Institutional Explanations for the Persistence of Poverty on First Nations Reserves in Canada: A Review of the Native American Economic Development Literature

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ABSTRACT

The institutions governing First Nations reserves in Canada are commonly cited as a key barrier to economic development. Despite these claims, few studies have empirically assessed the institutional arrangements governing reserves. Conversely, there is a much larger and more developed literature on Native American economic development and the institutions governing reservations. While there are many important differences between First Nations reserves and Native American reservations, there are several key similarities that allow for comparisons. First, the institutional arrangements governing land, specifically federal trusteeship over land, are broadly similar in both contexts. The restrictions on property, especially the prohibition on using reserve and reservation lands as collateral, also create important similarities in the availability of credit, mortgages, and other banking services. Finally, while Native American tribes generally have more sovereignty over their lands and economies, First Nations are increasingly reclaiming the right to manage their lands and economies with similar levels of autonomy. This review summarizes the Native American economic development literature in these three areas and identifies relevant considerations for First Nations in Canada. The article concludes with a discussion of future research priorities.

Key Words: First Nations, institutions, credit, self-governance, economic development

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INTRODUCTION

Indigenous people in Canada face disproportionate levels of poverty compared to their non-Indigenous counterparts (Feir & Akee, 2019). This is particularly true for those living on reserves, where many First Nations people in Canada[1] reside. Low incomes, poor health and education outcomes, and limited employment opportunities are common issues across many communities (Indigenous Services Canada, 2019). Despite countless policies and initiatives, most reserves remain "islands of poverty in a sea of relative wealth" (Anderson & Parker, 2009, p. 105).

Arguments for the persistence of poverty in Indigenous communities in North America range from dependency and social organization issues to factor endowments and institutions (Cornell & Kalt, 1992); all of them stem from colonization and the significant traumas and constraints imposed on Indigenous Nations in North America. While the economic issues that exist on reserves and reservations are almost certainly multifaceted, Anderson and Parker's (2009) review article provides evidence that the institutions governing reserves and reservations are a key factor inhibiting economic development. In recent years, the Indigenous economic development literature has grown precipitously, including several studies published in top economics journals (e.g., *Econometrica, Law and Economics*, *Applied Economics*, etc.). Many of these recent studies support Anderson and Parker's (2009) key arguments. Nevertheless, better-quality data, unique natural experiments, and robust econometric methods have contributed to a more nuanced and detailed view regarding the implications of the institutions governing reserves and reservations.

Despite the recent growth of studies on economic development in Indigenous communities, the majority of the literature is based on research from Native American reservations; there remains a lack of empirical analysis of the institutions governing First Nations reserves in Canada. While there are some similarities between First Nations reserves and Native American reservations, the experiences of Native American tribes cannot be directly applied to the Canadian context. On average, Canadian First Nations have smaller populations and less land[2] and are located in more remote areas than Native American reservations (White-Harvey, 1994).

While there are many important differences between First Nations reserves and Native American reservations, there are several key similarities that allow for comparisons. First, the institutional arrangements governing land, specifically federal trusteeship over land, are broadly similar in both contexts. Restrictions on alienation and collateralization, allowances for leases, and federal oversight are the norm on most reserves and reservations. The restrictions on property, especially the prohibition on using reserve and reservation lands as collateral, also create important similarities in the availability of credit, mortgages, and other banking services. Finally, while Native American tribes generally have more sovereignty over their lands and economies, First Nations are increasingly reclaiming the right to manage their own affairs with similar levels of autonomy.

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[1] There are three groups of Indigenous people in Canada: First Nations, Métis, and Inuit. Reserves were only created for First Nations, although not all First Nations live on a reserve.

[2] White-Harvey (1994) provides evidence that the combined area of every reserve in Canada would cover less than 50% of the reservation held by Arizona's Navajo Nation.

This article reviews the economics literature on economic development in Indigenous communities, focusing on issues related to property institutions, credit, and sovereignty. The purpose of this study is to identify key results from the Native American economic development literature that have relevance for Canadian First Nations. Importantly, since Anderson and Parker (2009) provide a review of the pre-2009 literature, my focus is on studies that have been released since their review was published.

INSTITUTIONS GOVERNING FIRST NATIONS RESERVES IN CANADA

When the *British North America Act*[3] was issued in 1867, it granted the Canadian federal government, under Section *91(24)*, exclusive authority and jurisdiction over "Indians and lands reserved for the Indians". This 'transfer' was further codified eight years later in the *Indian Act* and remains in force today for most First Nations communities. The *Indian Act* regulates most activities on reserves. This includes how land is managed and used, who gets Indian Status, how Chiefs and Band Councils are elected, how Band membership is determined, and how funding is allocated (Coates, 2008). Similar to the arrangement on Native American reservations, the Canadian federal government holds reserve lands in trust. The *Indian Act*[4] defines an *Indian reserve* as a "tract of land, the legal title to which is vested in Her Majesty, that has been set apart ... for the use and benefit of a band." This arrangement has been frequently cited as a barrier to economic development, as it creates uncertainty and raises the cost of transacting reserve land (Alcantara, 2007; Anderson & Parker, 2009; Aragón, 2015; Aragón & Kessler, 2020; Flanagan & Alcantara, 2005; Pendakur & Pendakur, 2018).

The nature of trusteeship over reserves closely resembles the arrangement on Native American reservations. Most importantly, reserve and reservation lands cannot be sold. This creates a barrier to accessing a mortgage or other forms of credit. The inability to collateralize reserve lands has been cited as a key factor inhibiting improvements in housing on reserves (Canada, Parliament, Senate. Standing Committee on Aboriginal Peoples, 2015). Despite the restrictions on alienation, most reserves and reservations do allow land to be leased, often to an outside party, on both a short- and long-term basis. The primary constraint on leases is that Band Councils or individual Band members must seek federal approval before land can be formally transacted. This creates unnecessary delays and raises the cost of transacting reserve lands.

One important difference between First Nations reserves and Native American reservations is the existence of fee-simple land ownership. Except for the Nisga'a, Tla'amin, and other self-governing First Nations, fee-simple ownership does not exist in any First Nations communities in Canada.[5] Conversely, the *Dawes Act*, as well as Minnesota's *Nelson Act*, allotted large amounts of tribal land to individual Native Americans (Akee, 2020). Some of this land was fully converted to fee-simple ownership and was therefore free to be bought

[3] *The British North America Act, 1867*, SS 1867, c 3.

[4] *Indian Act*, RSC 1985, c I-5.

[5] First Nations that have negotiated a modern treaty and/or self-governance agreement with the federal government often hold at least some of their land in fee simple, but the title is held by the nation not an individual.

and sold by non-Native Americans. Other lands were locked into allotted trusts, which closely resemble certificates of possession[6] on First Nations reserves.

While the institutions governing reserves and reservations are not equivalent, several important similarities do exist. Most notably, property institutions and credit markets have similar characteristics in both contexts. Conversely, most Native American tribes have more autonomy and control over their lands, resources, and economies than First Nations. Still, a growing number of First Nations have completed or are in the process of negotiating a modern treaty, a self-governance agreement, or other related reform. Past experiences with institutional reform on Native American reservations can help to inform expectations about the outcomes of similar changes in Canada. The next section reviews the economics literature on property institutions and land tenure in First Nations and Native American communities.

PROPERTY INSTITUTIONS AND LAND TENURE

Stable and well-constructed institutions facilitate trade, mitigate conflict, and increase economic efficiency. Conversely, unstable and poorly defined institutions, including insecure property rights, are argued to be one of the key factors explaining the slow pace of economic development in some areas (Besley & Ghatak, 2010; Chang, 2011; North, 1990). This parallels the situation on reserves and reservations, where institutional constraints are frequently cited as the key factor inhibiting economic development (Alcantara, 2007; Anderson & Parker, 2009; Aragón, 2015; Aragón & Kessler, 2020; Flanagan & Alcantara, 2005; Pendakur & Pendakur, 2018).

The two earliest studies to empirically assess property institutions on Native American reservations both focus on agricultural productivity. Trosper (1978) finds that land tenure and other institutional constraints explain the smaller scale and lower productivity of ranching activities on the Northern Cheyenne reservation compared to proximate white ranchers. Once these differences are accounted for, he finds that Native American ranchers are more technically efficient than proximate white farmers. Similarly, Anderson and Lueck (1992) find lower agricultural productivity on Native American tribal trust lands compared to off-reservation farms. They argue that less secure forms of land tenure increase capital costs, facilitate ownership fractionation, result in suboptimal farm sizes, and lead to the general underutilization of reservation lands. More recently, Ge et al. (2020) find that, conditional on land being irrigated, tribal trust land is over 30% less likely to have capital-intensive sprinkler irrigation and around 10% less likely to be planted with high-value crops compared to proximate non-reservation lands.

While the previous three studies are specific to farmland and agricultural productivity, similar results have also been found in other contexts. Akee (2009) uses a unique natural experiment in Palm Springs, California, to assess differences in the efficiency of the housing market on plots of reservation and non-reservation land. His analysis is facilitated by a late 1800s policy that evenly divided Palm Springs into 1-mile square blocks and assigned ownership on an alternating basis between the *Agua Caliente Tribe* and non-Native American

[6] Certificates of possession are parcels of reserve land that have been allocated to an individual Band member. They represent the most individualized form of property on reserves. Research by Brinkhurst and Kessler (2013) and Aragón and Kessler (2020) finds that a greater prevalence of CPs is associated with improved economic outcomes.

landowners. The results show that non-reservation parcels of land were developed more rapidly and more extensively than reservation parcels. It wasn't until after 1959, when the restrictions on Agua Caliente lands were lifted, that the number of homes and real estate values on reservation parcels began to converge with those on non-reservation parcels.

Akee and Jorgensen (2014) provide a different perspective on the constraints of reservation land tenure. Their analysis focuses on the apparent lack of business investment on many reservations. Following from Akee (2009), their study also exploits the quasi-experimental nature of land allocations in Palm Springs. After holding local amenities and other characteristics constant, in addition to land quality, they find no difference in business investment between trust and fee-simple properties. Since reservation lands can be leased and developed with outside funding sources, they argue that the inability to collateralize land is not a significant barrier to economic development. In addition, the sixty-five-year limit on lease contracts for land on the Agua Caliente reservation provides security to potential lessees. Akee and Jorgensen (2014) caveat that their results are due, in part, to the active land market that exists in Palm Springs; more remote communities are unlikely to have similar experiences.

Recent studies related to First Nations reserves in Canada find similar results to those found on Native American reservations. Aragón (2015) assesses the benefits of clarifying and reforming property rights via modern treaty agreements. He finds evidence that modern treaties have increased real incomes for on-reserve band members, primarily due to increased commercial and resource development activities. In addition, consistent with a positive shock to local labour demand in the presence of a relatively inelastic labour supply, he finds evidence of increases in wages, house prices, and rental rates. These results are partially confirmed by Pendakur and Pendakur (2018), who find positive income effects for several opt-in legislative reforms that seek to improve property institutions on First Nations reserves.

In the context of forestry, Nelson et al. (2019) find that First Nations with area-based forestry licences harvest more forest products than First Nations with volume-based licences. They contend that this is due to the tenure security created by area-based licences. Interestingly, they also find that First Nations that have engaged in some kind of governance reform are more productive than First Nations that have not.

Another important aspect of reserve and reservation land tenure that has been the focus of considerable policy and academic work is the issue of privatization. Despite the apparent economic benefits of privatization, many First Nations communities have expressed opposition to any attempts at privatization and appear to prefer maintaining a collective approach to managing their lands (Jobin & Riddle, 2019). This is similar to concerns on Native American reservations, where historical allotment policies have created considerable opposition to privatization (Carpenter & Riley, 2019). While there is some evidence of the benefits of private property rights on reserves and reservations, the literature does not provide a convincing argument for widespread privatization.

Several recent studies demonstrate the complexities of privatization on reserves and reservations. Akee (2020) examines the *Nelson Act*, which allowed for reservation lands in Minnesota to be allotted and privatized. The study examines economic outcomes on two Minnesotan reservations — one that was allotted and one that was not. The results demonstrate that the allotted reservation saw reduced homeownership rates, an increase in household size, and a dramatic shift from self-employment to the wage sector. This was due to non-Indigenous landowners purchasing or leasing reservation lands and displacing Native

American landowners. Importantly, there is evidence that many of these land transactions were fraudulent and amounted to theft. This is supported by Leonard et al. (2020), who demonstrate that reservations with high-quality land were targeted for land titling and allotment, while those with low-quality land were often ignored. The negative implications of allotment led them to identify a 'U'-shaped relationship between per-capita incomes and a reservation's share of prime agricultural land.

Another recent study, Leonard and Parker (2021), demonstrates the often-unintended consequences of privatization policies. They study the extraction of spatially expansive natural resources, namely shale oil extraction on the Fort Berthold reservation inside the U.S. Bakken reserve. They demonstrate that the subdivision of the Fort Berthold reservation that occurred under the *Dawes Act* substantially increased the costs of obtaining permission to extract oil and therefore reduced productivity. They argue that the fragmented ownership structure of the reservation resembles the tragedy of the anticommons, as extraction costs are determined by the number of landowners holding exclusion rights.

Despite the negative implications of allotment, there are positive examples of private property rights on reserves and reservations. For example, Anderson and Lueck (1992) demonstrate that individually held tribal lands are more productive than tribal trust lands, despite both being less productive than fee-simple lands. Similarly, Aragón and Kessler (2020) find that individualized forms of property rights (e.g., certificates of possession) are associated with improved economic outcomes on First Nations reserves. Still, they caveat that the economic significance of private property rights is quite small and unlikely to significantly alter economic outcomes on reserves. There is also an issue of self-selection, as more urban and economically developed First Nations are more likely to adopt individualized forms of property rights (Brinkhurst & Kessler, 2013).[7]

The studies discussed in this section provide a nuanced view on the importance of institutions and property rights for economic development on Native American reservations and First Nations reserves. In general, the empirical evidence suggests that stable and well-defined property institutions are more important than privatization. This confirms one of the key conclusions of the literature review done by Anderson and Parker (2009). Their review produces two main conclusions. First, strong, but not necessarily private, property rights to reserve and reservation lands and resources are important determinants of productivity. Second, they find that stable political and legal institutions improve economic opportunities on reserve lands. One issue that Anderson and Parker (2009) do not address is the constraints on collateralizing reserve and reservation lands and the implications for the availability of credit and other banking services.

CREDIT, BANKING, AND MORTGAGES

The nature of property institutions on reserves and reservations creates numerous barriers to accessing credit. Since reserve and reservation lands are held in trust, they cannot be used as collateral. Banks and other financial institutions are therefore hesitant to make loans to people living on reserves and reservations, as they often lack an asset that can be fully collateralized. This limits people from borrowing money to buy, build, or repair a house, or

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[7] The issue of self-selection has also been identified with respect to the First Nations Land Management Act (Doidge, Deaton, & Woods, 2013).

to mortgage their existing home to start a business.[8] These barriers to accessing credit have been argued to be an important constraint on economic development on reserves and reservations.

Laderman and Reid (2010) analyze the Section 184 Indian Home Loan Guarantee Program, which is an optional reform available to Native American tribes in the United States. This program provides a guarantee for mortgage loans to Native Americans residing on reservations that have chosen to participate in the Section 184 program. Interestingly, while they do find a marginally higher loan approval rate for those living on reservations participating in Section 184, this effect disappears after including tribal fixed effects, which is a statistical tool used to control for underlying characteristics of individuals or groups. In this context, including fixed effects in their econometric analysis allows Laderman and Reid (2010) to effectively control for many underlying tribal characteristics that may influence loan approval rates, such as whether a tribe has established a Native Community Development Financial Institution. Their results demonstrate that Native American Tribes are self-selecting into Section 184 and that the factors influencing this self-selection are more important for loan approval rates than for a loan guarantee. Importantly, similar loan guarantee programs have been created in Canada. The First Nations Market Housing Fund and the Canadian Mortgage and Housing Corporation's on-reserve loan program, as well as bank-specific on-reserve loan programs, provide loan guarantees or other alternative pathways to accessing mortgages and loans on reserves. Still, as demonstrated by previous literature on Native American reservations, loan guarantees may not be the primary constraint to credit on reserves.

Akee and Jorgensen (2014) assess whether property institutions' inability to use reservation land as collateral explains the persistently low levels of business and economic development on Native American reservations. Interestingly, after holding local amenities and other characteristics of the parcel constant, there is no difference in the level of investment on trust and fee-simple properties. Their results provide further evidence that the prohibition on collateralizing reservation lands is not the primary constraint on business investment and economic development on reservations.

In addition to the aforementioned restrictions on collateralizing land, there is also evidence that many reserves and reservations are under-served by traditional banks (Buckley & Kashian, 2019). This is due in part to the limited banking services available in many rural and remote communities, but it has also been argued that the restrictions on collateralization make providing banking services on or near reserves and reservations high risk and rarely profitable. In addition to these restrictions, low incomes and poor employment prospects create further barriers to accessing credit.

Two other studies, Dimitrova-Grajzl et al. (2015, 2018), help to further characterize credit usage on reservations. Using Equifax risk scores and data on the use of various consumer credit products (e.g., mortgages) on reservations, they find that the use of most forms of consumer credit, especially mortgages, is low on reservations. Furthermore, Dimitrova-Grajzl et al. (2015) find that average bankcard credit limits are lower in predominantly Native American areas compared to areas where the share of Native American residents is lower. Importantly, both studies find that credit history is the primary factor determining

[8] Mortgages are one of the most common sources of start-up funding for small businesses (Åstebro & Bernhardt, 2003).

credit limits and not the racial makeup of an area. Furthermore, they find that tribal institutions and the restrictions on property are not necessarily the issue and that location effects may be more relevant. This provides further evidence of the constraints faced by rural and remote reserves and reservations. Importantly, they do find that tribes with state jurisdiction over legal matters have more favourable credit outcomes than those that manage their own legal matters. This furthers the argument that issues related to governance are a primary explanation for the persistently low levels of economic development on many reserves and reservations.

SOVEREIGNTY AND SELF-GOVERNANCE

As First Nations continue to negotiate modern treaties, self-governance agreements, and other related institutional reforms, it is important to understand the economic implications of enhancing sovereignty and self-determination. While several recent studies have begun to unpack the complexities of these reforms, there remains some uncertainty about their implications. Past studies of changes in governance structures, such as political and fiscal decentralizations, provide a starting point for my review in this area. For example, Martinez-Vazquez and McNab (2003) review the economics literature on the causal relationship between fiscal decentralization and economic growth. They identify a multiplicity of potential direct and indirect effects of decentralization, such as changes to consumer and producer efficiency, the geographical distribution of resources, corruption, and capture by elites. Their analysis demonstrates that increasing local autonomy can have positive and negative implications.

In the context of Native American reservations, both positive and negative effects of self-governance have been identified. Decentralized governance may be more responsive and adaptable, but it can also succumb to corruption and power dynamics and be viewed as less legitimate than a centralized authority. Cornell and Kalt (2000) find that federal policies of self-determination help explain some of the differences in unemployment and income growth on American Indian reservations. They argue that since self-determination policies were implemented, which began in the 1970s, economic growth has taken off and has begun to close the gaps in income and development that exist between reservations and the rest of the U.S. population.

Despite the benefits identified by Cornell and Kalt (2000), the evidence on the impact of self-determination is not entirely positive. Anderson and Parker (2008) and Brown et al. (2017) assess Public Law 280 in the USA, which required some Native American tribes to transfer judicial jurisdiction over civil disputes to state authorities while allowing others to retain judicial sovereignty. Both studies find that per capita incomes grew significantly faster on reservations subject to state jurisdiction than on reservations under tribal authority. Furthermore, Cookson (2010) finds that tribal governments under Public Law 280 are more than twice as likely to invest in a casino due to the law’s influence on contract stability. These studies demonstrate that if tribal governments are unable to credibly provide stable contract enforcement, then they may thwart the opportunities created by being sovereign and therefore more responsive than a state government.

Dippel (2014) demonstrates the long-run implications of forced co-existence and poor governance on Native American reservations. He finds that reservations where multiple autonomous sub-tribal bands were forced by the government to integrate into a single community are over 30% poorer today than reservations that lack this dynamic. He argues that this process created conflict and social divisions, which led to poor governance structures being developed. Political conflict between groups discouraged the kinds of collaborative institutional development and reform that have happened on many other reservations.

An additional perspective on local autonomy and governance on Native American reservations comes from Akee et al. (2015). They study the long-term economic benefits of the adoption of written constitutions on Native American reservations. In the early 20th century, many tribes began the process of developing their own constitutions in collaboration with the Bureau of Indian Affairs. Interestingly, Akee et al. (2015) find that the political party of the U.S. President (i.e., Democrat or Republican) influenced important aspects of constitutional design. Specifically, they find that constitutions developed under Republican presidents were more likely to involve the direct election of the chief executive (the presidential system), whereas constitutions developed under Democratic presidents were more likely to indirectly elect the chief executive (the parliamentary system). Akee et al. (2015) argue that the parliamentary-style system was more conducive to the communal decision-making processes that are prevalent in many Native American communities. They find that constitutions with the parliamentary system had much larger impacts on long-run tribal economic development. Their results highlight the importance of institutional reforms that are aligned with local institutions and community norms.

In the Canadian context, recent studies by Aragón (2015) and Pendakur and Pendakur (2018) provide evidence that modern treaties and self-governance agreements can increase incomes, wages, and employment levels on reserves. Despite these benefits, there is evidence that the impact of these reforms is not universally positive. For example, Pendakur and Pendakur (2018) find that the benefits of self-governance agreements and modern treaties may be greater for non-First Nations households. Furthermore, Pendakur and Pendakur (2021) find evidence that these reforms can increase inter-group inequality between the First Nations and non-First Nations populations on reserves. These results also align with those of Aragón and Kessler (2020), who find that the benefits of individualized property rights on reserves are largely driven by the in-migration of non-Indigenous people. These studies demonstrate why institutional reforms on First Nations reserves can be so contentious and should be pursued cautiously.

CONCLUSION AND FUTURE RESEARCH

This article provides an in-depth review of the economics literature pertaining to institutions and economic development in Indigenous communities in North America. This review identifies three common themes related to institutions and economic development on reserves and reservations: restrictive and inefficient property institutions, limited credit availability, and issues related to sovereignty. With respect to property, there is a wide range of studies that demonstrate the benefits of reforming and improving property rights and the institutions governing land. One issue that has been studied in the United States but not in Canada is the issue of fee simple ownership. While the majority of reserves do not hold their land in fee simple, communities such as the Nisga'a, Tla'amin, and other self-governing First Nations hold some form of fee simple land. Understanding these communities' experiences with private property rights is an issue that should be prioritized in future research.

The restrictive nature of property institutions on reserves and reservations also creates difficulties accessing credit, mortgages, and other banking services. Since reservation and reserve lands are held in trust, they cannot be used as collateral. Banks and other financial institutions may be hesitant to make loans to people living on reserves and reservations, as they often lack an asset that can be fully collateralized. This is an area of research that has not been pursued in Canada. Future research should explore the extent to which banks in Canada are similarly hesitant to provide services and loans to First Nations living on reserves and the implications of this for economic development.

The final theme identified in this article relates to the benefits and, in some cases, consequences of Indigenous self-governance. This is a complex area, as movements towards self-governance may not be based exclusively on economic criteria. Self-governance and independence likely have inherent sociological benefits that cannot be easily quantified (e.g., pride and autonomy). Still, it is important to understand the implications of changing existing governance structures. Despite the potential benefits of self-governance, several recent studies on Native American reservations highlight a persistent issue, investors often prefer federal management over tribal governance. This raises important questions about the economic implications of self-governance on First Nations reserves and whether similar dynamics exist in Canada. Self-governance may allow a First Nation to enter into contracts and agreements with more expediency than under the *Indian Act*, but good and credible governance is still required to attract investment and facilitate economic development.

The growing trend towards reform and self-governance on First Nations reserves in Canada is unlikely to regress. Whether through legislative reform or litigation, First Nations are increasingly reclaiming the right to manage their lands and communities with greater autonomy. The implications of these changes are not certain. While some communities have begun to grow diverse local economies, many First Nations remain stuck in a persistent cycle of poverty. In particular, there are concerns that many rural and remote First Nations will not benefit from the types of reforms discussed in this review. It remains unclear what the best approach to economic development is in these communities. Future studies should focus on the implications of reform in rural and remote Indigenous communities. For example, the Inuit have negotiated self-governance agreements across large swaths of northern Canada, but there has been very limited empirical analysis of the benefits, or lack thereof, of these reforms.

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