Five Principles for Use of Aid in Subsidies to the Private Sector

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Abstract

There is a significant and ongoing ramp-up in support for explicitly subsidized official development finance to the private sector around the world, but its role remains poorly defined. Lessons from the aid effectiveness literature as a whole and principles on effective use of aid suggest the need for approaches that do not merely finance the marginal private investment. Regarding experience of government intervention in markets, subsidies are only one of many options to incentivize the private sector, and bespoke subsidies provided by outside actors are rarely likely to be the most efficient form. This paper discusses where outside subsidy of the private sector may make sense and develops principles for the use of aid in subsidies based on that analysis. Subsidies should be allocated on the basis of necessity in meeting public policy goals; the norm for subsidy allocations should be competitive approaches or open offers; non-competitive subsidies should only support market making; subsidy levels should be capped; and subsidy levels should be transparent. Much of the content of these “new” principles is already implied or specified by the existing Multilateral Development Bank Principles to Support Sustainable Private Sector Operations, but they suggest that development finance institutions should not use their standard business model when using subsidies.
Five Principles for Use of Aid in Subsidies to the Private Sector
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Introduction

Development finance institutions (DFIs) are development banks or subsidiaries usually owned by governments that are set up to support private sector projects in developing countries. The traditional DFI model is reactive, responding to project sponsors proposing an investment. It is also based on investing on broadly commercial terms, attempting to maximize returns given constraints on the location of investments and environmental and social safeguards. But there is a significant and ongoing ramp-up in support for explicitly subsidized official development finance to the private sector around the world. The World Bank Group’s IDA Private Sector Window is a $2.5 billion set-aside of capital to the IFC and MIGA to support projects in IDA countries and fragile states, potentially to be continued and expanded under the next IDA round. Between 2021 and 2027, the proposed EU EFSD+ facility will have a ceiling of €60 billion to support “blended finance” and guarantees.¹ And between 2015 and 2018, the UK’s development finance institution the CDC received $1.8 billion in new capital for investments, while its required rate of return across the portfolio was set at zero (plus costs).² This paper argues that the addition of explicit subsidies calls for a new approach for DFI operations. It provides the rationale behind five principles for the use of aid in subsidies to the private sector that should help maximize the development impact of that aid.

The rapid expansion of support for below-market, government-backed international finance for private sector projects is part of a broader change in attitudes towards industrial policy and government-private sector relations. The change amounts to a step back from the development model that has dominated the last thirty years: one in which governments play a role in creating the “enabling environment” for private sector growth but eschew more direct and targeted intervention. There are good reasons for thinking that this step back is warranted. Nonetheless, the role for subsidized finance delivered through government remains ill-defined, and the situation is worse with regard to development finance institutions. Ramp up of that finance absent a new model for DFI interventions risks wasting valuable overseas development assistance.

The question at the heart of this paper is simply “what is ODA funded DFI finance for?”³ The answer is—or should be—to help deliver those public policy priorities in developing countries that are most effectively delivered by international public support for the private sector, and to do so in the most efficient manner possible. The principles that end the paper are an attempt to provide guidance on how that goal can be achieved.

It should be noted that DFIs have long been concerned with this goal, and have put in place procedures designed to ensure subsidized finance is used for projects with a significant development impact that meet public policy priorities. These procedures include (i.a.) country strategies for investment priorities agreed with host governments, screening

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¹ Gavas & Timmis, 2019
² ICAI, 2019
³ Thanks to David McNair for this observation.
mechanisms and specific funding allocations to deliver on particular public policy goals including climate or SME finance, and guidelines on minimum subsidy. DFIs as a group have signed up to principles on the use of concessional finance that help to address concerns around the use of subsidies. But this paper suggests those principles can and should be tightened.

Before looking at the role of aid in development and the role of government—domestic and foreign—in subsidy provision, it is worth clarifying some terms. The discussion of the use of aid to subsidize the private sector is complicated by the rules governing what officially counts as overseas development assistance, and when it counts. At the moment, OECD rules approve two approaches. First, any capital contribution to DFIs for use in supporting investments in ODA-eligible countries can be counted as ODA at their face value at the point when the contribution is made, while any reflows (including profits) from DFIs to the government are counted as negative ODA. For example, the UK’s recapitalization of the CDC counts as ODA, but any profits that the CDC made on that capital which were returned to the UK Treasury would count as negative ODA (this has not happened in practice). Alternatively, donors can use an instrumental approach. For loans, this involves counting their face value as ODA, provided they have a grant element of at least 25 percent calculated using a discount rate of 10 percent. Reflows on these loans again count as negative ODA.

Whether the “institutional approach” is good policy for measuring ODA and the discount rules for the instrumental approach are set correctly are matters of (important) debate. I believe it would be better to use an instrumental approach at the project level to estimate the subsidy element of each individual DFI deal against cost of capital and count that towards ODA at the time, both to clarify subsidies and to avoid “backloading” ODA flows. But the broader concern regarding the use of donor government finance to explicitly subsidize firms operating in developing countries remains whether it is previously or simultaneously counted as ODA.

The term “subsidy” also needs clarification. The “fair commercial price” of a DFI investment is a matter of debate because there is rarely a benchmark or liquid market of comparable transactions. DFIs would be unattractive to project sponsors if they offered finance at worse-than-market terms and their usual operations generate returns that are

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4 OECD, 2019
5 Griffiths, 2018.
6 Carter, 2016 (and see comments). See also Carter, 2017. Note that a method of calculating ODA that used an estimated grant element of individual investments would align ODA spending and subsidy spending in a manner that does not happen at the moment.
7 The issue of backloading can be illustrated with the case of the IDA PSW window. At the same moment that IDA was “frontloading” aid flows by borrowing money to disburse during the IDA-18 period on the back of future IDA reflows, it created the $2.5 billion PSW mechanism which limits transactions such that the maximum loss to IDA is the notional amount of the window—effectively 100 percent provisioning, considerably backloading PSW subsidy impacts into future years (IDA, 2016).
8 Kapoor, 2019
lower than might be expected from the private sector, but above DFI’s own cost of capital. And even when DFIs come into deals on the same terms as private investors, those investors are benefiting from the due diligence and implicit guarantee of DFI support.

It is still possible to separate what Kapoor labels “soft blending” from “hard blending,” and I refer to as “explicit subsidy”—where the expected risk-adjusted rate of return on an investment falls below the DFI’s (or owner government’s) own cost of capital or simply entails the expectation of a (risk-adjusted) loss. This paper addresses the issue of explicitly subsidized DFI operations, it is not concerned with “traditional” projects. In the case of the IFC, for example, the proposed principles would (only) apply to projects that use the IDA PSW window or trust funds that utilize ODA to subsidize private sector projects. The mid-term review of the PSW suggested that of the (90 percent) of PSW resources that involved some element of subsidy, the average grant element was 38 percent in cases where subsidies were used to minimize incremental financing costs, 18 percent where the IFC used resources to access local market prices through a currency swap and 15 percent where the resources were used to subsidize tariff rates or consumer prices.

**Aid, Aid Effectiveness, and Implications for Private Sector Subsidies**

The argument can be made that such operations are only a small extension of the traditional DFI model, which is to provide financing for developmentally useful projects on reasonable terms. Grant elements are often a comparatively small part of overall project costs and designed to be the minimum necessary to make the project proceed. Given that, the long-established DFI model might be considered (broadly) suitable for use with subsidized finance. But there is a significant difference with explicitly subsidized operations in that traditional DFI operations need not divert billions of dollars from traditional aid budgets, and traditional DFI projects operate under the constraint that the investment portfolio should be profit-making. In that regard, it is worth opening with the fact that ODA diverted

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9 Carter, Van de Sijpe, & Calel, 2018
10 This applies whether DFIs have a formal mobilization role or not. Kapoor, 2019. Note that different DFIs use very different tools to support the private sector that may make the calculation of subsidy rates particularly complex. A few players tend to provide the majority of “mobilization” through specific DFI instruments. Over 2012-2015, MIGA and OPIC combined accounted for 66 percent of mobilization through DAC bilateral and multilateral guaranteed funds, IFC and EBRD for 62 percent of syndicated loans, CDC and IFC for 52 percent of CIVs, and EIB for 85 percent of credit lines. Amounts Mobilized from the Private Sector by Official Development Finance Interventions.
11 Certainly, most DFIs draw a sharp distinction between concessional financing and their main business (Carter et al., 2018).
12 IDA, 2018. (see Figure 4). Note that “who receives the subsidy is not a straightforward question. In the case of the PSW, for example, a comment on the draft of this paper suggests that the IFC has used PSW resources to price finance at a level lower than would be called for using its standard benchmarks for risk and return. In this case one might argue that it is the IFC, not the client firm, which benefits from the subsidy. Regardless, the IFC is using the subsidy—and an aggregate $2 billion of IDA resources—in order to make an investment with a particular firm viable. The question as to “why this firm and why this investment” remain valid.
13 The argument was made in comments on the draft.
to subsidize private firms is usually at the cost of aid for other uses, and those other uses have a broad track record of success.14

The general aid and growth literature provides positive evidence of the efficacy of traditional aid using a range of econometric approaches including quasi-experimental designs.15 In brief, there is no shortage of other high-impact interventions that could benefit from aid resources left unspent by DFI subsidy mechanisms, and the case for diversion towards subsidy has to be made with that as background.16

DFIs justify their broad role with regard to credit constraints on private sector growth. These are surely sometimes significant (listed as the top constraint to firm growth by about one-sixth of surveyed firms in low- and lower-middle-income countries).17 But it is worth noting that nearly all aid is delivered to the credit constrained—this is, after all, the initial justification for overseas development assistance in the first place.18 As a rule, credit constraints are greater for smaller economic units. For individuals in poor countries, the credit constraints are severe enough that they prevent borrowing even to purchase cheap, lifesaving medicines. Returns to capital are in the region of 40–250 percent amongst microenterprises in developing countries.19 But while DFIs subsidies often support SMEs through on-lending, their main clients are large firms. Indeed, their portfolios in poorer countries are heavily concentrated in large formal firms in the two sectors of infrastructure and finance.

Take IFC’s largest IDA PSW project to date, involving $102 million of PSW support: Upper Trishuli-1, a hydropower project in Nepal.20 The project sponsor is majority owned by Korea South East Power Company, itself a subsidiary of Korea Electric Power Corp, a company with $52 billion in sales last year.21 Delivering subsidized credit to large international corporations can be the most efficient method to complete vital development projects with significant spillover effects, but that the support goes to an entity 49 percent owned by rich people (and 51 percent by a rich government) raises the hurdle in terms of

14 In some countries, it may be that ODA delivered through DFIs is additional, although in cases including the UK’s CDC it is clearly not.
15 Galiani, Knack, Xu, & Zou, 2016. To take a specific project example at the micro level, a recent randomized experiment in Afghanistan provided livestock, a cash stipend, skills training and coaching to women in treatment households and (two years after asset transfer) was achieving an internal rate of return of 26 percent, ignoring impacts on health, education and women’s empowerment Bedoya, Coville, Haushofer, Isaqzadeh, & Shapiro, 2019.
16 Related is that the hurdle in terms of evidence of considerable spillovers for using grants to provide subsidies to a tiny subset of (usually) large firms owned by an elite is higher than (for example) using it to provide antiretrovirals to a subset of some of the world’s poorest people who have HIV. At least in the second case the direct impact of grant assistance on the lives of poor people in poor countries is clear.
17 Author’s calculation from World Bank, 2019 (Data from latest survey only, country average for low- and lower-middle-income countries, accessed 6/25/2019).
18 Easterly, 1999
19 de Mel, McKenzie, & Woodruff, 2008
20 IDA, 2018
evidence of effectiveness compared to delivering those funds to poor people in poor countries. To the extent aid is designed to be ameliorative, to “kink” development outcomes in Lant Pritchett’s terminology, it should at least kink the end of the line—poor people, not large firms.

Again, richer countries have larger stocks of private capital. But the simple “investment gap” model of aid is long discredited and in particular in an age where aid is a small and declining share of GDP, ODA is a macroeconomic irrelevance if it simply funds the marginal investment project in a country (public or private). In the 1990s, Net ODA receipts in upper-middle-income countries were worth 0.3 percent of GNI, this has fallen to below 0.1 percent in the period 2010-17. For lower-middle-income countries over that period the proportion has dropped from 2.3 percent to 0.8 percent and for low-income countries from 10.6 to 8.4 percent. If aid is to have a transformative macroeconomic impact in countries home to the majority of the world’s poorest people, it will have to fund investments with economic returns that are far above marginal.

Given the need for catalytic impact, it is reassuring that aid often does have large externalities—including creating good jobs or even whole new industries (as support for private investments might) or significantly reducing the risk that others get sick (as vaccines, deworming medicines and antiretrovirals can accomplish). But while the link between well-paid formal sector jobs (the impact focus of most DFIs) and development is unquestionable, and the need for more of these jobs in developing countries follows as a result, that does not necessarily demonstrate a high economic return to investments that (may) create some

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22 The top quintile in OECD countries owns the considerable majority of financial assets including bonds and equities (Murtin & Marco Mira d’Ercole, 2015). The 216MW Upper Trishuli-1 facility will come on line at a time during which Nepal is seeing a considerable increase in domestic hydropower resources including the 456MW publicly financed Upper Tamakoshi power plant and other privately operated plants with total capacity of an additional 338MW. The government has also signed two power development agreements with Indian developers for 1,800MW additional capacity for export. The country is moving from power shedding and imports to power export potentially as soon as 2020, suggesting the PSW project will end up providing electricity to Indian consumers somewhat subsidized by IDA resources—potentially the largest FDI project to be doing so from Nepal at this point, but not the first.

23 Pritchett complains about “kinky development” that ameliorates deep poverty for a few (Pritchett, 2017). Subsidizing a marginal private sector investment in the developing world that happens to meet the fiduciary standards of a DFI risks becoming kinky development for the business elite. Note the second largest PSW project listed as of 7/15/2019 was to increase the size of the mortgage market in Cote D’Ivoire. Both of the first two participating banks are majority Moroccan-owned while the clients for mortgages in a country with a below-20 percent bank account penetration are likely to be richer Ivoirians.

24 Easterly, 1999

25 In 1995, a peak of 50 recipient countries saw aid worth more than 10 percent of GDP, this has fallen to 24 countries in 2017—concentrated amongst small economies with a median population of just 4.7 million. The countries with a population of above 10 million that received net ODA worth more than 10 percent of GNI in 2017 were Burundi, Haiti, Rwanda, Somalia, Malawi, Niger, Yemen, Rep., Mozambique and Afghanistan. Source: World Development Indicators online accessed 6/25/2019.

26 Indeed, Nancy Lee (2017) has argued theoretical externalities are so plentiful “theory does not help us very much on how to allocate scarce subsidy resources.” (sect. “Are Subsidies Justified for PSWs?”, para. 5)
additional number of those jobs. For subsidies to the private sector to have outsized impact requires what DFIs refer to as “making” markets, not just marginally funding them.

And all aid faces the challenge to impact of sometimes simply displacing expenditure that would happened regardless—the issue of fungibility. Existing evidence suggests a considerable number of traditional DFI projects might have proceeded with or without DFI financing—although this is less of a concern given the lack of explicit subsidy. There is little public evidence with regard to subsidized financing in particular. But fungibility is especially worrying if the alternate investment funded (in part) by ODA is not another project in a poor country, but use by a multinational firm potentially in a developed country. The burden of proof of additionality should be considerably higher in those cases.

**Governments, Subsidies, and Private Sector Development**

There is a role for aid in support of private sector development, including through DFIs. Private sector development is a vital part of the overall development process. Not least, the private sector is responsible for the considerable majority of jobs worldwide, the bulk of economic output, and a major part of innovation. Foreign direct investment may be particularly important to development as a source of knowledge and export growth.

Because of this, donors have long encouraged (and supported) private sector development, in particular through reforms designed to improve the “enabling environment” through correcting “government failure.” They have an even longer record of supporting governments to correct market failure—such as firms or individuals not providing services or seeking out opportunities that would be economically advantageous for the community as a whole.

There are many ways that governments carry out the agenda of responding to market failure including direct delivery (for instance in health and education), laws and regulations governing private delivery (labor and environmental standards, for example), and financial incentives including taxes, tax breaks, procurement and subsidies.

Thinking in particular about subsidies, these can be allocated using a range of different approaches including open offers, auctions, and bespoke financing deals run through state-

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27 See, not least, Blattman & Dercon, 2017, who argue against the special attractiveness of formal manufacturing jobs in Ethiopia.
28 See, for example, Dykstra, Glassman, Kenny, & Sandefur, 2019 and the references therein.
29 In the 1996-2007 period, a World Bank Group IEG survey of staff working on projects suggested that only in 27 percent of cases was IFC involvement essential for those projects to go ahead. See Crabtree, 2008.
30 Saggi, 2002. Although spillover effects are arguable, see Görg & Greenaway, 2003.
31 Krueger, 1990
32 It is a comparatively recent development for the private sector investment arms of donor agencies to have this as a focus. For the IFC, which had previously emphasized government failure through its investment climate work and Doing Business Index, embracing subsidies may be evidence (or cause) of a move toward a greater focus on market failures.
sponsored strategic investment funds. They can also be offered on the basis of inputs or outputs. It is worth noting that it is a relatively new (15-year-old?) subset of the subsidy category which involves governments of other countries or multilateral organizations providing bespoke subsidies to private firms based on inputs.

For all they carry risks, subsidies can be a legitimate part of delivering on public policy goals including service delivery—for example, extending private provision of infrastructure to previously unserved communities. But in the great majority of cases where the government knows the outcome it wants to achieve, open, competitive subsidy award should utilize “the discipline of the market.” Effectively, subsidy award should follow procurement standards including that all eligible bidders should have the same information and equal opportunity to compete. And governments should eschew unsolicited proposals from the private sector to provide services in return for a subsidy because the subsidy process should be led by public policy need, not private firm interest. As the multilateral development banks have agreed with regard to all public-private partnerships to execute or operate public services financed with multilateral support “MDBs require the application of an open competitive public sector procurement principles for selection.” This should hold with regard to support to private provision of public services through direct subsidy of private firms.

The advantage of competitive approaches applies to the great majority of cases where the government is contracting for known outcomes and needs to overcome a market failure. As it might be, if a government is concerned that unless wind generation gets to scale it would remain uncompetitive against fossil fuels, it can use an auction model to subsidize investors willing to scale up. If a government is worried that there is insufficient investment in intermediate goods and services in an economy, it can target the intermediate production that appears particularly catalytic in input-output tables and provide competitive subsidies to produce more of those goods (or simply produce them itself). If a government is worried that complimentary investments will not occur without intervention, it can subsidize competitively selected consortia willing to create those investments at the lowest price. If government wants to reduce carbon emissions at the lowest cost per emission unit, once again it can auction off payments to those firms that will reduce emissions at the lowest subsidy level.

There is a case for subsidies when the government isn’t contracting for known outcomes—most clearly when the subsidy is to support the development of new knowledge. One case involves government directed subsidy of the private sector as part of an industrial strategy promoting private sector growth. There is an ongoing debate as to whether and when

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33 Regarding risks, Nancy Lee (2017) notes “Uncritical enthusiasm for crowding in the private sector could result in excessive subsidies that cover what are really commercial risks when government investment would be cheaper and more transparent.” (sect. “Are Subsidies Justified of PSW’s”, para. 5)
34 World Bank, 2016
35 Neves, Tie, & Motolese, 2017
36 Public Private Partnership Working Group, 2012, pg. 3
industrial policy can work, and how it is best designed. Strategies often backfire and are subject to capture. But Ricardo Hausmann and Dani Rodrik suggest there is a role for government interventions that support learning what an economy is good at producing. “[T]here is great social value to discovering that cut flowers, soccer balls, or computer software can be produced at low cost [in a country], because this knowledge can orient the investments of other entrepreneurs. But the initial entrepreneur who makes the “discovery” can capture only a small part of the social value that this knowledge generates.” This implies there may be a valid role for industrial policy that supports the production of new goods or services in a country.

Again, there are many ways to favor entrepreneurial firms including trade protections, tax credits, export subsidies, and loans and guarantees. And if subsidies are the preferred approach, competition remains a powerful tool to solve asymmetric information problems—that firms know the subsidy they require to execute a project, but investors do not. Competition along with transparency also reduce the risk of capture.

Open standard offers are also possible: providing set financing terms to entrepreneurs that pass a hurdle test in terms of the innovation of their production (new to the country or region) and basic due diligence in terms of competency and likely financial sustainability. This is the broad model of US Title XVII innovative energy loan guarantee program, for example. As much as bespoke deals signed under imperfect information, open offers will provide subsidy levels higher than necessary to induce investment by some firms, but at least they provide a level playing field, transparency, and reduced risk of capture. Similarly, Rodrik argues that “bringing the discipline of the market to bear on incentive programs is always a

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37 Hevia, Loayza, & Meza Cuadra Balcazar, 2017 See also Harrison & Rodríguez-Clare, 2010 and Lane, 2019.
38 For example, nearing the end of former Tunisian President Zine El Abidine Ben Ali’s rule in 2010, 220 firms controlled by Ben Ali’s relatives and friends accounted for less than 1 percent of jobs in the economy but were capturing 21 percent of all private sector profits, thanks in large part to government manipulation in their favor (Rijkers, Nucifora, & Freund, 2014).
39 Hausmann and Rodrik (2002) also emphasize that Japan Korea and Taiwan’s industrial policy successes compared to Latin America’s failure point up the importance of cutting support where it is not working: “Optimal strategies have to complement the promotion of “new” activities with the pruning of investments that turn out to be high cost ex post.” (pg. 35).
40 See Carter, Tjernström, & Toledo, 2016.
41 Note this transparency is rarely achieved at the national level. Fernandez-Arias, Hausmann, and Panizza’s (2019) survey of national development banks reports “None of the surveyed banks provided us with hard data on their dependence on explicit or implicit subsidies. In fact, most interviewed bank managers became defensive when asked about subsidies received…” (pg. 13). Nathan Jensen and Calvin Thrall (2019) look at a public records requests around Texas’ state economic development incentive program. They find that firms receiving incentives are more likely to challenge requests for publication of information regarding the deal when the records involve renegotiated awards where the job-creation obligations have been reduced. In short, firms want to keep their best deals with governments a secret.
42 If insufficient novel investment proposals were forthcoming at the set financing terms, those terms could be made more generous.
43 Department of Energy, 2019
good idea, whenever practical. For example, one of the most attractive features of export subsidies is that it conditions the reward on performance in world markets.”

In cases where individual subsidies are the preferable approach, and because what is being subsidized is a discovery process the outcome of which is (by definition) difficult to know ex-ante, there may not always be an auction or open offer method for subsidizing idiosyncratic entrepreneurs of the type Hausmann and Rodrik suggest industrial policy should seek to attract. But a bespoke subsidy for something that we previously didn’t know we needed (especially when the “we” involved as beneficiary is not the “we” involved in deciding to subsidize the idea, as is the case with DFIs) carries risks of providing excess subsidy for the wrong thing.

And it is important to emphasize the narrow range of investments where idiosyncratic entrepreneur support via bespoke subsidy makes (even) theoretical sense. Eduardo Fernandez-Arias and colleagues argue that the current (lack of) focus of national development banks is ripe for reform in that regard. Their survey of national development banks suggests “even institutions with a narrow mandate seem to target different types of borrowers and economic sectors in an ad hoc fashion, without a clear rationale.” Much lending to agriculture, housing and SMEs may have social benefits but is unlikely to promote growth, they suggest. Certainly, most of this lending would fail the Hausmann and Rodrik “learning” test.

What Benefits and Risks Do DFIs Offering Subsidies Bring?

Development finance institutions are a valuable source of international finance for private sector investment in developing countries. They can provide direct finance on terms that are more attractive than available in local markets, often crowd in private finance from other sources, and can use social and environmental safeguards to improve the development impact of investments.

That said, and as we have seen with aid as a whole, DFIs are a marginal source of financing for private sector investment even in the poorest countries. In 2016, for example, the IFC’s

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44 Rodrik, 2008. Similarly, Fernandez-Arias et al. (2019) argue governments should guarantee (without subsidies) to overcome credit constraints caused by risk mispricing connected to information asymmetries and subsidize (only) to account for positive spillovers/externalities. It is worth noting some of the apparently more successful cases of directed credit have not followed those rules (Rodrik, 2019).

45 Hausmann and Rodrik (2002) provide an example: “As it turns out, Bangladesh is very good at producing hats—more specifically “hats and other headgear, knitted or from textile material not in strips” (HS 650590)—which constitute Bangladesh’s third most important export item to the U.S. after men’s cotton shirts and trousers. And it is not very good at producing bedspreads—specifically “bedsheets, pillowcases and bed 25 linen (incl. sets)—woven, not printed—cotton” (HS 630231)—of which it exports only a miniscule amount. Is this a predictable result of innate comparative advantage?” (pg. 24) Again: “[a]t the origin of the Bangladeshi garment “miracle” lies a largely serendipitous investment made by a local entrepreneur in a joint venture with Dawoo of Korea.” (pg. 33)

46 Fernandez-Arias et al., 2019
investments in low-income countries were worth 0.06 percent of their aggregate GDP, although in most years since 2001 the value has been above 0.2 percent. In lower-middle-income countries in 2016 IFC investments were worth 0.04 percent of GDP and have not risen above 0.1 percent in the twenty-first century. This means if the DFIs are to have a significant development impact, their investments have to be in support of a (global) public good that will give them catalytic impact. This might be supporting energy production that is carbon neutral or supporting the first cut-flower export business in a country. But it cannot be simply supporting the marginal private investment that (may or may not) require finance from a DFI to be completed. With or without the use of subsidies, DFIs need to make markets in order to have significant impact.

In a reactive model of many DFI operations (where DFIs wait to be approached by a project sponsor), subsidies increase the risk of backing a project that would have occurred without DFI involvement—which is the death knell to any catalytic impact. The high transactions costs of DFIs including reporting, environmental, social, and governance standards of DFIs help minimize crowding-out on standard projects because project sponsors will choose private finance over DFIs if they can get it on only slightly worse financing terms. But subsidy drives a greater wedge between DFI and market costs, making DFI financing comparatively more attractive. While this may crowd in some sponsors whose projects would not have been profitable without the subsidy element, it may also incentivize more project sponsors with otherwise viable projects to apply for subsidized DFI finance. Because DFIs are not fully informed about the sponsoring firm’s hurdle investment rate or estimated returns from projects, they will not be able to screen out some (possibly many) of those investments.

The limited demand for blended finance to date—at least for the IDA PSW—suggests the problem of providing subsidized finance to projects that would have occurred without DFIs has yet to become widespread. But DFI client firms would be behaving against the interests of their shareholders were they not to try to attract cheaper financing from the DFI for a deal that they were already contemplating. Given imperfect information on the part of DFIs regarding project sponsors, they will be unlikely to screen out every such attempt. Additionality is already a concern with traditional DFI finance, and increasing use of

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47 Kenny, Kalow, & Ramachandran, 2018
48 A comment on the draft of this paper suggested that the market in which DFI subsidies tend to occur is not in that for outputs but that for finance, where the subsidy is designed to overcome financial market failures. It is certainly true for the IDA PSW, for example, that the predominant use of subsidies is reported in the Mid-Term Review is minimizing incremental financing costs to the client. Note evidence that the size of the subsidy is scaled to the market failure is absent in available PSW documentation. Regardless, the intervention is bespoke and ameliorative—it is provided only to the client firm not all firms facing the constraint and it is not designed to fix the supposed market failure. As such, the question as to why these particular firms were selected for bespoke ameliorative support remains. It is also worth repeating that some IDA PSW resources were used to allow IFC to reduce its usual pricing for currency swaps in order to match local market pricing. In this case it is perhaps wrong to view the client firm as the beneficiary of the subsidy (leaving open the question as to who should be seen as the beneficiary). But the value added of IFC financing in those cases surely has to be questioned if recipients can attract resources at lower costs on local markets.
bespoke subsidies will make that concern larger both in terms of the proportion of non-additional projects and the cost in terms of ineffective use of ODA.

Furthermore, subsidies increase the risk of DFI competition on price. DFIs are effectively excluded from direct investment in a considerable proportion of marginal private sector opportunities in lower-income countries because project sponsors cannot meet the fiduciary, environmental and social standards required by government-owned international investors.\textsuperscript{49} This is why a set of development finance institutions that is small compared to overall private investment volumes in developing countries can still struggle to find private sector opportunities, especially in difficult markets.\textsuperscript{50} And if there are too few additional projects suited to DFIs that can be made viable by greater subsidies, DFIs operating under the reactive model with subsidized finance to spend may use that finance to over-subsidize and/or out-compete other DFIs (in the best of cases, aid resources would simply remain unspent).

This threat is more than theoretical. Sony Kapoor notes “investing is a bottom up process” in the standard DFI model, and “[t]op down decrees to deploy $100 million in blending or mobilise $5 billion in private capital lead to mispricing and distorted decision-making.” He points to specific examples of excessive blended subsidization harming the operation of the market by creating unrealistic expectations of future pricing or additional subsidies.\textsuperscript{51} Once again, this suggests the importance of competitive approaches as well as explicitly limiting bespoke approaches to first-in-kind investments.

Under what occasion may explicit subsidy of firms by outsiders rather than as part of a national industrial strategy or national subsidy mechanism be justified? Cases might include:

- Subsidizing outcomes that have cross-border externalities including global public goods. International actors cannot set national laws or regulations, and do not control tax structures, so that subsidies may be the best and most appropriate tool to encourage firms in third countries to deliver improved outcomes with regard to cross-border externalities. In these cases, it is likely that outcome-based subsidy

\textsuperscript{49} This is not least because most firms in low-income countries are simply very small. The median firm size (number of employees) in enterprise surveys of low-income African countries is 16, the mean 47. This compares to 258 and 977 in China for example. (Dinh & Clark, 2012). But it is also because so many firms are informal – with the informal economy accounting for over half of GDP in some low- and lower-middle-income countries (Medina, Jonelis, & Cangul, 2017). Large (formal) international investors are deterred by a range of barriers including regulatory and policy failures, macroeconomic and political instability, corruption concerns, limited human capital, weak infrastructure, and poor understanding of small markets (see Lee, 2017 for a discussion).

Total net FDI into LICs and LMICs in 2017 was $143 billion, excluding India, Indonesia, Vietnam, the Philippines and Egypt this falls to $50 billion. (Author’s calculation from WDI (2019)). Attridge and Engen (2019) report that approximately 75 percent of low- and lower-middle-income commitments to mobilize private finance by MDBs and DFIs is in just the two sectors of infrastructure and banking and finance further suggesting DFIs simply are unable to find deals in large parts of the poorest countries in particular.

\textsuperscript{50} See Attridge and Engen, (2019), for example. They note MDBs and DFIs are already picking up 73 percent of the costs of private investments with official development finance participation in low-income countries, suggesting the limited demand from sponsors or other private investors to provide funding for the types of investments that DFIs can support.

\textsuperscript{51} Kapoor, 2019, pg. 5
auctions or open offers can be used instead of bespoke subsidy mechanisms because the outcome desired is usually known and contractable. An example would be carbon markets.

- Subsidizing multi-country investments or bringing clients from other countries to roll out a new productive activity. In this case DFIs may have the incentive to overcome information asymmetries or coordination failures that a national development bank may not. Some subset of these investments might meet the Hausmann/Rodrik “learning” test.

- Subsidizing firms on behalf of national public policy goals or industrial strategy in cases where donors do not have faith in local or direct subsidy mechanisms but (still) believe subsidy is appropriate. Note this is likely to be particularly likely in lower-income and fragile states where much subsidized DFI finance is concentrated. Once again, subsidy auctions should be possible in many cases, but some subset might meet the Hausmann/Rodrik “learning” test.

What proportion of existing DFI investments would either fail the Hausmann and Rodrik “learning” test of financing a first-mover investment or could be awarded competitively? Looking at the full CDC, DEG, FMO and Proparco portfolios, for example, about one-half to two-thirds of their total commitments 2012–16 were in finance and insurance including SME finance, microfinance institutions and private equity funds investments—how much if any of that funding would pass an innovation test is a matter for further research.\textsuperscript{52} Infrastructure was the second biggest sector for these institutions, where competitive approaches are usually to be preferred, according to donor guidance.\textsuperscript{53}

A broader measure of DFI and multilateral development bank commitments to mobilize private finance between 2013 and 2017 suggests that “productive sectors” attracted between just 10 and 20 percent across income groups.\textsuperscript{54} Again, note that even first movers in productive sectors could be supported using open offers including standard export subsidies. But the standard model, accounting for considerable majority of investments across DFIs and sectors, is a non-competitive and bespoke approach to investments and financing terms.

This is suggestive evidence at least that subsidized investments from DFIs would have to look very different indeed from the standard DFI portfolio to pass the Hausmann/Rodrik test and/or be unsuitable for competitive or at least open subsidy award approaches. This leaves aside the question as to whether outside subsidies were the most effective public policy tool to deliver outcomes in the first place.

More directly, the 2017 DFI Working Group Report suggests the three most common rationales for using blended finance were “pioneering technology or approaches/creating

\textsuperscript{52} Kenny, Kalow, Leo, & Ramachandran, 2018

\textsuperscript{53} Neves et al., 2017

\textsuperscript{54} Attridge & Engen, 2019
markets,” “reaching underserved beneficiaries” and “addressing mispriced environmental externalities.” Perhaps the first rationale might pass the Hausmann/Rodrik test. The second and third rationales, of reaching underserved beneficiaries or pricing in environmental externalities, should usually be amenable to other public policy tools.55

In that regard, Paul Collier, Neil Gregory and Alexandros Ragoussis move some way towards an approach that may pass the learning test by proposing DFIs work in fragile states to create a diagnostic of sectors most likely to develop clusters of firms in the near term and then provide subsidies to firms investing in those sectors through an open call for proposals and pro-active invitations to firms.56

That said, outsiders will usually be (even) less well placed than national governments to know “what is new” in terms of economic production in an economy and when subsidy mechanisms are the best instruments to help achieve the industrial strategy of a country. Outside bespoke subsidy should only be adopted after a cascade of alternatives have been considered and rejected by donors and governments of beneficiary countries first—including national legal or regulatory intervention/reform, tax policy, national competitive subsidy or open offer and national development bank bespoke subsidy. And outside subsidy to the private sector (competitive or bespoke) should only be offered if it aligns with national development priorities or involves considerable cross-border externalities. A practical test of the suitability of external subsidy in support of national public policy might be to offer the national treasury a choice between outside financing used to subsidize a private firm or that outside financing being used in standard aid projects to support national development priorities.

The purpose of bespoke subsidy—to support an information spillover in the form of demonstrating viability of a new productive activity in an economy—also suggests the need to cap subsidy levels. Even without explicit or “hard” subsidy, DFIs are providing what Kapoor labels “soft” subsidies—finance that is more attractive than could be obtained from the private sector. Adding explicit subsidy increases the size of that wedge, decreasing the plausibility of information spillover effects which rely on a similar investment being possible to replicate without subsidy. All else equal, the greater the subsidy provided to a project by a

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55 Using a bespoke approach to subsidizing low-carbon energy production, for example, is an incredibly inefficient way of delivering reduced greenhouse gas emissions as compared to taxes, pollution permit markets or subsidy auctions. Bespoke subsidy of SME finance is more market distorting than an open offer or an auction whereby banks compete to provide SME finance at the lowest subsidy level, or tax incentives or (indeed) offering market-rate finance on the condition it is used to finance SMEs.

56 Collier, Gregory, & Ragoussis, 2019. Pioneering Firms in Fragile and Conflict-Affected States: Why and How Development Finance Institutions Should Support Them. That said, as the Rodrik and Hausman example of Bangladesh suggests, it can be difficult to discover innate comparative advantage ex ante. A “payment for results” model may be more appropriate as a result—perhaps including donor backing for export subsidies.
DFI, the less likely that project is to be “market making”—demonstrating the (unsubsidized) viability of a new form of production.57

And to limit the risks of subsidy competition on bespoke investments that still occur, as well as to meet basic aid governance standards, the (estimated) level of subsidy being proposed for transactions should be a matter of public record. Computing the level of subsidy on individual projects will be open to some uncertainty—especially with equity investments. But there are methods to approximate it, as demonstrated by the IDA PSW window, which already reports aggregate subsidy estimates.58 DFIs should agree approaches to subsidy estimation in order to improve comparability across institutions and further reduce the risk of subsidy competition.

When it comes to auctioning subsidies, which should be the dominant approach, Nancy Lee suggests that MDBs worry over introducing more complexity and uncertainty into their deal flows. They argue that quite often only one project sponsor comes forward to offer a viable project proposal, so competitions do not add value.59 But without competitive selection of firms to receive subsidies, on the basis of projects selected on the grounds of public policy priorities, we cannot ensure a minimal use of ODA has the maximum development return. Once again, DFIs should rarely use their standard, “bottom up,” model when using explicit subsidies—only (perhaps) in the case of investments that pass the “learning” test.

**Five Principles**

Principles on the use of aid in private sector subsidies should be a subset of general aid principles that have been developed in part to reflect past lessons on effective aid. The High Level Fora at Paris and Accra both emphasized that aid was more effective when developing countries set their own strategies for poverty reduction, and donor countries aligned behind these objectives to use local systems for aid delivery, improved coordination, avoided tied aid, and shared information.60

But aid and subsidy principles for DFIs can also build on the Multilateral Development Bank Principles to Support Sustainable Private Sector Operations.61 These are worth quoting at length to demonstrate the fact that the five principles which follow below are simply an elaboration of those endorsed by heads of all of the multilateral development banks in 2012.

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57 Paddy Carter (in comments on a draft) notes that a risky equity investment might be made on terms that are a large effective subsidy at risk-adjusted rates, but the project either works or does not, and if it does work it has demonstrated commercial viability. However, the cheap money is provided (equity effectively priced on company over-valuation or delayed returns or loans with below-market interest rates), the greater the quantity of subsidy, the less the investment teaches about replicability.

58 World Bank, 2018. To quote Paddy Carter (2016) “Agreeing a methodology for estimating the subsidy implied by equity investments won’t be easy ... but is a challenge worth taking on.”

59 Lee, 2017

60 OECD, n.d.

61 EBRD, 2012, pg. 3-4
The principles were developed with input from CDC, DEG, EDFI, IDG, Norfund, and OEB and bilateral DFIs were explicitly included as users. To quote:

- “MDB support of the private sector should make a contribution that is beyond what is available, or that is otherwise absent from the market, and should not crowd out the private sector…

- “MDB support to the private sector should, to the extent possible, catalyse market development…”

- “MDBs support of the private sector and the impact achieved by each operation should be sustainable… Elements that contribute to commercial sustainability at the project level include… Using appropriate market-referenced pricing, taking account of the risk characteristics of the private sector borrower…”

- “MDB assistance to the private sector should be structured to effectively and efficiently address market failures…”

- “In cases where MDB private sector operation financing is used alongside concessional resources, [this requires] ensuring that a net subsidy to the project or enterprise is justified, e.g. by a clear market or institutional failure or public policy goal that is best addressed through a subsidy… Ensuring that subsidies are transparent and targeted… Supporting “level playing fields” by providing an equal opportunity for funding to qualified companies on a non-discriminatory basis… Not tilting a market in favour of a single or small group of actors while recognising the benefits of ‘first movers’ in fostering innovation and motivating risk-taking…”

A year after the MDB Principles were agreed, the Private Sector Development Institutions Roundtable, made up of DFI representatives, put together a set of guidelines “consistent with the broader MDB Principles” on the use of concessional finance by DFIs. While this watered down some of the language of the MDB principles, it still suggested that: “[t]he application of public funds to provide concessional finance to the private sector must be justified on the basis that it clearly addresses an identified market and/or institutional failure.” It also argued that, for concessional finance directed at the private sector to result in a sustainable outcome, “there should be an expectation that similar private sector projects will in the future become viable without requiring concessionality.” Notably the only example given for an appropriate use of concessional finance by DFIs to fill a gap between private and public returns in a way that could produce sustainable outcomes was “early investors (or firstmovers) in a nascent market.” The guidelines also called for support to be guided by country priorities consistent with the Paris Declaration and Accra Agenda for action, highlighted the need for transparency, noted the success of competitive approaches
to minimize subsidy amounts, and raised concerns for subsidy competition amongst DFI absent coordination.62 The principles were enhanced with a set of guidelines in 2017.

The analysis of this paper suggests those in charge of setting rules on the use of blended finance in DFI operations should move back toward the full spirit of the earlier MDB Principles while developing a set of guidelines specifically designed for DFIs that constrain the use of subsidies to cases where they can be justifiably considered a high-impact use of limited ODA. Building on MDB principles and the above discussion, then, five principles for DFI use of aid to subsidize the private sector are:

1. *The choice of (and level of) subsidy should be based on public policy priorities* because scarce aid resources should be used to achieve the maximum development impact, not allocated to private firms on a first-come, first-served basis. This also implies (i) DFI subsidies should be either supported by beneficiary country governments and communities as an effective use of aid finance or be explicitly targeted at a global or regional public good; (ii) only be used as the last step in a cascade approach that looks at other tools to influence the private sector first (in which national policies and regulations, national tax and subsidy policies, and national development banks are usually the preferred option, and aid support through the national governments, guarantees or unsubsidized DFI operations are all preferable in the case of international support); and (iii) should be capped well below the level justified by the externalities associated with the project, taking into account the scarcity of public resources.

2. *The norm for subsidy allocations should be competitive approaches or open offers* because negotiated approaches are less efficient, more likely to lead to rents and crowding out, and subsidies in response to unsolicited proposals could result in competition between DFIs on the basis of subsidy level. In any cases where competitive or open offer approaches are not used, a detailed justification for the non-competitive, non-open approach over other approaches should be laid out, and greater evidence regarding additionality presented. In any award regime, subsidies should be offered to the firm most likely to deliver desired impact without regard to client nationality.

3. *Non-competitive subsidies should only support market making* because they should be prioritized on grounds of providing information spillovers, not the level of private sector interest in attracting below market finance. Any non-competitive subsidized project should pass a significant hurdle in terms of being substantially innovative and plausibly replicable and/or scaleable in the economy(ies) and sector(s) in which it is located.

62 EBRD, 2013
4. The level of bespoke subsidy provided to an individual investment on the grounds of information spillovers/industrial policy should be capped, on the grounds that the larger the subsidy, the less likely similar investments will be possible without subsidy, and the lower any spillover benefits from the project.

5. Subsidy terms should be transparent because: (i) information on subsidy levels will help create market interest/knowledge; (ii) aid transparency is important for governance—taxpayers and beneficiaries have the right to know who is getting how much for what; (iii) transparency will help reduce the risk of subsidy competition. Along with transparency about the level of subsidy, the mechanism of subsidy calculation, the economic justification for public intervention in support of the project and international (bespoke) subsidy as the preferred tool (following the cascade model) should be published. The distribution of subsidy amounts to sub-projects through financial intermediaries should also be published.63

DFIs should work together to develop common standards for reporting and measuring subsidies as well as more detailed principles around circumscribing the kinds of first-in-kind investments that might justify bespoke investment at the country level. They should also agree detailed principles and standards regarding maximum subsidy caps for bespoke subsidies and information sharing during negotiation of bespoke subsidy deals (potentially via a trusted third party). This will help reduce the threat of subsidy competition and improve the development impact of DFIs as a community. Finally, they should cooperate (not compete) on regional and global projects that might help deliver on cross-border and global public goods.

Are these principles plausible? As noted, they build on principles already agreed by the major players. More recently, strategists within development finance institutions have suggested broadly compatible approaches could work even in the hardest markets.64 And some existing projects within DFI portfolios suggest a level of adherence to the principles. The World Bank Group’s Scaling Solar project to support industrial scale solar power includes pre-approved financing commitments and terms offered to bidders on a non-negotiable basis alongside a competitive and transparent award process (although there is a concern that in a market rich in subsidy opportunities, winning bidders are often those who have received subsidized finance from elsewhere).65 Again, the Bank Group’s Global Partnership on Output-Based Aid (now GPRBA), has backed 49 projects across sectors that involve open, competitive subsidy allocation to private firms.66 The IDA PSW has supported a MIGA guarantee of an investment in an Afghan raisin processing plant that may pass the Hausmann-Rodrik test (although the need for subsidized guarantee is not clear).

63 This is an area where practice could be improved across the whole DFI portfolio. (Donaldson & Hawkes, 2018)
64 Collier et al., 2019
65 Scaling Solar, 2019
66 GPRBA, 2019
Elsewhere, CDC has tried to create (or at least strengthen) markets at the multinational level through the launch of new firms that can provide energy production and transmission services across a number of its client countries, which meet at least a subset of the principles. CDC’s overall financial return hurdle of “greater than break even” could be used as a guideline for individual projects to provide a subsidy cap.

At the same time, it appears a number of explicitly subsidized DFI investments would likely fail the hurdles of being competitive or open if possible and/or being substantially innovative in the economy and sector in which it is located. Examples would include IFC backing for a hydropower project as well as SME lending under the IDA PSW window and CDC support for general private equity funds (if this finance was provided at risk-adjusted rates below the UK government’s cost of capital).

Conclusion

While increasing private capital stocks is undoubtedly a part of the development process, DFIs do not demonstrate development effectiveness simply by supporting private sector investments through the use of subsidies. Because using subsidies provided through DFIs to meet public policy goals is relatively new endeavor, it requires a new approach to doing business. Howard Miller argues: “the design of a subsidy and selection of the appropriate instrument should be a three-stage process: define the purpose, isolate the market failures, and identify the appropriate instruments.” It appears that most existing (national and) international subsidy mechanisms are failing this test.

Most market failures best addressed with subsidies can use competitive approaches. And even amongst those that cannot, open offers are usually a preferable approach. Again, most market failures are best addressed at the local or national level, and of those that remain, donor support of the public sector is usually the more sustainable and comprehensive option. The role for donors to directly provide subsidies to the private sector is at the end of a long cascade of better options.

Investment finance is in short supply in developing countries—the justification for the original ten percent hurdle for the economic rate of return of World Bank projects. At the very least, subsidies through DFIs should be able to demonstrate that kind of economic return—and that the subsidy was necessary for the project to go ahead (preferably using competitive approaches). As bespoke, noncompetitive subsidies are justified by their demonstration effect, this should be the further test of both subsidy level and success in those cases—is it plausible to imagine crowding in other non-subsidized projects given the level of subsidy required and, ex post, does it happen?

67 CDC Group, 2015) and (CDC Group, 2019)
68 International Finance Corporation, 2018)
69 Miller, 2013,pg. 9
More broadly, compared to the relative absence of quality evidence regarding DFI macro-
development impact, especially using the comparatively novel approach of outside bespoke
subsidies to the private sector, there is growing evidence that traditional aid works.\(^\text{70}\) Given
that the theoretical case for the efficiency of outside bespoke subsidies of a small set of
private firms is weak, this suggests extreme caution in their use as compared to traditional
aid approaches.

It may be that these principles would make it difficult or impossible for DFIs using standard
operating procedures to support at least some projects that would have a positive and
significant development impact. That the traditional model of DFI engagement may be
difficult to reconcile with these principles should come as no surprise –DFIs were not
created with explicit subsidization in mind. A new approach will take institutional change.
And in that regard it is worth repeating that while DFI project sponsors –usually large firms,
often based in high income countries—face financing constraints, so do many other
potential aid beneficiaries. If DFIs cannot change, there are other options and aid tools to
relieve credit constraints.

Again, suggesting that aid-financed private sector subsidies should be public policy led,
transparent, and provide an equal opportunity for funding to qualified companies all while
recognizing the benefits of “first movers” in fostering innovation is far from radical. Indeed,
it was the declared consensus position of major multilateral development finance institutions
only a few years ago.

Finally, it is important to re-emphasize that the focus of this note is not traditional DFI
investments, but those that are explicitly subsidized. The reactive model for financing is far
less problematic when it comes to profitable investments. But with regard to ODA-
subsidized projects, absent reform, and given the challenges of the outside bespoke subsidy
model, the default should probably be that ODA is better spent supporting national
governments than subsidizing private sector investments through DFIs.\(^\text{71}\) Absent significant
reform, DFIs should be large, focused poorer countries, and profitable rather than ODA-
consuming. If all of those are not possible at once, profitability at least should remain.

\(^\text{70}\) With regard to DFI impact, perhaps the strongest evidence is around jobs, but at the national level much of
this involves modeling and results from input-output tables rather than directly estimated effects. \(\text{Attridge, Calleja, Gouett, & Lemma, 2019.}\)
\(^\text{71}\) See Kapoor, 2019.
References


