

Official Debt Restructurings and Development*

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Abstract

Despite the frequency of official debt restructurings, little systematic evidence has been produced on their characteristics and implications. Using a dataset covering more than 400 Paris Club agreements, this paper fills that gap. It provides a comprehensive description of the evolving characteristics of these operations and studies their impact on debtors. The progressive introduction of new terms of treatment gradually turned the Paris Club from an institution primarily concerned with preserving creditors' claims into an instrument to foster development in the world's poorer nations, among other objectives. Our study finds that more generous restructuring conditions involving nominal relief are associated with an acceleration of per capita GDP growth, a reduction of poverty and inequality, and an increase in public health budgets. We also find that countries receiving nominal relief tend to receive lower aid flows subsequently, the opposite being the case for countries receiving high reductions in the net present value of their obligations, but no nominal haircuts.

Keywords: Official Debt, Sovereign Debt Restructuring, Paris Club

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I. INTRODUCTION

Although there is an extensive literature on sovereign debt restructurings, most attention has been paid to operations involving only private creditors.¹ Little systematic evidence has been produced on the characteristics and impacts of official debt restructurings despite their role in the resolution of various crises and their increasing use as a development assistance tool since the 1990s. This paper helps fill this gap using data from the Paris Club, an informal group of official creditors with 22 permanent members, which provides useful information to deepen our knowledge on the sovereign debt restructurings that have been concluded from 1956 to the present. For this purpose, we compiled a comprehensive database of the characteristics of all debt restructuring agreements completed through the Paris Club to date. The main contribution of this paper is that it contrasts the changing narrative of the Paris Club, already the subject of various articles, with new insights derived from the analysis of this database.

This paper builds upon the literature that has studied the evolving role of the Paris Club, the most relevant contributions of which have tended to coincide with broader debates on the reform of the international financial architecture. Rieffel (1995) offered an early account of the changing role of the Paris Club at the onset of the Third World Debt Crisis, being the first to identify the phenomenon of “serial reschedulings”, a problematic feature of official debt restructurings that has been commonly emphasized in the literature. Callaghy (2002) discussed the Paris Club in relation with the emergence of the Highly Indebted Poor Countries (HIPC), a global attempt to provide a durable solution to the debt problem facing the planet’s poorest nations. Rieffel (2003) engaged in the discussion on the creation of an international bankruptcy court for sovereigns, praising the Paris Club as a part of a flexible and adaptable *ad hoc* debt restructuring approach that could be adapted to cope with a new generation of crises. Barkbu et al. (2012) provide a 30-year overview of the multilateral response to financial crises, arguing that emergency lending and debt restructurings have tended to function as substitutes rather than complements. Blackmon (2014, 2017) shifted the focus of the analysis, emphasizing the fact that close to 80% of the bilateral obligations restructured through the Paris Club were owed to Export Credit Agencies, turning it into a crucial component of the trade finance architecture.

Our research also contributes to the empirical literature that has studied the impacts of official debt restructurings on countries’ economic performance. Easterly (2002) focuses on

¹ Data availability is undeniably better for sovereign loans extended by big banking groups and bonds issued in international financial markets. See Reinhart and Rogoff (2010), Das, Papaioannou, and Trebesch (2012) or Cruces and Trebesch (2014).

heavily indebted poor countries (HIPC) finding that, paradoxically, the debt relief efforts of the 1980s and 1990s resulted in increased indebtedness for these countries. He reaches two interesting (though untested) conclusions. First, debt relief may harm growth if it allows countries to delay necessary reforms. Second, a once-and-for-all program is superior to one with gradual relief. Rose (2004) finds that, following debt restructurings, trade falls by 8 percent of GDP and remains depressed for 15 years, although Martínez and Sandleris (2011) question this result. Arteta and Hale (2008) focus on the effect of defaults on the private sector's access to capital markets, finding that official debt restructurings are more damaging than restructurings involving only private creditors.²

Das et al. (2012) present a dataset including debt workouts of external privately-held public debt and Paris Club agreements. Although they do not carry on any econometric analysis, they present a set of interesting stylized facts. First, official debt restructurings are more prevalent than private debt restructurings, with evidence of “serial defaulting.” Second, there are clusters of restructuring events, for instance in the 1980s. Third, the number of episodes with face-value reductions increased over time. Fourth, restructurings are conducted both pre- and post-default. Finally, restructurings have become quicker to complete over time.

More recently, Reinhart and Trebesch (2016) analyzed the debt relief episodes in Europe during the 1930s and the private relief for Latin American countries via the Brady Plan in the 1990s. They show econometrically that debt restructurings are more beneficial for growth when nominal haircuts are included in the operation. Forni et al. (2016) find that official debt relief has the largest impact when countries depart from relatively low debt levels. However, their paper does not focus on Paris Club events *per se*, but on the interaction between official and private debt restructuring events. Moreover, in Forni et al. (2016), Paris Club agreements are captured by a dummy variable only. Our characterization of Paris Club treatments is richer, allowing us to go further in the analysis of the effects of official debt restructurings.

The historical account presented in this paper shows that the objectives pursued by the Paris Club were gradually broadened over time to include economic development and poverty reduction. Therefore, it makes sense to study whether, as was presumably expected by the international community, official debt restructurings have had a development impact on the countries that benefited from these operations. As in Cheng et al. (2016), we do so by adopting a narrative identification approach and applying local projection techniques (Jordà, 2005) to

² They argue that this is the case because Official Sector Involvement, as a rule, comes before Private Sector Involvement. Diaz-Cassou Erce, and Vázquez (2008) argue along similar lines.

analyse the effects of official debt restructurings on variables such as output per capita, poverty and inequality, education and health, and official development assistance flows. We find that debt restructurings involving a nominal haircut had a significant positive effect on per capita GDP and on the beneficiary governments' expenditure in health, while also reducing the poverty headcount and the Gini index. Such operations also increase official development flows toward beneficiary countries, although, as discussed below, this may be the result of a debatable accounting practice, rather than a real transfer of additional resources. We find that debt restructurings involving Net Present Value (NPV) relief but no face value reductions in the debt stock had no significant effects on most of the developmental variables used in this paper. Nominal haircuts, therefore, turn out to be a better option if the objective is to spur development.

This paper complements Cheng et al. (2016), which uses the same dataset and econometric methodology, but focuses on the macroeconomic effects of Paris Club restructurings rather than on their development implications. They find that official debt restructurings can have a significant impact on economic growth when a nominal debt reduction is provided, increasing it by 5 percent on average after five years. However, the operations that only provide maturity extensions or interest rate reductions are more likely to be followed by larger trade surpluses. They argue that this points at the existence of a trade-off between the objectives of stimulating growth and promoting external rebalancing when designing the terms of an official debt restructuring operation.

The rest of the paper is structured as follows. Section II reviews the historical evolution of the Paris Club and, more generally, of the international official debt restructuring regime. Section III describes the empirical strategy applied to identify the causal effect of official debt restructurings on countries' development outcomes, present the results of our estimations, and offers an interpretation of the findings. Finally, Section IV concludes.

II. A HISTORY OF OFFICIAL DEBT RESTRUCTURINGS THROUGH THE PARIS CLUB

Both the historical and the empirical sections of this paper are built upon a novel dataset with information about 422 Paris Club treatments with 86 debtors.³ This database was hand-collected from the Paris Club website agreement by agreement.⁴ For each treatment, the

³ Our dataset on Paris Club debt restructurings is available here: <https://www.esm.europa.eu/publications/debt-collection-relief-provision-60-years-official-debt-restructurings-through-paris>.

⁴ Figure A1 in Appendix 1 presents a typical Agreed Minutes as reported on the Paris Club website for each signed Agreement.

following information was extracted: the signing country, the date of the agreement, the categories of debt treated,⁵ the total amount treated,⁶ the nominal relief provided (if any), the status of the agreement (if active or repaid), the terms of treatment, whether the comparability of treatment clause was applied, participating creditors, and whether the Evian Approach (a new restructuring modality created for middle income countries in 2003) was applied. Additional information about episodes associated with the HIPC initiative was collected from the IMF's completion point and decision point reports, while data from the Evian Approach was retrieved from the Paris Club annual reports. Our dataset also incorporates information on restructurings that involved private creditors, for which we use data from Cruces and Trebesch (2014) and Asonuma and Trebesch (2016). Finally, we complemented our dataset with information on the income level, the lending category, and a number of macroeconomic, fiscal and developmental variables of each of the countries included in our sample. These variables were extracted from the World Bank's *World Development Indicators*, while official development assistance data was obtained from the OECD.

The Paris Club can be described as an informal forum created by creditor governments to conduct debt-rescheduling negotiations with their official debtors in a coordinated manner. The origin of the Paris Club is often traced back to the meetings that were held in the French capital in 1956 to reschedule Argentina's debt obligations with the export credit agencies of various OECD countries. However, this was an *ad hoc* meeting, and the intention of the governments that attended it was not to create a new international organization to conduct debt restructurings. In fact, the governments that became the members of the Paris Club did not agree on a charter (a fact that remains true to this day), and no staff was appointed to perform new tasks. Furthermore, for some time it was not even clear that the Paris Club was to become a permanent fixture of the international financial architecture. During the 1960s and 1970s, there were discussions about whether the IMF or the World Bank should take over its duties and house bilateral debt rescheduling talks in a 'Washington Club' of sorts (Callaghy, 2002). Eventually, the French government prevailed in these negotiations and the Paris Club was never moved to Washington. On the contrary, a permanent secretariat housed in the French Treasury was created in the late 1970s, which somewhat institutionalized the Paris Club (Rieffel, 1985).

⁵ Among the different types of debt, the Paris Club agreements generally concern only medium- and long-term debt. Short-term debt (that with a maturity of one year or less) is usually excluded from the treatments, as its restructuring can significantly undermine the debtor country's capacity to participate in international trade.

⁶ One shortcoming of this data source is the non-distinction between Official Development Assistance (ODA) and non-ODA claims in the total amount treated. We will assume that the amount treated is all ODA debt. Given that non-ODA claims are treated in less favourable terms than ODA claims, our analysis will overestimate the generosity of the Paris Club terms agreed over time with its debtor countries.

During the first two decades of its existence, the Paris Club was a relatively obscure forum with limited activities. Between 1956 and 1978, it conducted only 26 negotiations with 12 countries, little more than one debt rescheduling negotiation per year on average. Despite this limited relevance, some of the norms and procedures that have shaped the functioning of the Paris Club and the commitments accepted by its members were developed during this period. It operates according to the following principles: (i) solidarity, implying that members agree to act as a group and to avoid taking actions with their debtors that may adversely affect the claims of the other members of the group; (ii) consensus, implying that Paris Club rescheduling deals must be accepted by all of its members; (iii) conditionality, implying that the debtors that approach the Paris Club for a debt rescheduling are expected to have previously concluded an agreement with the IMF and to be implementing a macroeconomic adjustment program; (iv) a case-by-case approach in the definition of the terms of each rescheduling granted by the members of the group; and (v) comparability of treatment, implying that sovereign debtors that reach a rescheduling agreement with the Paris Club are required to seek similar terms from other creditors, with the exception of multilateral organizations, to preserve their preferred creditor status.⁷

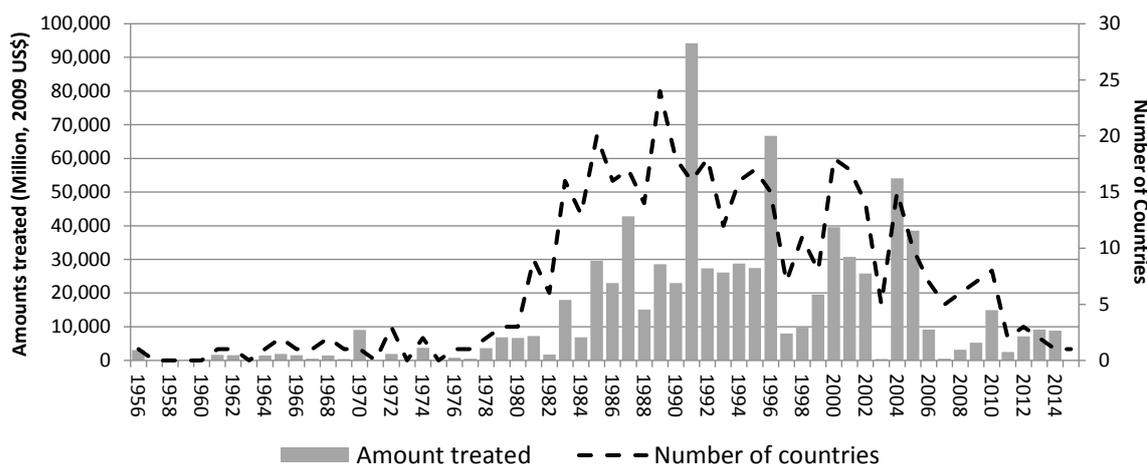
An important early characteristic of the Paris Club was that it functioned primarily as a mechanism to avoid sovereign defaults and to reduce the risk of debt repudiation. Its members did not contemplate the possibility of pursuing other economic goals through the rescheduling agreements that it reached with distressed countries. Indeed, until the 1980s one of the foundations of the Paris Club was that the reschedulings it granted should not weaken debtors' moral and legal obligation to repay their debts in full. The binding constraint for Paris Club rescheduling agreements, therefore, was debtors' capacity to service their obligations, and other considerations were rarely taken into consideration (Rieffel, 1985). Reflecting this initial interpretation of the role of the Paris Club, during the first decades of its existence, participating creditors adhered to an "imminent default rule," according to which only countries on the verge of missing their debt service payments would be considered for a treatment (Josselin, 2009). In addition, until the 1976 debt restructuring in the Democratic Republic of Congo (then Zaire), another Paris Club norm was that previously rescheduled financial obligations could not be included in a subsequent restructuring (Callaghy, 2002). The Paris Club, therefore, was

⁷ The comparability of treatment principle is aimed at ensuring taxpayers from Paris Club members that their claims on debtors are not subordinate to those of private institutions or other bilateral lenders that do not belong to the group. Although this rule has remained in place throughout the history of the Paris Club, its practical implementation and the complexity of getting other creditors to accept it has evolved in line with the changing composition of sovereign debt and the growing diversity of financial instruments in sovereign lending.

designed to function as a last-resort option to avoid defaults rather than as a tool to restore debt sustainability or to improve the development prospects of heavily indebted nations.

The narrow function that initially guided the Paris Club helps explain why until 1987 it only offered the so-called Classic terms, which do not contemplate the possibility of debt relief. Accordingly, Paris Club deals could not include nominal reductions in the debt stock to be treated, and were structured at market interest rates. In Paris Club jargon, the Classic terms provided for “flow treatments,” rescheduling maturities as they fell due in the so-called consolidation period, the interval during which an IMF program establishes that a postponement of debt service payments is necessary to close debtors’ financing gap (usually between one and three years). Under the Classic terms, the repayment profile is negotiated with debtors on a case-by-case basis, although it has tended to include a three-year grace period and a 10-year repayment period.

Figure 1: Evolution of Paris Club Treatments



Source: authors’ calculations.

As can be seen in Figure 1, the activity of the Paris Club only really picked up in the 1980s, due to the wave of financial distress that swept through much of the developing world as the surge in sovereign credit that resulted from the recycling of petrodollars during the 1970s abruptly dried up.⁸ Illustrating this increasing relevance of the Paris Club, 134 agreements were signed with 49 countries between 1980 and 1989, whereas in the 1950s, 1960s, and 1970s there were only 25 agreements with 10 different debtors. Furthermore, total debt treated during the

⁸ As can be appreciated in Figure 1, the volume of Paris Club treatments also spiked in 1970. However, this can be attributed to one single rescheduling with Indonesia, which concluded a series of four treatments (the previous three were signed in 1966, 1967, and 1968) following the fall of the Sukarno regime. The 1970 deal with Indonesia tried to provide a more durable solution to that country’s debt problem, involving obligations for an amount that surpassed US\$2 billion, which became the largest Paris Club deal in history, a condition it retained until the 1980 agreement with Turkey.

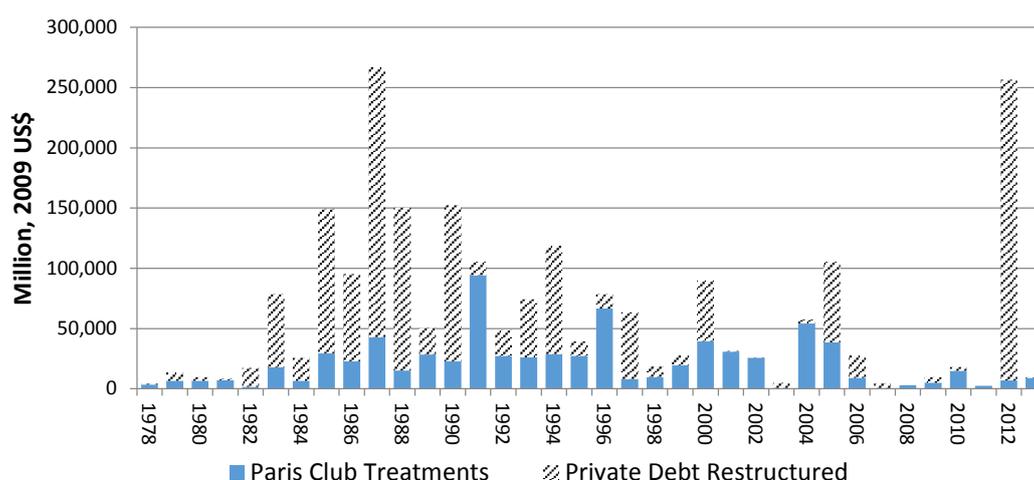
1980s amounted to more than \$180 billion, as compared to \$40 billion between 1956 and 1979, both figures in constant 2009 U.S. dollars.

It is important to mention that during the 1980s, the Paris Club worked in tandem with the London Club, which was created by commercial banks in the context of Zaire's debt crisis of the late 1970s. The parallel negotiations that took place in these two forums of public and private creditors was instrumental to ensure the observance of the comparability of treatment principle, since the bulk of developing countries' debt was in the form of syndicated bank loans (Josselin, 2009). A different picture would emerge in the 1990s because of the securitization of sovereign debt kick-started by the Brady Plan, which made it more difficult to coordinate debt-rescheduling negotiations with private creditors (Díaz-Cassou, Erce, and Vázquez, 2008).

Notwithstanding the increasing amounts of bilateral debt rescheduled through the Paris Club during the 1980s, its importance in the resolution of the 1980s debt crisis should not be overstated. The stock of debt treated by the Paris Club between 1980 and 1989 represented on average only 1.3 percent of developing countries' total external obligations. In fact, the weight of the debt treated by the Paris Club as a proportion of the external obligations of the countries that participated in these rescheduling events was lower during the debt crisis than in other periods: 8.3 percent in the 1980s as compared to 15.7 percent in the 1970s, 11.2 percent in the 1990s, and 19.7 percent in the 2000s.⁹ Furthermore, as can be seen in Figure 2, during the 1980s the volume of sovereign debt treated through the Paris Club amounted to about 25 percent of that restructured with private creditors, illustrating the fact that the bulk of the obligations that were at the origin of the debt crisis were held by banks rather than by governments.

⁹ Data on external debt are drawn from the World Bank's International Debt Statistics database. Some relevant Paris Club treatments could not be included in these calculations because the World Bank's database has missing observations, such as Russia's debt during the 1990s and Iraq's debt in the 2000s, some of the largest debt restructurings in the history of the Paris Club.

Figure 2: Paris Club Treatments vs. Private Sector Involvement



Source: Authors' Calculations based on Paris Club, and Cruces and Trebesch (2014).

Another indication of the limited role played by the Paris Club in the management of the debt crisis is the fact that only 22 percent of the treatments agreed upon during the 1980s were signed with Latin American countries, even though this region was at the epicentre of the crisis (see Table 1). However, the debt treatments with Latin American countries amounted to 44 percent of total debt treated during the 1980s. This implies that, on average, debt treatments with Latin American countries were about twice as large as other treatments. In any case, between 1980 and 1995 the total value of bilateral debt rescheduled with Latin America through the Paris Club amounted to US\$69.5 billion, whereas the amount of debt restructured with private creditors surpassed US\$420 billion. Again, this suggests that the London Club was more relevant for this group of countries at that juncture.

Table 1: Agreements per Region and Period (Million, 2009 US\$)

	Africa		Asia		Europe		Latin America		Total	
	Amount Treated	Number of Treatments								
1956-1979	5,318	4	15,107	7	6,221	2	13,528	12	40,174	25
1980-1989	71,096	92	7,496	5	46,014	7	48,856	30	173,462	134
1990-1999	98,966	76	18,886	12	161,355	15	51,512	36	330,719	139
2000-Present	140,067	86	89,531	15	1,266	7	15,026	16	245,890	124
Total	315,447	258	131,020	39	214,856	31	128,922	94	790,245	422

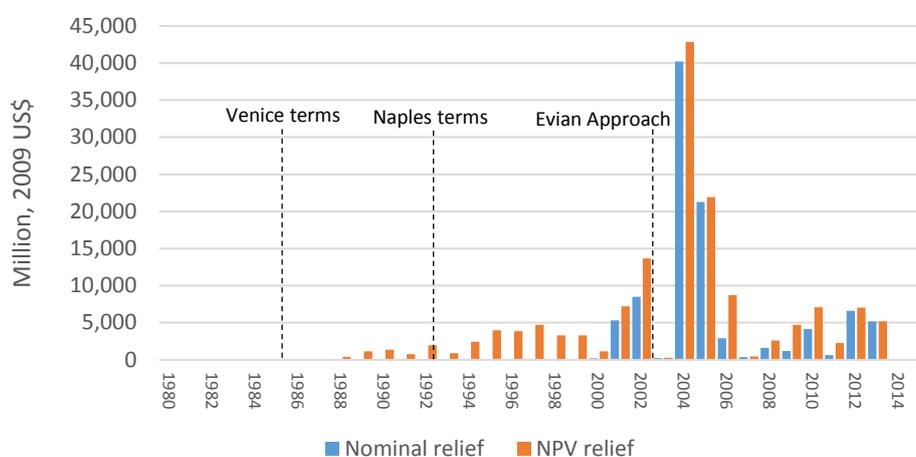
Source: Authors' Calculations.

Toward the end of the 1980s, the Paris Club underwent some significant changes as a new restructuring model was adopted under the so-called Venice terms (1987) and the Toronto terms (1988). The introduction of these new rescheduling modalities was aimed at dealing with

the challenges facing poorer countries in new ways, and not at addressing the problems of middle-income economies, which arguably were still at the forefront of the 1980s debt crisis. In any case, the inclusion of the Toronto terms to complement the Classic terms was a crucial turning point in the history of the Paris Club. It gave way to a period of 15 years during which several new terms of treatment were added to the Paris Club toolkit, all of them going in the direction of providing increasingly generous conditions to a targeted group of debtors.

Three of the innovations adopted during this period are particularly noteworthy: (i) the adoption of the Naples terms in 1994, which for the first time allowed the Paris Club to treat the entire debt stocks of certain countries in order to facilitate their exit from the restructuring process;¹⁰ (ii) the introduction of the HIPC Initiative in 1996, which included multilateral claims in the pool of sovereign obligations that could be subject to debt relief; (iii) the adoption of the Evian approach in 2003, which extended the possibility of providing debt relief to non-HIPC countries in order to restore the sustainability of their debt stock. As can be seen in Figure 3, these three innovations were followed by a progressive increase in the amount of debt relief provided through the Paris Club both in nominal and NPV terms.

Figure 3: Total Debt Relief



Source: Authors' Calculations.

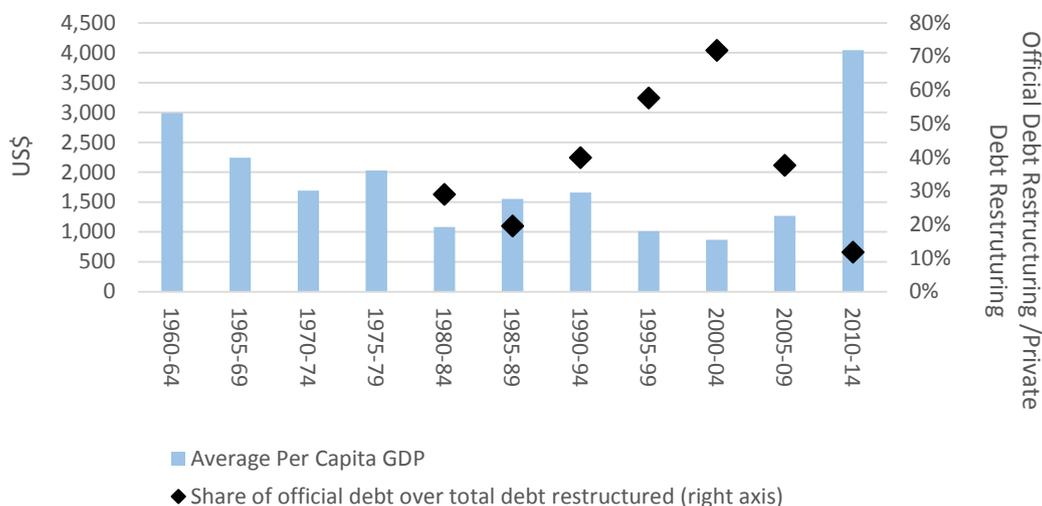
How to explain that after three decades of quasi immobility the members of the Paris Club became willing to undertake such a far-reaching change in the restructuring conditions offered to their official debtors? The main reason behind the progressive adoption of increasingly generous terms was the recognition that the combination of flow rescheduling and

¹⁰ In Paris Club jargon, these are referred to as stock treatments.

IMF-supported structural adjustment programs was not slowing down poor creditors' accumulation of debt, and that the heavy burden posed by their financial obligations was central to explaining the dismal economic performance of these countries. Throughout the 1980s and 1990s, this issue gained prominence in advanced economies' public debate when a network of transnational NGOs placed it at the centre of their advocacy activity and an epistemic community of economists and academics began to push for a more aggressive debt agenda in favour of developing nations (Callaghy, 2002; Easterly, 2002).

Thus, the moral imperative of debt repayment that the Paris Club had originally emphasized progressively mutated into a moral obligation on the part of creditors to provide relief for HIPCs. In other words, a development assistance aspiration was included among the functions of the Paris Club. This fundamentally altered the logic of its rescheduling exercises. It also explains why the average per capita GDP of the countries that received Paris Club treatments progressively fell from the late 1980s onwards, while the share of debt restructured through the Paris Club over total debt restructured increased (see Figure 4), at least until the introduction of the Evian approach in 2004, which was targeted at middle income countries.

Figure 4: Debtors' per capita GDP and share of debt restructured



Authors' Calculations based on Paris Club, Cruces and Trebesh (2014) and WDI

The gradualism with which these new restructuring conditions were introduced reflects the compromises that had to be reached among G7 countries in the debt negotiations that took place in the 1980s and 1990s. Soon after the introduction of the Toronto terms, some important creditors (most notably, the United Kingdom) were already arguing that much more generous restructuring conditions would be needed to overcome the structural problems facing HIPCs.

However, there were budgetary and accounting issues that had to be dealt with to write off these loans, which prevented the Paris Club from progressing faster than it did (Daseking and Powell, 1999). More specifically, it was often the case that the losses incurred by the Export Credit Agencies that held most of the restructured debt were covered from creditors' aid budgets (Eurodad, 2011; Blackmon, 2017). In any case, and irrespective of the pace of the reform, the fundamental transition that took place during this period was the consolidation of the view that an exit from the rescheduling process had to be sought, and that restoring debt sustainability for at least the most distressed poor countries was crucial.

With the progressive introduction of these terms of treatment, the Paris Club adopted the practice of topping up previous agreements, a practice that was particularly relevant for the HIPC initiative described below. Topping up implies that the amount of debt relief granted at each step of a phased program is determined by the difference between the total relief that the program targets at that stage and the amount of relief already granted in previous phases of the debt-restructuring process. Under this approach, therefore, debt relief is provided incrementally.

The adoption of the HIPC Initiative in 1996 implicitly recognized that to restore poor countries' debt sustainability, multilateral obligations should be included in the restructuring process. To some extent, therefore, the HIPC Initiative eroded international financial institutions' preferred creditor status, although the losses associated with the cancellation of multilateral credit were partially covered by the contributions of donors to a trust fund administered by the World Bank. As had happened with the terms of treatment of the Paris Club, the HIPC Initiative was gradually augmented in terms of the share of multilateral debt that it was to cover. With the Multilateral Debt Relief Initiative (MDRI) announced in 2005, the World Bank, the African Development Bank, and the IMF went as far as accepting the complete cancellation of poorer countries' debt. Eventually, the total cost of the HIPC and MDRI initiatives, both of which are close to completion, is estimated at US\$75 billion in 2013 NPV terms (IMF, 2014).

The HIPC and MDRI initiatives constituted a further broadening of the objectives pursued by the international sovereign debt-restructuring regime because they conditioned relief on the implementation of an economic reform program and a poverty reduction strategy that went way beyond the usual template of IMF programs. This was instrumented through a multi-stage approach that incorporated two key milestones: a decision point and a completion point. At decision point, countries' economic situation was assessed, the required debt relief computed, and their eligibility to participate in the HIPC Initiative declared depending on

whether they had produced a participatory poverty reduction strategy and on their track record with the IMF and the World Bank.¹¹ At completion point, HIPC countries' debt was to be written off depending on their track record with the implementation of the policies and the poverty reduction strategy agreed upon at the decision point. A somewhat similar multi-stage methodology was later replicated for middle-income countries in the context of the Paris Club's Evian approach.

The Paris Club has been an important participant in the HIPC Initiative, and according to the Fund's estimates, has borne 36 percent of its overall cost (IMF, 2014). In most cases, the Paris Club granted three treatments sequentially, topping up at each of them the debt relief previously provided. During the preliminary period that preceded decision point, HIPC countries were granted a rescheduling under Naples terms of treatment. In turn, during the interim period (between decision and completion point), countries were eligible for an additional rescheduling under the more generous Cologne terms of treatment, which included non-ODA credits cancelled up to 90 percent (Birdsdall et al., 2002). At completion point, the process was completed with an additional restructuring of bilateral debt up to the level required to reach the target agreed upon at decision point. In addition, it was common for Paris Club creditors to provide additional debt forgiveness beyond that required by the HIPC Initiative. This implies that the Paris Club's effort in the alleviation of poorer countries' debt burden has been higher than the aforementioned 36% reported by the IMF.

Up until the early 2000s, most of the innovations adopted by the Paris Club focused on poorer countries. A different picture would emerge after the G8 Summit held in Evian-les-Bains in 2003, where a new methodology was introduced to deal with non-HIPC cases. The reason behind the G8's decision to go in that direction was largely geopolitical: following the Second Gulf War, the international community needed a mechanism to write off part of the debt that had been accumulated by Saddam Hussein's regime even though Iraq was a country that did not qualify for any of the terms of treatment that allowed for such a nominal haircut. The Evian Approach was a solution devised to meet that need, further distancing the Paris Club from its initial function.

The Evian Approach introduced a new protocol applicable to middle-income economies that incorporated debt sustainability considerations and explicitly pursued the objective of providing a long-lasting exit-strategy from the rescheduling exercise also for non-HIPC countries. Furthermore, with the adoption of this new protocol, the G8 claimed to

¹¹ Countries had to be eligible for concessional lending from the IMF and the World Bank to take part in the HIPC Initiative.

contribute to the reform of the international financial architecture that was being discussed at the time, whose aim was to facilitate the resolution of the financial crises that had swept through emerging markets since the mid-1990s.¹²

A similarity between the Evian approach and the HIPC Initiative is that both are articulated through a multi-staged framework for the delivery of debt relief. The first step contemplated by the Evian approach is the elaboration of a standard IMF debt-sustainability assessment to determine whether the country requesting a Paris Club rescheduling faces a liquidity or a solvency problem. Should it be deemed to have a liquidity problem but a sustainable stock of debt, the debtor is eligible for a traditional flow treatment under Houston terms if it is a lower-middle-income country, or under the Classic terms of treatment if it is not. Instead, if the debtor is deemed to be facing a solvency problem, the process by which a definitive debt restructuring will be granted is initiated.¹³ During the first stage of this process, the debtor's compliance with the conditionality of an IMF-supported program is assessed and, in the meanwhile, a flow treatment is granted to ensure that its financing gap is covered as required by the Fund. At the second stage, the country is required to successfully undergo another IMF-supported program, upon the satisfactory completion of which the Paris Club delivers a final exit treatment expected to bring the country's debt back to a sustainable path.

As opposed to the various restructuring modalities that were introduced for poorer countries during the 1990s, the Evian Approach did not standardize the terms of treatment granted to the countries that would qualify for it. In the case of middle-income economies, therefore, the Paris Club strictly adhered to the case-by-case principle, tailoring each debt restructuring to the financial situation of the debtor as assessed by the debt sustainability analysis conducted in conjunction with the Fund. To provide the Paris Club with the flexibility required to adapt its response to the specific situation of each debtor, the Evian Approach also allowed for the provision of net present value debt relief in exceptional cases. In addition, as is the case of more traditional terms of treatments, the scope of the debt restructurings agreed between the Paris Club and the middle-income debtors that benefit from the Evian Approach is determined by the type of treatment granted (flow treatment, stock re-profiling, stock reduction), the categories of debt included in the deal, and the cut-off date.

Table 2: Official Debt Restructurings under the Evian Approach

¹² See G8 Finance Ministers' Statement, May 2003: http://www.g8.utoronto.ca/finance/fm030517_communique.htm

¹³ It is important to note that no absolute criteria have been established to discriminate between liquidity and sustainability issues, and that the Paris Club reserves the right to develop its independent judgment about the debtor's situation.

Country	Date	WB Classification	Terms	Amount treated (million US\$)	Nominal debt relief (million)	Nominal debt relief %
SUSTAINABLE CASES						
Kenya	1/15/2004	Lower-middle income	Houston	353	0	0%
Dominican Republic	4/16/2004	Upper-middle income	Classic	193	0	0%
Gabon	6/11/2004	Upper-middle income	Classic	716	0	0%
Georgia	7/21/2004	Lower-middle income	Houston	161	0	0%
Dominican Republic	10/21/2005	Upper-middle income	Classic	137	0	0%
Moldova	5/12/2006	Lower-middle income	Houston	151	0	0%
Djibouti	10/16/2008	Lower-middle income	Houston	76	0	0%
Antigua and Barbuda	9/16/2010	High-income	Classic	110	0	0%
Saint Kitts and Nevis	5/24/2012	High-income	Classic	5	0	0%
Total				1,902	0	0%
UNSUSTAINABLE CASES						
Iraq	11/21/2004	Upper-middle income	Ad Hoc	37,158	29,727	80%
Kyrgyz Republic	3/11/2005	Lower-middle income	Ad hoc	555	124	22%
Nigeria	10/20/2005	Lower-middle income	Ad Hoc	30,066	18,000	60%
Seychelles	4/16/2009	High-income	Ad Hoc	163	73	45%
Myanmar	1/25/2013	Lower-middle income	Ad Hoc	9,868	5,556	56%
Total				77,810	53,480	69%

Authors' Calculations based on Paris Club data.

Table 2 provides a summary of all the agreements that have been concluded under the Evian Approach. So far, nine countries out of the 14 that have been treated under the Evian Approach were facing a liquidity problem and, therefore, received either the Houston or the Classic terms depending on their income level. In turn, five countries were considered to have an unsustainable debt stock, and therefore received debt relief ranging from 22 percent in the case of the Kyrgyz Republic to 80 percent in the case of Iraq. Three of these restructurings (Iraq, Nigeria, and Myanmar) backed a political regime change, and account for close to 99 percent of the debt relief granted under the Evian Approach since its inception.¹⁴ This suggests that the involvement of the Paris Club with middle-income countries was partially guided by the geopolitical objectives of creditor governments. The Evian Approach, therefore, may be interpreted as another broadening of the functions of the Paris Club that moved it closer to becoming a diplomatic tool for its members.

In sum, this section has reviewed the history of the Paris Club, emphasizing the gradual process through which it mutated from being a pre-emptive mechanism primarily aimed at avoiding sovereign defaults and the protection of creditors' interests, to become a development assistance instrument and, in the case of the Evian approach, an instrument to pursue other geopolitical objectives. Therefore, it makes sense to analyse the effectiveness of the official

¹⁴ Iraq's 2004 Evian debt treatment was approved one year after the Second Gulf War and the appointment of a transitional government in Baghdad. The nominal debt reduction associated with that deal amounted to almost US\$30 billion (about 80 percent of the debt owed to the Paris Club), the biggest debt relief ever granted by the Paris Club. In turn, Nigeria's restructuring in 2005 was the second-largest Paris Club deal. It was signed by newly elected president Obasanjo, who successfully managed to lobby in favor of a "democratic dividend" after 30 years of military regime (Callaghy, 2009). The deal granted the country US\$18 billion debt forgiveness in nominal terms (about 60 percent of the total debt owed to the Paris Club). Myanmar is the most recent country to have received a debt treatment under the Evian Approach (2013), which included US\$5.6 billion or 60 percent of the debt owed to the Club. At the time, Myanmar was undergoing a transition to democracy after a military dictatorship that lasted for close to 50 years.

debt relief regime created around Paris Club in the fulfilment of this development mission, which the remainder of this paper tries to do empirically.

III. EMPIRICAL ANALYSIS

(a) Identification strategy and methodology

As amply discussed in the literature, identifying the causal impact of sovereign debt restructurings is far from easy. This is so because debt events are often endogenous to countries' circumstances, which complicates the task of distinguishing between the impacts of the restructuring *per se* and those of the economic difficulties that may have led to the occurrence of the restructuring. As argued by Reinhart and Trebesh (2016), a possible identification strategy to alleviate this endogeneity problem is to focus on centrally orchestrated debt restructuring episodes which affected simultaneously a group of debtor countries, rather than on individual operations designed to address idiosyncratic shocks. The argument goes that the terms and timing of such collective restructurings are less affected by debtors' individual economic circumstances and, therefore, can be considered as exogenously determined. According to Reinhart and Trebesh, two such historical episodes of centrally concerted debt relief operations were the restructurings that took place during the interwar years, and those that followed the adoption of the Baker and the Brady plans in the 1980s and early 1990s.

The historical analysis conducted in the previous section provides justification for the adoption of a narrative identification strategy similar to that of Reinhart and Trebesh (2016). Indeed, with the possible exception of the relatively few Paris Club operations concluded prior to the late 1970s, most of the observations included in our database followed the logic of centrally concerted sovereign debt restructurings. As argued in Reinhart and Trebesh (2016), this is certainly the case of the restructurings that took place in the context of the 1980s Debt Crisis. It also applies to all of the operations concluded with low income countries under non classic terms of treatments, given that the timing and terms of these restructurings were driven primarily by the pressures facing creditors to solve the structural problems of less developed nations, rather than by individual countries' idiosyncratic characteristics. This contention is consistent with Callaghy (2002) and his argument on the forces underlying the "triple helix" of international economic governance on debt relief: a number of creditor governments, NGOs concerned with the debt problem and an epistemic community of economists. Finally, the

restructurings conducted under the Evian approach were for the most part politically motivated and, therefore, can also be regarded as exogenously determined.

We follow Kuvshinov and Zimmermann (2016), and study the impact of Paris Club restructurings on development outcomes by estimating Impulse Reaction Functions (IRFs). These authors argue that this modelling technique is suitable because it explicitly controls for endogenous feedbacks, which are inherent to the dynamic relationship between debt restructurings and the context in which they occur. Our IRF estimation strategy uses local projections (LP) methods, as in Jordà (2005) and Stock and Watson (2007). This methodology allows us to directly project the behavioural response of selected variables to the signing of a Paris Club agreement by computing estimates of the h -step ahead cumulative average treatment effect while controlling for a host of factors and lagged terms. In practice, local projections are regression-adjusted difference-in-difference estimates that collapse the time series information in a pre- and a post- period for each step ahead. Moreover, as described by Jordà (2005), local projections are robust to misspecification. In our basic linear specification, the response of our variables of interest to the signing of a Paris Club agreement h periods before is obtained from the following equation:

$$\Delta Y_{i,t+h} = \alpha_{i,h} + \beta_h PC_{it} + \Phi_h(L) \Delta Y_{i,t-1} + \Psi_h(L) \Delta X_{i,t-1} + \mu_{i,t,h},$$

where $\Delta Y_{i,t+h} = Y_{i,t+h} - Y_{i,t}$, represents the accumulated change in our variables of interest at time $t+h$ relative to time t . More specifically, we will focus on output per capita, poverty and inequality, public spending in health and education, and official development assistance. PC_{it} refers to the dummy variable capturing the signing of a Paris Club treatment. The lag polynomial $\Phi_h(L)$ represents two lags.¹⁵ $X_{i,t-1}$ is a set of lagged control variables including growth, public debt, fiscal deficit, inflation and global factors (U.S. 10-year yields and world real GDP growth), as well as a set of country dummies. Every equation for each h is estimated using standard ordinary least squares. We use robust Driscoll and Kraay (1998) standard errors to correct for potential heteroskedasticity, autocorrelation in the lags, and error correlation across panels.

As in Cheng et al. (2016), one of the objectives of this contribution is to disentangle the effects of different types of official debt restructurings. To do so, we assign each of the episodes to a set of mutually-excluding restructuring strategies (bins), depending on whether nominal debt relief was offered and, in the absence of nominal relief, whether relief in Net Present Value

¹⁵ Our choice of two lags is derived from Asonuma et al. (2016).

terms was larger or smaller than 50% of total debt treated. To calculate the non-linear effects of interest, we upgrade our original model to include interaction terms, which allow us to distinguish between the impact of these three restructuring strategies. The upgraded estimation is based on the following equation:

$$\Delta Y_{i,t+h} = \alpha_{i,h} + \sum_{k=1}^K \beta_h^k (PC_{i,t} \cdot D_{i,t}^k) + \Phi_h(L) \Delta Y_{i,t-1} + \Psi_h(L) \Delta X_{i,t-1} + \mu_{i,t,h}$$

where $D_{i,t}^k$ takes a value one if the restructuring experienced by country i at time t featured the restructuring characteristic K (nominal debt relief; high NPV relief; low NPV relief). We build the IRFs from the β_h^k coefficients. Finally, we test the statistical significance of the pair-wise differences of these coefficients, $\beta_h^i - \beta_{k,h}^j$, which allows us to determine whether the impact of the various restructuring approaches is statistically significant.

Before presenting our results, it is worth acknowledging two potential shortcomings of our empirical strategy. The first one is related to the possibility that our narrative identification strategy fails to solve potential a reverse causality and omitted variables problem. It might be that both the development outcomes that we analyse and the debt restructuring operations are driven by the same variables, leading to a spurious correlation between the two. In order to cope with this potential identification problem, we conduct various robustness tests which are described below.

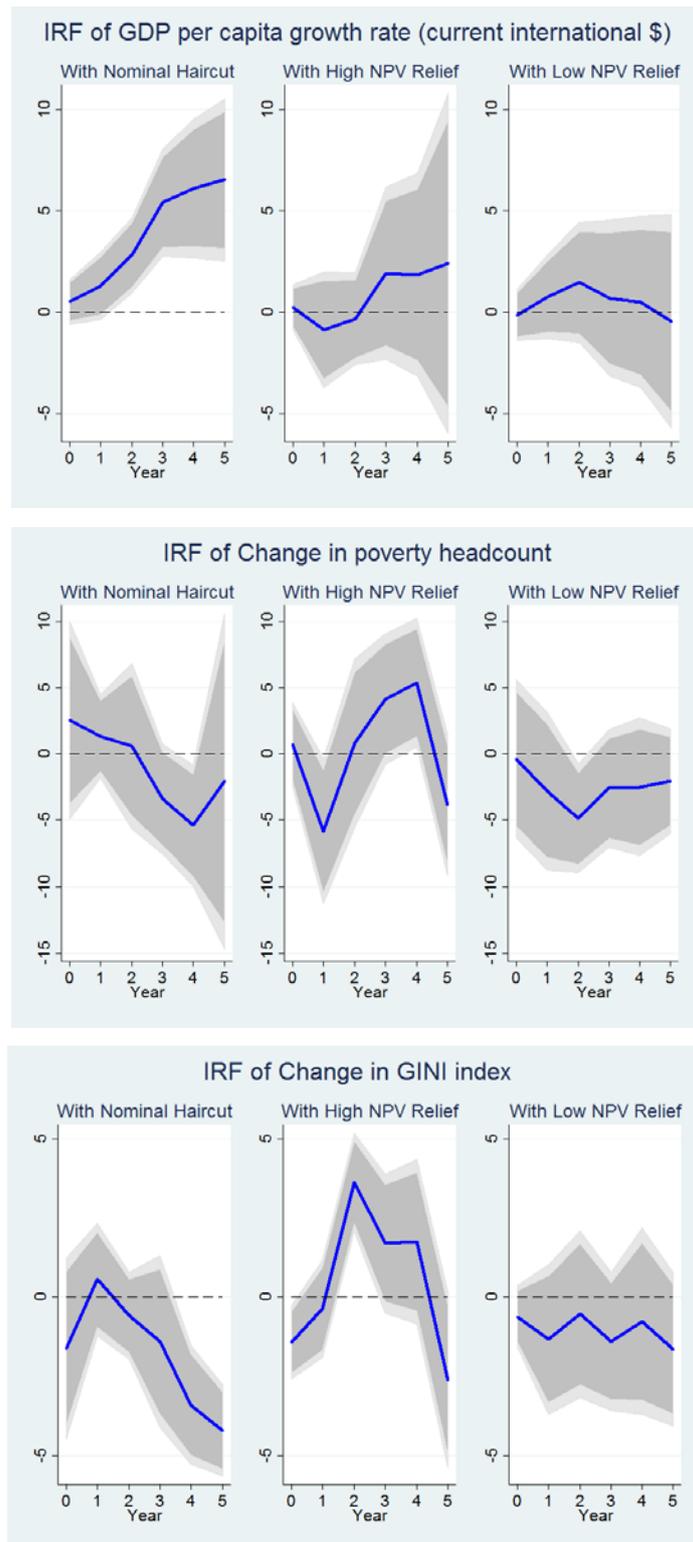
The second problem is that the outcomes of interest that we are about to analyse may not be driven by the official debt restructurings *per se*, but by other developments surrounding the restructuring, such as the IMF program that is required by the Paris Club in order to grant a treatment, or the implementation of the Poverty Reduction Strategy Papers in the case of HIPCs. While acknowledging that this is certainly a possibility, we do not consider it a problem. As discussed in the historical section, official debt restructurings came to form part of a broader multilateral strategy to cope with certain problems, most notably the development bottlenecks facing poorer countries as a result of their excessive levels of indebtedness. In order to empirically assess the effectiveness of this strategy, it makes sense to consider it holistically rather than to try to isolate the impact of debt restructurings from its other components. Moreover, by analysing the potentially heterogeneous effects of different types of official debt restructurings, our analysis allows us to assign causality to certain specific features of these operations, and most notably to the type and size of the relief granted to debtors.

(b) *Results*

First, we look at GDP per capita, the poverty headcount, and inequality as measured by the Gini index. Our results are depicted in Figure 5, where the solid line represents point estimates, while the darker and lighter grey areas represent confidence bands at the 95% and 90% levels. We find that official debt restructurings have a positive impact on per capita GDP growth only when nominal relief is provided. This effect is not statistically significant during the first two years that follow the debt treatment. However, under the nominal haircut scenario, by year three, per capita GDP growth in real terms is 5% higher, a positive effect that increases to 7% by the fifth year following the restructuring. By contrast, no statistically significant effect on real GDP growth is found neither on the high NPV nor on the low NPV scenarios. Therefore, our empirical analysis suggests that official debt restructurings can have a real effect on per capita GDP only when creditors are willing to absorb a nominal loss.

We also find that this acceleration of per capita GDP growth in the nominal debt relief scenario comes with a statistically significant reduction in the poverty headcount, as measured by the percentage of the population earning less than US\$3,20 a day (2011 dollars in PPP terms). By year three of the debt treatment, these countries exhibit a reduction of 5% in the incidence of poverty, which increases to almost 7% four years after the operation is concluded. These results are not found in neither of the two NPV relief scenarios. Interestingly, we also find that official debt restructurings can reduce inequality. Again, this result is found only in the nominal haircut scenario: four and five years after the restructuring, the Gini index falls by close to 3%, an effect that is statistically significant at the 95% confidence level. It turns out, therefore, that the acceleration of growth that is triggered by nominal debt relief has a stronger effect on the poorer deciles of the income distribution, which was probably one of the objectives of the Poverty Reduction Strategies that came to form part of the HIPC Initiative.

Figure 5: GDP per capita, Poverty and Inequality

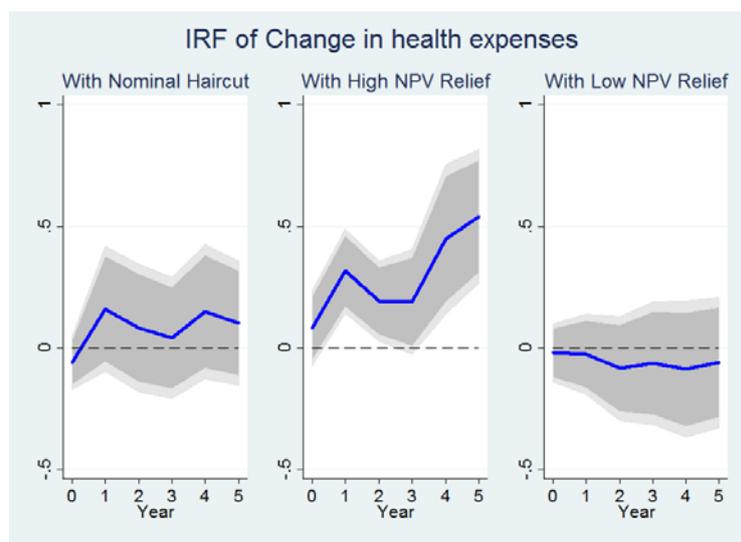


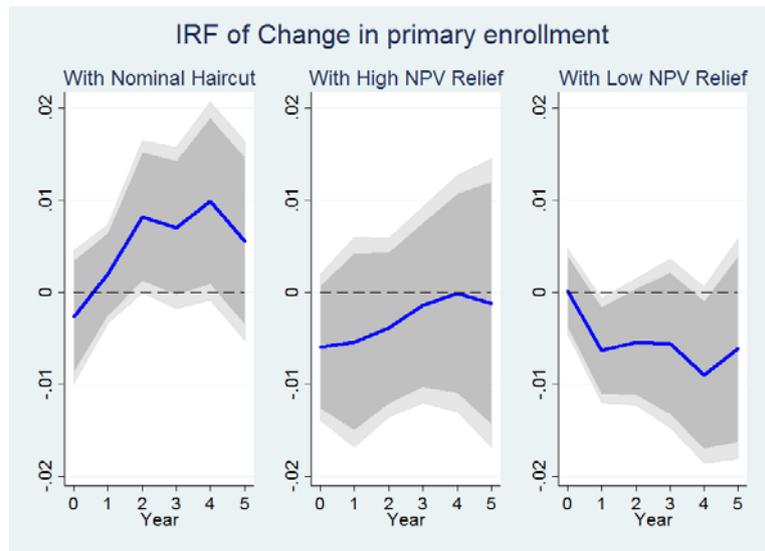
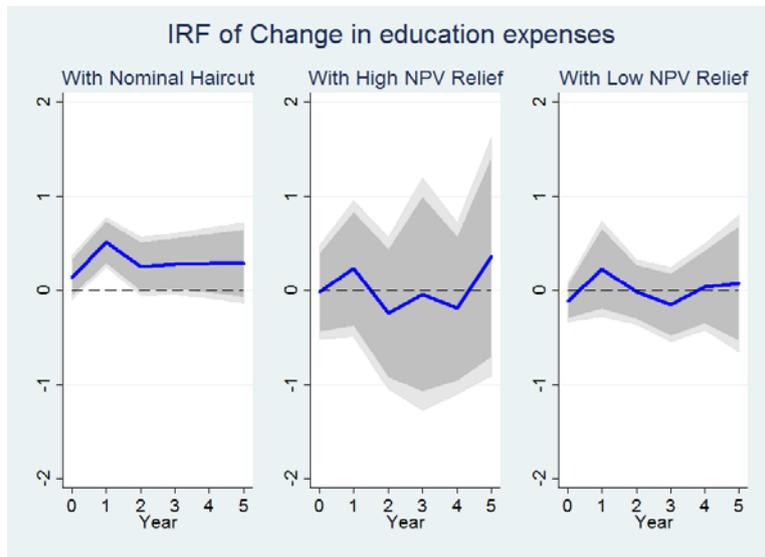
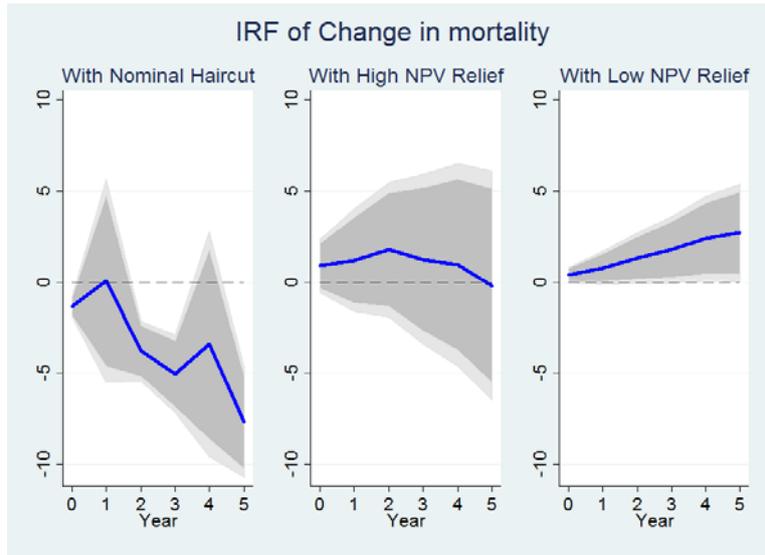
Sources: Authors' Calculations

Next, we explore whether official debt restructurings resulted in an increase in the beneficiary governments' public expenditure in the social sectors, which may contribute to explaining the positive effects of such operations on poverty and inequality reported above. Figure 6 shows that both nominal debt relief and high NPV relief operations resulted in a

statistically significant increase in the public health budget. In both cases, the impact is close to 1% of GDP four years after the debt restructuring operation is concluded. By contrast, operations with low NPV relief have no impact on the government’s health budget. Did this increase in spending improve health outcomes? We look at the effect of official debt restructurings on infant mortality, as reported by the World Development Indicators (per 1000 live births). As can be seen in Figure 6, nominal debt relief operations are followed by a decline of close to 5% in infant mortality, which is found to be statistically significant two years after the debt restructuring is concluded. This effect disappears both in the high and in the low NPV relief scenarios. Our results are less conclusive when we look at the impact of official debt restructurings on education: neither of the three categories of official debt restructurings analysed here appear to have had a statistically significant impact on beneficiary governments’ education spending, nor on enrolment in primary education.

Figure 6: Health and Education (spending and outcome)

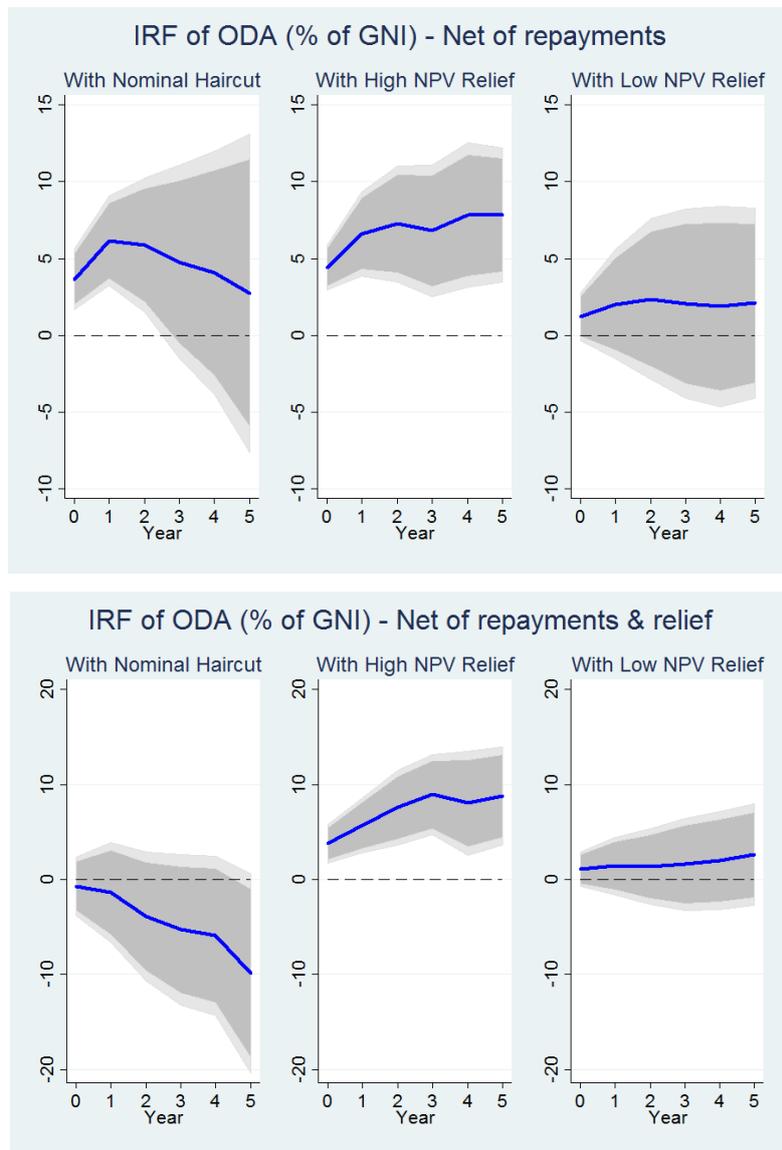




Sources: Authors' Calculations

Finally, we look at the effect of Paris Club treatments on official development assistance (ODA), as reported by the OECD Development Assistance Committee (DAC). As shown in Figure 7, official debt restructurings are followed by an increase in total ODA both in the nominal relief and in the high NPV relief scenarios. In the first case, the effect is immediate, but is only found in the short term (until year 3), while in the second case, it is sustained over time. In the low NPV scenario, we find no statistically significant impact of official debt restructurings neither in the short nor in the longer term.

Figure 7: Official Development Assistance



Sources: Authors' Calculations

One possibility is that the effects of debt restructurings on ODA previously reported do not entail an increase in the flow of fresh financial resources toward developing countries, but

simply reflect how debt relief is accounted in international aid statistics. In order to see whether this is the case, we build an alternative measure of ODA, detracting from the original variable what the OECD computes as debt forgiveness grants, and using this new variable to derive new impulse reaction functions. As shown in the lower panel of Figure 7, the positive effect of debt restructurings on ODA disappears in the nominal relief scenario. This confirms that the increase in total ODA previously reported does not reflect an additional effort to support these countries from the part of donors. In fact, our results suggest that once donors write off part of the nominal value of developing countries debt, their commitment to support these countries with additional ODA tends to wane. Interestingly, we find that, even after the subtraction of debt relief grants, ODA increases in the high NPV scenario. In other words, the countries that receive high NPV but no nominal relief seem to be rewarded with additional ODA following the debt treatment. Why this might be the case is unclear. A possibility is that donors feel entitled to reduce their support to countries after they grant nominal relief, but not when relief is provided only through interest rate reductions or maturity extensions. Another possibility is that the countries that receive high NPV relief tend to be the more politically or geo-strategically important for donors.

(c) *Robustness tests*

Acknowledging that the narrative identification approach that we use may not fully resolve the potential endogeneity problem, we conducted various robustness checks. First, we conduct our estimations with one additional control: private debt relief, as reported by Cruces and Trebesch (2014). Second, following Jordá and Taylor (2016), Forni et al. (2016) and Kushinov and Zimmerman (2016), we used an Augmented Inverse Probability Weighting (AIPW) estimator, and compared the results with our baseline estimates. This estimation is obtained in two steps, first by specifying a regression model to derive a propensity score of the likelihood to receive a debt treatment, and second by deriving local projection IRFs which assign a greater weight to the observations that are less likely to receive a Paris Club treatment. In this way, we reduce the chances that our empirical results are biased because the factors that are driving the probability of a debt Paris Club treatment also drive the development outcomes that are observed subsequently. The results from the model used to derive the likelihood of receiving a Paris Club treatment are included in Table 3 in the Appendix. As a robustness, while we use the results of the regression including time fixed effects, we also present the results of the analysis if the time fixed effects are not included.

The results of these robustness checks (with the exception of the IV exercise, which we decided not to report) are shown in the Appendix. As can be seen in Figure 8, the results obtained in the two exercises are consistent with the baseline, although some variables lose some of their statistical significance. Such is the case of the impact of official debt restructurings on the poverty headcount, which both in the expanded and in the AIPW model is only found to be statistically significant four years after the restructuring. Another outcome that loses statistical significance in the nominal relief scenario, but not in the high NPV relief cases is the increase in the government's health budget.

IV. CONCLUDING REMARKS

Relatively little scholarly attention has been devoted to the Paris Club in spite of the staggering aggregate value of the sovereign debt restructured by this informal institution throughout its six decades of history: close to US\$797 billion in constant 2009 US dollars. This paper tries to fill this gap, providing empirically supported analysis of the characteristics and impacts of official debt restructurings. To do so, we compiled a comprehensive database of the debt treatments completed through the Paris Club since 1956, which allows us both to contrast the evolving narrative of this informal institution with actual data, and to carry on an econometric analysis of its effects on debtor countries.

The Paris Club provides an interesting example of how an institution can evolve to pursue new objectives in response to the changing needs of its constituents. Originally, it functioned as a relatively obscure forum primarily aimed at preserving creditors' claims. Over time, however, it went on to acquire completely different functions. In the context of the 1980s debt crisis, it became an instrument to foster international financial stability. Subsequently, it was turned into one of the pillars of the HIPC initiative, a multilateral effort to foster economic development in the world's poorer countries through the alleviation of their debt burden. More recently, with the approval of the Evian approach after the Iraq War, the Paris Club was also turned into a tool to pursue more specific geopolitical goals in a select group of strategically important middle income countries.

Apart from showing how the Paris Club gradually mutated to pursue these objectives, our historical analysis justifies the adoption of a narrative identification strategy to study econometrically the developmental impacts of official debt restructurings. We argue that most of the operations concluded since the 1980s through the Paris Club were either centrally

orchestrated or politically motivated, and hence can be considered as exogenously determined. This allows us to adopt local projection methods to estimate the cumulative average treatment effect of official debt restructurings on a number of variables. Overall, our estimations suggest that the strategy of fostering development through official debt relief paid off, contributing to accelerate per capita GDP growth, reduce poverty and inequality, and increase health spending, especially when debt relief was provided in nominal terms. We also show that the increase in ODA that follows nominal debt relief reflects an accounting practice rather than a real increase in financial flows toward the countries that restructured their obligations under this modality. In fact, fresh ODA tended to fall toward these economies. By contrast, we find that following the debt restructuring, ODA increased towards countries that received high NPV relief, a result that still needs to be explained.

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APPENDIX

Figure 8: Results including private debt restructurings as a control variable

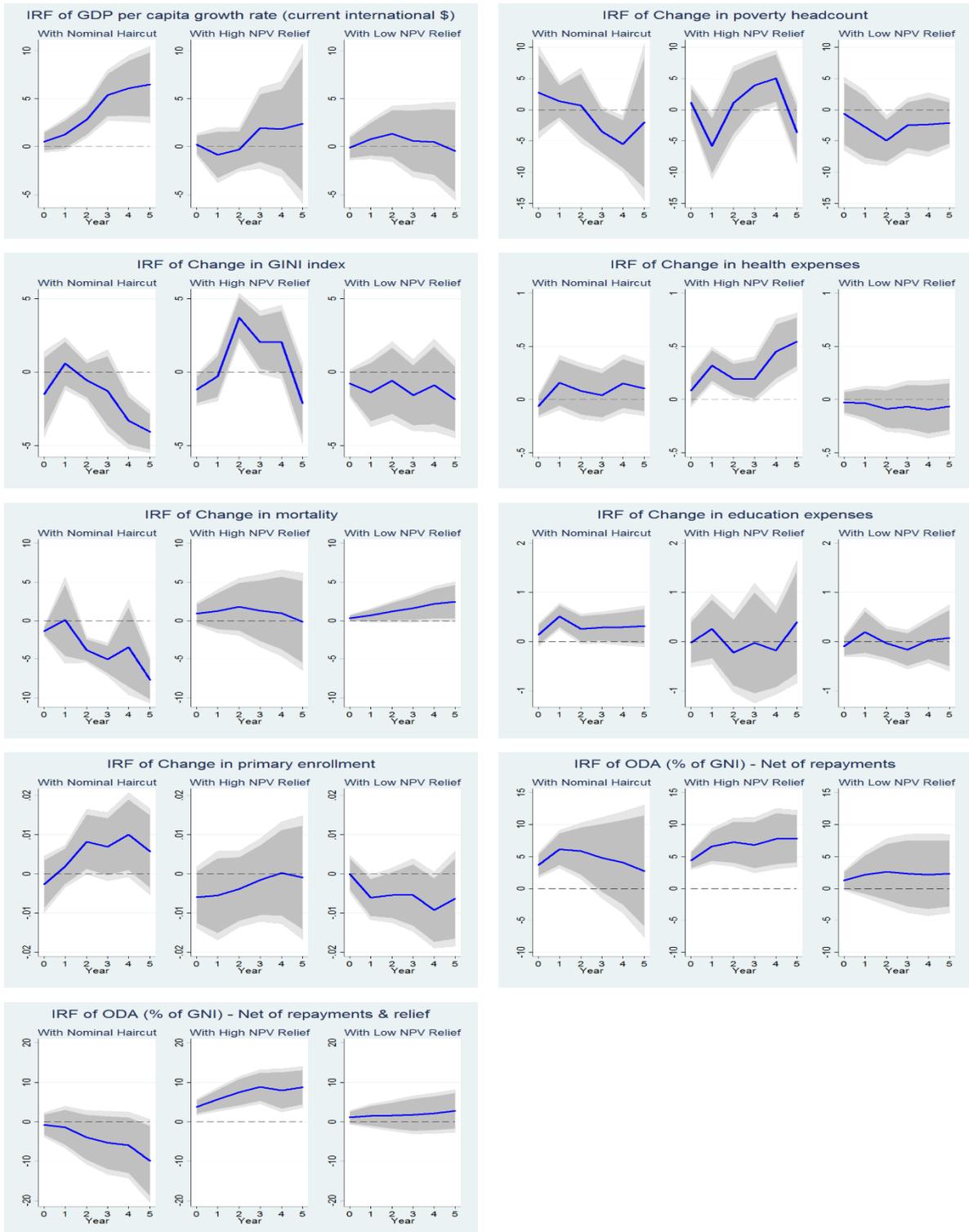


Table 3: AIPW – First Step Regression

	Paris Club Treatment (t)			
	Coefficient	Standard Error	Coefficient	Standard Error
GDP Growth (t-1)	-0.00222	[0.00173]	-0.00282*	[0.00170]
GDP Growth (t-2)	-0.00347**	[0.00165]	-0.00414**	[0.00161]
Government Debt to GDP (t-1)	-0.00038	[0.00056]	-0.00023	[0.00055]
Government Debt to GDP (t-2)	0.00118**	[0.00053]	0.00127**	[0.00052]
Paris Club Treatment (t-1)	-0.09526***	[0.02719]	-0.09140***	[0.02642]
Paris Club Treatment (t-2)	0.03052	[0.02955]	0.03698	[0.02949]
Fiscal Deficit (t-1)	-0.00032	[0.00238]	-0.00026	[0.00234]
Fiscal Deficit (t-2)	-0.00043	[0.00222]	-0.00045	[0.00213]
Inflation (t-1)	0.00006***	[0.00002]	0.00006***	[0.00001]
Inflation (t-2)	-0.00001	[0.00001]	-0.00001	[0.00002]
Year Dummies	No		Yes	
Country Dummies	Fixed Effects		Fixed Effects	
Observations	1972		1972	
R-squared	0.12		0.15	

Following Jorda & Taylor (2016), this Table presents the results of a linear probability model, in which the dependent variable is a dummy coding years in which an agreement with the Paris Club was signed. ***, **, * correspond to 1, 5% and 10% significance respectively.

Figure 9: AIPW estimation

