to be preserved and controlled in order to have a functioning economy and a society.

The world is full of inequality. Gender, racial, health, educational and etc. Amongst many, economic inequality is the one that will be addressed in this paper. Inequality has been on the rise across the globe for a few decades. Even though some countries have managed to reduce the numbers of people living in extreme poverty, still the gaps between the pillars of the economic hierarchy groups have continued to grow as the richest continue to possess unprecedented levels of wealth.

There are two types of economic inequality:

1. Wealth inequality - is the unequal distribution of assets among a population
2. Income inequality - refers to the extent to which income is distributed in an uneven manner among a population.

Wealth inequality is ever present and it has always been with us even before the times that our civilizations got started. The expansion of wealth gap between the rich and the poor has been accelerating. Research paper published by Inequality.org shows that **in the year 2015, 71 percent of the world's adult population owned only 3 percent of the total global wealth, while the richest 8.1 percent possessed close to 85 percent of global wealth** (Inequality.org, 2017).

I would like to bring a quote from a person who has been in the world's top 1% for a long time. This person is Bill Gates and he has some interesting thoughts on inequality:

> *"Some level of inequality is built into capitalism. … It is inherent to the system. The question is, what level of inequality is acceptable and when does inequality start doing more harm than good?*
>
> *…*
>
> *High levels of inequality are a problem - messing up economic incentives, tilting democracies in favor of powerful interests, and undercutting the ideal that all people are created equal.*
>
> *Capitalism does not self-correct toward greater equality — that is, excess wealth concentration can have a snowball effect if left unchecked.*
>
> *Governments can play a constructive role in offsetting the snowballing tendencies if and when they choose to do so."* (Gates, 2014)

Income inequality is the contributing factor to the wealth inequality and the main destabilizing factor in the society. Without the existence of a normal level of income, individuals cannot sustain themselves. The debate over income inequality is not about whether it exists. Income inequality definitely exists in every part of the world. The argument is whether its existence poses threats to the stability of the economy and the society, or not and if it does, what should be done about it. Therefore, one of the main objectives of this paper is to address the income inequality issue. In this paper, income inequality levels in Azerbaijan throughout its history will be examined, current levels of income inequality will be estimated and calculated and its implications on Azerbaijani people will be investigated.

Income inequality is a controversial topic and it is not possible to offer a solid, feasible solution. UBI is a proposal offered by many to address this issue. The question of "can it be a satisfactory option" still remains unknown.

One of the problems that UBI is also suggested as a solution is the automation. Automation is the "slow killer" of jobs. To this date, many and many jobs which mainly required human strength and repetitive action have been automated away by robots and machines. According to a study done in Oxford Martin School in 2013, **47% of jobs in the USA has a risk of being automated** in the upcoming 2 decades (Frey & Osborne, 2013). The rise of Artificial Intelligence (AI) combined with

modern technological advancements are now posing new threats of automating all sorts of job positions from a simple mechanic to a computer engineer.

The loss of jobs is not the only problem which automation creates. It also brings along the risk of increasing income inequality even further. Benefits of automation is mainly experienced by huge corporations. Therefore, it can be said that automation creates few winners and many losers. Although automation and income inequality are the main reasons behind Universal Basic Income making it a mainstream thing, moral reasoning is the only point which should be promoted while executing a policy like UBI. Because people feel isolated when they see that the work they have been doing are no longer needed in the society and they are getting paid because they are not enough skilled, so they could avoid work. This may lead those people to be deprived of meaning and purpose from their lives which might lead to an extensional crisis in the society. Instead, people have to be promoted with the idea of adopting to the changes and improving their skills so they can be competitive in the labour market and still be able to contribute to the society.

Income inequality and automation is intertwined in this case. UBI is a policy option suggested to address both problems at the same time by many economists and by people like Elon Musk, Mark Zuckerberg, Andrew Yang and many more who have great public influence. Clearly, the ideas proposed with the application of UBI should not be ignored and definitely deserves more attention.

Next, we will look at what a Universal Basic Income is, what advantages and disadvantages it has.

## 1.2. Introduction to UBI

Universal Basic Income is not a new idea. Basic income ideas have been around since the renaissance. Early proposals of a guaranteed basic income were first made more than two centuries ago by Thomas Paine. However, the idea of a basic income only started gaining popularity in the political discussion during the 1960s. Many different versions and proposals were made over the years, backed by the advocates of the welfare state, such as John Kenneth Galbraith and Anthony Atkinson, and also some famous free-market and libertarian economists like Milton Friedman and Friedrich Hayek.

The idea itself first appeared few hundred years ago, in the 16th century. Just a year ago from the start of the Protestant Reformation, in 1516, the English lawyer, author, social philosopher, and statesman Thomas More introduced the idea in his novel Utopia, the idea which can fight back theft by inclusion of a basic income. However, the father of the idea of basic income is thought to be Johannes Ludovicus Vives who introduced a detailed first scheme in 1526. Vives believed that it was the responsibility of the government to ensure that each resident receives a minimum income. He believed that it was an effective way of providing what he understood as morally required charity. The income should be provided to those who are in need and poor, and the requirement should be that he is willing to work. Because it violates one of the characteristics of a basic income which is unconditionality with the condition of willingness to work, it cannot be considered as a universal basic income but the idea itself is still pretty close. Vives also argued that because everything is made by God, the ones who have gathered more from the nature and do not help the poor are thieves, since they refuse to share and want to keep what they have collected which God created for all humanity and not exclusively for them.

Different forms of Universal Basic Income has been proposed and presented as an answer to the challenges at certain times. From the author Joseph Charlier who said that a basic income could potentially end the dominance of capital over labor in 1894, to the President Richard Nixon who presented a plan for income guarantees

which is called the Family Assistance Plan in 1969, proposed to end the growing dependence on means-tested welfare systems.

Recently, the discussion has been brought back to mainstream by famous proponents of the idea. A failed referendum in Switzerland about basic income and a recently finished experiment in Finland also brought huge attention to the topic. Interestingly, this idea has proponents in every spectrum of the political discussion. The question is why this idea has not been fully implemented yet.

Defined by The Basic Income Earth Network (BIEN), Universal Basic Income means “a periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement” (Basic Income Earth Network, 2019a). Some argue that, current welfare systems are inefficient and whether UBI might be able to replace many of them we have right now. It depends on who you ask, but UBI has the potential to make many programs like the paid sick leave and unemployment benefits redundant.

The other idea about UBI’s impact on welfare systems is that it cannot replace the current social welfare schemes but rather be a supplementing one to the existing schemes. It is suggested as an alternative to the current conditional scheme of social security (Groot, 1999). Because it is not possible to see how it can replace the existing schemes without any problems.

The common view for UBI for most is the definition of it. One of the famous definitions of UBI is the one which provided by The Basic Income Earth Network (BIEN).

UBI has the following five characteristics (Basic Income Earth Network, 2019a):

1. Universal - that means it is given to everyone without a means-test.

2. Unconditional - that means it is given without any requirements to work or to do anything else.

3. Individual - which means it is given to every individual, not to entities such as couples or households.

4. Periodic - which means it is not paid off as a one-time grant, but over regular intervals.

5. Paid in cash - so the people themselves can decide how to make the best use of it. (Table 1)

**Table 1. Characteristics of Universal Basic Income**

| | Characteristics of Universal Basic Income | Description |
|---|---|---|
| 1. | *Periodic* | • it is paid at regular intervals (for example every month), not as a one-time grant. |
| 2. | *Cash payment* | • it is paid in an appropriate medium of exchange, allowing those who receive it to decide what they spend it on. Therefore, it is not paid either in kind (such as food or services) or in vouchers dedicated to a specific use. |
| 3. | *Individual* | • it is paid on an individual basis - and not, for instance, to households. |
| 4. | *Universal* | • it is paid to all, without means-test. |
| 5. | *Unconditional* | • it is paid without a requirement to work or to demonstrate willingness to work. |

**Source:** The Basic Income Earth Network: BIEN https://basicincome.org/basic-income/

A basic income policy could have a few benefits, including enhancing personal freedoms and empowering people, specifically those who may fall into the vulnerable category (for example: women and the poor). UBI may improve the operational effectiveness of current welfare programs. Though, there are concerns on some of its disadvantages such as the high costs of implementation as well as the probable social and moral destructive effects, because it is assumed that it may potentially reduce the incentive to work.

In the next section, we will take a closer look at the characteristics of UBI, mention some of the most argued advantages and disadvantages that it introduces, catch a glimpse at how it has been implemented around the globe throughout the history and why it might carry a potential for Azerbaijan as a policy option.

## 1.3. Characteristics of UBI

### 1.3.1. Universal

Many already existing minimum income policies are designed in a way that one receives the most benefits when income of that person is close to zero and also the benefits start to decrease as soon as the individual's income starts to increase. This dilemma can have a negative effect on people's inclination towards work and may potentially shift the environment in the labor market for worse. In this case, universality of UBI offers a solution. Because it is universal, one's incentive towards work cannot be demotivated and also any marginal income gains from work will not cause the loss of the benefit. There are three well identified reasons on why basic income should be preferred over the means-tested policies. (Van Parijs & Vanderborght, 2017):

First one is the ease to reach the poor with a basic income system. If a social welfare program designed to target the poor, most of the times it is often required that the poor themselves ought to take the steps necessary to receive the benefits, the steps which sometimes could be difficult to identify for them and for some the process itself could seem as humiliating. In order to reliably target the poor, extended bureaucracy and additional government structures might be required which will definitely come with extra costs and decreased efficiency. It is often difficult and expensive to manage such government structures. This mentioned problem can be eradicated to a large extent with the introduction of a basic income, since the poor will no longer have the need to apply for a support and the government will no longer need to target the poor, so it can save up the resources form this for a better use.

Secondly, it opens up the possibility of choice for those who does not want to accept the given job. Most of the current means-tested schemes enforces the available jobs to the people under the welfare and sometimes people have no choice but to end up in a lousy job. Many of those jobs often came with uncertain contracts, unpredictable pay and other problems which make the transitioning process from

receiving benefits to working even more painful. And most of the time after losing the job, the bureaucratic processes for getting back those benefits are complicated for those people, that is why many hesitate to take the risk of getting a job. A basic income policy on the other hand opens up the possibilities for people to take these risks, pursue their goals and maybe even start their own businesses, which in the end, might increase prosperity.

Third one being the prevention of poverty traps. Under a universal basic income policy, every additional income earned by an individual increases his/her net income where in current welfare schemes, the benefits are lost if one is able to earn above a certain threshold. UBI eliminates this problem which can make people be trapped in unemployment, so called the unemployment trap or welfare trap. The marginal gains people receive from those jobs are hugely offset by the fact that they lose their benefits. Thus, people lose their incentives to actually go to work which makes it hard for those people to transition from welfare to work with the removed incentives to take the necessary step. Application of a basic income policy even in a negative income tax form, which I will talk about later, could help to defy those wrong incentives. With this in mind every additional dollar an individual earns does not lose its marginal value and incentivizes people to accept the jobs with even lower wage for additional earnings.

This is a double-edged situation which a basic income policy might create depending on the supply and demand conditions in the labor market; Where there is a shortage of labor supply, people can dictate the salary because they already receive the necessary amount to sustain their lives, so why bother? Or in the opposite case, where labor supply is high, business owners might think that these people already have a certain level of income, so why to pay higher wages if people are willing to accept the job with even lower wage than normal. Of course, this situation is ever present, but a policy like this could take it to the extremes.

A universal policy addresses the issue of redistribution. In order to create such system, majority of people has to believe in it. A policy which only targets the poor not only wrongly incentivizes people’s work habits, but also might cause other

people who are not receiving the benefits to be disappointed by this situation and go against it. A UBI policy could eliminate dissatisfaction from both end of the spectrum.

### 1.3.2. Unconditional

Because it is unconditional, universal basic income has no obligations like other means-tested systems. Most of them enforces people to take on jobs that is offered and actively look for a job. Such obligations in many instances gives excessive power to the employers, since the employees has no choice but to bear those harsh conditions in the workplace. Because the workers have no power but to say yes, it takes away the incentives for them to say no, cause these bad employers will always be able to attract workers by offering slightly better conditions to new workers. An unconditional income on the other hand provides those people with the option of saying no to a job if they find it unbearable in regards to the wage, work conditions or some other factors. Removing the obligations tackles the problem of what they call the “employment trap”; the inability of the employees to say no to, or quit a lousy job. With the help of a UBI, those people in this so called employment trap gain the power to overcome this challenge. The expected outcome for those jobs would be the increase in salary and betterment of the working conditions.

### 1.3.3. Individual

Unlike many other means-tested systems the basic income is paid to each individual in a family or a household instead of for example to the head of the family/household. The main argument put against such strict individual payments is that giving it to one person in the entity such as the head of the household is simpler. This is particularly correct if the minimum income is paid through tax credits and only one adult works in the household, which is more often the case in developing countries. Today, most of the means-tested schemes are constructed in a way that if a person lives in a household, that person receives less benefits compared to people

who live alone. This is mainly due to the cost of achieving basic needs is higher when a person has to carry all the costs by themselves. However, there are two reasons why a basic income should be provided on an individual basis.

First one is that it is quite hard to keep track of whether an individual is living alone or in a household. This makes it easier to administer the payments on an individual basis and would also reduce the administrative costs

The second one is that social structures as families usually makes the transfers diminish and in return discourages people from living together which would make them lose economically. Van Parijs and Vanderborght (2017) therefore argue that paying the basic income on an individual basis helps making the system more efficient and encourages living together which to a larger extends is the utilization of scarce resources efficiently.

However, one of the main complaints also has been argued by many was the supposedly increased divorce rate observed in some experiments which indicates that giving the benefit on an individual basis also gives people the free choice of separating their ways from their partners, since they no longer are financially dependent on each-other.

This was the reasoning used against the results of a basic income experiment in Seattle and Denver, but its effect on marital stability was later rejected saying that it was as a statistical error (Forget, 2011)

Giving the payments on an individual basis has the potential to help empowering women, especially in developing countries where they are often far away from reaching the gender equality. By giving the payments directly to women in the households it is obvious to think that this would increase their control over the matters concerning the family and push those societies into the direction of more gender equality, which is always a desirable outcome.

I would like to mention this quote form James Mulvale who described the points I have been trying to make in a precise manner in his TED Talk (Mulvale, 2016):

*"UBI, in a negative sense, gives us an exit option. If you have a bad job with a bad boss or you live with an abusive spouse or you live in an oppressive community, having an economic floor, a regular income upon which we can depend, it can give us the chance to leave those bad situations and start a new life for ourselves. On the more positive side, basic income can enable us to pursue an education, spend more time with our families, take a career sabbatical"*

*- James Mulvale (University of Manitoba TEDxUManitoba, 2016)*

### 1.3.4. Periodic

Periodic means giving the payments over regular intervals which makes the basic income policy a supplement to the already existing earnings and it will definitely be as an extra bonus to already existing welfare goods such as schools, infrastructures, national defense and etc. Although a basic income is based on regular cash payments, intervals in which those payments are made may vary from one version to another. Some have also argued that the payment should be done with a one-time grant at the time when a child enters adulthood which is called as basic endowment. Amongst the proponents of this policy was Thomas Paine, who proposed that an endowment should be given at age 21 and a pension from age 50, funded by a land tax (Paine, 2004). It can be said that those two systems are basically the same because a basic endowment can be converted into a basic income with an ease by investing it in a way that can generate an annual income.

Van Parijs and Vanderborght (2017) discussed in their book "Basic Income, A radical proposal for a Free Society and a Sane Economy" that out of the two alternatives, the one with annual payments is preferred. Although the basic endowment aims at giving each person the same opportunities at the start of the adult life, the basic income is designed for providing economic security throughout life. Basic endowment given at the age of 21 might favor those who knows how to make long term decisions for themselves and most people at the age of 21 do not. There are certain abilities required to make such decisions such as "intellectual abilities, parental attention, school quality, social networks, and many other factors" (Van Parijs & Vanderborght, 2017, p. 31). A basic income instead, would give everyone the opportunity to take risk and invest throughout life and not only when one is at the age of 21.

The argument mentioned above is in favor of basic income to be provided periodically. One's freedom to choose how to spend that amount should not be restricted to an opportunity given at a certain point in life, which used incorrectly, could potentially lead one's desperation and depression. This is not a desired outcome considering we all make irrational decisions all the time, sometimes without even being aware of it. So, again, this is not a decision should be left to the individuals to make in an early stage of their lives, but rather a security option which should be guaranteed by an authority and paid periodically so the individuals can sustain themselves and never have the risk of making a mess out of the endowment.

Providing people with the safety of having a guaranteed payment made periodically throughout life can encourage them to take more risks, like starting their own businesses or take time off from work to learn a new skill or pursue their passion and etc. These options may not be open for those, if the payment was done as a one-time endowment, who made terrible choices on how to spend it. Having a stable monthly payment gives people the route to pursue these goals, and might lead to improved prosperity, particularly if more and more people take the risk of creating their own businesses, which in return will "turbocharge" the economic growth. This increased prosperity can then reinforce the fiscal system on which the basic income is based, leading to even more increased income and prosperity.

### 1.3.5. Paid in cash

Earliest versions of basic income presented the idea that payments should be in kind of certain consumer goods such as food, shelter etc. People who support this kind of aid or advocate this kind of foreign aid today, argue that it is the best way to ensure that the given aid goes directly to cover basic needs rather than being wasted on some goods the households or individuals might not actually need. The same logic is used in favor of welfare programs such as food stamps and other vouchers. People who advocate the idea that giving basic income in the form of cash payments

are underlining the fact that it requires far less bureaucracy and is not subjected to the pressure from outside groups.

It is also mentioned by Van Parijs and Vanderborght (2017) that putting cash directly into people's pocket increases their purchasing power which in return, helps local businesses. There are some exceptions where cash handouts would not be a feasible option like a rural area where markets are not readily available, areas where natural disasters or other crises happened, but overall there are numerous advantages of providing people with a basic income through cash payments. One of the powerful example for the advantage of cash payments is that giving people the opportunity to choose themselves how to spend the aid received in a way that will be most beneficial to them. Receiving basic income in a cash form instead of having it as specific goods or services can be much more effective because obviously, people themselves know what is best for them or precisely, what is necessary and urgent for them. Because if all of the human beings were to make rational decisions, it would not matter how people receive the payment; one-time or periodically. Because we are homo-sapiens and we make irrational decisions all the time, periodical payment is preferred and for using as a medium of exchange, cash payment method is preferred. Strategic decisions are hard for us to make and most of the time people fail to see the strategic outcomes of their actions, therefore periodical cash payments seem like the way to go in order to make sure that everyone is living a decent life, has the chance and opportunity to improve himself/herself, and contribute to the society in the best possible way.

### 1.4. Advantages and Disadvantages of UBI

In the first chapter we talked about five main characteristics of Universal Basic Income and mentioned few good outcomes of the policy and also went through a few caveats. In this chapter I will take a closer look at its advantages and disadvantages which have been discussed in the literature.

## Advantages

I mentioned some advantages of UBI in the previous chapter. Supporters of this idea created some serious arguments which deserve to be brought into the spotlight. I will try to mention few important one of those in this chapter. Those are:

1. Reducing income inequality
2. Reducing Poverty
3. Promoting Freedom and Justice
4. Supporting Gender Equality
5. Supporting Equality of Opportunity
6. Reducing Bureaucratic Challenges
7. Relatively Effective Welfare Solution

Next, we will take a closer look at each one of them individually in a separate section, and go through the ideas which has been floating in the literature and has been the main base arguments brought into the discussion in favor of the UBI.

### 1.4.1. Reducing income inequality

Recent arguments expressed by the proponents of UBI, relate to jobs losses and income inequality which are accelerating rapidly due to technological changes, such as automation and digitalization. A basic income policy could be executed as a solution to protect people from technological unemployment and job losses. The opposite relation could also be possible, where a basic income policy would help to reduce public resistance to technological innovation by providing security of the basic needs of people.

A Universal Basic Income policy is mainly suggested to help reducing income inequality, as UBI proposals are typically financed through a progressive income tax or by cutting subsidies from the unnecessary and outdated welfare policies.

Although financing UBI is argued to be problematic and it is identified as one of the main disadvantages still, a UBI policy could be more effective on reducing

income inequality than the current welfare policies. I will come back to the financing problem in the section where the disadvantages will be discussed, and the income inequality reducing effect of the policy will be addressed in a separate section.

### 1.4.2. Reducing Poverty

One of the fundamental supportive arguments in favor of the universal basic income is that it carries the potential to help eradicating poverty, regardless of the causes of the poverty in the first place. In fact, if chosen to set the basic income amount above the poverty line, it probably should theoretically bring an end to the absolute poverty. Because as indicated by James Tobin, a basic income helps to treat the symptoms rather than the causes of poverty (Tobin, 1966).

Basic income could provide material relief for those individuals who are living in extreme poverty and desperation, thus helping in a way which satisfies their basic needs. When it comes to families, the UBI policy gives parents the ability to invest in the human capital and educate their children. This investment in the long run would help them to break the cycle of poverty that they are encaged in, and in particular intergenerational poverty.

Furthermore, this kind of income security for the poor may create additional positive results, such as enhanced engagement in entrepreneurship and business creation. Indeed, the income transfer might perform as a safety net for people to take entrepreneurial risks and as a source of compensation for inefficient establishment process of small-scale production.

Also, it might help to bridge the time gap between business investments and revenues (Nooteboom, 1986). On the other hand, the additional income created by the transfer might also allow the poor to engage in other work opportunities and maybe investments. People who were previously restricted by credit constraints, including education, training and migration could feel a relief, which would in return generate positive spillover effects for human and economic development.

Additionally, because the basic income amount is distributed universally as a "right of citizenship" instead of a targeted benefit, the stigma and shame typically involved in receiving benefits from the state should not be an issue anymore (Standing, How Cash Transfers Promote the Case for Basic Income, 2008). Plus, a basic income policy is known to be less disturbing and authoritarian compared to targeted welfare programs, because it does not require the state to monitor people's behavior all the time. Finally, UBI is expected to assist strengthening social harmony and cohesion, which are predominantly important in small and poor communities, and avoids alienation and distrust.

### 1.4.3. Promoting Freedom and Justice

One of the most widely used arguments to support the idea of a basic income, addresses to the issue of freedom. UBI is likely to improve people's "real freedom" by releasing material constraints on people's decisions and widening the range of available choices. One of the original supporters of UBI, Erich Fromm thought that a basic income would encourage a shift from the psychology of scarcity to the psychology of abundance which can advance social cohesion as it supports initiative, faith in life and solidarity (Fromm, 1966).

Basic income can also make people feel that they have a greater sense of agency over their lives through a variety of mechanisms.

Firstly, the assurance which people experience as a guaranteed income can inspire them to make meaningful work decisions not only driven by financial needs but also by attraction and interest.

Secondly, it is known to increase people's well-being by making them more free from coercive and punitive policies which can harmfully affect their mental and spiritual state. As an example, there is evidence that policies such as 'back to work' schemes increase stress for the receivers because they demand conditions that might be difficult to meet (PFSC, 2017)

Other advocates of the UBI think that a basic income would help to assist the concerns of justice, because everyone in a society should have a right to have a minimum income and a good life. Though, for some scholars such as Van der Veen and Van Parijs (1986) the UBI kind of a first step on the "capitalist road to communism" that they call for (Veen & Parijs, 1986, pp. 635-655),

UBI and communism are not linked together. Many supporters of UBI believe that it is the next step in capitalism and it is a necessary step to take for capitalism in order to continue functioning. For many other proponents of the UBI, this definition has the essential role of endorsing levels of justice such as providing fundamental rights to individuals and protecting social interests so in the end, raising a community's sense of well-being.

### 1.4.4. Supporting Gender Equality

Some of the ideas in favor of the basic income have originated from the feminist literature. Particularly, the idea that a basic income could five purchasing power to those people who undertake domestic work – or any other work in that manner which is not rewarded financially. Since it is women who usually perform the majority of unpaid work, especially the home and household related work, this would create an outcome of improving women's bargaining power in the household and would promote reduction in gender inequality. Additionally, it may also have the supplementary effect of assisting to modify old definitions of what is meant by saying meaningful work.

Moreover, as UBI is given on an individual basis and not to a whole entity such as families and households, in this case, a basic income could possibly provide greater income safety and independence for women.

Still, to achieve greater effectiveness, this support must be done simultaneously with a grander financial inclusion for them. Specifically, it should be made sure that women have an ensured access to a personal bank account and banking services.

### 1.4.5. Supporting Equality of Opportunity

One of the many supporters of the idea of a basic income has also been the post-productivists. They think that, after experiencing such societal and technological advancements, paid work and production should not be the center to the society anymore. Furthermore, welfare systems based on out-of-date economic and labor market structures are not that relevant today, as lifestyle, employment and family patterns are starting to get increasingly flexible over time. In this regard, a basic income creates a wider definition of valuable "work", as it provides a compensation for unpaid activities such as the work a done in in a family or a household by its members, or domestic and irregular employment.

So, it provides the individuals with many options so they can choose to combine multiple types of work – "remunerated, voluntary and domestic" work mentioned by Raventós (Raventós, 2007) and also with leisure activities. With such relaxed tensions of work, it will be ensured that everyone has an improved balance between conventional work, non-conventional work and leisure activities. Attempts of post-productivism are aimed in order to separate employment and welfare, with the reasoning of full employment is not only unachievable but also undesirable (Gorz, 1999)

### 1.4.6. Reducing Bureaucratic Challenges

Some of the advocates of UBI make further arguments supporting the implementation of a basic income policy so that because it is universal, it is less vulnerable to corruption and other kind of bureaucratic abuse compared to other welfare policies, where there exists typically a certain host of interest groups who may have undesired impact on the allocation and implementation process of the benefits.

Also, the public expenditures could be made more transparent if a basic income policy applied and could stop problems such as benefit fraud and unreported income, which are usual difficulties of means-tested benefit systems. In addition, universal

systems such as entitlement programs are likely to generate larger political support in comparison to programs which only targets a small poor minority.

### 1.4.7. Relatively Effective Welfare Solution

Because UBI has no requirements compared to the means-tested systems, from an economic perspective, one of the main concerns is that a basic income policy may diminish people's work incentives (Pasma, Working Through the Work Disincentive, 2010), because it is likely that it will create an increased demand for leisure activities. This may reduce people's willingness to work therefore decreasing their labor market participation, unless they feel like they are contributing to the society and fully satisfied with their work,

The incentives produced by the welfare policies have been debated in the literature for a long time. When it comes to the incentives that a UBI policy may produce, it should not cause any substitution effects, its potential undesired impact on people's incentives may be relatively modest compared to other welfare programs, such as benefit programs which stop the benefits at a particular income level or employment status. Of course this conundrum created by those welfare policies might reduce people's willingness to find a job or to find a better job in which they can make a little bit more but lose some of the benefits thus, encaptivating them in a situation where they can find it extremely hard to build and advance their professional career.

This particular situation may have some unintended effects like generating morally degenerative behaviours and welfare dependency, regarding that losing some of the welfare benefits would significantly outweigh any potential increase in income (Tanner, 2015).

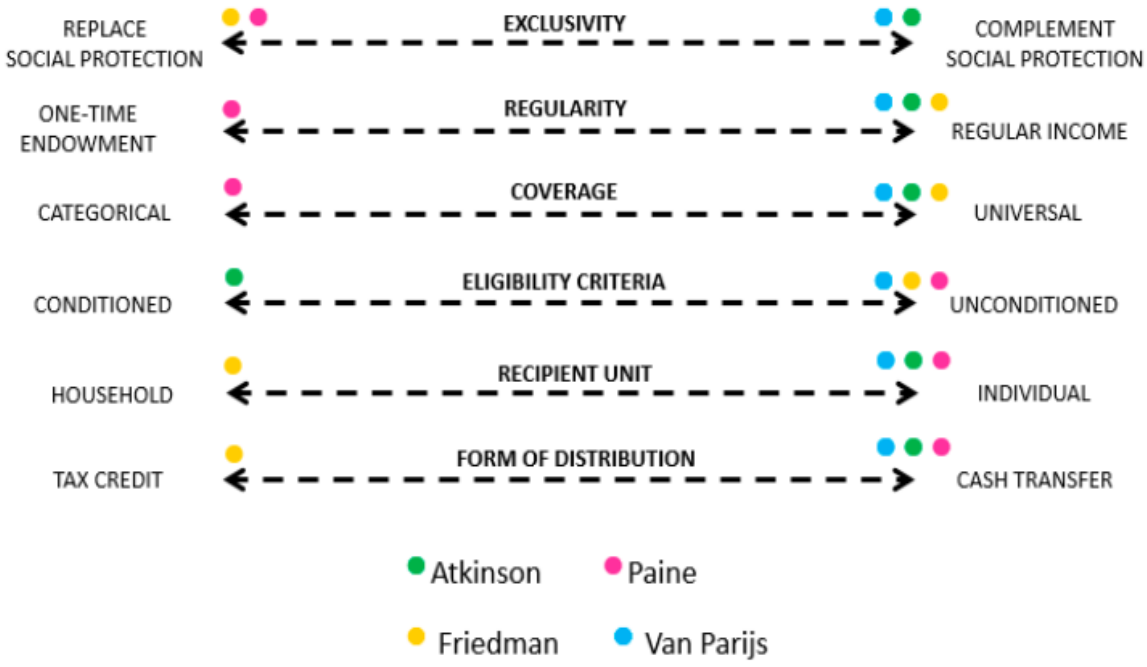
Marginal tax rate for people receiving welfare benefits are extremely high in developed countries and it also reduce the incentives of those people to involve in a work. UBI through a flat tax rate would not modify the opportunity cost of work, so people would not feel as they are being punished because they chose to work more

or receive higher income. Consequently, the UBI could emphasize a less distortionary possibility in comparison with other policies.

Finally, another argument which supports UBI is that it would make the complexities, bureaucracies and administrative costs of current welfare systems to diminish, (Tanner, 2015), because it would combine many different policies and targeted systems under the same roof as a one unit.

The application of UBI would lower the administrative efforts and ease out for the government to gather a stronger idea about the total costs of its welfare systems and the overall redistributive effects of them. Also, it would reduce the exclusions which may occur as when targeting a policy for a specific group, as it is usually incredibly difficult to identify the poor.

**Picture 1. UBI Scholarly Position Examples**




**Source:** IMF WP/18/273 (International Monetary Fund Working Paper, 2018) https://www.imf.org/en/Publications/WP/Issues/2018/12/10/Universal-Basic-Income-Debate-and-Impact-Assessment-46441

Picture 1 is showing us how these 5 characters are used throughout the relative literature by different authors.

## Disadvantages of UBI

Switzerland is the first country in the world which tried to implement a welfare policy like UBI across the country with a referendum. The suggestion was that every Swiss adult would get 2500 Swiss Franks (approximately the same in US dollar amounts) whether they work or not. People who earn above that threshold  The referendum resulted in vast majority of people (77%) voting against it on June 5th 2016.

The program is thought to be as financially challenging and morally disruptive. The Swiss thought that the government will be left with a huge unpayable debt which has to be carried onto the shoulders of the next generations, and that the society will be filled with unmotivated lazy people.

Additionally, the Swiss does not want to make their country a much more desirable place than their neighbours which will eventually increase immigration to the country.

Also, one of the most recent study done on UBI is the Finland's experiment which started in early 2017. The published results are not as exciting as it was expected. It was not possible to say a single positive thing from the preliminary results (Reports and Memorandums of the Ministry of Social Affairs and Health, 2019), except the increased well-being of the participants.

Next, these mentioned above and a few more problems with UBI will be talked about. They can be grouped as:

1. Financial Pressure
2. Negative incentives of UBI
3. Administrative Challenges
4. Targeting Issue. The "leakage" to the non-poor
5. Impact on the Labour Market
6. Impact on Migration

### 1.4.8. Financial Pressure

Many supporters of the UBI agree that implementing such a policy like an income transfer to the entire population would end up in extremely high expenditures. Additionally, the amount determined to be distributed can be cost-ineffective. If the income transfer amount were set too low it would be insufficient to reduce poverty, while setting it too high would be extremely costly, therefore would stop all incentives to work and become impractical

### 1.4.9. Negative Incentives of UBI

Advocates of the view of the intrinsic merit of work have argued that the UBI may be socially and morally disruptive, by distorting the significance of paid work in people's lives, as it would end up with unwanted effects such as discouraging work incentives, intensifying social alienation and increasing the gendered division of labour if more women choose not to participate in the labour market than men.

In modern societies, work has become a glue holds certain central values of people, because it plays a huge role in contributing to people's routines, their feelings of self-worth, self-esteem, personal satisfaction, socialization processes and the establishment of an identity and a role in the society in which they live. The result of the work being replaced from the center of people's lives may have some serious consequences over time. People who have certain skills and abilities will be faced with immense amount of possibilities of creativity. But for the rest, it will be harsh. It is hard to say how many people in a society do not have the creativity and is able to contribute to the society other than the work they do. Those people may end up questioning their lives and their self-worth and become susceptible to nihilistic ideas which might introduce severe existential crisis inside a society. If this philosophical problem remains unaddressed, it could lead to the suffering of the huge unachieved portion of the society from unsatisfied life and may even increase suicide rates.

### 1.4.10. Administrative Challenges

UBI is administratively easy to implement compared to other welfare policies. Although it is away from the reachability problem and the information costs experienced with targeting, still a UBI policy financed through taxation would demand a well-functioning taxation system and a huge amount of data on people's income and wealth. Flawed information and incomplete administrative capabilities may create comparable problems involved in the application of other welfare policies.

Also, some supporters of UBI argue that there should be a certain level of mutuality between rights and duties. They argue that people have to have the obligation to contribute back to the society that they live in which provides them with such benefits. Because of its unconditionality, people may choose not to do anything and still receive the transfer.

### 1.4.11. Targeting Issue. The "leakage" to the Non-Poor

As mentioned earlier, universal programs are an excellent option for alleviating social exclusion and making sure that people especially those who may fall into economically vulnerable category are not out of care and attention. Because the benefit is universal, everyone gets their share which includes rich people and people who may not be that rich but not necessarily need this additional income. This problem is described as the leakage of benefits to the non-poor. People who oppose the idea of universal basic income argues that it is waste of resources and wrong usage because the rich does not need this amount and this amount will directly go to their savings. Certain portion of the benefits will go to savings and will not be spent, and if it is not spent, it cannot go to stimulating the economy. Therefore, it is argued that giving this additional purchasing power to the rich is unnecessary and there might be other causes on which this "wasted" amount could be better spent instead of going directly to savings. Depending on how UBI policy is designed, it may cause huge cuts in public expenditure on social welfare benefits which may be crucial to

certain vulnerable groups or initiate intense tax increase. This could further accelerate the inequality level rather than reducing it.

### 1.4.12. Impact on the Labour Market

UBI policy may lead to unintended changes in the structure of the labour markets. Some argue that if UBI is applied it may lead to lower wages as it complicates the competition in labour markets and also disincentivizes the employers to increase wages because there are always people who are willing to work for less amount than usual so, why to pay higher?

As mentioned in the section 1.3.1, this is a double-edged situation which may occur if a basic income policy is applied. Two scenarios are possible depending on the supply and demand conditions in the labor market; Where there is a shortage of labour supply, people can dictate the salary because they already have the necessary amount to sustain their lives, so why bother with work which might have harsh conditions? Or in the opposite case, where labour supply is high, business owners might think that these people already have a certain level of income, so why to pay higher wages if people are willing to accept a job with even lower wage than usual. Of course, this situation is ever present, but a policy like this could take it to the extremes.

And also, there are some harsh jobs we haven't been able to fully automate such as sewage repair, sanitation, recycling and etc. The kind of jobs which require human strength and abilities and at the moment cannot be done by robots only. And these jobs obviously are not inspiring to do. For people to do these kinds of jobs either they have to be so devoted and/or I am afraid to say, they have to be in need.

Of course, labour market conjuncture will adopt to these changes and possibly salaries for these jobs will increase significantly, because otherwise, if everyone has an income security, what is the point of dealing with such demanding and even painful jobs? Probably society's perception will change on these kinds of jobs and

people who are doing these kinds of jobs will be appreciated even more if UBI is applied.

### 1.4.13. Impact on Migration

Opponents of the idea of UBI also say that if a policy like this is introduced in a country, it will catch the attention of substantial number of people abroad and stimulate the migration process to the country. Migration could pose a threat to the stability and sustainability of a UBI system.

## 1.5. UBI Types

According to Finnish Social Insurance Institution – Kela, there are 5 core models of UBI (UNDP China, 2017, p. 16)" (Social Insurance Institution of Finland - Kela, 2016):

- Full Basic Income: if the determined UBI amount is higher than the current social security benefits and if it is intended to large amounts of current social security benefits.
- Partial Basic Income: if the determined UBI amount is substantially lower than full basic income, since its aim is not to completely replace all of the other benefits, but rather be implemented at the same time with other benefits. Transfers would be considered as insufficient in this case to meet one's basic needs.
- Negative Income Tax: if the UBI amount is given as income compensation through social security and tax scheme when an individual's income remains below the determined minimum level. The benefit amount is variable in this case and changes by means of taxation.
- Participation Income: this model is similar to UBI but with some conditions attached. Receivers have to engage in activities like participation in a community service, answering survey questions, voting and etc.

- Universal Credit: receiving monthly benefits which will replace and consolidate few of them. The amount is generally dependent on income level and children under care.

There are also two extra models mentioned by Kela:

First of them is the idea of Basic Account proposed by Finnish Libertarian Libera which constitutes that every person would get a certain amount of initial payment under the model which will be linked with social security and if the balance falls below a pre-determined threshold, account holder can only withdraw a limited amount each month. Otherwise the amount kept in the account will be available.

The second one is related to the changes in housing allowance and called as "housing grants" which is thought be much flexible than the current one (Reports and Memorandums of the Ministry of Social Affairs and Health, 2019).

Generally, these UBI models are classified into two categories: Negative Income Tax (NIT) and Universal Demogrant (UD) (Pasma & Mulvale, 2009).

- Under the NIT system, people whose income fall below a certain threshold are exempt from paying taxes. People who earn more than the income threshold will pay a proportion of their income which exceeds the threshold, and people whose earnings fall below that threshold will receive subsidies in proportion to the amount which falls below of that income threshold.
- Universal Demogrant (UD) system however, makes sure that every person gets their share of tax-free benefits, but other income sources may be taxed, normally at a higher rate than current income tax rates, so people with higher income end up paying back their benefits through the taxes (Pasma & Mulvale, 2009).

The table below (Table 2) shows some advantages and disadvantages of those 2 models:

**Table 2. Advantages and Disadvantages of UBI models**

| Model | Advantages | Disadvantages |
|---|---|---|
| **Negative Income Tax (NIT)** | • compared to other models it creates less budgetary pressure because the amount to be received would be dependent on his/her income, with some of them receiving small or no amount.<br>• Directing money to people with low income may be easier to politically justify. | • in order to be functional, the model needs an updated income register which in most cases, it is not available and making it difficult to execute.<br>• a system of income monitoring would be required to identify the targeted population. While self-reported income data is an option, experiments in US have shown that it is unreliable.<br>• there are significant trade-offs with the reduction rate, but if the reduction rate is too high for greater income levels, it may diminish the incentive to work because tax credits gets smaller and smaller as the income increases. Also, granting a larger amount for more people will create higher costs for the program. |
| **Universal Demogrant (UD)** | • some argue that universality of the program will prevent stigmatization and increase social cohesion.<br>• universality also will reduce administrative costs because targeting and identifying a certain group is no longer required. | • universal cash transfer will benefit those who may not need it.<br>• implementing this model requires a larger funding budget than that of NIT, however, depending on the tax system, total costs to the average taxpayer may not be that high.<br>• depending on the benefit amount, people may have lower fewer incentives to work. |

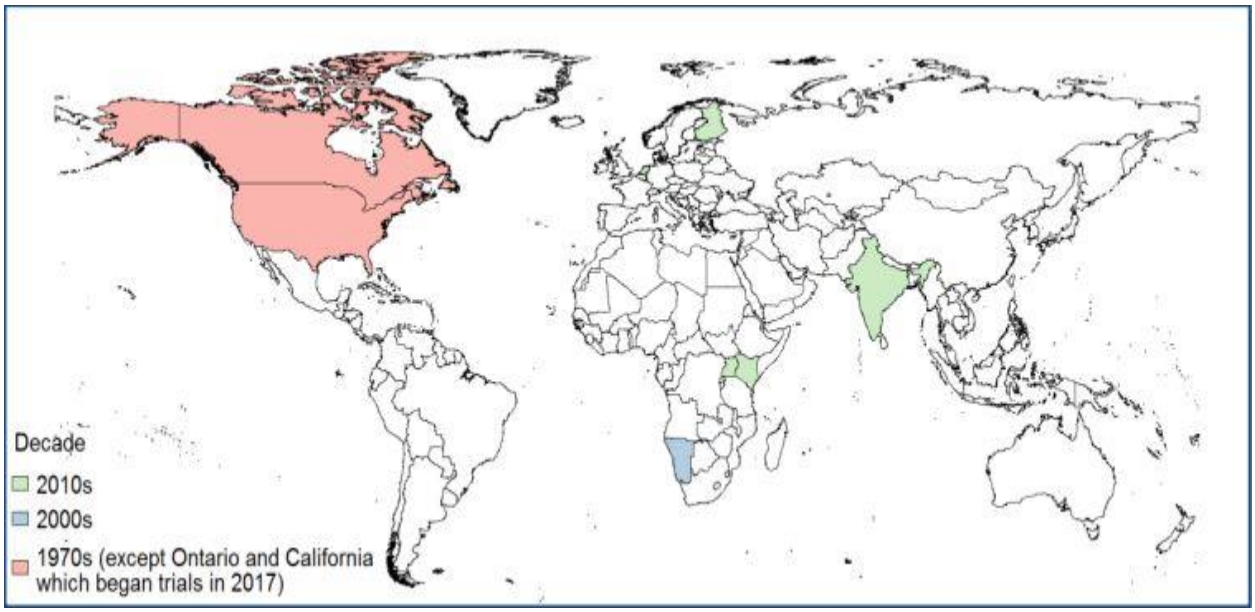
**Source:** (UNDP China, 2017, p. 17)
http://www.cn.undp.org/content/china/en/home/library/poverty/universal-basic-income--a-working-paper.html

## 1.6. UBI experiments Around the World

Numerus versions of UBI trials have been piloted or discussed in different regions of the world for different purposes (Picture 2).

Some developing countries such as India and Namibia also support the idea as an alternate approach in eradicating extreme poverty. Developed countries including Finland, Canada and the Netherlands consider it as a possible savior of the current social welfare systems which are considered not as ineffective anymore.

**Picture 2. Countries that have implemented or designed UBI pilots**




**Source:** UNDP Ch - Universal Basic Income: A Working Paper (UNDP China, 2017, p. 16) http://www.cn.undp.org/content/china/en/home/library/poverty/universal-basic-income--a-working-paper.html

Next, we will have a look at some recent implementations of UBI like policies.

### 1.6.1. Canada

The experiments conducted in Canada named as MINCOME (the Manitoba Basic Annual Income Experiment) conducted between the years 1974-1979.

The MINCOME experiment featured enrollment of low income households from 3 areas of Canada: Winnipeg (the main site); Dauphin (termed a “saturation” site); and Manitoba (a dispersed sample) (University of Toronto Libraries, 2019).

**Eligibility:** Families with able-bodied heads under 58-years-old, incomes lower than US$13,000 (family of four) (UNDP China, 2017, p. 19).

**Sample Size:** 1,300 families and individuals (UNDP China, 2017, p. 20)

**Model:** NIT

**Lessons Learnt:** It is necessary to ensure consistent political will to implement and sustain a UBI scheme. "Enrolment process should be short and simple to prevent attrition of beneficiaries" (UNDP China, 2017, p. 20)

### 1.6.2. Namibia

The experiment in Namibia took place in Otjivero-Omitara village in 2008-2009.

**Eligibility:** Participants were the residents of the Otjivero-Omitara village and they received 100$ Namibian Dollar, equivalent of 12 USD. Individuals above a taxable income of N$5,000 were excluded. (UNDP China, 2017, p. 19).

**Sample Size:** All residents of the Otjivero village (UNDP China, 2017, p. 20).

**Model:** Universal Income Provision (UNDP China, 2017, p. 20)

**Lessons Learnt:** It is necessary to ensure consistent political will to implement and sustain a UBI scheme. "A broad support from civil society was crucial for success because it allowed for stronger lobbying mechanisms to the government." (UNDP China, 2017, pp. 20-21)

### 1.6.3. India

During 2010 and 2011 there were 3 pilot projects conducted in India: One in West Delhi and two in Madhya Pradesh, one big and one small (UNDP China, 2017, p. 19).

**Eligibility:** The bigger pilot in Madhya Pradesh assigned randomly to benefit everyone in 8 villages and then the results were compared to the 12 similar "control" villages. Amount determined to be 200 rupees (US $3.7) for every man and woman

and 100 rupees (US 1.9) for every child under 14. After a year, both amounts raised up 50%. (UNDP China, 2017, p. 19)

The smaller pilot in Madhya Pradesh assured a basic income for all in a tribal village. The only requirement was that every resident has to have a bank account (UNDP China, 2017, pp. 19-20).

Third pilot was done in West Delhi, where out of 450 eligible participants (those who stated an interest in participating) 100 families were selected to receive the cash transfer. Participants received 1000 rupees (US $15.5) per month. “In exchange for the benefit, these families were not allowed to take anything from the ration shop during the entirety of the pilot period” (UNDP China, 2017, p. 20).

**Sample Size:** For biggest pilot, 20 villages of the state of Madhya Pradesh selected. For the smaller pilot, just one tribal village was chosen and then compared to another tribal village. For the West Delhi experiment, 450 participants wanted to be involved in the pilot and 100 families out of them were selected (UNDP China, 2017, p. 20)

**Model:** Universal Income Provision (UNDP China, 2017, p. 20)

**Lessons Learnt:** It helped people to identify their specific needs priorities. A huge portion of the beneficiaries improved their labor and work, but alcohol consumption remained unaffected (UNDP China, 2017, p. 20)

### 1.6.4. Finland

UBI pilot by Kela in Finland launched on 01 January of 2017 and finished 2 years later. The preliminary results were published and the results seem like there is not much to say about it because total participation rate in the survey was 23.23% which makes it hard to come to a conclusion. The results were preliminary and also, it was mentioned that “the register data at this stage only cover the first year of the experiment, 2017”. Thus, they were unable to analyse the effects of the whole experiment. A final report will be published in 2020 (Reports and Memorandums of the Ministry of Social Affairs and Health, 2019, p. 29)

**Eligibility:** between the ages 25 and 58, 2000 unemployed individuals were selected and the benefit amount determined to be 560 €. The amount was given unconditionally without any means test.

**Sample Size:** 2000 unemployed individuals aged between 25-58

**Model:** Basic Guaranteed Income

**Lessons Learnt:** Recipients of the benefits were "no better or worse at finding employment than those in the control group during the first year of the experiment" (Reports and Memorandums of the Ministry of Social Affairs and Health, 2019, p. 29). Also, no significant changes in participation in the labour market. Well-being of the participants was clearly better than those in the control group. The results of the Finland experiment is preliminary and because of that they mention: "… so no one should not draw any firm conclusions about the effects of the basic income experiment on employment and wellbeing." (Reports and Memorandums of the Ministry of Social Affairs and Health, 2019)

### 1.6.5. Alaska's Case

Alaska has a peculiar basic income scheme based on its oil revenues. Since 1982 to this date, every year Alaska Permanent Fund pays dividends from oil revenues to every citizen who have stood in the state for a full calendar year. Depending on the Permanent Fund's performance, the dividend amount varies.

Alaska's case has similar characteristics to Azerbaijan, because Azerbaijan also has oil resource and oil revenues form that. Possibility of creating and funding such a policy through the expense of oil revenues is quite possible. In the next chapters I will look at this correlation and the possibility of implementing such policy here in Azerbaijan and its effects on income inequality.

## Why UBI in Azerbaijan

Azerbaijan is a developing country and has a decent social welfare system but as all welfare systems, its efficiency can be put under question. Also, because

Azerbaijan is a developing country, the risk of automation is far from the horizon compared to well-developed countries. There are few reasons for implementing a UBI-like policy in Azerbaijan like increasing the efficiency of targeting the poor, reducing bureaucracy and reducing huge administrative costs of sustaining current welfare state. Additionally, it is possible to fund it easily (I will come back to this in the next chapter) it so why, considering the moral reasons behind the idea mentioned by Guy Standing in World Economic Forum in 2017 and they are:

1. Means of social justice

Proponents of this point claim that public wealth is created over generations and our income and wealth is fundamentally due to the contributions of previous generations, much more than we do ourselves. "If we allow private inheritance, we should also have public inheritance as a social dividend on public wealth created". (Standing, A Basic Income for All: Dream or Delusion? World Economic Forum, 2017) The roots of this idea goes back to Thomas Paine, Henry George and etc.

2. Means to enhance "republican freedom"

By saying "republican freedom" proponents of this idea mean freedom from domination of the figures of authority who uses their arbitrary power.

3. Means of providing people with basic security

Proponents of this point claim that it is not about eradicating the poverty, but for handling the issue of insecurity. People feel less insecure, have more governance over their situation and this proposes that emancipatory value of basic income is greater than the money value.

*"... It gives people a sense of control of their time so that the values of work grow relative to the demands of labour. So that the values of learning and public participation grow rather than just surviving. So that the values of citizenship strengthened. Values of alturism and tolerance, we found that the evidence from Basic Income experiments that these are enhanced."*

*- Guy Standing, World Economic Forum, 2017*

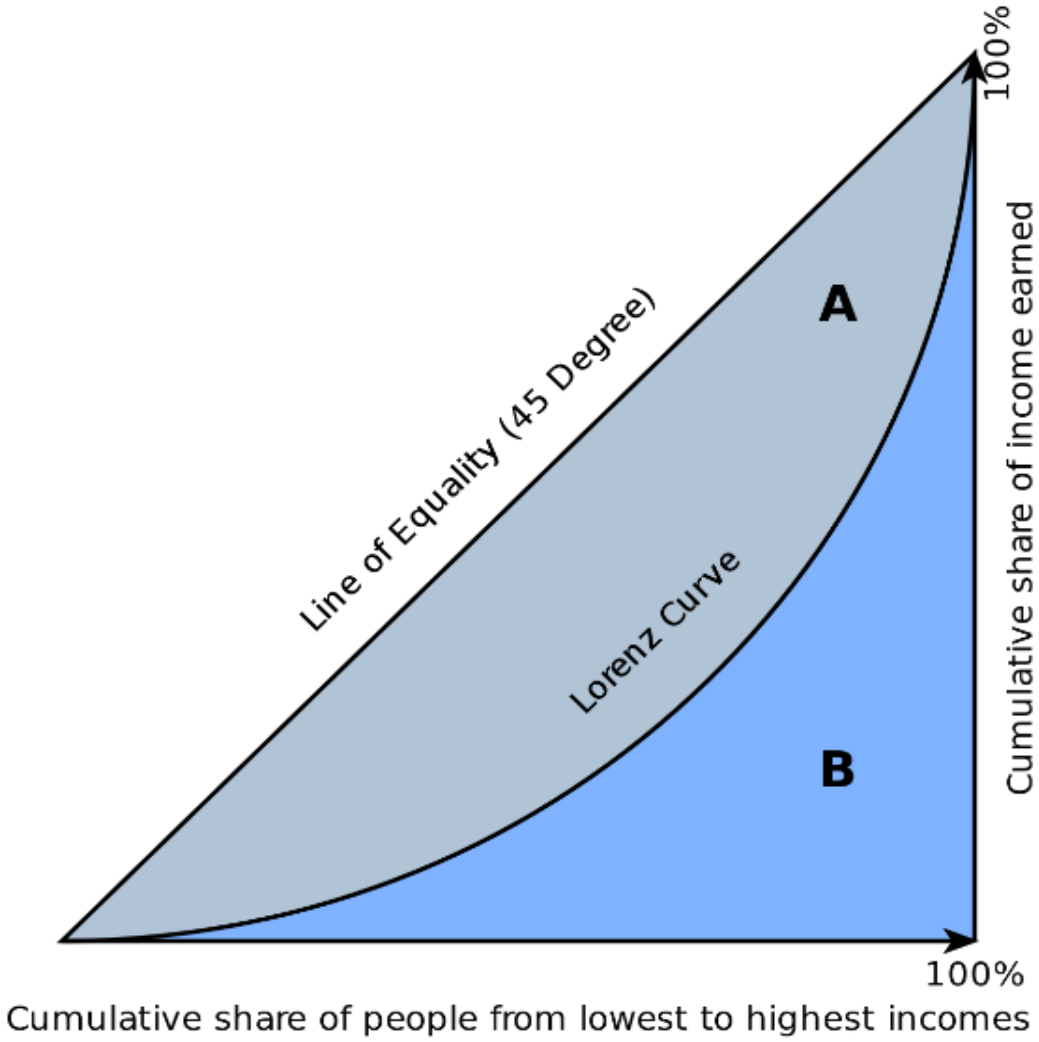
Although automation and income inequality are the main reasons why the idea of Basic income became mainstream, moral reasoning is the only point through which it should be promoted if it is chosen to execute such a policy. Because people feel isolated when they see that the work they have been doing are no longer needed by the society and they are getting paid because their work is unnecessary, so, they could avoid work. This may lead those people to be deprived of meaning and purpose from their lives and might lead to an existential crisis in the society which remained unaddressed for a long time, may lead to the suffering of those people and may even increase suicide rates. Instead, people have to be promoted with the idea of adopting to the changes and improving their skills so they can be competitive in the labour market and still be able to contribute to the society no matter what.

### 1.7. Methodology

The main objectives of this paper are examining income inequality levels in Azerbaijan throughout its history, measuring current level of income inequality in Azerbaijan and discussing the possibility of implementation of UBI and its implications on income inequality in the country and also raising awareness on the UBI discussion in the Azerbaijan scientific community. There are many ways of measuring inequality and different indices such as the Theil index, the Hoover index, income shares and quintile ratios and etc. (Charles-Coll, 2011). However, the Gini index will be used in this case because of its clarity, simplicity and popularity.

Statistical data that will be analyzed in this paper is based on the Consumer Expenditure Survey on Consumption conducted and published by Azerbaijan State Committee on Statistics in 2017. This is the only and the closest data to our date which is available. Based on the survey data about the income of decile groups. I will construct a Lorenz Curve (Picture 3) and calculate the Gini index. This sample Lorenz Curve is useful because we can see how the upcoming equations is used to construct it and how to derive additional equations from this curve to calculate the Gini index:

**Picture 3. A Lorenz Curve sample**




**Source:** https://en.wikipedia.org/wiki/Lorenz_curve

In order to construct the Lorenz curve, finding the followings are necessary:

- **percent of population and cumulated percent of population for each decile.** Because I will be working on the decile groups, the figure for each group will be 10 % (100% divided by the number of decile groups – 100% / 10 = 10%).
- **percent of income per decile.**

Calculated as $\boldsymbol{p_n = \frac{y_n}{\sum y} * 100}$

$\boldsymbol{p_n}$ – percentage of income; $\boldsymbol{y_n}$ – income

- **Cumulated percent of income per decile.**

Calculated as $\boldsymbol{P_n = \sum_{n=1}^{n} p_n}$

$\boldsymbol{P_n}$ – cumulated percent of income; $\boldsymbol{p_n}$ – percent of income

In order to find the Gini index, these calculations should be done:

- **Calculating the area of the triangle (A+B).** Looking at Picture 3 we can see the whole are of the triangle is the sum of A and B and equals to 0.5 (1*1*1/2).
- **Finding the Area B.** Using rectangles method.

Each rectangle calculated as $\boldsymbol{B_n = \frac{P_n + P_{n-1}}{2} * 100\% / n}$ ; $\boldsymbol{Area\ B = \sum_{n=1}^{n} B_n}$

$\boldsymbol{B_n}$ *– n numbered rectangle area under the Lorenz curve;* $\boldsymbol{P_n}$ *– cumulated percent of income of group numbered n;* $\boldsymbol{P_{n-1}}$ *– cumulated percent of income of group numbered n-1;* $\boldsymbol{n}$ *– the number of groups.*

- **Finding the Area A.** (Calculated as **- 0.5-B**)
- **Calculating the Gini index.** Calculated as $\boldsymbol{G = \frac{A}{A+B}}$

Finally, doing all of these calculations on our data, we will have sufficient information about the current level of income inequality in Azerbaijan. After that few theoretical models will be constructed in order to understand UBI's possible income inequality reducing effects in Azerbaijan.

# CHAPTER 2. MEASURING INCOME INEQUALITY IN AZERBAIJAN. WAYS OF IMPLEMENTING A UNIVERSAL BASIC INCOME

## 2.1. Azerbaijan: How The Economic Situation Is And Has Been In The Country

Azerbaijan is a developing country. Gaining independence in 1991 during the collapse of the Soviet Union, Azerbaijan rapidly transitioned its economy from a socialist economy model to a capitalist model. In the early years of its independence (1991-1994), Azerbaijan has been through rough situations, which usually described in the literature as "chaos and economic recession period". This period involves Nagorno-Karabakh war (still ongoing as a conflict), hyperinflation of Azerbaijan's national currency, the risk of civil war due to political and ideological differences in different regions of Azerbaijan and because of these differences emerged the risk of separation of the country.

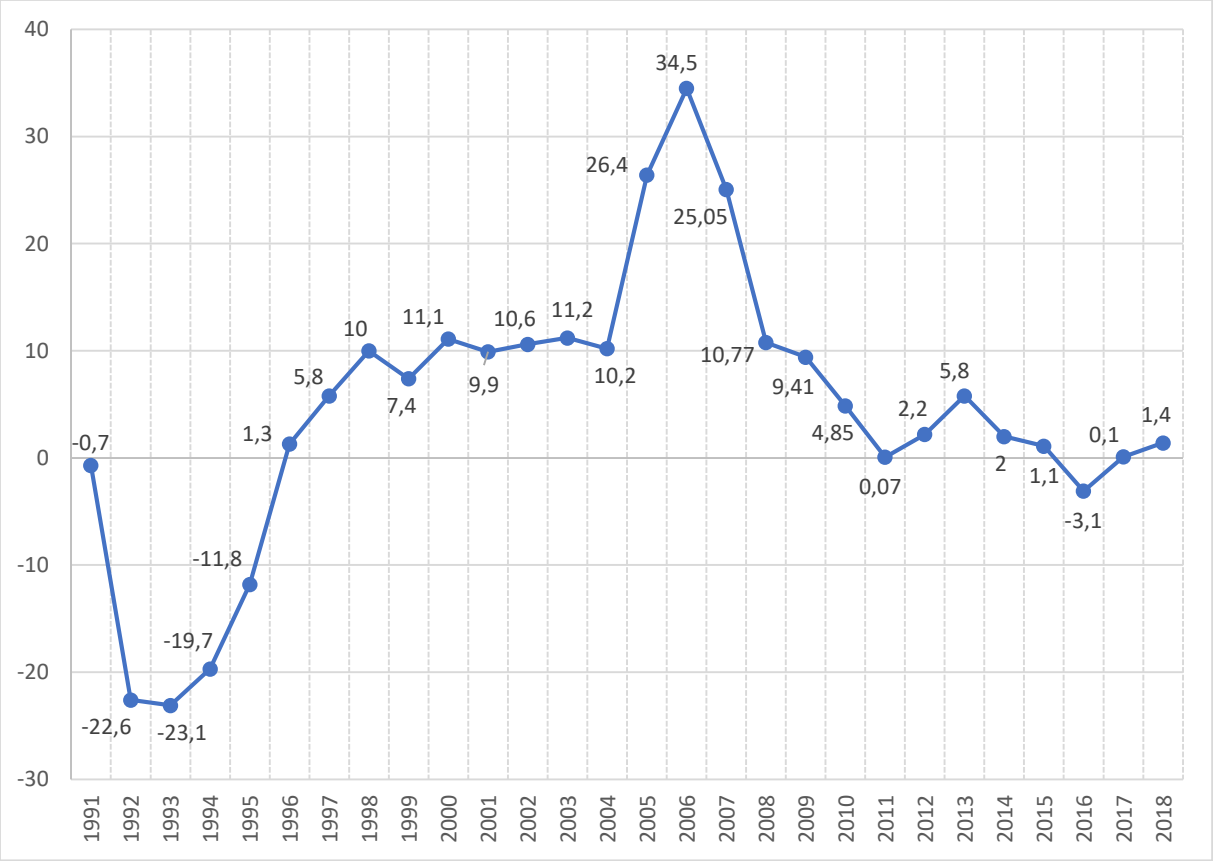
In 1994, after signing the Nagorno-Karabakh ceasefire, "The Contract of the Century" and resolving the issues between different regions of the country, Azerbaijan entered into the stabilization period (1995-2000).

Azerbaijan experienced rapid growth in 2000s. Average real gross domestic product (GDP) growth rate between the years 2000 and 2010 was 15.3%, with the 2006 figure reaching the highest growth rate of 34.5% (Onder, 2013).

After undergoing such a huge economic boost, Azerbaijan's economy entered into stagnation. Level of economic boost which Azerbaijan has been experiencing fell down noticeably in the last 5 years (Figure 1).

This is mainly because of 2014 oil crisis which caused oil prices to drop in the global markets and shrunk the oil revenues of Azerbaijan, therefore indirectly causing devaluation of Azerbaijan's national currency – Azerbaijan manat (AZN); which had a massive negative impact on purchasing power of Azerbaijani people.

**Figure 1. Azerbaijan GDP growth (annual, %). (The World Bank, 2019)**




**Source:** The World Bank
https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=AZ
**Note:** 2018 figure is form www.azstat.org (Azerbaijan Statistical Information Service, 2019)

Main portion of oil incomes of Azerbaijan Republic is saved up as a reserve in the State Oil Fund. Some part of the income is transferred directly to the state budget annually. Therefore, usage of those reserves is decided by the government and the State Oil Fund, not by the market as was in 19th century.

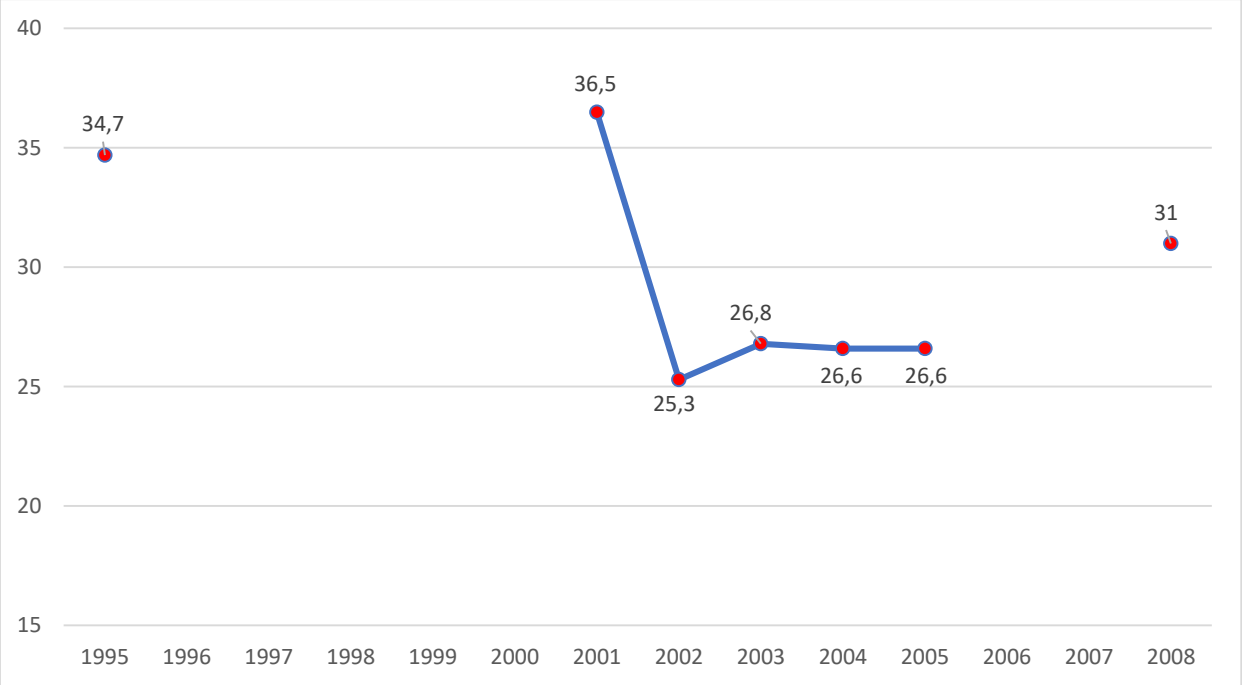
The government usually uses the funds to finance large infrastructure projects rather than contributing to the economy as a producer, because the government wants not to interfere the conception of a liberal state and also not to undermine the logic and reason behind privatization practices which started just after Azerbaijan declared independence.

So, the decisions of the government on the usage of oil reserves is one of the crucial areas of discussions in the country. What specifically must be done in order to avoid Dutch Disease and to build a strong non-oil sector with huge export potential? (Bulut, Sabiroglu, & Guney, 2013).

## 2.2. Measuring income inequality in Azerbaijan

Unfortunately, not much data is available in this area of research. Azerbaijan State Committee on National Statistics has no records on the inequality level of the income distribution or the Gini index. This area seems to be completely neglected by Azerbaijan State Committee on National Statistics. Is there any reason for that?

**Figure 2. Azerbaijan GINI index (World Bank estimate)**




**Source:** The World Bank estimate.
https://data.worldbank.org/indicator/SI.POV.GINI?locations=AZ
**Note:** Data for 2008 is retrieved from another paper (Lire Ersado et al., 2010). No data available for the empty years.

It seems that yes, there was a reason. An article published by World Bank in 2006 shows that Household Income and Expenditure Survey (HIES) data which is used for estimating the income levels of population is not representing the real living conditions of the population and that is the reason behind the extremely low inequality measures because households with higher income level are less willing to partake in the surveys (Esado, 2006). It also suggests that transfers made by the Azerbaijani government are moderately well-targeted and it also has some inequality reducing effects (Esado, 2006).

Unfortunately, this problem still exists. Azerbaijan State Committee on National Statistics does not want to spend time and resources on a survey that has no meaningful outcome and also does not represent reality (official answer received from a responsible member of Azerbaijan State Committee on National Statistics).

The question still remains unanswered. Why this particular research area is neglected for this long? Available data from reliable sources on income inequality is a decade old and limited to a certain period (Figure 2).

### 2.1.1. Calculating the Gini coefficient

In 2017, Consumer Expenditure Survey on Consumption was published by Azerbaijan State Committee on National Statistics (Table 3. Average income per decile, AZN). According to this data they made rough estimations about the income of the sampled population and I will try to create Lorenz curve and calculate the Gini index in regards to this given data. This is the only and the closest data to our date that was available.

**Table 3. Average income per decile, AZN**

| | Income Deciles | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **Average income** | 160.2 | 189.7 | 206.3 | 221.8 | 237.8 | 255.4 | 275.7 | 302.9 | 346.8 | 486.9 |

**Source:** (Azerbaijan State Committee on National Statistics, 2019a) https://www.stat.gov.az

With a quick look at the table above, it will become obvious that there is no significant amount of difference between the income of the decile groups. Of course, this in itself already raises concerns about the reliability of the data. I will have to do all other calculations necessary to proceed with finding the Gini index and Lorenz Curve based on this data, because there is no other data currently available

In order to construct the Lorenz curve, it is necessary to find how many percent of the total income each decile is representing. For that, the formula below will be used:

$$\boldsymbol{p_n = \frac{y_n}{\sum y} * 100 \ ; \ P_n = \sum_{n=1}^{n} p_n}$$

$\boldsymbol{p_n}$ – percentage of income; $\boldsymbol{y_n}$ – income; $\boldsymbol{P_n}$ – cumulated percent of income.

After finding the percent per decile figures, cumulative percent of the income is necessary to find to construct the Lorenz curve. Additionally, in the x axis, we need to add percent of population per decile to the table. This simply is the sum of the all percentage figures above the given one. This is the result (Table 4):

**Table 4. Calculating the % of income per decile and finding cumulated % of income per decile**

| n | Cumulated % of population | Average income per decile ($y_n$) (AZN) | % of income per decile ($p_n$) | Cumulated % of the income ($\sum P_n$) |
|---|---|---|---|---|
| **0** | 0% | 0 | 0% | 0% |
| **1** | 10% | 160.4 | 5.9768% | 5.9768% |
| **2** | 20% | 189.7 | 7.0686% | 13.0454% |
| **3** | 30% | 206.3 | 7.6871% | 20.7326% |
| **4** | 40% | 221.8 | 8.2647% | 28.9973% |
| **5** | 50% | 237.8 | 8.8609% | 37.8582% |
| **6** | 60% | 255.4 | 9.5167% | 47.3749% |
| **7** | 70% | 275.7 | 10.2731% | 57.6480% |
| **8** | 80% | 302.9 | 11.2867% | 68.9347% |
| **9** | 90% | 346.8 | 12.9225% | 81.8571% |
| **10** | 100% | 486.9 | 18.1429% | 100% |

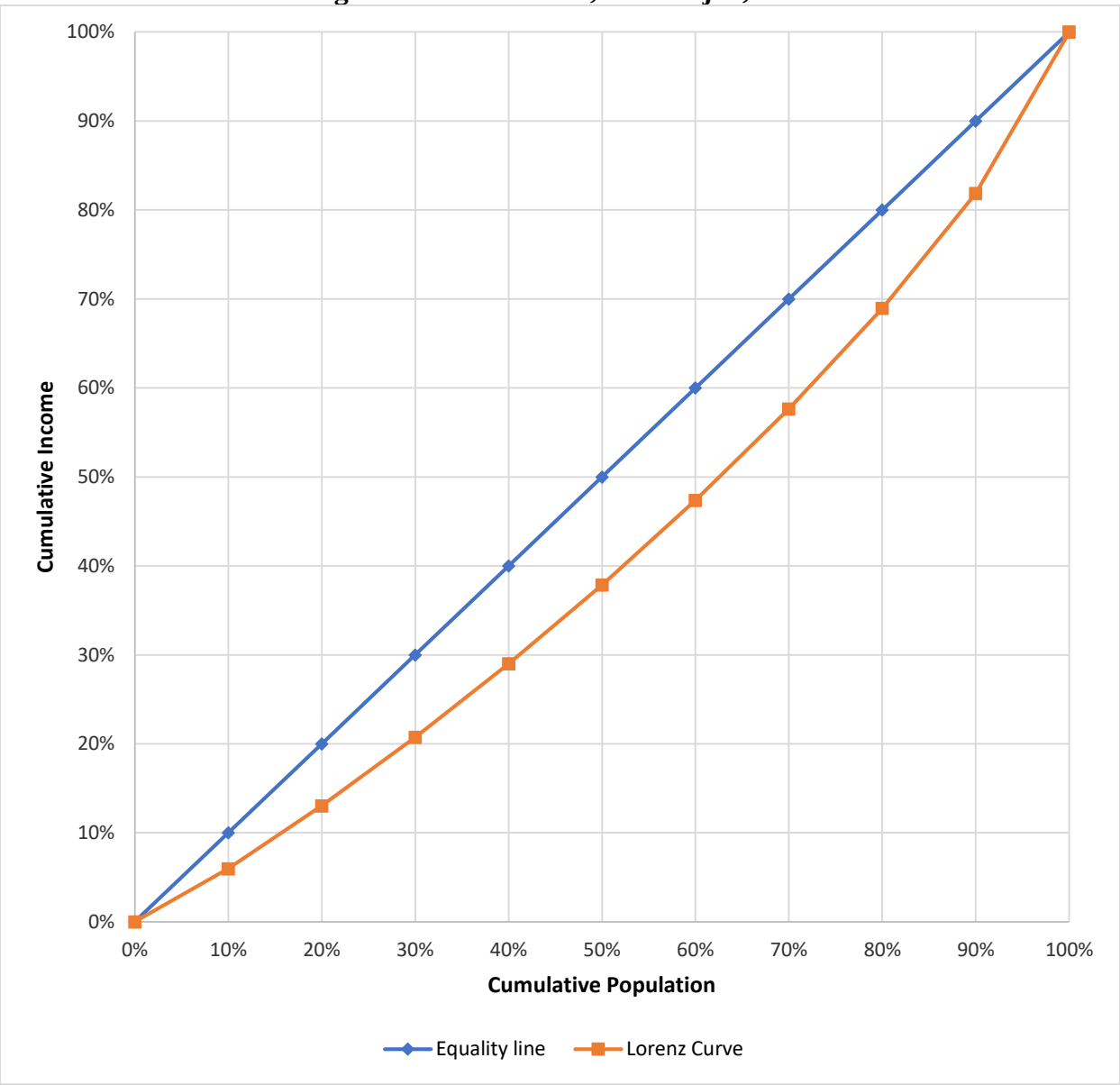
**Source:** Author's own calculations

After doing the calculations and finding income per decile and cumulated percent of the income per decile, which were necessary to construct the Lorenz curve, it now possible to draw one. Having the data in the Table 4, the corresponding Lorenz curve will look like the following figure. (Figure 3. Lorenz curve, Azerbaijan, 2017).

From just the first glimpse at the Figure 3, it is possible to see that the size of the area between the Equality line and the Lorenz curve is too small. This already indicates that the Gini index derived from this data will be extremely low.

For calculating the Gini index in a simple way, I will use rectangles method to calculate the area under the Lorenz curve. Then I will subtract it from 0.5 which is the whole area under the equality line (the area of the triangle). After that the result will be divided by 0.5 (the area of the triangle) to get the Gini coefficient.

**Figure 3. Lorenz curve, Azerbaijan, 2017**




**Source:** Author's own calculations

For calculating each rectangle under the curve this equation will be used:

$$\boldsymbol{B_n = \frac{P_n + P_{n-1}}{2} * 100\% / n}$$

***$B_n$*** *– n numbered rectangle area under the Lorenz curve;* ***$P_n$*** *– cumulated percent of income of group numbered n;* ***$P_{n-1}$*** *– cumulated percent of income of group numbered n-1;* ***n*** *– the number of groups.*

After doing the calculation for each decile group using the formula above, the results will be as follows (Table 5):

**Table 5. Calculation of the area under the Lorenz curve using rectangles method**

| | Area under the Lorenz curve for each income decile group | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| $B_n$ | 0.00299 | 0.0095 | 0.01689 | 0.02486 | 0.03342 | 0.04262 | 0.0525 | 0.06329 | 0.0754 | 0.9093 |

**Source:** Author's own calculations

And to find the Area B:

$$B = \sum_{n=1}^{n} B_n$$

$$B = 0.4124$$

$$A = 0.5 - 0.4124 = 0.0876$$

$$G = A/(A+B) = 0.0876/0.5 = \mathbf{0.1752} \text{ or } \mathbf{17.52\%}$$

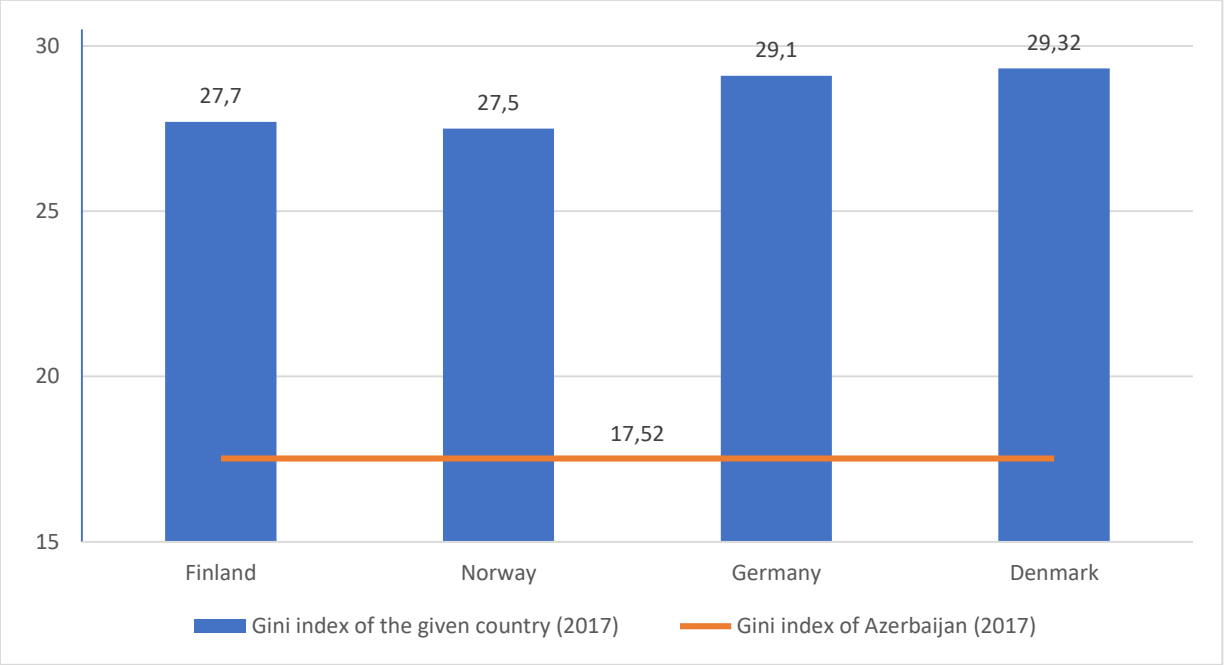
Resulting Gini index (17.52%) is in no way a real representation of the current situation herein Azerbaijan. For instance, here is a comparison of this result with the Gini indices of some countries which are known to have relatively low income inequality (Figure 4):

It is not that hard to see that according to the data provided by Azerbaijan State Committee on National Statistics, the calculated Gini index is outstandingly lower than these countries given in the Figure 4.

Each of these countries has notably higher standards of living than that of Azerbaijan which again validates the impossibility of this result which in the end raises concerns about the methodology behind the survey and the actual income inequality levels in Azerbaijan. Question of how reliable this data has just now become questionable, but still, two of the main objectives of this paper remained partially unanswered:

First one is how inequality changed throughout the history of the Azerbaijan Republic.

**Figure 4. Gini index comparison**




**Sources:** (Statistics Finland, 2019) http://www.stat.fi; (Statistics Norway, 2019) https://www.ssb.no/en; (Destatis Statistisches Bundesamt, 2019) https://www.destatis.de; (Statistics Denmark, 2019) https://www.statbank.dk

Second one is how much income inequality is currently we have in the Azerbaijan. Another question which demands an answer is why this area of statistics is abandoned?

Because there is no other data is available, knowing full-well that the results will be far away from showing the real life-like situations, unfortunately I will have to use this data (on Table 3) as a base for my further analyses.

## 2.2. Funding UBI in Azerbaijan

Although funding is one of the fundamental problems associated with UBI, it is possible to fund it properly here in Azerbaijan. Main problems are determining the amount and the way of implementation.

Inspired from Alaska's way of implementation of a basic income policy, it is possible to initiate a similar one here in Azerbaijan, using oil revenues to support it financially. However, it is also possible to fund it through taxes. Both ideas will be examined in the next sections.

In order to understand the income inequality reducing effects of a Basic Income policy, if chosen to be applied, hypothetical models will be constructed and their affects to the Lorenz curve and Gini index will be discussed. Again, the Gini index will be calculated and Lorenz curve will be constructed for each of our model. Then it might be possible to do a comparison and after this, the models can be further evaluated.

Unfortunately, without being able to show the existence of inequality in the country, it seems obscure to try to implement a policy to reduce the inequality further. But as mentioned before, moral reasonning behind UBI suggests that recieving basic income is eveyone's right. I will proceed from that prespective.

I will build my models around two specific policy ideas:

**Model 1.** Funding with the application of a flat tax rate.

**Model 2.** Funding with the expense of increased government expenditure. More transfers from State Oil Fund.

Even though the data on the

Table 3 has serious problems, I will use it to build the models for Basic Income experiment, because there is no other data available on the matter.

### 2.2.1. Model 1: Flat tax rate

This hypothetical model tries to apply an estimated tax rate in order to form the required amount to implement the UBI policy. Using the data on

Table 3 with an estimated 10% tax rate, total funding amount will be formed and then the whole amount will be divided by the number of people on the table to be able to find the UBI amount.

After adding the calculated Basic Income amount to each decile group, it is necessary to find how effective it is in reducing income inequality. For that purpose the Gini index will be calculated and a comparison will be made with the standard version of it.

Using the data on Table 3 and applying **10%** tax rate we will get (Table 6):

**Table 6. Calculation of estimated 10% tax rate application**

| n | Average income per decile | 10% tax rate applied | Income after taxes |
|---|---|---|---|
| **1.** | 160.4 | 16.04 | 144.36 |
| **2.** | 189.7 | 18.97 | 170.73 |
| **3.** | 206.3 | 20.63 | 185.67 |
| **4** | 221.8 | 22.18 | 199.62 |
| **5.** | 237.8 | 23.78 | 214.02 |
| **6.** | 255.4 | 25.54 | 229.86 |
| **7.** | 275.7 | 27.57 | 248.13 |
| **8.** | 302.9 | 30.29 | 272.61 |
| **9.** | 346.8 | 34.68 | 312.12 |
| **10.** | 486.9 | 48.69 | 438.21 |

**Source:** Author's own calculatios

Total collections from taxes amount to 268.37 AZN. To find the Basic Income amount, total amount taxed will be divided by the number of groups which is 10. In this model our Basic Income amount is:

$$268.37 / 10 = 26.837 \approx \mathbf{26.8}$$

As a rough approximation of administrative costs Basic Income figure is rounded to the first digit after the decimal. After adding this amount to the incomes of all decile groups and repeating the prosses used to calculate both Table 4 and Table 5, the resulting table will look like this (Table 7):

**Table 7. Calculation of cumulated % of income and area B (Model 1)**

| n | Income after Model 1 Basic Income | % of income per decile group | cumulated % of the income | Area under the Lorenz curve ($B_n$) |
|---|---|---|---|---|
| **1.** | 171.16 | 0.063786 | 6.3786% | 0.003189 |
| **2.** | 197.53 | 0.073614 | 13.7400% | 0.010059 |
| **3.** | 212.47 | 0.079181 | 21.6582% | 0.017699 |
| **4.** | 226.42 | 0.08438 | 30.0962% | 0.025877 |
| **5.** | 240.82 | 0.089747 | 39.0709% | 0.034584 |
| **6.** | 256.66 | 0.09565 | 48.6358% | 0.043853 |
| **7.** | 274.93 | 0.102459 | 58.8817% | 0.053759 |
| **8.** | 299.41 | 0.111582 | 70.0398% | 0.064461 |
| **9.** | 338.92 | 0.126306 | 82.6704% | 0.076355 |
| **10.** | 465.01 | 0.173296 | 100% | 0.091335 |
| | | | | **B = $\sum_{n=1}^{n} B_n$ = 0.421172** |

**Source:** Author's own calculations

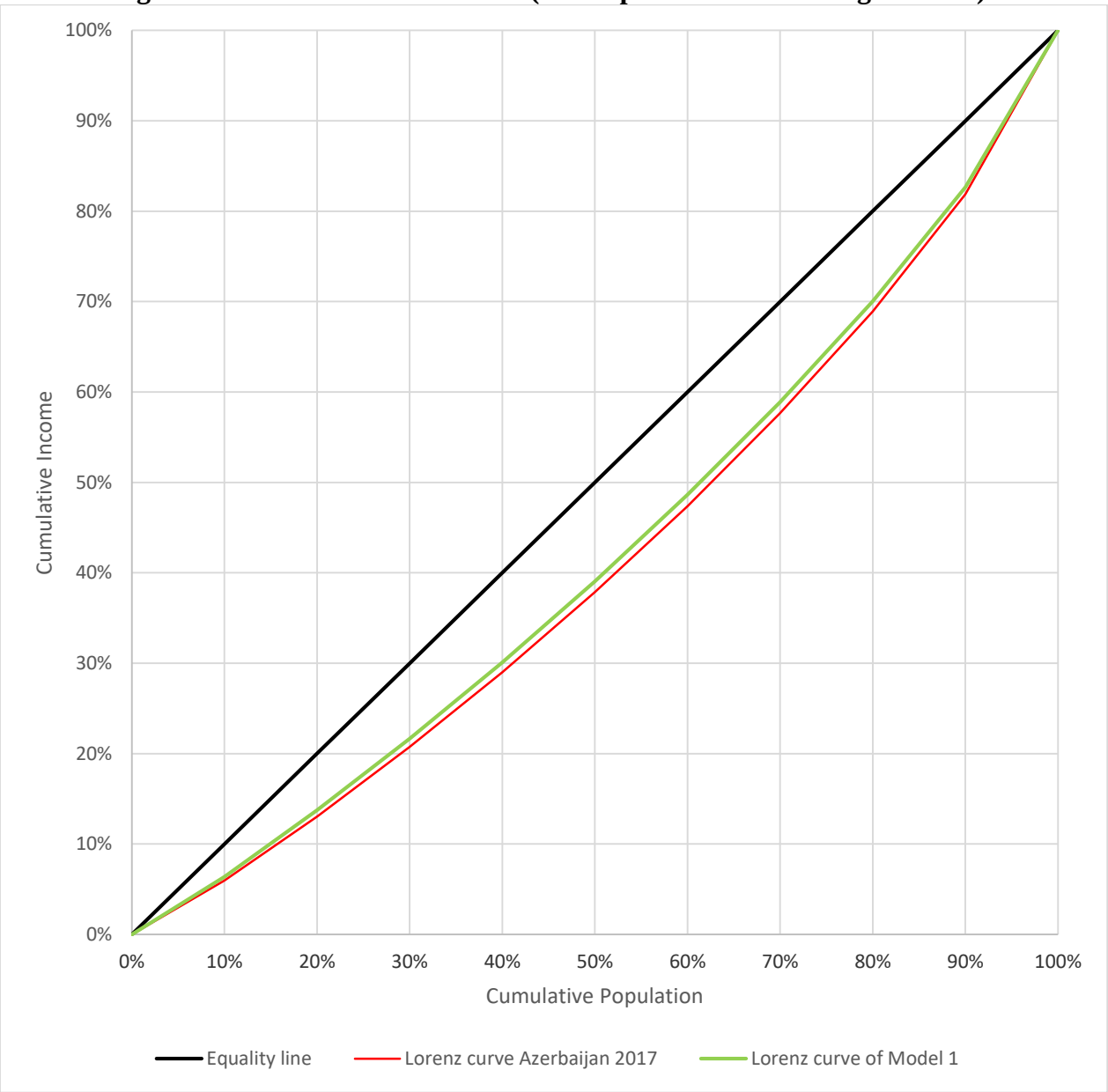
$$\text{Area A} = 0.5 - 0.421172 = 0.078828$$

$$\mathbf{G} = 0.78828 / 0.5 = 0.157657 \approx \mathbf{0.1577} \text{ or } \mathbf{15.77\%}$$

Resulting Gini index of the **Model 1** is **15.77%** and it is 10% lower than our first calculation with the original data which was 17.52%. Even though the Gini index derived from the original data was impressively low, this model still was able to lower the inequality rate even further.

Graphical representation of Table 7 in comparison Table 4 will look like this:

**Figure 5. Lorenz curve of Model 1 (in comparison with the original data)**




**Source:** Author's own calculations

To recap, Model 1 is based on a flat tax rate in order to fund the Basic Income amount. Hypothetical 10% tax rate was determined to be applied to the core data and the resulting tax collections was divided equally between the groups to find the

Basic Income amount for the Model 1. And then it was added to each decile group's total income.

### 2.2.2. Model 2. Funding with the expense of increased government expenditure.

A huge portion of the budget of Azerbaijan Republic forms from the transfers made by the State Oil Fund of the Republic of Azerbaijan. As an example, in 2019, approximately 45% of the budget is estimated to be formed by the transfers made by the State Oil Fund. (President of the Republic of Azerbaijan, 2019) (State Oil Fund of the Republic of Azerbaijan, 2019). Every year the transfers made by the State Oil Fund make up huge portion of the national budget, usually fluctuating between 40% and 50%. Assets of the State Oil Fund is estimated to be around 40 billion USD's (Oil State Fund of the Republic of Azerbaijan, 2019) which eliminates the question of sufficiency of funding such policy. If funding is not a problem, then the only remaining question will be how it could be implemented and regulated? Alaska's Basic Income case can be a role model for Azerbaijan, as it is also based upon oil revenues.

Population of Azerbaijan Republic has just reached 10 million (Azerbaijan State Committee on National Statistics, 2019b) and average income in the country in the last year was 540.1 AZN (Azerbaijan State Committee on National Statistics, 2019c). Average income has been slightly higher than 500 AZN threshold for the last few years and for my second model, I will assume that 50% of the average income is sufficient amount for Basic Income which is equivalent to 250 AZN.

It is really eye-catching how exactly the first half of the decile groups are falling short of the assumed Basic Income amount. Of in this case, as I construct my hypothetical model by adding assumed Basic Income amount on top of the income level of each decile group on Table 3, which in return will make half of the group's income level increase more than 100%. This implausible result is probably due to the fundamental problems associated with the data collection. Although the result will not represent the real situation, it will still be possible to show how much impact

it might have on inequality. The approximated median amount, which is 250 AZN, is going to be added to income of each decile group. Using the same data that was used earlier (Table 3) and after using the same methods in creating Table 4 and Table 5 (also Table 6 and Table 7), I will create new tables for this hypothetical policy with the intention of examining the reduction it produces regarding to the income inequality level.

Firstly, the median amount should be added to all decile groups and cumulated percent of income needs to be calculated. Secondly, having done all the calculations necessary to build the Lorenz curve, now it is possible to also calculate the Gini index:

**Table 8. Calculation of % of income per decile, cumulated % of income per decile and area B (Model 2)**

| n | Average income per decile | Income after Model 2 Basic Income | % of the income per decile | cumulated % of the income per decile | Area under the Lorenz curve ($B_n$) |
|---|---|---|---|---|---|
| **1.** | 160.4 | 410.4 | 0.079171% | 7.9171% | 0.003959 |
| **2.** | 189.7 | 439.7 | 0.084824% | 16.3995% | 0.012158 |
| **3.** | 206.3 | 456.3 | 0.088026% | 25.2021% | 0.020801 |
| **4.** | 221.8 | 471.8 | 0.091016% | 34.3037% | 0.029753 |
| **5.** | 237.8 | 487.8 | 0.094103% | 43.7139% | 0.039009 |
| **6.** | 255.4 | 505.4 | 0.097498% | 53.4637% | 0.048589 |
| **7.** | 275.7 | 525.7 | 0.101414% | 63.6051% | 0.058534 |
| **8.** | 302.9 | 552.9 | 0.106661% | 74.2713% | 0.068938 |
| **9.** | 346.8 | 596.8 | 0.11513% | 85.7843% | 0.080028 |
| **10.** | 486.9 | 736.9 | 0.142157% | 100% | 0.092892 |
| | | | | | **B = $\sum_{n=1}^{n} B_n$ = 0.454661** |

**Source:** Author's own calculations

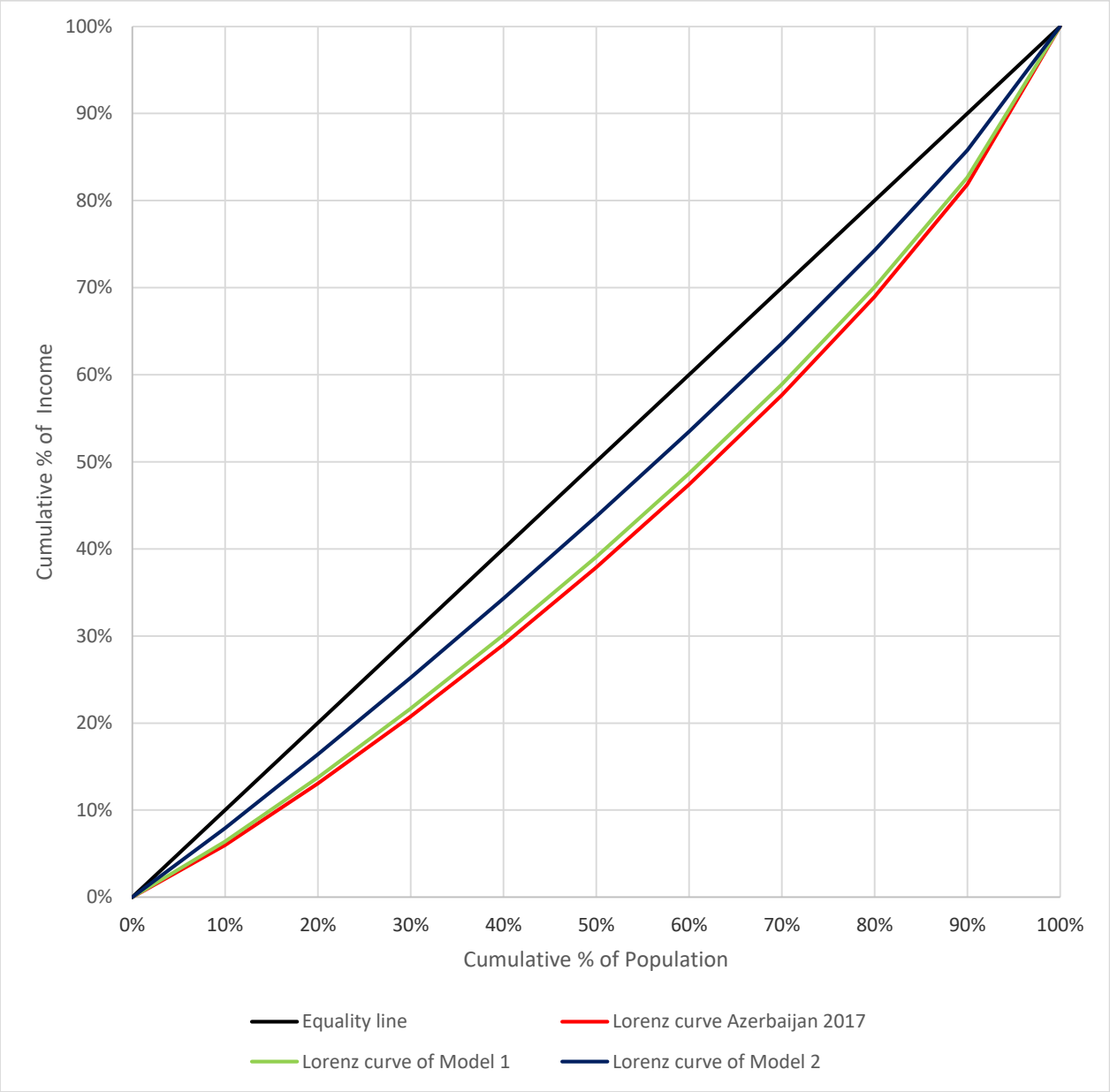
$$\text{Area A} = 0.5 - 0.454661 = 0.045339$$

$$\mathbf{G} = 0.045339 / 0.5 = \mathbf{0.090678} \approx \mathbf{0.0907} \text{ or } \mathbf{9.07\%}$$

Resulting Gini index shows noteworthy reduction in income inequality even with such low levels of base data to start with. With our 2nd model implementation the Gini index went down from 17.52% to **9.07%** with the unbelievable 51.77% reduction rate. This unprecedented result is due to the unexpected flaws of the base data upon which calculations was made.

To recap, the Model 2 is built upon increased government expenditure. Basic Income policy can be funded by the State Oil Fund transfers. The amount for Basic Income of Model 2 was set to be 50% of the average income (**250 AZN**) which was estimated to be 500 AZN. The Basic Income amount then added to each decile group's total income Graphical representation of Table 8 in comparison with Table 7 and Table 1will look like this (Figure 6):

**Figure 6. Lorenz curves of the original data, Model 1 and Model 2.**




**Source:** Author's own calculations

Here are the results of the Model 1, Model 2 in comparison with the original Gini index (Table 9):

**Table 9. Gini indices of Model 1 and Model 2 in comparison with the original Gini index**

| - | Gini index | Absolute change in Gini index | Relative change in Gini index |
|---|---|---|---|
| Gini index of Azerbaijan, 2017 | 17.52% | - | - |
| Gini index of Model 1 | 15.77% | 1.75% | 10% |
| Gini index of Model 2 | 9.07% | 8.45% | 51.77% |

**Source:** Author's own calculations

It can be said that in comparison, how basic income policy is theoretically able to reduce income inequality even if we started with such low level of income inequality to start in the first place.

Unfortunately, the data on which all of our calculations were based upon had some flaws so this is why the results has no connection to the real life situation in Azerbaijan. Our first model is relatively closer to real life like results compared to the Model 2, because the estimated UBI amount for this model was higher than 50% of the decile group's average income. This caused a significant drop in Gini index and also in income inequality which was not the product of the methodology of estimating the UBI amount but the flaws associated with the survey data. In reality the reduction in the GINI index should be radically lower than 51.77%, and should be slightly higher than that of Model 1 because Model is constructed using only the available recourses but Model 2 used additional on top of the existing ones.

# CHAPTER 3. CONCLUDING REMARKS

## 3.1. Problems with the research

One of the main objectives of this paper was to investigate the current income inequality level herein Azerbaijan. Unfortunately, this objective failed due to lack of information in the area of research and the data of which the Model 1 and Model 2 derived from found to be problematic. The Gini index calculated form this data was extraordinarily low compared to some countries which have considerably higher standards of living than Azerbaijan (Figure 4. Gini index comparison).

Because of the occurrence of reliability issue with the core data on which the calculations were based upon, the models derived from this data do not have not much relatable results to real life-like situations. Main intention behind constructing the models was to show their income inequality reducing effect. Although the models shown to reduce the income inequality, still, there are some issues remained untouched. Results of the Model 1 is relatively closer to real life like results compared to the Model 2. Because the figure estimated to be the UBI amount for Model 2 was greater than 50% of the decile group's average income. This resulted in a significant drop in income inequality and the Gini index which validated the argument about the flaws associated with the survey data. The methodology of estimating the UBI amount was not problematic, in fact it is possible to make the amount. In reality the reduction in the GINI index should be radically lower than 51.77%, and should be slightly higher than that of Model 1 because Model is constructed using only the available recourses but Model 2 used additional on top of the existing ones.

Introduction of a Model 1 like policy to the Azerbaijan economy requires an updated tax legislation which is not an easy task to overcome. One of the main challenges of UBI is bureaucratic challenges and the implementation process itself. Administrative costs and challenges also needs to be resolved.

Implementation of Model 2 in Azerbaijan with the increased expenditures introduces the risk of inflation and increase in the velocity of the currency. These

problems are also present in Model 1 to a certain extent. Bureaucratic and administrative challenges still exist. Making sure that the amount will go directly to the people's pocket and the process itself will never get corrupted, government has to create a bureaucratic structure like Azerbaijan Service and Assessment Network (ASAN) or a structure within it.

One of the universally believed dilemma related to UBI is its universality. Due to rich people not spending Basic Income amount that they receive this amount will go to savings and will not be contributing to stimulating the whole economy. Essential purpose of UBI in this case is to reduce inequality, eliminate poverty and improve every citizen's well-being. Some argue that although giving the same amount of money to everyone creates an impression of social justice but, giving extra purchasing power to those who have no need for it is unnecessary utilization of economic resources. Other side of the argument is that if the amount goes only to those in need that will disincentivizes hard work therefore incentivizes laziness and productivity drops.

After examining these two hypothetical models, it is possible to say that the Basic Income policies implemented in the models are capable of reducing income inequality regardless of them being based on a data with such low level of income inequality. Saying only income inequality reduction is enough to implement a Basic Income policy is completely wrong. There are numerous necessary areas of research need to be studied before applying a full scale UBI policy like its effect on inflation, labor market, people's willingness to work and etc. Before starting to implement such a policy, deep complex multilevel analysis of the economy is required.

Initiating a policy like UBI in Azerbaijan would completely shift economic environment in the country. One of the main studies is needed to be conducted before initiating such policy is how the behavior of the population is going to change. Is it going to make people motivated about following their dreams and contributing the economy or will it just be stimulating and rewarding the laziness? The mental state and psychology of the population should be taken into consideration while making decisions about Basic Income plan.

### 3.2. Research limitations

Another one was not being able to have a reliable data source to do all calculations and no National Statistics history about the income inequality. This is a problem should be addressed in an official manner. The available data on income inequality was about a decade old and incomplete which makes it impossible to talk about the changes and improvements. Also, it is not possible to make assumptions on current levels of inequality based on a decade old data.

Lack of prior research in this particular area is also one of the limitations. The area is not only neglected by Azerbaijan State National Statistics Committee but also has remained out of the attention of researchers. Maybe the reason behind such limited researches done in this area is due to the lack of consistent data because for researchers, it is extremely hard and expensive to conduct such a survey on their own and also, this should be the responsibility of the National Statistics Committee anyway.

Due to the lack of national research in this area, I mainly used English language sources which might be a limitation in itself.

Most parts of this research were done in 2019, so time constraint was one of the limitations considering how wide this research area is.

## CONCLUSIONS AND RECOMMENDATIONS

The main objectives of this paper were to examine the inequality level in Azerbaijan, calculate and measure current income inequality level in the country and explore the possibility of a policy like Universal Basic Income and its effects on income inequality and also to raise awareness on the UBI discussion in the Azerbaijan scientific community.

The first and the second mentioned objectives were not met, because of the unavailability of the data in this particular area of the research. The last objective was partially met because of the same reason. Although the calculations done have certain truth in it but, they do not completely project a real life situation because of the flaws in the survey data which all of the calculations were based upon. The data published by Azerbaijan State Committee on National Statistics in 2017, and it was the only and the closest data to this date.

In order comprehend the income inequality level in the country, the method of constructing Lorenz curve (for visual presentation) and calculating the Gini index was selected. Unfortunately, from the data perspective, the data on inequality and especially income inequality, there is not much to rely on. Consumer Expenditure Survey on Consumption issued by Azerbaijan State Committee on National Statistics in 2017 used as a base data. Regarding this data about the income of decile groups (Table 3. Average income per decile, AZN) I constructed a Lorenz curve and calculated the relative Gini index.

1. The constructed Lorenz curve from the data of Azerbaijan State Committee on National Statistics was extremely close to the equality line, indicating the Gini index will be quite low and after the calculations the Gini index found to be **17.52%**, which is a misrepresentation of the current situation here in Azerbaijan.

2. The resulting Gini index has been compared to the Gini index of the given year of certain countries (Finland, Norway, Germany, Denmark) to show how impossibly low the income inequality found to be here in Azerbaijan (Figure 4. Gini index comparison).

3. The main reason behind this low figure was probably wrong sampling and/or higher income households not wanting to participate in the survey (Esado, 2006). Although there have been few researches indicating this issue even a decade ago, unfortunately, the problem still exists today.

Considering some opportunities that Azerbaijan has for implementing a Universal Basic Income policy, two models of execution methods were proposed:

4. Model 1: A model that is based on a flat tax rate to fund the Basic Income amount. Hypothetical 10% tax rate was applied to the core data and the resulting tax collections amount was divided equally between the decile groups to find the Basic Income amount for Model 1. And then it was added to each decile group's total income (Table 3. Average income per decile, AZN). Calculated Gini index of the Model 1 appeared to be **15.77%** which is 10% lower than the original Gini index. The model was able to make a worthy and considerable difference even with such low level of income inequality to start with.

5. Model 2: This model is built upon the idea of funding it through increased government expenditures. In Azerbaijan, a Basic Income policy can be funded by the State Oil Fund transfers. The amount for Basic Income of Model 2 was approximated as 50% of the average income (250 AZN) which was estimated to be 500 AZN. The Basic Income amount then supplemented to each decile group's total income (Table 3. Average income per decile, AZN). After the calculations finished, the Gini index for Model 2 estimated to be **9.07%** which is 51.77% lower than the original Gini index. This significant reduction in income inequality was because of the determined Basic Income. The amount was greater than the half of the decile group's income which in itself indicates how problematic the survey data of National Statistics Committee was.

6. Because of the occurrence of reliability issue with the core data on which the calculations were based upon, the models derived from this data do not have not much relatable results to real life-like situations. Main intention behind constructing the models was to show their income inequality reducing effect. Although the models shown to reduce the income inequality, still, there are some issues remained

untouched. Results of the Model 1 is relatively closer to real life like results compared to the Model 2. Because the figure estimated to be the UBI amount for Model 2 was greater than 50% of the decile group's average income. This resulted in a significant drop in income inequality and the Gini index which validated the argument about the flaws associated with the survey data. The methodology of estimating the UBI amount was not problematic, in fact it is possible to make the amount even higher. In reality the reduction in the GINI index should be radically lower than 51.77%, and should be slightly higher than that of Model 1 because Model is constructed using only the available recourses but Model 2 used additional on top of the existing ones.

7. With these two hypothetical models, it could be said that a Basic Income policy is able to reduce income inequality even with such low levels of inequality to start with. But it is not a satisfactory reason to validate the implementation of such policy. Without understanding its effects on the economy and society; on inflation rate, labor market, velocity of money, incentives and preferences of population in conjunction with current social security and welfare programs, Universal Basic Income policy should be hesitated to execute. For understanding its long term effects, further researches are needed.

Recommendations on this manner are;

1. In order to achieve the results representing real life situation, income inequality levels should be studied in the country with a serious manner. A huge survey needs to be conducted and sampling methods need to be accurate. Also, people involved in such kind of surveys should be more responsible, should be transparent about the information they provide and somehow this behavior needs to be incentivized by the government.

2. Without any indication of the existence of a problem, it is not possible to address it or to try to solve it. Therefore, the neglection of the measurement of income inequality by Azerbaijan State Committee on National Statistics is raising concerns among the population. To measure correct levels of inequality in

Azerbaijan, further research is needed because currently, there are no data available to make those correct calculations.

3. Bureaucratic and administrative challenges are also regular problems which need to be dealt with if a Universal Basic Income policy is chosen to perform in Azerbaijan. To eliminate the possibility of corruption, a government structure like Azerbaijan Service Assessment Network (ASAN) or a structure within it should be created.

4. Payments in cash would generate problems and/or could demand production of new currencies, that is why implementing UBI in Azerbaijan via electronic payments with an electronic card would be much more efficient. Also, it could potentially stimulate all electronic payments in the country and accelerate the transition process of going from cash to non-cash payments.

UBI has a great prospective of reducing wasted human potential. If everyone had a life where they can spend their full potential on the things that they are the best at, the world would be a much better place. UBI opens up opportunities for individuals to find that very thing. It also releases financial pressure associated with the hurdles of life. But before going for it, we need to make sure that Universal Basic Income will create the best possible outcome for everyone and will not make things even worse than they already are.

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