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## Explaining deference: why and when do policymakers think FDI needs tax incentives?

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### ABSTRACT

Why do governments compete for investment through tax incentives when there is strong evidence that such packages are inconsequential to the locational decisions of foreign firms? Previous scholarship has attributed pro-business policies such as investment incentives to factors including the structural power of business in an era of international capital mobility, fiscal competition generated through political decentralization or electoral pandering by political leaders. However, there is currently little understanding about how individuals, in their role as decision-makers within government agencies, form beliefs over how to best attract investment. Building on insights from the bureaucratic politics and behavioral economics literatures, we anticipate investment promotion professionals are more likely to view investment incentives as effective attraction tools when they have limited previous experience in the private sector, when they work for investment promotion agencies that are more integrated into the national bureaucracy, and when employee performance is evaluated based on deals closed. We test these expectations with a conjoint survey experiment of investment promotion professionals designed to uncover respondents' beliefs over the relative importance of different components of the investment environment to firms' locational decisions, and find substantial support for our expectations.

### KEYWORDS

FDI; tax incentives; economic development; investment promotion; availability heuristics; conjoint analysis

## Introduction

Why do governments compete for capital through the use of investment incentives – which we define as tax holidays, subsidies or other targeted fiscal inducements that governments offer specific firms in order to locate an establishment in that government's jurisdiction – when there is little evidence that tax incentives are effective or efficient means of attracting investment? A growing body of research has established three related understandings of tax incentives for foreign investment. First, they are rarely consequential to locational decisions (James, 2013; Jensen, 2017). Second, incentive offers tend to generate fierce competition among competitor locations

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(Rodriguez-Pose & Arbix, 2001; Seppala et al., 2014). Third, local politicians have strong strategic motives to offer incentives as a way to generate voter approval (Jensen et al., 2015). However, there is currently little understanding about how variations in bureaucracies and governance – the structure of the organizations that actually propose, plan and administer incentive packages – influence the incentives government officials tasked with economic development face, the ways in which individual staff members' professional backgrounds impact their beliefs over what motivates investors, and how these organizational and agency factors combine to shape the investment facilitation policies and strategies that governments pursue.

This article extends our understanding of the use of investment incentives by examining how governmental officials in investment promotion agencies (IPAs) develop beliefs over the policy environment priorities of potential investors. Over 160 countries have at least one IPA charged with attracting multinational firms through a combination of image promotion, tax incentives and assistance with bureaucratic procedures associated with investment. IPAs are the bureaucratic gate-keepers of incentives, and are the part of the state that works most closely with multinational enterprises (MNEs) to encourage them to pursue local investment opportunities. We argue that variations in the individual-level beliefs of decision-makers at IPAs and the motivations and world views they hold, along with the professional incentives they face, explain the puzzling pattern of investment incentives that we observe across the globe.

More specifically, we answer the following question: how do institutional configurations and individual experiences influence investment promotion professionals' attitudes toward the usefulness of investment incentives as tools of FDI attraction? Building on insights from the bureaucratic politics and behavioral economics literatures, we anticipate investment promotion professionals are more likely to view investment incentives as effective attraction tools when they have limited private-sector experience, when they work for investment promotion agencies that are more integrated into the national bureaucracy, and when employee performance is evaluated based on deals closed. Accordingly, IPAs with such institutional structures and those that hire mostly from within government are likely to foster a professional atmosphere in which investment incentives are viewed as important for attracting foreign investment. Such IPAs are also likely to under-emphasize other investment facilitation policies – those that MNEs often cite as essential factors in their decisions on where to invest – such as governance reforms, development of local suppliers, and investment in domestic physical infrastructure and human capital. We test these expectations by administering a conjoint survey experiment on officials in IPAs globally. The survey experimental results largely confirm our central hypotheses about the drivers of policies IPA officials view as central to attracting investment.

Explaining why and when bureaucrats are more amenable to the use of investment incentives is important for both narrow policy and broad theoretical reasons. Narrowly, despite their general ineffectiveness at shaping investment patterns, incentive policies redistribute a portion of the gains from economic openness from domestic citizens to (often) globally mobile firms. One estimate suggests that such programs cost governments over \$100 billion a year (Thomas, 2011), foregone revenue that could otherwise be used for critical infrastructure projects, education and social services, health care, tax relief to citizens or other pressing public works



projects of high priority. Critics of investment incentives often point to the tyranny of capital mobility, the tendency of decentralization to generate self-defeating competition for capital and electoral benefits of pandering as reasons why investment incentive programs are so ubiquitous and difficult to restrain. But these arguments are often dissatisfying because they are not well equipped to explain variation in incentive use. Moreover, attributing incentive overuse to structural conditions and largely unchangeable realities of political behavior provides few obvious avenues to which policymakers interested in curbing incentive program can turn. By identifying how elements of bureaucratic design and patterns of professionalization influence the beliefs agents hold over the importance of investment incentives, our theory generates implications that provide more tractable potential reforms for governments wishing to reduce investment incentive use. Further, even when investment incentives are appropriate, reform may ensure that investment packages include a range of different methods to attract investment, including some use of incentives alongside other features that are crucial to firm decision-making, notably those that we explore in the survey and the conjoint experiment.

More broadly, investment incentive proliferation is ultimately an example of a fundamental phenomenon of central interest to scholars of international political economy: public deference to private power, particularly the power of international businesses such as MNEs. Why and under what conditions do governments cede their regulatory and taxation authority to private firms is an enduring and divisive question in globalization literatures. While many have highlighted the structural power of mobile capital (Frieden, 1991; Lindblom, 1977; Strange, 1996) or the mediating effects of domestic institutions (Mosley, 2003; Rudra, 2008) to explain firm–government bargaining outcomes, these accounts have largely uncritically accepted the claim that international capital mobility is a background condition that imposes on all states a consistent technocratic pressure. Variation in outcomes, if any exists, stems from heterogeneous capacities to respond to this general, growing and ultimately apolitical constraint.

The argument we advance here challenges this ‘anti-politics’ script and instead builds on a growing strand of IPE theory that problematizes the language of international capital mobility as a social, rather than a brute, fact that arises from belief structures that are built, maintained and changed through particular professional networks (Chwieroth, 2015; Chwieroth & Sinclair, 2013; Pauley, 1995). Such work, however, tends to assume that beliefs either trump or constitute interests without considering how beliefs and institutional ecologies may intersect in complex and sometimes countervailing ways. Our research design allows us to consider how institutional structures (i.e. how the IPA is integrated into politics), material incentives (i.e. performance metrics that emphasize deals closed) and professional cultures (i.e. private-sector experience) combine to influence actors’ beliefs over the power of firms in a global economy. Ultimately, we demonstrate that public deference to international business is not just a product of apolitical, anonymous market forces but a reflection of socialization processes that make policymakers *believe* firms have great capacity to exit their jurisdictions. And, in the negotiation over the right to regulate or the necessity to accommodate business interests, *beliefs*, rather than facts, over who wields power are central. These beliefs vary in predictable ways across individuals, and can be changed by altering the hiring structures,

professional incentives, organizational norms and inter-agency relations that shape the use of investment incentives.

The remainder of this article proceeds as follows. First, we introduce investment incentives as a puzzle and articulate why previous research leaves important theoretical and empirical gaps in our collective knowledge. Next, we develop an agent-centered theory over the institutional, material and ideational factors that influence investment promotion officials' beliefs over the usefulness of tax incentives in attracting FDI. Third, we explain the design of our conjoint survey experimental design and present the results, which support our theory. A final section concludes.

### **Incentives: marginal benefits, maximal advocates, variable implementation**

Governments in developed and developing countries alike have placed increasing emphasis on attracting multinational enterprises (MNEs) to invest in their localities. Such investment is a key driver of economic growth and an important source of jobs, technology transfer and managerial expertise. As global value chains proliferate, and as MNEs increasingly use outsourcing and offshoring techniques to create cost-savings, many governments see MNEs as relatively 'footloose' and therefore the competition to attract scarce investment dollars is fierce. The quest to attract investment has led to the increasing popularity and use of investment incentives (Tavares-Lehmann et al., 2016). Despite their high cost and questionable financial benefits, recent estimates suggest developing countries spend over \$50 billion yearly in such tax breaks and financial outlays to investors, while the US spends over \$46 billion yearly on such programs (Oman, 2000; Thomas, 2011).

There is growing evidence that incentives very rarely work as intended. That is, the rationale behind granting investment incentives is that doing so is necessary to 'close the deal'. Yet, surveys of investor sentiment and behavior suggest incentives are rarely pivotal in firms' locational decision-making processes. A UNIDO survey of 7000 firms in 19 countries from 2000 to 2001 found executives ranked tax policies 11th out of 12 factors they deem most critical when selecting an investment site (UNIDO, 2011). A more recent World Bank survey of multinational firms located in 12 developing countries found 58–98% of firms that received incentives would have invested without being offered these deals (James, 2013). In a study of tax policy among Russian subnational units, Baccini and coauthors found that, in the aggregate, targeted tax incentive programs did not lead to higher levels of foreign investment (2018).

Scholars have previously explained this puzzle – why governments offer costly investment incentives if they are ineffective – in two ways. First, pro-MNE policies such as investment incentives may reflect the structural power of firms in an era marked by fierce competition for globally mobile capital. Because MNEs can choose between multiple countries to locate their activities, they can more easily extract benefits from governments that seek to attract capital by threatening to exit or by choosing to locate elsewhere if their demands are not met. This power asymmetry helps to explain the proliferation of bilateral investment treaties (BITs) through the 1990s and early 2000s, which often subjected governments to expensive investor-state dispute settlement arbitration clauses (Poulsen, 2015; Poulsen & Aisbett, 2013; Simmons, 2014). Others have examined whether capital mobility

reduces states' ability to tax corporate profits. This literature has generated mixed findings. A growing body of research, mostly in economics, finds a negative relationship between corporate tax rates and FDI flows (Bellak & Leibrecht, 2009; Blonigen & Davies, 2004; Egger et al., 2009; Mutti & Grubert, 2004).

However, scholars operating within an institutional perspective argue domestic political considerations often mitigate 'race to the bottom' dynamics across multiple policy domains including taxation, labor rights and environmental regulations (Basinger & Hallerberg, 2004; Blanton & Blanton, 2007; Greenhill et al., 2009; Hays, 2003; Mosley, 2011; Plumper et al., 2009; Prakash & Potoski, 2007). More specific to the relationship between FDI and fiscal policy, Jensen argues that decreases in corporate taxation are not exogenously given, and instead may reflect broader commitments to pro-business economic policies (2012). After correcting for endogeneity, he finds no evidence that corporate tax rates are related to FDI flows among 19 OECD countries from 1980 to 2000. In contrast, Egan argues the relationship between FDI and taxation policy is reversed; he finds evidence that increased FDI flows led to subsequent declines in corporate tax rates among Latin American countries from 1978 to 1998 (2010). Yet others have advocated for sub-national designs to leverage how differences among local tax authorities drive patterns of FDI, with most subnational studies finding decreased corporate tax rates lead to increased FDI inflows (Baccini et al., 2014; Becker et al., 2012; Hines, 1996). Indeed, rather than erasing 'race to the bottom' dynamics, fiscal decentralization may instead exacerbate bargaining asymmetries between firms and states by encouraging subnational units to engage in 'fiscal wars' as they compete for scarce investment projects (Li, 2016; Rodriguez-Pose & Arbix, 2001). In other words, the structural power of globally mobile firms may help explain a broad increase in pro-MNE policies such as tax incentives, but cannot adequately explain remaining variation among and within countries.

Second, the offering of investment incentives may have more to do with the strategic interests of politicians than the structural power of global firms. Rather than reflect dynamics of firm-country bargaining, investment incentives may be convenient tools for politicians who seek to pander to their constituents or party leadership. Tax incentive policy is technical and confusing, and it is challenging to assess whether such deals are decisive in firms' locational decision-making processes. Consequently, voters are often poorly equipped to evaluate the efficacy of incentives, and instead defer to politicians who they believe to have better information about how to attract jobs and generate localized economic growth (Tullock, 2005). These information asymmetries create incentives for politicians to pander to voters by enacting policies based on their popularity rather than their economic efficiency (Maskin & Tirole, 2004). Offering tax incentives can help politicians signal to their constituents that they have a strong 'record' on economic growth, even if these inducements are rarely necessary to attract MNEs' investments. Survey experimental research finds US voters are more likely to vote for incumbent governors who pursue active incentive programs, even if attempts to attract investment are ultimately unsuccessful (Jensen et al., 2014). Observational data reveal US cities where electoral competition is stronger provide more tax incentives than do cities with non-elected executives (Jensen et al., 2015). And, data on investment incentives in Vietnam reveal that politicians in non-democratic context can also face

incentives to pander, though not ‘down’ to voters but rather ‘up’ to party officials who determine the fate of local political actors (Jensen & Malesky, 2018).

Both structural power and political pandering theories help to uncover why governments continue to provide FDI incentives despite ample evidence that they are costly and largely ineffective. But, these theories also have limitations. First, structural theories have yet to adjudicate the relative importance of global forces and local politics. They also have a difficult time explaining variation in incentive policies cross-nationally and cross-industry, especially when incentives accrue more often to firms that are less globally mobile, such as domestic firms and corporations with high redeployment costs that are already locally invested. Political pandering theories also may help explain why incentives have traditionally been so popular in some countries and what drives these incentives in polities marked by political competition. Yet, a political pandering theory leaves little room for explaining firm and industry-level variations in incentives and also would predict that incentives are ubiquitous. This may be the case in the US, but investment incentives in other regions are far less common. In other words, structural and pandering theories can help explain why inefficient incentives exist, but are less capable of explaining heterogeneity in incentive programs across countries and across industries.

### **Explaining bureaucrats’ deference to business**

Investment incentive programs are planned and implemented largely by bureaucrats who work in agencies tasked with investment promotion and economic development. Countries vary in how these programs are administered and by whom. Some countries have worked to make their tax incentive programs automatic and fully incorporated into the tax code. Others only offer incentives on a case-by-case basis. Many countries employ a combination of automatic and project-specific incentives. Moreover, countries frequently revisit and revise incentive policy. Between January 2010 and August 2020, governments enacted a total of 180 new incentive-related investment measures.<sup>1</sup> Benefiting from these programs requires champions within the ranks of both elected officials and the bureaucratic agencies that advise, support and implement economic development policy. Even ‘automatic’ incentives often require bureaucratic implementation, as firms wishing to benefit from special tax breaks must apply for covered status.<sup>2</sup> Helping firms navigate incentive programs is a task that frequently falls to IPAs, and these agencies also often directly administer incentive programs; a 2017 World Bank survey of national IPAs found that 45% of responding IPAs identified incentive administration as central to their mandate.<sup>3</sup> Moreover, IPAs are sites not only of policy implementation, but also of policy entrepreneurship; the same World Bank survey found that 76% of IPAs consider policy advocacy as central to their activities. Therefore, to fully explain how incentive policies are made and why they look the way that they do, we look to the motivations and professional incentives of individuals involved in crafting and implementing incentive programs.

To explain variations in IPA agents’ attitudes over the usefulness of investment incentives, we build on theoretical approaches that emphasize the impact of institutional configurations, bureaucratic rules and prevailing heuristics – or social knowledge – on actors’ beliefs, attitudes and behaviors (Barnett & Finnemore, 1999;

Chwieroth, 2015; Poulsen, 2015; Weaver, 2008). We consider three attributes of IPAs and their employees that may contribute to individual-level beliefs: the degree to which the IPA is a political appendage of the government – what we call *institutional forces*, the methods through which IPA employees’ performance are evaluated and rewarded – or *material forces*, and the professional backgrounds of IPA employees – which we label *ideational forces*. How IPAs fall along these attributes influences the extent to which individuals operating within them prioritize short-term, high-visibility projects and therefore have less understanding of the more chronic issues that prevent most firms from investing and/or expanding production in their economies.

First, we consider how the relationship between IPAs and their central governments can influence attitudes toward incentives. In particular, the degree to which IPAs are integrated with other state bureaucracies will affect the incentives IPA officials and their employees face, and this in turn will influence individuals’ beliefs over the importance of providing tax incentives to investors. IPAs vary substantially in how they are positioned within the state. A 2009 World Bank survey of IPAs found that globally, approximately 70% of IPAs operate as autonomous agencies while 30% are a sub-unit of a ministry.<sup>4</sup> Regions also display a great deal of variation in how IPAs are structured. East Asian countries are most likely to integrate their IPAs into a ministry, with 73% of IPAs structured this way. At the other extreme, sub-Saharan African countries are least likely to integrate their IPAs into government; only 13% of agencies are a sub-unit of a ministry while 87% are autonomous.

When IPAs are closely integrated into the government, individuals working within the agency should be more likely to view incentives as a central component of investment attraction. There are several reasons why this should be true. First, integrated IPAs are usually headed by political appointees who are closely connected with the current government and who can turn over frequently when governments change or cabinets are reorganized. This creates pressure on the IPA to generate short-term deliverables in order to demonstrate their effectiveness to the government and to the public. Since incentives can be used to claim credit for economic performance, individuals operating in such structures are likely to view incentives more positively. Note that this is similar to a political pandering explanation of incentives (Jensen & Malesky, 2018); however, it differs in that the incentive to pander comes not from electoral considerations but instead from principal–agent dynamics inherent in a politicized bureaucracy.<sup>5</sup> Second, individuals working within more integrated bureaucracies are also likely to view their role as to support government development priorities. Increasingly, countries implement national industrial policies that use targeted investment incentives as a central component of their development strategies (UNCTAD, 2018). Therefore, individuals in integrated IPAs are more likely to be socialized to believe investment incentives are crucial to governments’ achieving their economic development objectives.

Hypothesis 1: Individuals who work in IPA that are closely integrated into the government will be more likely to view investment incentives as important for attracting investment.

Second, IPAs vary in the way they evaluate employee performance, and we argue these differences generate heterogeneity in the extent to which IPA employees face material incentives to embrace tax incentives as key components of

investment promotion. When IPAs evaluate employees for raises and promotions through key performance indicators that emphasize deals closed, jobs created and contacts made rather than investment retention, exports facilitated and domestic sales to foreign affiliates, employees are incentivized to chase new investment of all kinds rather than to focus on increasing the economic growth potential of investments already made.<sup>6</sup> Again, because tax incentives are often seen as discrete offers to ‘sweeten the pot’ for potential investors, IPA employees who are evaluated based on the deals they close will be more likely to reach for these policy tools.

Hypothesis 2: Individuals in IPAs that use key performance indicators that emphasize new deals will be more likely to view investment incentives as essential for attracting investment.

Third, we expect individuals to vary in their beliefs over the usefulness of incentives based on their professional backgrounds. IPAs vary in the extent to which they recruit talent primarily from within the government bureaucracy or externally from the private sector. A 2017 survey found individuals with business backgrounds comprised, on average, 55% of employees. However, 40% of respondent IPAs reported individuals with private-sector experience accounted for 40% or less of their staff, and 19% reported less than 20% of their staff had any business experience. Conversely, 20% of respondent IPAs on the same survey reported that over 90% of their staff had previous experience in the private sector.<sup>7</sup>

We draw on insights from behavioral economics that emphasize the boundedly rational behavior of goal-oriented agents facing cognitive constraints (Poulsen, 2015; Weyland, 2006). When agents face substantial information gaps over how to best achieve a policy goal – such as attracting FDI – they tend to reach for readily visible and available policy options – such as investment incentives (Tversky & Kahneman, 1979). This availability heuristic is powerful because agents deploy the tools they know already exist rather than search for new tools that are perhaps better positioned to achieve their policy objectives.

Investment incentives – and here we mean specifically tax incentives – are highly visible policy interventions that are always tied to a particular FDI project. Governments publicize the projects they have supported through tax incentive packages, but do not usually publicize projects that they unsuccessfully pursued. Moreover, it is easy to see an immediate benefit associated with an investment tax incentive – breaking ground of a new facility and the promised employment of a specific number of people – but it is much harder to evaluate the costs associated with incentives through lost tax revenue, increased stress on local infrastructure and market distortions. No matter how many econometric studies show tax incentives very rarely ‘work’, investment promotion professionals have at easy reach examples such as BMW in South Carolina or Intel in Costa Rica as FDI projects that transformed local economies and that many believe local governments ‘won’ in part through their incentives offer. Thus, investment promotion professionals with little knowledge of how investors make locational decisions will systematically overvalue incentives and discount their costs.<sup>8</sup> The *cognitive distance* between firm agents and investment promotion professionals generates uncertainty and low confidence in officials’ ability to anticipate investor needs. As a result, IPA officials without private-sector backgrounds reach more readily for investment incentives when trying to induce global firms to invest locally.

In contrast, IPA professionals with more experience in the private sector will face fewer cognitive constraints with respect to evaluating the factors that lead businesses to invest in particular locations. Individuals with extensive experience in the private sector have a deeper understanding of what drives investor behavior, and therefore are likely to be more aware of the limitations of investment incentives in altering firms' locational strategies. Their superior knowledge of firm preferences and decision-making processes mean they are less susceptible to availability heuristics and instead will view other dimensions of investment policy such as assistance navigating licensing agencies, developing local talent and finding local suppliers as more influential in firms' locational decisions. A bounded rationality approach to explaining investment promotion professionals' attitudes toward investment tax incentives, therefore, predicts that individuals with more private-sector experience will be less likely to view incentives as important components of investment attraction strategies. This stands in contrast to access-oriented explanations of business regulation that generally argue that private-sector affinities in government bureaucracies lead to regulatory capture (Culpepper, 2011). It also complements arguments that center professional managerial cultures in explanations of organizational behavior (Seabrooke & Sending, 2020).

Hypothesis 3: Individuals with previous professional experience in the private sector will be less likely to view investment incentives as essential for attracting investment.

## **Empirical approach**

In this section, we explicate our empirical approach, survey design and sampling techniques.

### **Conjoint design**

We begin by providing a brief introduction to conjoint analysis, which forms the core of our methodological approach. While relatively new to the political science literature, conjoint experiments have a long tradition in other disciplines, as well as in commercial applications such as marketing and product testing. Conjoint analysis emerged as a way to measure which components of a multi-faceted choice were most important to an individual. For example, conjoint analysis would allow researchers to measure the relative importance of price, color, size, durability and country of origin for a consumer product. Components then have sub-components: for instance, size may be large, medium or small. Rather than asking people to rate each of these components separately, conjoint experiments present packages and ask individuals to select their preferred package. This approach has several important advantages, one of which is that it allows researchers to understand how each component varies while respondents simultaneously consider all the other components. Otherwise, it would be difficult to understand what the individual ratings of each component would tell us about its importance relative to the other components.

In addition, conjoint packages are more realistic than traditional survey questions and are intended to mimic individuals' actual decision-making process. Individuals select a set of components at the same time, choosing one package

versus another – with each component fixed in pre-selected ways – an approach that is intended to emulate how choices would be presented in the real world. Because individuals make trade-offs between different packages, they must simultaneously weigh the importance of all the different components in making their decisions. In short, conjoint analysis allows preferences to be more accurately revealed through the choices of respondents, rather than simply through stated preferences.

A conjoint approach is especially useful to the study of beliefs over investment incentives because it captures the multi-dimensional policy space that characterizes the investment climate. While it is generally a safe assumption that businesses prefer to pay lower tax rates, all else equal, firms do not have the luxury of choosing locations solely based on differences in tax policy. Rather, business executives must make decisions about where to invest by considering a constellation of policy, macroeconomic, cultural and geographic characteristics simultaneously. Since individuals make decisions in multi-dimensional spaces, inference techniques that do not take seriously the multi-dimensionality of choice have serious external validity limitations. Just as firms make discrete locational choices based on a combination of local characteristics, governments also must craft investment facilitation policies within complex contexts. To the extent that different policies involve trade-offs – for instance, larger tax incentives reduce government revenue, which may decrease governments' ability to fund infrastructure improvements or to provide more cost-intensive investment facilitation programs such as supplier training programs and technical assistance – governments need to determine how to optimize their investment policies amid competing priorities.

To administer the conjoint experiment, we provide survey respondents with a discrete choice between two alternatives that differ across several dimensions. By estimating how theoretically relevant co-variates relate to how an individual prioritizes scenario attributes, we can test how each characteristic predicts decision-making. It is standard to offer each respondent several different ‘contests’ between competing packages. There is decreasing statistical power as the number of components and levels increase; following best practices for conjoint experiments, we use five components and either two or three levels for each component. We offer eight contests per respondent. The high number of contests is necessary in order to ensure that it is possible to gather information about all the components and their levels. We then analyze the data to determine the average marginal component effect (AMCE) of each of the components. The *cjoint* package, created by Hainmueller et al. (2014), provides a convenient algorithm to analyze this data and present the AMCEs. Importantly, AMCEs capture the relative importance of each sub-component relative to a baseline, as discussed conceptually in the preceding paragraphs.

Interpreting AMCEs is relatively straightforward: they represent the effect of shifting a component from one level to another, holding all the other components constant at their baselines. The measured effect is the increased percent chance that a respondent will select that package. Again, the effects are relative to the level selected as a baseline. For example, returning to the discussion of consumer products above, if ‘medium-price’ is the baseline, and shifting to ‘low-price’ has an AMCE of 0.07, that means that respondents are 7% more likely to select a low-

priced product than a medium-priced one, holding color, size, durability and country of origin constant.

### ***Question wording and design***

We generate a survey that first asks respondents a series of questions designed to measure theoretically important attributes, then ask them to complete eight tasks which comprise the conjoint experiment component of the survey, and finally asks a series of questions designed to probe potential causal mechanism that might connect respondents' attributes and investment priority beliefs.<sup>9</sup>

The conjoint experiment component of the survey asks respondents:

'Now we will ask you to review several pairs of policy packages. There will be a different pair shown on each of the next 8 screens. Please read each pair of packages carefully as each package may be only slightly different. For each pair, please identify the one that you believe would be most likely to entice investment and select the button under that package'.

Each policy package includes five dimensions, and each dimension has two to three potential options. Four out of the five dimension relate to policies for which IPAs generally have direct control or administration over: skill development support, business-to-business matchmaking services, licensing and permitting assistance and tax incentives. We also include a valuation of proximity to a deep-water port, which is a proxy for economic geography concerns and helps identify the extent to which respondents view features largely beyond the government's control as decisive in foreign firms' locational decisions.<sup>10</sup>

We included the other four dimensions because investment promotion professionals should have substantial knowledge over such kinds of policy interventions and because these programs vary in terms of how much IPA capacity is necessary to fully implement them. For example, grants for job training may require a smaller fiscal outlay in order to contract skill development to investing firms or local universities and trade schools compared to matchmaking services, which require substantial proactive knowledge of local businesses, their technical capabilities and the supply chain and logistics needs of investing firms. Placing these policy tools within a conjoint framework allow us to approximate the kinds of policy trade-offs investment professionals often make in the real world, and to force respondents to reveal their latent preferences between tax incentives and other kinds of policies that can make the investment environment more attractive to businesses, but are not as easy to use to claim credit for 'closing the deal'.

That is, job training, matchmaking services and help with permits and licensing are all investment facilitation and aftercare services that governments and IPAs could provide to investors, but they are not subject to the same dynamics that are tax incentives. These services are more resource intensive – if only from a personnel perspective – and present a less straightforward story about presenting a winning locational package to a prospective investor. They are also less clearly associated with a particular investment deal. Investment incentives are clearly tied to a particular investment project – government officials generate press over investment announcements that include information about the tax incentives that firms receive on condition of their investment. It is harder to tie job training,

**Table 1.** Policy choices.

Policy dimension		Options	
Location of nearest deep-water port	<5 km	>50 km	
Government-provided grants for job training?	Yes	No	
IPA matchmaking services	IPA provides grants for developing local supplier networks	List of potential suppliers	None
IPA assistance with permits and licenses	IPA facilitates meetings with government officials to resolve permitting issues	IPA assists in application processes	None
Tax incentives	10-year holiday on corporate profits	5-year holiday on corporate profits	None

**Table 2.** Example conjoint scenario.

	Site A	Site B
Location of nearest deep-water port	More than 50 km away	Less than 5 km away
Government-provided grants for job training?	Yes	No
IPA matchmaking services	List of potential suppliers	None
IPA assistance with permits and licenses	None	IPA facilitates meetings with government officials to resolve permitting issues
Tax incentives	None	5-year holiday on corporate profits

matchmaking services and aftercare services to the winning of a specific investment because these types of activities tend to be broader in scope rather than targeted toward one investment. For instance, job training programs may teach coding skills, but trainees could use these skills working at various companies. News coverage of new investment projects very rarely go into detail about the specifics of foreign businesses' plans for managing their supply chain or whether the government assisted the company in finding qualified local suppliers. Definitionally, aftercare services only occur post-investment, and so these types of activities are also harder to point to as decisive in attracting a specific investment project. While these types of policies are harder to use for claiming credit for any specific investment, international organizations and policymaking bodies have emphasized the importance of these more complicated investment facilitation services over tax incentives for attracting investment in recent years (Echandi et al., 2015).<sup>11</sup> Table 1 provides an overview of these policy choices. Table 2 provides an example scenario that respondents were asked to choose between.

Prior to the conjoint experiment, respondents were asked a series of questions designed to measure the three key attributes that our theory expects will influence respondents' beliefs. The full survey (minus the conjoint experiment, which is computer generated for each respondent to ensure randomization) is available in the appendix, but here we highlight the five questions that directly relate to our three hypotheses.

First, to test hypothesis 1, which expects individuals working in highly politicized or integrated IPAs will be more likely to view investment incentives as important for attracting investment, we asked the following question: 'What best

characterizes your IPA's relationship with the central government?' Potential answers included: 'The IPA receives specific guidance from cabinet-level ministers on strategy and implementation'; 'The IPA has independent authority over its strategy and implementation but interacts frequently with ministries to coordinate policy objectives' and 'The IPA operates independently and without much interaction with other government officials'. We also ask how the head of the IPA is chosen, to differentiate between IPAs with politically-appointed executives from those whose leadership is chosen in other ways.

Hypothesis 2 predicts that individuals working in IPAs that use key performance indicators emphasizing short-term new project targets for raises and promotion will be more likely to view investment incentives as effective promotional tools. To operationalize this concept, we ask respondents to explain how their performance for promotion and for salary increases is evaluated. Because we were less confident in our ability to develop an exhaustive list of the different key performance indicators that IPAs often use, we structured this question to accept open ended answers. This had the added benefit of allowing respondents to indicate when there is a disparity between stated and actual performance evaluation tools. We then manually coded an indicator variable that took the value of '1' if the respondent made some mention to performance indicators that emphasized deals or FDI flows, and '0' otherwise.

To test hypothesis 3, which expects individuals with prior experience in the private sector to view incentives less favorably, we asked: 'What best describes your professional background before arriving at your current investment promotion authority (IPA)?' Potential answers included 'career government bureaucrat'; 'private sector'; 'I have always worked for this IPA' and 'other' (with a space to explain).<sup>12</sup> We also asked respondents about their educational background, in particular whether they have an MBA.

### ***Survey target population and sample***

Because our targeted survey respondent is a policy elite, we did not have a large enough sampling frame to realistically administer a random survey design. Instead, we employed a convenience sample with a snowball technique. We first generated a list of all IPAs that are members of the World Association of Investment Promotion Agencies (WAIPA). We then visited each IPA's website and pulled every email address listed on it. Because we are interested in individual-level attributes, we wanted to generate responses from as many investment promotion professionals as possible, even ones employed in the same agency. We sent email invitations of participation to over 600 professionals, and engaged in follow-up requests on a weekly basis. We also asked that respondents forward the survey to other professionals in their network. We augmented the email push with a visibility campaign on LinkedIn, as many IPAs and their employees have a presence on that professional networking website.

After 12 months in the field, we were able to obtain 63 survey respondents. While this may appear to be a relatively small number, we believe it is sufficient for our purposes and is relatively high given the constraints on our analysis. Notably, surveys involving investment typically involve very low response rates; in previous surveys of MNCs, response rates of approximately 10% are typical. For example, a prominent survey of MNCs in Costa Rica (Osgood et al., 2017) yielded

**Table 3.** Descriptive statistics.

H1: IPA/Gov't relationship			H1: Director appointment		
Independent IPA	5		Political		34
Hybrid	40		Civil service		2
Integrated	17		Open search		20
Total	62		Total		56
H2: # Deals KPIs		H3: Business Background			H3: MBA
Yes	28	Yes	34	Yes	25
No	27	No	29	No	38
Total	55	Total	63	Total	63
Position		Mandate		Employees	
Non-management	14	Local	2	<10	5
Middle Manager	30	Subnational	8	10–19	7
Senior Manager	17	National	50	20–29	13
				≥30	36
Total	61	Total	60	Total	61

a response rate of 15.1%. In the experience of one of the authors, in a survey of Brazilian multinational corporations, response rates were even lower, at nearly 5%.

In addition, the number of IPAs in existence is relatively small, even though we sent the questionnaire to respondents at the national, regional and local/municipal level IPAs. We received our list of IPA contacts from WAIPA, and the total number of potential respondents was 173. We were able to increase our sample size by surveying not only IPA directors, but a range of people within each organization; this approach also dovetailed with our theoretical motivations, as we were able to capture survey responses from a range of different categories of employees.

Table 3 presents descriptive statistics for the respondents, and shows that the survey respondents generally display substantial variation across variables of interest, with a few caveats. First, there are only five respondents who characterize their IPAs as operating independently from the government. This suggests our ability to draw inferences regarding the preferences of individuals operating in independent agencies is limited. However, there are sufficiently more respondents who view their IPAs as either hybrid or integrated to provide statistical power over how these groups view the importance of tax incentives. Second, responses to how IPA directors are appointed reveal that agencies very rarely choose directors through civil service appointment. Accordingly, we recode this variable as an indicator variable equal to one when the director is appointed through a political process and zero otherwise. All other explanatory variables display variation sufficient to allow analysis.

One concern is that our main explanatory variables may be confounded with other characteristics of IPAs, and so our results may suffer from omitted variable bias. The most likely confounders would be a country's level of development and if a respondent's position of authority within the agency correlates with their educational or professional background. We consider the likelihood of these statistical concerns by examining cross tabulated frequency tables and performing  $\chi^2$  tests of independence. First, we consider level of development. In consultation with WAIPA and the World Bank, and based as well on feedback we received from our initial pilot survey, we did not collect information on the nationality of the IPA in which

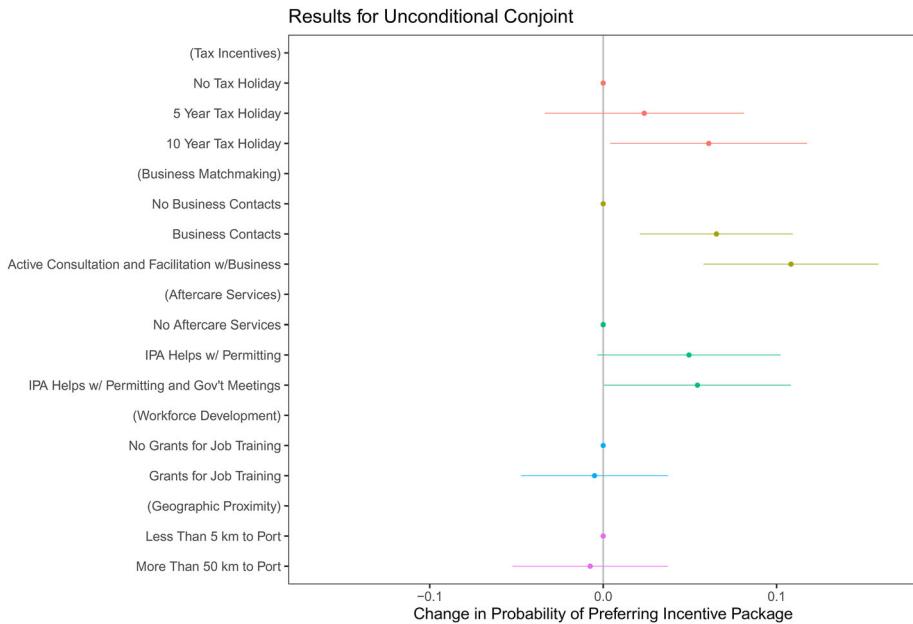
respondents worked. This is because respondents were unwilling to answer the survey if we collected these data. Respondents indicated that they were worried that the answers they provided could reflect negatively on their IPA and that they would be unable to answer the survey questions truthfully if it were possible to connect their responses back to their employer.<sup>13</sup> However, IPAs from wealthier countries tend to have more employees, and we did ask for information about the number of people employed by the respondent's IPA. When we cross tabulate our explanatory variables with number of employees, we do not find any patterns in terms of the size of the IPA predicting degree of IPA integration into the government, how directors are appointed, whether the IPA evaluates employee performance based on the number of investment deals closed, or the likelihood that the respondent has an MBA or a private-sector background. Similarly, we did not see such patterns when scrutinizing cross tabulations of these variables and the management position of the survey respondent. The only measure that had a  $\chi^2$  test  $p$  value close to significance was the KPI indicator ( $p$  value = .1733). All other tests for independence have  $p$  values over .3.<sup>14</sup>

## Results

Before examining the AMCE, it is worth first explaining ‘feature importance’, the term used in conjoint analysis to describe the relative weight that the five components have on respondent decision-making. It is standard to calculate feature importance across the entire dataset, rather than at the individual level. The results of the feature importance analysis reveal that the ‘corporate tax incentives’ category, our primary variable of interest, is by far the most important, responsible for explaining 38.5% of the variance in the responses. ‘Business to business matchmaking services’ and ‘aftercare services’ are of similar importance, at 21.2% and 22.1%, respectively. Finally, ‘workforce development programs’ and ‘connectivity to ports’ are the least important, at 6.9% and 11.3%, respectively. Thus, in interpreting the remainder of the results and the relative importance of the sub-components, it is essential to understand that the ‘investment incentives’ category is by far the most important in determining which packages respondents picked. We now turn to discussing the results, first the unconditional results of the whole sample, and then the results as compared across theoretically important sub-groups.

### ***Results of unconditional conjoint analysis***

Figure 1 presents the unconditional AMCEs for the experiment. These quantities of interest represent the extent to which changing the value of each feature affected the probability of respondents in our sample choosing a package. Given the relatively small sample size, we present our results at 90% confidence intervals and report 95% confidence intervals in the appendix. When averaging across all respondents, packages that included 10-year tax holidays statistically significantly increased the probability of choosing a package, and packages that included matchmaking services to local businesses were most likely to increase package choice. While packages that included aftercare services around permitting and government contacts were more likely to be chosen, this was not statistically significant. Job training programs and distance to ports both showed no real effect compared to the baseline.

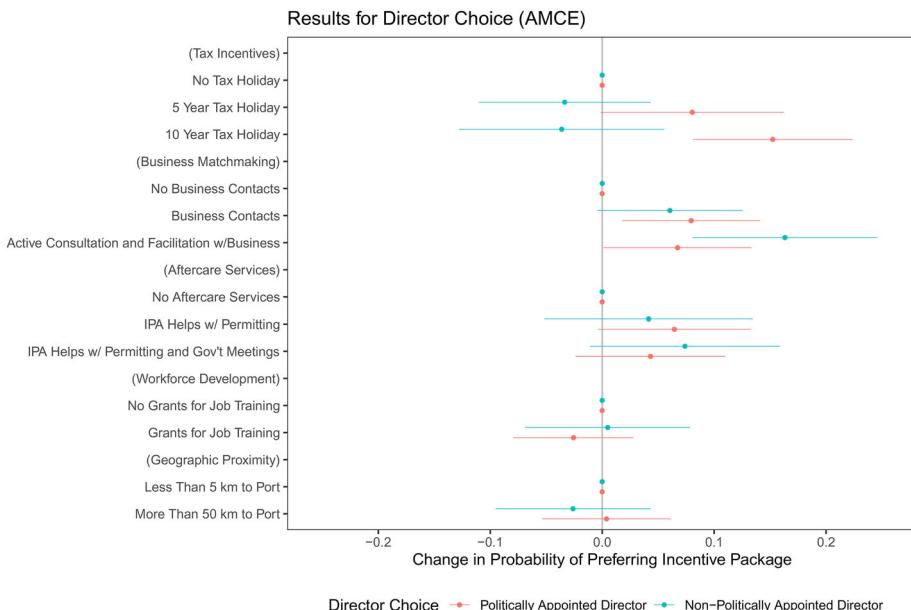


**Figure 1.** Across the entire sample, individuals are more likely to choose packages that include business matchmaking services and 10-year tax holidays. Additionally, there is weaker evidence that respondents preferred packages that include aftercare services. Confidence intervals reported at the 90% level. Analysis done using Hainmueller et al. (2014) and figure based on Leeper et al. (2020).

Turning to the AMCEs across subsamples, our first hypothesis expects individuals working in politicized IPAs to view tax incentives as important for attracting investment, relative to individuals working for less politicized agencies. We measured the politicization of agencies in two ways: whether the IPA director is a political appointee and whether the agency is highly integrated into the government or operates largely as an independent authority.

Our results for director choice, which we present in Figure 2, support our first hypothesis.<sup>15</sup> The plots for the responses of politically-appointed directors show a clear preference for tax holidays as a way of attracting investment. The results are strongest for the 10-year tax holiday and are also significant at the 95% confidence level (reported in appendix). The size of the effect of investment incentives is substantively large: an 11% increase for a five-year tax holiday, and a nearly 20% increase for a 10-year tax holiday. It is worth noting that for politically-appointed directors, no other components to the incentive packages are significant. The results for non-politically-appointed directors show nearly opposite preferences. In fact, there is a slight preference against incentives, although the results are not distinguishable from zero.

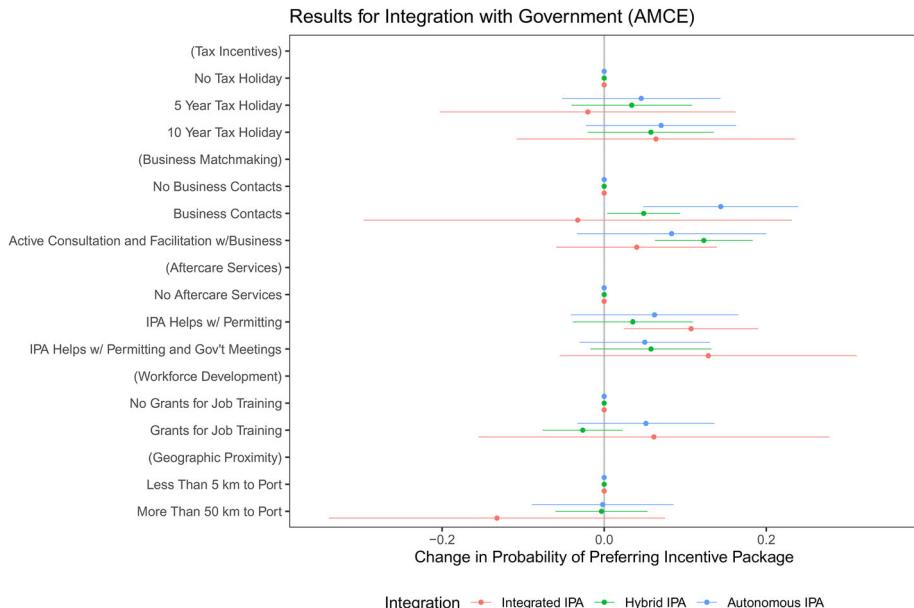
The second test of our first hypothesis relates to the independence of the IPA, and is reported in Figure 3. Contrary to our expectations, the self-reported independent authority of the IPA does not appear to affect the use of tax holidays. We urge caution in interpreting these results since our IPA independence measure generated the least amount of variation of all our explanatory variables. All respondents appear to favor aftercare services, although the results are only significant for those who work in IPAs with no independent authority. This finding makes



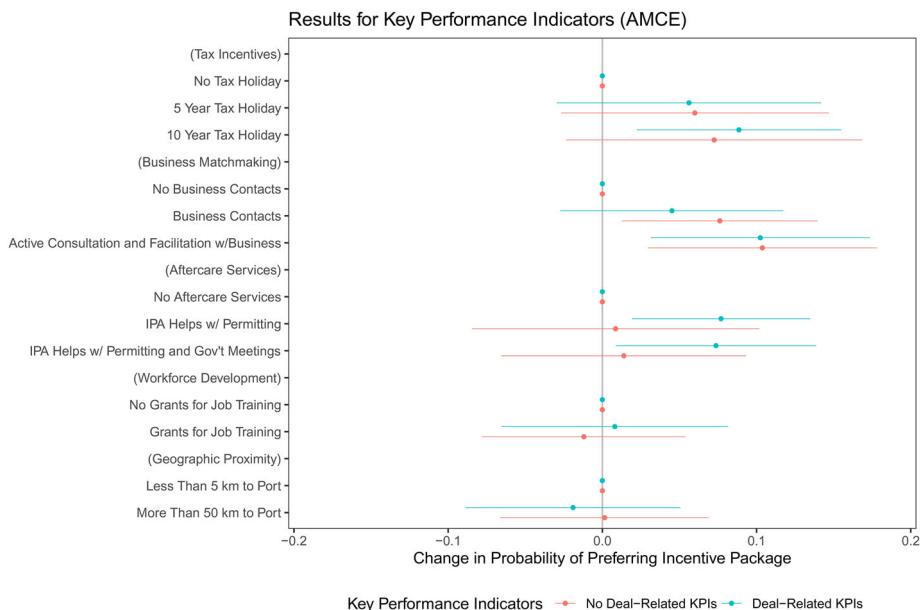
**Figure 2.** Politically-appointed directors are statistically significantly more likely to prefer investment incentive packages that include tax holidays than are directors chosen through nonpolitical channels. Confidence intervals reported at the 90% level.

intuitive sense since integrated IPAs are more likely to have stronger connections to other governmental permitting agencies and therefore may be better placed to provide such services. Individuals who work in independent IPAs prefer active consultation and facilitation with business, and this is statistically significant despite the small number of respondents from independent IPAS. Individuals working in hybrid IPAs also exhibit preferences for packages that include business matchmaking services. Again, neither workforce development nor connectivity to jobs are significant.

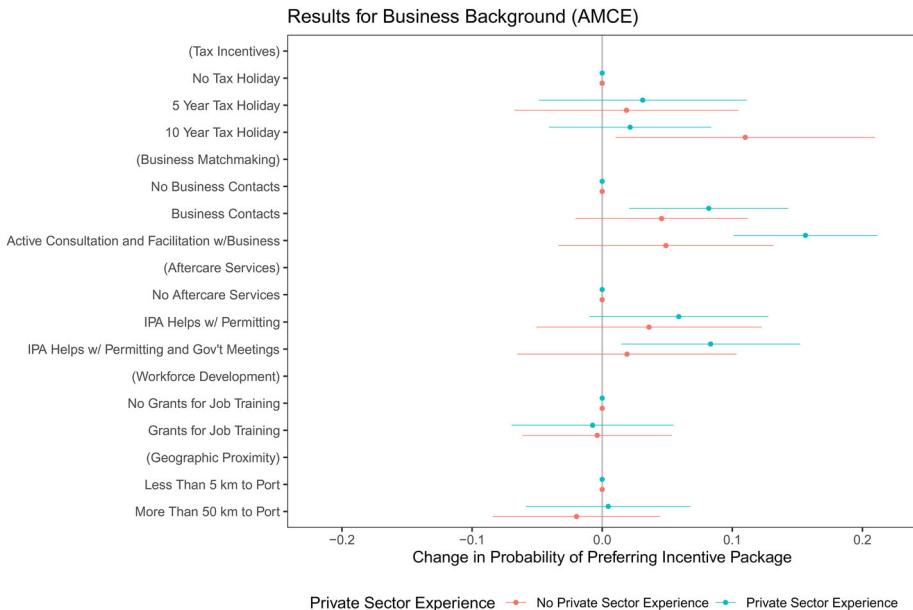
Our second hypothesis relates to the use of key performance indicators that emphasize new deals. The logic of this hypothesis is intuitive: individuals in IPAs where professional success is evaluated based on the number of new deals should be willing to use incentives to close such deals. Again, our results, which are reported in Figure 4, provide empirical support for this hypothesis. Our results for individuals in IPAs with key performance indicators exhibit a statistically significant preference for 10-year tax holidays, although not five-year tax holidays.<sup>16</sup> In these cases, the effect size is large, in the high single digits. By contrast, individuals at IPAs without deal-related key performance indicators do not exhibit a statistically significant preference for packages that include tax incentives. Individuals at IPAs with and without key performance indicators exhibit a preference for tax incentive packages that include business matchmaking, particularly *via* business contacts, and the size of the effect is approximately 10%. Neither group appears to exhibit a preference for either connectivity to jobs or workforce development. Interestingly, individuals at IPAs with deal-related key performance indicators exhibit a preference for packages that include aftercare services, although the preference for permitting and government meetings is only significant at the 90% level.



**Figure 3.** The degree of IPA integration with the government does not predict respondents' preferences over tax incentives. Respondents at IPAs with at least some independent authority are more likely to prefer matchmaking services while individuals who work at integrated IPAs display a preference toward packages that include aftercare services. Confidence intervals reported at the 90% level.



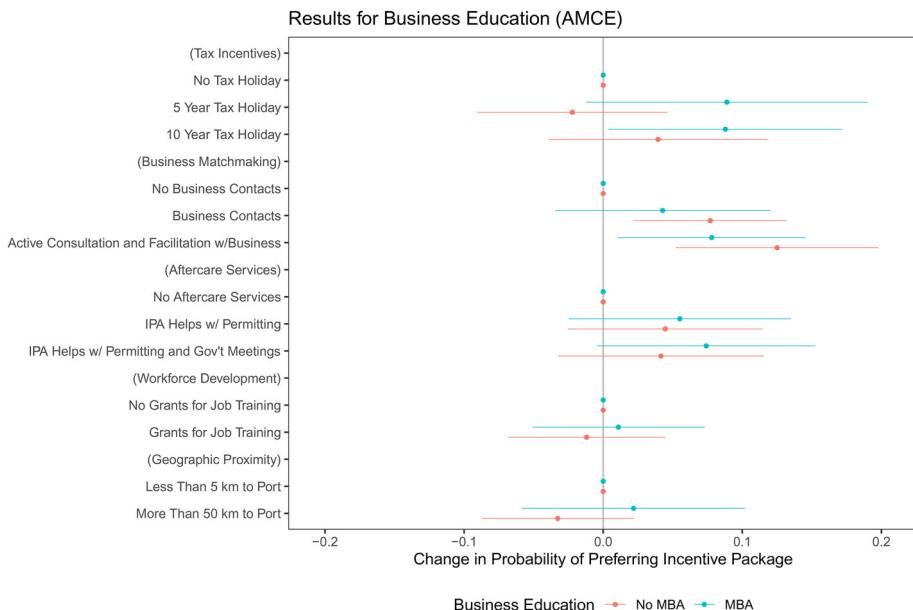
**Figure 4.** Respondents at IPAs with incentives as key performance indicators are more likely to prefer incentive packages with 10-year tax holidays. Individuals at IPAs without incentives as key performance indicators are more likely to prefer packages with business matchmaking. Confidence intervals reported at the 90% level.



**Figure 5.** Respondents with business backgrounds are not more likely to prefer packages with tax holidays, while individuals without a business background exhibit a preference for 10-year tax holidays. Confidence intervals reported at the 90% level.

Our final hypothesis relates to the professional experience of individuals at the IPA, and we measure this through previous work and educational experiences. First, as shown in Figure 5, we find that individuals with previous private-sector experience do not view policy packages that include tax incentives more favorably. In contrast, individuals without previous business experience are more likely to choose packages that include a 10-year tax holiday. We also find that a business background makes respondents approximately 15% more likely to choose packages that include business matchmaking, but that individuals without business backgrounds do not similarly favor such policies. Respondents with business backgrounds also weakly favor aftercare services, although only assistance with permitting and government meetings. By contrast, those without business backgrounds do not seem to favor any incentive package components other than 10-year tax holidays, a finding consistent with our theoretical expectations.

Finally, Figure 6 reports results from an additional test of our third hypothesis. Contrary to our hypothesis, those with MBAs seem to exhibit a preference for tax incentives, although the results are only significant for the 10-year tax holiday and, as reported in the Appendix, are not significant at the 95% confidence level. This surprising result may help differentiate between the effects of education and those of experience. That is, these findings suggest that it is only actually business experience rather than education that makes individuals less focused on tax incentives. While business experience is associated with less interest in tax incentives, individuals with business degrees are more focused than their peers on such incentives. We interpret this as further, albeit suggestive, evidence in support of our proposed causal mechanism – individuals without insider experience regarding the factors that firm managers consider when making locational decisions are more likely to



**Figure 6.** Respondents with an MBA are more likely to choose packages that include tax incentives. Confidence intervals reported at the 90% level.

have overconfidence in the effectiveness of tax incentives due to availability heuristics. What reduces overreliance on incentives is not education, but experience. Of course, there is overlap between individuals with business backgrounds and MBAs. Without a larger sample we do not have the power to test the conditional effect of education, given private-sector experience. Therefore, we caution against over-interpreting these findings.

**Robustness and specification choices.** The increased application of conjoint analysis to political science research questions has led to an increasingly sophisticated discussion about the correct methodological tools to analyze conjoint results and how to appropriately interpret these findings. One concern is that AMCEs are causal tests, but are not appropriate for describing descriptive information about differences across sub-groups (Leeper et al., 2020). To accurately depict average differences across groups, it is more appropriate to compute marginal means. We are specifically using the conjoint to test hypotheses rather than make claims regarding descriptive differences across groups. In fact, a motivation for using the conjoint analysis in the first place is that, in the absence of being confronted with trade-offs, firms are likely to prefer lower tax environments to higher tax ones and investment promotion professionals are likely to internalize this uni-dimensional preference. Instead, we are interested in how characteristics of individuals and their institutional environment influence the importance they place on tax incentives when they are confronted with policy trade-offs. Therefore, AMCEs are the correct method of analysis for testing our hypotheses. For completeness, we include marginal means plots in the appendix for the interested reader.<sup>17</sup> Generally, we find that subgroup preferences are not descriptively statistically significantly different from each other, but that is not

surprising to us because we are interested in how respondents' characteristics change the relative importance of tax incentives to their policy package choice rather than whether sub-groups are statistically significantly different descriptively.

Another concern is that AMCEs are sensitive to baseline categories and so we must have a strong theoretical reason for choosing the baseline that we do. This concern is particularly important when categories are arbitrary category variables such as race/ethnicity or sex/gender (Leeper et al., 2020). Because the values possible for each dimension of our conjoint experiment are naturally ordered from no inclusion of the policy instrument to at most two options that are ordered in terms of their costliness, our analysis does not suffer from concerns over the arbitrariness of our baselines.

Finally, AMCEs are not able to analyze the interaction effects between conjoint factors. That is, AMCEs can only analyze one treatment at a time and cannot uncover more complex statistical relationships between treatments. To overcome these constraints, researchers must instead compute an average marginal interaction effect (AMIE) (Egami & Imai, 2019). It would be preferable to be able to estimate this quantity of interest, particularly to examine heterogeneous treatment effects and the ways in which our explanatory variables may cluster in descriptively interesting ways. Unfortunately, our sample is too small to estimate this quantity and we therefore are unable to provide this analysis. However, our hypotheses do not explicitly require AMIEs.

## Conclusion

This paper is an effort to answer the question of why governments continue to offer tax incentives to foreign investors, given that there is little evidence of their effectiveness. We use data from an original conjoint survey, conducted on members of IPAs across the developing world. The core of our analysis is a conjoint experiment, in which respondents rate the perceived effectiveness of different hypothetical investment incentive packages. We then subset the responses and compare them based on the backgrounds of the respondents to determine how the professional background and institutional environment in which they operate influences the outcomes.

We find that respondents' preferences over tax incentives, in the context of a multi-dimensional policy space, vary in systematic ways. First, institutional structures matter: working at an IPA with a politically-appointed director is associated with an increase the probability of choosing investment packages that include tax incentives. Second, material professional incentives matter: working at an IPA that evaluates employees based in part on key performance indicators that include deals closed also increases the probability of choosing investment packages that feature tax incentives. Finally, professional cultures and backgrounds matter: having previous private-sector experience is not associated with an increased emphasis on tax incentives while having no private-sector experience is.

These results challenge an 'anti-politics' interpretation that investment incentives – and specifically tax incentives – are simply a necessary part of investment attraction in a highly globalized world. Instead, institutional structures, material incentives and professional culture combine to influence actors' beliefs over the power of firms in a global economy. These findings push theory forward by

demonstrating how individuals develop beliefs over the extent to which it is necessary to accommodate business interests, particularly through fiscal policy. We see these results as complementing, rather than replacing, the existing explanations for investment incentives advanced by other scholars. Additionally, they suggest a fruitful area of expanded research in the intersection of bureaucratic politics, managerialism and behavioral economics.

In addition, our results not only explain why investment incentives are offered more frequently, but also why other potential policy tools are under-utilized. It is clear in our results that there are systematic patterns in how different individuals perceive the value of distinct components of investment incentive packages and what role, if any, tax breaks should fill in those packages. Notably, some characteristics are associated with individuals identifying other policy levers – especially business matchmaking and aftercare services – as more important than tax holidays. These findings help us develop explanations for variations in investment promotion policies beyond tax incentives in ways that have other theories have not yet addressed.

Our findings are not inconsequential to the real world. There are billions of dollars of state funds at stake in the decisions behind investment incentives. Understanding why and under what conditions decision-makers continue to believe tax incentives to be critical to attracting investment is an important first step in limiting their use. Our results have the potential to shape the patterns of firm decision in the developing world. In particular, they provide policymakers with specific and limited reforms to IPAs that have the potential to decrease the use of investment tax incentives in the quest to promote localized investment.

Despite its contributions, this paper is not without opportunities for improvement in future research, particularly as conjoint experiments are gaining increased interest among social science researchers. In this way, the limitations of this research can also serve as lessons learned for future research using conjoint analysis.

Perhaps the greatest limitation of this paper is its relatively small sample size. This is not surprising given the relatively small universe of investment promotion professionals to begin with combined with the fact that firm surveys typically have low response rates, usually in the single digits. We believe the trade-offs between sample size and external validity are worth it. Our limited sample may make statistical inference more challenging, but it is more important to have the ‘right’ individuals respond to the survey. It would be far easier to run the experiment on a sample of non-experts, and doing so would likely make it easier to find clearer results. But, since our theory is fundamentally about professionals and how their lived context influences their beliefs over the importance of tax incentives for investment promotion, such an approach would be unable to move theory forward. Still, the challenges of administering elite survey experiments are many. We recommend that future researchers find professional meetings that their target population attend and administer surveys in person at such events.<sup>18</sup>

Second, we suggest researchers limit the number of levels in each of their sub-components. There are important trade-offs here with respect to mirroring the nuances of real-world choices and to providing intermediate policy options. However, in factorial designs, the needed responses to have enough statistical power for analysis places important restraints on the number of levels researchers can reasonably test, particularly when surveying elites.<sup>19</sup> Constructing the survey after fieldwork and participant observation at professional conferences of the



targeted elites is a useful way to cap available options in an informed way. Survey pilots also help to fine tune the conjoint design.

Finally, researchers eliciting survey experimental responses from bureaucrats need to be attuned to the extent to which their respondents will view survey questions as sensitive. Bureaucrats may be understandably anxious about answering questions regarding the inner workings of their agencies, even given anonymity. For workers that may fear political retribution, answering a question about how their agency functions – given that they distribute large amounts of state funds – could be a concern. We suspect that this factor depressed response rates for our survey. While we worked to counter such fears by working with WAIPA and ensuring respondent anonymity, this entailed making a calculated trade-off to not collect identifying information about respondents and the IPA at which they worked.

Despite the challenges of implementing survey experiments to elites, we think the rewards outweigh the costs, and we look forward to more scholars in international political economy using such methods to explore questions of beliefs and motivations among elite actors who often have substantial agentic power over phenomena of interest to the field.

## Notes

1. See UNCTAD's Investment Policy Monitor <http://investmentpolicyhub.unctad.org/IPM>, accessed August 31, 2020.
2. The term 'automatic' can create some confusion around how these programs are structured. Usually, automatic incentives mean that there is a precise set of qualifications made publicly available that explains under what conditions firms can receive a tax incentive. To avail themselves of these tax benefits, firms must submit a request to a government agency (often but not always an IPA) that documents how firms' activities qualify them for particular tax incentives. Upon review, if a firm's activities align with program qualifications, the firm should be 'automatically' granted the tax benefit. That is, the bureaucratic agency is not allowed to use discretion in granting and denying incentives. Still, IPAs can influence the ease or difficulty associated with applying for such incentives.
3. Data obtained from the World Bank's Investment Policy and Promotion Unit.
4. Data obtained from the World Bank's Investment Policy and Promotion Unit.
5. Jensen and Malesky make a similar argument in the context of Vietnam. However, they focus on regional governors rather than on IPAs. They also view this explanation as specific to non-democratic contexts.
6. A 2017 World Bank survey of key performance indicators found that 95% and 88% of IPAs use investment facilitated and jobs created indicators, respectively. In contrast, just 29% of IPAs report using export facilitated as a key performance indicator and just 16% report tracking domestic sales to foreign affiliates.
7. Data obtained from the World Bank's Investment Policy and Promotion Unit.
8. We expect that this gap between belief over incentive effectiveness and evidence of incentive ineffectiveness persists over time. That is, we believe this is a general equilibrium result that bureaucrats without private sector backgrounds do not learn overtime that incentives are ineffective. This expectation is based on the fact that econometric analysis has long demonstrated incentive ineffectiveness and the power of heuristics in the face of an imagined counterfactual. However, our data cannot directly test this expectation, and so future work should more fully address whether, when, and how bureaucrats can and do rationally update their beliefs.
9. We conducted a pilot survey in Summer 2016 on a small subset of IPA employees to calibrate the survey.

10. After receiving feedback from the pilot study, we simply offered a ‘near’ and ‘far’ option and omitted the intermediate option.
11. World Bank, UNCTAD, and WAIPA officials routinely emphasize the importance of investment facilitation over tax incentives at meetings with IPA personnel. Participant observation UNCTAD14, Nairobi, Kenya July 17–22, 2016, WAIPA World Investment Conference, Istanbul, Turkey October 5–8, 2016.
12. This is a rather blunt approach to private sector experience, and individuals who worked in support functions such as human resources or accounting may not have gained specific knowledge about the factors that influence locational decision-making. Yet, we correctly anticipated our sample would be too small to gather data on the private sector job functions of respondents. Moreover, this approach creates a conservative test of our hypothesis as lumping together all individuals with private sector experience should bias us against finding an effect of private sector experience.
13. We did ask respondents to provide an assessment of who they view as their competitors in a text box. Many individuals provided information in that response that disclosed the region or nationality of their employer. A review of this information suggests the survey respondents cover a broad range of IPAs globally, and particular lower-middle and upper-middle income countries. This is not surprising given that WAIPA members are concentrated in these countries, and particularly countries in Africa, transition economies and Latin America.
14. See Appendix for data.
15. Note that in our discussion of findings we present results of the average marginal effect of each policy package characteristic on the likelihood of members of a particular subgroup choosing that package. We present results as statistically significant if the predicted change in probability within that group is significant at the 90% confidence level. We do not compare across subgroups, only within. In general, our results do not show statistically significant differences in preference across subgroups, only within subgroups. However, we believe this is likely due to our low sample size.
16. These findings are also statistically significant at the 95% confidence level.
17. We use the *cregg* package by Leeper et al. (2020).
18. Attending such conferences and directing individuals to the online experiment, from our experience, is not enough to elicit responses.
19. For instance, we included three levels of tax incentives (none, 5 years, 10 years) because we anticipated the possibility that investment promotion professionals might prefer a middle option with respect to tax holidays. Instead, we found that these professionals only seem to value 10-year holidays. We do not have any prior theory through which to interpret this finding, and if we were to field a second survey, we would collapse this sub-component down to two levels (no tax incentive, 10-year holiday).

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## Disclosure statement

No potential conflict of interest was reported by the author(s).



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