



GROWTH POLICY

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CONSIDERED

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Health & Development Policy – Growth Policy (2020 Considered Idea)

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This is a summary report about growth policy. Due to its low probability of success, we do not recommend this intervention despite its potential to be highly cost-effective.

Thanks to Karolina Sarek and Erik Hausen for reviewing the research, and to Joe Benton, Antonia Shann, Fin Moorhouse, and Urszula Zarosa for their contributions to this report. We are also grateful to the six experts who took the time to offer their thoughts on this research.

For questions about the content of this research please contact Ali Ladak at ali.ladak@charityscience.com. For questions about the research process, charity recommendations, and intervention comparisons please contact Karolina Sarek at karolina@charityscience.com.

Charity Entrepreneurship is a research and training program that incubates multiple high-impact charities annually. Our mission is to cause more effective charities to exist in the world by connecting talented individuals with high-impact intervention opportunities. We achieve this through an extensive research process and through our [Incubation Program](#).

Research Process

Before opening the report, we think it is important to introduce our **research process**. Knowing the principles of the process helps readers understand how we formed our conclusions and enables greater reasoning transparency. It will also clarify the structure of the report.

Our research process incorporates elements that are well established in some fields but uncommon in others. This is partly because of the unique goals of our research (i.e. finding new areas for impactful charities to be launched) and partly because we incorporate lessons and methodologies from other fields of research, primarily global health and medical science. Below is a quick overview of some of the key elements.

Iterative depth: We research the same ideas in multiple rounds of iterative depth. Our goal is to narrow down our option space from a very large number of ideas (often several hundred at the start) to a more workable number for deeper reports. This means we do a quick **20-minute prioritization**, a longer **2-hour prioritization**, and finally an **80-hour prioritization**. Each level of depth looks at fewer ideas than the previous round.

Systematic: The goal of our research is to compare ideas for a possible charity to found. To keep comparisons between different ideas consistent our methodology is uniform across all the different ideas. This results in reports that consider similar factors and questions in a similar way across different interventions, allowing them to be more easily compared. This is commonly used in other **charity evaluations** and **encouraged in other fields**.

Cluster approach: Comparing different intervention ideas is complex. We are not confident that a single methodology could narrow down the field, in part due to **epistemic modesty**. To increase the robustness of our conclusions, we prefer instead to look at ideas using multiple independent methodologies and see which ideas perform well on a number of them (**more information here**). These methodologies include a **cost-effectiveness analysis**, **expert views**, **informed consideration**, and using a **weighted factor model**. We explain the merits and disadvantages of each method, as well as how we apply it, in the linked documents. Each methodology is commonly used in most fields of research but they are rarely combined into a single conclusion.

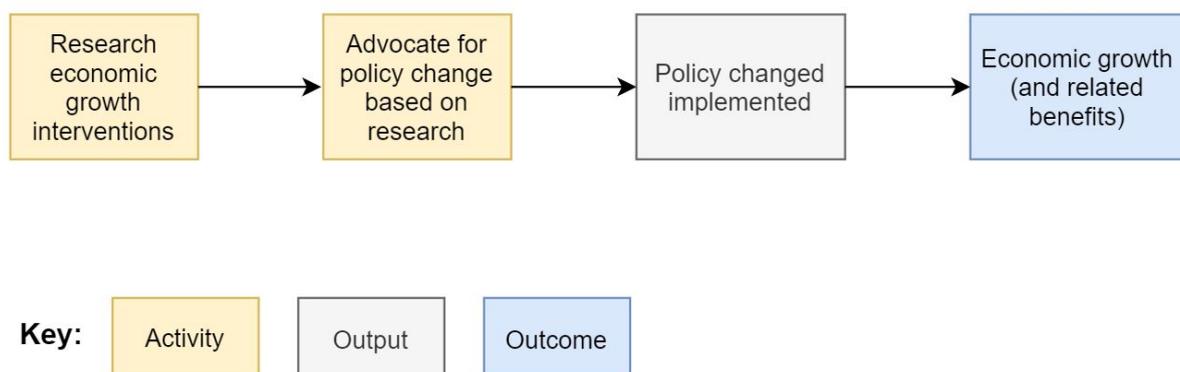
Decision relevant: Our research is highly specialized and focused. We only research topics that are directly related to the endline choice of what charity to found. Sometimes cross-cutting research is needed to allow comparison between different ideas, but all our research aims to be directly useful to getting new charities started. This level of focus on targeted practical outcomes is rare in the research world, but is necessary to our goal of generating more charity ideas with minimal time spent on non-charity idea related concepts.

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Description of the intervention

The charity idea explored in this report is an organization which carries out research to find high impact growth policies and advocates for policy change on the basis of this research. We also considered whether a new organization should evaluate existing growth policy organizations and make donation recommendations, but we concluded that this is unlikely to be the best option. This diagram below sets out our theory of change for how we expect starting an organization that researches and advocates for economic growth to lead to positive social outcomes.



Summary conclusion

We found that an organization carrying out economic growth research and policy advocacy could be highly cost-effective. Given the uncertainty around this intervention, we did not aim to estimate its precise cost-effectiveness in this report. However, our modeling suggests that it is plausibly in a similar range as some of the other policy interventions we are considering, rather than outperforming them by orders of magnitude.

The information value of starting an organization in this space is also very high: because the scale of economic growth, particularly growth accelerations, is so large, finding out whether there are policies that reliably promote it seems very important. Our expert interviews revealed that Founder's Pledge is currently carrying out research into economic growth; this should provide some of this information value.

On the negative side, we consider that economic growth would be a very challenging area to go into, both in terms of the technical knowledge needed to do research in

this area, and because this area is highly leveraged with multiple powerful actors in the space, such as governments, international organizations, and banks.

We were also made aware of a number of other promising economic growth ideas during our research. We therefore think that researching economic growth as a cause area is a promising option for Charity Entrepreneurship in future years.

Ultimately, we consider that economic growth is a promising area for a new organization to work on, but we need more information before making a recommendation on starting a charity in this space.

The table below offers a step-by-step summary of our research process for this intervention. Color-coding reflects how well the intervention performed at each stage. The first two steps in the process involve background research prior to this report.

Report type	Summary results	Deeper reading
Idea sort	During the idea sort, this idea showed promise: it was in the top 31 of 256 total ideas.	Full report Process
Idea prioritization	After two hours of researching this intervention using the informed consideration methodology, it was one of our highest priorities for more in-depth research.	Full report Process
Prior view	This 80 hour report begins with a prior view, which summarizes the lead researcher's expectations before starting in-depth research. Prior knowledge of this area was mostly informed by our research at the two-hour stage. At this stage, economic growth looked like a promising intervention.	Process
Informed consideration	Informed consideration occurs at two stages of our research process: the start and the end. At this first stage, we explored some of the key considerations of this intervention. We defined growth as the expansion of the production of goods and services in society; identified some of its positive and negative correlates, such as health and environmental damage; and looked at some of the key growth accelerations and decelerations in history. We also looked at historic and current attempts to promote growth, such as the Washington Consensus.	Process

Expert view	We discussed the intervention with experts. We discussed a range of issues including the key lessons from growth research, the tractability of this intervention, what a new organization should focus on, barriers to implementing growth policies, and the existing organizations in the space. The experts we spoke to were broadly positive about increasing focus on this space, though a key theme was the relative intractability of this field.	Process
Weighted factor model	We then scored the intervention on preset weighted criteria. This intervention did not score particularly well on any of the criteria, partly due to its complexity. Someone with more expertise in this field may be able to draw stronger conclusions about it.	Process
Cost-effectiveness analysis	We then built models to estimate the expected cost-effectiveness of this intervention. We modeled the impact of a 2% increase in growth for eight years (the minimum definition of a growth acceleration) in an average sub-Saharan African country. Our modeling suggests that an organization that achieved this outcome would have a benefit-cost ratio of 175:1, equivalent to a DALY averted for \$62. However, there is a high degree of uncertainty with this model. Interpretation of these figures should also be carried out cautiously due to their dependence on model assumptions.	Process
Informed consideration	The second part of the informed consideration closes the report. We concluded that overall this could be a strong intervention, but we need more information before making a decision to start a new organization in this space.	Process

1 Prior view

This brief section summarizes our thoughts on this intervention before starting in-depth research.

Overall, we have a positive view of this intervention and would not be surprised if it became one of our recommended charity ideas for health and development policy. The main reasons are that it is highly neglected within EA, and has the potential to drastically outperform the existing top recommended charities in this space. It is currently unclear whether growth interventions are tractable enough to make reliable recommendations, but part of the benefit of this intervention would be to help develop a methodology to make these judgments.

Prior to starting this report, our subjective likelihood of recommending this intervention is 29%, with a 90% subjective confidence interval of 9% to 49%.



This probability estimate assumes that:

- Two global health and development policy ideas will be recommended at the end of the research process, so being recommended is equivalent to being in the top two ideas.
- With no prior information, each idea is equally likely to be recommended. Because we plan to consider 7 ideas in total, this means the prior probability is $2/7 * 100 = 29\%$.
- This intervention was ranked roughly in the middle of the top 7 interventions after the two hour research stage. We are also currently very uncertain about how it will look from a cost-effectiveness perspective, so we have not adjusted the prior probability of recommendation.
- The 90% confidence interval represents how sure we are that there is a 29% chance this idea will be in the top two ideas. We have not done very much research in this area, and are currently very uncertain about the cost-effectiveness analysis, so the confidence interval is quite wide.

2 Informed consideration: Crucial considerations

After the prior view, we began the research process by identifying crucial considerations for economic growth interventions. In this early phase, we identified the following areas to research:

- What is economic growth?
- How important is economic growth?
- Is economic growth tractable? What do we know about the causes of growth?

The following subsections summarize our findings on each of these considerations.

2.1 What is economic growth?

Economic growth refers to the expansion of production of goods and services in an economy [1]. It is widely taken to be a proxy for increasing living standards, and as the next section discusses, it is correlated with a range of indicators of well-being. Economic growth is typically measured using metrics such as Gross Domestic Product (GDP), a measure of the inflation-adjusted market value of all goods and services produced in a country.

An important distinction is between GDP growth and GDP growth per capita. It is possible for a country to experience GDP growth, but because population growth outstrips GDP growth, GDP growth per capita falls. This is the case in Africa in the last couple of years of available data; GDP growth was positive but per capita growth just below zero. We are mainly concerned with GDP growth per capita, as this reflects increasing living standards in a country.

Another important distinction to make is between short run and long run growth. Short run changes to growth rates, known as the business cycle, are caused by changes to aggregate demand in an economy. This is affected by factors such as interest rates, government spending, and taxes, all of which can spur or dampen demand in the economy. Short run changes are taken to fluctuate around the long term growth rate. Changes to the long term growth rate are caused by increases in aggregate supply, that is, the productive capacity in an economy. Both of these could be potentially important areas to focus on.

It is important to note that GDP is far from a complete measure, even as a measure of production in an economy. For example, it does not capture productive work done at home or voluntarily. It is also a limited measure of welfare in general; it does not capture, for example, leisure or happiness. And it does not account for broader impacts such as the environment and inequality. Some people argue it is still a good measure to focus on, as it provides society with the resources to focus on those issues and is also a good proxy for those other issues. Others argue that the metric should be expanded or replaced.

2.2 How important is economic growth?

The correlates of growth

Our World In Data plots a number of charts of the relationship between GDP per capita and various objective and subjective measures of well-being including life satisfaction [2], poverty [3], life expectancy [4], child mortality [5], and so on. At a country level, there is a strong correlation between GDP per capita and all of these measures.

The EA forum post ‘Growth and the case against randomista development’ summarises the relationship as follows: “If a country has an income per head below \$5,000, it is very likely to do poorly on most objective and subjective measures of welfare. If a country’s income per head is above \$20,000, it is very likely to do well on most objective and subjective measures of welfare.” [6]

These are just correlations; they don’t show that increasing economic growth will cause reductions in poverty, child mortality, etc. It is however plausible that increasing growth provides a country with the resources to address all of these other issues. It also seems like even if growth is not the ultimate cause of these other welfare improvements, it is at least an important component of it, and may be worth pursuing from that perspective.

Economic growth is also correlated with some negative outcomes, such as animal consumption and environmental damage [7] [8]. We look further into these potential negative externalities in the [Weighted Factor Model section](#).

Growth accelerations and decelerations

Pritchett et al. (2016) estimate the net present value of the largest growth episodes in modern history [9]. They find the total gains of the top 20 growth accelerations were worth over \$30 trillion, and the total losses of the top 20 growth decelerations were worth over \$35 trillion.

To give some specific country examples, between 1962 and 1994 Taiwan experienced 776% growth in GDP per capita, which the authors estimated to be equal to 447% in counterfactual growth. This total growth episode had a net present value of just under \$900 billion. Between 1967 and 1996, the authors estimate that Indonesia experienced 175% of counterfactual growth, with a net present value of over \$1 trillion.

On the negative side, between 1976 and 1988 the authors estimate that Iran experienced -83% of counterfactual growth, equivalent to a net present value of over \$5 trillion. Deceleration in Japan of -32% between 1991 and 2010 was equivalent to a net present value loss of nearly \$10 trillion.

The sheer scale of these gains and losses indicate how important economic growth could be. One reason that growth has such huge effects is because of its compounding effect. Small growth rates over long periods of time accumulate to have huge impacts. The authors conclude that, given the magnitude of these growth accelerations and decelerations, economic growth research should focus on trying to understand the causes of these episodes.

2.3 Is economic growth tractable? What do we know about the causes of growth?

The previous section sets out some of the reasons this area could be extremely important. However, an important criticism both within and outside of EA has been the tractability of growth research and policy. The expected impact could be significantly lower if, for example, we do not know which policies can be expected to affect growth, or if the policies are very difficult to implement.

Economists agree on the underlying causes of economic growth. It is the result of increases in productivity (this can be labor or capital productivity), and the accumulation of physical or human capital. Productivity refers to the ability to create more output from a given amount of input. This could be, for example, through the use of a new technology, or labor specialization. Capital accumulation refers to increases in available physical and human capital. This could be the result

of, for example, the discovery of new natural resources, or an increase in the size of the workforce [1].

While there is agreement on the underlying causes of growth, there is no consensus on which policies can be used to enhance growth. The most widely known set of growth policy prescriptions was the Washington Consensus, which followed the “lost decade” of the 1980s, where many countries, especially in Africa and Latin America, failed to experience any growth. Economists and policy makers considered that this was due to an excessive role of government and how it was stunting development. The Washington Consensus, formed in 1989, prescribed a set of policies which are often summarized as: “Stabilize, privatize, and liberalize” [10]. The 10 policy principles it prescribed were as follows [11]:

1. Fiscal discipline
2. Reordering public expenditure priorities
3. Tax reform
4. Liberalizing interest rates
5. A competitive exchange rate
6. Trade liberalization
7. Liberalization of inward foreign direct investment
8. Privatization
9. Deregulation
10. Property rights

The international financial institutions such as the World Bank and the International Monetary Fund (IMF) promoted the Washington Consensus, and its policies were implemented in many developing countries across the world. These reforms led to mixed and unexpected results [10]. In some cases the outcomes exceeded the most optimistic forecasts, and in other cases they fell far short. In East and South Asia, selected Washington Consensus policies were implemented in combination with a large role for the state. This led to substantial economic growth. In Latin America, countries emerging from the former Soviet Union, and Africa, the picture was very mixed. Some countries implemented modest reforms and experienced significant growth, while others implemented a range of reforms and did not experience growth.

The mixed results of the Washington Consensus led to a rethinking of how to promote growth. In its ‘Lessons Learned From Reform’ report, the World Bank moved away from this universal set of policy prescriptions [12]. It concluded that

while certain policies such as macroeconomic stability, domestic liberalization, and openness lie are key for any sustained growth process, the options for achieving these goals vary widely. The report writes that its central message is that there is no unique universal set of rules for growth, and that deeper economic analysis to identify binding constraints of growth in particular countries is what is needed.

The approach promoted by the World Bank in its lessons learned report is known as ‘growth diagnostics’, and was developed by Hausmann, Rodrik and Velasco (2005) as an alternative approach to the top-down Washington Consensus style policy making [13]. It is built on the assumption that the appropriate growth policies are dependent on the specific economic conditions in a country. This involves focusing on the most binding constraints to growth, where the biggest bang for buck can be achieved, rather than investing scarce resources in difficult to achieve institutional changes and other reforms. Broader changes will be needed eventually, but this may be easier when growth is already in progress and costs can be spread over time [10].

There are several other theories of growth, such as Jeffrey Sachs’ foreign aid approach, which argues that there is a poverty trap, and investment in public resources via foreign aid can make up the capital investment required to spur growth [10]. The institutions theory of Acemoglu and Robinson (2012) purports that having inclusive economic and political institutions are key to promoting sustained growth [14].

It seems like economists have a basic understanding of growth, and an understanding of which policies would significantly harm growth or cause economic downturns. However, it is very difficult at this point to predict which policies will be conducive to growth. That said, it is important to recognise that this is a relatively new field. Only in the last couple of centuries has the world experienced substantial growth, and only in the last fifty years have economists focused on understanding the conditions that cause growth. A lot of research likely still needs to be done to understand how countries grow.

3 Expert view

We spoke with six experts about starting a new organization in this space. The experts we spoke to were broadly positive about increasing focus on this space, though a key theme was the relative intractability of this field. The conversations are briefly summarized below.

Anonymous researcher

Profile: This anonymous expert’s research covers a range of topics in the fields of macroeconomics and development.

Summary: The conversation covered several topics such as the lessons we can draw from cross-country growth regressions including the key correlates of growth and factors which may inhibit or facilitate growth; what we know about growth miracles and accelerations, “normal” high growth, and growth collapses; the effectiveness of microeconomic growth policies; barriers to implementing growth policies; and existing effective organizations working in the space.

Hauke Hillebrandt, Let’s Fund

Profile: Hauke is co-founder of Let’s Fund, an organization that uses effective altruist principles to research and crowdfund highly effective projects. He was previously at the Center for Global Development and the Centre for Effective Altruism.

Summary: Hauke was positive about the idea of starting a new organization in this space, suggesting that there could be a gap for an EA-aligned organization or organizations dedicated to researching economic growth. The conversation also covered growth miracles, accelerations and decelerations; the robustness and reliability of methodologies used in macroeconomics; and existing charities and organizations working in the space.

More information can be found in the [conversation summary](#).

John Halstead, Aidan Goth, Stephen Clare, Founders Pledge

Profile: John is Head of Applied Research at Founders Pledge. Aidan and Stephen are researching economic growth among other topics at Founders Pledge.

Summary: Founders Pledge are currently carrying out their own research to determine whether and how effective altruists can impact economic growth. The conversation covered how this research should interact with Charity Entrepreneurship’s work; the neglectedness of economic growth; the robustness and reliability of methodologies used in macroeconomics; growth miracles and accelerations; near term vs. long term impacts of economic growth; and existing charities and organizations working in the space.

More information can be found in the [conversation summary](#).

Anonymous expert

Profile: This anonymous expert works in the field of macroeconomic policy.

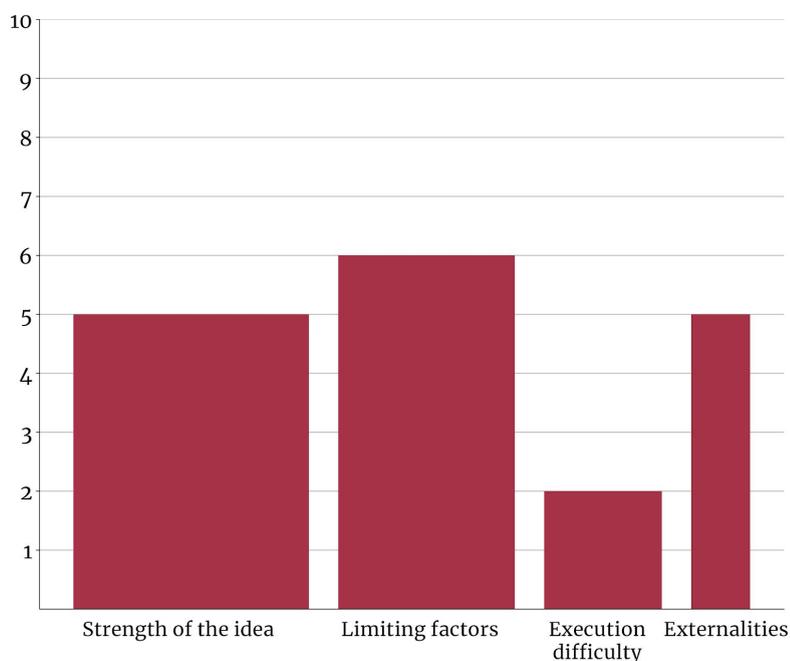
Summary: The expert considered that a new organization in this space would be better suited to focusing on research and advocating for policy change directly, rather than focusing on donation opportunities, which may be better suited to an existing organization such as GiveWell. The conversation also covered general lessons from macroeconomic policy; the robustness of methodologies used in macroeconomics; existing charities and organizations working in the space; and barriers to implementing growth policies.

4 Weighted factor model

In this stage of research, we scored growth policy on each of the following preset criteria: strength of the idea, limiting factor, execution difficulty, and externalities.

Overall, the weighted factor model (WFM) suggests a mixed picture. This intervention could be highly cost-effective due to its scale, but the evidence for any particular policy is quite uncertain. However, someone with more expertise may better be able to evaluate the evidence for different policies. It is also likely to be difficult to execute, due to its technical nature and because it is such a highly leveraged space. The most positive aspects of this intervention are probably its neglectedness and the value of information it would provide. The externalities of this intervention seem broadly good, though there are some factors to be concerned about, such as the relationship with environmental degradation.

The graphic below shows the intervention's score out of ten on each criterion. Width of the bars reflects the weight accorded the criterion within the overall score of 23.5/50:



4.1 Strength of the idea

Score: **5/10**

The strength of this idea depends mainly on the scale of the effect and the strength of the evidence, where strength of the evidence for this intervention means whether it is tractable enough that we can make robust conclusions and recommendations about the impact of different growth policies. We already carried out some preliminary research on both of these issues in the Informed Consideration section. From this, we can conclude that growth is potentially huge in scale, but we are unsure how tractable it is. We therefore look further into the tractability of growth in this section.

To do this, we look at some of the key methodologies that are used in growth economics. The goal is to make a judgment on whether these methodologies produce reliable and strong enough results to make this an area worth researching for the best interventions.

We focus on three methodologies that we consider to be the most promising and widely applied in the field:

1. Cross-country growth regressions
2. Growth diagnostics
3. Microeconomics of growth

Cross-country growth regressions

Cross-country growth regressions involve using empirical data to estimate the relationship between GDP growth (or productivity growth) and a range of explanatory variables. These regressions often include data on multiple countries or regions over many years. The explanatory variables typically include policies such as openness to trade, budget deficits, inflation rates, interest rates, savings rates, exchange rates, taxation rates, property rights, etc. This approach attempts to draw general policy lessons which can be applied to a range of countries, which governments can then implement to encourage growth.

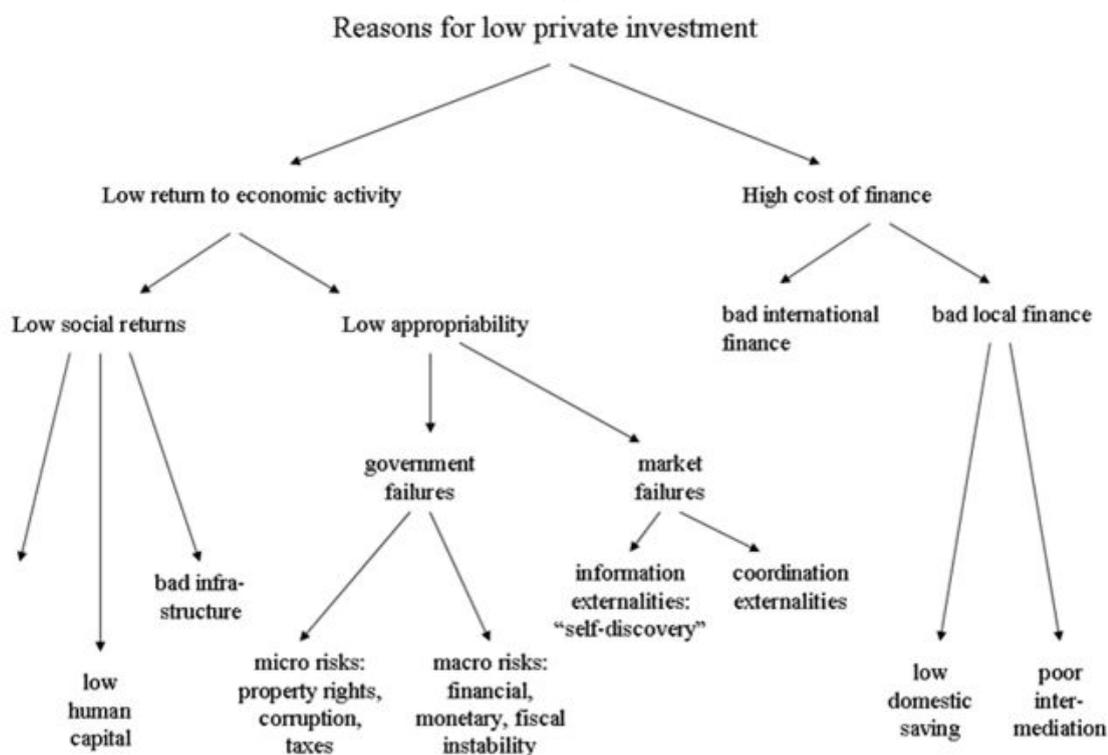
This method has historically been widely used, but has faced significant criticism on several issues. For example, Easterly (2005) found that the results of effects of national policies are not robust to the exclusion of outlier countries [15]. There are also a range of statistical concerns, such as the ability to assign causal attribution to policies using observational data, and how the results of the regressions should be generalized to any specific country [16] [17].

On the other hand, while there may be a limit into what cross-country growth regressions can tell us about enhancing growth, it seems to be a methodology that

can provide useful insights into which policies are detrimental to growth [15]. It may therefore be useful as a methodology to prevent economic downturns.

Growth diagnostics

There has been a movement away from the cross-country growth regression methodologies in recent years. The field of growth diagnostics, which focuses on trying to identify key bottlenecks to growth in a country, has gained in favour. This approach accounts for the view that growth is very context specific, unlike the cross-country growth regression approach which tries to identify a set of policies based on outcomes across a wide range of countries. The following figure, taken from Hausmann, Rodrik and Velasco (2005), shows how growth diagnostics works in practice [13]:



The decision tree first identifies the problem of low growth, which it takes to be a problem of low private investment. The framework purports that there are two possible reasons for this: low returns to economic activity or high cost of finance. The reasons for these are then determined at the next level down on the decision tree, until finally an underlying condition in a specific country is identified as a key bottleneck to growth. At this stage, economists can design policies to specifically target the identified constraint.

This approach relies on economic theory to determine which are the key factors for growth, and then in-depth country specific empirical research to identify the key constraints and policies appropriate for specific countries. It seems like a more nuanced approach than the top-down Washington Consensus style approach, but also requires more expert knowledge.

One activity of a new organization would be to look into where these different theories are applied, implemented, and researched, and try and understand how impactful they are in promoting growth.

Microeconomics of growth

A third approach is to focus on the microeconomics of growth, which examines the concept at the level of individuals, households, and firms, rather than the big picture scope conventionally used to explore growth. This is a fairly new field that looks at which microeconomic policies (e.g. increasing access to agricultural technologies [18]; reducing information frictions between workers and firms [19]) are conducive to growth. It considers that a bottom-up approach to growth is required, with microeconomic studies building up an evidence base on what works in different countries, regions, and sectors [20].

The microeconomics approach holds that the top-down approach, for example cross-country growth regressions, does not capture two of the most important aspects of modern economic growth: (1) the uneven performance of different regions within each country, and (2) the different performance across sectors.

Its advantages are that it can give a more nuanced picture of the causes of growth, and more reliable methods, such as randomized experiments, can be used to uncover policies. However, it is perhaps also more modest in its goals. It is unlikely that this approach will uncover a single policy or set of policies that will dramatically increase growth in a country.

There is much research being carried out in this area, for example at the International Growth Centre. Some examples of findings are listed below:

- In India constituencies with female legislators have 25% higher growth [21].
- In a random sample of large Indian textile firms, adopting improved management practices in a random sample of large Indian textile firms raised productivity by 17% through improved output quality, efficiency, and reduced inventory. Similar results were found in studies in Pakistan [22].

- In Indonesia the economic returns to education were found to be between 6.8 and 10.6% [23].

As this section shows, a broad range of methods can be used to try and identify growth enhancing policies. There are positive and negative aspects to each of these methodologies. A new organization will need to develop a closer understanding of each of these methodologies, and also develop a framework for making decisions and judgments about the impact of different growth programs and policies based on these methods and others.

4.2 Limiting factors

Score: **6/10**

A first potential limiting factor is the neglectedness of this intervention. This intervention is neglected within effective altruism – most of the funding within the global health and development space is directed towards health interventions, such as those recommended by GiveWell [6] [24]. There are also several recommended charities focused on increasing incomes; however, these are mainly focused on directly increasing the incomes of those in extreme poverty, rather than focused on creating sustained economic growth (or avoiding economic downturns) more broadly [25].

Outside of effective altruism, economic growth is much less neglected. It is a key goal of most countries in the world, and there are international institutions such as the World Bank and IMF, development banks, and government agencies set up with the specific goal of promoting growth. However, health is also not particularly neglected outside of effective altruism – there are equivalent organizations to those described above, such as the World Health Organization and government health departments. Despite this, the EA movement contributes significant resources to health. So the fact that these growth institutions exist does not alone indicate that the EA movement should not allocate additional resources to economic growth.

To get a more concrete sense of the relative neglectedness of growth, we can consider the UK's development expenditure in 2018 [26]. Of this, 14% of bilateral aid was spent on health, compared with 12% of economic infrastructure and services. Of multilateral aid, 36% went to the World Bank, but this promotes a range of development issues including climate, gender, and conflict; it is not focused purely on growth. A significant proportion of multilateral aid goes to organizations

working on health, such as Gavi and the Global Fund.

While improving health and promoting economic growth involve very different approaches, making this comparison quite difficult, these expenditure figures provide some indication that growth is likely not crowded compared with health even outside of effective altruism.

A second potential limiting factor is the counterfactual replaceability of this intervention. This could be a problem from two perspectives. First, this area is dominated by international institutions, banks, and governments. Any work a new charity might do, may be done anyway by one of the institutions. However, as stated above, this is not a problem in health so may be less of a problem here as well.¹ Secondly, if an organization were to focus on evaluating existing organizations and making donation recommendations, this may have a limited counterfactual impact because it is possible that GiveWell will move into this space in the coming years [27]. Because of this consideration, a research and advocacy organization may be a better option.

4.3 Execution difficulty

Score: **2/10**

There are two major concerns with the execution of this intervention: (1) the technical skills that would be needed to research this area, and (2) the difficulty in having an influence in this space.

This is a highly technical space, and it would require a lot of expertise both to research and find effective policies, and to evaluate the effectiveness of existing organizations in the space. This is particularly the case for macroeconomic policy, which is a broad and technical subject area with a lot of uncertainty. Given how uncertain this area of research is, it could be difficult to draw robust policy conclusions, and a new organization may even end up recommending policies that are overall harmful to growth. This may be the case even if experts are hired, given how much uncertainty and disagreement there seems to be in this space.

This will be an even bigger problem for a charity that aims to make donation

¹ We can speculate about how the differences between the two cause areas might play out in terms of counterfactuals. But without further research, it seems reasonable to assume a rough parallel, and that, like EA work on global health, EA work on economic growth could carve out a niche.

recommendations. This could end up causing significant harm when considering the counterfactual cost of moving money away from existing good charities.

The second concern is that a new organization may have little influence in this area even if it is able to find good policies. This is because this area is dominated by international institutes, governments, banks, and research institutes, and it may be difficult for a new organization to break into this space and access and influence these organizations. There are several examples of organizations that have met with success on this count, such as the International Growth Centre, the Center for Global Development, and others. So it is possible, but it may take a lot of work and resources.

4.4 Externalities

Score: **5/10**

The externalities for this intervention are mixed. There is broad agreement that economic growth is a good thing and is a key component of escaping poverty. In addition to poverty alleviation, growth is also correlated with a range of well-being indicators, as discussed in the Informed Consideration section.

There are several potential negative externalities of growth as well. Economic growth is associated with greater consumption of animals [28]. However, the flow-through effects are complex, and the increase in consumption may be outweighed or balanced out by wild animal suffering considerations [29].

Higher growth rates may also be more closely correlated with inequality and environmental damage. However, it is plausible that both of these (as well as animal consumption) have an inverted U-shaped curve; that is, once growth moves past a certain level, environmental damage and inequality start to fall. This is captured in the Kuznets curve [30]. This relationship is not guaranteed though, as shown in the increasing levels of inequality in developed countries. A new organization in this space will likely need to ensure that the way it defines and measures growth incorporates these externalities.

This intervention also has high informational value. Even if it turns out that growth is not tractable, given how large in scale it is, it seems extremely important to find out. This was a key argument in the EA forum post on this topic [6].

5 Cost-effectiveness analysis (CEA)

This section provides an overview of our CEA, which weighs the expected cost of this intervention against the expected good accomplished.

We model the expected impact of starting a research organization that makes growth policy recommendations. We estimate the impact on a notional sub-Saharan African country, that is, a constructed population which has the average features of the region (e.g. population size, GDP per capita, etc.). This approach allows us to compare interventions that will likely affect similar populations.

This model is more speculative than our other models, as it requires making assumptions about whether a new organization can successfully find appropriate policies without specifying what these policies are, and about the likelihood that these policies will be implemented and work in the way expected. These inputs are very difficult to estimate. The model should therefore be interpreted as showing a rough order of magnitude impact that starting a new organization in this space could plausibly create, rather than an accurate estimate of the cost-effectiveness.

Overall, our modeling suggests this could be a highly cost-effective intervention. If a new organization has a 1% probability of causing a growth acceleration of 2% per year for eight years, it would generate a return of \$176 per dollar invested (all figures are in international dollars [37]). Using estimates of the trade-off between income and health based on GiveWell's research [38] [39], this is equal to averting the equivalent of a DALY for \$62. As stated above, these estimates depend on a number of modeling assumptions which are consistently estimated within Charity Entrepreneurship's global health and development policy research, but not necessarily outside of it.

We estimated the following benefit-cost figures:

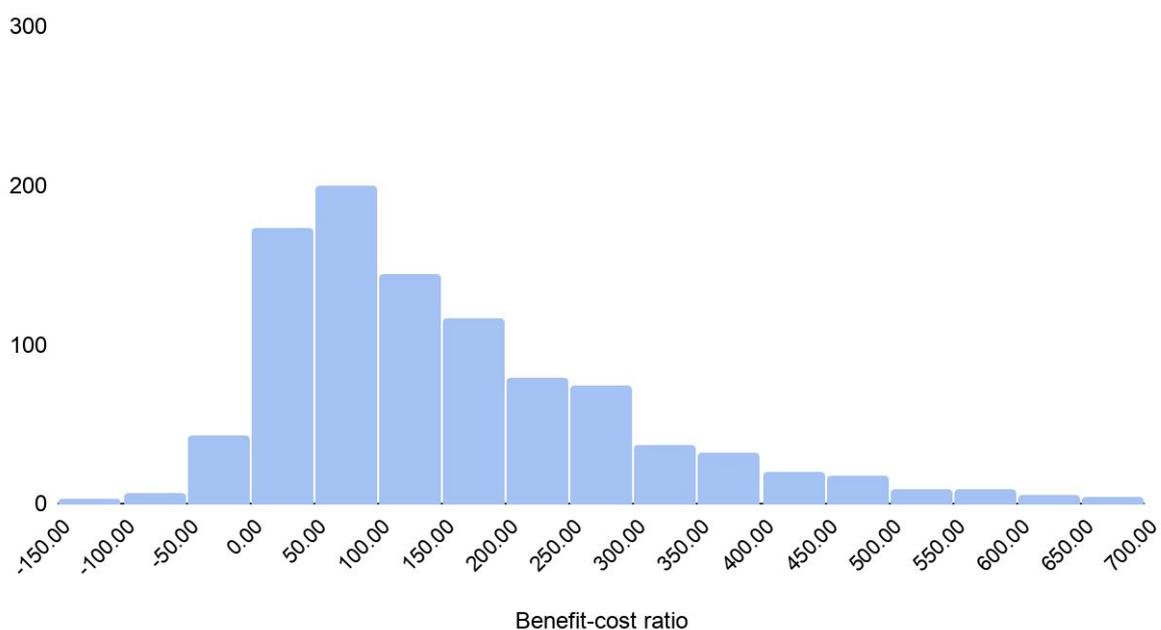
Spreadsheet CEA model estimates:

Benefit-cost ratio 176:1 (90% credible interval (CI), -1:1 to 504:1)

The histogram below plots the distribution of benefit-cost ratios (BCR) simulated in the spreadsheet model. As the chart shows, the distribution is skewed to the right, indicating that in the majority of cases the estimated BCRs were clustered around the peak of the distribution, but in some cases the BCRs were much higher than the

peak. This has the effect of dragging the mean BCR upwards. The median BCR in the spreadsheet model is 63:1; it is lower than the mean, which reflects the skewness in the distribution.

There is a very wide range in the estimates, not captured fully in the charts. Out of 1,000 simulations the lowest BCR was -114:1 and the highest was over 1600:1. This captures the uncertainty built into the model – while it is possible a new organization could find a policy that creates significant benefit if the conditions are right, it could also have a significantly negative impact if the policies recommended reduce growth below the counterfactual growth rate.



The remainder of this section provides details of the model that generated the impacts described above. We look at the following factors:

- Effectiveness
- Costs
- Other model assumptions

We then discuss the main model limitations and report results of sensitivity analysis of several of the key model assumptions in the ‘[Where our CEA could go wrong](#)’ section.

5.1 Effectiveness

Economic effects

We model the impact of a new organization on the growth rate of a country. As our central estimate, we model the minimum definition of a growth acceleration from Pritchett, Hausmann and Rodrik (2016), which is a 2% increase in the growth rate sustained for a period of eight years. The authors note that most growth accelerations have been significantly above this, so this could be considered a conservative assumption. We also only model the impact on one country, while in reality a new organization would perhaps influence the policies of several countries.

The economic impact then is the monetary value of increasing GDP by 2% over its counterfactual growth rate for a period of eight years. To convert this into DALY equivalent terms, we use an estimate of the conversion rate between health and income based on GiveWell's moral weights research (see [Moral weights](#) below).

5.2 Costs

Charity costs

The charity costs consist of fixed costs to set up the charity and ongoing annual costs to operate it. Fixed costs in the first year are assumed to be \$100,000; costs after this are assumed to be \$250,000 per year of operation, based on four staff members at \$50,000 per year plus an additional \$50,000 of other costs. While these are rough estimates, they are expected to be roughly constant across interventions so should allow for comparisons of cost-effectiveness.

5.3 Other assumptions

Charity years operating

The WHO's guidance on cost-effectiveness analysis suggests that an intervention should be assumed to run for ten years [31]. In line with this, we have assumed the charity will operate for ten years. It is also in line with our other reports, where we assume that a charity trying to create policy change operates for ten years.²

² We model ten years to ensure consistency in comparing cost-effectiveness across our reports. However, a ten year timeline is more ambitious for an organization working on economic growth, due to the research required before lobbying can begin. Other potential interventions benefit from a clearer roadmap for policy change: for example, an organization working on [lead paint](#) would benefit from the UNEP's toolkit.

Stopping point if charity is unsuccessful

We assume that the charity will definitely run for five years at full cost. At this point, if the intervention is looking very unlikely to succeed, we assume the charity will end its operations. Therefore, the charity costs after year five are incurred only in expectation.

Discount rate

We assume an annual discount rate for future costs and benefits of 4%, in line with GiveWell [36]. There is a debate over the appropriate discount rate, with the WHO using a rate of 3% for health impacts [40], and the UK government guidance suggesting a lower rate than this for health impacts and a slightly higher rate for other impacts [41]. We believe a rate of 4% appropriately captures our views on a relatively low pure time preference (i.e. a low discount to future utility), the impact of increasing incomes over time which reduce the benefit of income, and uncertainty. It also has the additional benefit of being comparable with GiveWell.

Counterfactual impact

There are few completely neglected countries when it comes to economic growth; however, we assume that a new organization will make policy recommendations that largely will not be implemented counterfactually. We have therefore assumed 80% counterfactual impact, though this assumption is quite subjective.

Probability of success

This reflects the probability that a new organization can find a policy or set of policies and that they will be implemented. We have used an estimate of 1%. This is not meant to reflect our actual belief in the likelihood of success of this intervention, as this probability is very difficult to estimate. Instead, it is meant as a reference point which gives us a rough sense of how impactful this intervention could be. Users who consider the probability higher or lower than this can input their own probability estimates into the model.

Population affected

We have assumed this intervention will affect a notional average country in sub-Saharan Africa. The total population of sub-Saharan Africa is 1.1 billion, and there are 46 countries in the region, so we assume the population affected is 23.4 million [32] [33].

Population growth rate

The population growth rate is taken from the World Bank [34]. The current annual growth rate is assumed to continue throughout the period of the project.

Country income per capita

This is the current income per capita in Sub-Saharan Africa in international dollars from the World Bank [42].

Country growth rate

This is the World Bank's estimate of growth in Africa [35]. It has been assumed to continue for the period of the project.

Years until benefit will be felt

We roughly assume that it will take ten years for the benefits to be felt. This is based on a period of time taken for policy to be introduced, which incorporates the time taken for the charity to build the required knowledge around this issue, to convince the government to introduce policy change, and for the policy to be written up and introduced. We include a buffer for the policy change to start to have an impact.

Moral weights

The moral weights allow us to convert between impacts expressed in health and income terms. They are estimated based on GiveWell's and IDinsight's research on how people make trade-offs between income and health [38]. In its CEA model on Fortify Health, GiveWell assumes that 2.8 years of income is equivalent to one DALY [39]. We use this assumption in our analysis to convert all impacts into consistent terms so that we can report benefit-cost ratios and costs per DALY equivalent averted.

5.4 Where our CEA could go wrong

We considered how our CEA could go wrong in each step. There are several key assumptions which we believe are worth noting:

- The main assumption we are concerned about is the probability of success. We have assumed 1%, but in actuality we do not know how likely it is that a new organization can find a set of policies and also successfully lobby to get them implemented. While our interpretation of this cost-effectiveness estimate is that it provides a rough range that the cost-effectiveness is likely to fall in, if the 1% probability is off by an order of magnitude, the cost-effectiveness of this intervention will look very different.
- We have also modeled one specific scenario – where a policy implemented causes a minimal growth acceleration. Many alternative scenarios could be modeled, such as preventing a growth deceleration, or promoting macroeconomic stability (i.e. buffering an economy against external shocks

that could curtail sustained growth). The impact of these alternative scenarios could be quite different.

- Our analysis models the impact on a constructed population reflecting the average characteristics of a sub-Saharan African country. This was done to ensure comparability across interventions, but it may result in an underestimate of the true cost-effectiveness, as a new organization would choose to work in a country that has the highest potential for impact.
- We do not apply discounts for the evidence on health and economic impacts, though there are arguments to do this [36]. Our approach is to use the quality of evidence behind the interventions as a criterion to make an overall judgment about which interventions are likely to be most impactful.
- We do not account for the counterfactual impact of co-founder time and funding. This is because these inputs are very uncertain, and are also expected to be roughly consistent between the interventions. However, interpreting the CEA estimates directly may overestimate the benefits, because we do not account for the fact that some of the resources would have gone to high-impact interventions otherwise.

6 Informed consideration: Internal contemplation

In this stage, we analyzed all the data and insights gathered through previous steps in the research process. The most important conclusions from each are summarized here, as are our overall thoughts on economic growth research and advocacy as an intervention.

The first informed consideration stage was used to build background knowledge of economic growth. We defined economic growth as the expansion in the production of goods and services in a society. We found that it is high in scale and is correlated with a range of indicators we care about, and that while the underlying causes of growth are well understood, there is much less understanding of which factors and policies can increase growth.

We carried out four interviews with experts to get a deeper understanding of how promising this intervention is. The experts we spoke to were supportive of greater focus in this area, but there were different views on what a new organization should specifically focus on. Several good ideas were also suggested as potential alternative interventions. We also learned that Founders Pledge is currently carrying out its own preliminary research into economic growth.

In our weighted factor model we looked at some of the methodologies used by growth economists to understand and learn about which growth policies could be effective. We looked at cross-country growth regressions, growth diagnostics, and microeconomic approaches to promoting growth. We found that each of these have different strengths and weaknesses, and may be applicable in different contexts. For example, growth diagnostics may be well suited to cases where there are key bottlenecks to growth, and microeconomic approaches can be used to evaluate smaller scale programs using randomized experiments. Each of the methods require a lot of technical expertise to understand and apply.

We also looked at some of the limiting factors of this intervention, and concluded that these may not be as significant problems as we initially thought, particularly for a research and advocacy organization. Execution is likely to be very difficult, particularly because of the technical nature of the work and the difficulty in influencing policy in a space dominated by powerful actors such as international organizations and banks.

While growth is broadly considered good and necessary for developing countries, there are some negative externalities, such as environmental damage and inequality, which may need to be addressed by a new organization. A key positive externality of this intervention is the value of information it would provide: given the potential impact of increasing growth, determining whether it is tractable has high expected value.

We built cost-effectiveness models that estimated the impact of a policy with a 1% chance of leading to a minimal growth acceleration, defined in Pritchett et al. (2016) as a 2% increase in the counterfactual growth rate for at least eight years. This is not modeled as a particularly realistic scenario, as we do not specify a policy or set of policies that will have this effect; rather we assume the research will uncover such a policy. Our models suggest that economic growth research and advocacy could have a very high expected value, though it is unlikely to outperform the other interventions we are considering by orders of magnitude.

Overall, we conclude that this could be a very strong intervention, mainly due to its high potential cost-effectiveness and the value of information it would provide. However, we do not currently have enough confidence that a new organization can successfully find policies which will be conducive to growth and successfully advocate for them. We recommend further research is carried out on this and other growth interventions.

References

1. Gregory Mankiw N. Principles of Economics. Cengage Learning; 2020.
2. Ortiz-Ospina E, Roser M. Happiness and Life Satisfaction. Our World in Data [Internet]. 2013 [cited 2020 Aug 4]; Available from: <https://ourworldindata.org/happiness-and-life-satisfaction>
3. Roser M, Ortiz-Ospina E. Global extreme poverty. Our World in Data [Internet]. 2013; Available from: <https://ourworldindata.org/extreme-poverty>
4. Roser M, Ortiz-Ospina E, Ritchie H. Life expectancy. Our World in Data [Internet]. 2013; Available from: <https://ourworldindata.org/life-expectancy>
5. Roser M, Ritchie H, Dadonaite B. Child and Infant Mortality. Our World in Data [Internet]. 2013 [cited 2020 Aug 4]; Available from: <https://ourworldindata.org/child-mortality>
6. Growth and the case against randomista development – EA Forum [Internet]. [cited 2020 May 15]. Available from: <https://forum.effectivealtruism.org/posts/bsE5t6qhGC65fEpzN/growth-and-the-case-against-randomista-development>
7. Meat consumption vs. GDP per capita [Internet]. [cited 2020 Aug 4]. Available from: <https://ourworldindata.org/grapher/meat-consumption-vs-gdp-per-capita>
8. CO₂ emissions per capita vs GDP per capita [Internet]. [cited 2020 Aug 4]. Available from: <https://ourworldindata.org/grapher/co2-emissions-vs-gdp>
9. Pritchett L, Sen K, Kar S, Raihan S. Trillions gained and lost: Estimating the magnitude of growth episodes. *Econ Model.* 2016;55:279–91.
10. Rodrik D, World Bank. Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank’s “Economic Growth in the 1990s: Learning from a Decade of Reform.” *J Econ Lit.* American Economic Association; 2006;44:973–87.
11. Williamson J. A short history of the Washington Consensus. *Law & Bus Rev Am. HeinOnline*; 2009;15:7.
12. World Bank Group, World Bank Staff, World Bank. Economic Growth in the 1990s: Learning from a Decade of Reform. World Bank Publications; 2005.
13. Hausmann R, Rodrik D, Velasco A. Growth Diagnostics*. Available from: <https://growthlab.cid.harvard.edu/files/growthlab/files/growth-diagnostics.pdf>
14. Robinson JA, Acemoglu D. Why nations fail: The origins of power, prosperity and poverty. Profile London; 2012.
15. Easterly W. Chapter 15 National Policies and Economic Growth: A Reappraisal. In: Aghion P, Durlauf SN, editors. *Handbook of Economic Growth.* Elsevier; 2005. p.

1015–59.

16. Levine R, Zervos SJ. What we Have Learned about Policy and Growth from Cross-Country Regressions? *Am Econ Rev*. American Economic Association; 1993;83:426–30.

17. Rodrik D. Why We Learn Nothing from Regressing Economic Growth on Policies [Internet]. 2012 [cited 2020 May 15]. Available from: <https://papers.ssrn.com/abstract=2083897>

18. The impact of formal mechanisation access on agricultural productivity and informal rental markets [Internet]. [cited 2020 Sep 3]. Available from: <https://www.theigc.org/project/the-impact-of-formal-mechanisation-access-on-agricultural-productivity-and-informal-rental-markets/>

19. Firm growth and information frictions in the market for skills [Internet]. [cited 2020 Sep 3]. Available from: <https://www.theigc.org/project/firm-growth-and-information-frictions-in-the-market-for-skills/>

20. Burgess, Venables R, J. A. *Toward a Microeconomics of Growth*. The World Bank; 2004.

21. Female politicians and economic growth: Evidence from state elections in India – IGC [Internet]. IGC. [cited 2020 Apr 29]. Available from: <https://www.theigc.org/project/female-politicians-and-economic-growth-evidence-from-state-elections-in-india/>

22. Management matters: How bad management is holding back growth – IGC [Internet]. IGC. [cited 2020 Apr 29]. Available from: <https://www.theigc.org/impact/management-matters-bad-management-holding-back-growth/>

23. Duflo E. Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment. *Am Econ Rev*. 2001;91:795–813.

24. Top Charities | GiveWell [Internet]. GiveWell. [cited 2020 May 15]. Available from: <https://www.givewell.org/charities/top-charities>

25. Bilberry. The Life You Can Save – Best Charities to Donate to [Internet]. The Life You Can Save. [cited 2020 May 15]. Available from: <https://www.thelifeyoucansave.org/best-charities/>

26. Department for International Development. *Statistics on International Development: Final UK Aid Spend 2018*. GOV.UK; 2019 [cited 2020 May 16]; Available from: <https://www.gov.uk/government/statistics/statistics-on-international-development-final-uk-aid-spend-2018>

27. Elie. How GiveWell’s research is evolving – The GiveWell Blog [Internet]. The GiveWell Blog. 2019 [cited 2020 May 15]. Available from:

<https://blog.givewell.org/2019/02/07/how-givewells-research-is-evolving/>

28. The meat-eater problem – Effective Altruism Concepts. [cited 2020 May 15]; Available from:

<https://concepts.effectivealtruism.org/concepts/the-meat-eater-problem/>

29. Humanity’s Net Impact on Wild-Animal Suffering [Internet]. [cited 2020 May 15]. Available from:

<https://reducing-suffering.org/humanitys-net-impact-on-wild-animal-suffering>

30. Wikipedia contributors. Kuznets curve [Internet]. Wikipedia, The Free Encyclopedia. 2020 [cited 2020 May 15]. Available from:

https://en.wikipedia.org/w/index.php?title=Kuznets_curve&oldid=955712851

31. Organization WH, Others. Making choices in health: WHO guide to cost-effectiveness analysis.(2003). Edited by T Tan-Torres Edejer, R Baltussen, T Adam, R Hutubessy, A Acharya, DB Evans, CJL Murray [Internet]. 2017; Available from: <https://www.who.int/choice/book/en/>

32. Population, total – Sub-Saharan Africa | Data [Internet]. [cited 2020 Mar 10].

Available from: <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=ZG>

33. Wikipedia contributors. Sub-Saharan Africa [Internet]. Wikipedia, The Free Encyclopedia. 2020 [cited 2020 Mar 10]. Available from:

https://en.wikipedia.org/w/index.php?title=Sub-Saharan_Africa&oldid=944809519

34. Population growth (annual %) – Sub-Saharan Africa, Sub-Saharan Africa (excluding high income) | Data [Internet]. [cited 2020 Mar 10]. Available from:

<https://data.worldbank.org/indicator/SP.POP.GROW?locations=ZG-ZF>

35. World Bank. The World Bank In Africa. 2020. Available from:

<https://www.worldbank.org/en/region/afr/overview>

36. GiveWell’s Cost-Effectiveness Analyses | GiveWell [Internet]. GiveWell. [cited 2020 Jun 15]. Available from:

<https://www.givewell.org/how-we-work/our-criteria/cost-effectiveness/cost-effectiveness-models>

37. Wikipedia contributors. International dollar [Internet]. Wikipedia, The Free Encyclopedia. 2020 [cited 2020 Jul 5]. Available from:

https://en.wikipedia.org/w/index.php?title=International_dollar&oldid=963918053

38. Rosenberg J. New research on moral weights – The GiveWell Blog [Internet]. The GiveWell Blog. 2019 [cited 2020 Apr 14]. Available from:

<https://blog.givewell.org/2019/12/02/new-research-on-moral-weights/>

39. Steady-state Fortify Health iron fortification CEA [June 2019] [Internet]. Google Docs. [cited 2020 Jun 24]. Available from:

https://docs.google.com/spreadsheets/d/1epyGHcuM9A7YjtdVpEPByBs_lxFY5fh1FQbVLlP

40. World Health Organization. Making choices in health: WHO guide to

cost-effectiveness analysis.(2003). Edited by T Tan-Torres Edejer, R Baltussen, T Adam, R Hutubessy, A Acharya, DB Evans, CJL Murray [Internet]. 2017; Available from: <https://www.who.int/choice/book/en/>

41. The Green Book. Available from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf

42. GDP per capita, PPP (current international \$) – Sub-Saharan Africa | Data [Internet]. [cited 2020 Jul 8]. Available from:

<https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=ZG>