The 20th century income distribution system has broken down irretrievably. The world is witnessing an unprecedented wave of scientific and technological progress in digitalisation, robotics, artificial intelligence and genomics, to name the most relevant. This new era is termed the 4th industrial revolution and it is challenging the sustainability of employment and the social organisation of work. Some studies point out that around 47% of current jobs will disappear in the next decade or two.¹ This future scenario is attracting increasing attention from policymakers, business, academia and civil society all over the world, as the social organisation of the current capitalist system is under threat.

Increasing levels of inequality and unemployment are already a reality in most places, seriously affecting the social cohesion in cities, regions and countries. The income of the precariat is falling and becoming more volatile. And chronic insecurity will not be overcome by minimum wage laws, tax credits, means-tested benefits or workfare. Numerous striking questions arise. Will new technologies not only destroy but help create jobs in the long run? What will local, regional and national governments do in order to guarantee access to basic services? Will we get our retirement subsidy? What is the role of the private sector and civil society? Can we find new governance mechanisms to address these challenges?

Cities have become not just the place where the majority of the world’s population live, but also the nest for scalable innovations and experimental policies. Some cities are deploying pilots for testing the feasibility of a universal basic income (UBI), a fixed monthly income that all citizens would receive, unconditionally, regardless of their social status and economic income level. They argue that this scheme would...

guarantee social cohesion by safeguarding access to basic services, eliminate transaction costs around bureaucracies, and foster entrepreneurship, innovation and consumption. Is this an old idea whose time has come?

**Wise cities & the universal basic income: Conceptual framework**

Beyond Smart Cities, Wise Cities have emerged as a new human-centred development paradigm in which cities foster interdependently creative and knowledge-based economies along with predistribution policies, which are two sides of the same coin (see figure below). The creation of knowledge-based economies through clustering of innovation ecosystems that generate smart technologies is the main focus of Smart Cities. This approach has enabled cities to technify service delivery in multiple areas such as transportation, energy, the environment, healthcare, housing and governance. Technology providers have developed new business models and cities are learning how to manage public and private partnerships that secure the creation of a Smart City without jeopardising the public mandate. Still, Smart Cities’ main assumption is that the increasing tech-driven smartness of a city is directly correlated with higher standards of living. But cities lack rigorous monitoring and evaluation systems that can validate this hypothesis. Indeed, sometimes smartness is a source of inequality, especially for cities that have been hit by the Great Recession. In times of economic turmoil, the classic trickle-down effect of economic growth no longer guarantees the social progress of all citizens. Notwithstanding this, increasing levels of inequality have dampened the capacity of cities to address its dark side – poverty and deprivation.

By contrast, Wise Cities explicitly manage the design and implementation of predistribution policies as well. They are aimed at creating shared prosperity following the principles of inclusivity, resilience and sustainability. The purpose of such a model is the maximisation of citizens’ quality of life, including the fulfilment of basic needs, the creation of a safe and healthy environment, and access to opportunities, decent work and the pursuit of happiness. Instead of trying to bring equality through unfair market outcomes through tax-and-transfer schemes (redistribution policies), predistribution focuses on designing policies that more directly intervene in the labour market to reduce income inequality as opposed to polices that redistribute incomes after taxes are levied.2

CITIES have become not just the place where the majority of the world’s population live, but also the nest for scalable innovations and experimental policies.

The UBI is a classic example of a predistribution policy. This old idea, originally thought up to fight crime and end poverty, was first proposed by Thomas More in the 16th century and later popularized by Thomas Paine in the 18th century. Traditionally, leftish politicians found in the UBI a way to address poverty, safeguard access to basic services and secure a safer environment. However, right-wing politicians usually reacted against it, arguing that such a scheme would disincentivise the ethics of work, break the meritocracy of the system and foster a lazy society. And in most cases it was said to be impossible to finance, thus naming this enterprise a utopia.

Today, many decades later, the UBI emerges as a solution to increasing levels of inequality, job precariousness and social exclusion. An old idea for a new time. The UBI owes its current popularity to the sickness of capitalism. The Great Recession revealed the flaws of a capitalist system that is no longer able to create shared prosperity and social progress by following the tenets of neoclassical economics. Smart Cities have worked to increase the brand attractiveness of cities in terms of foreign direct investment and tourism. This translates into higher economic dynamism, high quality employment and a new wave of immigration. But it often provokes a draining effect as rising housing prices push local citizens and local retailers out of the city. Wealthy neighbourhoods get wealthier and poor areas become poorer.

**Experimental policies**

Some cities and countries, well aware of these increasing disparities, consider the UBI to be a feasible solution. In Eu-

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rope, Finland, Utrecht and Barcelona – which shared their experiences at CIDOB3 – started studying the effects of UBI schemes by launching trials or pilot projects.

Finland is pioneering a basic income study pilot launched in January 2017. Initial assumptions see a basic income as a means to promote work incentives, freedom and self-determination. The government’s motivation stems from renewing social security to adapting to the changes of working life, increasing incentives for reducing bureaucracies, reducing poverty and simplifying the complex social security system. The pilot consists of providing an unconditional basic income of 560€ per month to 2,000 randomly selected unemployed people for two years. Evaluation will consist of counterfactual analysis against a control group of 175,000 people. This pilot was already part of the current government’s programme, regulated by law and administered by public institutions.

In Utrecht the case is significantly different. The Participatory Act introduced by the central government in January 2015 resulted in a tightening of social security regulations. Some municipalities, discontented with the reform, started investigating new schemes that could simplify the rules of the system, improving it through evidence-based policy and at the same time stimulating more recipients to reintegrate and participate in this new movement. The city of Utrecht, in collaboration with Utrecht University, designed a randomised control trial for testing a minimum income guarantee targeting social assistance recipients. The experiment is expected to last two years and provides an unconditional basic income of 980€ to individuals selected on a voluntary basis. The municipality’s expected outcomes focus on fostering job seeking and labour market reintegration, increased participation and social activation, an improved financial situation, improved health and well-being, increased satisfaction among both recipients and caseworkers, and an assessment of the real cost of the scheme. Despite the experiment enjoying wide support not only in Utrecht but also from 42 municipalities in the Netherlands, the Ministry of Social Affairs suspended the trial. Such large political disparities between national and local governments showed ideology to be a limiting factor on evidence-based policymaking. However, negotiations continue and municipalities expect to start the first trials by the end of 2017 and start of 2018, but under strict regulations.

Barcelona started studying the idea of launching a basic income pilot after the Great Recession, which brought increased levels of inequality and social exclusion to a high-income city. Introducing a basic income is an approach to combatting poverty and social exclusion with a minimum guaranteed income to increase poor people’s freedom. The programme attempts to abandon paternalistic perspectives in which charity and ex-post mechanisms address the social rights of those who are in a deprived situation. Furthermore, the scheme seeks to empower inhabitants in order for them to design their own strategies of fighting poverty, and to strengthen communitarian action. The pilot in Barcelona, called B-Mincome, provides a graduated €400–500 monthly income to 1,000 adults (from 25 to 60 years old) depending on their household’s characteristics. Only residents in the Besòs area, one of the poorest parts of the city, are selected. Participants must be former recipients of social services assistance and are split into four different treatment groups defined by conditionality and non-conditionality and limiting and non-limiting income (based on the extra income brought into the household). The project (€13M) is funded by the city council and the European Union and will last for two years, when the results will be monitored and tested through a counterfactual that will take into account other combined active policies. Compared to the others, the Barcelona pilot is much more specific and subject to more conditionality. Social exclusion will be tested through the monitoring of labour market outcomes: job market behaviour and readiness to work; labour market reintegration and entrepreneurship; self-employment; education and training; housing stability; food insecurity and material deprivation; health, well-being and happiness; financial situation and energy poverty; social networks, community participation and social activation; and use of time.

Wise Cities are aimed at creating shared prosperity following the principles of inclusivity, resilience and sustainability.

Implications

The analysis of the above three experiments has relevant implications for the future of UBI trials. First, an important caveat: although the three projects are regarded as universal basic income experiments, they are not. According to the Basic Income Earth Network, a basic income is defined as a periodic cash payment unconditionally delivered to all on an individual basis, without means-testing or a work requirement. None of these experiments fit these criteria. Even though targeting is not universal – as with any experiment, there are control groups that do not receive the benefit in order to test results – these experiments do not consider giving a basic income to non-poor people.

In a true UBI experiment, monthly cash transfers would flow to both “Rockefellers” and “the homeless”. This leads to the second implication. The experiments’ main research goal is to test changes in behaviour when a monthly basic income is unconditionally delivered to a target group. Will the recipients stop searching for a job? Will they become lazy? Or, rather, are they going to be new entrepreneurs? Behavioural economics is by nature experimental. This relatively new economic science already acknowledges some of the effects of poverty: scarcity and poverty stress affect people’s mind-

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3. I am grateful to Pertti Honkanen (KELA Finland), Timo Verlaat (University of Utrecht), Lluis Torres (Barcelona City Council), Boyd Cohen (EADA Business School), Xavier Ferrás (University of Vic), and María Sisternas (Mediaurban) for their participation and valuable contributions.
set; there is a crowding out effect of intrinsic motivation; and poverty raises reciprocity and fairness concerns.4

As a result, the behavioural implications of a basic income produce a shared motivation around the experiments: to have robust and rigorous evidence to back up the design and implementation of predistribution policies that aim at fighting poverty, inequality and social exclusion. Nonetheless, without a universal assignment of the basic income we cannot have a treatment and control group for the behavioural differences observed among both poor and rich people. With a basic income, will richer people stop working too? If so, will they become lazy as is often assumed for poor recipients? Such basic income projects are therefore by nature discriminatory. They do not integrate the behavioural dichotomy of poor and rich individuals being given the same monthly amount.

This fact leads to the next implication. Ideology continues to play a significant role in fostering, or blocking, UBI experiments. The case of Utrecht illustrates how different beliefs grounded in economic behaviour make political ideologies a barrier to fostering predistribution policies. This can lead, as in this case, to a problem of multi-level governance. To overcome ideology as a limiting political factor, experimental politics can provide the necessary evidence that brings objective decision-making to an old idea still full of stereotypes and misbeliefs. It is a social innovation policy likely to harmonise different interest groups by means of evidential results tested beforehand.

Experimental policies are mostly city-driven.5 The UBI resurgence is framed in a context in which cities and sub-national regions are developing new schemes of local governance that have global impact. The increasing importance of cities in terms of an urbanised population that influences economic, social and environmental activity at global level is unveiling a new, more practical approach to doing politics. This approach, closer to citizens’ needs and wants, is more conducive to experimental politics. Even though the current experiments are not authentic UBI tests, they are revealing a bottom-up approach to new forms of social innovation. This is shaping a new global governance by cities that is better equipped to provide answers to citizens’ pains through the design of predistribution policies that are tested in urban locations. Cities become labs. Sharing these experiences is a resource for scaling up movements like the basic income.

Predistribution focuses on intervening more directly in the labour market to reduce income inequality as opposed to polices that redistribute incomes after taxes are levied.

The UBI in developed versus emerging markets

Most of the experiments, such as the ones discussed here, take place in affluent societies. Actually, a critical point for considering the feasibility of a UBI project is its financial sustainability. Affordability becomes essential. Indeed, for a real UBI project –where all citizens receive an unconditional monthly income – a fundamental question arises: who is going to pay for it? In the meantime, small scale experiments, mainly conducted in cities are financed by high income cities that take that lead. Still, with the open debate on the UBI’s affordability – its financial ambition is a cause for opponents to call it utopian – it seems obvious that a UBI programme needs to be implemented in affluent societies that have strong knowledge-based economies that generate growth and foster continuous innovation.

Nevertheless, there are some basic income experiments in place in emerging economies. The most notable is in Kenya, where GiveDirectly, a US-based charity known for its cash transfer programmes, launched a pilot in one village in 2016. In that programme 95 residents receive a monthly unconditional cash payment of around €21 (roughly half of the average income in the rural area) for 12 years. The total budget for this pilot is less than €290,000, far less than experimenting with the UBI in developed countries. The NGO is planning to scale the programme to a further 40 Kenyan villages. India had some basic income experiments in 2010, specifically in the state of Madhya Pradesh, and the basic income played a major role in its country-level Economic Survey. Uganda plans to launch an initiative in 2017 in a village in the Fort Portal region also led by the nonprofit organisation Eight.

Whereas in developed economies basic income experiments are constrained by the absence of the universality principle and their financial feasibility, in emerging economies real basic income schemes can be tested in new forms of development aid delivery mechanisms. These mechanisms overcome the classic bureaucracies and high transaction costs associated with traditional development cooperation programmes. They connect donors with recipients through IT platform-based delivery mechanisms, reducing intermediaries by providing multiple incentives to a small number and with a renewed focus on aid effectiveness and efficiency. Some preliminary results also test recipients’ behaviour and show that they do not stop working, among other income-alleviation outcomes.6

The 4th industrial revolution: Technology as the new disruptive driver of the UBI

Both in developed and emerging economies, the need for a UBI has been approached as a mechanism for fighting poverty and social exclusion. This has been the traditional policy advocacy from the left. However, the fourth industri-

4. See, respectively: Mullainathan & Shafir (2013) and Mani et al. (2013); Deci (1971) and Frey & Jegen (2001); and Fehr & Schmidt (2000) and Thaler (1980).
5. Besides Barcelona and Utrecht, the cities of Livorno in Italy and Oakland in the US are launching UBI pilots, as is the region of Ontario in Canada.
al revolution is disrupting the labour market in an unprecedented way: creating more economic value while cutting jobs due to automation. Even though disruptive technologies have always provoked changing conditions in the way we work by eliminating low value added jobs and creating new, more qualified jobs, this time is different. Digitalisation, artificial intelligence and machine learning are exponentially creating a new techno-economy that produces value without distributing it. The zero marginal cost economy replaces the neoclassical trickle-down economic effects of job creation and wage and tax-based redistribution policies. The effects are already visible. Inequality is rampant in an increasingly abundant economy. 1% of the world’s population owns the same economic assets as the remaining 99%. Middle classes are shrinking. Against this backdrop, tech entrepreneurs – mostly from Silicon Valley – have reacted by proposing the UBI as an alternative to safeguard the system. They see in the UBI the palliative salvation from the social tsunami their inventions might unfold. In fact, some of them are actively funding the nonprofits that are financing basic income pilots in Africa.

Increasingly, production and growth are an intrinsic problem to be addressed by technology, science and engineering. Machines will soon manage production and value creation activities more efficiently than humans. For the first time, it may be not necessary to work for a living. That completely changes the rules of the game. Salaries won’t be needed, ergo taxation will move from jobs to technology.7 This is a new socioeconomic paradigm where work is no longer the pillar of the social organisation of life. This vision of the future in the postwork and postcapitalist society transcends partisan ideologies and stereotypes. In this era, the real problem will be how to distribute value. Ultra-affluent incomes and wealth inequality, rising poverty, and mass unemployment may become the norm if predistribution policies are not in place. If this is not addressed in time, the system may collapse, and this is an urgent political problem.

Both in developed and emerging economies, the need for a universal basic income has been approached as a mechanism for fighting poverty and social exclusion.

Conclusion: New management for a new socioeconomic paradigm

The UBI has recently been blooming as a revisited idea from an old utopia. Technology has democratised the idea of giving an unconditional monthly income to all citizens as it is driving a deep paradigm shift. The arguments around exponential technological change and automation are the point where the UBI’s proponents meet, regardless of their political positions. It is the differential factor that makes the UBI transcend its traditional meaning by turning it into a political imperative.

From now on, the question is no longer whether the UBI is a political enterprise worth launching: there is a wide consensus on its necessity. The real issue is how to start implementing such a scheme. Cities are becoming labs for testing UBI pilots as policies become experimentation. However, two important warnings need stating. First, these are not real UBI trials, as they do not consider the universality principle in these preliminary studies. Second, technology and the new paradigm are not yet embedded as dependent variables in these studies; they should be if those studies are intended to shed light on the implications of technology and the UBI on the changing nature of work and its consequences for people and their households.

In medical science nobody questions a long-term orientation in experimentation in order to identify causal inference before determining the effectiveness of new medicines and treatments before launching them on the market. However, in social science we still do not have a culture of counterfactual thinking and experimental politics. It seems a waste of time and money. Nevertheless, in view of the radical change of paradigm and the forthcoming profound effects that will be seen over the next decades, societies need to develop this culture first, at some distance from the misconceptions still found around the idea of the UBI. Wise Cities provide this framework. The new UBI is ideology-free. Technology is the main driver of change, but it is a means not an end. It is agnostic, and its power is unstoppable. The future will be largely driven by the impact of new technologies on every aspect of human life. Against this backdrop, it is more imperative than ever that management takes a human-centred approach to the study, design, and implementation of redistributive policies in Wise Cities that favour inclusive and sustainable economic growth, shared prosperity and well-being for all, before it is too late.