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# 1. Policies for green growth versus policies for no growth: a matter of timing\*

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Those who debate policies for dealing with climate change fall into two groups: those who advocate green growth<sup>1</sup> and those who advocate stopping growth<sup>2</sup> – I call them the green growth and the no-growth groups. Both agree that the world faces serious environmental problems that, in the worst case scenario, threaten disaster. Where they differ, and debate heatedly with each other, is in methods they advocate for dealing with these problems. The green growth group argues that suitable green policies, such as carbon pricing, plus green technological changes, can produce a green economy compatible with sustained growth. The no-growth group argues that green policies, although desirable, are insufficient to do the job, so that the whole growth process must be significantly slowed, or even stopped, if the planet is to be saved from severe, even catastrophic, consequences. It seems improbable that the members of either one of these groups will come to accept in the foreseeable future that the members of the other group are correct in their diagnosis.

In this chapter I argue that there is an approach to the debate that is different from trying to decide which group is right. I argue that this approach provides a strong argument for accepting a green growth position as a working hypothesis without trying to prove that the no-growth group is wrong in their contentions about what policies are needed. The argument proceeds by first laying out and comparing some characteristics of the positions held by the two groups and then arguing that primacy of procedure goes to green growth. Only if their measures fail to do the job should no-growth policies be pursued. The reverse of tackling no growth first or simultaneously with green growth offers much inferior alternative timings.

## THE GREEN GROWTH POSITION

### Objectives

Green growth advocates are mainly concerned with climate change and argue that the existing economic system can be made compatible with measures sufficient to mitigate undesirable climate change. There are two main types in this group. First, some who are critical of the present economic system but separate their advocacy of urgently needed green measures from the other longer-term reforms that they advocate. Second, those who

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<sup>1</sup> See for example United Nations (2017), Canada's Ecofiscal Commission (2015), Hallegatte et al. (2002).

<sup>2</sup> See for example Daly (1996), Jackson (2011) and Victor (2008).

think the present system is on balance a beneficial system (although not without areas where improvements could be made).

### **Tools**

The tools to achieve the objective of green growth compatible with dealing with climate-change issues are well known. They include carbon pricing and/or cap and trade; the subsidisation and other encouragement of non-fossil renewable energy sources such as solar, hydrogen, wind, and geothermal; the elimination of subsidies and the raising of taxes on polluting activities; the reduction of taxes on, and the increases in subsidies for, green activities. Over the last 150 years many new, greener technologies have been innovated and there is no reason to believe that this will not continue as a result of normal market incentives, although the pace should be accelerated by policy initiatives that encourage green R&D.

### **Implementation**

Most green growth measures can be implemented without raising new technical problems since most have already been tried in one jurisdiction or another, allowing teething problems to be identified and dealt with. The European experience with early cap and trade schemes has been instructive and several jurisdictions have shown that carbon taxes can be introduced without severe, or even measurable, adverse economic consequences.<sup>3</sup>

### **Efficacy**

There is strong evidence from their existing applications that these green measures do work. For example, Calel and Dechezleprêtre (2016) found that the EU's Emissions Trading Scheme increased low-carbon innovation without crowding out patenting of other technologies and, if applied with sufficient strength, can achieve almost any desired pollution-reducing result.

### **Sufficiency**

The green growth position is that their tools are sufficient to do the job in a world of positive economic growth driven by technological advance especially where directed at green energy by both natural market and policy-made incentives. For both solar and wind energy the costs have been falling while the efficacy of the generating devices has been rising steadily in recent years.

### **Side-effects**

Pessimists argue that green growth measures would have a significant retarding effect on economic growth. (Of course this should appeal to the no-growth advocates.) As with all

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<sup>3</sup> This case is argued for Norway by Winkler and Marquard (2011) and for Canada by Elgie and McClay (2013).

technological changes, there will be losers as well as gainers. Areas where fossil fuels are produced will lose if the transfer to renewable energy sources accelerates, and in some of these, such as Middle East oil producers, the political effects could be enormous. The majority opinion, however, is that the retarding effects on world growth would be small and could even be positive because of such side-effects as improved health due to reduced pollution and the beneficial effects of new technologies invented and innovated in response to new green growth incentives.<sup>4</sup>

### **Political Problems**

The main problems with pursuing a green agenda lie in the political sphere. Not everyone is convinced that there is a problem and many in government, including many in the US federal government, are in the same denial position.<sup>5</sup> They do not, therefore, accept that anything serious needs to be done. Strong lobbying from such industries as coal exerts significant political pressure to ignore the problem.<sup>6</sup> Even with the recent G7 commitment to a carbon-free economy by 2100, there are doubts about how much various governments will do to meet this target. More is required than mere window dressing, half-way and last-minute measures. For example, to be effective and least costly, many of the required measures need to be put in place sooner rather than later. If new factories, new power generating plants and new housing were to be constructed to high environmental standards from now on, depreciation and obsolescence of existing facilities would do much of the job without any need for the disruptions that would follow from a last-minute need to remove a large number of fully operative facilities. That this is easier said than done is illustrated by Barbier's (2013) discussion of the financial and political powers working to lock the economy into a fossil-fuel, energy system.

## **THE NO-GROWTH POSITION**

### **Objectives**

Many in this group are critical of the present capitalist system and look for structural changes to move towards a no-growth economy in which the mitigation of climate change will be a by-product of the more transformative changes that they advocate.<sup>7</sup> They see

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<sup>4</sup> See The Canadian Ecofiscal Commission (2016) for a report on a general equilibrium model that finds only modest undesirable side-effects from carbon pricing.

<sup>5</sup> Weber and Stern (2011) survey the climate change deniers and divide them into subgroups.

<sup>6</sup> 'Both individual corporations such as ExxonMobil and Peabody Coal, as well as industry associations such as the American Petroleum Institute, Western Fuels Association and Edison Electric Institute, have provided funding for individual contrarian scientists, conservative think tanks active in climate change denial, and a host of front groups. . .' Dunlap and McCright (2011, p. 148).

<sup>7</sup> While there is no need to enter into a detailed discussion on the sustainability of long-term green growth, it should be noted that the common argument that growth cannot be sustained for long because the earth's resources are finite is dubious. The earth is not a closed system. Vast amounts of energy arrive from the sun each day and this energy is available to be harnessed as solar and wind power, while geothermal energy, derived from the earth's interior heat, will last for the earth's remaining 4 billion years of expected life. While quantities of many other resources are finite, growth over the last few centuries has used progressively fewer materials of

a very different society and economy than the one in which we now live. Many of the aspects of these envisioned new societies will appeal to most, some to many, and some to only a small minority. Others in this group do not see the no-growth society as desirable in itself, but as the only way to deal with climate change since they believe that green growth measures will not be sufficient.

## Tools

It is not obvious how growth can be stopped within the confines of a democratic, market-oriented society. Most of the literature on no-growth concentrates on the end result of the desired characteristics of a transformed society. (See for example, Alexander, 2012; Anderson, 2012 and Jackson, 2016.) Those who do discuss the means to accomplish such a transformation do so in rather general terms. I know of no one who has presented a detailed programme for achieving no-growth in the context of the societies that we know. Peter Victor (2008) talks about limiting the use of strategic resources but does not specify in any detail how this is to be done. Tim Jackson (2009) devotes a whole chapter to this issue, Chapter 11, 'The transition to a sustainable economy'. Here is a brief summary of the measures discussed in Jackson's chapter [with my comments in square brackets]. [Notice there is nothing in what follows about how to control the activities of the many firms who use growth-creating innovations in goods, production techniques and organisational forms as tools of competition.] 'Overthrowing it [the consumer society] completely could be the road to ruin. But incremental changes are unlikely to be enough.' (p. 171). '... the scale of the required transformation is massive. But we also need concrete steps through which to build change. ... Specifying those steps with any degree of precision ... lies beyond the scope of this (or any other) volume.' [But] it is possible already to establish some clear directions of travel.' (p. 172). (1) Establishing the limits: Establishing clear resource and emissions caps and '... effective mechanisms for achieving targets under these caps should be set in place' (p. 174). [It is not specified what these are with respect to resource use.] Fiscal reform to '... shift the burden of taxation from economic goods (for example incomes) to ecological bads (for example pollution)' (pp. 173–4), '... robust funding mechanisms to make resources available to developing countries ... [and to mitigate] the impact of reduced consumption in advanced economies on their export markets' (p. 175). (2) Fixing the economic model: We need '... a new macro-economics to include some account of the value of natural capital and ecosystem services. There are virtually no real precedents for a coherent macroeconomic framework for sustainability' (p. 177). [Many countries, including Canada, already have satellite accounts that cover many of these issues.] 'Ultimately, this will also mean raising tough questions about the ownership of assets, and control over the surpluses from those assets. The nature and role of property rights lies at the heart of those questions' (p. 178). Increasing financial and fiscal prudence, which will include such measures as '... reforming the regulation of national and international financial markets; outlawing unscrupulous and destabilising market practices (such as short-selling); reducing excessive executive remuneration packages (or making them performance-related); providing greater protection against

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all sorts per unit of GDP, both because manufacturing has done so and because of the shift from manufacturing into services.

consumer debt and greater incentives for domestic saving' and also, possibly, a tax on international currency transfers (p. 178). Revising the GDP to make it measure wellbeing rather than 'the busy-ness in the economy' (p. 179). [One must assume that there will be no need for monetary policy in the no-growth economy as the GDP as currently constructed is a necessary tool for assessing the impact of, and the need for changes in, current monetary policy.] (3) Changing the social logic: Policies '... to reduce working hours and improve the work-life balance could include greater flexibility for employers on working time; measures to combat discrimination against part-time work as regards grading, promotion, training, security of employment and rates for pay; better incentives to employees (and flexibility for employers) for family time, parental leave and sabbatical breaks' (p. 180). Tackling income inequality through '... revised income tax structures, minimum and maximum income levels, improved access to good quality education and anti-discrimination legislation, anti-crime measures and improving the local environment in depressed areas' (p. 181). Measure people's capabilities and exploit them fully. Strengthen social capital in many ways such as '... reducing geographical labour mobility, providing training for green jobs; offering better access to lifelong learning and skills; placing more responsibility for planning in the hands of local communities, and protecting public service broadcasting, museum funding, public libraries parks and green spaces' (p. 182). 'Dismantling the culture of consumerism' (p. 183).

If I were a dictator, let alone a democratic politician, wanting to make the transition, I would find little in the chapter to guide me in any detail, although I might want to achieve many of the results Jackson mentions. Yet the devil *is* in the implementation details of such ambitious programmes. We have seen how the laudable objectives of socialism and communism produced counterproductive results when attempts were made to put them into practice through specific policies and detailed plans. Until such details are fully articulated, the critics of the no-growth group are justified in being sceptical that the objective can actually be achieved with measures that are acceptable in democratic societies, and in the time span that is relevant to avoiding climate disaster. In contrast, an authoritarian government can clearly stop growth. For example, it could confiscate without compensation all foreign assets and so dry up any new foreign investment and then make domestic property rights insecure by confiscating much local industry and giving it to cronies. Less crass dictatorial methods might also stop growth and it is clear that this can be, and indeed has been, done by several such governments. The irony is, however, that dictatorial governments typically wish to encourage growth in order to keep their people quiescent – and some succeed while others fail through incompetence.

## **Implementation**

Until we know precisely what measures are to be used to produce no growth, we cannot assess how easy it will be to implement them. There are, for example, international treaties that govern trade and investment flows that might severely inhibit some of the measures needed to stop growth. Also experience with planned economies shows that major command interferences, such as dictating prices, profits and the rate of resource use, are difficult to implement and to enforce. Enforcement requires, for example, eliminating 'black market' attempts to avoid the controls. More generally, although the previous outline may not have captured the full details of Tim Jackson's ideas for transition, what is outlined

there should be enough to show that achieving most of these measures, even with the best will in the world, would take decades if not centuries. We might still be trying to make this transformation long after climate change had overwhelmed much of our existing societies.

### **Efficacy**

Until we know precisely what measures will be used to produce no growth, we cannot know how effective the various methods will be. Certainly there would be a process of learning by trial and error, at least as serious as those that accompanied the introduction of such green growth measures as cap and trade.

### **Sufficiency**

And here is the rub! No-growth advocates agree that even if all growth were to halt tomorrow, the full paraphernalia of green growth measures would still need to be instituted. Our present world is replete with forces that threaten the environment. So stopping growth fully now would still leave in place technologies and production practices that are highly polluting, including the emission of much greenhouse gas. So no growth would have to be accompanied by a full set of green growth measures.

### **Side-effects**

Until we know the precise set of interventions that are to produce no growth, we cannot be sure about all the side-effects. But there will certainly be major effects on technological change, which is a major cause of economic growth and which is mainly driven by the pursuit of profits. Thus if there is to be no growth, there probably will be little technological change. Some might still be produced by non-profit means, but it would be, without doubt, at a much slower pace than now. Since technological change has in the past reduced both the amount of resources used and the amount of pollution created, per unit of GDP produced, this beneficial source of greening of the economy would be curtailed, if not fully removed. Also there might well be an unfavourable feedback from slowing growth to slowing the spreading of well-known measures for the green economy and other socially desirable measures. It is generally easier to achieve any transformation, such as to a low-carbon economy, in a period of high growth and high investment than in a period of little or no growth and low investment. As an illustration of this, Friedman (2005) discusses the reduction in social and environmental reforms that are associated with periods of economic decline. Another possible side-effect is well known to macro policy makers. Policies that attempt to slow or stop the growth of GDP work with large errors and long lags, and so can often overshoot, causing major recessions. Policies to recover from a recession might be hard to design and implement in the context of a no-growth regime.

### **Political Problems**

If green growth measures face difficult political problems, no-growth measures would face many more. People in developing countries would resist being kept with living standards well below those of the advanced countries. Those in advanced countries who have their

livelihoods linked to technological change and other growth-creating activities would be active resisters – from the financial sector to the many shareholders, both individuals and pension funds, who depend on the dividends they receive from businesses profits that in turn depend in large part on growth. However, what really matters here is that the resistance that no-growth measures would face is very much greater than the resistance that green growth measures face today.

## SUMMARY

The discussion is summarised in Table 1.1.

*Table 1.1 Characteristics of green and no growth policies*

	Green Growth	No Growth
Tools Implementation.	Exist and well tried. Feasible and much experience already exists.	Unclear what these would be. Unclear how easy implementation would be until measures are fully specified. But the experience of planned economies shows that it would not be easy to implement the major interventions that would be needed to stop or even seriously retard growth.
Efficacy	Shown to be effective by much existing experience.	Experience of planned economies shows that assuring the efficacy of such measures in the face of potential evasions through such institutions as black markets would not to be easy.
Sufficiency	Green growth advocates argue that the measures they advocate would be sufficient.	Clearly stopping growth is not sufficient to solve the problems. Thus the full range of green growth measures would also be needed.
Side-effects	These are debated, but the majority opinion among those who have studied the issue is that the loss of GDP would be small or might possibly turn into a gain.	Future loss of new technologies that are green as a by-product. Might also be a temporary recession that would be difficult to combat given the no-growth policies in existence.
Political problems	Very large.	Much larger than with green growth measures.
Summary	Feasible with known and proven tools but with major political resistance – resistance that has been diminishing as experience accumulates both of the bad results of climate change and the good results of the green policies that have been instituted.	Tools not fully specified and unclear if they would be feasible to implement and enforce in a democratic, market-oriented society, nor how effective they would be. Implementation would face much more political resistance than green policies.

Three possible sequences of action can now be distinguished.

- Plan 1: push the green agenda and if, when implemented, it does not do the full job, seek to curtail or stop growth.
- Plan 2: Push the green agenda and an agenda to stop growth simultaneously.
- Plan 3: push to stop growth first then push the green agenda.

There seems to be no reason to favour Plan 3. This takes on the politically and technologically harder job first, and only if that succeeds does it take on the politically and technologically easier job. Furthermore, it can only apply to the developed countries as the less developed ones would never agree to try to stop their growth that is currently at various stages of taking them out of poverty.

Plan 2 takes on simultaneously the green measures that are politically and technologically less difficult, as well as the stop-growth measures that are politically and technologically more difficult. It goes against the conventional wisdom that it is much easier to make the transformation to a green economy in a period of economic growth rather than economic stagnation. If political resistance is insufficient to stop the green agenda on its own but risks being sufficient to stop the no-growth agenda on its own, then taking both on at the same time increases the risk of not achieving either. Also, if the measures designed to stop growth turn out to be unacceptable when put into practice, this might discredit some or all of the green measures. There is thus a strong argument for making what many believe to be an extremely – or even impossibly – difficult task, both technically and politically, the last rather than the first line of attack.

Plan 1 first takes on the politically easier, although still very difficult, green growth tasks. It then takes on the even more politically difficult task of stopping growth, which it does only if the green growth measures prove insufficient. Of course, one key problem is how to decide that green growth measures are insufficient should they prove to be so. We will know when they are all in place because we know what they are. If the programme stalls because of resistance to instituting these measures, there is no reason to believe that the more stringent measures for no-growth would fare any better. But if they are more or less all installed and greenhouse gas emissions are still not falling fast enough, then the more stringent measures will be called for and easier to justify. But before then there are no great technological problems to be solved for Plan 1 since most of the technologies are already in use somewhere in the world – although they will be further improved when they are more widely used. For example, the big reductions in the cost of solar panels began when the Chinese started to use them in a big way. There is also less chance of a backlash during implementation because the measures are already known to be acceptable in practice by the general public (if not to some special-interest groups).

No one can know for certain who is right, the green growth or the no-growth group. Indeed we will probably not know until well past the critical time at which, if not enough has been done, major environmental degradation will have become irreversible, caught up in strong positive feedback loops. But irrespective of who is right, there seems to be a very strong case for adopting Plan 1 over Plan 2 and no case at all for adopting Plan 3.

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