ŠKODA AUTO VYSOKÁ ŠKOLA o.p.s.

Course: Finance

Field of study/specialization: Financial Management

Critical Analysis of Unconditional Basic Income and Its Effect on Labor Market

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Academic year: 2021/2022

ŠKODA AUTO Vysoká škola

REGISTRATION FOR BACHELOR THESIS

Candidate: **Evgenii Galkin**

Study programme: Economics and Management

Field of study: Business Administration and Financial Management

Thesis title: **Critical analysis of unconditional basic income and its effect on labor market**

Aim:

The aim of this thesis is to provide a detailed critical overview of the concept of unconditional basic income, with the emphasis on its economic impacts, in particular, but not only, on the labor market.

The object of this research is to collect available data and relevant information in the first step and identify the advantages and drawbacks based on the critical and scientific approach eliminating the political tendencies influencing the area.

Content areas:

1. In the first step, all available sources of information and data will be defined, which will then be collected. The collection of information will be aimed not only at the theoretical basis, but especially at the studies carried out and the practical experience of some countries.
2. Subsequently, an overview search of starting points, opinions and attempts to apply the unconditional basic income will be compiled.
3. In the third step, the identified starting points and the theoretical form of the unconditional basic income will be evaluated with regard to the goal that this concept is supposed to fulfill.
4. In the next step, previous attempts to implement the unconditional basic income will be critically evaluated in contrast to its basic theoretical characteristics and the goal declared by its theoretical basis.
5. The thesis will critically evaluate the findings of previous implementation attempts on the impact on the economy, with emphasis on the labor market.

Length of thesis: 25 – 30 stran

Recommended literature:

1. FRIEDMAN, M. *Capitalism and Freedom*. USA: University of Chicago Press, 1962. 202 p.
2. BANK, W. Exploring Universal Basic Income: A Guide to Navigating Concepts, Evidence, and Practices, World Bank, 2020 . [online]. 2020. URL: https://documents1.worldbank.org/curated/en/993911574784667955/pdf/Exploring-Universal-Basic-Income-A-Guide-to-Navigating-Concepts-Evidence-and-Practices.pdf.
3. GIBSON, M. Gibson M, Hearty W, Craig P. Universal Basic Income: A scoping review of evidence on impacts and study characteristics. What Works Scotland; 2018:102. [online]. 2018. URL: http://whatworksscotland.ac.uk/wpcontent/uploads/2018/10/WhatWorksScotlandBasicIncomeScopingReview
4. WIDERQUIST, K. A failure to communicate: What (if anything) can we learn from the negative income tax experiments? . [online]. 2005. URL: https://www.researchgate.net/profile/Karl-Widerquist/publication/222578698_A_failure_to_communicate_What_if_anything_can_we_learn_from_the_negati failure-to-communicate-What-if-anything-can-we-learn-from-the-negative-income-tax-experiments.pdf?origin=publication_detail.
5. MARINESCU, I. The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence from the Alaska Permanent Fund, 2020. [online]. 2018. URL: https://www.nber.org/papers/w24312.
6. DELSEN, Lei. Empirical Research on an Unconditional Basic Income in Europe. Berlin: Springer, 2019. ISBN 978-3-030-30043-2

Date of registration: September 2021

Date of submission: May 2022

L. S.

Electronic approval: 20. 1. 2022

Evgenii Galkin

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Electronic approval: 20. 1. 2022

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I declare that I have prepared this thesis on my own and listed all the sources used in the bibliography. I declare that, while preparing the thesis, I followed the internal regulation of ŠKODA AUTO VYSOKÁ ŠKOLA o.p.s. (hereinafter referred to as ŠAVŠ), directive Thesis guidelines.

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I would like to thank Ing. Lukáš Moravec, Ph.D. professional supervision of my thesis, advice and information.

Contents

List of abbreviations and symbols

UBI	Unconditional Basic Income
CT	Cash Transfer
UCT	Unconditional Cash Transfer
CCT	Conditional Cash Transfer
LMIC	Low and Middle income countries
WB	The World Bank
APF	Alaska Permanent Fund

Introduction

Throughout the entire history of the economic theory, income inequality has remained an issue, so ambiguous and complex, not one of the many economic theories and practices were quite able to tackle in a global perspective. In fact, according to a UNDESA World Social Report 2020, worldwide inequality is currently on the rise, and big time (UNDESA, 2020). According to the estimate of the research, it is affecting more than two-thirds of the globe, which includes most of the developed countries, (UNDESA, 2020, p. 26.) especially notable here would be the case of the United States of America (UNDESA, 2020, p. 23); some middle-income countries - including China and Russia (UNDESA, 2020, p. 29), and many others. The middle class, which has remained the backbone of our Western prosperity ever since the emergence of market economies, is now shrinking, as the distribution of wealth is becoming so uneven, the middle ground between the "top 1%" and the rest of the population is vanishing at an exponential rate. This results in a growth in poverty rates, a tendency hardly desirable for an administration on so many levels. Therefore, the distribution of wealth in a society is carefully monitored and, ideally, is kept as smooth as it is humanly possible with little to no government intervention.

Tremendous efforts have been undertaken by both the right and the left to create a certain set of policies that would address the problem of income inequality without tormenting their economic success in the process. The welfare state that emerged in the 30s in some, and in the 40s in most developed countries, that has seen its golden age in the 50s and the 60s, has evidentially entered a state of decline, following the dark days of the 1970s, the decline that is still ongoing today. The initial creation of this particular form of government was ought to assist the economy and the society in coping with imperfections of the market system, such as the market failures and unemployment, through administrative intervention, yet, as it appears, this model was not entirely effective in dealing with the ones mentioned, and various other ever present flaws of that system, let alone, generated a whole basket of economical, psychological (e.g. the so-called "culture of dependence") and ethical issues along the way.

It is not surprising, therefore, that the overall failure of the welfare state to live up to what was anticipated of it has been sparkling debate on its possible policy reform solution for a good part of the post 1970s era. The conversation stands relevant to this day, and, perhaps, now that we find ourselves in the middle of a gigantic socioeconomic crisis, not to mention, on the blink of potentially the largest shift in workforce participation in history, courtesy of the impending 4th Industrial revolution, the necessity of having this discussion at this moment is, perhaps, as apparent as it can be. Out of the ever-growing cluster of proposed prospective ways to deal with the issues the welfare state wasn't able to address on its own, the one concept particularly interesting for the purposes of this research, an idea that has gained a considerable amount of attention in the recent years, though talked about for decades, is the sociopolitical financial transfer concept, known as Unconditional Basic Income, or UBI.

Deemed to be among the more radical solutions, the discussion of its implementation as a public policy remained almost exclusive to the purely intellectual circles with only a few practical experiments and pilot programs along the way (Gentilini et al., 2020, p. 22-23) described in the Appendix 4 of this paper. The first such programs date back 60 years from now (the 1960s - 1970s negative Income Tax rates in the USA and Canada). The debate on Unconditional Basic Income seems to be of recurring interest, the latest shift in the amount of attention the it has received and in the public opinion on it, most likely, can be attributed to the effects of the devastating Covid - 19 crisis we find ourselves in.

Aim and Methodology

The aim of this thesis is to provide a detailed critical overview of the concept of Unconditional Basic Income, with the emphasis on its economic impacts, in particular, but not only, on the labor market. The object of this research is to collect available data and relevant information in the first step and identify the advantages and drawbacks based on the critical and scientific approach eliminating the political tendencies influencing the area. For the purposes of this research, the concepts of Unconditional Basic Income and Universal Basic Income would be considered to be identical, despite it being debated by a number of researchers. This paper shall be divided into two parts. The first part would examine the philosophical and political history of UBI, the conceptual properties of UBI, including, among others, its goals, structure, financing, its potential economic impacts and the overall feasibility of the

implementation of the concept. The second part is focused on the potential labor market impacts of a UBI policy implementation, analyzing the theoretical framework and assessing it with the practical implementations of the concept. As it appears, the UBI itself appears to be at an early stage of its practical development and implementation. In fact, the concept was never implemented to its fullest extent (so-called "full basic income") (World Population Review, 2022; Sigal, 2020). Therefore the material examined shall be focused on the effects of cash transfer policies closely resembling UBI and those that embody some of its core principles, as well as on theoretical models. This way it is made possible to factually back any claims made on the selected topics, as well as generally examine the deviations the real life implementation has from theory, despite the many limitations that are apparent in terms of the conducted research.

The compilation of quantitative and qualitative data, that is used to provide an overall overview of Unconditional Basic Income, is reviewed through the scientific method or combination appropriate for each particular situation. The decision on this has to be made according to the context of data examined, which has to be clearly defined for each particular situation.

Data Collection

The scope of this thesis is narrowed down to the following themes: UBI history; UBI basic principles and UBI labor market impacts. The study primarily relies on various research sheets, scholarly literature and transcripts from various philosophical and political debated on the issue of UBI and various other CT methods with the emphasis on the practical, tangible side of the issue, extracted from historical data analysis. For the purposes of this research, all data used shall be secondary data, by definition, the data collected from a source that has already been published in any form (Kabir, 2016, p. 273).

Form and Document Analysis

The research relevant data is structured in a concise and presentable manner in order to effectively provide the reader with the very essence of the subjects examined, while not missing out any of the important bits of information that need to be provided. Although documents can be a rich source of data, “researchers should look at documents with a critical eye and be cautious in using documents in their studies” (Bowen, 2017, p. 33). “Documents should not be treated as necessarily

precise, accurate, or complete recordings of events that have occurred” (Bowen, 2017, p. 33). Prior to the research, the quality of data collected shall be evaluated source-critically and with a great deal of caution: the sources must prove relevant to the topic of research, credible and trusted, available in their authentic way. Document selection and analysis and interpretation shall be conducted in manner, deprived of any biases of the researcher's perspective, which may negatively influence the overall objectivity and relevance of the study.

Plan Overview and Sectional Literature Analysis

This section represents an overview of the plan of this thesis, outlined above, with the emphasis on the actual literature used while preparing this research. The purpose of a systematic literature review is to provide as complete a list as possible of all the published and unpublished studies relating to a particular subject area. The review shall be split into relevant sections in order to define the contribution of each literature piece to each of the segments of this thesis.

::1.1:: UBI Conceptual History: from More to Friedman

The information presented in this section shall be strongly based on the framework, created in the Basic Income Earth Work (BIEN) article, titled simply "A short history of the Basic Income idea", which goes through the entire history of the concept in great deal of detail (Van Parijs, 2021).

Apart from that, in examining the concept's history, it is often important to address the original source material to follow the philosophic train of thought throughout history so to say.

The defining principles of UBI and other theoretical and practical concepts, briefly touched upon in this section, shall be extracted from a number of theoretical papers and articles on the matter, including BIEN's "About Universal Basic Income" (Basic Income Earth Network, 2022), Valentina Barca's and Luca Pellerano’s "Does one size fit all? The Conditions for Conditionality in Cash Transfers" (2014), among others.

DONT EXPLAIN WHY, Don’t duplicate

::1.2:: Basic principles: UBI goals

The goals of Unconditional Basic Income were well defined in one of the most fundamental reviews of UBI theory, practical experiments and potential, conducted

by the World Bank in 2020 (Gentilini et al, 2020). This work was praised by some of the most prominent UBI researchers, with Ioana Marinescu describing it as "the ultimate guide for anyone interested in universal basic income at the global level" (Gentilini et al, 2020). The authors of the research do not attempt in most cases to collect research data on their own, sticking instead to the evidence, provided by the most prominent research in existence to form a definite and complete picture of the concept in question. Each chapter of the book is provided by a different author, thereby, in case of each different chapter used the relevant author shall be credited in the reference.

For additional perspective on the subject of the overall UBI goals, the International Labour Office paper by Isabel Ortiz, Christina Behrendt, Andrés Acuña-Ulate and Quynh Anh Nguyen (2018) are additionally examined. The works is titled "Universal Basic Income proposals in light of ILO standards: Key issues and global costing" and appears to be among the most fundamental works on the UBI implementation options and potential impacts (Ortiz et al., 2018).

In addition to the two primary articles here, a number of other sources shall be used to broaden the dimensionality of this work. First, a paper by Paul Segal (2009), focused on the prominence of resource dividends as a form of redistribution provides a great deal of additional data on one of the main UBI objectives apart from what can be found in the WB (Gentilini et al, 2020) review. Second, the opinions and quotes of certain media and political figures. Those may include, for instance, Andrew Yang (2018), Elon Musk (Sheffey, 2021), and others.

::1.3:: Basic principles: UBI anatomy

This section shall once again be structurally based on the first chapter of the 2020 World Bank review (Gentilini et al., 2020), as it appears to be among the most fundamental studies that describe what UBI is as a policy. However, the contents of this section themselves shall be based on a very diverse set of acclaimed research, often focused on the more narrow aspects of UBI anatomy.

The Stanford Basic Income Lab's umbrella review of UBI by Rebecca Hasdell (2020), also play an important part in this section. The paper presents an original, yet, shrieked version of the World Bank (Gentilini et al., 2020) review contents, useful, however, for the purposes of this research, while also grouping a number of helpful UBI-related articles in its Table 3, titled "Programs, Policies, Pilots, And

Experiments Included In Reviews, By Geographic Focus" (Hasdell, 2020). A great number of very narrowly targeted work papers and articles would be extracted from both the reviews, which would be used in order to expend on the initial data and provide more perspective on each UBI element in particular.

Those include the earlier World Bank reviews, for instance, a paper by Ugo Gentilini (2016), examining the comparative evidence of cash and in-kind transfers in humanitarian situations; the above-mentioned Valentina Barca and Luca Pellerano's (2014) review on conditions for conditionality, and others

::1.4:: Assessing the Scope for Financing UBI

A lack of research on this matter is, sadly, very evident. With the exception of Chapter 5 of the 2020 World Bank review (Gentilini et al., 2020) titled "Financing a Universal Basic Income: A Primer", which presents, perhaps, the most fundamental review of the issue available, the only paper to provide and alternative assessment was the International Labour Office paper by Isabel Ortiz, Christina Behrendt, Andrés Acuña-Ulate and Quynh Anh Nguyen (2018). While the second review is primarily focuses a lot more on the actual affordability of such a program a UBI, calculated for 130 countries on the basis of the program's generosity, the first review is centered on the actual assessment of the fiscal space for UBI through different measures (Gentilini et al., 2020; Ortiz et al., 2018). Therefore, the World Bank review provides more theoretical framework, while the ILO one gives us some tangible figures to examine (Gentilini et al., 2020; Ortiz et al., 2018).

::2.1:: UBI Impacts on the Individual

The impacts of UBI on an individual are very well outlined in a study by Veronika Hudáková (2015) of the Wageningen University, titled "The Impact of a Basic Income on Labor Supply and Work Performance". The main purpose of this work was to analyze the behavioral patterns that motivate the workers to remain in or leave the labor force, and to this day this study remains among the most fundamental on this matter (Hudáková, 2015).

A study by W.J. Pech (2010), titled "Behavioral Economics and the Basic Income Grant", appears to also be crucially important for the purposes of this research, it being exclusive in a number of aspects, including introducing the concepts of "good" and "bad" jobs, which are absolutely crucial in researching the Unconditional Basic Income labor market impacts.

::2.2:: Overall UBI Labor Market Impacts: the four arguments

The four key dimensions of UBI potential labor market impacts are based on the Chapter 3 of the 2020 World Bank review (Gentilini et al., 2020), titled "Universal Basic Income and Work", as it is among the few research papers to present two more angles to assess those impacts from when compared to the common view.

::2.3:: Model and Practical implementations: case studies

The two most prominent studies on the case of Alaska are a research paper by Jones and Marinescu (2018), and a study by Oliver Goldsmith (2010), which complement each other with different bits of statistically backed assumptions. In the case of Iran, there is a considerable lack of available data sources, however, as it remains one of the more important cases of UBI implementation, the evidence shall be analyzed through the both the 2020 World Bank (Gentilini et al., 2020) and the Ortiz et al. (2018) reviews of the Iranian UBI situation, which are primarily based on a research paper by Salehi-Isfahani and Mostafavi-Dehzooei (2018), titled “Cash Transfers and Labor Supply: Evidence from a Large-Scale Program in Iran”. In the case of NTR's the two most comprehensive research papers are a paper by G. Burtless (1986), which reviews the American experiments, and a Hum and Simpson (1993) paper reviewing the Canadian ones. Despite both of these researches not strictly being up to date at this point in time, they provide a comprehensive analysis of the empirical evidence from those experiments (Burtless, 1986; Hum and Simpson, 1993).

The Latin America CTs shall be analyzed with the help of a Mariano Bosch and Marco Manacorda (2012) review of the matter, which compiles a great number of existing research on the question of their impacts, conducted by some of the most prominent authors. The often-conflicting data is concisely put together and cross examined, providing one of the most comprehensive reviews of the role of conditionality in influencing labor market decisions (Bosch and Manacorda, 2012).

Last, but not least, a behavioral experiment, conducted by Wageningen University in 2015, will be analyzed in order to examine the individual behavioral patterns linked with motivation in an environment where a basic income system is introduced (Hudáková, 2015). This experiment provides some very important statistical data with regards to some of the UBI labor market impact aspects.

::2.4:: UBI Labor Market Impacts, Result Assessment

For each of the primary dimensions a conclusion shall be made on the question of scale of this mismatch and on the potential reasons for such a situation. This would be achieved through the combined analysis of the evidence from the literature used in the previous sections.

1. The Theoretical Concept of UBI

1.1 UBI Conceptual History: from More to Friedman

Unconditional Basic Income (also known as Universal Basic Income), despite the term itself being a relatively recent addition to the universally recognized scientific terminology, as a concept, has had quite a long history of theoretical development (Van Parijs, 2021). Originating in almost pure philanthropy and humanitarianism, an important step in developing a possible solution to these ever-present matters (and UBI is a potential solution here) was first to realize the socioeconomic necessity of dealing with the ever-present issues of poverty and economic inequality, and then to properly convey this necessity to the populace (first and foremost, to the powers that be, policy makers, and thinkers),

In the post-Roman Western literature, the early origins of the concept can be attributed to Thomas More's very simplistic, yet prominent work from the year 1516 - Utopia (2014). In this book he makes several incredibly accurate remarks on many of the most compelling issues of his time, among the most notable ones was his take on the nature of crime and poverty. More suggests that a punishment, no matter how severe, will never become a solution to crime motivated by extreme poverty, so instead the government should focus on providing a certain standard of living for the poor (More, 1516). In 1526, close personal friend of More's, a famous Renaissance humanist Johannes Ludovicus Vives, then followed up with a gratuitous cash transfer proposal, which, he argues, the state should provide to the financially disadvantaged, just as long as they remain virtuous in their spending decisions (Vives, 2020). Vives's idea was among the first social security concepts developed in the Western world. By definition, social security is a system of federally funded services and payments to help support the needy, the aged (social pensions), and the temporarily unemployed as well as providing support for needy, dependent, disabled, or neglected children, rehabilitation for the disabled, and a host of other social services (Dictionary.com, 2022).

Following the rise of political philosophy in Europe in the late 18th century, during the Enlightment Era, thinkers from the entire spectrum of ideological isles would in their works propose different universal and unconditional cash transfer possibilities, further developing the understanding of the concept of UBI in all of its non-trivial

complexity. Following Marquis de Condorcet's (1794) social insurance system concept and Thomas Paine's (2017) 1796 social pension system prototype, the first fully formed UBI conception finally entered the public discourse through the works of Thomas Spence (2010). In his 1796 work, "The Meridian Sun of Liberty", this British Radical's most recognized work, he argues: "The land with all that appertains to it, is in every parish, made the property of the corporation or parish" (Spence, 2010). Spence suggests every person's equal entitlement to land, all of which commonly owned. The rent money recovered from it should be used to finance numerous public expenditures. The exceeds from that money, which Spence argues would be about a third from the whole sum collected, is proposed to be divided equally "...among the whole number of souls, male and female, married and single in a parish, from the infant of a day old to the second infantage of hoary hairs." (Spence, 2010). So what was it exactly that Spence came up with?

Unconditional Basic Income is a cash transfer concept that has five primary defining qualities. First, the transfer must be *unconditional*: UBI does not include work requirements or sanctions; it can be used by both employed and unemployed, whether voluntary or involuntary (Basic Income Earth Network, 2021). Second, it must be paid in *cash*: UBI is paid in the proper medium of exchange, so whoever receives it can choose where to spend it (Basic Income Earth Network, 2021). It is not paid in kind (such as food or services) or in the form of vouchers for a specific purpose (Basic Income Earth Network, 2021). Third, the payment is *universal*: UBI is paid to everyone and there is no means test (Basic Income Earth Network, 2021). Fourth, the transfer must be *periodic*: UBI is paid on a regular basis (e.g. monthly) rather than as a one-time grant (Basic Income Earth Network, 2021). Finally, the transfer must be *individual*: it shall be paid out to every beneficiary on an individual, rather than a household basis (Basic Income Earth Network, 2021).

A cash transfer that fails to comply with either one of those core principles cannot be regarded as Unconditional Basic Income, however, those that encompass some of them prove to be of great scientific interest when examining the potential impacts of a UBI program implementation. The many policy proposals that involve UBI can differ across many dimensions, among which is the level of the transfer itself, yet, according to the basic theory of the concept, only transfers of a level sufficient enough to meet a person's basic needs can be considered a full UBI program; in Spense's (2010) 1875 (work, however, we are not able to find anything about the

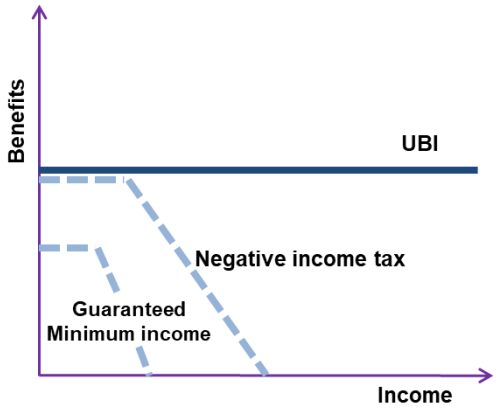
level of transfer, despite it following the five key principles listed above. Therefore, what he came up with was a concept, known as Partial Unconditional Basic Income, as the amount of cash recovered from rent might as well have been insufficient to help every citizen get over the poverty line. This concept is reviewed further into this paper in the Section 2.3.

Following Spense's work, Charles Fourier's (1995) 1829 idea of a "copious forwarded minimum" was the answer to this concern, as his very similar idea of equal entitlement to land also encompassed more certainty in the amount of money the recipients are to be getting (Van Parijs, 2021). His concept would later be developed by Joseph Charlier (2017) in 1848 into the first ever full-scale nationwide UBI policy proposal. In his short book, entitled Solution du problème social ou constitution humanitaire, on the basis of Spense's and Fourier's ideas he introduced a concept of "territorial dividend": by giving every citizen unconditional access to a quarterly (and thereafter monthly) payment, which is determined annually by the National Council of Representatives, based on the rental value of all real estate, with its level being such that "the state will secure bread to all but truffles to no one" (Van Parijs, 2021).

For about a decade after UBI was introduced, it remained almost exclusive to the purely intellectual circles. It wasn't until the early 20th century that the idea of basic income became a real topic of discussion. In the mid-to-post World War I England the idea of Unconditional Basic Income has had a major renaissance, entering the public debate on poverty reduction through the works of such brilliant intellectuals as Bertrand Russell with his combination of anarchism and socialism, Dennis Milner with his State Bonus, Major Douglas and his Social Credit movement, and many others. Yet, despite its fair share of popularity at the time, the concept was never implemented in Britain, and after World War II was almost entirely put aside (Van Parijs, 2021).

It wasn't until the 1960s that the concept was implemented for the first time in practice, although very partially (Van Parijs, 2021). Between the years 1968 and 1982, numerous negative tax rate experiments were conducted in the US and Canada, all revolving around the concept introduced by Milton Friedman (1962) in one of his most influential works - Capitalism an Freedom. The goals of the program are stated as follows: "There is every reason to help the poor man who happens to

Figure 1: Interventions linked to income



Source: (Gentilini et al., 2020, p.75)

be a farmer, not because he is a farmer but because he is poor. The program, that is, should be designed to help people as people not as members of particular occupational groups or age groups or wage-rate groups or labor organizations or industries." (Friedman, 1962, p. 191). In his intent to achieve the desired outcomes without distorting the market or impeding its functioning, Friedman (1962) proposes a Negative Income Tax system, which was to replace the existing social welfare system. As illustrated in Figure 1, Friedman's (1962) program closely resembles UBI on the low levels household income. Being an income tax-based program, the amount of benefits received is dependent upon the amount of revenues the recipient declares.

The first genuine implementation of Unconditional Basic was brought about in Alaska in 1976 with the creation of the Alaska Permanent Fund (Van Parijs, 2021). Since the program was first introduced in 1982, everyone who has been an official resident of Alaska for at least six months has received a flat annual dividend, regardless of their age and years of residence in the state (Van Parijs, 2021). This dividend represents a portion of the perpetual fund's average interest income over the past five years (Van Parijs, 2021).

Since then, a great number of UBI experiments and pilot programs have been launched all over the world, the most prominent examples being the Iranian cash transfer program, introduced in 2010 and the Mongolian Human development Fund, among a few others (Appendix 4). The Stanford University Basic Income Lab provides a handy interactive map, demonstrating "how and where have Universal Basic Income (UBI) and its cousin policies been tested" (Stanford Basic Income Lab, 2020), which can be found in the Appendix 3.

1.2 Basic principles: UBI goals

Like with any social policy, the purposes the implementation of an Unconditional Basic Income system must be clearly defined before any considerations of putting it into practice are made. Aside from providing social security, the 2020 World Bank

paper defines two more core UBI objectives: resource dividend provision and combating automatization. In this section they will be examined in more detail (Gentilini et al., 2020, p. 43-58).

- **Social Protection**

As defined by the Centre for Aid and Public Expenditure, "social protection is the public actions taken in response to levels of vulnerability, risk and deprivation which are deemed socially unacceptable within a given polity or society" (Banks et al., 2019). The level of "social unacceptability" has to be clearly defined in order to be able to create a policy combating it. Therefore, in most of these cases, policymakers introduce a certain *floor* in order to be precise with the amount of people in need of assistance and the amount of spending that will have to be made (Gentilini et al., 2020, p. 44).

The *floor*, defined in ILO Recommendation No. 202 guarantees at minimum a basic level of income security and access to basic health care (Ortiz et al., 2018, p. 5). Unconditional Basic Income is supposed to take this floor into account; whether or not a UBI meets the minimum amount goal depends on how it is designed. When a UBI policy is designed to completely replace much of the benefits system, including programs and services for special needs, and similar policies, then it is clearly inconsistent with the floor (Gentilini et al., 2020, p. 44). In the case of full UBI, its main objective would be to not only provide people with a minimum, but with a standard of living, which makes it *"...the most radical form of the income component of a social protection floor*." (Ortiz et al., 2018, p. 5-7) However, if the UBI is aimed at strengthening and improving the progressive provision of social protection, then the concepts of floor and UBI are in alignment (Gentilini et al., 2020, p. 44). This can theoretically be achieved on the lower levels of the transfer (Gentilini et al., 2020, p. 44), likely, insufficient for full-UBI.

Proponents of basic income argue that it provides stable and predictable income as a universal and unconditional right reduces poverty and inequality more effectively than means-tested programs (Ortiz et al., 2018, p. 1). It will promote the dignity and human rights of individuals by giving them space for different forms of work that are not rewarded by the market, such as housekeeping and volunteering (Ortiz et al., 2018, p. 1). As shown by the relative welfare levels, which can be found in the

Appendix 2, many UBI proposals fail to ensure the minimum level of consumption set by the national poverty line (Ortiz et al., 2018, p. 8).

Questions remain about the UBI proposal to replace the entire social security system with UBI. It is unclear, whether a uniform benefit would meet people's needs for life-cycle emergencies that are typically covered by any adequate system, including maternity leave, sickness, disability, work-related injuries, unemployment, among others (Ortiz et al., 2018, p. 9).

- **Resource Dividends, Carbon Taxes**

One of the main threads in the UBI discourse, the dividend model, has remained among the most talked about and practically tested ideas. The model usually includes a backdrop of large windfall resource gains benefiting from oil and commodities (Gentilini et al., 2020, p. 52). Often, the majority of the population is unaware of the amounts of such earnings and of how those revenues are put to use. Besides, these windfalls often come with huge regressive subsidies (Devarajan, 2018). To address the problems of subsidy inefficiency and accountability between the state and citizens, the policy proposal is to reallocate a part of the subsidy, distribute oil revenue to the entire population in the form of UBI and gradually return it to public goods (Gentilini et al., 2020, p. 52). Taxes incentivize citizens to demand better government services, starting a virtuous cycle of more incremental support as citizens revisit government services (Devarajan et al. 2013; Sandefur 2017).

The proponents of the resource dividend argue that the scheme is likely to significantly reduce poverty while the rent-based financing of the program does not imply any economic distortions or inefficiencies that other redistributive systems have (Segal 2009, p. 3). It provides incentives for informal workers and low-income earners or those who have no formal interaction with the state to register in the tax system (Segal 2009, p. 3). Finally, one view of the best use of resource revenues is that they should be passed on to individuals through private dividends, and when the state needs to finance public spending, it should do so by returning some of the dividends (Collier et al., 2010, p. 101). Individuals are better at identifying investment projects than government officials and have a stronger incentive to execute them well and ensure their success (Collier et al., 2010, p. 104). It is unclear, however, whether private decisions lead to the optimal consumption and investment time distributions. People living in the present may underestimate future generations and

therefore underinvest (Collier et al., 2010, p. 104). Also, countries with weak governments are unable to set up such a system due to the complexity of recovering the rents from the development companies (Segal 2009, p. 14). Also, the distribution of the dividends themselves can prove to be quite challenging, especially, for the developing countries (Segal 2009, p. 14).

The reallocation of natural resources is not necessarily driven by increased efficiency, but by social and ecological principles. From a societal perspective, the idea is to strengthen the social fabric by creating a sense of shared purpose through the use of natural resource benefits, like if every citizen was a shareholder receiving dividends (Gentilini et al., 2020, p. 53). The most prominent examples of such logic are the cases of Alaska and Cherokee Nation (Gentilini et al., 2020, p. 53).

From an ecological standpoint, there are several proposals for carbon tax, which is proposed to boost climate benefits, yet the question of what to do with its revenue arises (Gentilini et al., 2020 p. 53). Where carbon tax revenues are distributed per capita, they could be an important tool for redistribution (Gentilini et al., 2020 p. 53). This creates a clear link between UBI and the climate protection agenda (Gentilini et al., 2020 p. 53).

- **Automation and Labor Market Disruptions**

The narrative surrounding the labor market includes three main sub-debates: automation, stagnating and/or low wages, and the either evolving or non-evolving nature of work (Gentilini et al., 2020 p. 47).

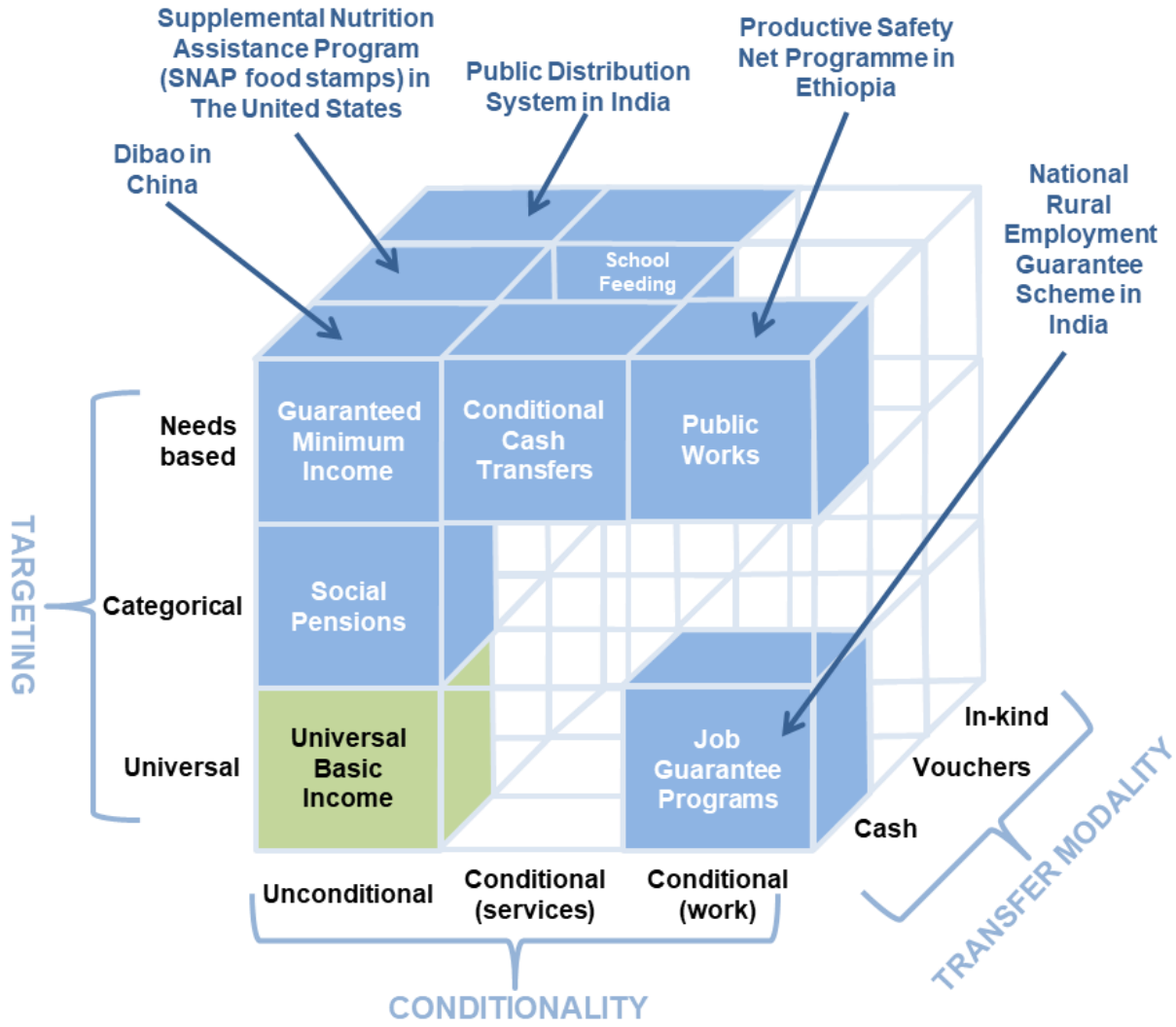
The concerns over technology taking away people's jobs are well-founded. Since the Industrial Revolution, workers have had to live with the constant threat of a growing number of machines in agriculture, manufacturing and the service sector. In fact, between 1975 and 2012, the corporate workforce's share of employment has declined steadily, in about three-quarters of advanced economies and two-thirds of developing countries (Gentilini et al., 2020, p. 50). With the approaching industry 4.0 the trend is very likely to continue, especially that in some countries the proportion of jobs vulnerable to automation ranges from the low single digits to around half the population (Gentilini et al., 2020, p. 51) Additionally, such catastrophic events as the Covid 19 pandemic are also likely to cause tremendous labor market disruption, causing people to lose their jobs. Many workers are unable to transition to different and/or newly generated occupations for a number of reasons, which substantially

harms the job balance. In this context, the idea of UBI, as an insurance against such risks, is gaining tremendous momentum (Standing, 2020; Yang, 2018; Sheffey, 2021). From this perspective, perceptions of UBI depend on the severity of the threat from technology, automation or artificial intelligence, and the proportionality or aggressiveness of the policy response. Some, however, argue that technological unemployment isn’t something of a brand new phenomenon, but a one we have seen happen a number of times over the course of history (Szabó-Szentgróti, Végvári and Varga, 2021; Undheim, 2022) . At the time those were anticipated with similar caution, yet their effects didn't prove as catastrophic as it was expected in the long run. Therefore, certain upskilling programs are proposed instead, in order to minimize the hazardous effects in a more efficient way than through UBI (Schwab and Zahidi, 2020).

Atypical employment trends in middle-income countries are more complex than in the case of highly developed countries (Gentilini et al., 2020, p. 52). The prevalence of this form of employment has generally remained stable over the past 20 years in Latin America and the Caribbean, but less homogeneous in Eastern Europe and Central Asia (Gentilini et al., 2020, p. 52). However, in some developing countries, the main challenge of the underlying model is not necessarily labor market diversification and automation, but widespread informality (Gentilini et al., 2020, p. 52). On average, 81% of workers in low- and 46% of workers in middle-income countries hold informal jobs (Gentilini et al., 2020, p. 52). In this case it is arguable that a social assistance scheme that would not be linked to a person's employment could be quite effective in reducing the shadow sector of the labor market. UBI could be one of the options for forming such a social assistance platform that relieves pressure on social security to achieve distribution or equity goals (Packard et al., 2019; Rutkowski 2018).

1.3 Basic principles: UBI anatomy

Figure 2: UBI within a Social Assistance Cube



Source: (Gentilini et al., 2020, p.21)

In principle, social security schemes can be codified along three primary characteristics or dimensions: Modality, Conditionality and Targeting (Gentilini et al., 2020, p. 21). Figure 2 illustrates the program resulting from these combinations. The green cube represents Unconditional Basic Income, a combination of three possibilities - universal, unconditional and a cash transfer. As it was already mentioned, there are two more primary defining UBI qualities that are not present at this figure: periodicity and individual basis, which shall also be touched upon in this section.

- **Universality**

Universality is the idea that everyone is covered by a particular system. However, there are several different definitions of what "Universal" actually means. On one hand it can mean that we basically pay everyone on the basis of residence/citizenship, but on the other hand it could be that guarantee coverage for everyone would be based on demographics, such as a person's age or average income in the area they live in (Hasdell, 2020, p. 12). With initial eligibility criteria, a key feature of UBI is continued eligibility despite changes in income or other characteristics (Hasdell, 2020, p. 12).

What is it that makes Universality a beneficial trait of a social security policy? First, it circumvents the controversial issue of exclusion and inclusion errors, inherent in needs-based targeting by not specifying eligibility criteria (perhaps other than citizenship or specified residence and age, such as for those over 18) (Gentilini et al., 2020, p. 25). According to Martin Ravallion, the informational requirements of a basic income on its own are minimal, and the incentive effects (mainly reduced labor supply through a positive income effect on demand for leisure) and administrative costs would probably be modest, although a full assessment must also consider the method of financing (2018, p. 201-218). Second, universality removes any stigma against beneficiaries (Gentilini et al., 2020, p. 25). For example, the evidence from Europe suggests that stigma is one of the key factors in qualifying beneficiaries receiving limited services (Dubois and Ludwinek, 2015). Third, changing an individual's default position from a potential beneficiary to a guaranteed beneficiary may reduce the transaction cost of obtaining benefits, as the application process would no longer be required (Gentilini et al., 2020, p. 23). This idea of the simplification of the welfare state was strongly supported by many neoliberal economists (Friedman, 1962; Murray, 2008). While it is arguable that it would be possible to entirely dispense of the monetary management costs when replacing CCT's with UCT's, the social costs of monitoring explicit behaviors would no longer be paid (Barca and Pellerano, 2014, p. 10). Additionally, having a stable source of income over time provides various economic and psychological benefits. Those include stress relief, avoidance of desperate measures of financial hardship, economic empowerment, and various other ones (Gentilini et al., 2020, p. 26). Fourth, the universality of UBI can align the interests of the poor, the near poor and even the middle class (Gentilini et al., 2020, p. 26). As a result, policy options to support programs and the political economy of taxation will change to increase the

pool of social protection resources enough to expand coverage and maintain meaningful benefits (Desai and Kharas, 2017; Kidd, 2015). Finally, some proponents also claim that a decent UBI can do it Enhance employees' bargaining power by offering opt-out options (Wright, 2002, p. 8; Ortiz et al., 2018, p. 1).

Those opposing the Universality aspect of UBI have got their share of arguments too. First, the cost of making large universal transfers is astonishingly high. Depending on how these funds are financed - reducing existing social protection spending, reducing regressive benefits, raising taxes - the distribution of income and age groups may or may not be ideal (Gentilini et al., 2020, p. 26). The potential ways to finance UBI are discussed in more detail in Section 2.4 of this paper. Second, the flat-rate nature of a Unconditional Basic Income transfer may not be suitable for every purpose, as it cannot efficiently and timely respond to large and short-run changes of state, like a loss of livelihood, illness, as well as a number of others (Gentilini et al., 2020, p. 26). Finally, the impacts of the currently existing social programs have not reduced the overall labor force participation (Baird, McKenzie, and Özler, 2018, p. 6-15).

Additionally, the Universality aspect of UBI is able to tackle the problem of limited coverage (especially relevant for the low-income countries) through reducing transaction costs, removing information barriers, stigma and participation opportunity costs considerations (Baird, McKenzie, and Özler, 2018, p. 5-6; Gentilini et al., 2020, p. 27). The causes of limited coverage are listed in the Table 1:

Table 1: Barriers to Coverage

FACTOR	BARRIER	EFFECT OF UBI
Funding	• Lack of funding	• Would likely amplify it, probably severalfold
Awareness of the program	• Information • Stigma	• Likely to help in overcoming awareness barrier and thereby reduce errors of exclusion
Costs of participation	• Monetary costs and time • Physical barriers	• Enrollment costs would be one-off (no recertifications necessary) and probably lower • Costs of collecting benefits likely to be the same as for targeted transfers

Eligibility determination	• Information to set up targeting criteria • Method specific limitations • Data changes over time • Possible manipulation by administrators	• Inclusion and exclusion erroes would not apply, as a universal program is conceptually for everyone

Source: (Gentilini et al., 2020, p.27)

- **Unconditionality**

The "U" in UBI means, that the program "...involves no set conditions or sanctions and is given to those who are both employed and unemployed, voluntarily or not" (Hasdell, 2020, p. 3), or in other words, do not require recipients to pursue a certain behavior in order to be eligible for a receipt. There has been a significant increase in the use of unconditional cash transfers all over the world. Such programs are now implemented in at least 101 low- and middle-income countries (Gentilini et al., 2020, p. 30).

Conditionality refers to requirements imposed to obtain benefits. Conditions may be related to service requirements (health or school attendance) and work requirements (Hasdell, 2020, p. 12). Conditions of service are often reviewed as exclusion criteria, but some schemes that require recipients to have or seek employment in the formal economy are often used to draw conclusions about the impact of cash (Hasdell, 2020, p. 12).

::COMPARING CCT AND UCT IMPACTS::

To be able to understand the relative effectiveness of Conditional Cash Transfers and Unconditional Cash Transfers, the practical impacts of the implementations of such policies should be examined over numerous different dimensions:

• Achieving desirable behaviors: The 2020 World Bank paper concluded that conditions are not always necessary to have an effect, but can have a stronger effect (Gentilini et al., 2020 p. 32). Yet, conditionality is only able to limit the outcomes to those relevant to conditions, whereas Unconditional transfers can potentially have a lot broader implications for all developmental goals (Gentilini et al., 2020 p. 32). Similarly, Valentina Barca and Luca Pellerano conclude that, while *"...on theoretical grounds one can reasonably assume that imposing 'explicit' conditions should (if*

anything) increase the adoption of 'desired' behaviors" (Barca and Pellerano, 2014, p. 9), similar results can be achieved without the social and administrative costs through less explicit clearly communicated soft conditionality (Barca and Pellerano, 2014, p. 5)

• Labor force participation: Both the Conditional and Unconditional CTs in theory are able to reduce workforce participation. For example, significant CCT's targeting the unemployed can be a great incentive for the people not to work and live on the unemployment benefits (Hudáková, 2015, p. 10). On the other hand, a significant UCT can discourage people from work just as much if the amount of money received would be sufficient enough for them to live on and their intrinsic motivation insufficient enough to stay on their job (Hudáková, 2015; Pech, 2010). In practice, however, the results do not always comply with this notion.

• Child labor: Gentilini, Grosh and Yemtsov (Gentilini et al., 2020, p. 33) determine a decrease in child labor and hours worked by children for the UCTs and CCTs alike, however, it is unclear, whether the improvement in schooling conditions could have anything to do with it (De Hoop and Rozati, 2014).

In summary, UBI is similar to many UCT social assistance programs around the world. Yet, the dominance of different types of conditioning in policy making may suggest that the unconditional nature of UBI may become an obstacle in its implementation (Gentilini et al., 2020, p. 34). Despite the empirical evidence suggesting a reduction in the uptake of services when Unconditionality comes into play (Gentilini et al., 2020, p. 34), as we can see from the different research presented above, unconditionality or soft conditionality can potentially be from equally to a lot more effective than explicit conditionality.

- **Cash Transfer**

Depending on the design of a social policy, resource distribution among the population can be performed in two primary ways: in cash or in-kind. By definition, a cash transfer is a direct payment made to the eligible groups of the population (Innovations for Poverty Action, 2018). An in-kind transfer, on the other hand, is a resource distribution that includes transferring ownership of goods or assets other than cash (e.g. food, medication, etc.), or providing services free of charge (OECD, 2001). Both systems have their advantages and in certain situations either one can prove to be more efficient than the other. Yet, according to a survey, 84% of

economists believe that "*cash payments increase the welfare of recipients to a greater degree than do transfers-in-kind of equal cash value*" (Mankiw, 2009)

Providing cash to the citizens, as compared to providing in-kind material goods like clothing, catering, fertilizers, and others, has many advantages. First, cash transfers are more cost-effective for governments that tend to encourage financial inclusion. They are likely to be a lot more economical than in-kind transfers, as cash is easier to store (and if e-money is used it does not have to be stored at all), easier to transport and has lower transaction costs (Gentilini, 2016), therefore making a provision of material goods universal is potentially too expensive to deliver them to the entirety of the population as a universal transfer demand. Evidence suggests that in four studies comparing the transfers of the same value in food and in cash, food transfers would have increased their coverage, getting from 13% to 23% more households into the program if they were done in cash (Gentilini, 2016, p. 16). Voucher systems prove to be a partial solution to this problem of distribution, despite still being a lot less cost-effective than cash transfers. According to the empirical evidence from Taiwan (2020) and Japan (2010), consumption-based vouchers fail to stimulate the economy in any significant way (Lin and Chen, 2020, p. 14; Hsieh, Shimizutani and Hori, 2010, p. 527); the recipients of vouchers increased their consumption and the diversification of food they consumed (although remained mostly similar under the voucher and cash transfer modalities), however were not able to somehow productively invest the resources they received from the government (Aker, 2014, p. 13-25). With cash, however, despite being less diverse in their preferences in food, the recipients were able to use a portion of the money received to invest into non-food items and education (Aker, 2014, p. 13-16). Additionally, there is evidence that cash transfers are able to boost local, especially, well integrated markets, improving poor people's creditworthiness, diversifying and increasing the volume of businesses of local traders and contribute to reducing the commodity prices, as the increasing liquidity decreases traders' uncertainty when doing business with the poor households (Creti, 2010, p. 22-23).

While the assumption that cash is an efficient and acceptable means of transfer is strong, there are some limitations to its applicability and situations in which physical delivery of goods is preferable. First, as defined by Gentilini (2016, p. 32), the conversion of needs into effective demand is a key reason behind cash transfer microeconomics, which can present a number of challenges on underdeveloped

ineffective markets. Second, from the evidence from India, it is possible to conclude that people's preference for cash or food entirely depends on a number of sound implementation factors (Gentilini, 2016 p. 8). Finally, gender plays a part in people's preferences, as in many societies women tend to prefer food while men prefer cash (Gentilini, 2016, p. 8)

The review of the evidence suggests that despite cash transfers being more cost-effective, the performance of the two transfer types varies depending on the conditions of the market situation of where the policy was implemented. While varying over different indicators, the overall performance of cash and in-kind transfers appears to be similar on average in the cases where evidence is substantial (Gentilini, 2016, p. 39).

- **Individuality**

The individuality aspect of UBI refers to the fact that the cash receipts are to be delivered on an individual basis, rather than on the household basis. The most obvious benefit of individuality is the increased amount of money that a household gets when every member receives the paycheck. A personal ID system is sufficient to support UBI without building a system for linking and updating family IDs and their memberships (Gentilini et al., 2020, p. 42). Focusing on individuals also helps to make the program more portable, that is, people can be participating in the program no matter where they live (Gentilini et al., 2020, p. 42). This may be an important aspect of providing benefits to seasonal migrants and other mobile urban dwellers (Gentilini, 2015)

Among the disadvantages of individuality - potentially, a higher cost of the program when compared to the ones with a household basis. However, due to the increased administrative costs of tracking the household affiliation of each citizen, the costs might as well level out, at least to some degree. Additionally, providing each individual with an autonomous income is able to make them more financially independent from the households they are members of, which can have destructive effects on family formation (Gentilini et al., 2020, p. 42-43).

- **Periodicity**

The default payment frequency option for Unconditional Basic Income is monthly (or as close as possible to transaction costs in the payment system) (Gentilini et al., 2020, p. 40). This way people are able to have decent income security to satisfy their

basic needs (Gentilini et al., 2020, p. 40). However, it is not always the case for UBI proposals. In fact, if we look at one of the most prominent examples of a UBI policy put into practice, Alaska, we would see that the payments are distributed annually, as they represent the dividends from natural resources that every Alaskan resident is entitled to (Goldsmith, 2010, p. 2-4).

Less frequent transfers have their own advantages. While not providing income security, Silvio Daidone and Benjamin Davis argue in their paper that "Transfers that are lumpy by design but regular may be spent on productive investment, and at the same time can still facilitate consumption smoothing. Further, timing of payment would matter a great deal if designed to support both production and consumption, as this should consider both cycles in agricultural production and access to food throughout the year." (Daidone and Davis, 2019). Likewise, empirical evidence from Sri Lanka suggests that remittances are less predictable and frequent and are more likely to be perceived as “windfall income” and thus used for non-traditional investments (Gentilini, 2016).

However, if a UBI system is to entirely replace the existing social welfare system as it is proposed, the payments cannot be made in an unpredictable, infrequent and aperiodic way, as this would make those dependent from this income very vulnerable.

- **Full-UBI vs Partial UBI**

The research group, coordinated by the Finnish Social Insurance Institution, Kela, defines a "full basic income" as a model that grants individuals an amount greater than current social security benefits as a means to replace them (Authors and Research at Kela, 2016, p. 19). In the case of partial basic income, the amount distributed to the individual will be inferior to full basic income, as other social security related transfers will not be replaced (Authors and Research at Kela, 2016, p. 24). Therefore, the transfer itself will be considered insufficient to meet a person's basic needs. As we can see from these definitions, despite cash transfer complying with each of the five core principles, if the level of transfer is insufficient to give every individual a certain living standard, this CT cannot be considered full UBI.

At the same time, the concept of full Unconditional Basic Income appears to be increasingly strict in its aspects, and, arguably, quite utopian. Researching its

impacts directly through imperial evidence appears to be impossible, as full UBI was never implemented on large scale and in a direct way.

Among the partial UBI programs, the levels of the transfer vary depending on the core rationale of putting the policy into practice (Gentilini et al., 2020, p. 39):

Table 2: Alignment of a UBI narrative with Basic Transfer

CONTEXT AND OBJECTIVE	REFERENCE BASIC TRANSFER SIZE
Automation related	Minimum living standard
Natural resource dividend	Variable based on revenues
Social assistance	Amount to lift people above poverty, or that ensures access to a minimum set of kilocalories or that addresses specific nutritional goals

Source: (Gentilini et al., 2020, p.39)

For example, in the Indian pilot, the benefit level was around 17% of the national poverty line, while in the Finnish pilot it was 52% of the poverty line (Ortiz et al., 2018, p. 7). Other proposals suggest UBI levels equal to the national poverty line (Ortiz et al., 2018, p. 7). The adequacy of a UBI proposal depends not only on its quantity, but also on other benefits and services provided along with UBI (Ortiz et al., 2018, p. 7). Their combination should be sufficient enough to provide the beneficiaries with income security to be considered an overall successful government policy.

1.4 Assessing the Scope for Financing UBI

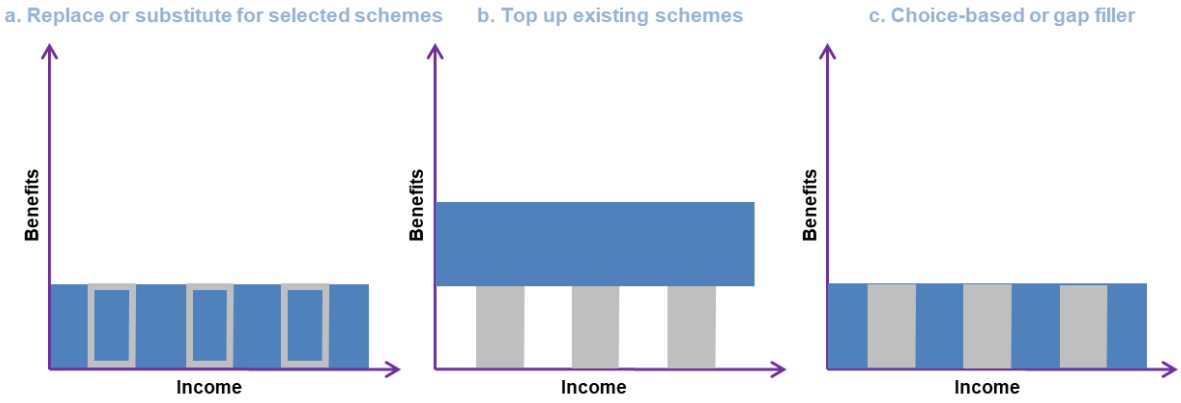
If UBI is to have an assessable impact on reducing poverty and inequality, it has to ensure adequate levels of benefits and coverage in an equitable and sustainable manner. However, there are substantial financial costs involved in ensuring adequate levels of transfers; therefore it is important to stress an appropriate funding strategy that would depend on the circumstances of a UBI policy implementation. For example, Unconditional Basic Income could be introduced (Gentilini et al., 2020, p. 43):

1) To replace the existing schemes. A decision on which programs will be replaced must be made, as well as on the scale of the process of replacement. This scheme appears to be among the more complicated ones. However, it is the one way that proponents of full basic income suggest it should be introduced.

2) To be provided on top of the existing schemes. Its introduction is not linked with such bureaucratic complications as in the previous case; however, it is likely to be more expensive and definitely incompatible the full UBI.

3) To be a blend of both. Andrew Yang proposes to introduce UBI parallel to the existing welfare system, giving each individual a choice between the two depending on the level of benefits. The proposal aims to control costs while improving the performance of non-profit organizations through market-based mechanisms.

Figure 3: Modalities for UBI Phase-in



NOTE: Blue bar illustrates a UBI; gray bars (full) are existing social security programs being preserved; gray bars (partial) are existing social assistance programs being replaced

Source: (Gentilini et al., 2020, p.43)

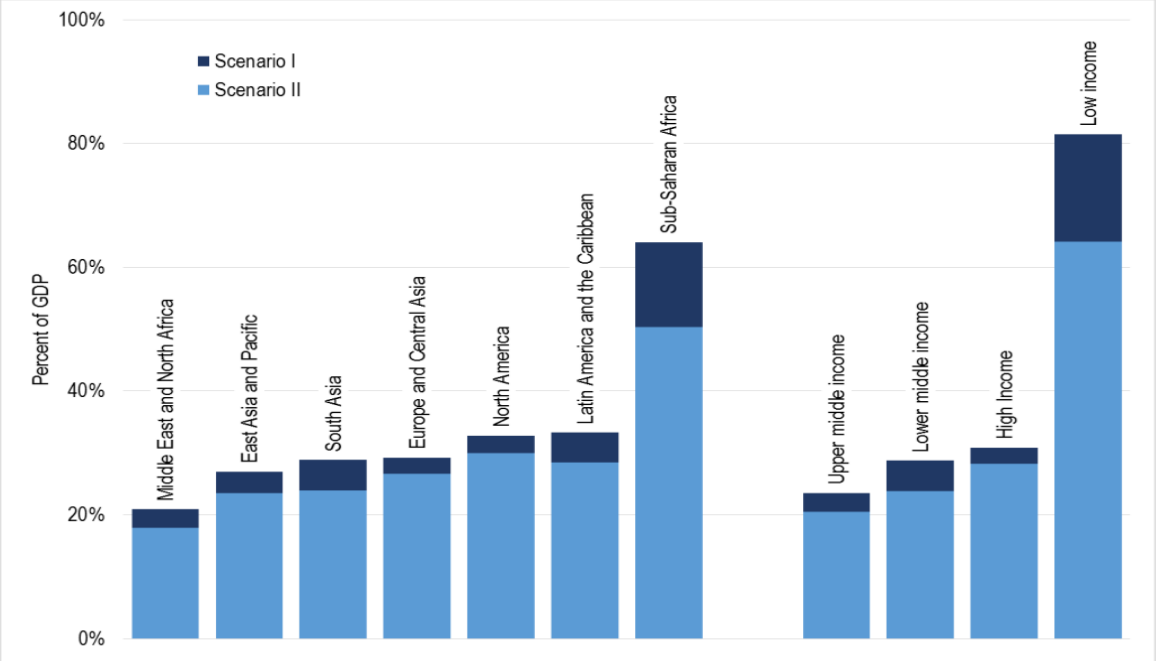
Technically, a UBI could be envisaged to replace some existing non-contributory social protection schemes with unchanged budgetary financial costs (Gentilini et al., 2020, p. 154). In this case, the initial analysis will focus on the distribution of the new transfers among different household groups (different income deciles, poor vs non-poor, different age groups, urban vs rural, etc.), compared to the replaced transmission (Gentilini et al., 2020, p. 157). A 2017 research by the International Labor Organization analyses two UBI financing scenarios, in both of which the level of transfer appears to be the closest to a one sufficient enough for full basic income (Ortiz et al., 2018, p. 13):

1) A UBI transfer at 100% of the national poverty rate for every individual.

2) A UBI transfer at 100% of the national poverty rate for every adult and 50% for every child up to 15 years old.

Despite the poverty rates not always reflecting an actual standard of living, like the one full UBI is looking to provide, in this research the authors perform the calculations on the amount of benefit from UBI through poverty line measures.

Figure 4: Cost of Universal Basic Income as a percentage of GDP, by world region and income category



Source: (Ortiz et al., 2018, p.14)

Figure 4 illustrates the average costs for the two scenarios for different world region and medium income levels. For most of them, the average cost for both scenarios is between 20% and 30% of GDP (Ortiz et al., 2018, p. 14,15). The estimated average cost of Unconditional Basic Income in high-income countries tends to be higher than in low- and middle-income countries; the main reason is that poverty lines in high-income countries are mostly defined as a percentage of relative median income rather than absolute poverty lines, which typically focus only on limited basic needs (Ortiz et al., 2018, p. 15). However, the estimated amount of benefit in this scenario in the developed countries is insufficient to provide a decent standard of living (Ortiz et al., 2018, p. 15), and, therefore, the costs of implementing full basic income are expected to be considerably higher.

As full basic income is promising to be a policy more generous to the entirety of the population than the existing ones, a careful assessment of available fiscal space

must be made in order to accommodate the additional budgetary costs without jeopardizing access to financing and debt sustainability, and, if space does not exist or is insufficient, create or expend it through different means of monetary resource allocation (Gentilini et al., 2020, p. 157). An argument can be made that as full UBI is supposed to replace the existing social programs entirely, the reallocation of the social benefits would be sufficient to finance UBI. However, as Heiner Flassbeck points out, "The government would indeed no longer be required to pay some €400 billion in social contributions, but it would also no longer receive social security contributions at a similar level" (2017), and therefore it wouldn't be possible to support UBI this way. Additionally, he argues that UBI will not be covering the healthcare contributions, and, consequentially, "...monthly UBI of €1,000 would clearly not be sufficient to allow for a decent and independent livelihood" (Flassbeck, 2017). Hence, for a full replacement of the existing welfare systems, the UBI paycheck must be substantially above even the highest of poverty lines to be able to provide a decent standard of living. The WB model reports similar results: "...in order to finance a UBI with meaningful impacts on poverty, replacing subsidies will not be sufficient..." (Gentilini et al., 2020, p. 9). This is, likely, why full basic income was never quite implemented on a scale larger than that of private experiments, most of which barely cover a few thousand people. Still, according to the WB model analysis, a basic income program with the levels of generosity sufficient enough for full UBI still has a potential to be implemented in high- and middle-income countries, however for the low-income countries it would be financially prohibitive (Rigolini, Lustig and Gentilini, 2020, p. 148).

Either way, the existing financial resources are quite limited and are likely unable to finance a full-scale Unconditional Basic Income program. Therefore, additional resources need to be explored by the state in order to be able to do it.

- **Assessing the Scope for Financing a UBI**

The options for funding UBI with adequate benefit levels to effectively reduce poverty and inequality are described in the Appendix 1 of this paper in full detail. Overall, there is a great number of possibilities in accumulating resources to finance a UBI scheme, among which *financing through expenditure savings and subsidy reform* (Gentilini et al., 2020, p. 158-164), *revenue raising measures*, relying primarily on taxation (Gentilini et al., 2020, p. 167-172), and other sources, which include *environmental taxation*, *resource dividends*, *state commercial assets* (Gentilini et al.,

2020, p. 174-175), *restructuring existing debt*, *lobbying for aid and transfers*, *eliminating illicit financial flows* and *using fiscal and central bank foreign exchange reserves* (Ortiz et al., 2018, p. 19). While each option remains highly country- and income-specific, the most likely option to finance such a program in the long term appears to be through taxation, as most existing social security programs are financed that way due to the large amounts of GDP they create (Gentilini et al., 2020, p. 167-172). Additionally, according to Heiner Flassbeck (2017), when we take into account the distribution of power in our societies, VAT remains the sole option acceptable for the elites and the power groups when financing UBI. However, one such tax-based revenue raising measure is not able to allocate enough resources to finance a full basic income scheme (for example, average developed country's inflow from PIT would equal about 8% of its GDP (Gentilini et al., 2020, p. 167), which according to Ortiz (2018, p. 17) would only account for a UBI on the 25% level from the poverty line, which is insufficient for full UBI), therefore it is likely that more than one measure needs to be implemented in order to be able to finance it.

If we examine the limited practical implementation of the existing UBI programs, we find that they have not been funded through direct or indirect taxes, but through *natural resource revenues*, *energy subsidy reforms*, or, in the case of some pilot projects, *private sector donations* (Gentilini et al., 2020, p. 26). However, due to the scarce amount of such programs on a large scale, we cannot conclude that these are the most efficient means to finance UBI, as many of the suggested options were never tested in practice, and, thereby can prove quite efficient.

- **Inflation**

Potential inflation risk is one of the most discussed potential impacts of UBI and a major concern for low-income people. Heiner Flassbeck argues that "Income and production cannot be separated or divorced" (2017), as newly acquired universal income is supposed to be covered by a corresponding increase in production. In the case where it does not happen, he argues, an increase in prices of the goods produced is to be expected, which indicates great inflation risks that come with an implementation of full basic income policies that would increase individual income relative to what it is today overnight (Flassbeck, 2017). However, Flassbeck's model does not take into account the potential of the Industry 4.0 automatization to increase the productivity of existing production sites to, perhaps, match the increase in

income. Proper balance between those two factors cannot be achieved overnight; therefore, certain inflationary fluctuations are likely to happen.

For empirical evidence on the potential inflationary impacts of UBI implementation, we have the option to look at the actual cash transfer cases from high- and low-income countries. For large one-time remittances in high-income countries, no evidence of inflation was found based on the data from Kuwait (2011 - Amiri grant) and Australia (2008, 2009 - fiscal stimulus package) (Gentilini et al., 2020, p. 37).

Possibly, the limited amounts of inflation in countries with high income is due to the fact that that markets in those countries are integrated to a greater extent than in low- and middle-income countries (Gentilini et al., 2020, p. 37). If the relevant markets receiving cash are largely local and poorly integrated with the wider economy, the impact could be different (Gentilini et al., 2020, p. 37). When oligopolistic producers are present, or if the local market is competitive, the rising marginal cost of local production may translate demand from remittances into higher prices (Gentilini et al., 2020, p. 37). In turn, the transaction costs of reaching these regions may offset the potential appeal of other providers serving these high-priced markets (Gentilini et al., 2020, p. 37). Conversely, if the market is well integrated, more intense competition among suppliers to meet currency-induced demand may result in little or no inflation (Gentilini et al., 2020, p. 38).

In the case of low-income countries, the evidence from Mexico (2017 - CTs to remote areas) and Philippines (2018 - CTs to remote areas) there was an increase in the overall food prices by 1,5% in Mexico and particular food prices in Philippines from 6% to 8% (Filmer et al., 2018, p. 4). Evidence from Uganda shows that "small-scale transfers, despite having negligible impact on prices of commodities at the national level, can produce temporary inflation at the local level" (Creti, 2010) due to the inelasticity of supply caused by high transaction costs and asymmetric information, all caused by various state system inefficiencies. These statistics perfectly illustrate the argument made in the last paragraph, which suggests that when UBI is introduced, inflation is more likely to spike in weaker economies with less integrated local markets.

Yet, due to the lack of evidence on the inflationary impacts of existing UBI programs from Alaska, Iran and Mongolia, the matter has to be further researched in order to be able to draw any additional conclusions other than the ones made here.

- **Summary**

At present, the discussion about Unconditional Basic Income is alive as never before, as it is among the more prominent policy proposals that are theoretically able to combat the menacing predicted labor market outcomes of the industry 4.0 automatization. However, due to the reasons described in this chapter, the idea of putting into practice a full basic income scheme is barely touched upon by the politicians for a number of economic and political reasons, which makes it unlikely that we will see it implemented in the foreseeable future. The lack of fully formed and calculated UBI policy proposals along with the lack of the practical implementation of the concept in question makes it increasingly difficult to research both the possibility of putting such a scheme out there, and the impact that such a scheme could have on the majority of aspects of our lives. The matter requires further research in order to truly be able to understand the impacts of such a policy's implementation

2. The Impacts of UBI on the Labor Market

2.1 UBI Impacts on the Individual

Seen by many (Sheffey, 2021; Yang, 2018) as one of the best means of combating the potentially dreadful consequences of the industry 4.0, a full UBI policy sounds attractive in many ways. Providing a smooth pillow of income security for those employed, increasing their bargaining power and, consequentially, their work conditions, decreasing the levels of informality on the labor market, among others (Gentilini et al., 2020, p. 99-100). A UBI scheme put into practice could have a very positive effect on the welfare of the working population. However, there is a strong case against UBI, suggesting that the labor market impacts of the introduction of full basic income could be catastrophic (Annunziata, 2018; Flassbeck, 2017) due to a number of factors, including the potentially strong disincentive to work, an income-production mismatch, and a number of other sociopolitical and financial problems that are able to put the entire economy at risk. Simply put, if too many people decide to leave their jobs after getting a UBI paycheck, they will have to be replaced by equally productive machines overnight on every level, otherwise entire industries would have to halt their production, which would be damaging for the economy

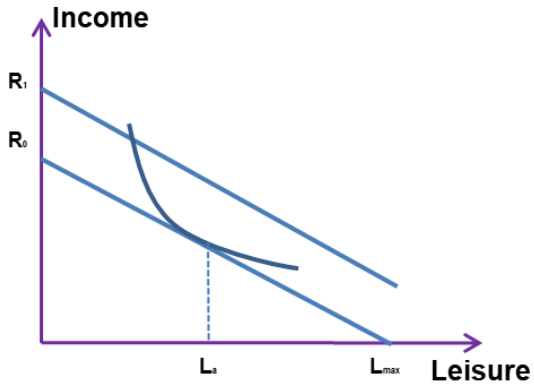
(Flassbeck, 2017). Additionally, the amount of taxes paid will be decreased substantially, which would likely prevent the state from being able to further support the economic system (Flassbeck, 2017). If the majority of workers decide to stay, on the other hand, to prevent inflation spike the production capacities will have to be increased in order to achieve the levels of production that would match the income inflow (Flassbeck, 2017). However, it is quite possible that a balance can be achieved between these two extremes, as there are quite many facts to consider when analyzing individual decision-making of the labor force. In this section both the individual and the labor market impacts on a theoretical basis are outlined, in order to determine, whether the claims that the UBI opponents make are relevant on a scientific basis. While the potential to increase production capacities isn't analyzed, providing answers about the nature and the scale of those impacts is important for further elaboration of different aspects of Unconditional Basic Income as a policy, as it would reveal the potential scale of disruption in the overall labor force, as well as in the income-production balance after UBI is implemented.

- **Individual impacts**

2.1.1 Leisure vs work

Whether or not people decide to work less hours when their incomes increase depends largely on how they feel about their free time. Without a distinction between views on leisure, the introduction of a basic income system with a zero marginal tax rate would only increase income while maintaining the same opportunity cost of leisure, since there is no substitution effect (Hudáková, 2015, p. 16).

Figure 5: The effect of a basic income not affecting the opportunity cost of leisure



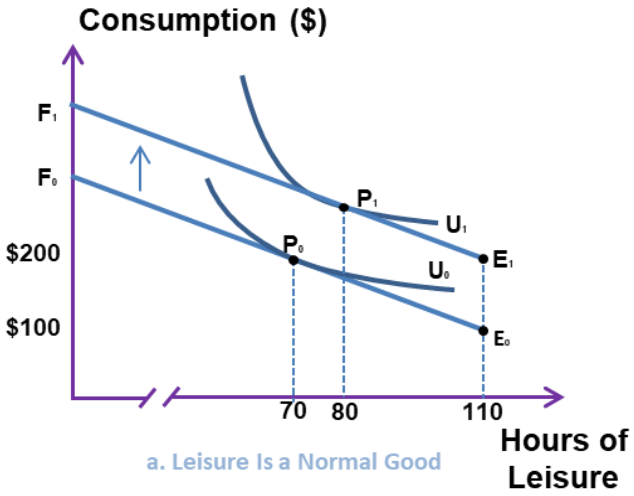
Source: (Hudáková, 2015, p.16)

Figure 5 demonstrates that an increase in income does not influence the opportunity costs of leisure, which suggests that the effect of basic income is supposed to be neutral, as it provides neither positive nor negative incentives to work (Gamel, Balsan and Vero, 2006, p. 482; Hudáková, 2015, p. 16).

On the other hand, individual propensity to work would without a doubt depend on a person's evaluation of leisure time as

either a normal or an inferior good (Hudáková, 2015, p. 16). In the case that they perceive leisure as a normal good, the individual choice in tradeoff between leisure and work depends on the person's level of income in a direct way: those earning minimal wage would tend to work longer hours, however, as their income goes up beyond a certain level, they begin to value their free time a lot more - hence they attempt to decrease the amount of hours worked (Hudáková, 2015, p. 18). In this case, an introduction of a UBI scheme is likely to reduce the overall paid work participation. However, because the basic income subsidy represents a relative increase in the purchasing power of the poor higher than the other groups, which leads to negative income effects, these people view leisure time as an inferior good (Hudáková, 2015, p. 17).

Figure 6: The effect of a basic income on work hours (leisure as a normal good A and as an inferior good B)



Source: (Hudáková, 2015, p.17)

Figures 6 and 7 illustrate the difference between the two situations graphically. Figure 6 illustrates the situation where leisure is perceived as a normal good, meaning that if the price of the good remains constant, an increase in income increases consumption.

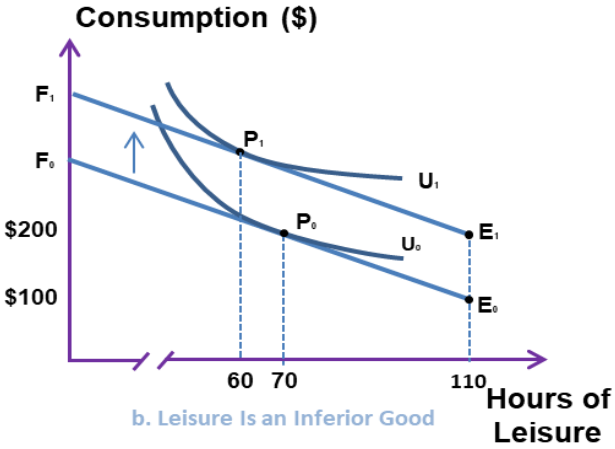
The figure illustrates what happens when unearned income N increases while wages remain constant. The worker's initial non-work income is $100 per week, denoted by the endowment point E0, which represents how much a person can earn without entering the labor market. Along with the wage rate, the budget line is represented by F0E0. Point P0 shows the point of maximum utility, where workers spend 70 hours of leisure time and 40 hours of work time. Next, increase the non-revenue income to $200 and change the endowment item to E1, resulting in a new budget line F1E1. The budget line shifts in parallel as the increase in unearned income keeps wages the same. Since it is better for employees to get a basic income, the utility curve shifts up to point P1, which represents 80 hours of leisure and 30 hours of work (Borjas, 2013, p. 35). The working assumption of the model is that individuals want to choose a specific combination of goods and leisure that

maximize their utility (Hudáková, 2015, p. 17). Thus, an individual's work motivation reflects utility-maximizing behavior (Hudáková, 2015, p. 17).

Figure 7 shows the situation where leisure is seen as inferior, so an increase in income reduces the consumption. It corresponds to the rules outlined under Figure 6. The point P1 represents 60 hours of leisure and 50 hours of work

In first case, getting a basic income increases consumption of goods and free time, which accordingly reduces working hours. In the second case, the need for leisure time is reduced, thereby increasing working time. Most of the empirical evidence suggests, however, that leisure is rarely perceived as an inferior good (Benjamin and Heggs, 2007, p. 44). Either way, the cash inflow from UBI, depending on its level can be able to compensate for the pay cut in case a person decides to work shorter hours.

Figure 7: The effect of a basic income on work hours (leisure as a normal good A and as an inferior good B)



Source: (Hudáková, 2015, p.18)

Nonetheless, if we largely accept leisure to be a normal good, the overall dependence between the level of income and the level of consumption will not be linear due to a number of factors, specific for different job types, for different societies and individuals. First, it is evident that every individual has his own threshold income level, beyond which he or she would prefer to increase the amount of leisure time, consequentially decreasing the hours worked (Hudáková, 2015, p. 18). For some, this threshold cold be very high and would tend to decrease as the person gets closer to retirement (Hudáková, 2015, p. 18). Also, it is important to take into account that since there is an assessable difference in the relative increase of buying power when an income inflow is introduced between the poorest individuals and those more well-off, the ones with lower wages would have positive income effects while the ones with higher wages would likely have negative income effects (Gamel, Balsan and Vero, 2006, p. 484).

Second, social value of being employed plays a role not only in the income it provides, but also in the social satisfaction it generates (Hudáková, 2015, p. 22). In

this regard, if compared to income this satisfaction is of equal or superior value for an individual, he may decide not to decrease the hours worked whatsoever.

2.1.2 Intrinsic motivation to work

Different people work for different things: it could be for status, power, opportunities for growth, social security and independence, integrating with society, higher purpose, alongside a number of other things. A study looking to determine what kind of a meaning individuals assign to work in relation to the achievement of their life goals discovered that people indeed do link work with a great number of basic values, which includes motivational significance of work (Hudáková, 2015, p. 19).

It is, however, possible, that an introduction of a scheme such as Unconditional Basic Income could somehow influence or even subvert some of those basic values, both in the overall society and in the case of each individual (Hudáková, 2015, p. 19). While the people's core principles are not likely to change in the short run, theoretically a long lasting UBI program could influence the general perception of the many basic work-related principles in the long run (Hudáková, 2015, p. 19). Still, the basic income impacts on intrinsic motivation are likely to be insignificant (Hudáková, 2015, p. 19); so it would remain one of the decisive factors in individual employment decision. Therefore, to really understand the UBI labor force impacts from the job motivation perspective, the relative amounts of workers with and without intrinsic motivation need to be analyzed for every particular industry in order to be able to research to further potential impacts. The first group, those with high levels of non-income motivation, perform job activities because they find it enjoyful and enriching, rather than for a compensation (Deci, 1975). The second group, on the other hand, does it for the money to put it simply (Deci, 1975).

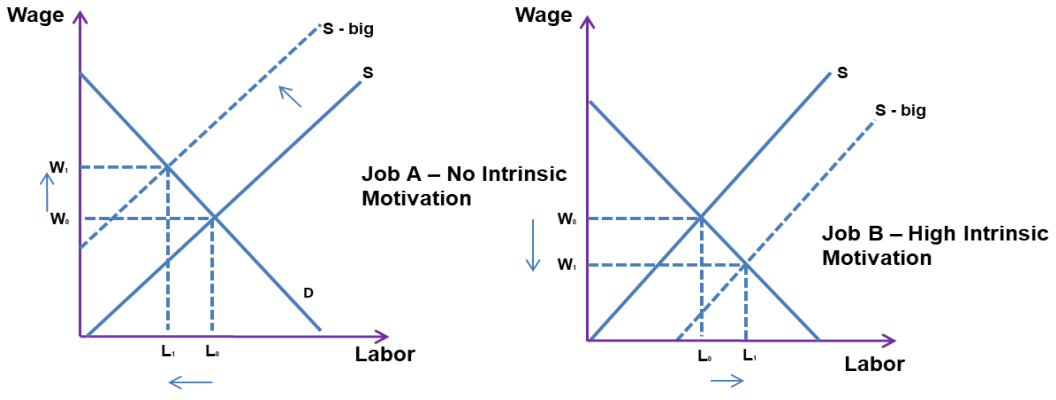
The proponents of Unconditional Basic Income argue that as it increases the overall income of the working population over night, it would in most cases improve their work effort (Pech, 2010, p. 8). While in purely economic terms it is true that additional compensation should encourage people to increase their performance at work, when adding intrinsic motivation into the equation the issue becomes significantly more complex. Individuals with high and low levels of such motivation react to the increases in income to a different scale (Pech, 2010, p. 8). While those driven entirely by income are likely to increase their effort as their primary source of motivation rises, those who are in a greater way motivated by other things than

money can react differently. However, basic income does not represent a compensation for work (Hudáková, 2015, p. 20), therefore, individuals would not perceive this inflow of income as work related. On the other hand, by providing an income safety pillow, basic income is able to deliver workers from financial insecurity, improving their mental health in a number of ways, which could have a positive impact on individual work effort (Hudáková, 2015, p. 32; Gentilini et al., 2020, p. 263).

2.1.3 Perception of "GOOD" and "BAD" jobs

Providing basic income to the individual gives him or her more opportunity of choice when it comes to employment (Hudáková, 2015, p. 13). The factor of the job wage level in that choice is strongly diminished by the UBI provided income security, which makes people more likely to base their decision on a variety of non-income factors that contribute to their intrinsic motivation. Therefore, when a UBI scheme is introduced, a great shift in the labor force is to be expected: those employed at the so-called "bad" jobs, which means that they have low intrinsic value for the individual, would tend to leave their current positions to pursue a career in the "good" jobs, for which their levels of motivation would be higher (Pech, 2010, p. 9). Therefore, in accordance with the basic laws of supply and demand, an increase in wages on the jobs that is overall considered "bad" and a decrease in wages in the jobs that are commonly seen as the "good" ones. This is illustrated by W.J. Pech (2010) in the following figure:

Figure 8: The decrease in the labour supply for job A (no intrinsic motivation) and the increase in the labour supply for job B (high intrinsic motivation)

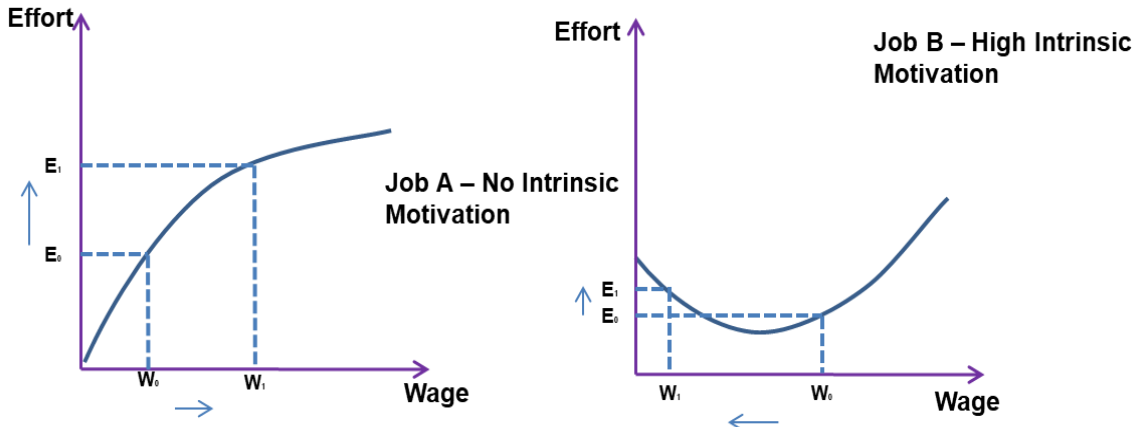


Source: (Pech, 2010, p. 10)

Yet, in an environment with a strong work ethic, the impact of a basic income on labor supply may be much smaller (Hudáková, 2015, p. 22).

Consistent with the motivational displacement effect, Pech (2010, p. 11) argues that people who choose to stay in a bad job are not motivated by intrinsic motivation, but

Figure 9: The effects of UBI on a bad job (A) and a good job (B)



Source: (Pech, 2010, p. 12,13)

are therefore motivated by extrinsic motivation. The wage rate for each job contains several implicit prices for job characteristics, such as work pace, likelihood of injury, and inconvenience (Hudáková, 2015, p. 23). The implied remuneration for these undesirable job characteristics is known as compensating wage differential (Levine, 1996).

The figure 10 that Pech (2010, p. 12-13) provides in his research illustrates the impacts of wage increases on the work effort of those employed on (A) "bad" and (B) "good" jobs. Graph A suggests that in the case of "bad" jobs with the increase in wage would result in a corresponding increase in motivation, which would, however, diminish as the wage grows larger. In the case of "good" jobs, shown on graph B, with a small increase of wage the external rewards crowd out the intrinsic motivation of workers, resulting in a decrease of effort. However, as the wage gains become more assessable, the amount of effort the worker starts putting into the job starts to grow.

In addition to intrinsic motivation, factors such as relative income levels and associated social acceptance may be more important to employees than absolute income levels (Hudáková, 2015, p. 22). Therefore, the behavior of upper-middle-income and high-income groups may have less effect on labor supply than low-income groups (Van Parijs, 2013, p. 177).

2.2 Overall UBI Labor Market Impacts: the four arguments

As we can see, individual impacts of an introduction of basic income can vary depending on a number of factors of individual choice and motivation. When this theory is applied to a larger scale in an attempt to analyze the overall labor market impacts an Unconditional Basic Income program would be able to have over different dimensions. The following four key aspects of this issue are defined by the 2020 World Bank paper:

• Participation in paid work and financial work incentives. UBI critics warn that UBI's unearned income will mean that people will likely decrease their participation in paid labor to a greater extent than with transfers that consider individual employment conditions when deciding each person's transfer eligibility (Gentilini et al., 2020, p. 100). At the same time, the Universality feature of UBI can mitigate work disincentive (Gentilini et al., 2020, p. 100). Compared with means-tested cash transfers, especially when the latter has a higher marginal tax rate or benefit withdrawal rate (Gentilini et al., 2020, p. 100).

• *Conditions of paid work*. UBI advocates argue that ensuring an unconditional minimum wage for all workers may enable them to refuse unsafe, low-paying, exploitative work or demand improved working conditions by giving them the option to opt out of such work or employment (Gentilini et al., 2020, p. 100). On the other hand, a number of concerns arise here. First, this way UBI would be a subsidy for low wages, as well as promote wage decreases (Gentilini et al., 2020, p. 100). Second, a huge outflow of labor from "bad" jobs to "good" jobs is to be expected (Pech 2010, p. 9), which could endanger many vitally important industries.

• *Valuation and distribution of unpaid work.* Unconditional Basic Income is criticized for reducing incentives for active participation in paid work (Gentilini et al., 2020, p. 100). On the other hand, UBI can free up time for unpaid work, including such that may be of value to society or individuals, but is not recognized in terms of monetary returns to the labor market (Gentilini et al., 2020, p. 101).

• *Formal and informal work.* The universality and unconditionality of UBI weakens the link between labor market status and the right to social protection (Gentilini et al., 2020, p. 101), which is likely to reduce informality on the labor market. This is due to the fact that beneficiaries do not have to be afraid to lose their entitlement to

social policy transfers through formal employment, as they their receipt is not dependent on their labor status (Gentilini et al., 2020, p. 101).

For the purposes of this research, the Unconditional Basic Income impacts on the labor force shall be examined over the four listed dimensions, as they represent the primary concerns of those researching UBI and, at the same time, are able to provide insight on the benefits and flaws of a potential policy from a variety of different angles.

2.3 Model and Practical implementations: case studies

In this section the existing empirical evidence on the impacts of Unconditional Basic Income on the economy and the labor market situation is analyzed. The limited implementation of full basic income programs to date means that there is insufficient direct empirical evidence for the impact of such programs on the outcomes of interest here (Gentilini et al., 2020, p. 101). The information acquired from such data should be interpreted in a way that would take into account those limitations, as most experiments and pilots labelled "Basic Income" often do not meet full UBI transfer levels, as well as the five UBI core parameters, as they are likely to involve elements of targeting with the involvement of means testing based on income or employment situation of the individual.

The list of every single Unconditional Basic Income policy implementation, analyzing the correspondence of those programs to the properties of what UBI should be, can be found in Appendix 4. For the purposes of this research, three cases from this list shall be analyzed, chosen on the basis of both the highest conceptual similarity of each program to Unconditional Basic Income and the difference in policy design. This list includes Alaska's Permanent Fund Dividend (APFC, 2022), The Islamic Republic of Iran's compensatory cash transfer program (Salehi-Isfahani and Mostafavi-Dehzooei, 2018) and the 1960s negative tax rate experiments (Burtless, 1986; Hum and Simpson, 1993). Apart from that, the existing evidence on the overall impacts of CCTs and UCTs in Latin America on labor force participation and informality is also examined (Bosch and Manacorda, 2012). This is necessary to provide comparative evidence on the effects on employment targeting conditionality on the labor market.

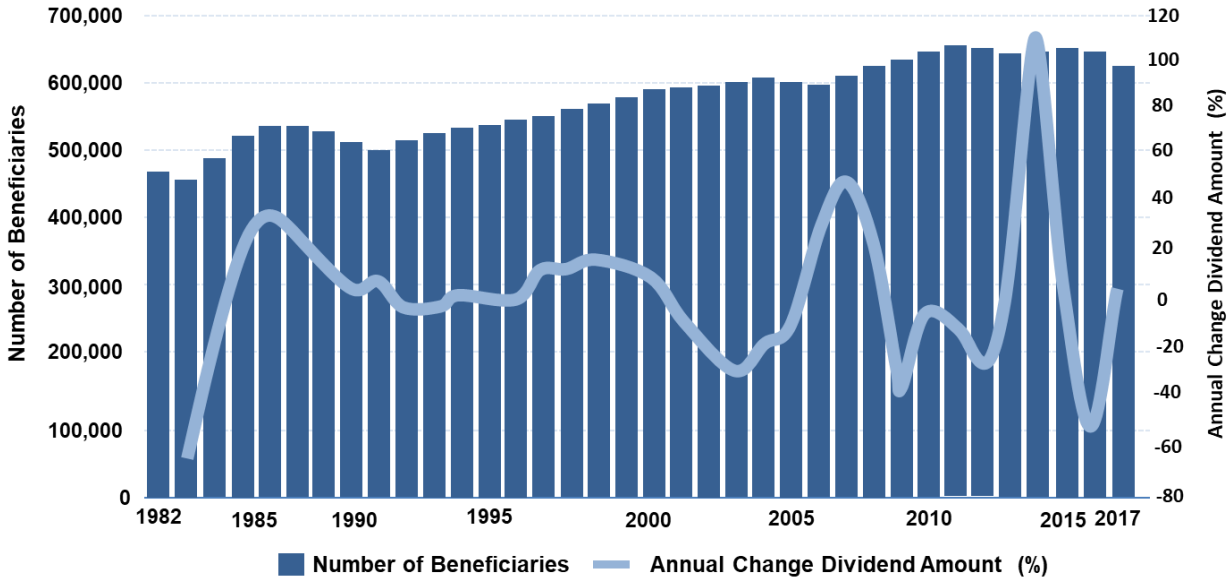
Additionally, a UBI implementation model provided by Wageningen University is analyzed, which represents an experiment, conducted by the university among its

students in order to determine the impacts UBI is able to have on paid labor in terms of intrinsic motivation (Hudáková, 2015).

- **Alaska's Permanent Fund Dividend**

Following the creation of the Alaska Permanent Fund in 1976, ever since the year 1982, Alaska has given every individual, residing in the state an even bit of the $78.9 billion permanent fund (APFC, 2022). Each year, Alaska pays at least 25% of its mineral royalties—the state's revenue from its mines, oil and gas reserves—to the fund (Gentilini et al., 2020, p. 53). This money, in turn, is invested by Alaska Permanent Funds in global and domestic stocks, private equity, bonds, and other assets, and then the interest income is distributed to Alaskans every September, annually (APFC, 2022; Jones and Marinescu, 2018, p. 6; Gentilini et al., 2020, p. 53). The annual change in the number of beneficiaries, as well as the annual percentage change in dividend's amount is illustrated in the Figure 10.

Figure 10: Alaska Permanent Fund Dividend beneficiaries and Annual Percentage Change in Dividends



Source: (Gentilini et al., 2020, p.54)

The annual APF dividend paid is very similar to a Basic Income Supplement, and therefore it is considered to be of great interest when researching the UBI impacts. Even though the dividend is relatively small, as it can fluctuate between $300 and $3,300 over the years, it significantly increases purchasing power and diversifies the economy's revenue streams (Goldsmith, 2010, p. 8). Individuals must apply annually, and meet residency criteria (Gentilini et al., 2020, p. 53). They are also not

allowed to have any serious recent criminal convictions (Gentilini et al., 2020, p. 53). On average, more than 90% of the population receives dividends (Gentilini et al., 2020, p. 53).

Unlike full basic income, the amount of transfer is neither volatile nor sufficient enough for basic human needs: the last year (2021) dividends were calculated to constitute for about 6% of the state poverty rate; most years the dividends do not exceed 7% of recipients' average annual income, fluctuating by an average of 19.8% per year (Gentilini et al., 2020, p. 53). The program remains among the more popular ones in the state, succeeding in lowering the poverty levels, generating more than 7,000 new jobs through economy stimulation, $1.1 billion in personal income while avoiding inflation (Gentilini et al., 2020, p. 53), as well as serving as a population magnet for around 12,000 immigrants (Goldsmith, 2010, p. 16). The labor force impacts analyzed by Jones and Marinescu (2018, p. 22) report no evidence of an unemployment rate decrease when compared to the control states. However, the proportion of part-time employees in the total population increased by 1.8 percentage points, which suggests that despite not having major impacts on the employment, the transfer induces individual decision to decrease hours worked (Jones and Marinescu, 2018, p. 22). The somewhat surprising results are explained in the following way: first, the universal dividend increases labor demand through its effects on consumption (a decrease in labor participation causes wages to rise, which boosts consumption, eventually increasing the labor demand) (Jones and Marinescu, 2018, p. 22); second, different sectors of the economy are affected in a different way, yet, as they even each other out, their equilibrium tends to zero (Jones and Marinescu, 2018, p. 22-23); third, that the amount of money paid to each individual is too insignificant to considerably affect the labor supply (however, due to the fact that each individual receives a check, the household income can be sufficient enough to influence employment) (Jones and Marinescu, 2018, p. 21-23).

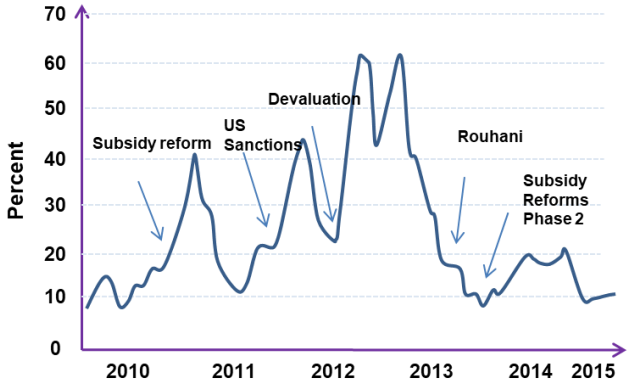
The 2010 study by Goldsmith comes to a similar result, additionally pointing out that no effects on early retirement were reported (Goldsmith, 2010, p.13; Gentilini et al., 2020, p. 104). The Paz-Báñez et al. (2020, p. 14) review reports no increase in unemployment rates and a 17% increase in part time employment, as well as an increase in demand for local jobs. However, this study suggests on the basis of Burtless's cash transfer research (1986) that the low levels of income from the APF program do not significantly reduce the potential influence on the labor supply

reduction, however this claim is quite questionable (Paz-Báñez et al., 2020, p. 14). Additionally, a responsive difference between the reactions of different sexes to the higher levels of the dividend has been reported (Jones and Marinescu, 2018, p. 34).

- **The Islamic Republic of Iran's Compensatory Cash Transfer Program**

In 2008, the government of the Islamic Republic of Iran announced a series of sweeping reforms to energy and food subsidies (Gentilini et al., 2020, p. 54). Due to the strong public opposition to a means tested unconditional cash transfer program that was initially intended, the target program was abandoned and replaced by a unified universal cash transfer that prevented the wealthy from participating (Gentilini et al., 2020, p. 53). December 2010 a Universal Remittance was deposited into each householder's bank account. At the same time, domestic energy and agricultural prices have risen by as much as 20 times (Reza Farzin, Guillaume, and Zytek, 2011, p. 1). The Iranian inflation rate situation is illustrated in the Figure 11. Currently, the program coverage exceeds 92% of the population with the monthly cash transfer set at approximately 40 - 45 USD which accounts for about 29% of the average income (Gentilini et al., 2020, p. 55) and about 25% of the state poverty rate.

Figure 11: Iran Inflation Rate, 2009-2015 (percentage increase per month)



Source: (Pech, 2010, p. 10)

Despite an inflation driven loss of the transfer's purchasing power by two-thirds from the original value, the program was successful in redistributing the resources from the prior existing energy subsidies in a way that would not favor the rich, reducing poverty and inequality (Salehi-Isfahani and Mostafavi-Dehzooei, 2018), while managing to keep 88,5% of the population employed (counting those who became inactive) (Geier, 2018). Some particular success was achieved in stimulating the service sector, due to the fact that it primarily consists of credit-constrained small businesses that can expand through cash transfers (Geier, 2018). Consequently, the average time spent working in the service sector increased by approximately 36 minutes per week since the program was introduced (Salehi-Isfahani and Mostafavi-Dehzooei , 2018).

Both the Gentilini, Grosh and Yemtsov (Gentilini et al., 2020) and the Paz-Báñez et al. (2020) analysis of the Iranian case, partially based on the same research, report similar results with regards to the insignificance of the unemployment increase. Additionally, a mild employment reduction in the population group between 20 and 29 years old from 12.1% in 2009 to 10.0% in 2011 was pointed out (Salehi-Isfahani and Mostafavi-Dehzooei, 2018). Paz-Báñez et al. additionally stresses that such a situation is exclusive for the Iranian case (Paz-Báñez et al.,2020, p. 14-19) and can be attributed to either weak attachment to the labor market or to the high education enrollment (Gentilini et al., 2020, p. 104). The research also reports an increase in entrepreneurship in Iran as a result of the transfers (Paz-Báñez et al., 2020, p. 14).

- **NTR in the 60s case**

Guaranteed income experiments in the United States and Canada in the 1960s and 1980s specifically tested the effects of negative income taxes on labor supply, as it was expected that such a scheme would reduce participants' workforce participation. A 1986 research by Gary Burtless reports an employment reduction did occur, and it was "smaller than most opponents of a negative income tax had feared, but larger than advocates had hoped." (Burtless, 1986, p. 45), while, however, stressing the imperfection of the data reporting of the long-run experimental results (Burtless, 1986, p. 46). According to the research, of all the findings from four U.S. experiments, the only consistently negative and statistically significant results came from the Seattle-Denver experiment, which had the highest average transfer generosity (Burtless, 1986, p. 25-27). Different results were reported in terms of how favorable the program was for each individual depending primarily on sex, family size and status (Burtless, 1986, p. 28). Additionally, the income linked system was facing a number of problems in its implementation, as it was beneficial for the individuals to decrease their reported net earnings in order to be eligible for a bigger check (Burtless, 1986, p. 28). He concludes that the experiment has mixed results, however far off from what the critics of the policy were expecting (Burtless, 1986, p. 45).

The World Bank review, partially based on Burtlesses work, indicates no impact or, in some cases, a modest reduction in labor force participation (Gentilini et al., 2020, p. 105). Apart from the Burtless's research, the review encompassed the Hum and Simpson's 1993 analysis of the Canadian NIT experiments. The Manitoba Annual Basic Income Experiment (Mincome) in Canada recorded modest reductions in

working hours – 1% for men, 3% for wives and 5% for unmarried women – which is statistically insignificant when time effects are taken into account (Hum and Simpson, 1993, p. 280). Additionally, a considerable increase in wages was detected due to the rise of the employee bargaining power with the additional inflow of income (Calnitsky, 2018).

The Paz-Báñez et al. (2020) review on the NIT experiments was primarily focused on the Karl Widerquist 2005 research, which, after analyzing the five USA and Canadian negative income tax experiments, found "no evidence that a negative income tax would cause some segment of the population to withdraw from the labor force, and the experiments found no evidence that the supply response would increase the cost of the program to the point that it would be unaffordable (even ignoring the mitigating demand response)." (p. 26). Following Burtless's (1986) research, Widerquist also indicated different results for individuals based on their sex, family size and status: the reductions for married men were among the lowest (0,5%-9%), while the reductions for the wives and single mothers were substantially larger (up to 27% and 30% respectively, however, in some cases, there was no reduction) (2005, p. 18-19).

Overall, the negative income tax experiment found few negative effects and no evidence of large numbers of workers reducing work output; this suggests that the unconditional income floor granted as a negative income tax creates little or no disincentive to work. When a reduction in workload is recorded, this may be the result of better work-life balance/paid and unpaid work and a shift in time use to other valuable activities such as paid work, which may lead to greater personal and societal welfare (Widerquist, 2005, p. 26)

- **Cash transfer programs in Latin America**

A 2012 study conducted by Mariano Bosch and Marco Manacorda reviewed the existing evidence on the impacts of Consitional Cash Transfers (the CCT programs in question included employment status targeting, often focusing on the unemployed who, in some cases, had to fullfill certain additional conditions), Non-contributory Pension programs (more diverse than the CCTs in their targeting) and Non-contributory Health insurance Schemes (most of these programs were targeted to an individual "not covered by social security", or only available to those not formally employed (Bosch and Manacorda, 2012)) in Mexico, Columbia, Uruguay, Ecuador,

Argentina and others. The list of all the programs and their impacts analyzed, as well as the impact evaluation of non-contributory social programs of participation/hours, can be found in the Appendix 5-12.

On the basis of the available research on the CCT impacts on labor force participation and workforce informality, the study concludes the following:

- Despite the mixed results, the majority of CCT programs had a negative impact on both the participation in employment and the hours worked (with the exception of Brazil, Columbia and, partly, Honduras) (Bosch and Manacorda, 2012, p. 10). However, the estimated effects of social assistance on labor force participation and working hours are generally small and statistically insignificant (Bosch and Manacorda, 2012, p. 10). When effects are statistically significant, not only are they small, but there is no clear pattern in their sign (Bosch and Manacorda, 2012, p. 10).
- In general, the Non-contributory Pension programs either had negative or no impacts in labor force participation (Bosch and Manacorda, 2012, p. 11-12). However, due to the mixed nature of the results it is difficult to make a conclusion about the impacts of conditionality on labor force participation in this case, as it is more likely dependent on the value and type of transfers.
- The overall impacts of the CCTs on informality were either non-existent or negative (Bosch and Manacorda, 2012, p. 12-13). According to the Bosch and Marco Manacorda review (2012, p. 14), the most significant negative impacts on the formal sector employment were discovered in the Uruguayan "Plan de Atención Nacional a la Emergencia Social", or, simply, PANES, which is likely due to the strict income conditionalities enforced in this program particularly. Therefore, we can conclude that despite the impacts of conditionality not being clearly linked with employment informality, *the strict conditions are likely to be more harmful for formal employment*. Additionally, it is important to stress the poor practical implementation of the means testing and the overall failure of those programs to link certain programs with desired behaviors in people's minds (especially, in the low-income countries), which makes those results questionable (Gentilini et al., 2020, p. 114).
- Non-contributory insurance schemes tend to encourage informal employment: these programs are only available to those not formally employed, which

encourages individuals to increase their participation in informal work (Bosch and Manacorda, 2012, p. 13-14).

When it comes to the impacts of UCT's on reducing workforce informality, they, unfortunately, remain under researched, with only limited amounts of evidence from Latin America (Busso et al., 2021) and South Africa (Tondini, 2019, p. 170-217), both finding limited amounts of evidence that such transfers were able to significantly affect informality, despite the economic theory suggesting it should be so. One of the potential reasons could be that the level of the transfer from these countries, which was insufficient enough to compensate for the loss of informal income if the person decided to or had to quit such work (Busso et al., 2021). In this sense, analyzing the CCT impacts on the same issue could be a lot more helpful due to a greater amount of evidence available.

Overall, we can conclude that despite the arguable mixed results, most likely, conditionality, and, particularly, strong conditionality plays a role in creating disincentives to enter formal employment. However, due to a number of prominent examples that we have seen, some of the other elements of policy design are able to outweigh the negative effects of conditionality to create at least plausible labor market results. Still, the problem of informality remains unsolved by the existing conditional and unemployment-linked programs, and whether Unconditional Basic Income or any other UCT would be able do better remains to be seen.

- **Hudáková, experiment**

The behavioral experiment, conducted by Wageningen University, to demonstrate the effect of a basic income on work incentives and verify the accuracy of the following two hypotheses:

1) Hypothesis 1: once basic income is in place, no significant decline in the labor force participation rate is expected (Hudáková, 2015, p. 45).

2) Hypothesis 2: because basic income gives people the option not to work, people who choose to work despite having the option are expected to perform better at work than those who do not receive basic income supplements (Hudáková, 2015, p. 46).

The working sample of the experiment consisted of the students of Wageningen University who expressed their interest to participate. Among them, 50 students were assigned to a control group and 100 students in the treatment group

(Hudáková, 2015, p. 42). Word search puzzles were chosen as the most appropriate activity for the students to perform, as solving puzzles is a mental activity that emphasizes pattern recognition through attention and vocabulary (Hudáková, 2015, p. 42). Additionally, it allowed a convenient use of the piece rate pay of rewards to the participants (Hudáková, 2015, p. 42).

The experiment was divided into three stages. First, the students were randomly assigned to either the treatment or to the control group (Hudáková, 2015, p. 44). During this stage the *control* group was asked to complete a word-search puzzle, getting paid 10 cents for each word found (Hudáková, 2015, p. 44). After the expiration of the time limit they passed a questionnaire and decided, whether they would like to further participate in the experiment in the second stage under the same conditions (Hudáková, 2015, p. 44).

Participants in the *treatment* group were in the condition to receive 1 euro regardless of their performance, in addition to the 10 cents per each word found (Hudáková, 2015, p. 44). Apart from the unconditional income received by this group, which approximately equals half of their earnings from finding the words on each stage (Hudáková, 2015, p. 41), the other conditions of the word-search puzzle were the same as for the control group. Upon the time-limit expiration, they were too to pass the questionnaire, as well as to make a decision on their further participation in the experiment (Hudáková, 2015, p. 44). However, unlike in the case of the control group, regardless of the decision of those in the treatment group they were still to receive 1 euro for each of the three stages of the experiment (Hudáková, 2015, p. 44).

Table 3: Count for the Decision to Participate

		Group		
		Stay	Leave	Total
Group	Treatment	47	3	50
	Control	42	8	50
Total		89	11	100

(Hudáková, 2015, p.46)

The first stage, therefore, represents the time period of when a basic income scheme is introduced (Hudáková, 2015, p. 41-42). The questionnaire provided additional information about the levels of intrinsic motivation among the participants (Hudáková, 2015, p. 42). The whole process was repeated on the second and third stage. Table 3 shows the number of subjects who chose to remain in the experiment and those who opted out of the experiment in the control and treatment groups. The results found that there was no significant difference in the

behavior of students who received basic income grants and those who did not. Therefore, Hypothesis 1 was not seriously challenged (Hudáková, 2015, p. 46). In the absolute numbers, however, while it was expected that more students would choose to leave if they were part of the treatment group, more people left in the control group (Hudáková, 2015, p. 46). Such a insignificance of the reduction is likely due to the fact that the students were having a certain amount of intrinsic motivation for performing the activities (Hudáková, 2015, p. 46), which according to Pech (2010) would increase the labor supply for such a job in the real world conditions. Therefore, on the basis of the data from the research, the first hypothesis should be confirmed, and, therefore, basic income should not reduce labor supply in any significant way.

This conclusion appears to be questionable for a number of reasons. First, as the research itself states, in general the students were having a certain degree of intrinsic motivation towards the tasks performed (Hudáková, 2015, p. 46-49), which labels their hypothetical job as somewhat of a "good" job. As it was pointed out by Pech (2010, p. 2-9), when a basic income system is introduced, such jobs would experience an inflow of workers, rather than an outflow, which undermines the basic formulation of the Hypothesis 1 in the first place. Second, the level of the basic income transfer in the experiment equals 50% of the contingent wage of the students, which is arguably an amount too low to be considered full basic income, and, therefore, influence the labor market significantly. The performance of the control group relative to the treatment group's performance was analyzed during the first, second, and third phases of the experiment using an independent-samples t-

Table 4: Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Performance at the 1st stage	Control	50	12,04	5,657	,800
	Treatment	50	12,34	6,066	,858
Performance at the 2nd stage	Control	43	13,26	6,283	,958
	Treatment	49	13,06	5,864	,838
Performance at the 3rd stage	Control	42	8,45	5,649	,872
	Treatment	47	8,55	4,515	,659

(Hudáková, 2015, p.46)

test.

Table 4 shows the average performance of the control and treatment groups at each stage. The performances of both groups appear to be relatively similar on each stage of the experiment, therefore, rejecting the second hypothesis (Hudáková, 2015, p.

47). The reasons for such results could be different: this may be because the difference between the means is too small, or because the sample size is relatively small (Hudáková, 2015, p. 47).

2.4 UBI Labor Market Impacts, Result Assessment

Analyzing the results from the provided empirical evidence in the context of full basic income appears to be difficult for a number of reasons. First, as it was mentioned before, the concept was never implemented to its fullest extent in terms of the transfer level (in every case), its coverage (in all cases except for Iran and Mongolia), among other factors. Assessable changing these variables can produce completely different outcomes to those we've seen in the existing cases. Second, many of the authors of the research, analyzed in this paper, point out numerous imperfections in the data collecting techniques used for examining the impacts of the policies implemented and the experiments conducted alike. Third, as this paper attempts to examine the labor market impacts of a basic income policy implementation over four key dimensions, yet the amount of evidence between them appears to be very asymmetrical.

Taking those considerations into account, the results from the evidence presented above was grouped into four groups in accordance with its relevance to the key dimensions of labor market impacts that are analyzed in this paper.

2.4.1 Participation in Paid Work and Financial Work Incentives

As it was mentioned before, standard economic theory predicts that additional unearned income through cash transfers negatively affects people's *participation* in paid work and the *hours worked* through direct income effects. Additionally, it is argued that in the case of those who decide to stay in the labor force, the inflow of income should increase their *work effort*. Therefore, it would make sense to group the available evidence with regard to those tree parameters.

- **Participation in Paid Work**

Combining the evidence from Alaska (Goldsmith, 2010; Jones and Marinescu, 2018; Widerquist, 2005), The Islamic Republic of Iran (Gentilini et al.; Paz-Báñez et al., 2020; Geier, 2018), The Negative Tax Rate experiments of the 1960s-1980s (Burtless, 1986; Widerquist, 2005; Hum and Simpson, 1993) and the Wageningen behavioral experiment (Hudáková, 2015) we find no significant impact on labor force

participation related to regular unconditional payments. Among the potential reasons for such results could be the low level of transfer (e.g., Bastagli et al., 2016), a transfer related increase in consumption which consequently increases labor demand (Jones and Marinescu, 2018), high levels of intrinsic motivation due to non-financial factors (Hudáková, 2015), among others.

In the cases where employment decreases were observed, they were generally minor, population-group and economy-sector-specific. Among the primary reasons for exiting the labor force was improved balancing of work and home lives (Gentilini et al., 2020, p. 105), the need to participate in other activities, e.g. education, unpaid labor, activism (Paz-Báñez et al., 2020, p. 5-18; Gentilini et al., 2020, p. 105; Solehi-Isfahani and Mostafavi-Dehzooei, 2018), and so on. Unconditional Basic Income appears to be successful in reducing child labor (Paz-Báñez et al., 2020, p. 5-15). Additionally, there is evidence that a part of the elderly and the disabled population have reduced their labor force participation in some cases (Paz-Báñez et al., 2020). Only in the case of Iran had the youth (20- to 29-year-old) reduced their labor force participation, if only partially, in order to pursue higher education (or, arguably, leisure) (Paz-Báñez et al., 2020, p. 14).

It remains questionable whether the absence of a means test makes UBI superior to the conditional programs out there. According to the evidence from Latin America (Bosch and Manacorda, 2012), we cannot conclude that conditionality plays a major part in labor force participation reduction, with the exception of the case of Uruguay (where the income-linked conditionality was the strongest). In the case of earnings-related transfers, this result is discussed in the context of poor means-testing implementation in practice, which in practice results in a weak or non-existent relationship between earnings changes and transfers (Gentilini et al., 2020, p. 114).

- **Hours Worked**

A predicted UBI-caused reduction in hours worked can be observed in Alaska (Goldsmith, 2010; Jones and Marinescu, 2018; Paz-Báñez et al., 2020), The Islamic Republic of Iran (youth from 20 to 29 years old) (Paz-Báñez et al., 2020) and the Canadian NTR "Mincom" experiments (Hum and Simpson, 1993). The reductions observed were minor according to the majority of reports. They also appear to be very population group (Paz-Báñez et al., 2020; Hum and Simpson, 1993) and transfer level (Burtless, 1986) specific.

There was no significant evidence that the CCTs analyzed reduce hours worked in any substantial way either (Bosch and Manacorda, 2012), however it is unclear whether such results can be linked to conditionality of the transfer for the reasons mentioned above.

- **Work Effort**

The Wageningen experiment (Hudáková, 2015) analyzed the changes in individual work effort with an introduction of a UBI scheme. The work effort was not different in any significant way between the control and the treatment group (Hudáková, 2015), likely, due to the fact that the situation analyzed was that of a "good" job, as most of the participants were feeling a certain degree of intrinsic motivation when performing the tasks. We can conclude, therefore, that in the case of such jobs an additional inflow of money cannot influence work effort in any assessable way. While the economic theory predicts contrary results in the case of "bad" jobs, this issue has been considerably under researched, therefore not allowing us to make any empirically backed conclusions on the matter.

2.4.2 Conditions of Paid Work

In addition to affecting participation in paid work, cash transfers can also affect the conditions of paid work and the type of paid work performed. There is evidence from the "Mincome" experiments of an assessable increase in wages where the program was implemented. Among other reasons, it was due to the rise of employee bargaining power with the additional income (Calnitsky, 2018).

The MDPI review found some cases of evidence to support the claim Pech (2010) made on the transfer from "bad" to "good" jobs, again, primarily attributable to the rise of employee bargaining power (Paz-Báñez et al., 2020; Pech, 2010). In such cases, the working conditions on the "bad" jobs are up for improvement, while those in the "good" jobs are likely to deteriorate; both in accordance with the basic supply and demand principles (Paz-Báñez et al., 2020; Pech, 2010). The Wageningen experiment (Hudáková, 2015) confirms the initial presumptions that in the case of "good" jobs, no significant labor outflow is to be expected due to the high levels of intrinsic motivation the employees are feeling when participating.

2.4.3 Valuation and Distribution of Unpaid Work

By paying individuals income regardless of whether they are involved in paid work, UBI can buy people time for work that has little or no monetary value but is personally and socially valued. There is evidence from The Islamic Republic of Iran of some degree of outflow of the youth (from 20 to 29 years old) from the labor force (Paz-Báñez et al., 2020). While it is assumed that those who decided to decrease their participation in paid work, or quit it entirely, did so to pursue higher education, participate in trainings, or other valuable activities, it is also very likely they did so to increase their relative leisure time (Gentilini et al., 2020). Therefore, in order to assess the impacts of a UBI program implementation on the valuable activities' alternative to employment, people's behavior needs to be explicitly monitored to be able to acquire accurate statistical data.

There is an indication of a labor force participation of wives (-3%) and unmarried women (-5%) decrease in the "Mincome" experiments, which exceeded the decrease for men (-1%) (Hum and Simpson, 1993). Despite the lack of evidence, among other things, this can possibly be attributed to the parental responsibilities, traditionally performed by women. Additionally, the decrease of labor force participation of the elderly could potentially be attributed to a variety of non-leisure related factors, such as community work, family responsibilities, among others.

2.4.4 Formal and Informal Work

In theory, means-tested and conditional cash transfers, depending on their levels and types, could incentivize people to stay or enter informal jobs, as eligibility requirements implying formal jobs could prevent them from accepting future transfers. This issue, especially with regards to Unconditional Basic Income, appears to be considerably under researched, despite being one of the major problems of the developing world.

The available evidence suggests that as of itself, conditionality does not produce major labor force shift towards informality (Bosch and Manacorda, 2012). This can, once again, be attributed to the fact that those conditions were not heavily enforced in most cases, and, therefore, created no link between the programs and personal income in the head of an individual (Gentilini et al., 2020). In a sense, it is possible to dispute their conditionality altogether, and, thereby, consider them to be relatively unconditional.

The amount of evidence on the matter for the actual unconditional programs is tremendously low, with some evidence from Latin America (Busso et al., 2021) and South Africa (Tondini, 2019), both demonstrating no significant effects on informality due to the low levels of transfers.

Conclusion

This thesis was aimed to provide a detailed critical overview of the concept of Unconditional Basic Income, with the emphasis on its economic impacts, in particular, but not only, on the labor market, through collecting available and relevant data. On its basis the advantages and drawbacks of Unconditional Basic Income were identified based on the critical and scientific approach while eliminating the political tendencies influencing the area. The history of the policy and its recent popularity suggest the numerous imperfections in the existing social security systems. Examining the policy design of full Unconditional Basic Income both a number of beneficial elements and a great number of potential weak spots were determined in its every aspect. Therefore, while in certain circumstantial contexts UBI can surpass the existing social programs in its efficiency or/and generosity, we cannot make such claims in the broader sense. On the financial side, financing full UBI would be extremely expensive for the state budget due to the high generosity levels of the program and its universal coverage. Additionally, such programs appear to be of tremendous potential risk in both the political and economic sense, depending on how the state decides to finance such a program.

With regards to the labor market impacts of basic income schemes, there is some deal of evidence that such programs do not considerably reduce employment as it was expected of them, despite reducing hours worked. The evidence on the other two variables does appear to be as clear unfortunately, therefore it is hardly possible to make any conclusions in their case. Still, the quality of this evidence becomes questionable as soon as it is applied to full basic income, which appears to be far more radical than any of the existing schemes. However, due to a number of quantitative models suggesting that such a scheme could be plausibly implemented, the possibility of such a program being brought into life at some point cannot be entirely disregarded.

While the future of full basic income appears to be questionable, due to the highly radical nature of the concept and the many difficulties standing in the way of its implementation, the partial basic income programs, are likely to become more popular in the near future, potentially increasing their coverage to a greater number of countries all around the world.

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Appendix 1: Methods of Financing a UBI policy

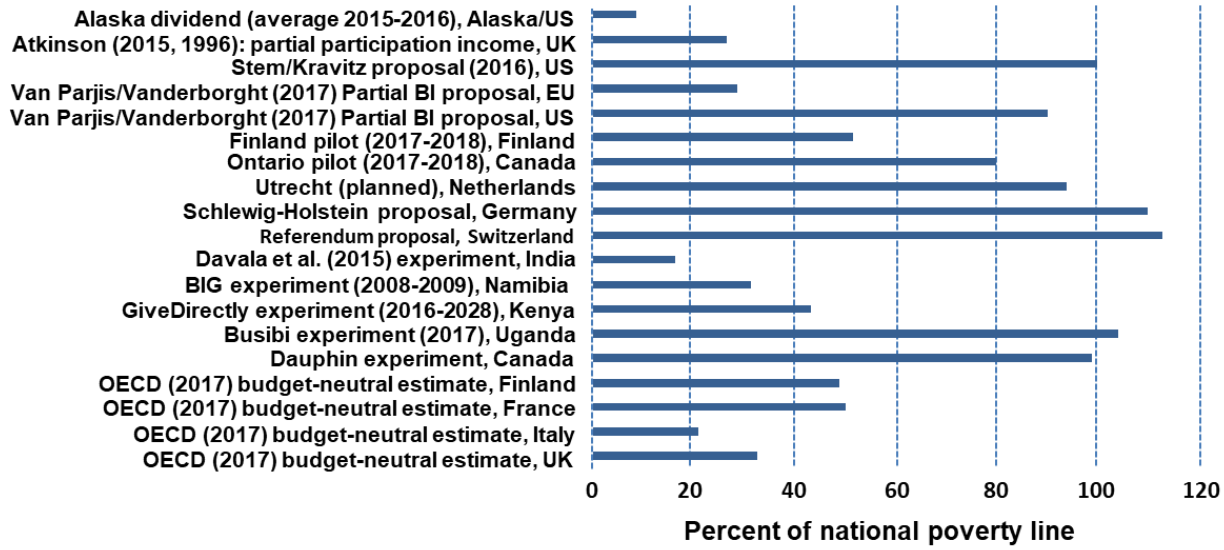
1) Expenditure measures	- Financing through expenditure savings. The extent to which UBI is financed from savings from other expenditures may vary from country to country, given different country choices in the level and composition of public spending (Gentilini et al., 2020, p.158,159). International benchmarking can be used to identify the concrete potential candidates through comparing the budget expenditure structures of different, yet comparable countries. UBI has lower administrative costs compared to targeted social assistance payments, which will also allow more funds to be allocated to UBI Serve (Ortiz et al., 2018). This also includes the reforms of public wages and employment, which can potentially allocate significant resources. - Financing through a subsidies reform. The introduction of a basic income could require an energy subsidy reform, as it partially compensates the reform-affected non-poor population, who may be the most vocal and politically effective opponents (Gentilini et al., 2020, p. 159-161). This option appears to be inappropriate for most countries. These kinds of reforms are unlikely to deliver significant savings in the short term, but could achieve a lot more in the medium term (Gentilini et al., 2020, p. 164).
2) Revenue raising measures	- Financing through personal income tax (PIT). Due to the high redistributive potential of the progressive tax rate structure of personal income tax, financing UBI through PIT is an obvious consideration for anyone looking to explore new resources to do so. There are a few things to look at here. First, the flat and unified nature of UBI has inevitably changed, when financing through a progressive rate, as some are going to pay more as a portion of their income then receive as a benefit from UBI (Gentilini et al., 2020, p. 25). Second, despite being the backbone of the developed countries, on average, PIT accounts for only about 8% of the developed countries' GDP (Gentilini et al., 2020, p. 167), therefore it will only be possible to finance a UBI program with a transfer level equal to about 25% of the poverty rate (according to Ortiz

	it accounts for about 6%-7% of GDP in advanced economies (2018, p. 17)). In the case of developing economies and low-income countries, the capacities of PIT to raise revenues are undermined by a number of factors, including high tax threshold levels, high levels of labor informality, weaker tax administrations, etc. (Gentilini et al., 2020, p. 167). Consequently, the realistic projected receipts from PIT in those countries will not exceed 1%-2% of their GDP (Gentilini et al., 2020, p. 169). - Financing through taxes on corporate income (CIT). The revenue performance of corporate income tax appears to be a lot less country specific than personal income tax GDP (Gentilini et al., 2020, p. 170). However, due to the unstable nature of those revenues as a consequence of the pressure from the international competition (mostly in the emerging economies) and a downward trend in the amount of CIT revenues received (mostly in the advanced economies), CIT is not a good candidate for financing UBI (Gentilini et al., 2020, p. 170). - Financing through taxes on wealth. Those taxes are considered "grow-friendly" and have low efficiency costs (Gentilini et al., 2020, p. 171), however, they only account for a small number of most countries' economies. Therefore it is unlikely that a great portion of a UBI program can be financed this way - Financing through taxes on consumption (VAT). On average, those taxes account for 6.5% of GDP for the developed countries and around 4.8% GDP for the low income countries, which makes at least partially financing UBI through VAT quite attractive. Consumption-based taxes are, however, inferior to income and wealth taxes from a distributional standpoint. It is argued that a broad-based single-rate VAT is regressive with respect to current income, because consumption tends decline proportionally the absolute amount of income increases (Gentilini et al., 2020, p. 172). The decision of using this method of financing UBI should be carefully assessed on the grounds of the potential household consumption changes implementing an Unconditional Basic Income program could cause, taking into account a large number of other factors. According to Heiner Flassbeck, "*if the UBI were financed through higher VAT rates, this would clearly be inflationary, because companies would pass along the bulk of the higher taxes to customers.*

	The consequences for those people relying fully on the UBI would be fatal." (2017). However, he also makes a point that an increase in VAT rates is, perhaps, the only measure the financial elites will be willing to accept as a means to finance UBI.
3) Other sources	- Financing through environmental taxes. Such taxes are more likely to exist in the developed economies, and, according to Eurostat, on average account for about 2.2%-2.6% of their GDP (Eurostat 2021). However, acquiring revenues from those taxes that would exceed the monetary value of consumed energy remains a challenge, and therefore the distributional potential of this tax is questionable (Gentilini et al., 2020, p. 174). - Financing through natural resource dividends. One of the most prominent large-scale UBI systems that exist today is financed this way entirely. This is, of course, the case of Alaska. Despite being able to sustain a basic income system for many decades, the transfers that the residents receive accounted for about 6% of the poverty rate in 2021. The high volatility of such revenues does not allow for the payments to be predictable and frequent, therefore such a system is unable to finance such a UBI program that would provide income security - Restructuring existing debt. For countries with severe debt crises, restructuring existing debt is possible and reasonable when the legitimacy of the debt is questioned and/or the opportunity cost of worsening social disadvantage is high (Ortiz et al., 2018, p. 20). - Financing through state commercial assets. The state is able to use the commercial assets it owns to attempt to finance a UBI program, however, establishing the necessary governance structures is a task that can require considerable time and political commitment. - Lobbying for aid and transfers: For low-income countries introducing a basic income, working with various donor governments or international organizations to increase North-South transfers may be an option. However the amounts of such transfers need to be quite tremendous in order to achieve the goal of eliminating poverty in those countries (Ortiz et al., 2018, p. 19) - Eliminating illicit financial flows: around 5% of the developing countries' GDP can be recovered through fighting corruption and financial crimes,

	as well as preventing valuable resources from being smuggled out (Ortiz et al., 2018, p. 19). - Using fiscal and central bank foreign exchange reserves. This involves recovering the fiscal savings and other revenues of the state that are located in special international funds.

Appendix 2: UBI benefit levels (per adult) as a proportion of the national poverty line, selected proposals and studies



(Ortiz et al., 2018, p. 8)

Appendix 3: How and Where Have Universal Basic Income (UBI) and its Cousin Policies Been Tested, a Map

(Stanford Basic Income Lab, 2020)

Appendix 4: Which Initiative Is Currently a Pure UBI

Initiative	Unconditional	Cash-based	Universal	State-provided	Scope	Frequency/ size	Coverage
Full-scale program							
Mongolia (2010-12)	Yes	Yes	Yes	Yes	National	Tog 10,000 (US$7)/month 2010; Tog 21,000 (US$17)/month 2010;	3 million
Iran, Islamic Rp. (2011)	Yes	Yes	Yes	Yes	National	Rls 445,000 (US$40-US$45)/person/month (25% of median income	97% of population
Variants							
United States (Alaska)	Yes	Yes	Yes	Yes	State	US$1,000-US$2,000/year	615,000
United States (Cherokee)	Yes	Yes	Yes	Yes	Tribe	US$4,000-US$6,000/year	16,000
Kuwait (Amiri grant)	Yes	Yes	Yes	Yes	National	US$2,600 (one-off)	1,1 million
Italy (Reditto di Cittadinanza)		Yes		Yes	National	€780/month	5 million
China (Macau SAR)	Yes	Yes		Yes	Region (holders of Macau resident ID cards)	Variable annual payments; in 2019 P10,000 for residents and P 6,000 for non-residents	707,000
India (Telangana)	Yes	Yes		Yes	State (land-holding farmers)	Rs 5,000/acre biannually (Rs 10,000/year)	5,8 million
India (Odisha)		Yes		Yes	State (Small and marginal farmers,landless workers, etc.)	Up to 25,000/year; some paid in 3 to 5 installments	7,5 million

(Gentilini et al., 2020, p. 22,23)

Initiative	Unconditional	Cash-based	Universal	State-provided	Scope	Frequency/ size	Coverage
Pilots							
Kenya (GiveDirectly)	Yes	Yes	Yes		Villages	Long-term UBI: monthly ~US$23 for 12 years Short-term UBI: monthly ~US$23 for two years Lump-sum UBI: US$500/one-off	~21,000
United States (1970s)	Yes	Yes		Yes	Households	Variable guarantee levels and marginal tax rates	9,924 (initial target)
Canada (Manitoba)	Yes	Yes		Yes	Households	Variable guarantee levels and marginal tax rates	1,300
India (Madhya Pradesh)	Yes	Yes	Yes		Individuals	Adults: Rs 200/month (raised to Rs 300); Children: Rs 100 (raised to Rs150)	6,000
India (New Delhi)	Yes	Yes	Yes		Individuals	Rs 1,000/month	100
Namibia (Otjivero-Omitara)	Yes	Yes			Individuals	US$100/month	930
Finland (Kela)	Yes	Yes		Yes	Unemployed	€560/month	2,000
United States (Oakland, CA)	Yes	Yes			Households	US$1,500/month	100
United States (Stockton, CA)	Yes	Yes			Individuals	US$500/month	130
Netherlands		Yes		Yes	Individuals	€960/month	250
Korea, Rep. (Gyeonggy)	Yes			Yes	24-year-olds	US$883/year	170,000
Spain (Barcelona)		Yes			Households	€100-€1,676/month	1,000

Appendix 5: Impact evaluation of non-contributory social programs on participation/hours - CCTs

Country	Program	Source	Data (Time period)	Identification strategy	Effect on Employment/participation	Effect on hours
Argentina	Plan Jefes y Jefas de Hogar	Glasso and Ravalion (2004)	EPH (2001-02)	D among successful/unsuccessful applicants with matching (+DD over time)	No effect on employment	Negative effect on hours of work
Brazil	Bolsa Familia	Foguel and Paes de Barros (2010)	PNAD (2001-05)	DD by municipality and time	Small positive effect on participation	Small insignificant effects on hours of work
Colombia	Familias en Accion	Attanasio and Gomez (2004)	(2001-05)	DD by municipality and time	Positive effect on participation (for men in rural areas and women in urban areas)	Positive effect on hours of work (for men in rural areas and women in urban areas)
Honduras	Programma de Asignation Familiar	Alzua, Cruces and Ripani (2010)	(2002-03)	DD by municipality and time (with individual/household fixed effects)	Small insignificant negative effect on employment	Small positive insignificant effect (among those with positive hours)
Mexico	PROGRESA	Alzua, Cruces and Ripani (2010)	ENCEL (1997-99)	DD by municipality and time (eligible households only, with individual/household fixed effects)	Small insignificant negative effect on employment	No effect (among those with positive hours)
Mexico	PROGRESA	Parker and Skoufias (2000)	ENCEL (1997-99)	DD by municipality and time	No effect	
Mexico	PROGRESA	Skoufias and Di Maro (2008)	ENCEL (1997-99)	DD by municipality and time	Small insignificant negative effect	
Mexico	Programa de Apoyo Alimentario	Skoufias, Unar and Gonzales Cossi (2008)	(2003-05)	DD by municipality and time	No effect on participation	
Nicaragua	Red de Proteccion Social	Alzua, Cruces and Ripani (2010)	(2000-01)	DD by municipality and time (with individual/household fixed effects)	Small insignificant negative effect on employment	Negative, but insignificant (among those with positive hours)
Nicaragua	Red de Proteccion Social	Maluccio (2007)	(2001-04)	DD by municipality and time (with household random effects)	Negative significant effect	

(Bosch and Manacorda, 2012, p. 29)

Appendix 6: Impact evaluation of non-contributory social programs on participation/hours – CCTs, Quick programme overview

Quick Programme overview:		
1) Plan Jefes y Jefas de Hogar Desocupados (2001)	Unemployed household heads with at least one dependent under 18; pregnant women, and disabled children	> conditioned by Job training or community work
2) Bolsa Família (2003)	Extremely poor households - with PCI up to $60 (1/4 minimum wage) - and poor families - with PCI of R$60 to R$120; in targeted municipalities	> conditioned by Health check-ups and school attendance
3) Familias en Acción (2002)	Extremely poor households in selected municipalities, with children aged 0-6 who are not benefitting from other programs, or aged 7-17 enrolled in school	> conditioned by Health check-ups and school attendance
4) Programa de Asignación Familiar (1998)	Poor households with children aged 6–12 who have not completed grade 4 of primary school (education), and poor households with pregnant women and/or children less than 3 years old (health)	-> conditioned by Health check-ups and school attendance
5) PROGRESA or Opportunades (1997)	Extremely poor households with children younger than 21 enrolled in school between the third grade of primary and the third grade of high school (education), and with children aged 4 months-2 years, malnourished children aged 2-4. and pregnant and lactating women (health)	> conditioned by Health check-ups, school attendance, and education
6) Programa de Apoyo Alimentario (2009)	Households with children below 5 years of age or lactating women, living in targeted rural localities of up to 2,500 inhabitants which suffer from high-very high deprivation, and who do not receive support from other federal programs with a nutritional component	> conditioned by Education
7) Red de Protección Social (2000, now stopped)	Poor households with children aged 7–13 enrolled in primary school grades 1–4 (education), or aged 0-5 (health)	> conditioned by Health check-ups, school attendance and education

(Bosch and Manacorda, 2012, p. 17,29)

Appendix 7: Impact evaluation of non-contributory social programs on participation/hours - Non-contributory Pensions

Country	Program	Source	Data (Time period)	Identification strategy	Effect on Informality
Brazil	Previdencia Rural	De Carvalho Filho (2008)		DDD by age, time, occupation/location	Negative significant effect on participation for men
Brazil	Previdencia Rural	Bosch and Popova (2012)	1980-2000	RD by age eligability	Negative significant effect on participation for all
Mexico	70 y mas	Galiani and Gerlter (2009)	2007-08	DD by age/municipality and time	No effect on employment (substitution away from paid to unpaid family work)
Mexico	Pension Alimentaria para Adultos Mayores	Juarez (2007)	ENEU (2002-04)	DDD by age/municipality and time	No effect on participation (but some negative effects among participants' household members

(Bosch and Manacorda, 2012, p. 30)

Appendix 8: Impact evaluation of non-contributory social programs on participation/hours - Non-contributory Pensions, Quick programme overview

Quick Programme overview:		
1) Previdência Rural (1991)	Individuals in rural areas above 60 (men) or 55 years of age (women), without any documented work/contribution history	Categorical targeting
2) 70 y más (2007)	Individuals above 70 years of age, living in towns of up to 30,000 inhabitants (increased from the earlier limits of localities of up to 20,000 inhabitants in 2008 and rural localities of up 2,500 inhabitants in 2007) who are not beneficiaries of recipients of the Elderly Support program of the Oportunidades Program	Geographic targeting
3) Pensión Alimentaria para Adultos Mayores (2001)	People above 70 years of age with at least 3 years of residence in the part of Mexico city that belongs to the Distrito Federal (DF) state	Geographic targeting

(Bosch and Manacorda, 2012, p. 21-29)

Appendix 9: Impact evaluation of non-contributory social programs on Informality - CCTs

Country	Program	Source	Data (Time period)	Identification strategy	Effect on Informality	Formal employment definition
Argentina	Plan Jefes y Jefas de Hogar desocupados	Gasparini Haimovich and Olivieri (2007)	EPH (2003-2005)	D with PS matching	Negative significant effect on transition into formal employment	Employees with right to pension
Ecuador	Bono de Desarollo Humano	Gonzalez-Rozada and Pinto (2011)	ENEMDU (2004-2010)	RD on predicted SELBEN index	Positive significant effect on duration of unemployment and separation from formal employment	
Mexico	Oportunidades	Azuzara and Marinescu (2010)	ENE (1994-04) ENOE (2005-09)	DD by municipality and time	No effect on informal employment	Employees in job providing health security
Urguay	Plan de Atencion Nacional a la Emergencia Social	Amarante, Manacorda, Vigorito and Zerpa (2011)	BPS data (2004-10)	RD based on poverty score (with individual fixed effect)	Negative significant effect on formal employment	

(Bosch and Manacorda, 2012, p. 31)

Appendix 10: Impact evaluation of non-contributory social programs on Informality – CCTs, Quick Programme overview

Country	Program	Source	Data (Time period)	Identification strategy	Effect on Informality	Formal employment definition
Argentina	Plan Jefes y Jefas de Hogar desocupados	Gasparini Haimovich and Olivieri (2007)	EPH (2003-2005)	D with PS matching	Negative significant effect on transition into formal employment	Employees with right to pension
Ecuador	Bono de Desarollo Humano	Gonzalez-Rozada and Pinto (2011)	ENEMDU (2004-2010)	RD on predicted SELBEN index	Positive significant effect on duration of unemployment and separation from formal employment	
Mexico	Oportunidades	Azuzara and Marinescu (2010)	ENE (1994-04) ENOE (2005-09)	DD by municipality and time	No effect on informal employment	Employees in job providing health security
Urguay	Plan de Atencion Nacional a la Emergencia Social	Amarante, Manacorda, Vigorito and Zerpa (2011)	BPS data (2004-10)	RD based on poverty score (with individual fixed effect)	Negative significant effect on formal employment	

(Bosch and Manacorda, 2012, p. 17,31)

Appendix 11: Impact evaluation of non-contributory social programs on Informality - Non-contributory Pensions

Country	Program	Source	Data (Time period)	Identification strategy	Effect on Informality	Formal employment definition
Colombia	Regimen Subsidado en Salud	Camacho, Conover and Hoyos (2010)	(1986-05)	DD(D) by municipality and time (and eligibility for SR)	Positive significant effect on informal employment	In job providing health
Mexico	Seguro Popular	Aterido, Hallward-Driemier and Pages (2011)	ENE (2002-04) ENOE (2004-09)	DD by municipality and time (with individual/household fixed effects)	Positive significant effect on informal employment	In job providing health insurance
Mexico	Seguro Popular	Azuzara and Marinescu (2010)	ENE (1994-04) ENOE (2005-09)	DD by municipality and time	No effect on informality (other than for positive effect among specific groups)	In job providing health insurance
Mexico	Seguro Popular	Bosch and Campos-Vasquez (2010)	IMS data, 2002-09	DD by municipality and time	Negative significant effect on formal employment	SS contributions
Mexico	Seguro Popular	Barros (2011)	ENSA (2000) ENSANUT (2006) ENIGH (2000-06)	DD(D) by state, time (and SS afiliation)	Positive insignificant effect on formal employment	In job providing health insurance
Mexico	Seguro Popular	Campos-Vasquez and Knox (2008)	ENE (2002-04)	DD by municipality and time	No effect on informality	In job providing health insurance
Mexico	Seguro Popular	Duval-Hernandez and Smith-Ramirez (2011)	ENE (2002-04) ENOE (2004-09)	DD by state and time	Negative significant effect on probability of applying for a formal job	In job providing health insurance
Mexico	Programa de Servicios Medicos y Medicamentos	Juarez (2011)	ENEU (2001-04)	DD across municipalities and time	Positive significant effect (low education women)	In job providing SS coverage

(Bosch and Manacorda, 2012, p. 32)

Appendix 12: Impact evaluation of non-contributory social programs on Informality - Non-contributory Pensions, Quick programme overview

Quick Programme overview:		
1) Régimen Subsidiado en Salud (1993)	Poor individuals, as identified by poverty index score, not covered by the Contributive Regime (CR)	> conditioned by CR coverage checkup
2) Seguro Popular (2003)	Individuals not covered by social security. Extends to household and not only to nuclear family)	> conditioned by social security coverage checkup
3) Programa de Servicios Médicos y Medicamentos Gratuitos (PSMMG) (2007)	Individuals over 18 years old (legal working age in Mexico), with at least 3 years of residence in part of Mexico city belonging to Distrito Federal, who are uncovered by other health insurance	> conditioned by social security coverage checkup and residence checkup

(Bosch and Manacorda, 2012, p. 21-33)

ANNOTATION

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THESIS TITLE	**Critical Analysis of Unconditional Basic Income and Its Effect on Labor Market**		
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DEPARTMENT	**KFU - Department of Finance and Accounting**	**2022**	

NUMBER OF PAGES	**58**
NUMBER OF PICTURES	**11**
NUMBER OF TABLES	**4**
NUMBER OF APPENDICES	**13**

SUMMARY	**This thesis attempts to provide a critical evaluation of the Cash Transfer Concept known as Unconditional Basic Income and examine its economic impacts, particularly, but not exclusively, on the labor market. On it's basis the advantages and drawbacks of Unconditional Basic Income were identified based on the critical and scientific approach while eliminating the political tendencies influencing the area.**
KEY WORDS	**Unconditional, Basic Income, UBI, Cash Transfer, Welfare**