Reducing economic inequality
as a Sustainable Development Goal
Measuring up the options for beyond 2015

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Contents

Summary

Tackling economic inequality is not a by-product of fighting poverty and climate change – it is a key ingredient. A more equal world by 2030 would dramatically reduce the number of people living in extreme poverty, and better brace us to mitigate and adapt to environmental shocks. So why is the issue being sidelined in global talks on which Sustainable Development Goals (SDGs) should head up international development efforts post-2015?

The 2015 endpoint for the UN's Millennium Development Goals (MDGs) is fast approaching, and with it a vital opportunity to review and refocus global efforts to fight poverty and environmental decline. But as the international community debates a new set of SDGs to anchor international development efforts up to 2030, something crucial is being overlooked. A standalone goal on reducing economic inequality has been excluded from the final list of potential SDGs.

Addressing economic inequality

Expert consensus couldn't be clearer on the corrosive effect of economic inequality on health, social cohesion, economic growth, education and crime. Forecasts show that, without narrowing the gap between the richest and poorest in our societies, other attempts to fight poverty and stabilise the environment could be fatally undermined.

The international community previously placed greater equality at the heart of the post-2015 development agenda: at the Rio+20 summit in 2012 'inclusive and equitable economic growth' was enshrined as one of three key dimensions of sustainable development that the SDGs must address.

But the New Economics Foundation (NEF) review of proposals emerging from the post-2015 process and the SDGs discussions to date reveals that this focus has drifted. While action to reduce horizontal inequality within populations (for instance, as a result of gender and ethnic discrimination) is rightly supported, the proposals stop short of tackling vertical economic disparity across whole populations. This is a major oversight given the far-reaching costs of economic inequality and suggests that the principles set at the Rio+20 summit are not being observed.

There is also a tendency among the consultation documents to assume economic inequality will be resolved as a side-effect of tackling other targets. One popular approach advocates disaggregating progress towards SDGs by gender, ethnic, religious and income groups as well as by region, and only considering goals achieved if they are met by all population groups. Others propose universal targets, such as 'universal access' to healthcare or 'zero' hunger, as a way to ensure progress is common to all groups.

Ensuring basic needs are met for all is crucial for progress on human rights. But without a dedicated push to address economic inequality we risk replicating the conditions that drive poverty and environmental destruction. The UK – a developed country with universal healthcare and education but endemic problems of deprivation and over-consumption – is a case in point.

Measuring progress towards an SDG on economic inequality

A common justification for the absence of goals and targets on economic inequality is that it cannot be robustly measured. But this is simply not the case. In this report, NEF has developed criteria to select indicators and found several possibilities for how progress towards a more equal world could be measured.

The Palma ratio – a measure of the proportion of gross national income (GNI) accrued the top 10% versus the bottom 40% – scored highest among the experts we surveyed, providing an easy to understand and statistically robust measure of income inequality. If adopted, this should be supplemented with at least two other indicators. We suggest:

1. A measure of the distributional gains to growth, such as the change in real median income, and

2. A measure of wealth concentration, such as the share of wealth going to the top 1%.

Significant gaps in data collection would need to be addressed in order for all countries to robustly calculate inequality measures like the Palma ratio. Therefore, as part of the post-2015 framework, it is vital we invest further in data retrieval and synthesis so that measurement does not block progress.

We advocate that country-by-country targets for inequality reduction should initially be set at the national level through public consultation, as a means of fast-tracking their adoption without the need for lengthy United Nations (UN) negotiations over a universal target. This approach would also encourage public debate and ownership of the target.

The self-perpetuating nature of economic inequality means that the longer we ignore it, the harder it will be to reverse. A dedicated SDG would give governments the push they need to start monitoring economic inequality within and between countries, and creating policies to close the gap. We cannot afford to let the problem grow unchallenged and compromise the success of post-2015 international development efforts.

Report recommendations

1. **A standalone SDG to end extreme economic inequality.** Economic inequality is a headline issue and so deserves headline status within the SDGs. To allow for flexibility, targets for reduction can be set at the national level through public consultations. To ensure that these targets are context specific while also challenging, we advocate that national governments consult their country's populations to set targets in line with public preferences.

2. **The Palma ratio should be used as the primary indicator to measure income inequality**. This should be supplemented with at least two other indicators: (1) a measure of the distributional gains to growth, such as the change in real median incomes, which would provide an easy-to-communicate measure and complement the Palma ratio which does not capture changes in the middle of the distribution, and (2) a measure of wealth concentration, such as the share of wealth going to the top 1%.

3. **The final SDG decision makers, including the UN Secretary-General's support team, should employ a points-scoring process to choose final goals, targets and indicators.** Scoring should be against the criteria and aims set by the Rio+20 Outcome document to ensure the original aims of the framework are not overlooked and that the final decision is not co-opted by politics.

1. Introduction

Economic inequality has taken centre-stage in global economic discussions in recent years, yet it is in danger of being sidelined in the Sustainable Development Goals (SDGs). This paper explores why a goal to reduce economic inequality is required and why current proposed SDGs fall short on equality issues. It highlights the targets and indicators that would best represent economic inequality and inspire much-needed action.

The rich and the poor have long lived side by side, but the current radical levels of economic inequality experienced in many high-, middle- and low-income countries endanger economic development, stability and societal progress. The expiry of Millennium Development Goals (MDGs) in 2015 and discussions regarding new goals has provided an opportunity to use the growing concern about economic disparities to legitimately place inequality on the development agenda and demand action. As we move into the final phase of consolidation of the post-2015 framework and SDGs, we are at an appropriate juncture to consider if the issue of economic inequality has been given the attention and visibility it deserves.

At the beginning of the post-2015 consultation process, civil society groups made great play of the issue of economic inequality.[1] However, resistance from members of the UN's High-level Panel (HLP) of Eminent Persons and a lack of support from member states has obstructed early discussions from crystalising into a standalone goal on economic inequality. Instead, supporters for a goal on economic inequality have been placated with measures to address inequality between groups. The HLP[2] along with others,[3] have proposed for SDG indicators to be disaggregated by equality groups – gender, religious and ethnic groups, income, rural/urban areas and regions. While such a breakdown will be illuminating and is necessary, it does not compensate for a standalone goal to reduce economic inequality.

The lack of enthusiasm among governing officials for a goal on economic inequality has been justified through several arguments. The first common argument is that as long as equality issues, such as gender equality, and universal targets are included in the SDGs, the most potent equality issues will be addressed. Second is the issue of measurement: indicators of economic inequality are often complicated and can represent the shape of the distribution in distorted ways, making cross-country comparison and monitoring over time difficult. Target-setting is also an issue, with little

evidence to show what is the 'right' level of inequality – that is, enough to reward entrepreneurial activity and drive progress, but not enough to damage society or undermine the ability of others to fulfil their potential. Finally, and perhaps most significantly, there is the political challenge associated with an explicit goal on economic inequality. As many country's national governments are opposed to its inclusion, political agreement on a final goal is less feasible.

This report considers these claims and builds a case for a standalone goal on reducing economic inequality. It argues for a more robust decision-making process so that economic inequality is not conveniently sidestepped. The report is organised as follows:

- Section 2 develops an argument for why tackling economic inequality is vital for progress on development and outlines how it fits with the aims and principles of The future we want, the Rio+20 outcomes document.

- Section 3 considers if the current visibility of economic inequality within SDGs is sufficient.

- Section 4 looks at how to measure economic inequality. It develops criteria to select three headline indicators and suggests potential targets for reduction.

- Section 5 concludes by outlining the next stages of SDG selection and offers possible routes which would help to override the political barriers. We end with the three key recommendations from our research for moving SDGs forward and measuring inequality so it can realistically be positioned at the centre of the development agenda.

Box 1: What do we mean by economic inequality?

Economic inequality refers to income and wealth disparities among individuals or households. Economic inequality is also known as vertical inequality. It is distinctive to horizontal inequality, which refers to differences between groups, typically culturally defined – for example, by gender, ethnicity, race, or religion.

Income inequality is often thought of as the differences in wages across the socio-economic spectrum. However, it can include income from capital investments and other forms of regular earnings. There is a distinction between pre- and post-tax income, with the former referring to gross income before any tax deductions or transfers and the latter to net income once redistribution has taken place. Pre-tax inequality tends to be considerably higher than post-tax inequality. Sometimes researchers also add 'tertiary income' to post-tax inequality, which includes the imputed benefits from public expenditure after taxes and subsidies.

Wealth inequality refers to the distribution of assets – including savings, financial assets, housing that is owned, mutual funds, stocks and bonds and retirement accounts. Wealth inequality is more severe than income inequality. The pre- and post-tax distinction also applies to wealth inequality.

Box 1: continued

Evidence points to increasing income and wealth disparities between those at the very top, the so-called 1% – a term popularised by the Occupy movement – and everyone else. Even the difference in income and wealth between the top 1% and 0.1% is notable,[4] suggesting that the extremes matter when considering the shape of economic inequality.

Other terms often used interchangeably or in conjunction with economic inequality include:

- **Equality of opportunity:** The term equality of opportunity is closely aligned with the concept of equality before the law and ideas of meritocracy. It is a situation in which every person has an equal chance, especially in areas such as education, employment and political participation. However, as the Stanford Encyclopedia of Philosophy explains, equality of opportunity "is a political ideal that is opposed to caste hierarchy but not to hierarchy per se".[5] That is, this term signals an opposition of the assignment of individuals to places in the social and economic hierarchy by birth and instead supports some form of competitive process where all members of society are eligible to compete on equal terms. It does not, however, question the scale of difference between rich and poor.

- **Social inclusion:** The World Bank defines social inclusion as the process of improving the terms for individuals and groups to take part in society. In particular, it is "the process of improving the ability, opportunity and dignity of people, disadvantaged on the basis of their identity, to take part in society". The World Bank's flagship report on social inclusion makes links with the term and the need to empower poor and marginalised people through giving them a voice in the decisions that affect their lives, and by enjoying equal access to markets, services and political, social and physical spaces.[6]

- **Inclusive growth:** The concept of inclusive growth is broadly defined but essentially asks how the proceeds from economic growth are being shared.[7] The idea has become a buzzword in economic forums in recognition that the pattern of growth is one of the key drivers of inequality. Change in relative prices and long-term shifts in the structure of the economy all combine with social structures and existing inequalities, and produce a pattern of outcomes that are very different for different people, groups and geographical regions. The inclusive growth agenda seeks to ensure that policy considers these distributional impacts.

2. Why tackling economic inequality matters

Today's media often uses attention-grabbing figures to highlight the widening wealth gap between our planet's richest people and those living in poverty. But while the headline figures help to draw attention to the problem, they do not necessarily prompt action to tackle inequality.

Here we look at the overlap between economic inequality and key sustainable development focus areas. This is not an exhaustive list – for example, we do not cover the links with education, health, well-being, crime, conflict and disease, as these are discussed in-depth elsewhere.[8, 9, 10] However, it is very important to note that many of the outcomes found to be affected by economic inequality overlap with the likely focus areas in the post-2015 SDGs. As such, economic inequality is a cross-cutting issue, with clear connections with the majority of development aims.

The relationship between growth, inequality and poverty eradication

There is a long-running debate about the extent to which economic growth results in poverty reduction – so-called growth elasticity of poverty reduction.[11] China is the most obvious case of economic growth that has lifted millions out of poverty.[12] However, there are many countries where growth has had a much smaller impact on poverty reduction – including India, Nigeria and other parts of Africa.[13] Furthermore, the undercurrents of economic growth and poverty have shifted over the last decade meaning that economic growth is likely to be a less effective poverty reduction tool.[14]

Figure 1 shows extreme poverty estimates for 2030. These numbers are based on different scenarios of inequality levels and growth. It shows that, by 2030, low growth coupled with current inequality trends will mean 1.3 billion people will be in extreme poverty according to the US$1.25 a day measure – similar to the numbers today. In contrast, the combination of a low-growth scenario with low inequality will mean that extreme poverty levels are halved. The same authors find even more startling findings when using the US$2 per day measure. They show that, if we continue on current inequality trends in a low-growth scenario, US$2 per day poverty will in fact increase and exceed 2.5 billion people by 2030.[15] In short, reducing inequality is integral to reducing and eradicating poverty and can pay dividends even in a low-growth scenario.

Figure 1: Scenarios for extreme poverty in 2030
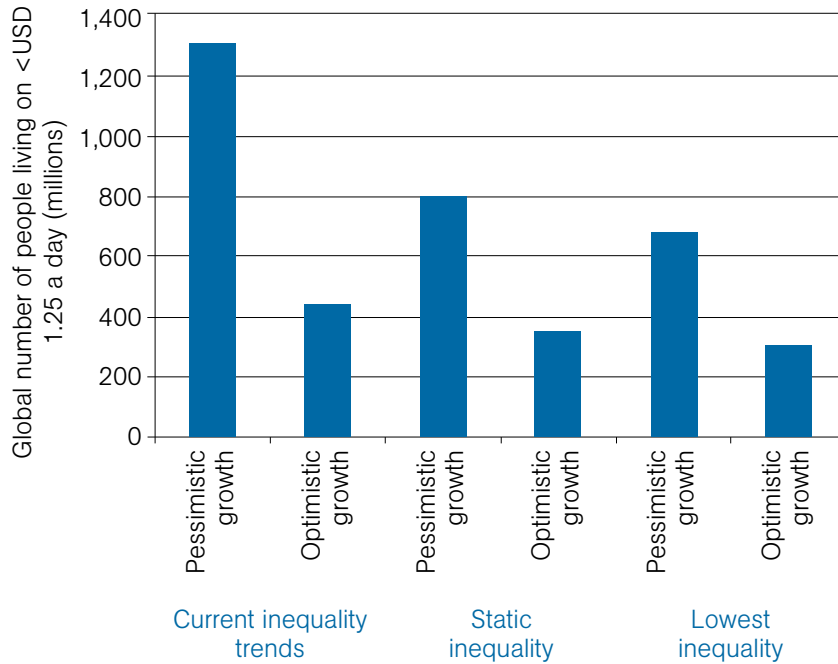
Source: Edward, P. and Sumner, A. (2013). *The future of global poverty in a multi-speed world,* Washington DC: Center for Global Development

As we will discuss in the next section, high economic growth is incompatible with environmental sustainability. However, we recognise that there is a positive relationship between lower levels of economic inequality and growth. More unequal societies tend to grow more slowly, are less successful in sustaining growth over long periods of time and recover more slowly from economic downturns.[16, 17] Thus, as reducing inequality also tends to promote higher and more stable economic growth it again promotes poverty reduction. This relationship has been summarised as a poverty-growth-inequality triangle[18] (see Figure 2).

Figure 2: The poverty-growth-inequality triangle
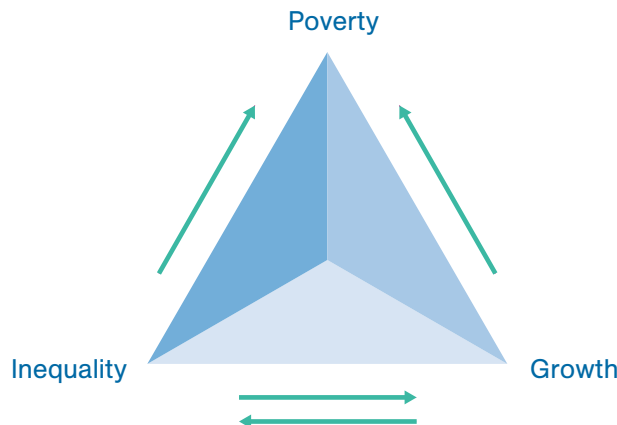
Source: Bourguignon, F. (2004). *The poverty-growth-inequality triangle.* Washington DC: World Bank

Securing environmental sustainability

One of the greatest challenges in achieving poverty reduction is to do so without causing long-term environmental damage which will lead to even greater problems in the future. Some of the SDG recommendations recognise this, and point to a need to switch to greener sources of growth and to address consumption patterns.[19]

Others have gone further, and cautioned against putting too much faith in 'green growth'. They stress that the increases in carbon efficiency, not to mention efficiencies related to other resources, required to remain within environmental limits whilst continuing a growth path, are totally unprecedented. For example, to lift everyone on the planet to an income level equivalent to that of the EU average in 2007, whilst keeping the concentration of CO_2 in the atmosphere below 450 parts per million (a threshold which would nevertheless lead to harmful climate change impacts), would require a 55-fold increase in carbon efficiency.[20] And that assumes that *all* the growth goes to those countries whose incomes are currently below the EU level. These warnings have led to even more established organisations such as UNCTAD and the ETUI (European Trade Union Institute) to recognise the danger in relying on economic growth to achieve social goals.[21] The implication is that environmental considerations will limit growth in the future, making reducing economic inequality an even more important tool for tackling poverty.

The links between inequality and sustainability run deeper than just the connection with growth. We know that there is a double injustice when it comes to global carbon emissions. Those emitting the least tend to be those that face the brunt of climate change impacts.[22] If we remain unequal, on-going climate change impacts will reveal the acute vulnerabilities associated with high levels of pre-existing inequality.[23] However, cutting emissions without addressing economic inequality will result in greater social exclusion, limiting those further down the socioeconomic scale from accessing goods and amenities that the rich will continue to be privileged by.[24] This may cause further ill-feeling and exacerbate class divides. Resource wars are not just the basis of dramatic movie scripts – they are already happening. Given the existing links between inequality and conflict, resource shortages are adding fuel to the fire.

Economic inequality can also be seen as root driver of resource depletion through the way it encourages unnecessary consumption. Several economists have observed that in a growingly unequal society individuals feel increasingly drawn to purchasing goods, and in particular luxury items, to signal their status in society. Professor Robert Frank, an economist from Cornell University in the US, has written extensively about how income and wealth at the top have set off 'expenditure cascades'[25] causing over-consumption and rising levels of household debt. As one Nobel prize-winning economist puts it "trickle-down economics may be a chimera, but trickle-down behaviourism is very real."[26]

Whichever way you consider it, addressing inequality will become increasingly important to adapting to and help mitigate the effects of climate change.

Addressing inequality between groups

Current equality related proposals for SDGs speak to equality of opportunity and social inclusion, rather than economic equality (see Box 1). But why does this matter? The difference in approaches ultimately boils down to the age-old debate between addressing equality of opportunity, referring to the ability to access resources or services such as employment and education, or equality of outcomes, such as the level of income or level of educational attainment.

The division between equality of opportunity and equality of outcomes is a false dichotomy, since outcomes and opportunities are highly interdependent. Equal outcomes cannot be achieved without equal opportunities, but equal opportunities cannot be achieved when households have unequal starting points. As a paper from the United Nations Development Programme (UNDP) states:

> "…frameworks that focus on the inequality either of outcomes or of opportunities by themselves are inadequate for addressing inequality in human well-being, given the interdependency between opportunities and outcomes and how this is played out in the context of a market economy."[27]

This oversight is clear when observing where discrimination has arguably declined, such as in the US and UK, where between-group inequality still persist. The stubborn blight of between-group inequality remains because of the nature of the economic and societal systems. Thise with an initial disadvantage are ghettoised and then further penalised by reduced access to high quality public services.[28] This in turn limits their ability to prosper in a growingly polarised labour market where a strong academic background is fundamental to success.

Many groups fighting for gender equality are increasingly recognising that securing long-term and deep-seated gender equality will require structural change in the operation of the economy.[29] In particular, the functioning of the labour market and of ownership and institutional power structures are allowing gender norms to prevail.[30] The inclusion of goals to reduce economic inequality will support this aim because, as a measure across populations, it pushes us to think about how society is working as a whole and consider policies at both the top and bottom end that will help to deliver better societal outcomes. As a relational concept it also means we will pay greater attention to the role of power and politics.[31]

In short, while a breakdown by equality groups, geographical region, and so on, is vital to understanding the distributional impacts of policy, it will not measure or address economic inequality. Equality of opportunity and outcomes must be considered to together to address inequality as a whole.

Box 2: Key statistics on economic inequality

Economic inequality has risen up the political and social agenda in both developing and developed countries. This increased visibility is partly the outcome of the growing number of available and widely publicised statistics that depict the startling levels of economic inequality. Headline statistics include:

Box 2: continued

Income inequality (in country):
- The discrepancies in inequality data make it difficult to robustly deduce which specific country has the highest level of income inequality. Most available measures point to parts of Latin America and the southern tip of Africa as having the most unequal country income distributions. Gini coefficients (where 0 shows perfect equality and 1 shows perfect inequality) in these regions range between 0.45 and 0.60.[32, 33] In contrast, in 2010 the Gini coefficients for the UK and US were 0.36 and 0.37 respectively.[34] Relatively equal countries such as Denmark, Sweden and Norway have Gini coefficients of around 0.25.[35] (We discuss the Gini coefficent more in Section 4 and Appendix C.)

- Approximately two-thirds of countries with available Gini coefficient data experienced an increase in income inequality between 1990 and 2005.[36] Similarly, the income gap between the wealthiest and poorest 10% of income earners increased in 70% of countries.[37]

- Data for 141 countries since 1990 shows that income inequality, again measured by the Gini coefficient, increased most in Eastern Europe and the former Soviet Union as well as Asia. It declined significantly in Latin America after 2000, and while Sub-Saharan Africa remains highly unequal, its Gini has fallen almost five points on average since 1990.[38]

- When income inequality is measured as the ratio between the top quintile and bottom quintile, a similar picture emerges, with Colombia, Nepal and Zambia showing high levels of inequality.[39]

Wealth inequality (in country):
- Levels of wealth inequality are harder to decipher because of a combination of tax avoidance at the top of the wealth spectrum and rudimentary tax systems in some developing countries. However, where data is available, it is clear that wealth is far more unequally distributed than income. For example, in Vietnam while the income Gini coefficient was 0.37 the wealth Gini was 0.68.[40]

Global inequality (across all countries):
- The top 20% of the world's population enjoys more than 70% of global income, while the bottom 20% has just 2%.[41]

- Wealth data produced by Credit Suisse and collated by Oxfam has found that just 85 individuals have more wealth than the poorest half of the world's population – some 3.5 billion people.[42]

- Several prominent researchers point to falling levels of income inequality between countries, in particular between rich countries and the rest of the world. Rising levels of income and falling poverty in China in particular has resulted in what looks like a convergence in global incomes. However, once data is no longer weighted for population the apparent convergence among countries disappears.[43, 44]

- Overall, estimates suggest a current global Gini coefficient (among all people in the world) of 0.65, with 85% of this amount due to differences among countries.[45]

Such conspicuous levels of inequality are undermining arguments that inequality reflects effort and point instead to very unequal opportunities and an economic system that results in wealth accumulating in the top, rather than 'trickling-down'.[46]

A goal on economic inequality fits the aims of Rio+20

We have underscored that addressing economic inequality is the lynchpin to addressing a number of development aims.

We can also look to the Rio+20 outcomes document, *The future we want,* in making the case for including tackling economic inequality as a headline goal in the SDGs.[47] This document sets an ambitious criteria for SDGs – asserting that SDGs must cover all three dimensions of sustainable development, namely: poverty eradication; sustainable production and consumption; and inclusive and equitable economic growth. Furthermore, *The future we want* specifies criteria for the characteristics of each goal. These globally agreed criteria can be found in Appendix A, Table A1 and are a litmus test for all final goals.

It is useful also to consider best practice in selecting goals, which has helpfully been summed up in reports from the HLP, the Sustainable Development Solutions Network (SDSN) and the UN Global Compact (see Box 3 for a description of these three consulted groups). Taken together this amalgamated criteria is comprehensive. However, we add one more criterion: that goals should be transformative. This reflects key consultation documents that state that the post-2015 framework should address key drivers of and barriers to sustainable and equitable development, tackle the root causes of poverty and address major new sustainable development challenges.[48] We list the relevant criteria drawn from these documents and consider how a goal on economic inequality fulfils the criteria in Table 1.

It is clear that a goal on economic inequality would meet the majority of criterion. Furthermore, a goal to reduce economic inequality relates to a number of key statements in the Rio+20 outcomes document (*The future we want*) and the HLP report (*A new global partnership*).

Focus on priority areas for the achievement of sustainable development

"We also emphasise the need to accord the highest priority to poverty eradication within the United Nations development agenda, addressing the root causes and challenges of poverty through integrated, coordinated and coherent strategies at all levels."
The future we want[49]

As discussed in Section 2, addressing economic inequality is highly complementary to eradicating poverty. As there is significant correlation with other development priorities – such as sustainability and universal access to education – a goal on reducing economic inequality will help to build a coherent strategy and avoid the subject silos that have occurred under the MDGs.

Action-orientated

"Social protection systems that address and reduce inequality and social exclusion are essential for eradicating poverty and advancing the achievement of the Millennium Development Goals. In this regard, we strongly encourage initiatives aimed at enhancing social protection for all people."
The future we want[50]

Addressing economic inequality would almost certainly require strengthening social protection systems, addressing low wages and creating decent jobs. Also, a measure of economic inequality will provide a gauge on how all measures within the new SDGs are affecting the distribution of income and wealth.

Concise and limited in number

"Goals should be limited in number, focusing on only those issues which require collective support and focus or the special attention of every country, hence the justification for a single goal on equalities/inclusion."
Synthesis Report on the *Global Thematic Consultation on Addressing Inequalities*[51]

Given the pressing issue of economic inequality, and the useful way in which it points to many of the structural changes that the development community want to see, its inclusion in the final SDGs should limit the need for endless policy prescriptive targets.

Consensus-based

"Compared to My World results, the national consultations which employ methods that allow a deeper discussion of participants' concerns and the impact of local policies, reveal much greater preoccupation with tackling inequalities of many kinds."
***A Million voices: The world we want*, report from the United Nations Development Group (UNDG)**

The need to address the multiple forms of inequality – including between genders, ethnic groups, as well as in income and wealth – featured strongly in public consultations. While the Open Working Group (OWG) and HLP may be resistant, there is considerable public support in national states for a reduction in economic inequality.

Transformative

"It is also unrealistic to think we can help another one billion people to lift themselves out of poverty by growing their national economies without making structural changes in the world economy."
***A new global partnership*[52]**

A goal on economic inequality would be transformative in that it will point to the need for structural and systemic change within the economic systems. Studies have linked increases in inequality to a range of economic policies that have dominated the development agenda in recent decades. These include financial liberalisation, regressive taxation, public expenditure policies that fail to protect the poor during crisis or adjustment periods, and labour market policies that lead to precarious forms of flexibility, an erosion of minimum wages and union bargaining power. As such, a goal to reduce economic inequality will require reversing these highly regressive policies and adopting a new approach to development.

Where a standalone goal on economic inequality may not meet the criteria is in measurement and target-setting. We will consider this in Section 4.

It could be argued that many of the proposed recommended goals on education, health, conflict etc. are interdependent, but given the need to be concise it is important that the headline goals reflect the fundamental values of the post-2015 development agenda. Equality is a principle that is stated repeatedly in the Millennium Declaration, Rio+20 Outcome document and the High Level Panel report. The decision to have a standalone goal will reflect the importance that has been placed on the issue by the international community.

Table 1: How a standalone goal on economic inequality would address post-2015 development principles

Criteria (for detailed descriptions see Table A1)	Fulfil criteria?	Comments
Focus on priority areas for the achievement of sustainable development	Yes	Addressing economic inequality will aid in tackling all three primary aims, as described earlier.
Action-oriented	Yes	This goal states a key challenge for which there are a number of known policy solutions and initiatives that have been tried and tested elsewhere.[53] The goal is not specific in what action should be taken so allows individual countries to decide on the policies they want to employ.
Concise and limited in number	Yes	Lays out a single ambition that has a sharp focus. It also relates to a number of other likely goals, such as poverty eradication.
Easy to communicate	Yes, although partly depends on target	An aim to reduce economic inequality is clear enough to facilitate communication and should be easy to remember. However, setting what 'reduce' means will be important if civil societies are to hold governments and institutions to account.
Aspirational	Yes	Such a goal would be ambitious, signalling a clear break from current focus of, and approach to, development. As such they should promote meaningful action and inspire change.
Global in nature and universally applicable to all countries while taking into account different national realities	Yes, global in nature. Dependent on target	Inequality is a global problem so is universally applicable. It is difficult to set a target for countries because it is not clear what the 'right' level of economic inequality is. We consider how to address this challenge in Section 4.
Integrated or 'systems-based'	Yes	Goals should emphasise the need for integrated approaches that tackle synergies and trade-offs.

Criteria (for detailed descriptions see Table A1)	Fulfil criteria?	Comments
Consensus-based	In part	While the HLP report and the OWG may not have prioritised addressing economic inequality, consultations with the wider civil society and the development community suggest that there is strong support for action.
Dynamic	Yes	There can be additions and alterations if the context changes.
High-quality and consistent measurement	Gaps in data	Debates about the best measure of income and wealth inequalities are ongoing and there is a major issue with the lack of robust data as well as data time lags. We explore this issue in-depth in Section 4.
Solve a critical issue and have a strong impact on sustainable development, based on existing research	Yes	Section 2 outlined the evidence that demonstrates that economic inequality is a critical issue in development.
Transformative	Yes	Despite global concern, there are currently very few countries that are actively using policy to reduce economic inequality. As such, a headline goal that would ask all countries to reduce economic inequality would be a game-changer, forcing governments to think more innovatively about their economic models.

A goal to end extreme economic inequality

The rise in interest in economic inequality is not simply the outcome of stark figures but is grounded in the realisation that it is a fundamental driver of many of the social, economic, environmental and political challenges we face. Of course, as always, the relationships are complex and there is a need for more research, but whether you look at poverty reduction, sustainable growth or addressing disparities between groups, you find that, without addressing economic inequality, you risk slowing progress and undermining policy effectiveness.

Referring back to the principles for goals laid out in *The future we want* and reports by other key consulted groups, we find that a goal on economic inequality fulfils a number of key criteria. While there are some potential issues of data and measurement, broadly speaking a goal on economic inequality strongly reflects the values and aims of the post-2015 development agenda.

In light of our findings, we propose a standalone goal to end extreme economic inequality. We are not the first to propose this measure, and add our voice to similar calls from Oxfam[54] and prominent economists such as Professor Joseph Stiglitz.[55] A target to reduce economic inequality would reinforce measures to lower horizontal inequalities across all goals.

3. How the post-2015 framework and SDG recommendations address inequality

The MDGs have been criticised for their inability to deal with economic inequality, yet the issue barely features in the current post-2015 proposals. Here we look at the danger of neglecting economic inequality in favour of the many other supplementary targets to deal with poverty and inequality focused on specific social groups. Sidelining this issue means failing to address the wider impact of wealth accumulation on our democracy. It also ignores the link between economic equality and having other equal opportunities in society.

Shortcomings of the MDGs

Many lessons have been learned from the experience of implementing and trying to achieve MDGs and there are many wrongs to right. Key shortcomings of the MDGs are often linked to their failure to reflect the spirit of the document from which they originate, the *Millennium Declaration*. This global declaration contains a vision for creating a global and national environment that would end poverty, while ensuring development could be sustained for future generations. The MDGs, however, are composed primarily of people-focused goals, and have few targets that cover the factors enabling poverty reduction or that address the root causes of poverty and protect the environment.[56]

One of the central criticisms of the MDGs, and where it again departs from the central tenants of the *Millennium Declaration*, is the treatment of equality issues. MDGs use averages that support aggregate progress and ignore distributional issues. This 'low hanging fruit' approach allows for already excluded groups to be bypassed by progress towards MDG targets. Furthermore, this approach incentivises action directed only at those near the threshold at the expense of growing inequality or those at highest risk.[57] In the next section, we look at how current proposals have amended this oversight.

Current proposals to tackle economic inequality in the post-2015 framework

All key consultation processes (see Box 3) have resulted in recommendations on how to include the equality issue. These are summarised in Table 2, with exclusion of goals and targets only related to gender issues as these are outside the scope of this report.

We do not include the recommendations stemming from the UN Non-Governmental Liaison Service Consultation with civil society as these were set out as a collection of 25 themes pieced together from regional consultations rather than a specific set of agreed goals. According to this report, economic inequality alongside other types of inequalities were a dominant area of concern for civil society, with multiple calls for a post-2015 target to reduce inequalities of all kinds.[58]

Reducing inequality between groups

There are very few consultation reports that have explicitly included a target to reduce economic inequality, rather they focus on disparities between groups. *A new global partnership* strongly endorsed a 'No one left behind' principle, recommending that indicators that track goals should be disaggregated by gender, ethnic group, income levels, disability, and so on, and that targets should only be considered 'achieved' if they are met for all relevant income and social groups.[59] This move represents a big step in the right direction to address the equal opportunity component of ensuring equality.

The HLP also suggests universal targets such as 'universal access' (such as to infrastructure) or 'zero' deprivation (such as extreme poverty or hunger). Other consulted groups echo this recommendation.

Table 2: Equality goals, targets and indicators recommended by key consulted groups (excluding those related solely to gender)

	Specific goal/target on econ inequality	Relevant goals	Targets	Indicators
OWG on SDGs twelfth session[60] (16–20 June, 2014)	Yes there is a subsidiary target. However, it is not clear that this will remain in the final recommendations and it may be merged with Goal 1 (End Poverty)	Proposed goal 10: Reduce inequality within and among countries	Reduce income inequality in all countries such that the post-tax, post-transfer income of the poorest 40% is no less than the post-tax, post-transfer income of the richest 10%.[61] Universal targets across all possible areas.	Likely to be a measure of income growth for the bottom 40%.

	Specific goal/target on econ inequality	Relevant goals	Targets	Indicators
HLP report[62]	No	n/a	Universal targets such as 'universal access' (e.g. to infrastructure) or 'zero' deprivation (e.g. extreme poverty, hunger).	'No one left behind' – indicators that track goals should be disaggregated by income levels, gender, disability, age, regions and targets should only be considered 'achieved' if they are met for all relevant income and social groups.
Synthesis Report on the Global Thematic Consultation on Addressing Inequalities[63]	Yes, second-tier target	A self-standing global goal on inequalities, including economic inequalities and other key dimensions, with particular focus on gender inequalities and gender-related discrimination.	Universal targets where possible – 'inequalities' to be 'eliminated' Or, for all other targets, 'progressively reduced'.	Disaggregation across goals in order to focus on the situation of the most disadvantaged groups, and on the major drivers of inequalities in the economic, social, environmental, cultural and/or political domains. A ratio between the top decile (10%) and the bottom four deciles (40%) for any given outcome.
UN Global Compact report[64]	Yes, second-tier target	Goal 1: End poverty and increase prosperity via inclusive economic growth.	A target to reduce the Gini coefficient rating in each country by 30%.	Gini coefficient.
SDSN[65]	Yes, second-tier target	Goal 4: To achieve gender equality, social inclusion, and human rights.	Target 4a: Reduce relative poverty and other inequalities that cause social exclusion. Target 4b: Reduce by half the proportion of households with incomes less than half of the national median income (relative poverty).	Proportion of households with less than half of the national median income. The GNI share of richest 10% or the Palma ratio, defined as the ratio of richest 10% of the population's share of GNI divided by the poorest 40% of the population's share.

Focus on the most disadvantaged

The twelfth session of the OWG considered a 'Zero draft' of SDGs which outlined 17 potential goals. In this document, a goal on inequalities was included. This goal covers multiple forms of inequality. There was considerable resistance to including measures and targets on income inequality. Indications are that the OWG will go for a target to "sustain income growth of the bottom

40% of the income distribution of each country to reduce income inequalities by 2030". This measure corresponds to the World Bank's goal of shared prosperity,[66] but is not strictly speaking a goal to reduce overall economic inequality. Looking through earlier reports of the individual recommendations made by member states, there was only a minority of countries that called for a specific target to reduce economic inequality –including Pakistan, Netherlands, Colombia/Guatemala, Bolivia/Ecuador/Argentina.[67]

To ensure that the most disadvantaged are prioritised, several consulted groups and organisations have called for disaggregated indicators to be equity-weighted. This would entail weighting values of each variable of concern by lower income quintile or disadvantaged group, affording more importance to progress for those most in need.

Reduce income inequality
Three of the key consulted groups do have a sub-target to reduce income inequality. For instance, the Global Thematic Consultation on Addressing Inequalities recommended a self-standing global goal on inequalities, including economic inequalities and other key dimensions, with particular focus on gender inequalities and gender-related discrimination.

The recommendations on goals and targets from the business representatives involved in the UN Global Compact includes[68] a target to "reduce by 30% the Gini coefficient rating in each country" – this target sits under Goal 1: End poverty and increase prosperity via inclusive economic growth. This is positive as the private sector will be an important partner in delivering SDGs.[69]

The SDSN report, *Network indicators for sustainable development goals*, also has an explicit target to reduce income inequality and vitally considers indicators that measure inequality at the bottom and the top of the income distribution. However, as the target on reducing economic inequality is just a subsidiary of a goal, it could easily be sidelined. A goal to reduce economic inequality would set a clearer and more ambitious narrative, leading to a fundamental shift in development norms.

Gaps in the current recommendations
Overall the following conclusions can be drawn on the representation of economic inequality in SDG recommendations:

1. **Economic inequality has been sidelined in goal recommendations, and only features as a second-tier target:** Economic inequality is neither given sufficient visibility nor prioritisation across the key consultations. No one remembers the subsidiary target to address consumption inequalities in the MDGs[70] demonstrating just how important it is for economic inequality to be given headline status. As it stands, we risk the issue of economic inequality being buried among the many other supplementary targets.

2. **The issue of economic inequality has been highly conflated with equality of opportunity and social inclusion**: Most interpretations of 'equality of opportunity' do not acknowledge the role economic disparities play in people's ability to access education, services and jobs. This ignores

the considerable evidence that shows that social mobility is less likely in countries with high economic inequality.[71] The equality of opportunity approach has been tried and tested in the UK, where the focus has long been on increasing standards in education to address a poor record on social mobility.[72] However, growing incomes at the top have resulted in more expensive public schools emerging and a fall in social mobility.[73] Economic inequality is a fundamental driver of equality of opportunity and vice versa – we need both to ensure that either one is achieved.

The concept of social inclusion has a clear overlap with equality of opportunity and horizontal inequalities. While a breakdown by equality groups, geographical region, and so on, is vital to understanding the distributional impacts of policy, this is not a measure of economic inequality. A goal on poverty eradication, broken down by equality group for instance, would only provide a picture of which groups are being left behind by policy initiatives, rather than how economic resources are being shared overall.[74] There will be a clear residual that will not be addressed if only disparities between equality groups are given space in the SDGs.

Implicitly, an approach which only addresses equality of opportunity and social inclusion without pledging to reduce economic inequality takes the position that action only needs to be taken to the bottom end. The rich are allowed to keep getting richer. This is again an oversight. The concentration of wealth at the top is in itself pernicious – being strongly linked with rent-seeking behaviour.[75] The impacts of economic inequality described in the previous section are also the outcome of disparities in income and wealth, not just poverty.

3. **There is a general assumption that economic inequality will be tackled as a by-product of addressing issues of gender disparities, racial and religious discrimination and through policy-orientated initiatives such as job creation:** It is argued that setting universal coverage targets with respect to these essentials of human well-being would ipso facto address inequalities – as meeting the targets would require that even the poorest and most vulnerable be covered.[76] However, addressing economic inequality is fundamentally about doing something at both ends of the income and wealth distribution. It is possible that, while it will look like all groups are sharing in development progress, overall levels of economic inequality may not be falling. This situation can only be avoided by having both vertical and horizontal measures of inequality, that is, a standalone goal on economic inequality alongside the proposed disaggregation. In the same vein, economic inequality may or may not reduce because of policies on job creation, higher public sector spending, and so on. However, a direct goal on economic inequality would increase simplicity, build a clear narrative, and be less policy prescriptive allowing for greater scope for nations to set their own policy agenda.

There is another important point here about the failure of principles and criteria to result in greater visibility of economic inequality – this is especially true for the HLP and the OWG reports. While the criteria documented in Table A1 is open to interpretation, it is hard to see how a goal to reduce or end extreme economic inequality does not reflect the overarching ambition to have 'inclusive growth' or

'leave no one behind.' As highlighted in Table 1, reducing economic inequality fits well against a number of stated principles for the design of post-2105 goals. As such, it is not clear if criteria has been properly applied in existing recommendations as goals seem to be set out of sync with stated aims.

Why economic inequality features most strongly in consultations with civil society, and in SDSN recommendations, involving academics and think tanks, reflects the political nature of economic inequality. One of the most powerful effects of radical levels of economic inequality is that the political elite are either from a more wealthy background themselves and/or are strongly lobbied by the wealthy.[77] As such, there are strong forces pushing against the explicit inclusion of economic inequality, even when there is both clear public support and academic evidence to suggest it deserves more visibility. This is not a minor factor – there is clear evidence to suggest that wealth accumulation at the top directly affects politics and democracy.[78] We will return to this point in Section 5.

Box 3: The post-2015 development agenda engagement processes

Initially there were two tracks of engagement that were attached to the post-2015 development agenda: (1) post-Millennium Development Goals (MDGs), established following a mandate by the 2010 High-level Plenary Meeting of the General Assembly on the MDGs; and, (2) Sustainable Development Goals (SDGs), formed in line with agreements made at Rio+20 in 2012. These tracks are being brought together so that the final goals reflect the full breadth of stakeholder feedback.

Key post-MDGs consultations include:

1. The UN's High-level Panel (HLP) of Eminent Persons on the post-2015 development agenda, co-chaired by President Susilo Bambang Yudhoyono of Indonesia, President Ellen Johnson Sirleaf of Liberia, and David Cameron, prime minister of the UK. The panel also included leaders from civil society, private sector and government. The panel were asked to advise the UN Secretary-General on a bold but practical development agenda beyond 2015.

2. The United Nations Development Group (UNDG)'s global, thematic and national consultations, and citizens' outreach which included: national dialogues on post-2015 in more than 50 developing countries and 11 multi-stakeholder thematic consultations on inequalities; health; education; governance; conflict and fragility; growth and employment; environmental sustainability; hunger, nutrition and food security; population dynamics; energy; water; and wider public engagement through outreach processes to citizens and stakeholders in all countries, utilising available social media.

3. In addition to the national and global thematic consultations, there were regional consultations organised by the UN Regional Economic Commissions.

4. The Sustainable Development Solutions Network (SDSN), which is an independent global network of research centres, universities and technical institutions to help find solutions for some of the world's most pressing environmental, social and economic problems. It was launched by the UN Secretary-General and is based at the Earth Institute at Columbia University, directed by the Secretary-General's Special Adviser on the MDGs.

Box 3: continued

5. The UN Global Compact network of corporations were consulted to include the views and preferences of businesses.

6. The UN Non-governmental Liaison Service (UN-NGLS) gathered critical analysis from civil society on the UN post-2015 development agenda.

Track 2 has focused on an Open Working Group (OWG), composed of 30 members (representing 69 countries) nominated by member states from the five UN regional groups. This group has formed the nucleus of SDG negotiations and selection. The OWG held eight meetings between March 2013 and February 2014 to gather input on a range of thematic and cross-cutting issues. Between March and July 2014 their focus is on building consensus to develop recommendations on goals and targets for the SDGs by August 2014.

The primary mechanism for civil society and other stakeholders to engage with the OWG has been via the Major Groups system coordinated by Organising Partners who disseminate information, provide guidance, help prepare written statements, and facilitate participation and interventions at the OWG and other intergovernmental processes. There are nine major groups, including women, children and young people, indigenous peoples, non-governmental organisations, workers and trade unions, local authorities, business and industry, the scientific and technical community, and farmers.

An Expert Committee on Sustainable Development Financing was also convened to work alongside the OWG. This is an intergovernmental committee which was tasked with assessing financing needs, considering the effectiveness, consistency and synergies of existing instruments and frameworks, and evaluating additional initiatives. It is due to produce a report in September 2014 detailing options for an effective sustainable development financing strategy to facilitate the mobilisation of resources and their effective use in achieving sustainable development objectives.

The hierarchy of importance of these consultations has not been made explicit, but it is clear that the HLP report, *A new global partnership,* was agenda-setting, and that, because the OWG involves official representatives of member states, its outcome will have significant weight in the final choice of goals, targets and indicators.

Capturing a full sense of equality

Economic inequality may dominate socio-economic discussions but it has barely featured in current post-2015 SDG proposals. The OWG and the Secretary-General's HLP of Eminent Persons have side-stepped the issue of economic inequality and, to varying degrees, have chosen to focus their attentions on equality of opportunity and social inclusion. While some will see current proposals to disaggregate indicators by groups and have universal targets as ambitious, they only do half the job. As we discussed earlier, a sole focus on equal opportunity is deeply flawed because, without addressing economic inequality, measures to tackle equality of opportunity can only go so far. Equality must be captured in its fuller sense if we are to deliver the aims of Rio+20.

4. Measuring inequality in the post-2015 framework

Some claim that economic inequality is too hard to measure so is unsuitable for a standalone SDG. But this argument does not stand up. Compared to the imperfect measures of progress in the world of international development policy, economic inequality would be eminently measurable if the political will was there. Here we assess five potential indicators that the international community could use to track progress on this vital area.

Getting measurement right

Measurement of socioeconomic outcomes is notoriously problematic and selecting indicators always involves tradeoffs. For instance, the US$1.25 a day indicator for poverty reduction has faced fierce criticism for parodying the true level of poverty, but has also been commended for its simplicity.[79] Debates also rage on the use of GDP as a headline measure of economic progress. Many prominent economists argue that this has distorted policy-making to the point where economic growth is seen as an end in itself, and other objectives are sidelined.[80] These debates illustrate the power of indicators and hence how important it is to choose the right one. Surprisingly, very little attention has been played to indicators in the post-2015 discussions to date. Given their centrality to policy it would be a mistake to leave indicator selection purely to UN statisticians.

Using the right criteria to select indicators to measure inequality

"The purpose of SDG indicators is twofold. First, an indicator should be a management tool, to help countries develop implementation and monitoring strategies for achieving the SDGs and to monitor progress. Second, an indicator is a report card, to measure progress towards achieving a target and ensure the accountability of governments and other stakeholders for achieving the SDGs."
SDSN[81]

A key task of this research was to find robust inequality indicators to be used in the SDGs. The process was helped by the existence of a rich academic literature on criteria to select indicators. All indicator selection approaches consider purpose and audience, and broadly share the belief that indicators have three core purposes: to simplify; to quantify; and to communicate.

Indicators that sit under any goal should capture the essence of that goal in a meaningful way that explains why the goal was chosen in the first place. As Innes[82] writes:

> *"An indicator, like a piece of research, highlights certain aspects of a situation at the expense of others. It allows observers to 'see' the world through a particular lens."*

Taking the audience into account
The MDGs proved to have a number of audiences – politicians, policy-makers, non-governmental organisations and the public. The post-2015 goals are again likely to speak to a wide range of stakeholders. Figure 3 describes how there is an inverse relationship between the size of audience on the one hand, and amount and complexity of data on the other. Hence, when communicating to the public and their elected representatives, the amount and complexity of data needs to be very small.

Figure 3: Audience model for statistical products[83]

Size of audience

Public

Professional

Technical

Public

Professional

Technical

Amount and complexity of data
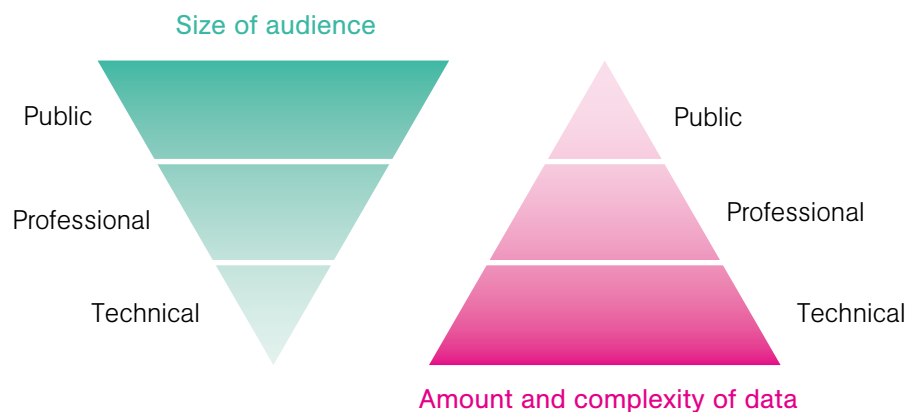
Source: Statistics New Zealand, reproduced in Scrivens and Iasiello, 2010

Previous research has also found that simplicity is important – NEF research[84] has shown that indicator initiatives were often most effective when they allowed for the production of a 'simple' and 'attractive' message. A proposal for indicators using complicated methods may make it more difficult for a goal on tackling inequality to succeed. We therefore think that the most effective strategy will be having a small set of indicators to sit under the goal on reducing economic inequality.

Key features of an effective indicator
We have compiled a list of criteria that summarises key features of effective indicators (see Table 3). This list reflects both the theory of as well as practice of indicator use for the purposes of furthering economic development and social justice. These indicator characteristics are grouped under three themes to ensure they meet the requirements of technical, policy and political/public audiences.

Data availability was also a criteria that we considered including. As highlighted by the UN Statistics Division, "… the main challenge is that the

required capacity to measure the full range of sustainable development indicators currently does not exist in most countries."[85] The SDSN points out that the MDG indicators have partly not fulfilled their dual purpose because the data comes with too great a time lag to be useful in management and accountability.[86] Furthermore, data from national statistical systems and household surveys is often incomplete and of poor quality.

Measuring economic inequality requires robust micro-data on household income, a challenging task in many countries.[87] However, given that the post-2015 goals will inevitably result in the need for more primary data collection, this is a good opportunity to lobby for certain indicators to be produced. Indeed, one argument for having a goal on economic inequality is that it will force governments to monitor trends in inequality, a long neglected area of socioeconomic statistics. The SDSN conclude, and we concur, that much greater investment in building national statistical capacities, strengthening quality and standards will be required to stop SDG indicators falling into the same pitfalls as MDG indicators.[88]

A process for selecting the right indicators

We assessed five popular measures of income inequality:

1. Gini coefficient

2. Palma ratio

3. P90: P10 income ratio

4. Coefficient of variation

5. Atkinson index.

(See Table 4 for outlines of these indicators.)

As well as two project researchers filling in a score sheet, we asked key academics and economists working in the development sector to provide responses to a survey (see Appendix B). Furthermore, this project relied on a high-level steering group[89] who were consulted on their indicator preferences. Both the survey and the steering group were used to ensure that our internal scoring was sensible and robust. As expected, given the technical knowledge needed to respond, the sample was small with only 10 people taking the full survey. However, our engagement processes did demonstrate how scoring indicators against robust criteria can help to legitimatise final choices.

Table 3: Criteria for indicators

Rio+20 outcomes document – *The future we want*	SDSN	NEF
· Disaggregation by gender · Scientifically based and sound · Reflect different capacities to collect data	· Clear and straightforward: indicators need to be simple to compile and interpret. · Consensus-based, in line with international standards: indicators should be based on international standards, recommendations, and best practices to facilitate international comparison. · Broadly consistent with systems-based information: to ensure coherence indicators should be broadly consistent with systems of national accounts, systems of environmental-economic accounting, and other systems-based information. · Constructed from well-established data sources: indicators should draw on well-established sources of public and private data and be consistent to enable measurement over time. · Disaggregated: preference should be given to indicators that lend themselves to disaggregation. · Universal: the set of SDG indicators as a whole needs to track a universal agenda. Many (though not all) core indicators should therefore be applicable in developed as well as developing countries. · Managed by a designated organisation.	**Additions** Technically effective: · Analytically sound, with a strong theoretical basis · Statistically reliable and valid · Sensitive to change · Designed and implemented using methods which seek to minimise all sources of measurement error. Politically effective: · Measure something important to delivering the goal · Offer a way that people can hold politicians and policy-makers to account · Be designed to facilitate comparisons over time and between places · Inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them. Policy effective: · Need to be seen as robust, credible and important in the context of SDGs · Need to be fit for purpose within the policy process itself, so that there are clear connections between post-2015 goals and more detailed policy indicators. **Disagreements** The stipulation by SDSN that indicators hould be constructed from well-established data sources greatly restricts the ability to address 'new,' relatively unexplored development areas; this in turn limits the ability to be transformative.

The Palma ratio – the best indicator to measure income inequality

While all measures are imperfect, some perform better than others. Overall, the results suggest a clear preference for the Palma ratio to measure income inequality. The Palma ratio is defined as the ratio of richest 10% of the population's share of GNI divided by the poorest 40% of the population's share. A ratio of 1 indicates that people in the top 10% on average earn four

times the income of people in the bottom 40%. In more unequal societies, the ratio is higher – for example, it is 7 in South Africa and 4.8 in Bolivia.[90] The Palma ratio is named after Gabriel Palma,[91] a Chilean economist who observed that middle-income groups (defined as the five 'middle' deciles, 5 to 9) tend to capture around half of GNI in most countries. The other half of national income is shared between the richest 10% and the poorest 40% but the share of those two groups varies considerably across countries.

Table 4: Scores for different measures of income inequality (see Appendix C for more detail)

Indicator	Outline of indicator	Average scores against criteria (out of 10)
Gini coefficient for income	A measure of the deviation of the distribution of income (or consumption) among individuals or households within a country from a perfectly equal distribution.	Technical effectiveness: 7 Political effectiveness: 4.2 Policy effectiveness: 3.3 Overall score: 5
Palma ratio	The ratio of richest 10% of the population's share of GNI divided by the poorest 40% of the population's share.	Technical effectiveness: 6.3 Political effectiveness: 6.6 Policy effectiveness: 7 Overall score: 6.6
P90: P10 income ratio	The income at the 90th percentile divided by the 10th percentile income.	Technical effectiveness: 5.8 Political effectiveness: 6.6 Policy effectiveness: 5.0 Overall score: 5.8
Coefficient of variation	The income distribution's standard deviation divided by its mean.	Technical effectiveness: 3.5 Political effectiveness: 3 Policy effectiveness: 2.7 Overall score: 3.1
Atkinson index	A normative and welfare-based measure of inequality that establishes a link between changes in inequality and changes in social welfare. The Atkinson index may be interpreted as 1 minus the proportion of mean income that would be needed to maintain, with an equal distribution of income, the existing level of welfare. This would, obviously, depend on how adverse one was to inequality and the Atkinson index allows one to adjust to different degrees of inequality aversion.	Technical effectiveness: 7.8 Political effectiveness: 4 Policy effectiveness: 4.3 Overall score: 5.4

In terms of technical effectiveness, the widely used Gini coefficient fulfils more statistical 'axioms' – desirable properties – than does the Palma ratio (see Appendix C). However, the Palma ratio overcomes some of the limitations of the Gini coefficient which is insensitive to changes in the top and bottom of the income distribution which is where most movement occurs,[92] while oversensitive to changes in the middle of the distribution.[93] The opaque nature of the Gini coefficient, partly because of the way it is calculated, means it performs poorly against political and policy effectiveness. In contrast, the Palma ratio offers a highly communicable indicator.

The Palma ratio has been gaining in popularity, but several shortcomings have been noted. One issue is the way it may hide inequality within the bottom 40% or in the top 10%. It is possible that this problem would be overcome with the right poverty measure, for example, a poverty measure that captured extreme poverty at the bottom end of the scale. Another problem is the way in which it ignores the middle 50%. While the shape of current inequality may mean that the middle is largely homogenous this may not always be the case. If there is a hollowing out in the middle of income spectrum, as is growingly apparent in several high-income countries, the use of the Palma ratio may hide an important part of the inequality story.

Turning to the other income inequality indicators tested, the 90:10 income ratio is readily interpretable, however, it ignores a significant portion of the population and scores poorly in terms of statistical robustness. The Atkinson index was deemed statistically robust but too complicated to be used as a communication tool.

The process of assessing indicators also highlighted that a measure of vertical inequality would be greatly complemented by the proposed plan to disaggregate by groups. One area of interest would be the age breakdown – that is, do young adults make up a greater share of the lower end of the income spectrum? Arguably, if there is high-income mobility over the life cycle, economic inequality is less harmful.[94]

A key question that arose during consultations was whether a measure of economic inequality should focus on pre-tax (before redistribution) or post-tax (final disposable income). As noted earlier, pre-tax inequality tends to be considerably higher than post-tax inequality. Studies have found that a focus on just one can make a real difference to observed trends in income and its distribution.[95] Importantly, the pre-tax distribution is a better indication of the underlying structural inequalities within a country, before government intervention. However, given the need to keep the number of indicators to a minimum, we would propose post-tax measures being used, simply because this is the actual level of inequality experienced by citizens.

Other indicators of economic inequality

Measures of income inequality alone do not fully reveal the most policy-relevant and destructive aspects of inequality. There are two particular gaps – wealth concentration and inclusive growth. While we did not go through the same scoring process for the proposed indicators below, they are recommendations based on the criteria set out earlier.

A measure of wealth inequality

The indicator criteria asks that indicators portray goals in the most relevant and harmful form. As such, given recent evidence on the damage that high wealth concentration does, including dampening social mobility,[96] increasing rent-seeking and political capture,[97] it would be optimal for a goal to reduce economic inequality to include a measure of the proportion of wealth concentrated in the top 1% wealthiest individuals. We choose individuals over households simply because this is easier to decipher from tax records, although it is likely that these records vary by country.[98] The global Occupy

movement popularised the use of the 1% slogan, making measures such as these highly communicable to the public.

Two major barriers to a measure of wealth concentration exist – political resistance and the absence of wealth data. To some extent political will could solve the issues of data – if we deem an outcome important enough to include in the post-2015 framework, we should invest in data collection and synthesis. However, this political commitment will be far from forthcoming. Wealth inequality is even more contentious than income inequality and many in the political elite would be strongly opposed to such a measure, despite its obvious merits. We return to the issue of politics in Section 5.

A measure of inclusive growth
Inclusive growth has become an important part of the development lexicon. It helpfully questions what share of growth is going to different groups, for example, to the bottom 10% versus the top 10% or 1%. This can be done with comprehensive tax records, such as the work by Saez at the University of California.[99] However, given that there are only a handful of countries that have mature tax systems, this work would be difficult to imitate for other countries in the short term.

The Asian Development Bank (ADB) have developed a series of indicators to measure the different income and non-income facets of inclusive growth.[100] This list provides several options from us to choose from, including a measure of the job output of growth or a measure of consumption growth between different deciles. However, given the need for simplicity, the measure we prefer is the change in real median incomes.

The median income measure, rather than a mean measure, is more relevant because it demonstrates the situation for the typical person or household. The London School of Economics (LSE) Growth Commission,[101] set up in the aftermath of the Great Recession, recommends that governments publish median household income alongside the data on GDP on a regular basis. The income figure would be the inflation adjusted median. Equivalised disposable income derived would provide an immediate impression of income growth for a typical citizen.[102]

A median measure would also sit well alongside the Palma ratio,[103] which as discussed ignores what is happening in the middle of the distribution. Together these measures would build a strong and highly communicable narrative of what is happening to the income distribution.

Other potential measures
Often multiple indicators are used for each target and, in the case of economic inequality, there are many other potentially useful and interesting indicators that could be used to demonstrate levels, impacts and sources of economic inequality. In particular:

- **A measure of between country inequality:** As highlighted earlier, between-country inequality is high, especially when comparing high- to low-income countries. For example, the poorest 5% of Americans earn 35 times more than the poorest Zambians, after adjusting for relative prices.[104] Given that globalisation has led to deeper integration across countries,

and improvements in communications and information technologies have heightened awareness, global inequality is increasingly difficult to ignore.[105] A measure of between-country or even between-region inequality would potentially attract commitments by developed countries regarding fair and equitable trading and financial systems.

- **Functional income distribution:** This is the distribution of income between different factors of production such as land, labour and capital. A measure of the share of wages or profits in national income would be instructive in understanding why economic inequality is increasing.

- **A measure of social mobility:** Equality of opportunity is the cornerstone of many of the existing proposals related to equality (set out in Section 3). As such, it may prove desirable to have an indicator that measures the likelihood of moving up the income spectrum within your lifetime and across generations. The problem here is the detailed household data that would need to be collected to measure social mobility over time and between generations.

Setting targets on tackling inequality

"We recognise that every country is wrestling with how to address income inequality, but felt that national policy in each country, not global goal-setting, must provide the answer. … countries differ widely both in their view of what levels of income inequality are acceptable and in the strategies they adopt to reduce it."
A new global partnership[106]

The above quote begs questions about why some issues are considered better left to nation states versus others that demand international attention. However, it is fair to point to the difficulties in target-setting on the reduction of economic inequality. As with goals and indicators, robust targets must fulfil a number of criteria, as detailed in Table A2.

Deciphering the level to which economic disparities should be reduced is not straightforward. In truth there is very little scientific evidence to suggest what the 'right' level of economic inequality is, other than a handful of studies which have found that a Gini coefficient of 0.3 is the point at which inequality begins to result in negative social outcomes.[107] Lars Engberg-Pedersen, a key proponent of a goal on economic inequality, advocates a national target should be to halve Palma ratios that exceed 1 by 2030, and globally to reduce the Palma ratio by 25% by 2030.[108] While this does provide flexibility for different country starting points, it may well be that this scale of inequality reduction will be enough to stop the damaging effects of economic inequality.

Many philosophers over the centuries have tried to establish what a just society would look like[109] – often this hinges upon how much inequality is acceptable within a particular society. This is why we advocate a process of collective deliberation. Such an approach would mean allowing nation states to set their economic inequality reduction targets. As the proponent of this idea, Alex Cobham[110] suggests that this should lower the political barriers to the inclusion of a goal to reduce economic inequality and should also result in competitive pressure for governments to set their target in an accountable

way, spurring governments to have public consultations to set targets. While some may think this could risk relatively light targets for inequality reduction, and/or that targets will be tainted by adaptive preferences, studies in the US[111] and the UK[112] suggest that the public tend to prefer relatively equal distributions of income and wealth. A further advantage is that the process of choosing a target would in itself invigorate the public debate around economic inequality.

Collecting data on economic inequality

Current inequality data is based on household surveys, some of which measure income and some consumption. This is problematic because the distribution of consumption tends to be more equal than that of income, and the differences in methods makes international comparison quite challenging. As SDSN suggest,[113] it would be ideal if the international community invested in expanding the collection of pure income-based data, for example, via the Luxembourg Income Study,[114] which currently has micro-data for 40 countries.

NEF's recommended indicators

Supported by the key criteria, we recommend three indicators of economic inequality:

1. The Palma ratio to measure income inequality

2. Change in the real median income

3. The concentration of wealth in the top 1% as a measure of wealth disparities.

Targets for inequality reduction would be best set by national governments who should be encouraged to have public consultations to deduce the exact target. This would allow for different country starting points and would make it more likely for a SDG on economic inequality to be accepted at by political actors.

5. Conclusions and recommendations

Addressing economic inequality is fundamental to the world we want to see in 2030. It is central to poverty eradication, environmental sustainability and inclusive and equitable economic growth. However, the current key influencing groups seem to think that more equality of opportunity will solve the problem – even though this has not worked in many developed countries. A clear SDG to deal with economic inequality would support the aims that the international community has set for sustainable development and for realising the human rights of all citizens.

When looking across the two tracks of engagement, the shortlist for post-2015 goals contains at least 50 potential goals, hundreds of potential targets and even more indicators. In this mix, economic inequality has only a subsidiary position. This is surprising given the attention it has been given on the economic stage – for example, hundreds of business and political leaders responding to the World Economic Forum's Global Risks survey have placed economic inequality at, or very close to, the top of the list of concerns for the past three years.[115] The Head of the International Monetary Fund (IMF), Christine Lagarde, has repeatedly warned of the damage that the high level of economic inequality is producing.[116]

Why this concern has not resulted in greater prominence of economic inequality within SDG recommendations begs consideration. As such, we have used this report to do three things. Firstly, we have built a case for why economic inequality is important enough to have its own standalone goal by drawing on both academic evidence and the principles for SDGs set out in *The future we want*. Secondly, we have considered how the issue is, or is not, being included in recommendations for SDGs and outlined where current proposals are falling short on representing equality in its fullest form. Finally, we use a scoring process by which to decide on the most robust and usable indicators of economic inequality. Conducting this process has had an added bonus – we were able to demonstrate how criteria can and should be used to build consensus and limit the degree to which politics co-opts decision-making.

The role of politics in focusing on economic inequality

This report has investigated why economic inequality is being marginalised within the post-2015 framework. The one point we have yet to examine in any depth is the role of politics.

In essence, economic inequality is a highly political issue – it links to a number of questions of just rewards, fairness and the need for economic hierarchy. Furthermore, as we have noted, a growing concentration of wealth at the top has powerful impacts on democracy and decision-making.[117] The Nobel Prize-winning economist, Joseph Stiglitz, has spoken at length about this topic, noting that those at the top will use political influence to achieve legal frameworks which increase inequality and instability. As such, economic inequality is filtering into decision-making at local, national and international levels – and it seems to be playing a role in post-2015 discussions. This is perhaps inevitable given the nature of multilateral negotiations, indeed Rio+20 outcomes were also set in a very political environment. However, a final set of SDGs defined wholly by politics is unlikely to be the most effective in delivering progress.

Next steps for the post-2015 framework and SDG selection process

Currently the consultation reports provide a number of potential directions for SDGs to take. This is unsurprising given the breadth of stakeholders involved and the natural inclination for each participating organisation or institution to 'fly their own flag' and champion their particular area of interest. As consultation processes close and decisions have to be made, it will be important to step back and ensure that the list of goals chosen reflect the narrative set within the Rio+20 Outcome document and fulfil the criteria that would result in a strong set of goals.

How the current long list of goals will be reduced is unclear. It is not immediately obvious what the vetting process for final goals will be, although a toolkit has recently been published to guide negotiations and decision-making in the OWGs. However, this toolkit only considers goals and targets, not indicators and may only be used for the OWGs.[118] A human rights 'litmus test' has also been produced which offers a useful guide to ensure goals reflect a human rights approach.[119] Ultimately, it will be the duty of the overseers of the process, in this case the UN Secretary-General, to ensure that goals fit together into a coherent and efficient framework. This process of consolidation must be transparent and robust, otherwise we risk the decision being co-opted by politics and by those who shout the loudest.

As noted earlier, criteria are always open to some interpretation. This is why while many consultation reports claim to have used the same or similar criteria, they have come up with a different set of goals. This does not show that the criteria is unhelpful, just that it is too broad or that it is not being properly applied.

We propose a scoring system whereby goals, targets and indicators are marked against criteria similar to those set out in Tables A1 and A2. This would force a closer look at the aims and principles of sustainable development and would be far more transparent than the processes currently employed.

Recommendations

Based on our research, we make three key recommendations:

1. **A standalone SDG to end extreme economic inequality.** Economic inequality is a headline issue and so deserves headline status within the SDGs. To allow for flexibility, targets for reduction can be set at the national level through public consultations. To ensure that these targets are context specific while also challenging, we advocate that national governments consult their country's populations to set targets in line with public preferences.

2. **The Palma ratio should be used as the primary indicator to measure income inequality**. This should be supplemented with at least two other indicators: (1) a measure of the distributional gains to growth, such as the change in real median incomes, which would provide an easy-to-communicate measure and complement the Palma ratio which does not capture changes in the middle of the distribution, and (2) a measure of wealth concentration, such as the share of wealth going to the top 1%.

3. **The final SDG decision makers, including the UN Secretary-General's support team, should employ a points-scoring process to choose final goals, targets and indicators.** Scoring should be against the criteria and aims set by the Rio+20 Outcome document to ensure the original aims of the framework are not overlooked and that the final decision is not co-opted by politics.

Goal or no goal, civil society must place addressing economic inequality at the heart of the development agenda. If economic inequality is ultimately excluded it will be up to us to monitor levels of economic inequality and push for policies that will help close the gap. We cannot afford to allow economic inequality to continue to grow unchallenged for another 15 years.

Appendix A

What makes a good SDG?

It is fundamental that SDGs should reflect the document from which they originate – in this case the Rio+20 outcomes document, *The future we want.*[120] This document sets an ambitious criteria for SDGs – asserting that SDGs must cover all three dimensions of sustainable development: poverty eradication; sustainable production and consumption; and, inclusive and equitable economic growth and create greater opportunities for all. These overarching and globally agreed criteria are in the first column of Table A1.

The future we want also specifies criteria for the characteristics of each goal, which is stipulated in the second column of Table A1. We add further sources of additions to the Rio+20 outcomes specifications. The first is from a combination of the official consultations – the HLP report, *A new global partnership,* the SDSN, an independent global network of research centres, universities and technical institutions and UN Global Compact report, *Corporate Sustainability and the United Nations Post-2015 Development Agenda.* While when taken together, *The future we want* and the SDSN goal criteria seem comprehensive, we add that goals should be transformative.

As set out in key consultation documents, the SDG framework should address key drivers of, and barriers to, sustainable and equitable development, tackle the root causes of poverty and address major new sustainable development challenges.[121]

Together this table reflects the desirable characteristics of SDGs. Many of the components included here are also reflected in the recently published toolkit that includes a series of questions to help guide the OWGs.[122]

What makes a good target?

In comparison to the goals, targets need to be more specific and operational. This is primarily achieved by attaching quantitative measures. Table A2 highlights the criteria specified in *The future we want,* as well as additions from the SDSN consultations and research. The SDSN points out that targets can be more technical than goals. There is relatively little controversy over what makes a good target, with most agree that targets need to be 'SMART' (specific, measurable, attainable, relevant, and time-bound). While we generally agree with the SDSN additional criteria, we note that the 'zero' definitions criteria may limit the ability to chose the most relevant and effective targets to promote social and economic progress.

Table A1: Criteria for SDGs

Rio+20 Outcome document overall principles	Rio+20 Outcome document – specific goals	SDSN[123] HLP[124] and UN Global Compact[125] additions	NEF additions
· Be based on Agenda 21 and the Johannesburg Plan of Implementation. · Fully respect all the Rio Declaration principles. · Be consistent with international law. · Build on commitments already made. · Contribute to the full implementation of the outcomes of all major summits in the economic, social and environmental fields. · Focus on priority areas for the achievement of sustainable development, being guided by *The future we want*. · Address and incorporate in a balanced way all three dimensions of sustainable development and their interlinkages. · Be coherent with and integrated into the UN development agenda beyond 2015. · Not divert focus or effort from the achievement of the MDGs. · Include active involvement of all relevant stakeholders, and therefore be a consensus-based process.	· Action-oriented: goals should point to and inspire specific policy action. · Concise and limited in number: like the eight MDGs, the post-2015 goals should be few in number and easy to learn. · Easy to communicate: one of the key benefits of the MDGs is that all stakeholders, in both the global north and south, were able to grasp what they meant. This has made it easier for civil society to hold relevant institutions to account. · Aspirational: goals need to set a challenge for countries to prompt innovative action. · Global in nature and universally applicable to all countries. Taking into account different national realities, capacities and levels of development and respecting national policies and priorities. SDGs should also challenge both high-income countries and emerging economies to act.	· One set of goals that provides a coherent generation-long narrative. · Set normative standards around which international cooperation for sustainable development can be organised. · Integrated or 'systems-based' goals: goals should emphasise the need for integrated approaches that tackle synergies and trade-offs. · Coherent with other intergovernmental processes, such as negotiations on carbon limits · Dynamic: to allow for additions and alterations given a changing context. · High-quality and consistent measurement. · Solve a critical issue, and have a strong impact on sustainable development, based on existing research.	· Transformative: as set out in key consultation documents, the SDG framework should address key drivers of and barriers to sustainable and equitable development, tackle the root causes of poverty and address major new sustainable development challenges.[126]

Table A2: Criteria for targets

Rio+20 Outcome document	SDSN additions[127]	NEF
SMART[128]: · Specific: targets must be clear and well-defined. Vague or generalised goals are unhelpful because they do not provide sufficient direction. · Measurable: targets should in precise targets and dates, so the degree of success can be gauged. · Attainable: targets must be realistic yet challenging. · Relevant: targets should be relevant to the direction in which countries and the global community want to go in. · Time-bound: targets must have a deadline. Just as for personal targets, development targets with deadlines increase the sense of urgency and should ensure achievement comes sooner than without a deadline.	· Applicable to all relevant stakeholders: targets need to speak to all relevant stakeholders, including sub-national governments, business, and civil society. · Consistent with existing international targets such as the Aichi Biodiversity Targets. · Universal but adaptable to local contexts: the SDSN recommends that targets be quantified at the global level so that they can effectively galvanise action around the world. · Clear on their definition of 'zero' deprivation.	Disagreements: There is a danger that, by choosing targets that lend themselves to 'zero' definitions, we will pick targets that sit neatly within this framework, rather than choose the most effective targets to promote social and economic progress.

Appendix B
Copy of expert survey circulated for this research
(originally conducted using Survey Monkey)

Measuring inequality in a post-2015 framework

Introduction

The Millennium Development Goals (MDGs), which have provided a framework for development since 2000, are currently being updated. The issue of economic inequality (i.e. disparities in income and wealth) has received considerable attention in the post-2015 discussions.

The New Economics Foundation (NEF) are interested in your views on whether we need a specific goal on economic inequality and what indicators would best represent the issue.

We ask those participating in this survey to judge selected indicators on a scale of 0–10 for political, policy and technical effectiveness.

Please note: You do not need to have an-depth understanding of each indicator to participate – simply answer the questions you can about the indicators you are familiar with. For example, you may feel most comfortable answering questions regarding the political effectiveness of the Gini coefficient and Palma ratio.

It is our intention to publish a report in summer 2014 to disseminate our findings and contribute to the post-2015 discussions. We will not be attributing votes or comments from this survey to any named individual.

Please fill in your response by Friday 4th April at 5pm. We thank you in advance for your time.

Dr Faiza Shaheen
Senior Researcher and Programme Coordinator – Economic Inequality
Faiza.Shaheen@neweconomics.org

1. Name:

2. Position:

3. Organisation:

4. Sector:

    ☐ Sector: Higher Education (Academic)

    ☐ Higher Education (Student)

    ☐ NGO

    ☐ Government

    ☐ Other (please specify)

5. Email:

6. Country:

7. Would you like to receive additional information regarding this research project?

    ☐ Would you like to receive additional information regarding this research project?

    ☐ To be added to the NEF mailing list

    ☐ Other (please specify)

8. Do you think there needs to be a stand-alone goal on economic inequality?

    ☐ Yes

    ☐ No

    ☐ Don't know

    Comments:

Part 2: Measuring income inequality

We intend to include proposals for a measure of wealth inequality, but are currently focused on the best indicator of income inequality. Please score each indicator against the criteria from 0 to 10, with 0 meaning that the indicator does not meet the criteria at all and 10 that it meets it completely.

We will ask for you to score the following indicators:

• Gini coefficient

• Palma ratio

• 90:10 income ratio

• Coefficient of variation

• Atkinson index

Gini coefficient [Same questions for all other indicators]

9. Have you heard of this indicator?

☐ Have you heard of this indicator? Yes, and have a good understanding

☐ Yes, but do not know any details

☐ No

10. Scores on political effectiveness
To what extent is this indicator: (Not at all = 0, completely = 10)

a) Simple, clear, and easily graspable?

b) Able to measure something important to delivering the inequality goal as well as in keeping with the spirit of the Millennium Declaration?

c) Able to offer a way that people can hold politicians and policy makers to account.

d) Designed to facilitate comparisons over time and between place?

e) Able to inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them?

11. Scores on policy effectiveness
To what extent is this indicator:

a) Robust?

b) Able to represent the subject in its most relevant form, in particular direct attention to the aspect that is particularly destructive?

c) Fit for purpose within the policy process itself, so that there are clear 'connecting rods' between post-2015 goals and more detailed policy indicators?

12. Scores on technical effectiveness
To what extent is this indicator:

a) Analytically sound, with a strong theoretical basis (does it meet axiomatic and transfer principles? Is it transfer sensitive and subgroup consistent?)

b) Statistically reliable and valid (does the data incorporate enough people to represent the whole population? Does it measure what it is supposed to measure or is it compounded by other factors?)

c) Sensitive to change (also consider if it is over-sensitive to change in particular parts of the distribution)?

d) Designed and implemented using methods which seek to minimize all sources of measurement error?

25. Are there any other indicators that you think would score well against these criteria?

26. Do you have any other thoughts or comments on the issues raised in this survey?

Appendix C

Gini

The Gini coefficient can be said to show the measure of the deviation of the distribution of income (or consumption) among individuals or households within a country from a perfectly equal distribution. The Gini measures the average difference between pairs of incomes in a distribution, relative to the distribution's mean.[129] This can be expressed as:

$$Gini = \frac{1}{2\,n^2\,\overline{y}} \sum_{i=1}^{n} \sum_{j=1}^{n} \left| y_i - y_j \right|$$

The Gini can also be calculated through plotting a Lorenz curve – the cumulative percentages of total income received against the cumulative number of recipients – and measuring the area between the curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line.[130]

A value of 0 represents absolute equality, a value of 1 absolute inequality, (sometimes these measures are also multiplied by 100 to get an index between 0 and 100).

Technically effective

a) Analytically sound, with a strong theoretical basis.
The Gini coefficient is arguably analytically sound with a strong theoretical basis. In terms of axiomatic principles deemed necessary for a measure of inequality the Gini coefficient satisfies all the invariance properties of symmetry, population invariance, scale invariance, and normalisation. In addition, it satisfies the transfer principle, meaning that if at least one regressive transfer takes place in distribution x to create distribution x', then the level of inequality in x' is strictly higher than that in x.[131]

However, the Gini coefficient is neither transfer sensitive nor subgroup consistent. It is not transfer sensitive because the Gini coefficient changes by the same amount whether transfers take place between poor people or between rich people.

For example, in Table 1 below, the three income distributions show £100 being shared between two individuals at different points of the income distribution, however, the Gini coefficient for each of these distributions remains unchanged. This may not be the desired result for an indicator for income inequality as it fails to capture the change in relative rather than absolute incomes. Therefore by the Gini alone the fact that individual p4 in Income distribution 1 has increased their income by 50% and p5 has reduced theirs by 25% is measured equally to individual p9 in distribution 3 increasing their income by 16.7% and p10 reducing theirs by 12.5%, everything else equal. The first distribution has therefore a much greater effect on the fortunes of those down the lower distribution which isn't picked up in this measure of inequality.

Population	Income dist 1	Income dist 2	Income dist 3
p1	£100	£100	£100
p2	£100	£100	£100
p3	£100	£100	£100
p4	**£150**	£100	£100
p5	**£150**	£200	£200
p6	£200	£200	£200
p7	£200	**£250**	£200
p8	£300	**£250**	£300
p9	£300	£300	**£350**
p10	£400	£400	**£350**
Gini	**0.265**	**0.265**	**0.265**

Table C1: 3 income distributions with identical Gini coefficients

The Gini coefficient is also not subgroup consistent meaning that if the inequality in some subgroups increase while inequality in other subgroups does not fall, then the overall inequality may still register a decrease.[132]

Finally, similar Gini coefficients may be calculated from rather different distributions and patterns of inequality, for example, the Lorenz curves of two different distributions may intersect meaning that a single number would provide an ambiguous interpretation or comparison of inequality.[133]

b) Statistically reliable and valid.
The Gini can be said to be statistically reliable and valid as it incorporates all the data within a distribution to essentially a measures of how close a population's income (or consumption) distribution is to mathematical equality. However, statistical reliability does not necessary mean it is an analytically reliable indicator. For example, as demonstrated above, it is very sensitive to changes at the top and middle of the income distribution, 'so that reductions could come about through reductions in the income of the richest, for example during a period of economic crisis, without reflecting any actual improvements in the lives of the poorest.'[134] Such a situation occurred in Greece during their recent financial crash and sovereign debt crisis.[135] Similar Gini coefficients can also mask very different distributions and the overall figure does not necessarily reveal much about where the concentration of wealth lies.

c) Sensitive to change.
The Gini is sensitive to change. However, when there is a change in the income distribution it is unclear from the Gini coefficient alone what exactly has changed. Although the principle of transfers (progressive transfers) is satisfied, the Gini can be oversensitive to the middle of the distribution which can create perverse results. For example, a fall in the share of the income distribution of the middle and lower sections can result in a lower Gini, despite the rich pulling away from the rest – this has been shown to be the case, for example, in Mexico between 1990 and 2010.[136] Similarly when inequality is

fairly high, small changes in the Gini coefficient can obscure large changes in relative incomes in the distribution, changes which are picked up using other inequality measures.[137]

d) Designed and implemented using methods which seek to minimise all sources of measurement error.
The Gini does consider the entire distribution and so far as data is available and reliable minimises sources of measurement error.

Politically effective

a) Be simple, clear and easily graspable.
The Gini is a fairly simple indicator however it is not especially intuitive, needing some explanation on how it is calculated and why a specific result occurs.

b) Measure something important to delivering the inequality goal as well as in keeping with the spirit of the Millennium Declaration.[138]
The Gini fails to indicate specifically where inequality in a distribution exists only that it is there, therefore tells us very little in regards to poverty and human development.[139]

   "In the case of the Gini coefficient, the effect of a transfer between a richer and a poorer person depends only on the difference in their ranks in the distribution it does not depend on how poor the poorer person is."[140]

c) Offer a way that people can hold politicians and policy makers to account.
The causes of changes in the Gini coefficient are obscure, requiring investigation and interpretation, which gives undue authority to the opinion of "experts" over the general public. Since the Gini is unlikely to be intuitive to the general public it is not a good measure in which to hold leaders and policy makers to account.

d) Be designed to facilitate comparisons over time and between places.
It can facilitate comparisons between places as it is a standardised measure between 0 and 1 and so is easily comparable. However, it is crucial that different places are measuring the same thing, for example, pre and post tax and benefits income, or including or excluding in-kind social transfers such as health and education. This problem can be overcome by standardising the initial data. However, different income distributions can have similar Gini measures which can mean comparison only using the Gini can be difficult.

The Gini, as with many other of the inequality measures, is comparable overtime only as a snapshot; it fails to capture any dynamic inequality such as changes in income due to age and the life-cycle or social mobility factors (i.e. Do people remain in different parts of the income distribution at different points in time or do people move between groups?)

e) Inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them.

Although the Gini is considered relatively neutral, it contains, as with other inequality measures, normative assumptions on what types of inequality we should care about. For example, through the lack of transfer sensitivity it implies that inequality between the top and bottom ends of an income distribution are not any more important than differences within the middle of the distribution.[141]

Policy effective

a) Need to be seen as robust, credible and important in the context of key policy goals.
Is has gained credibility as a measure through its near universal adoption and acceptance, however, says very little about specific policy goals.

b) Need to be fit for purpose within the policy process itself, so that there are clear 'connecting rods' between post-2015 goals and more detailed policy indicators.
Since the composition of the Gini and reasons for its level are obscure and particular to individual countries, there is no clear link between the Gini and policies which achieve greater equality. No concrete connections can be made with the Gini coefficient and policies which may lower it, there is also no direct link between the Gini and growth nor the Gini and absolute poverty reduction.[142]

Palma ratio

The Palma ratio measure of inequality is the ratio of the share of income of the top 10% of households to the bottom 40% of households. These specific percentile groups are chosen on the grounds that the 50% of households between the 50th and 90th percentiles receive a fairly consistent share of country's income overtime – roughly 50% of countries income distribution. Given this stylised fact, notice by Gabriel Palma, it has been argued by Cobham and Sumner that it is in the tails of the income distribution where differences in income (and wealth) inequality show up and therefore need measuring.[143]

Technically effective

a) Analytically sound, with a strong theoretical basis.
Theoretical acceptance depends on acceptance of the stylised fact about the middle 50% of the income distribution. It is, however, arguably preferable to the Gini, as the measure can fully explain the Gini while ignoring parts of the distribution we might care less about if we care about the extremes of inequality. Difference in the Gini "are driven almost entirely by the same differences as those reflected in the Palma – but only with the Palma is this made clear."[144] However, this could be due to the way data has been collected, focussing on estimating the Gini.

It could be argued that the Palma ratio is a good analytical tool to distinguish between 'merit inequality' and 'privilege inequality', ignoring the former to expose the latter.[145]

Perhaps biggest flaw is that it fails the weak transfer principle – if at least one regressive transfer takes place in distribution x to create distribution x', then the level of inequality in x' will not necessarily be measured as higher or even the same as that in x.[146] Therefore, as with other summary measures, additional measures would be necessary as perverse results could be generated if Palma was used as the only measure of inequality.

b) Statistically reliable and valid.
Although it partially incorporates the entire distribution through measuring percentiles, it fails to measure inequality in the middle, albeit deliberately.

c) Sensitive to change.
The Palma turns out to be more sensitive than the Gini to changes in inequality around the top and bottom, as it doesn't overemphasise the middle in the same way. However, it doesn't measure changes in inequality within the tails (between the poor and between the rich). This may be particularly significant as the top 1% ought to arguably be measured separately from the top 10% – a super-Palma ratio (P40:P99) has been suggested which could do this.[147]

The Palma ratio is transfer sensitive provided transfer happens within the range measured (relative inequality matters when there is a transfer).

d) Designed and implemented using methods which seek to minimise all sources of measurement error.
Theoretically yes, but depends on the quality of the country data.

Politically effective

a) Be simple, clear and easily graspable.
The Palma ratio is arguably a very simple measure, simply the wealth of the rich divided by the wealth of the poor.[148]

b) Measure something important to delivering the inequality goal as well as in keeping with the spirit of the Millennium Declaration.
The Palma offers the potential advantage of being explicit about the type of inequality which is prioritised and measured. Since extreme forms of inequality are associated with elite economic and political capture then a focus on the very rich and the bottom 40% would be consistent with the clause that 'No individual and no nation must be denied the opportunity to benefit from development.'[149]

c) Offer a way that people can hold politicians and policy makers to account.
The Palma ratio is a clear measure which is intuitive and easily understood. It also focuses specifically on a form of inequality which resonates with the general public.

d) Be designed to facilitate comparisons over time and between places.
The Palma ratio suffers from the same problems as the Gini in only being a snapshot measure. It is no worse at comparing inequality over place and time.

e) Inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them.

Collecting and reporting income data of top could be difficult, especially if conducted by elites in charge, as data may be manipulated or not forthcoming. While the normative assumptions which are explicit in the Palma ratio could be considered to invalidate political neutrality, it is no less neutral to include the rich than it is to ignore them as the Gini coefficient arguably does.

Policy effective

a) Need to be seen as robust, credible and important in the context of key policy goals.
The Palma ratio is able to capture the changes in inequality that the Gini does, however, out of the two, only the Palma ratio lends itself clearly to policy prioritisation.[150]

b) Need to be fit for purpose within the policy process itself, so that there are clear 'connecting rods' between post-2015 goals and more detailed policy indicators.
No direct links, although the Palma ratio is arguably better than the Gini in measuring political capture by elites. Although there are correlations with progress on the Palma measure and the MDGs: 'countries that reduced their Palma exhibit mean rates of progress which, compared to countries with rising Palmas, are three times higher in reducing extreme poverty and hunger, twice as high in reducing the proportion of people lacking access to improved water sources, and a third higher in reducing under-five mortality.'[151]

P90:P10

The 90/10 ratio is the income at the 90th percentile divided by the income at the 10th percentile. It is often used by labour economists as a measure of earnings inequality. Although it is readily interpretable, it ignores information about incomes in the middle of the income distribution, and does not use information about the distribution of income within the top and bottom deciles.

Technically effective

a) Analytically sound, with a strong theoretical basis.
The 90/10 ratio satisfies the symmetry, population and scale invariance principles but, like the Palma, violates the weak transfer principle. A regressive transfer between people at the 5th percentile and the 10th percentile can raise the 10th percentile income, thus lowering inequality as measured by the 90/10 ratio, when inequality has in fact risen. Therefore, while the 90/10 ratio can be an informative, if crude, measures of inequality, conclusions drawn from this measure require additional scrutiny.[152]

The average P90/P10, (rather than the 90th and 10th decile, but the average incomes above and below these points respectively), wouldn't suffer from such a problem although the transfer principle could still be violated outside of these measures.

b) Statistically reliable and valid.
The 90/10 does get across information about the very top and the very bottom but it measures a narrow range of the distribution and possible inequality that exists.

c) Sensitive to change.
The 90/10 only measures a small part of the distribution and doesn't therefore satisfy the principle of transfers (progressive principle). However, it is transfer sensitive provided a transfer happens within the required range being measured. As with the Palma, the 90/10 fails to pick up changes in inequality within the top and bottom deciles.

d) Designed and implemented using methods which seek to minimise all sources of measurement error.
The 90/10 only looks at a small part of the distribution and fails to measure changes in inequality within the tails (between the poor and between the rich). These factors mean the measure may produce inaccurate representations of inequality over the whole distribution.

Politically effective

a) Be simple, clear and easily graspable.
The 90/10 is a simple measure of the richest 10 percent relative to the poorest 10 percent.

b) Measure something important to delivering the inequality goal as well as in keeping with the spirit of the Millennium Declaration.
Gets to the heart of access and social inclusion for all, comparing the very richest and poorest, but in ignoring so much of the distribution this measure is not able to capture the principles of the Millennium Declaration alone (e.g. all people, all groups).

c) Offer a way that people can hold politicians and policy makers to account.
The 90/10 is an easily understandable and a clear measure, with little room for manipulation or interpretation.

d) Be designed to facilitate comparisons over time and between places.
The 90/10 presents a snapshot impression of inequality between the richest and poorest, however, the fact that it misses out such a large proportion of the distribution makes comparisons over time and between places less meaningful.

e) Inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them.
Deciding that 90/10 ought to be the specific ratios could be contentious, for example, in a highly unequal country changes in the 99/10 may be more meaningful.

Policy effective

a) Need to be seen as robust, credible and important in the context of key policy goals.

As noted above choosing the ratios themselves could be contentious, where different economic and political context may favour different ratios. Also ratios alone are not necessarily robust measures which provide credibility in a policy context.

b) Need to be fit for purpose within the policy process itself, so that there are clear 'connecting rods' between post-2015 goals and more detailed policy indicators.

Despite the choice of ratio being a contentious one, whichever ratio is chosen would suggest a fairly clear policy response, as those groups the measures targets could be the target groups of economic policy.

Coefficient of Variation (CoV)

The Coefficient of Variation is a distribution's standard deviation divided by its mean.

$$CV = \frac{\sqrt{V}}{\bar{y}}$$

Technically effective

a) Analytically sound, with a strong theoretical basis.

Although a useful tool for analysing the dispersion of a distribution has little theoretical basis, for example, what is a "good" ("bad") CoV for an acceptable (unacceptable) level of inequality.

b) Statistically reliable and valid.

It measures the mathematical dispersion of income, however, has two important limitations. First, that it does not have an upper bound, unlike the Gini coefficient, making interpretation and comparison somewhat more difficult; and second the two components of the CV (the mean and the standard deviation) may be influenced by anomalously low or high income values. Therefore the CV would not be an appropriate choice of income inequality measure if a country's income data did not approach a normal distribution.[153]

c) Sensitive to change.

The CoV can be criticised on grounds similar to those on which Gini was criticised in that it is not transfer sensitive. It does not matter in the slightest where in the distribution a regression (or progressive) transfer takes place. Whether the transfer is from a person with £500 to a person with £400, or from a person with £100,100 to a person with £100,000, the reduction in the CoV is exactly the same.

The CoV has a number of additional measurement properties. It will be particularly good at capturing inequality among high incomes, but may be of more limited use in reflecting inequality elsewhere in the distribution.[154] An alternative way to say this is a that one-unit transfer of income between two

rich people has the same effect on inequality as does a one-unit transfer of income between two poor people the same initial income distance apart.

The same inequality distribution at different means gives different results. This may not be a bad thing, as may in a sense capture relative inequality (i.e. The Cov for the same amount of inequality becomes larger when the mean is low).[155]

CoV is not translation invariant which is not necessarily a problem, as when a value is added to all, relative inequality falls (i.e. equal growth).

However, CoV can produce perverse results on its own. Suppose society becomes more inequal but richer (with the standard deviation rising but not as much as mean), then inequality as measured by CoV would fall.

d) Designed and implemented using methods which seek to minimise all sources of measurement error.
Incorporates the whole distribution and applies a mathematically sound approach to a standardised measure of dispersion around the mean.

Politically effective

a) Be simple, clear and easily graspable.
The CoV is a relatively simple and easily explained measure, although does require a simple explanation to non-mathematically minded public.

b) Measure something important to delivering the inequality goal as well as in keeping with the spirit of the Millennium Declaration.
As with the Gini the CoV measures the dispersion but not the skewness of the income distribution, so misses an essential aspect of inequality. Therefore not enough on its own to know if inequality is centred around the top, middle or bottom of the distribution.[156]

c) Offer a way that people can hold politicians and policy makers to account.
The fact that the CoV can produce perverse results and that there is a lack of any clear understanding about what is an acceptable level of inequality from the CoV, means it is difficult to imagine using the CoV to hold politicians to account.

d) Be designed to facilitate comparisons over time and between places.
Since CoV is not bounded from above, (i.e. tends to become larger especially when mean income is low), it seems not a good measure for comparing different countries with different standards of living. A CoV target measure for rich countries may therefore need to be different than that for poorer countries and even country-specific altogether.[157]

e) Inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them.
Since the CoV simply measures the mathematical dispersion of income it could be seen as being neutral, however, as mentioned above, it can still lead to perverse results.

Policy effective

a) Need to be seen as robust, credible and important in the context of key policy goals.
It is unclear how the CoV would relate to policy goals – given the measure changes with different means it seems even less clear than the Gini in this respect.

b) Need to be fit for purpose within the policy process itself, so that there are clear 'connecting rods' between post-2015 goals and more detailed policy indicators.
'Connecting rods' to policy goals are eqaully unclear.

Atkinson

The Atkinson class of measures has the general formula:

$$A_\varepsilon = 1 - \left[\frac{1}{n} \sum_{i=1}^{n} \left[\frac{y_i}{\bar{y}} \right]^{1-\varepsilon} \right]^{1/(1-\varepsilon)}$$

where ε is an inequality aversion parameter, $0 < \varepsilon < \infty$. The higher the value chosen for ε the more society is concerned about inequality, where a value of infinity implies the measure is concerned only with the income position of the very lowest income group. The class of measures range from 0 to 1, with zero representing no inequality.

The Atkinson series of measures are thus able to vary the sensitivity of the measure to different parts of the income distribution. In practice, ε values of 0.5, 1, 1.5 or 2 are used; the higher the value, the more sensitive the Atkinson index becomes to inequalities at the bottom of the income distribution.[158]

Technically effective

a) Analytically sound, with a strong theoretical basis.
Atkinson argued that this index was a way to incorporate Rawls' conception of social justice into the measurement of income inequality.[159] The measure satisfies all axiomatic principles of an inequality measure. In particular the measure is additively decomposable and therefore can be used to explore inequality between groups within a single distribution.

b) Statistically reliable and valid.
As said above, the Atkinson series satisfies all four invariance properties: symmetry, population invariance, scale invariance and normalisation. In addition, unlike the quantile ratios and the partial mean ratios, measures in this class satisfy the transfer principle, transfer sensitivity, and subgroup consistency. Therefore not only would one regressive transfer always lead to a more regressive distribution but, if transfers take place between poor people, then the inequality measure changes more than if the same amounts of transfers take place among rich people (transfer sensitive). Finally, because these measures satisfy subgroup consistency, they do not lead to any inconsistent results while decomposing across subgroups. So if inequality in

certain subgroups increases while inequality in the others does not fall, then overall inequality increases. However, measures in this class are not additively decomposable.[160]

c) Sensitive to change.
The Atkinson series is sensitive to changes in the distribution and can be made increasingly sensitive depending on aversion to inequality variable.

d) Designed and implemented using methods which seek to minimise all sources of measurement error.
Theoretically yes, but depends on the quality of the country data.

Politically effective

a) Be simple, clear and easily graspable.
The Atkinson requires a relatively complex mathematical calculation which is difficult to explain intuitively. The intuitive interpretation of this index is that Atkinson values can be used to calculate "the proportion of total income that would be required to achieve an equal level of social welfare as at present if incomes were perfectly distributed." For example, an Atkinson index value of 0.20 suggests that we could achieve the same level of social welfare with only $1-0.20 = 80\%$ of income.[161]

b) Measure something important to delivering the inequality goal as well as in keeping with the spirit of the Millennium Declaration.
The inequality aversion variable can be used to focus very specifically on the global poor. However, an aversion variable would have to be agreed.

c) Offer a way that people can hold politicians and policy makers to account.
Since the Atkinson series is intuitively difficult to understand it would therefore not be easy to hold leaders and policy makers to account. However, many Atkinson measures together with different aversions would show exactly where inequality within a distribution is occurring.

d) Be designed to facilitate comparisons over time and between places.
The detail of the type of inequality which the Atkinson series could reveal enables informative comparisons over time, however, to be used comparatively between countries would require an agreed standardised level of inequality aversion.

e) Inspire public confidence in their neutrality – they must not be seen as part of government or institutional propaganda and there should be an appropriate distance between official production of the figures and political reaction to them.
Deciding on a single inequality aversion measure will be contentious – requires normative values about inequality and welfare.[162] Should development countries, for example, care as much or more than developed countries about inequality, or should the aversion variable be consistent across countries?

Policy effective

a) Need to be seen as robust, credible and important in the context of key policy goals.
Not intuitive enough to be able to lead on policy goals.

b) Need to be fit for purpose within the policy process itself, so that there are clear 'connecting rods' between post-2015 goals and more detailed policy indicators.
The Atkinson measures are certainly credible and comprehensive measures of inequality within an income distribution able to show exactly where inequality within a distribution is occurring.[163] This could lead to clear policy goals in terms of where measures ought to be targeted (e.g. taxing the very rich or providing social and monitory transfers to the lower-middle classes). Furthermore since subgroup consistent principle is satisfied, they could be used as a detailed measure of where inequality is taking place and recommend, therefore, policies which targeted specific groups or specific development issues.

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