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Is It What You Measure That Really Matters? The Struggle to Move beyond GDP in Canada

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Abstract: In light of Gross Domestic Product's (GDP) well-known limitations as a wellbeing indicator, many alternative measures have been developed around the world. Some advocates of "beyond GDP" measures argue that they are key to shifting societal priorities away from economic growth toward sustainability, equity, and well-being. Is there any evidence to date that alternative indicators have lived up to their supporters' expectations, whether the hope is for a radical transformation of social priorities away from GDP growth or a reformist vision of better policymaking without challenging the growth paradigm? What are the obstacles to fulfilling those expectations? This article examines the Canadian experience, drawing on interviews with researchers, non-governmental organization (NGO) leaders, public-sector officials, and politicians, along with analysis of relevant documents. The hopes of Canadian proponents of new wellbeing measures have been largely disappointed to date, as no impact on federal or provincial policy is evident. Obstacles facing both a transformative and more limited reformist vision are examined. The Canadian case also suggests that use of new socio-economic indicators is best seen as one product of political efforts to bring ecological and social values into decision-making, rather than as the transformative force that will cause a change in societal priorities.

Keywords: "beyond GDP"; socio-economic indicators; wellbeing; redefining prosperity; Gross Domestic Product; green state

1. Introduction

Gross Domestic Product (GDP), which has been called the "world's most powerful number" [1], is now being contested across the globe. Although it was only intended to measure the monetary value of goods and services produced in an economy, GDP has come to be seen as a measure of social progress and wellbeing. When used in this way, its limitations are numerous and well-documented [2–5]. Among the most important are GDP's failure to account for environmental costs, inequality in distribution, and the value of non-market economic activity. Another factor behind the critique of GDP has been evidence that, beyond a threshold where core material needs are met, little if any link exists between further growth in per-capita GDP and happiness, life satisfaction, or broader wellbeing measures [6–10]. (However, some researchers contest this point [11], or see a more complex relationship [12].) One recent study found that global GDP has more than tripled since 1950, but a more comprehensive wellbeing measure, the Genuine Progress Indicator (GPI), has fallen since 1978, while global ecological footprint has grown beyond sustainable levels during this time [13].

In light of such concerns, the green movement and academics sympathetic to it have been among the main voices demanding alternatives to GDP as a prosperity indicator, which has often been linked to a wider questioning of economic growth [14–18]. More recently, interest in "beyond GDP" indicators

has spread to the academic and political mainstream. An important step was former French president Sarkozy's establishment of the Commission on the Measurement of Economic Performance and Social Progress, led by Nobel laureates Joseph Stiglitz and Amartya Sen, along with Jean-Paul Fitoussi [4]. Other key initiatives have included the EU's "Beyond GDP" program [19,20], the Organisation for Economic Cooperation and Development's "green growth indicators" and Better Life Index [21,22], and the *World Happiness Report* [23]. Given this growing mainstream interest in new indicators, some critics of conventional economic measures and priorities argue that a "chance to dethrone GDP is now in sight" [3] (p. 283).

Many of those calling for new indicators have argued that they will contribute significantly to sustainability, equity, and greater wellbeing. Jonathan Porritt, then-chair of Britain's Sustainable Development Commission, wrote that new indicators would be a "short, sharp statistical shock to the system" [24] (p. 255). This perspective is in line with the often-heard idea that "it's what you measure that matters". Meanwhile, *Limits to Growth* report co-author Donella Meadows wrote that: "changing indicators can be one of the most powerful and at the same time one of the easiest ways of making system changes—it does not require firing people, ripping up physical structures, inventing new technologies, or enforcing new regulations. It only requires delivering new information to new places" [17] (p. 5).

Although interest in new prosperity indicators is widespread, much debate remains over the best alternatives to replace or complement GDP, and the best way to measure wellbeing [4,18,25–28]. Some alternative measurement systems, such as the Genuine Progress Indicator [29], adjust GDP by including a wider range of costs and benefits, while others focus on "greening" the GDP by counting environmental externalities and resource depletion costs [30,31]. Composite social and ecological measures, such as the Human Development Index, the Social Progress Index, and the Canadian Index of Wellbeing [32], combine several indicators. Another approach is to directly measure subjective wellbeing [33]. While many alternatives are presented as complements to GDP, and thus do not directly challenge the prioritization of economic growth, some proposed indicator systems are designed to guide "de-growth" toward a sustainable, steady-state economy [18]. Indeed, a distinction is evident between a radical or transformative vision of alternative indicators as a way to shift societal priorities away from economic growth and a less expansive, reformist vision of alternative indicators as a tool for better policy making without challenging the growth paradigm.

Development of alternative indicators has reached the point that an opportunity now exists to ask: what effect are they having in practice? Is there any evidence to date that alternative indicators have shaped policy and public priorities in ways that live up to their supporters' expectations? What are the obstacles to fulfilling those expectations? What conditions and further changes are needed to achieve progress toward the respective visions for alternative indicators? Some work addressing similar questions has been conducted in Europe [34,35]; in this article, we examine these issues by looking at the case of Canada. This article is part of a wider research project that is also examining the experience with "beyond GDP" measurement in the UK, the US states of Vermont and Maryland, and Bhutan.

2. Methods

To answer these questions, 16 semi-structured interviews were conducted in 2014 and 2015 with elite respondents—Canadian politicians, senior public servants, academics, non-governmental organization (NGO) researchers, and activists—involved in developing, applying, or advocating use of new indicators. Interviewees were identified based on: existing contacts that the authors have with individuals working in this field, review of websites and documents produced by organizations involved in these issues, and snowball techniques as initial interviewees provided new contacts. After a draft of the article was written, respondents were contacted again to review and, if necessary, revise and update points taken from their interviews. The study also draws on analysis of relevant documents from organizations involved in producing, using, and advocating the use of alternative indicators.

3. Theoretical Framework: Alternative Indicators and the Environmental/Green State

While the “beyond GDP” agenda includes more than environmental issues, we consider them in the context of the emergence of an environmental or green state [36–41]. Although the terms are sometimes used interchangeably, we follow others who distinguish between an “environmental state”, which is a widespread, existing phenomenon, and a “green state”, which is a normative ideal yet to be attained [38].

An environmental state is one that includes environmental management among its key functions [38,41]. Environmental state theorists argue that, in developed democracies, the environment has joined security, the economy, and the welfare state as a core domain of state activity. The state’s environmental role, from regulating pollution to negotiating global environmental accords, has greatly expanded in recent decades and will likely continue evolving [38,41]. “Beyond GDP” indicators, which incorporate environmental costs and benefits or include sustainability measures as a main component, can be seen as another step in the environmental state’s evolution. Alternative indicators are closely linked to a key task of the environmental state: addressing problems caused by the negative environmental externalities of economic activity, i.e., environmental costs not reflected in market prices [42,43]. As states increasingly take on that task, GDP becomes more limited as a measure of success since it does not account for those external costs. That said, measurement reforms, like other steps that expand the state’s environmental role, need not lead to any downplaying of the pursuit of economic growth. Many environmental states have tried to pursue environmental goals and GDP growth through (weak) ecological modernization, or “green growth”, that relies on improved technology and efficiency to decouple growth from negative environmental impacts [44–47]. Such efforts are consistent with the reformist vision of alternative indicators, discussed above, as new indicators that complement GDP could guide pursuit of “green growth” [21,48].

Emergence of a green state would involve a more radical transformation than in actually-existing environmental states [38,39,47]. Christoff writes that a green state’s features would include commitment to “strong ecological modernization” based on “a driving and predominant moral purpose in directing social and economic activity toward ecologically sustainable (and socially just) outcomes” [44] (p. 41). Duit adds that a green/ecological state is one that has reversed the priority between economic growth and environment, and consistently favours the latter when they conflict [42]. A green state thus has an affinity with a transformative vision for alternative indicators. “Beyond GDP” measures could be part of a green state’s prioritization of ecological sustainability and less consumption-oriented ways of achieving wellbeing [49,50]. A green state would also need new sustainable wellbeing measures to show that alternative choices, such as work-time reduction over income growth [51,52], have social benefits that GDP’s monetary focus fails to capture.

A transformative vision for “beyond GDP” measures, like the wider transition to a green state, faces daunting obstacles as it clashes with what is widely considered a core political imperative of contemporary states. Economic growth is perceived to be essential to raise revenue to carry out other core functions, such as ensuring security and legitimizing the social order through social spending, in addition to its role in creating jobs and enabling profit-making and capital accumulation [37,53,54]. A transformative vision of “beyond GDP” measures, which seeks to shift priorities away from growth, thus faces far greater obstacles than more limited formulations of new indicators as a tool for better policy and greener growth. At the same time, the indicators issue has opened up space for discussion about society’s end goals and how to achieve them, creating opportunities for those who question the focus on economic growth. The “beyond GDP” debate thus represents intriguing terrain as it is constrained by contemporary political imperatives and yet offers a platform upon which some political actors are trying to re-define those imperatives.

4. The Canadian Experience

4.1. Canadian Contributions

Canada has been a leader in academic and non-governmental organization (NGO) work on alternative indicators. Canadian researchers, including John Helliwell and Alex Michalos [55,56], have played key roles in the study of wellbeing, while Helliwell is also lead author of the new *World Happiness Report* [23]. Canadian economists Lars Osberg and Andrew Sharpe developed an Index of Economic Wellbeing in the late 1990s that expressed many of the principles that the Stiglitz-Sen-Fitoussi Commission later highlighted [4,57]. Pioneering work on alternative measurements has been done in Nova Scotia by GPI Atlantic [58], whose founder Ron Colman has contributed to Bhutan's efforts to pursue and measure Gross National Happiness (GNH). (Canadian Michael Pennock also made a key contribution to Bhutan's efforts through work developing a GNH policy screening tool and the survey used to calculate the GNH Index). Innovations in GPI calculations were first applied in the province of Alberta by the Pembina Institute and ecological economist Mark Anielski [59]. Follow-up work included an Edmonton GPI for the province's capital city [60,61].

Much of the work on alternative wellbeing indicators has come to centre on the Canadian Index of Wellbeing (CIW), developed with input from many leading thinkers in this area and later produced at the University of Waterloo. The Atkinson Charitable Foundation supported the CIW during its development, while former Saskatchewan Premier Roy Romanow (NDP) and former federal health minister Monique Bégin (Liberal) championed the cause. The CIW is based on sixty-four indicators in eight domains: community vitality, democratic engagement, education, environment, healthy populations, leisure and culture, living standards, and time use. With the 2011 launch of the CIW, Canada became one of the first countries with a composite wellbeing index, although it was not officially adopted or produced by the federal government [62]. At the provincial level, CIW figures were produced for Ontario in 2014 [63], and plans for a Saskatchewan Index of Wellbeing were announced in 2016.

The second and most recent CIW figures, released in 2012, showed that from 1994 to 2010, Canada's GDP grew 28.9 percent, but the CIW rose just 5.7 percent—and in fact plummeted 24 percent from 2008 to 2010, much more than GDP declined during the recession [32]. (An update of the CIW was scheduled for release in November 2016.) The 2012 figures were consistent with growth critics' argument that greater economic output was not strongly associated with wellbeing, although they also showed that recessions and unemployment were highly destructive of wellbeing. While Canada did well in some areas—e.g., community vitality and falling crime—the environmental domain deteriorated most after 1994, with large increases in GHGs and per-capita ecological footprint. “The Environment domain speaks volumes about the tension between the relentless pursuit of economic growth and the finite reality of a planet experiencing massive climate change and dwindling natural resources”, stated the CIW report [32] (p. 5). More Canadians also faced a “time crunch”, as almost one in five working-age adults felt high levels of time pressure, prompting the authors to write, “Certainly economic growth is laudable. But what does it mean to a society if it comes at the expense of less free time, fewer social connections, lower personal satisfaction, and a more stressful life?” [32] (p. 9).

The CIW has a number of strengths as a “beyond GDP” alternative, illustrating the considerable intellectual work that went into its design. There has been much debate over the merits of a single, attention-grabbing headline indicator that can rival GDP compared to a “dashboard” of indicators. The CIW provides both, as one can compare change in the overall index to GDP and also see trends within different domains. A challenge with some alternative measures has been the difficulty of communicating the meaning of the results; for example, Bhutan's Gross National Happiness Index is constructed in a very elaborate and complicated way [64,65]. The CIW, in contrast, provides easy-to-understand percentage changes in the overall index and its domains. Indeed, significant resources were devoted to developing the Index in a way that it could be communicated effectively. “We ensured that measurement experts had to work with communications people”, said

one interviewee [66]. By including environmental indicators, the CIW highlights the need to pursue wellbeing in sustainable ways—an issue that World Happiness report rankings of countries, for example, do not address. Although criticisms have been raised, including objections to subjective choices about variables included in the Index and their weightings, the CIW offers a possible model that has attracted attention abroad (e.g., [67]). (One way the CIW differs from many “beyond GDP” measures is that it does not include subjective wellbeing data [68] (p. 19), which limits its appeal among those who see subjective wellbeing as the key element of new measurement systems.)

Some interest in beyond-GDP measurement was evident at the federal level during previous Liberal governments. In 2000, federal finance minister Paul Martin launched an effort to develop new environmental and sustainable development indicators, providing \$9 million to the National Round Table on the Environment and Economy for the task. In his budget speech, Martin optimistically proclaimed: “In the years ahead, these environmental indicators could well have a greater impact on public policy than any other single measure we might introduce” [69,70]. Martin himself favoured a “Green GDP” adjusted for environmental depletion costs, although introducing the new measure did not become a top priority while he was finance minister or prime minister [71]. While Statistics Canada, the national statistics agency, did not take charge of producing a beyond-GDP alternative, some of its officials did contribute to developing the CIW. Statistics Canada has also collected data on life satisfaction for over a decade on large numbers of respondents through the General Social Survey and the Canadian Community Health Survey—indeed, it has collected survey data on subjective wellbeing in various forms for over 25 years [72]—and has produced analysis of variables associated with life satisfaction (e.g., [73]).

There have also been numerous local initiatives to calculate and use social and environmental indicators. Much of this work has occurred through the Vital Signs program of the Community Foundations of Canada, with some 49 communities measuring key quality-of-life indicators [63,74]. In recent years, the CIW’s community wellbeing survey has played a greater role in such local-level measurements [75].

4.2. Hopes and Motivations

Those involved in developing and promoting alternative economic and wellbeing indicators expressed a mix of radical and (mostly) reformist hopes and motivations. Some saw their efforts as a challenge to the wider growth paradigm. “The emperor has no clothes. We are measuring growth and told that growth is good, so we strive for growth. Unfortunately, we are pressing against planetary limits”, said author and 7th Generation Initiative director Mike Nickerson. “What is society trying to accomplish?” he asked. “Growing is good for children; not so much for adults. We’d do well to adopt an economic system suitable to a mature society” [76] (see also [54] (pp. 97–99) and [77]). Peter Bevan-Baker, Prince Edward Island Green Party leader, who, along with Nickerson, initiated the Canada Wellbeing Measurement Act in the late 1990s, said his initial motivation was “recognition that growth ever-lasting is not compatible with long-term wellbeing on planet earth”. He emphasized the “disconnect between wealth and wellbeing”, arguing that “having more stuff” is “not the route to human satisfaction”. The Green Party of Canada also linked new wellbeing measures to a critique of growth, stating in its election document: “Greens recognize that we need new measurements of our societal health and prosperity. Greens know that the notion of unending economic growth is a dangerous illusion” [78] (p. 11). Meanwhile, Dan O’Neill, a Canadian ecological economist based in Britain, has worked on new indicator systems to assess “de-growth” toward a sustainable, steady-state economy [18,79]. However, most interviewees did not frame the issue as a direct challenge to a growth-based system [80].

On the related issue of whether the goal was to replace or complement GDP, Bevan-Baker said, “I’ve always thought that it should ideally be a replacement for GDP”, but added that “I think the two could co-exist” [81]. Indeed, the dominant view among interviewees was that new measures would complement GDP. “GDP would be one of the economic indicators in the suite ... GDP is a

useful measure, but it becomes less than useful is when it is your only measure”, former MP Joe Jordan stated [82]. “The aim is not to replace GDP, but to offer a more holistic view of wellbeing”, wrote Roy Romanow [83]. “I would not have gotten rid of the GDP as it is too historically rooted and the comparisons flowing from it are important to too many people”, said former Prime Minister Paul Martin. His preferred alternative measure was, as mentioned, a “green GDP” or “GDP-plus” that accounted for environmental costs and resource depletion. “I would have established GDP-plus as the main ongoing indicator”, he added [71]. Others expressed hopes that alternatives, such as the CIW, “would be as prominent as GDP reports” [84]. According to one interviewee, “If I wanted to think really big, every time that GDP is reported, we’d get reported as well” [75]. “These other indices should be seen as similar in weight and importance to the GDP. The GDP is just one measure of progress. . . . We need a complementary set of measures”, said another interviewee [85].

A key goal of the CIW was to “create an alternative measure that would change the conversation around the water coolers [86] of the nation” [66] (similar point in [85]). In addition, the explicit goal was that governments would use it: “it would be created by experts in the areas of wellbeing and eventually the index would be then used by government, to drive government and create policy The idea was that eventually governments would assume responsibility for this index and adopt it at the provincial, national, and municipal level to measure their progress” [85]. Another interviewee noted that official government adoption of alternative measures was important to give them legitimacy and signal a shift in “the objectives of society as a whole” [76].

Overriding goals, in Romanow’s words, included enabling governments to “design better public policy” [87] and “make evidence-based decisions that respond to the values and needs of Canadians” [83]. “It makes things a whole lot clearer to see what needs attention and where we are succeeding”, said one interviewee [76].

Proponents spoke in various ways of the need for “a more balanced perspective” between economic goals and other policy objectives [88]. Romanow referred to wellbeing indices as “a counter-balance on a teeter-totter with GDP at the other end” [89]. Liberal MP Joe Jordan, who initiated a private member’s bill to create a Canada Well-Being Measurement Act, sought to counter the “extreme bias toward economic indicators” that “do not give the total picture” [90]. According to the first issue of *Reality Check* in 2001, a publication promoting “new measures of progress” in Canada, “Such measures will prod our leaders to put the same energy into promoting social progress and preventing environmental decline as they currently put into promoting economic growth and preventing recession” [91]. The goal, according to one interviewee, would be “to recognize and institutionalize our society’s underlying values that, while not totally ignored, are not yet institutionalized in the economic system” [92].

One interviewee spoke of his interest in a more integrated approach to policy by “coming up with planning models that cross cut sectors”. He noted that government is “organized in these silos and they compete with each other . . . and they do things in one silo that has negative effects on another and so forth”. He came to appreciate that a framework like Bhutan’s Gross National Happiness, which elevates well-being to “the ultimate outcome that we are all striving for”, provides a model that allows cross-sector planning “because no silo owns wellbeing” [64].

Former MP Joe Jordan expressed an additional motivation: that a wider set of wellbeing indicators would provide objective information that enhances voters’ capacities to “decide whether governments are worth supporting”. He explained that a government’s record is currently the subject of “a partisan spin war”, but a “more objective set of indicators” would provide citizens with something like “a report card”, which they could use to “evaluate the rightness and wrongness of government policy” [82].

Although many interviewees expressed similar hopes and motivations, some came to the issue from very different starting points. For example, as noted above, ecological concerns were the key motivator for some supporters of alternative indicators. In contrast, former Saskatchewan Premier Roy Romanow saw the issue primarily in health and wellbeing terms, emphasizing the need to

broaden the public-policy perspective beyond the treatment of illness to address the full range of social determinants of health.

4.3. Impacts

Canadian work in this area has generated occasional blips of media attention. For example, the Alberta GPI report in 2001 garnered a front-page headline in *The Globe and Mail*, a prominent national newspaper, proclaiming that “Fat-Cat Albertans struggle with happiness”. The article noted that Alberta’s economy and divorce rate had both grown more than 4 percent annually since 1961, while another five planets would be needed if everyone on Earth had the same ecological footprint as Albertans [59,93]. Meanwhile, the CIW’s 2012 release produced headlines such as “Canadian economy grows, but quality of life on the decline” and “Happiness lags prosperity, study finds” [94,95]. In principle, such evidence and the media coverage it generated provided a political opportunity to those seeking to challenge existing societal and policy priorities. However, there is no sign that the conversation at the nation’s water coolers has changed in any fundamental way, while there are only a few small-scale signs of impact on public policy.

Despite the advanced nature of Canadian work on these issues, no government in Canada, federal or provincial, had by mid-2016 begun to calculate and/or use the CIW, or any other alternative well-being measure. Prior to taking power in 2009, Nova Scotia’s centre-left New Democratic Party (NDP) did pledge “to incorporate Genuine Progress accounting into provincial policy analysis” [96]; however the NDP government did not act on this promise. The Canada Wellbeing Measurement Act, a private member’s bill that Liberal MP Joe Jordan introduced in 2000, would have required the federal government to produce new economic, social, and environmental wellbeing indicators. Although the House of Commons approved a related, non-binding motion in 2003, the bill never made its way through Parliament. A similar private member’s bill, the Canada Genuine Progress Measurement Act, was tabled in 2012 by the Green Party [97], which, with only a single seat in Parliament, had become the main proponent among federal parties of change in progress measures.

On the whole, interviewees expressed disappointment at the very limited impact at national and provincial levels of alternative wellbeing measurements. When asked if the CIW had been effective at changing or influencing policy so far, CIW Director Bryan Smale replied, “At this point, I have to say no. Our efforts to raise awareness through the release of our national and provincial indicators have gotten a lot of traction, attention. Has that transferred to policy change? Probably not. Not that I’m aware of, at the provincial or national level” [75]. Asked how, based on her work with the Alberta GPI, she would describe these efforts’ impact or success, an interviewee replied in 2014, “Low. . . . I don’t hear about them now. It feels like the momentum has dropped off in the Canadian context . . . basically there has been no long-term impact” [98]. (However, in a later communication, she saw signs of potential renewed interest [99], as discussed below.) Several other comments also expressed disappointment:

“In a way [the CIW] has been very disappointing . . . it has not been adopted by any provincial governments. Even the national parties, including the NDP, haven’t stood up . . . The Harper government hasn’t even given it any consideration. . . . For many reasons it has struggled to get any serious traction in terms of shaping public policy” [85].

“There is disappointment that those [alternative indicators] haven’t been adopted in any way by . . . government” [92].

“[The CIW] got a lot of media attention when it first came out. . . . It was quite a grandiose release. It got a lot of publicity . . . Did any of the effects of the CIW show up anywhere in the political debates, in the House of Commons, or in any of the provincial (legislatures)? Not that I saw first-hand” [84].

“We made the pitch for [the CIW], but couldn’t get much reaction from political leaders or the bureaucracy” [89].

“I rarely hear it discussed”. The impact of work on the Canada Wellbeing Measurement Act and CIW has been “somewhere between minimal and non-existent, sadly” [81].

Some interviewees saw greater awareness of alternative possibilities as one positive impact. While he could not trace any direct impacts from his work on the Canada Wellbeing Measurement Act, Nickerson said, “We were able to reach a lot of people . . . it was helpful in opening the conversation about our prime indicator being GDP or GPI. It questions what we are trying to accomplish as a society” [76]. Another interviewee said that alternative indicators are “a direction not yet taken, but on the positive side, at least people know the direction exists. That isn’t great success, but at least it opens up a possibility for the future” [92]. Similarly, an interviewee acknowledged a loss of momentum on the issue, but saw it as a “long-term process” and was optimistic that the idea that “wellbeing is not exclusively about the scale or scope of the Canadian economy has taken root” [88].

Some interviewees were more optimistic about local use of alternative wellbeing measures. “I think the action is at the community level . . . and I look forward to a time when we have more visionary leadership at provincial and national levels” said one interviewee. She pointed, among other examples, to municipal dashboards with a comprehensive range of wellbeing measures and the “exemplary community tracking” through websites such as Wellbeing Toronto and MyPeg in Winnipeg [88]. Anielski, who similarly saw “greater traction at the local level”, pointed to Edmonton’s use of the GPI in its strategic planning and 30-year vision [85]. Smale noted that municipal and regional governments have used the CIW’s community wellbeing survey in sustainability planning, adding that the “community wellbeing survey probably has the greatest momentum right now” [75]. One example has been the Guelph Wellbeing Initiative, which used the CIW framework to measure wellbeing among residents and identify priorities for programs and projects [100]. “The reason I’m optimistic now is because of the bottom up work”, said one respondent. “The mayor of Guelph can show where CIW is being used and affecting public policy” [66]. The Association of Ontario Health Centres has also adopted the CIW framework to guide its work with local communities [66,75,101].

Another below-the-radar example of impact was the decision in 2014 by the Ontario Trillium Foundation, a government agency that distributes some \$110 million annually in community grants, to use the CIW framework and a selection of its indicators to guide its grant-making in six priority areas [75,102].

4.4. Obstacles to Greater Impact

Although alternative indicators have had some small impact to date, their proponents’ hopes have been disappointed for the most part. Numerous obstacles are evident. While a full comparison of the Canadian case with experiences elsewhere is beyond the scope of this article, many similar obstacles have also been apparent in European countries with alternative-indicator initiatives [34,35]. The challenges include some that are typical with pursuit of any reform: “inertia” that kept the focus on the GDP as the key economic variable in policy making [92] (see also [35] (p. 33); resistance from those who did not understand the idea and its potential, which highlights the importance of strong communications [66] (see also [34] (p. 169); and the need for a “reorientation of our thinking” to see wellbeing in wider terms [64]. Beyond such common difficulties, some more specific challenges are evident.

4.4.1. Challenges Constructing and Agreeing on Alternative Measures

Challenges include accessing high-quality and conceptually valid data on a timely basis—issues that have also arisen in Europe [34] (p. 167), [35] (pp. 5, 29)—and finding the resources to produce alternative measures. “At the end of the day, you’re held hostage to the data that are available, and the methods and periodicity with which it is produced”, said one interviewee [88]. Ron Colman of GPI Atlantic noted that GDP is measured monthly, but Canada has only studied wealth distribution three times, and time-use studies of unpaid work only happen every seven years (personal communication).

With cutbacks to Statistics Canada, data-availability challenges have grown. Budget constraints have also affected development of alternative indicators in other countries [34] (p. 166), [35] (p. 28), but there have been particular challenges in finding adequate resources in Canada, where government has not taken responsibility for producing a “beyond GDP” alternative. Those producing the CIW do so without secure funding, spending significant time fundraising and taking on small projects, while still trying to maintain focus on regular production of the Index [75].

Another key challenge in Canada has been lack of consensus on the best alternative measures and how to construct them—as has been the case internationally. The proliferation of possible alternative measurements is evident, for example, in Bley’s classification of 23 different beyond-GDP measures, a selection of the available options [103,104]. Although much Canadian work has come to focus on the CIW, there has not been universal agreement on its merits. One interviewee recalled disagreements over the way the various measures that make up the CIW were aggregated—a concern often raised with composite indices [105]. Meanwhile, former Prime Minister Martin favoured including environmental depletion costs in a new “green GDP” or “GDP-plus”, but he disagreed with others over inclusion of a wider set of wellbeing indicators in a single measure: “I believe so strongly in the environmental indicators that I want to win that battle first. I’m worried that if we are fighting on too many fronts at once that we are not going to win it”. According to Martin, the “measurement of wellbeing risks being much more subjective and this could lose credibility. Furthermore, there is not sufficient agreement at the present time on what is the acceptable set of wellbeing and happiness indicators, which would further affect credibility”. He acknowledged that there is merit in trying to measure wellbeing, but “I wouldn’t want to marry it with GDP-plus, which can be measured objectively and serve as the fundamental indicator” [71]. In contrast, another interviewee maintained that “we need to be triple bottom line” and measure progress in economic, environmental, and social terms [66].

4.4.2. What are Alternative Indicators For? Who Leads the Way?

Closely related to the lack of full agreement on the best alternative is the pursuit by proponents of alternative indicators of many different agendas. As noted above, some individuals are strongly motivated by the need for better environmental indicators, although they are divided between those seeking reforms to a growth-based system and others seeking to challenge the growth paradigm. Distinctions also exist between those motivated primarily by environmental and various social concerns, such as former Saskatchewan Premier Romanow, who saw the issue largely through a health and wellbeing lens. In principle, there could be opportunities in building a coalition among a wide range of different people and groups, integrating many of these different perspectives through the “triple bottom line” approach mentioned above, but in practice the challenges are significant in bridging the different priorities, agendas, and messages [106]. (Multiple agendas and conflicting values behind different approaches to wellbeing measurement have also been evident beyond Canada [34] (p. 167), [107,108]).

While “beyond GDP” measurement could potentially serve a variety of political agendas, one interviewee noted that in Canada it has yet to be “attached to an action agenda”. She contrasted the situation with poverty measurement, which, in some provinces, has been closely linked to poverty-reduction plans. “Why does this matter? That has to be the first question I don’t think we’ve made that particularly clear”, she added, identifying a limitation that has also arisen elsewhere [75,109]. As in Europe, there would appear to be a need for “indicator entrepreneurs” who can highlight the implications of what alternative indicators reveal, identify opportunities for their use in policy, and promote such uses [34] (p. 170), [35] (p. 34).

There are related, broader questions about who can drive the change in measurement and raise the issue’s profile. Although important support has come from former political leaders, as well as backbench MPs and the Green Party, no leader while in power at the federal or provincial level has prioritized introducing a “beyond GDP” alternative. The need for a “bold leader” was voiced by one interviewee [81], while another expressed hope that the issue would be taken up by a “Tommy

Douglas" [110] reformer in government or a "David Suzuki" [111] civil-society leader capable of building public support. Meanwhile, former MP Joe Jordan saw a need for grassroots pressure to overcome the hesitancy of politicians unsure that the issue is a "political winner". "This is going to have to be something that Canadians demand", he said [82]. However, governments have to date faced little public pressure to calculate and use new wellbeing indicators. Although new indicators have elicited interest among various groups within society, no constituency with significant political force has made it a priority demand. An interviewee noted that many civil-society groups wanted more social and economic data, and issues such as restoring Canada's long-form census were "on their agenda", but alternatives to GDP such as the CIW were far lower on the priority list [105]. (Similarly, research on alternative measurement initiatives in Europe points to the "lack of a clear political imperative" to use alternative indicators and prioritize the outcomes that they measures given the low level of public demand and awareness [35] (pp. 6, 29).

4.4.3. Harper Conservatives as an Anti-Reflexive Force

Although the CIW has been accused of being on the left of the political spectrum due to its emphasis on equity, the collective, and social justice, rather than individual rights and responsibilities [75], one need not be left-leaning to support "beyond GDP" measurements. That was evident, for example, in support for the Canada Wellbeing Measurement Act from a Canadian Alliance (right-wing) MP, Scott Reid, who, according to an interviewee, was interested in ways to "measure the cost of crime and the value of work in the home" [76]. Indeed, many Canadian Alliance MPs, including then-leader Stephen Harper, voted for Motion 385 in 2003 calling for a new set of social, environmental, and economic indicators [112]. High-level conservative interest in alternative measures has been evident in other countries, including France under President Sarkozy and Britain, where David Cameron raised the profile of the politics of wellbeing while in opposition and, once in power in 2010, launched a National Wellbeing Measurement initiative [19,113].

That said, there were particular challenges faced during Stephen Harper's Conservative government (2006–2015). New indicator systems hold the promise of better, evidence-based policy-making. However, the Harper government's disregard for evidence, particularly that which challenged its priorities, was apparent in actions such as cancellation of the mandatory long-form census, silencing federal environmental scientists, and closure of the National Round Table on Environment and Economy. Indeed, in 2012, Canadian scientists and others gathered on Parliament Hill to protest the "death of evidence" [114]. Others referred to Harper's "war on science" [115]. Several interviewees, speaking before the October 2015 election of a centre-left Liberal government, commented on the same theme. One noted that under the Conservatives, "There is not much appetite around this stuff. . . . This is not an area where the Harper government is going to spend a lot of its energy" [116]. Another interviewee stated that Statistics Canada is "being decimated as we speak. . . . Harper has declared Ottawa as an evidence free zone" [66]. Former Prime Minister Martin saw obstacles from "those who battle not from an evidential basis, but from an ideological basis and do not want to have real numbers" [71]. Alternatives to GDP have been "one of many victims" of the "larger attack on evidence making", said another interviewee. She added that, "We're getting used to not having information . . . It's like 10 years of being in a dark room" [88].

In their analysis of US conservatism and its efforts to promote climate-science denial, McCright and Dunlap characterized the American right as a force of "anti-reflexivity" [117]. That is, it sought to undermine the social and environmental impact science—as well as the social movements—that could serve as the basis for a reflexive, ecological modernization in which society gained the capacity to critically evaluate and choose alternative paths beyond "business-as-usual" industrial capitalism. The Harper government's resistance to evidence-based policy making, with regard to wellbeing measurement and other issues, can also be seen in this light.

Although these problems have been particularly acute in recent years, it may be unfair to pin them all on the Harper government. One interviewee stated that, while Stephen Harper had destroyed

“what was probably the best statistical agency in the world”, the process of destruction had begun even before the Harper government [66]. At the time of writing, the degree to which Justin Trudeau’s Liberal government would reverse such trends was not yet clear, although it had made a start by announcing restoration of the mandatory long-form census.

4.4.4. The Economic Growth Imperative vs. the Radical Vision for Alternative Indicators

While the impact of the reformist vision of alternative indicators as a basis for better policy making has been very limited, the more radical vision of redirecting society towards priorities other than economic growth has faced even greater obstacles. The existence of a measurement such as the CIW showing that wellbeing has not increased in line with economic growth, the environment has seen the greatest deterioration among any measured domain, and material affluence coincides with significant “time poverty” does offer some opportunity to make the case for alternatives to the growth paradigm [54] (pp. 151–152). It has, however, been a very limited opportunity to date. Although some voices in the public debate express the radical green critique of a growth-based economy, that growth critique has been downplayed in the way the CIW has been presented. The effort to take the demand for alternative indicators into the mainstream has involved engagement with and advocacy by political actors with a moderate reformist agenda, such as Paul Martin and Roy Romanow. In addition, the critique of a growth-based economy was not a prominent theme highlighted by most interviewees. As Wilson and Tyedmers wrote, “The focus has changed from using alternative metrics to question failings of GDP and economic growth toward promoting a growth platform with fewer associated environmental and social costs” [70] (p. 196).

The perceived political imperative of economic growth creates a playing field heavily tilted against ideas that seek to turn away from growth. Researchers in Europe found “resistance to Beyond GDP indicators to the extent that they are associated with ‘unrealistic’ steady state or de-growth proposals” [35] (p. 31). Similarly, Peter Bevan-Baker suspected that the radical implications of a new measurement system framed as a challenge to “the prevailing economic and business mentality of growth being good” provoked resistance: “You are challenging some very sacred cows when you are talking about alternative measurements”. He also pointed to the “extraordinary power of the vested interests” who are doing well under the current system and resist change [81] (similar point from [76]). Although he continued to challenge the idea of “growth ever-lasting”, he acknowledged that, as he has gone from a fringe political candidate over the years to someone with a seat in a legislature, “I’m more measured in how I bring it up now”.

That said, Bevan-Baker had not given up hope that alternative measures would be used “so that our economy could be calibrated in a different manner” and that “people will recognize that our wellbeing is not necessarily connected to having more things” [81]. To that end, in November 2015, he introduced a Well-being Measurement Act, the Green Party leader’s first private member’s bill in the Prince Edward Island legislature [118,119].

5. Discussion

While efforts continue to promote alternative economic and wellbeing indicators, the hopes of Canadian proponents of new measurement frameworks have been largely disappointed to date. Although Canadians have played leading roles in developing alternative approaches to wellbeing measurement and Canada has a homegrown wellbeing index in the CIW, as well as other available options such as the GPI and a “green GDP”, federal and provincial governments have not adopted “beyond GDP” measures. In this respect, Canada has fallen behind other jurisdictions—such as Bhutan, Britain, Belgium, Italy, and Vermont and Maryland (USA)—where statistical agencies have begun to calculate alternative wellbeing measures alongside GDP. Despite a few small-scale and local examples, no significant impact on public policy at provincial or federal levels is evident. An alternative measurement system certainly has not become equal to GDP in media reporting and public

discussion, nor has it noticeably changed the public conversation as some had hoped, let alone replaced GDP as in more radical formulations.

Progress has been very limited regardless of the degree of transformation sought. The more radical vision of using alternative indicators to challenge economic growth's status as the dominant societal priority, and to achieve wellbeing in less consumption-oriented ways, would be in line with the emergence of a green state with an overriding purpose to ensure ecological sustainability. Such a radical transformation remains elusive, as does the less expansive, reformist vision of using "beyond GDP" alternatives to achieve more balanced and effective policymaking. The incorporation of environmental—as well as social—externalities into a new headline indicator, or set of key indicators, that helps guide policy decisions would be consistent with the expanded role of an environmental state that has added environmental management to its core functions alongside pursuit of economic growth, security, and provision of social welfare. However even this more reformist use of beyond GDP measurement has yet to make significant inroads into the state sphere in Canada. That said, elections in 2015 of a Liberal federal government and an NDP government in Alberta created some optimism that those in power could become more open to new wellbeing and sustainability indicators [99,120].

The idea that "changing indicators can be one of the most powerful and at the same time one of the easiest ways of making system changes" [17] (p. 5) is certainly not borne out by the Canadian experience to date. Obstacles have included: accessing the necessary data and resources to produce new measures; lack of consensus on the best alternative measure; multiple agendas behind calls for new indicators; and unresolved questions about how to link new measures to an action agenda, and who can drive the political action needed for governments to adopt new measures and use them in policymaking. Many similar obstacles are also evident elsewhere [121]. However, one particular Canadian obstacle that has not featured strongly in recent European research [34,35] is the existence of an anti-reflexive conservatism; when governments, such as that of Stephen Harper, show no interest in the evidence that such indicators and other social statistics provide, there is little prospect that new indicators will generate policy change, let alone system change. Meanwhile, transformative efforts to challenge the growth paradigm face even more fundamental obstacles, both in Canada and elsewhere. The prioritization of growth and the capital accumulation it enables is a product of much more than the information contained in the GDP; it is rooted in the way a capitalist economy is structured, the structural power of capital vis-à-vis the state and other political actors, the current dependence on growth to solve key problems such as unemployment, and frameworks of thought that celebrate expansion, profit, and consumerism above social and ecological concerns.

Although some have hoped that alternative indicators would in themselves be a transformative force that drives a change in societal priorities, the Canadian experience suggests that the widespread use of new indicators is more accurately seen a product of political and social movement efforts to expand the role of non-economic values in policy-making and in society more generally. Considerable work remains in areas such as: developing and building support for a new social narrative emphasizing objectives such as equity, sustainability, and less consumption-intensive sources of wellbeing; getting governments not only to adopt new measurements but also the values behind them; and—over a longer term—building up the institutions of an economy that does not require infinite expansion. One interviewee in Britain, where we conducted similar research into that country's new wellbeing measures, likened alternative indicators to the "icing on the cake" or the "flag on the castle". Canadian advocates of alternative indicators have an impressive flag in the CIW, and other viable options such as the GPI, but as yet no castle to fly them on.

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Abbreviations

The following abbreviations are used in this manuscript:

CIW	Canadian Index of Wellbeing
GDP	Gross Domestic Product
GPI	Genuine Progress Indicator
GNH	Gross National Happiness
NDP	New Democratic Party
NGO	Non-governmental organization

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104. For discussion of challenges in Europe in reaching agreement on which alternative measures to use and how to construct them, see ([34], pp. 167–168) and ([35], pp. 30–31).
105. Anonymous Interviewee, 2015.
106. Those who favour a pro-market, minimal state agenda can point to their own “beyond GDP” alternatives. The Fraser Institute, a right-wing Canadian think tank, claims that its Economic Freedom Index, which reflects a particular neoliberal conception of freedom, has a stronger relationship with average life satisfaction in a country than does per-capita income or whether a country has a democratic political system. Fraser Institute. *Economic Freedom of the World: 2015 Annual Report*; Fraser Institute: Vancouver, BC, Canada, 2015.
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108. McGregor, A. *Global Initiatives in Measuring Human Wellbeing: Convergence and Divergence*; CWiPP Working Paper Series No. 2; Centre for Wellbeing in Public Policy, University of Sheffield: Sheffield, UK, 2015.
109. In the UK, Bache and Reardon write, “What the ‘problem’ is that demands the measurement of well-being is not particularly well articulated and for this issue to advance further up the political agenda requires the construction of a more common narrative of the problem that well-being indicators might address”. Bache, I.; Reardon, L. An Idea Whose Time Has Come? Explaining the Rise of Well-Being in British Politics. *Political Stud.* **2013**, *61*, 898–914 (p.909). Similarly, the “Bringing Alternative Indicators into Policy” (BRAINPOoL) project in Europe found that the meaning of “Beyond GDP” was not always being obvious to people, “nor was it was always clear what Beyond GDP was for” [35] (p. 30).
110. Douglas was the Saskatchewan premier who introduced Canada’s first universal health coverage at the provincial level.
111. Suzuki is Canada’s most well-known environmentalist.
112. Hansard. 37th Parliament, 2nd Session. Hansard, Ed.; Number 110; 3; June; 2003; Parliament of Canada: Ottawa, ON, 2003; Available online: <http://www.parl.gc.ca/HousePublications/Publication.aspx?pub=Hansard&doc=110&Language=E&Mode=1&Parl=37&Ses=2#T1525> (accessed on 26 February 2016).
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114. The Death of Evidence. No Science, No Evidence, No Truth, No Democracy. 2012. Available online: <http://www.deathofevidence.ca/> (accessed on 31 May 2015).
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116. Anonymous Interviewee B, 2014.
117. McCright, A.M.; Dunlap, R.E. Anti-reflexivity: The American Conservative Movement’s Success in Undermining Climate Science and Policy. *Theory Cult. Soc.* **2010**, *27*, 100–133. [CrossRef]
118. Bevan-Baker, P. Well-being Measurement Act. Peter Bevan-Baker. 2015. Available online: <http://www.peterbevanbaker.ca/wellbeing/> (accessed on 15 February 2016).
119. Bevan-Baker noted that special opportunities existed for such ideas in a place such as Prince Edward Island, where “we still have that sense of community and values in place which are other than economic. We are our brother’s keeper here to a much larger extent than almost anywhere I’ve lived So that sense of valuing things that are not purely materialistic is very strong here”.
120. Anielski, M. What I Would Advise Premier Rachel Notley on Monday. Anielski Management. 2015. Available online: <http://www.anielski.com/what-i-advise-premier-rachel-notley-on-monday/> (accessed on 17 February 2016).

121. In addition to obstacles discussed in this article, some barriers have been evident in Europe which did not emerge as prominent themes in our Canadian interviews, such as the lack of a standardized methodology in calculating alternative measures and related difficulties in making comparisons across jurisdictions [34], (p. 167). Meanwhile, in Europe, many observers at first saw the economic crisis starting in 2008 as an opportunity to expand the use of beyond-GDP measurement, but the crisis became an important barrier, as political energies were focused on restoring conventional GDP growth ([34], p. 166). In contrast, the economic crisis did not emerge as a major theme in our Canadian interviews, which we speculate is due to the relatively short and limited recession in Canada compared to the EU.



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