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Curse or Blessing? Has the impact of debt relief lived up to expectations?

A review of the effects of the multilateral debt relief initiatives for low-income countries

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Abstract:

As the multilateral debt relief initiatives draw to a close, this article reviews the impacts of debt relief to low-income countries (LICs) building on both the theoretical and empirical literature of past decades. We show that, while the pioneering studies of the early 2000s are inconclusive, the most recent analyses overcome certain methodological impediments to highlight significant multilateral debt relief initiative effects. These analyses hence suggest that these large-scale programmes may well have met expectations, at least in part.

Keywords: Debt relief, Financing for development, Low-income countries.

Résumé:

Alors que les initiatives multilatérales d'annulation de dette touchent à leur fin, cet article passe en revue les études empiriques et théoriques des dernières décennies visant à évaluer leurs impacts sur le développement des pays bénéficiaires. Cet article montre ainsi que malgré les résultats peu concluants des études du début des années 2000, des analyses plus récentes permettent d'apprécier les effets de ces programmes d'annulation de dette, surmontant ainsi les problèmes méthodologiques des articles antérieurs. Leurs résultats suggèrent que les initiatives d'annulation de dette pourraient bien avoir atteint leurs objectifs, du moins en partie.

Mots Clés: Annulation de dette, Financement du développement, pays à faible revenu.

JEL Codes: E62, E61, F35, F64, H63

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1. Introduction

Following the 'irrational exuberance' of the 1970s, it was quite some time before the realisation dawned that the debt of the heavily indebted poor countries could not be repaid in full. It took the failure of the classic Paris Club treatments and campaigning by various international NGOs for the reality of the situation to gradually sink in. In 1988, the first organized bilateral debt reductions were granted to LICs (Paris Club Toronto terms). The G7 subsequently launched a multilateral debt relief initiative in 1996 (Heavily Indebted Poor Countries Initiative or HIPC), enhanced in 1999. Then in 2005, the G7 launched a new initiative called the MDRI (Multilateral Debt Relief Initiative). Many creditors decided to provide debt relief on top of these initiatives, under bilateral arrangements.

Supporters of these debt cancellation programmes were numerous and varied. NGOs and other debt relief advocates backed them for poverty alleviation purposes. Arguments in favour of debt relief were built on the seminal studies by [Krugman \(1988\)](#) and [Sachs \(1989\)](#), who developed a new theoretical approach in the late 1980s introducing the concept of debt overhang. Under this framework, granting debt relief to over-indebted countries (countries not willing to repay their debt in full) can be profitable for both creditors and debtor countries until the willingness to repay is restored. This view shaped the original HIPC initiative, designed to reduce debt down to a level at which it was supposed to be sustainable. The MDRI initiative dramatically changed this approach by cancelling the rest of the debt.

Yet most economists pointed out the dangers of debt reduction, namely moral hazard, arguing that expectations of further debt reductions would lead to over-borrowing. [Easterly \(2002\)](#) put it that the very drivers of past over-indebtedness would prompt LICs to resume their old borrowing habits after debt relief.

Expectations of these initiatives' impacts were hence highly diverse. While there were fears of renewed misconduct by beneficiary governments, restoring debt sustainability was expected to create fiscal space and increase 'pro-poor' expenditure. In addition, the debt overhang framework had it that debt reduction would increase willingness to reform, investment, and eventually growth and poverty alleviation. Has debt relief lived up to these expectations? This article reviews the academic literature in a move to answer this question.

The paper is divided in eight sections. The next section tracks the debt relief history of low-income countries, first presenting the determinants of the debt stockpiling process from the 1970s to the 1980s to understand the purposes of the debt relief initiatives. It then reviews the traditional debt relief mechanisms and explains why these initial Paris Club debt treatments were not suited to the situation that heavily indebted poor countries faced at the time. The third section introduces the multilateral debt relief initiatives that followed the traditional restructuring mechanisms and presents their expected outcomes as posited by the debt overhang theory and empirical studies into the debt-growth nexus. Section four then considers the different methodologies used to date to quantify the level of debt relief, and discusses the pro and cons of the empirical approaches used to evaluate its outcomes. With the methodological issues set forth, the fifth section reviews the fiscal effects observed by the literature. The focus on fiscal effects makes sense in that the direct beneficiaries of (public external) debt relief are the governments. So, in addition to renewed debt sustainability, relief is also designed to encourage an increase in public spending on poverty reduction. The sixth section focuses on studies investigating the potential spillover effects of fiscal responses to debt relief. It presents the effects of multilateral debt relief on different social outcomes prioritised by the Millennium Development Goals (MDGs). This section also explores the extent to which the multilateral debt relief programmes have affected the recipient countries' institutions and ultimately their economic growth to see whether these programmes have achieved their primary objective, after debt sustainability, to enhance capital accumulation and thereby development. Section seven introduces the policy agenda and presents an overview of the new financing challenges faced by beneficiary countries in the post-debt relief era. It discusses the opportunities created by these programmes and investigates the potential donor behaviour changes that may prompt beneficiary countries to depart from traditional financing channels. Section eight concludes.

2. History of debt relief: How did HIPC's get over-indebted?

2.1. Debt, defaults and ineffective debt rescheduling

LIC debt incidents first emerged in the early 1970s and continued over three decades. The literature has extensively investigated the reasons for this massive debt accumulation by low-income countries

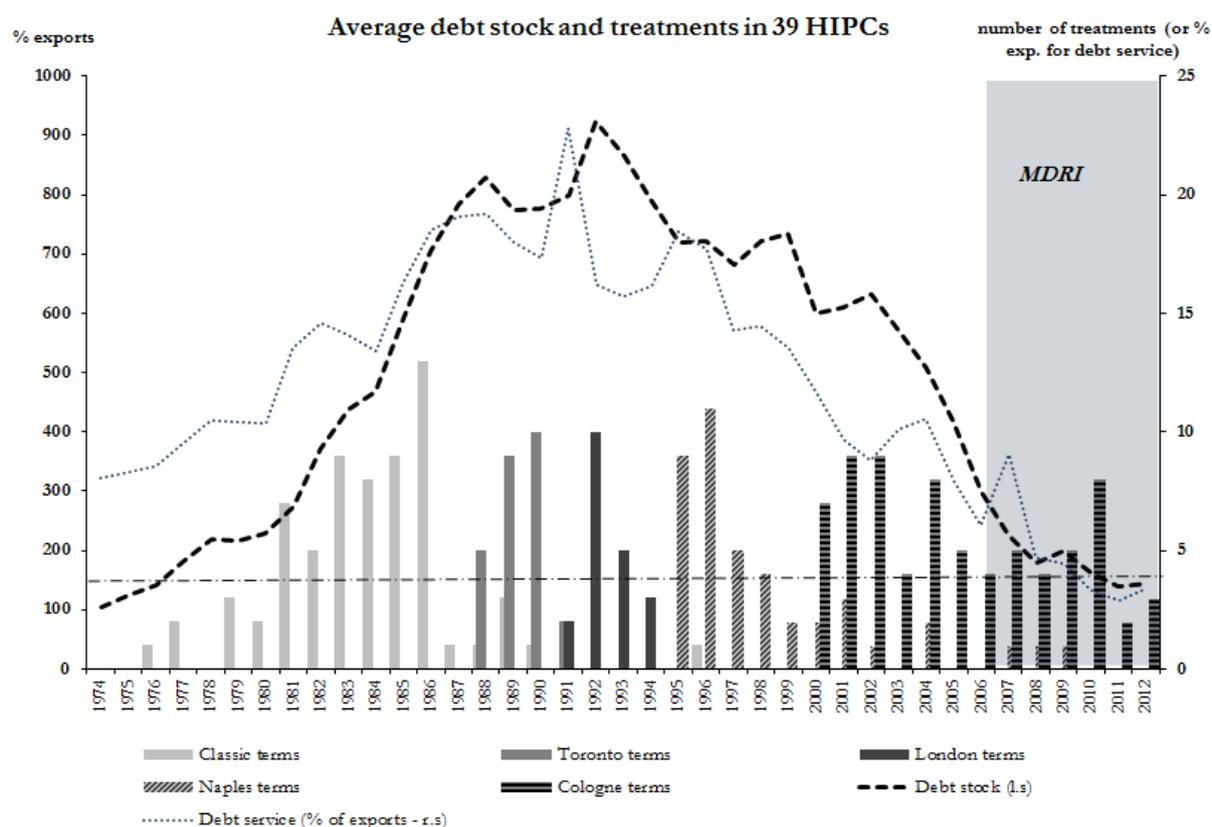
for nearly thirty years. Studies by [Green \(1989\)](#) and [Krumm \(1985\)](#), as well as [Mistry \(1991\)](#) and [Lancaster & Williamson \(1986\)](#), and others have in turn discussed why low-income countries (and especially African countries) contracted such huge amounts of debt. These authors all agree that three main developments occurred in the 1970s and 1980s to drive the LICs' debt situation: i) a sharp increase in commodity prices in the 1970s that inflated export revenues, making it possible to contract new debts or directly finance substantial domestic projects; ii) a need for additional external borrowing when commodity prices collapsed; and iii) poor decisions by debtor governments in their use of external financing and design of development projects, for the most part ill-conceived. Some of these studies also put forward the rise in interest rates after the second oil shock in late 1970s as one determinant of the mushrooming debt burden in early 1980s. Yet this factor had a limited impact: although access to the international financial markets broadened at the time, it was still limited for most LICs, which consequently borrowed primarily from official lenders who, unlike private creditors, offered fixed, low interest rates (lower than the market rate) on new loans. In addition to these elements, [Mistry \(1991\)](#) points a finger at the official creditors' irresponsible financing policy in the 1970s whereby they pushed loans to LICs (especially during the commodity boom). Mistry states that the way official donors behaved (especially their disconcerting passiveness) helped arrears accumulate to the point where repaying them became too expensive for the debtors, leaving debt relief as the only solution. Furthermore, severe drought in the early 1980s exacerbated the debt situation for sub-Saharan African countries as most of them were forced to increase their grain imports financed by external debt ([Greene, 1989](#); [Krumm, 1985](#)).

These developments drove low-income countries' debt to record highs. For instance, the total debt of sub-Saharan Africa, which stood at around US\$6 billion in 1970, skyrocketed to US\$136 billion by the end of the 1980s in an astounding increase of some 630 percent (in constant USD) ([Greene, 1989](#)).

UNCTAD diagnosed the debt distress of the LICs back in the late 1970s. Yet it took ten years for debt relief to be granted ([Evans, 1999](#)). The first moves were bilateral and disorganised until the Paris Club stepped in. However, the initial Paris Club debt treatments failed to halt the LICs' increasing debt burden. Indeed, debt treatments under the 'classic terms' rescheduled the debts contracted prior to a

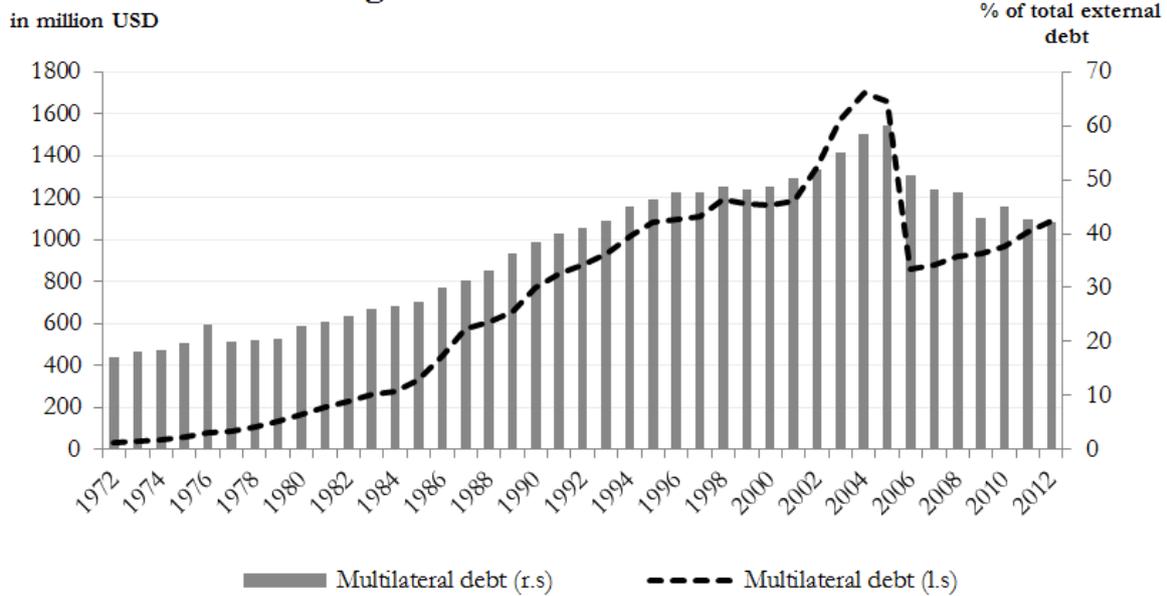
given cut-off date at non-concessional interest rates, which meant that it merely deferred the payment problems faced by highly indebted countries. Worse still, these first treatments actually exacerbated the LICs' situation (see Figure 1 below). Although temporarily freed from debt servicing, heavily indebted poor countries still had to borrow, mainly from Bretton Woods institutions (IMF and the World Bank) in order to honour their deferred repayments (Mistry, 1991). This defensive lending process¹ continued for almost ten years because the rescheduling procedure was beneficial to both debtors and creditors, since it gave debtors the benefit of debt service payments and reduced pressure on official lenders to find more expensive alternatives to finance the LICs' adjustment programmes (Daseking & Powell, 1999). Yet it fuelled the debt stockpiling process, as shown by Figure 1, which illustrates the inability of the first coordinated treatments to stop the debt spiral, especially in the heavily indebted poor countries.

Figures 1 and 2. HIPC External Public Debt



Notes: Data on public debt service and debt stock (PPG) have been retrieved from the *International Debt Statistics* (IDS) dataset for 39 HIPCs. Both variables are expressed as a percentage of exports. Figures for the public debt stock are reported on the left axis, while debt service figures can be observed on the right axis (the same as for the debt treatments). Number of Paris Club debt treatments under the different terms (Classic, Toronto (33% debt reduction), London (50% debt reduction), Naples (67% debt reduction), and Cologne (90% debt reduction)) have been directly collected from the Paris Club website. The shaded area corresponds to the period of MDRI implementation (from 2005 onwards).

Average multilateral debt in 39 HIPCs



Notes: Data on multilateral debt have been retrieved from the *International Debt Statistics* (IDS) for 39 HIPCs.

Paris Club treatments consequently became increasingly favourable from the late 1980s to the late 1990s. In 1988, the Toronto terms provided for a 33 percent reduction in bilateral debt service. The London terms that followed in 1991 raised the reduction granted by the Toronto agreements to 50 percent. However, as seen from Figure 1, these treatments may well have halted the debt accumulation process, but they did not go so far as to efficiently tackle the indebted LICs' debt situation (Thugge & Boote, 2000). The average stock of external public debt for the heavily indebted poor countries (HIPCs) had reached 700 percent of their exports by the end of 1993. The Paris Club considered taking further measures and came up with a procedure that would substantially reduce the HIPCs' debt stock. Hence the Naples terms (1994) raised the reduction to 67 percent and extended it to the stock of bilateral debt. Relief was increased to 80 percent by the 1996 Lyon terms, eventually replaced three years later by the Cologne terms boosting cancellation to 90 percent, at which point most of the creditors decided to cancel the rest of the bilateral debt. These two Paris Club rescheduling procedures finally managed to reverse the debt dynamics, although accounting, budgetary and

coordination concerns among creditors slowed down the debt relief process ([Daseking & Powell, 1999](#)). At the same time, in the mid-1990s, the International Development Association (IDA) and many bilateral donors made funds available for low-income countries to buy back their debt from private creditors to be traded on the secondary market at discounted prices ([Thugge & Boote, 2000](#)).

However, the measures of the early 1990s and mid-1990s still left a multilateral debt burden weighing on the LICs (generally sub-Saharan African countries), debt that had been contracted mainly from the International Monetary Fund, the World Bank and regional development banks to reimburse bilateral creditors. Furthermore, despite the bilateral treatments and efforts to help HIPC design structural adjustment programmes and implement economic reforms, the multilateral organisations continued to grant concessional loans ([Leo, 2009](#)) for sums far greater than the cancelled debts ([Easterly, 2002](#)), such that HIPC net transfers were still positive in 1995 ([Thugge & Boote, 2000](#)), creating a situation detrimental to their deleveraging process (see figures 1 and 2). So, in 1996, the G7 decided to break with the principle of untouchable multilateral debts and set up a debt relief programme known as the Heavily Indebted Poor Countries Initiative (HIPC).

2.2. Design of the multilateral debt relief initiatives

Under the first HIPC Initiative (HIPC I), launched in 1996, the debt relief eligibility criteria were relatively restrictive. To be eligible a country had to be a low-income country by the World Bank classification, have implemented an IMF-like macro-stabilising programme, and post a debt-to-exports ratio of over 250 percent in present value (PV). This ratio prevented some countries from benefitting from the initiative even though they had huge problems meeting their debt service payments. The G7 therefore decided in 1999 to reduce the debt threshold to 150 percent of exports (still in PV) and rename the HIPC initiative as the Enhanced HIPC initiative. Provision of debt relief was also accelerated.

Once eligible for this Enhanced HIPC initiative, a country reaches a decision point where the government benefits from debt service cancellations. When the decision point is reached, the country has to implement (in addition to the macro-stabilising programme conducted prior to the decision

point) a poverty reduction programme (PRSP)², which entails specific goals to be achieved in the medium run. If the international stakeholders consider the HIPC to be on track, they continue to grant debt service relief. Once the country has met these targets (focusing mainly on poverty reduction), it reaches the completion point, marking the end of the HIPC process and granting irrevocable debt cancellations, with eventual topping up.

However, multilateral liabilities still weighed on the governments' budgets, raising doubts about the sustainability of their external debt following these initiatives ([Fedelino & Kudina, 2003](#)) and slowing down the financing of the MDGs. Consequently, at the 2005 Summit at Gleneagles, the G8 launched the Multilateral Debt Relief Initiative (MDRI) cancelling the remaining stock of multilateral debt³ for those countries that had fully benefited from the HIPC initiatives..

In total, the HIPC and MDRI initiatives have written off nearly US\$76 billion.⁴ These cancellations of the external debt of 36 low-income countries (see Table 1 below) may seem a pittance compared with relief in middle- and high-income countries, but they are huge in relative terms. For instance, they represent just over all the subsidies granted to all the HIPCs in constant dollars from 2009 to 2011, although the amounts cancelled differ widely relative to GDP, public revenue and expenditure ([Bougouin & Raffinot, 2003](#)).

Table 1. Heavily Indebted Poor Countries - Decision and Completion Point Dates.

HIPCs	Decision Point	Completion Point
Post-Completion Point Countries (36)		
Afghanistan	June 2007	February 2010
Benin	July 2000	Marc 2003
Bolivia	February 2000	June 2001
Burkina Faso	July 2000	April 2002
Burundi	July 2005	January 2009
Cameroon	October 2000	April 2006
Central African Republic	September 2007	June 2009
Chad	May 2001	May 2015
Comoros	June 2010	December 2012
Côte d'Ivoire	March 2009	June 2012
Democratic Republic of Congo	July 2003	July 2010
Ethiopia	November 2001	April 2004
Ghana	February 2002	July 2004
Guinea	December 2000	September 2012
Guinea-Bissau	December 2000	December 2010
Guyana	November 2000	November 2003
Haiti	November 2006	June 2009
Honduras	June 2000	October 2005
Liberia	March 2008	June 2010
Madagascar	December 2000	October 2004
Malawi	December 2000	August 2004
Mali	September 2000	March 2003
Mauritania	February 2000	June 2002
Mozambique	February 2000	September 2001
Nicaragua	December 2000	January 2004
Niger	December 2000	April 2004
Republic of Congo	March 2006	January 2010
Rwanda	December 2000	April 2015
Sao Tome & Principe	December 2000	March 2003
Senegal	June 2000	April 2004
Sierra Leone	March 2002	December 2006
Tanzania	April 2000	November 2001
The Gambia	December 2000	December 2007
Togo	November 2008	December 2010
Uganda	April 2000	September 2000
Zambia	December 2000	April 2005
Pre-Decision Point Countries (3)		
Eritrea	Somalia	Sudan

3. What was expected of the HIPC initiatives?

3.1. What does the theory predict?

What were the motives for cancelling such huge amounts of debt? These initiatives were obviously not created merely to restore LIC debt sustainability and write off bilateral and multilateral claims. The programmes were also designed to free development opportunities hitherto constrained by the heavy debt burden.

From a theoretical standpoint, a relative consensus had formed that too much debt over and above a certain threshold undermines economic growth (shifting the issue from debt to debt distress). This idea, which owes its paternity to the seminal works of [Krugman \(1988\)](#) and [Sachs \(1989, 1990\)](#) is currently known as the 'debt overhang' theory (DOT). In his paper, [Krugman](#) posits that a debt overhang situation arises when the indebtedness level is such that it becomes beneficial for both the debtor and its creditors to cancel a share of its debt. He underlines that, in the presence of large indebtedness, the debtor's incentives to reimburse might be distorted, thus resulting in lower capacity to pay and partial default on debt repayments.

3.1.1. Incentive and liquidity effects

Using a two-period model, [Krugman](#) shows that temporary concessional financing can solve both a debtor's liquidity and solvency issues and make the creditor better off compared with a full default situation. However, this argument relies on the assumption that the debtor gives the creditor all the resources it can generate in order to repay its debt. Yet as rightly pointed out by [Krugman](#), if the debt burden is such that repayments equal the maximum the country can pay with the maximum adjustment efforts, '*there is no reason for the country to make the adjustment effort, since the reward goes only to its creditors*' ([Krugman, 1988](#), p. 14). In this situation, debt relief can solve the problem.

[Sachs \(1989\)](#) shows that the creditor can partially cancel the claims it has on the debtor down to the level where the resulting debt repayments would be less than the stream of revenue stemming from the adjustment effort undertaken by the debtor. This would allow the debtor to partly benefit from the outcomes of its adjustment efforts. Indeed, if the debtor's discount rate is not too high, refraining from

consumption today in favour of investment (adjustment effort) that will pay off tomorrow could generate positive utility for the debtor, even after having reimbursed its debt, partially reduced in the first place.

The negative investment incentive effects of high levels of debt were restated a few years later by [Borensztein \(1990\)](#) and [Claessens & Diwan \(1990\)](#). However, the latter authors added that a large debt stock can discourage national and foreign private investors, since too much debt points to a potential rise in taxation. Economic agents, fearing such a tax adjustment, may well abstain from investing in a debt distressed country and may even, in a worst-case scenario, trigger massive capital flight. In addition, [Borensztein](#) states that credit rationing induced by unsustainable levels of public debt can also be detrimental to domestic investment. Debt relief should thus be accompanied by extra lending, and hence be additional, in order to maximise the impact on the investment-to-GDP ratio.

Consequently, according to these theoretical contributions, if large debts depress investment due to the negative incentives for public entities to undertake pro-growth reforms and for private agents to invest, debt relief will foster public investment efforts and private capital accumulation, ultimately yielding higher economic growth rates.

Besides these potential incentive effects of debt relief for both private and public investment, [Claessens & Diwan \(1990\)](#) also emphasise the liquidity effect that debt cancellations can generate. They posit that liquidity issues due to large indebtedness hamper debt repayments, since the debtor has to divide the total amount of public resources among consumption, investment and debt servicing. According to [Claessens & Diwan](#), in low-income countries where consumption and investment designed to meet basic needs can hardly be reduced, a large debt burden will make adjustment weigh on debt service repayments, which will then be only partial. However, considering a worst-case scenario for the debtor, [Sachs \(1989\)](#) argues that debt rescheduling and donor pressure can force the debtor to service its debt, which then crowds out part of the public money initially intended for domestic development projects and consequently hampers the development process. In this case, debt relief enables debtors to free up sums previously spent on debt service. Consequently, in addition to resumed debt sustainability and fostering investment, relief is also supposed to encourage an increase

in public spending. Debt relief is hence said to create 'fiscal space' ([Heller, 2005](#)) by freeing up fiscal resources⁵ initially used for debt service payments. Resources can then be reallocated to development-driven public spending such as capital expenditure on infrastructure. These savings could be also used to reduce the government deficit and even lighten the tax burden. However, there is a worrying possibility that poor quality institutions in these countries actually waste the sums freed up. Moreover, and as exposed by [Cohen \(1990\)](#), fiscal space would be created only if the government was repaying its debt (at least partially) prior to debt relief. Otherwise, debt relief does not create any fiscal space and merely wipes the slate (which would not have been paid anyway).

3.1.2. Disincentive effects of debt relief

Although the papers discussed above support the idea that debt relief can encourage government and private investors to make a significant investment effort thereby boosting total production, some authors argue that debt relief can also create disincentives to invest. In his 1988 paper, [Corden \(1988\)](#) takes a three-period model to explain that if a debtor cannot pay its debt inherited from period 1 in period 2, concessional financing provided by the creditor in period 2 to service this debt will be expected to be repaid in period 3. The debtor country will then make a significant investment effort in period 1 and 2 to generate revenue in order to pay the difference between debt service and defensive lending in period 2, and to reimburse liabilities contracted in period 2 (concessional financing) which are due for period 3. In the absence of debt service payments (that is with debt relief), [Corden](#) shows that the investment effort in period 2 will be lower, thus evidencing the *disincentive effect* of debt relief. However, although this reduction in investment leads to lower output in period 3, resource transfers abroad fall so much after debt relief that the debtor's consumption actually increases compared with if the country had paid its debt. Yet as in the first example given by [Krugman \(1988\)](#), this situation occurs in a context where the debtor's willingness to pay is not taken in account and is thus considered to be at its maximum. More recently, and in keeping with the last point made by [Corden \(1988\)](#), [Tengstam \(2006\)](#) argues that this disincentive effect of debt relief – thought to exist only where beneficiary countries do not initially suffer from debt overhang – can disappear when

considering the general equilibrium effect of debt relief and its effect on consumption, which stimulates adjustment, even in the absence of debt overhang.

3.1.3. Debt relief and conditionality

[Claessens & Diwan](#) (1990) underline that cooperation between a debtor and its creditors can yield a situation that is more than just Pareto optimal. Yet they stress that this higher equilibrium is only possible if both parties commit to the necessary future actions. Creditors have to undertake to refrain from asking for a too high level of resource transfers from the debtor in the future. This objective can be achieved by a combination of concessional loans and debt relief. The debtor has to commit to investing revenue from debt cancellations (that is fiscal space) efficiently by prioritising profitable, resource-generating projects. Such actions can be achieved by conditionality and adjustment programmes imposed by the international financial institutions (IFIs), which often represent the creditors in the case of low-income countries. The authors differentiate between 'weak' and 'strong' debt overhang situations. In a weak debt overhang situation, the debtor is willing to make a significant adjustment effort with new concessional loans alone. In the strong debt overhang situation, an adjustment effort without debt relief is too expensive for the debtor. So in weak debt overhang circumstances, the situation can be improved by a simple commitment mechanism ensuring that new loans will be efficiently used and generate enough revenue to service the new debt. However, if the debtor cannot commit to this adjustment effort, the creditors will have no choice but to resort to debt relief. In strong debt overhang circumstances, new loans will not be enough to convince the debtor to make a resource-generating investment for future debt servicing. The debtor will consider an adjustment effort only if the creditors agree to partially cancel their claims so that it can reap the benefits (or at least a share of them) from its additional effort.

In a more recent paper, [Sachs \(2002\)](#) states that compliance with conditionality programmes is relatively weak in practice among developing countries, especially highly indebted countries, since a large debt burden can be a substantial disincentive for 'good behaviour' (see above). Taking a simple example, he gives weight to the idea put forward by [Claessens & Diwan](#) (1990) that debt relief should always be associated with conditionality and new IFI lending. He argues that this formula will give the

debtor country a better equilibrium in the future (depending on its discount rate), which should be an attractive enough prospect for the debtor to comply with conditionality. Lastly, [Koeda \(2008\)](#) adapts the debt overhang model to the specific context of low-income countries to show that highly indebted countries below a certain income cut-off point (the point of graduation from low-income to lower-middle income country) have strong incentives to opt for short-term consumption over investment in order to remain below this cut-off point and continue borrowing on concessional terms. [Koeda](#) therefore strongly recommends that debt relief be a one-shot strategy to prevent moral hazard by low-income countries, which would otherwise be tempted to postpone pro-growth reforms, consume inefficiently and accumulate debt again in anticipation of future debt cancellations on the basis of the same eligibility criteria. Such behaviour points to the potential negative effects of debt relief which, if considered as a permanent opportunity by beneficiary countries, can reduce HIPC's incentives to repay their debts in the future, thereby prompting them to relax their fiscal constraints and maintain poor quality institutions.

On the whole, there is relative agreement among the theoretical papers on the debt-growth nexus that a high level of debt is detrimental to economic growth. Debt relief is therefore expected to produce a greater investment effort in recipient countries, implying higher economic growth. Debt overhang theory states that this will come about by means of increases in both public investment (liquidity and incentive effects) and private capital accumulation (incentive effects). Some authors have also made a convincing case for strong conditionality associated with these debt cancellations in order to ensure that incentives and liquidity effects make for sustained higher growth.

3.2. Empirical validation

An entire body of literature, dawned in the early 1990s and recently revived by [Reinhart and Rogoff's \(2009, 2012\)](#) findings, has set out to empirically check the alleged negative relationship between debt and growth, as it forms the main rationale behind these debt relief initiatives. Although the studies investigating this relationship in OECD countries⁶ have not led to a clear cut answer, most of the existing studies focusing on developing countries conclude that there is an inverted U-shape relationship between debt and growth and identify the causal effect as stemming from public debt.

However, and as for the investigations focusing on advanced economies, no clear consensus has yet emerged as to the level at which public indebtedness starts being negative for economic growth. Results appear to be highly sensitive to the measure of public debt considered, the sample of countries and the period studied. With respect to debt measures, some authors consider that the stock of debt is more suited to capturing the debt overhang effect (and its resulting disincentives to invest) than debt service payments. [Kwasi Fosu \(1996\)](#), [Deshpande \(1997\)](#), [Elbadawi, Ndulu, & Ndung'u \(1997\)](#), [Chowdhury \(2001\)](#), [Nguyen, Clements, & Bhattacharya \(2003\)](#), [Presbitero \(2008\)](#), [Cordella, Ricci, & Ruiz-Arranz. \(2010\)](#), [Drine, & Nabi, \(2010\)](#)⁷, and [Pattillo & Ricci \(2011\)](#) take this stock approach and identify a positive effect of public debt on growth when indebtedness is relatively small, although this becomes negative when debt accumulates above a certain threshold. This hump-shaped relationship appears to be robust to the measure of public debt (in percentage of GDP and exports) and also when considering the level of concessionality in the stock of debt (in present value), which appears to be the right approach when focusing on low-income countries that rely heavily on concessional financing from IFIs. However, the debt overhang threshold at which the marginal impact of debt starts to become negative differs a great deal from one study to another (see Table 2 in Appendix) and in some cases depends on country characteristics such as institutional quality ([Imbs & Rancière, 2005](#); [Presbitero, 2012](#)).

In addition, papers by [Cohen \(1993\)](#), [Elbadawi et al. \(1997\)](#), [Chowdhury \(2001\)](#) and [Hansen \(2002\)](#) all report a negative contribution of debt service payments to capital accumulation and economic growth, also underscoring the liquidity effect discussed in the previous section.

However, these results have recently been challenged by studies using spline specifications to show that debt stock above a certain threshold is irrelevant to economic growth. Debt cancellations should thus be large enough to foster economic activity. According to [Presbitero \(2012\)](#), debt forgiveness needs to bring the stock of external debt (in PV) down to 80 percent of GDP if a positive effect on the real per capita GDP growth rate is to be observed. [Cordella et al. \(2010\)](#) take the discussion a step further, pointing out that this debt-irrelevant threshold varies according to the quality of the domestic institutions. Their results suggest that the detrimental effect of debt disappears as of a debt-to-GDP

ratio (in PV) of over 15 percent for countries with weak institutions, while debt becomes irrelevant in countries with good institutions above 80 percent of GDP. Consequently, a pro-growth effect would be expected to stem from debt relief, but only if cancellations yield low enough debt-to-GDP ratios and if recipient countries have sound institutions.

4. Methodological problems

4.1. How do we measure debt relief?

Many recent studies seek to find whether these expected effects can be observed empirically following debt relief. This raises the immediate problem: how do you measure debt relief?

The easiest way is to use the cancelled stock of debt on the write-off date. Given that this stock is an aggregate of loans with different 'weights', it is often advisable to take the stock recalculated by discounting all the debt service payments (present value) rather than to take the stock at its face value. Unfortunately, the IMF does not supply this value every year and the choice of discount rate is always somewhat arbitrary. In addition, the sums are not fresh money. So this approach would be best used when seeking to test effects in terms of behavioural changes. Nevertheless, studies in the mid-2000s are largely based on this concept of debt relief in their evaluation of the impacts of HIPC initiatives on economic growth and public investment ([Kraay & Chauvin, 2005](#); [Presbitero, 2009](#); [Johansson, 2010](#)).

Other studies simplify the issue by using dummy variables to mark the HIPC decision or completion point date. Although this approach has turned up substantial impacts in some cases ([Tsafack Temah, 2009](#); [Schmid, 2009](#); [Ferry, 2015](#); [Welander 2016](#); [Ferry, Raffinot, & Venet, 2016](#)), it remains debatable with regard to other research questions. When seeking to identify the liquidity effects of debt relief, the use of a binary variable is questionable as these effects depend on the amount of relief granted. However, this approach can offer an interesting alternative in an event-study framework when the question focuses on policy changes, behavioural reactions of debtors or creditors, and conditionality effects.

Yet these two approaches are not appropriate when it comes to testing an effect that channels directly through the creation of fiscal space. Annual debt service savings then become more relevant as

impacts depend on the magnitude of the sums available each year. However, this approach assumes that the debt service would have been paid had the debt relief not been granted. Yet a large part of these debts is generally deemed irrecoverable ([Cohen, 1990, 2001](#); [Hernandez & Katada, 1999](#); [O'Connell & Soludo, 2001](#)). This approach is hard to put into practice, since it calls for a calculation of what the country would have paid in the absence of debt relief, which, here again, implies a certain extent of discretion. Besides, in some cases debt relief can hardly be analysed on its own. It is part of a sum of external financial resources. The developing countries insisted on additionality for the relief granted (it cannot come with reductions in other aid flows). Yet even though this request is more or less respected on the whole, the situation differs a great deal from one country to the next. The risk of iniquity this brings has actually prompted IDA⁸ to systematically reduce new flows to countries granted debt relief.

In keeping with [Hansen \(2002\)](#), the additionality problem combined with the assumption of repayment in the absence of debt relief has significant implications for the 'flow-based evaluation' of fiscal space effects specific to the HIPC and MDRI initiatives. If a country services its debt before any debt relief process is put in place and the debt relief is provided without offsetting reductions in other aid flows (making the relief additional), then the country will indeed find itself with fiscal space. However, in the case where a country does not previously repay its debt, the debt relief will do nothing to change the initial situation and the country will gain no fiscal space. Similarly, if a country repays its debt, but the debt relief is not additional and aid flows fall, the fiscal space initially generated by the debt relief will be cancelled out by the subsequent reduction in these aid flows. Lastly, in the scenario where the beneficiary country does not service its debt and the debt relief is not additional, the country will suffer a net loss since it will have no fiscal space and will even post a downturn in net financial inflows.

4.2. Estimation methods and timeframe considered

Findings on the outcomes of the multilateral debt relief initiatives differ from one study to the next. One of the reasons for this heterogeneity is the variety of methodologies used in this literature. The researchers have rivalled each other in their inventiveness to measure the debt relief and properly

evaluate its effects on various development indicators. One of the main characteristics of this literature is, as mentioned above, the plethora of measures designed to quantify the debt relief. Yet, despite these efforts and given the difficulty of identifying the causal effects of these programmes because of their associated ex-ante conditionality, very few of these studies have been published. Therefore, a significant part of the state of art on the effect of the multilateral debt relief initiatives builds on working papers.

From an econometric point of view, the majority of these studies seek to evaluate an average effect for the debt relief initiatives using LIC panels. Yet the nature of the panels and the specifications used produce divergent findings. Some studies are based on a relatively extended range of countries (low- up to medium-income countries), meaning that they might scale up the potential effects of self-selection already induced by HIPC initiatives. Furthermore, some of these studies are based on observation periods that can be considered as too short and which also undermine the observation of debt relief effects. Indeed, panel studies reporting no effect of the debt relief initiatives are those that divide their study period into sub-periods of three to five years. These analyses seek to evaluate the impact of debt relief in T on different economic aggregates in T+1, with the last period generally running from 1999-2001 to 2003-2004. Such a strategy, although controlling for potential business cycle effects and mitigating classic econometric issues such as reverse causality, hence fails to capture the effects generated by the HIPC initiative (and even less so by the MDRI), since the programmes were implemented mainly during this last period (and without specific conditionality in the case of the MDRI). Table 3 in Appendix summarises these studies, their samples, time coverage, estimation methods, debt relief measures and main findings.

In addition, although studies into the effects of the multilateral debt relief initiatives seek mainly to identify average effects, the absence of robust findings could be also explained by heterogeneous responses to debt relief among HIPCs. For instance, when looking at the effect of debt relief on public investment or current expenditure – hence testing the fiscal space effect – [Cassimon, Ferry, Raffinot, & Van Campenhout \(2015\)](#) differentiate between good and bad HIPC payers since, as [Cohen \(1990\)](#) argues, debt relief should create fiscal space only for those HIPCs that were paying their debt prior to

these cancellations. Other types of differentiation may be worth investigating, specifically in terms of the quality of institutions since debt overhang predictions also rely on the willingness and ability of indebted governments to undertake significant reforms once debt relief starts being granted. In addition, and to our knowledge, no study focusing on the effects of debt relief on fiscal space creation or capital accumulation looks at the net effect of debt relief that is the effect of resources from debt relief, net of adjustments by international donors in terms of official flows. Additionality, or absence thereof, may also give rise to very different effects for beneficiary countries and explain why, on average, studies on the early and mid-2000s do not find significant results.

Other empirical approaches, as compared with those implemented in the abovementioned papers, assign dummy variables at the decision and/or completion point ([Tsafack Temah, 2009](#)) and use difference-in-differences specifications in their impact evaluation methods. Specifically, some use dummy variables with different lags to observe whether the initiatives have impacts around the completion or decision points ([Cuaresma & Vincelette, 2008](#); [Schmid, 2009](#); [Ferry, 2015](#); [Ferry et al., 2016](#)) rather than at the point itself (one, two or three years after the completion point, for example). Although these methodologies, by their very definition, do not single out the impacts of these initiatives by debt relief amount, they have furthered the identification of certain effects on variables crucial to the achievement of the Millennium Development Goals (healthcare expenditure ([Tsafack Temah, 2009](#)); primary drop-out rates ([Cuaresma & Vincelette, 2008](#)); and infant mortality ([Schmid, 2009](#); [Welander, 2016](#))). Moreover, when it comes to investigating the signal effect that such initiatives might have had on external lenders ([Ferry et al., 2016](#)) or to identifying HIPC responses to conditionality associated with the HIPC process ([Ferry, 2015](#)), the use of difference-in-differences or event-study approaches can be useful and identify, under certain conditions, significant multilateral debt relief initiative impacts.

Other avenues of research have been explored besides cross-country and econometric analyses. [Dijkstra \(2007, 2013\)](#) presents case studies (on Nigeria in particular) that bring out the particularities of the beneficiary countries but make it harder to gain an overall picture. Alternatively, [Bigsten, Levin, & Persson \(2004\)](#) analyse the impact of debt relief using computable general equilibrium models,

showing that the debt write-off initiatives sustainably step up economic growth in the medium run when the increase in public expenditure induced by the HIPC initiative drives up the level of human capital and puts money into the private sector (given the complementarity between private and public sectors).

Looking at the various methodologies and measures used to evaluate the outcomes of the multilateral debt relief initiatives, it appears quite hard to identify the best empirical strategy to properly observe such effects. Those listed above have their pros and cons, but more importantly, the use of one specific method should be regarded with respect to the research question that the study is seeking to answer (signal effect, fiscal space, etc.).

5. Debt relief and fiscal impact: focusing on the epicentre

As pointed out by the third section, debt relief's point of impact is public finance. Debt stock or debt service relief leads governments to reconsider the allocation of public resources, especially resources resulting from these cancellations, bearing in mind the conditionality objective. There follows here a presentation of the papers investigating the effects of debt relief on public finance, which can be deemed the epicentre of the 'debt-quake'.

The first studies conducted to evaluate the impact of the debt relief initiatives on fiscal outcomes ([Kraay & Chauvin, 2005](#); [Presbitero, 2009](#)) are inconclusive. For some of the reasons discussed above, these studies fail to highlight a positive contribution of debt relief to public spending, government capital expenditure and domestic revenue. Taking changes in external debt (PV) induced by debt cancellations as the debt relief measure, [Kraay & Chauvin \(2005\)](#) conclude that debt relief remains marginal for public expenditure. They find positive effects on the share of public expenditure accruing to the health and education sectors, but this relationship is marginally significant and not robust to alternative debt relief measures. The same conclusions can be drawn as regards taxation. [Kraay & Chauvin \(2005\)](#) observe a positive association between debt relief and tax revenue, but the correlation remains significant at the 10 percent level and is only observed for the most recent years of their study period.

In the same vein, [Presbitero \(2009\)](#) extends the study period slightly and, besides the investment ratio, adds domestic public debt to the list of fiscal outcomes that could potentially be affected by debt relief. Yet, as in [Kraay & Chauvin \(2005\)](#), [Presbitero](#) do not find a robust relationship between debt relief and the investment rate (which includes public investment). However, his results report a positive contribution of debt relief to domestic debt, which is found to increase following debt cancellations, but only when the analysis focuses solely on HIPCs.

Nevertheless, as explained in the previous section, the lack of robust empirical evidence might be due to the relatively short observation periods. Although these studies can be seen as pioneering in the debt relief effectiveness literature, both cover periods ending in the early/mid-2000s. This makes it hard to correctly evaluate the impact of debt relief granted from 2000 to 2005 (especially under the MDRI). In addition, although these papers investigate non-linearity in terms of income, the samples comprise low and lower-middle income countries that potentially also benefited from debt cancellations by Paris or London Club (for middle-income countries) agreements over this period. This ultimately makes it hard to correctly identify the effect of the multilateral debt relief initiatives since these studies cover a mix of debt cancellations under different debt relief programmes.

Therefore, starting in 2008, new analyses were launched using more recent data to again seek to identify the effects of debt relief initiatives on different fiscal variables. These studies find a certain amount of fiscal space created by the debt relief programmes in HIPC countries. This fiscal space seems to be conducive to public development spending, but also appears as financially sustainable given the positive impacts observed on tax revenues. Consequently, these findings suggest that debt relief redefines fiscal policy by changing the beneficiary government's budget balance, contrary to the predictions of previous theoretical analyses ([Bird & Milne, 2003](#); [Burnside & Fanizza, 2004](#))

From this point of view, it is put that the multilateral debt relief initiatives have created new opportunities for development through the public sector, but potentially also through the private sector in view of the complementarity of these two sectors in HIPCs ([Sachs, 2002](#)). In keeping with the debt overhang theoretical predictions mentioned in section 3, these studies empirically show that the HIPC and MDRI programmes are conducive to an increase in domestic revenue, public investment

([Cassimon & Van Campenhout, 2008](#); [Cassimon et al., 2015](#)) and public development spending, especially these targeting education and healthcare ([Dessy & Vencatachellum, 2007](#); [Tsafack Temah, 2009](#)).

The increase in tax revenue induced by debt relief also ties in with the idea of debt overhang whereby a country with less debt is more inclined to make a greater tax effort and conduct significant fiscal reforms. Unlike debt distressed countries, a government with a 'reasonable' amount of debt could perfectly honour its commitments, which would prevent it from having to endure a non-repayment sanction imposed by the international lenders. This country would then secure the full benefits of its additional tax effort (the marginal revenue collected). However, a debt distressed country would find a more efficient fiscal policy less worthwhile since it would not be able to fully reap the benefits of its efforts, as these additional resources would accrue to creditors as debt repayments. This kind of relationship between taxation and debt relief has recently been supported by [Ferry \(2015\)](#), who provides empirical evidence of an increase in tax effort (defined as the government's willingness to tax) following debt relief granted under the HIPC initiatives. However, this study points up that the observed tax improvements result mainly from the conditionality attached to the HIPC initiative, which requires candidate countries to implement a macro-stabilising programme (often focused on the need to balance the public deficit) before being eligible for debt relief. In addition, his results report a slight decrease in tax effort for countries with weak institutions following their exit from the debt relief programme, highlighting potential moral hazard behaviour by the most fragile HIPCs. Yet [Ferry \(2015\)](#) finds that HIPC and MDRI debt relief yields a higher level of tax effort on average, in keeping with the debt overhang theoretical predictions.

Lastly, although authors acknowledge the lack of external validity of their results (derived from a sole sample of HIPCs), [Cassimon et al. \(2015\)](#) identify the importance of each multilateral debt relief procedure in generating these impacts. The study posits that the positive effects on public investment and fiscal response are relatively long term and driven mainly by the fiscal resources freed up by the Enhanced HIPC Initiative debt relief, also emphasising the importance of the conditional implementation of the IMF programmes attached to it.

6. Debt relief, the Millennium Development Goals (MDGs) and institutional quality

Building on these findings, some studies have taken the research further, looking into whether these fiscal resources freed up by debt relief have actually helped improve human development outcomes.

6.1. *Impact on public education and healthcare expenditure*

Public monies freed up by debt relief initiatives are found to be reallocated to public investment (as detailed above), but could also be allocated to more specific social expenditure such as education and healthcare. [Thomas \(2006\)](#) shows that an increase in debt service (to exports) in LICs reduces the level of social spending on average. [Lora & Olivera \(2007\)](#) find that a large stock of public debt tends to reduce social expenditure. Consequently, in view of these findings and those presented above, it is tempting to believe that the multilateral debt relief initiatives might have increased social expenditure and ultimately improved social outcomes, thus helping to achieve the MDGs ([Gupta, Clements, Guin-Siu, & Leruth, 2002](#)).

Yet studies by [Martin \(2002\)](#), [Thomas \(2006\)](#), and [Lora & Olivera \(2007\)](#) point out that debt relief does not free up enough additional social expenditure to make the necessary adjustment to meet the MDGs by 2015. This has been challenged by [Gupta et al. \(2002\)](#), who show (using descriptive statistics) that the debt service savings stemming from the HIPC initiative should result in freed up resources of around 1.9 percent of GDP every year, which would be equivalent to an increase in education and health spending of 50 and 90 percent respectively. More recently and making use of econometrics, [Dessy & Vencatachellum \(2007\)](#) observe that the debt relief granted to sub-Saharan African countries from 1989 to 2003 effectively raised education and healthcare expenditure, specifically in countries that improved the quality of their institutions. In a more recent study, [Tsafack Temah \(2009\)](#) shows that the Enhanced HIPC Initiative has helped raise the level of public healthcare spending in beneficiary countries, lending empirical support to the hypothesis of fiscal space conducive to financing poverty reduction expenditure. In the same vein, [Kaddar & Furrer \(2008\)](#) show that the debt relief initiatives boosted health expenditure, but to an extent that depended on the aid provided by donors and on the success of the line ministries (in this case the health ministry) in

gaining a share of the fiscal space (if any). Yet the efforts of line ministries are often limited by asymmetric information, whereby some of them are not aware of the fiscal consequences of debt relief and the management systems in place to deal with savings from debt relief.

Despite the lack of consensus regarding the contribution of these initiatives to social spending, [Cuaresma & Vincelette \(2008\)](#) focus on the HIPC initiative's impact on education expenditure and a range of education system efficiency indicators. Their findings do not bear out the assumption that debt service savings increase public spending on education. However, the authors do show that primary education drop-out rates decrease significantly after the HIPC initiative completion point. The HIPC initiative and especially the conditionality attached to the interim period would therefore appear to have positive effects on the education system by encouraging pupils to complete their schooling, at least at primary school level. Their analysis hence suggests that the HIPC initiative does not raise primary school enrolment rates, but does significantly reduce drop-out rates and, to some extent, helps steer countries towards the universal enrolment rate (for primary education) targeted by the MDGs for 2015.

6.2. *Impact on infant mortality*

Again with respect to the MDGs, [Schmid \(2009\)](#) tests the impact of the Enhanced HIPC Initiative on infant mortality trends. He uses household data retrieved from the DHS and re-aggregated at the national level to demonstrate that the interim period between the decision point and the completion point is relatively conducive to a reduction in infant mortality rates. Nevertheless, the author points out that besides debt relief itself, this improvement also owes a great deal to the poverty reduction programme implemented during this transition phase, which was conditional on the provision of debt service cancellations. [Schmid](#) moreover explains that the rate drop does not necessarily stem from an increase in healthcare spending following debt relief and that it could also be largely due to other factors such as more traditional aid flows. He therefore feels it important to promote conditional debt relief, but in keeping with the principle of additionality firmly defended by the beneficiary countries.

A more recent study by [Welander \(2016\)](#) builds on [Schmid \(2009\)](#) and reassesses the positive effects of debt relief on infant mortality reduction. Taking a micro approach, [Welander \(2016\)](#) compares the within-mother variation in a child's likelihood of dying before the age of one. She thus compares the likelihood of surviving past the first year for babies born before the decision point with the same survival probability for the youngest sibling born after the decision point. Her findings suggest that receiving interim debt relief increases survival probability by 0.5 percentage points, hence resulting (on average) in 3,000 fewer infant deaths. Her study then goes further to show that such a reduction might be explained by growing access to vaccines in the early stage of life and pregnancy. Her results also make a strong case for conditional debt relief, since no results are observed once HIPC graduates from the completion point and receive full and irrevocable debt relief.

6.3. *Debt relief and institutional quality*

As seen from the abovementioned studies, debt write-offs might have significant social and economic effects. However, their impacts could also be of an entirely different, more institutional, nature. This point is crucial since, in an argument put forward by [Easterly \(2002\)](#), it could be said that if the causes of debt distress (poor institutions or a strong preference for the present) were to carry on unchanged, this 'business as usual' approach would produce the same effects after the debt relief.

The conditional implementation of macro-stabilisation and poverty reduction programmes could change how government bodies are run. In addition, the debt overhang approach implies that countries granted substantial debt relief are more inclined to apply effective economic policies and seek to improve their institutions. Two areas of research have focused on this issue.

The first area discusses the possible role played by institutional quality in granting debt relief programmes. This is an important focus as it could turn up reverse causality between debt relief and institutions. [Neumayer \(2002\)](#), [Chauvin & Kraay \(2007\)](#), [Presbitero \(2008\)](#), and [Freytag & Pehnelt \(2009\)](#) draw on the literature on the determinants of aid allocation to show that debt relief provision (under these initiatives) is relatively sensitive to the institutional quality of the beneficiary countries. These studies estimate the probability of receiving debt relief (and relief amount prospects) based on

various factors such as debt level, poverty rate, colonial past, the proportion of development assistance received⁹, and institutional quality.¹⁰ They find a higher probability for countries with 'good' institutions. Additionally, their results also suggest that the international financial institutions (IFIs) do indeed appear to have factored the quality of beneficiary countries' institutions more into their debt relief decisions over the years.

Yet this positive relationship between debt relief and governance did not come into being until the early 2000s, pointing to a certain 'learning curve' for the IFIs. The fact that, despite debt relief received in the 1980s and 1990s, certain countries failed to attain sustainable levels of debt due mainly to poor programme management ([Thomas, 2001](#); [Easterly, 2002](#)) is thought to have made the IFIs more stringent about institutional quality. It is put that compliance with this implicit criterion aims to ensure that the funds received through the debt relief initiatives are used correctly and do not generate new borrowing requirements. Similarly, [Asiedu \(2003\)](#) shows theoretically and empirically (but with very few data) that these countries need to achieve a minimum threshold of institutional quality for their debt relief to be effective and set them back on the road to buoyant economic growth. Building on a theoretical framework whereby she models private and foreign capital flows as a function of the reliability of a country's institutions, her findings suggest that debt relief lowers the minimum level of institutional quality required to attract foreign private investment. Yet this paper does not discuss the mechanism by which debt relief reduces these thresholds or the reasons that lead private economic agents to lend to countries with a potentially lower level of institutional quality that have been granted debt relief.

The second strand of this literature focuses on an 'ex-post' analysis of these programmes. It studies the potential impact of these initiatives on institutional quality. The first theoretical studies on debt relief ([Krugman, 1988](#); [Sachs, 1989](#)) take the idea that reducing the debt burden can encourage beneficiary governments to engage in more reforms and therefore ultimately improve their institutional quality. Some studies ([Kraay & Depetris-Chauvin, 2005](#); [Presbitero, 2008](#); and [Dömeland & Kharas, 2009](#)) test this positive relationship between debt relief and institutional quality, but do not identify such a causal effect (or correlation). They find few positive effects, but most of them remain non-significant

and tainted by debatable empirical specifications, preventing the identification of a robust causal relationship from debt write-offs to institutional quality.

6.4. Debt relief and economic growth

According to debt overhang theory, the first multilateral debt relief initiatives, namely the HIPC initiatives, were expected to improve investment prospects, boost capital accumulation and put beneficiary countries back on track to a virtuous growth cycle. The MDRI was then seen as a means to free up additional resources to foster economic and social development. Given the results discussed above and the empirical evidence provided by the existing literature, the question might be put as to whether debt relief has ultimately resulted in higher economic growth. Looking at the studies presented so far, debt relief does indeed appear to have helped beneficiary countries to improve their public finances, with significant impacts on the achievement of education and health targets. Although the effects of debt relief on institutional quality remain mixed, improvements in taxation and human capital should positively contribute to economic development and economic growth in particular. Yet the few studies that investigate this relationship directly (or indirectly taking the overall investment rate) do not turn up any positive, robust contribution by these debt cancellations to the GDP growth rate ([Kraay & Chauvin, 2005](#); [Presbitero, 2009](#); [Johansson, 2010](#); and [Marcelino & Hakobyan, 2014](#)). This may be due to the econometric limitations discussed in section 4 (regarding the study period in particular) or the difficulty of properly isolating the effect of debt relief on economic growth in view of the different channels through which its positive contribution may operate. A recent study by [Djimeu \(2018\)](#) tries to overcome these limitations using a difference-in-differences analysis. Considering forty-eight Sub-Saharan African countries (HIPCs and non HIPCs) observed over 1996-2014, he shows that, despite a positive contribution to public investment (hence supporting findings of Cassimon et al. (2015), the HIPC initiatives as well as the MDRI have had limited impacts on economic growth. Additional results suggest that the lack of effect does not depend on the institutional quality or on the access to international capital markets. Therefore, another, more run-of-the-mill, explanation could be that despite improvements in the social sectors and public finance, debt relief did not manage to secure a higher growth rate because of a number of constraints (institutional and

political, for instance) that prevented such improvements from turning into additional economic growth. However, further work needs to be done using alternative econometric techniques (refined control groups, a better control of the selection into the initiative) to identify the true impact of debt relief on GDP growth.

7. Debt relief, new financing, and lender recall

In spite of the absence of impacts on economic growth, debt relief initiatives appear to have changed beneficiary countries' access to new sources of financing. These countries were almost entirely excluded from market financing after the 1980 crisis. Nevertheless, some of them managed to borrow from non-concessional lenders after 2007. Yet the attribution of this development to debt relief is not intuitive since debt relief is a priori a mixed signal for lenders, and private creditors in particular. On the one hand, debt cancellation could be seen as a sovereign default which, according to the existing literature, leads to temporary exclusion from the international financial markets ([Cruces & Trebesch, 2013](#)) or translates into higher risk premiums ([Benczur & Illut, 2016](#)), thus making new borrowing unattainable for low-income countries with limited domestic resources. On the other hand, and as discussed above, debt relief may be perceived as improving beneficiary governments' capacity to pay, hence reassuring creditors about loan repayments (at least in the short/medium term). Yet, the potential absence of lender recall might also lead private creditors to lend to countries that defaulted in the past, thinking that, this time, it will be different ([Reinhart & Rogoff, 2009](#)).

The financial developments over the past few years suggest that the HIPC and MDRI initiatives have paved the way for new financing opportunities such as borrowing from both external and domestic private creditors ([Arnone & Presbitero, 2007](#); [Arnone, Bandiera, & Presbitero, 2008](#); [Dömeland & Kharas, 2009](#); [Ferry et al., 2016](#)). A growing number of HIPCs are now managing to finance part of their public debt on their domestic markets, hence gradually breaking away from the international financial institutions' concessional loans and their attached conditionality. Other HIPCs such as Ghana, the Republic of the Congo and Rwanda have managed to diversify their sources of financing by issuing treasury bonds on the international financial markets. It is also put that the improvement in the financial health of these countries tends to increase their attractiveness, giving them opportunities

to find new capital inflows (in the form of direct and/or portfolio investment). Hence the average maturity associated with HIPC's public debt issues more than doubled from 2000 to 2007, the sharpest growth on the continent over this period.¹¹

Focusing on external financing sources, [Ferry et al. \(2016\)](#) investigate the effects of these multilateral debt relief initiatives on changes in lending conditions associated with new official loans, and also try to see if debt relief has helped beneficiary governments to borrow from non-traditional donors such as private foreign banks. Using a difference-in-differences approach, their study tends to show that debt relief granted from the decision point onwards leads official donors to tighten their lending conditions for new loans (reduction in the average grace and maturity periods, as well as in the grant element), but also fosters access to international financial markets by increasing commitments to private external creditors. Looking further into the explanations for HIPC market access, the authors show that bearish financial dynamics in OECD countries might have pushed private investors to seek higher market returns and redirect capital flows towards LICs, wherein HIPC's were probably favoured given their renewed borrowing capacity.

Turning to domestic debt, the take-off of still-immature markets also brings new, but generally short-term sources of financing with relatively high interest rates ([Arnone & Presbitero, 2007](#); [Arnone et al., 2008](#)). Looking into the impact of debt relief on the development of new domestic sources of financing, [Presbitero \(2008\)](#) shows that an HIPC initiative debt write-off is associated with growth in domestic government debt.¹² Similarly, [Cabrillac & Rocher \(2009\)](#) observe a relatively large upturn in sub-Saharan Africa's domestic debt since the mid-1990s, mainly in HIPC countries. The debt relief initiatives would therefore appear to have encouraged the development of these financial structures which, if properly regulated, could prove extremely beneficial to these countries' development.

Nevertheless, some studies warn of the potential negative effects of international financial market access and the development of domestic bond markets in the HIPC's. Indeed, contracting new debts could still represent a threat if not effectively supervised. The beneficiary countries do not always have the capacities to endogenously and consistently collect the revenue needed to pay off these new debts. As initially suggested by [Edwards \(2003\)](#); [Arnone & Presbitero \(2007\)](#) and [Arnone et al. \(2008\)](#) stress

the need to include domestic debt in the debt sustainability framework for LICs, and HIPCs in particular, given the recent expansion of their domestic bond markets. Although the lending terms associated with borrowing from private creditors granted to these countries may well be more reasonable, they remain a huge constraint in terms of maturity and interest rates as compared with concessional financing.

In addition, in keeping with [Ferry et al. \(2016\)](#) and as anticipated by [Arslanalp & Henry \(2005\)](#) ten years ago, the multilateral debt relief initiative seems to drive a significant drop in aid flows to countries having completed the HIPC process and received ultimate debt cancellation under the MDRI. While no consensus emerges over debt relief (non-)additionality – [Ndikumana \(2004\)](#) and [Powell & Bird \(2010\)](#) show that debt relief in the 1990s and early 2000s did not imply a reduction in ODA flows – gradual withdrawal by official donors might be expected. Indeed among the multilateral creditors, the MDRI netting out effect clearly states that IDA, for the sake of equity with non-HIPC poor countries, should reduce ODA loans granted to HIPCs having completed the HIPC process. Such behaviour might also be expected from bilateral creditors which, in a context of public finance crisis, could be more selective in their aid allocation and prefer countries that had not already benefited from massive debt relief. Although very few impacts have as yet been identified in relation to this compensatory downturn, it stands to reason that they would be detrimental to the appearance of any fiscal space conducive to the development of these countries still highly dependent on foreign financing.

Huge challenges still lie ahead in terms of improving their financial health and the appearance of new financing channels. The development of new sources of financing in HIPC and MDRI initiative countries and the temptation to increasingly resort to the international financial system could, as mentioned above, place heavy financial pressures on government budgets, again making their situation unsustainable. The HIPCs could moreover easily end up making the same mistakes by ploughing new borrowing into expenditure that does little for growth in the hope that the international community will write off the new debt sooner or later. This would be extremely detrimental considering the financial sums invested and the debt relief initiative efforts made. Yet the risk is contained by the fact that most

of the borrowing open to these countries is available from a very small number of public organisations.

8. Conclusion

Debt relief was eventually granted to LICs after a long period of structural adjustment and debt restructuring. Expectations were high due to debt overhang theory stating that countries that did not want to repay their debt would experience lower investment and growth. It was then expected that debt relief would lead to higher investment, and automatically to higher growth. As debt relief is basically a kind of grant to the government, higher public expenditure was expected, namely on 'poverty reducing' expenditures (as they are coined by IDA and the IMF) and mostly in primary education and basic health. However, a few authors disagreed on the basis that the very causes that led to debt distress were likely to result in a waste of the money freed up and new, irresponsible borrowing.

A number of papers have tried to assess the impact of debt relief. This was hard immediately after the initiative due to the lack of data on the period following the debt relief. Moreover, the approach to be used to correctly assess the impact is debatable. Debt relief may be considered as a signal (econometrically speaking, making use of a dummy variable), but this is not relevant if the amount matters. In this case, what is needed instead is a measurement of debt relief by the stock of debt cancelled (which is still a signal) or a flow approach (reduction in debt service). The focus in flow-based methodology is on the amount freed up by debt relief, which may be less relevant if the country was not repaying its debt before debt relief.

Yet debt relief is not a continuous process. The HIPC initiative was designed to reduce the debt stock to a level deemed sustainable with strong attached conditionality. Yet the MDRI consists of a one-shot debt cancellation, entailing no specific monitoring by Bretton Woods Institutions.

Conclusions are evolving in the field of public revenue and public expenditure: recent studies (unlike earlier studies) find a positive impact on public expenditure (mainly investment) as well as a positive impact of debt relief on revenue. This point is important since the sustainability of public finance depends on the way the increase in expenditure is financed. Studies on the impact of debt relief on

specific types of expenditure (health and education) have also found a positive contribution for these initiatives, while those investigating the impact of debt relief on governance are less conclusive. Ultimately, the existing literature does not appear to support direct pro-growth effects resulting from these multilateral debt relief initiatives. Despite this absence of effect, a strand of literature has pointed up recent financial developments in HIPC countries (regarding both external and domestic financing), which may represent potential risks in terms of future debt sustainability.

Generally speaking, the most recent studies have qualified the relatively weak and negative findings of the analyses of the late 1990s and early 2000s. Longer observation periods and HIPC completion by many countries have given researchers the hindsight they need to identify the benefits of these programmes and the potential future risks that these countries could face, paving the way for additional research on this atypical financing strategy.

Endnotes

¹ Yet this idea has been challenged by [Marchesi & Missale \(2013\)](#), who argue more in favour of a defensive granting strategy.

² Poverty Reduction Strategy Paper.

³ Debt contracted to international financial institutions (International Monetary Fund and World Bank) and regional development banks (African Development Bank and Inter-American Development Bank). But only the remaining multilateral debt contracted before the following cut-off dates: 2003 for International Development Association's debts, & 2004 for the IMF's debts. The IADB joined the initiative after some delay.

⁴ In present value, end 2011.

⁵ The beneficiary government does not gain more cash revenue. It is simply able to reallocate a part of the resources freed up by debt relief to its preferred public expenditure category without compromising public debt sustainability.

⁶ See Panizza & Presbitero (2013) for a complete review of the debt-growth nexus in advanced economies.

⁷ The authors slightly depart from the original debt overhang, and show that increasing public debt can hamper production efficiency through its direct positive effect on the size of the informal sector: more debt might indeed translate into higher tax rates which eventually encourage tax payers to go informal.

⁸ International Development Association, World Bank fund for low-income countries.

⁹ Excluding debt relief.

¹⁰ Measured by the World Bank CPIA (Country Policy and Institutional Assessment) score and the World Governance Indicators (WGI).

¹¹ Sharper than growth on the continent as a whole, in sub-Saharan Africa as a whole and the continent excluding HIPC countries.

¹² Public debt contracted to residents.

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Appendix

Table 2. Papers Investigating the Debt-Growth Nexus in Developing Countries

Authors	Sample	Period	Dependent variable	Debt variable	Estimators	Effect of debt	Non-Linear effect of debt	DO Threshold
Kwasi Fosu (1996)	29 SSA countries	1970-1986	GDP growth	Debt stock/GDP or EXP Debt service/GDP or EXP		(+)* (+)	(-)** (-)*	. .
Cohen (1993)	81 DCs	1965-1987	Dom. investment/GDP Surprise shift in investment	Debt stock/EX Surprise shift in debt service	OLS	(-) (-)**
Desphande (1997)	13 HICs (LICs and MICs)	1975-1983 1984-191	Dom. investment/GDP	Stock of external debt/GDP	FE	(-)** (-)**
Eldadawi, Ndulu, Ndung'u. (1997)	99 DCs	1960-1994	Real pc GDP growth Private investment/GDP	Stock of debt/GDP Debt service/EX Stock of debt/GDP Debt service/EX	FE/RE FE/RE	(+)** (-)** (+)** (-)**	(-)** . (-)**
Chowdhury (2001)	60 DCs (35 HIPCs, 25 non-HIPCs)	1982-1999	Real pc GDP growth	External Debt service/GDP External Debt service/EX Stock of external debt/GDP Stock of external debt/EX	FE/RE/MFR	(-)** (-)** (-)** (-)**
Clements, Bhattacharya, Nguyen (2003)	55 LICs	1970-1999	Real pc GDP growth	Stock of external debt/GDP Stock of external debt (PV)/GDP Stock of external debt/EX Stock of external debt (NPV)/EX	FE/GMM	(+)** (+)** (+)** (+)	(-)** (-)** (-)** (-)	50% 20-25% 100-105% .
Hansen (2002)	50 (17 HIPCs, 15 HICs, 19 non-HIPCs)	1974-1993	Real pc GDP growth	Debt service/GDP	GMM	(-)*	.	.
Imbs, Rancière (2005)	87 DCs	1962-2002	Pc GDP growth	Initial stock of ext. debt (PV)/GDP Initial stock of ext. debt (PV)/EXP Avg. stock of ext. debt (PV)/EXP	OLS, FE, GMM	(-)* (-)* (-)*	.	30-40% 160%
Presbitero (2008)	114 DCs	1980-2004	Real pc GDP growth	Stock of external debt (PV)/GDP Stock of external debt (PV)/EX	GMM	(+)** (+)	(-)** (-)	.
Cordella, Ricci, Ruiz-Arranz (2010)	36 good KKZ DCs 43 bad KKZ DCs	1970-2002	Real pc GDP growth	Stock of external debt (PV)/GDP Stock of external debt (PV)/GDP	GMM	(+) (+)	(-)** (-)**	23% (irrelevance 80%) 10% (irrelevance 15%)
Pattilo, Poirson, Ricci (2011)	93 DCs	1969-1998	Real pc GDP growth	Debt service/Exports Total Debt/Exports Total Debt/GDP Total Debt (PV)/Exports Total Debt (PV)/GDP	GMM	(-) (-) (+) (+) (+)*	. (-) (-) (-) (-)*	. 95% 50% . .
Presbitero (2012)	92 DCs (LICs and MICs)	1990-2007	Real pc GDP growth	Stock of total public debt/GDP	GMM	(+)**	(-)**	27% (irrelevance 90%)
Drine, & Nabi. (2010)	27 DCs	1970-2005	Production efficiency	Stock of external public debt/GDP	Production frontier/OLS	(+)**	(-)**	84%

Notes: DCs: Developing countries – HIPCs: Heavily Indebted Poor Countries – HICs: Highly Indebted Countries – LICs: Low-income countries – MICs: Middle Income Countries. OLS: Ordinary Least Squares – FE: Fixed Effects – RE: Random Effects – MFR: Mixed Coefficients Model - *** statistically significant at the 1% level, ** at the 5% level, * at the 10% level. PV: Present-value

Table 3. Debt Relief Effectiveness (Empirical) Literature

Authors	Sample	Period	Dependent variable	Debt relief measure	Estimators	Effect of DR
<i>Journal articles</i>						
Cassimon et al. (2015)	24 HIPCs	1986-2012	Public investment/GDP	Debt service savings form debt relief/GDP	OLS, LSDV (Panel VAR)	+
			Current public primary spending/GDP			+
			Tax revenue/GDP			+
Cassimon and Van Campenhout (2008)	24 HIPCs	1991-2006	Public investment/GDP	Debt service savings form debt relief/GDP	OLS, LSDV, GMM (Panel VAR)	n.s.
			Current public primary spending/GDP			+
			Tax revenue/GDP			+
			Aid/GDP			+
Dessy and Vencatachellum (2007)	47 African HIPCs	1989-2003	Change in public health exp./GDP	Lagged stock of debt cancelled (in thousand USD)	First-Diff, SUR	-
			Change in public educ. exp./GDP			+/-
			Change in public health exp./GDP	Lagged stock of debt cancelled (in thousand USD)*Policy		+
			Change in public educ. exp./GDP			+
Johansson (2010)	118 DCs	1989-2004	Per capita GDP growth	Debt Relief Present Value	System GMM	n.s.
				Debt Relief Market Value		n.s.
				Debt Relief Present Value		n.s.
			Investment to GDP	Debt Relief Market Value		n.s.
Kraay and Depetris-Chauvin (2005)	62 LICs	1989-2003	Real per capita GDP growth	Lagged Debt Relief Present Value	First-Diff & internal instrument	n.s.
			Government spending/GDP			n.s.
			Health & educ. spending/total spending			n.s./+
			Tax revenues/GDP			n.s.
			Aid/GDP			n.s.
			Policy Quality			n.s.
			Share of Trade Taxes			n.s.
Investment/GDP	n.s.					
Ndikumana (2004)	22 donors	1980-2000	ODA disbursed by the donor/GDP	Debt relief amount Dummy variable for the decision point	OLS, FE, RE	n.s. -
	111 DCs	1997-2000	ODA disbursed by the donor/GDP	Debt relief amount Dummy variable for the decision point	OLS	+ +
Powell and Bird (2010)	42 African countries	1988-2006	Per capita Net aid transfers (log of)	Debt reduction/GDP	OLS, GMM	+
				Debt reduction ² /GDP		-
				Dummy variable for decision point		+
				Dummy variable for completion point		n.s.
Presbitero (2009)	62 DCs	1988-2007	Real per capita GDP growth	Lagged Debt Relief Present Value	FE	n.s.
			Investment/GDP			n.s.
			FDI/GDP			n.s.
			Domestic Debt/GDP			+
			CPIA			n.s.

Table 3. Debt Relief Effectiveness (Empirical) Literature (continued)

Authors	Sample	Period	Dependent variable	Debt relief measure	Estimators	Effect of DR
<i>Working Papers/others</i>						
Cuaresma and Vincelette (2009)	34 HIPCs	1998-2005	Public expenditure on education/GDP	Dummy variable for decision and completion point	Matching, Heckman	n.s.
			Public expenditure on education/Total public spending			n.s.
			Public expenditure on prim. educ./Total educ. spending			n.s.
			Public expenditure on sec. educ./Total educ. spending			n.s.
			Public expenditure on ter. educ./Total educ. spending			n.s.
			Drop-out rate (prim. educ.)			-
			Repetition rate (sec. educ.)			n.s.
		Pupil-to-teacher ratio (sec. educ.)	n.s.			
Ferry (2015)	34 HIPCs, 81 DCs	1990-2012	Tax effort (actual taxes/potential taxes) Indirect taxes/GDP	Dummy variable for decision and completion point	Diff-in-Diff	+ +
Ferry et al. (2016)	29 HIPCs, 76 DCs	1992-2015	Average grace period on new official commitments	Dummy variable for decision and completion point	Diff-in-Diff	-
			Average maturity period on new official commitments			-
			Average grant element on new official commitments			-
			PPG disbursements & commit. to priv. foreign creditors			+
Schmid (2009)	31 DCs	1996-2007	Infant mortality rate	Dummy variable for decision and completion point	Diff-in-Diff	-
			DPT immunisation			n.s.
			per capita Health expenditures (constant USD)			n.s.
			Health expenditures/GDP			n.s.
Tsafack Temah (2009)	41 HIPCs	2001-2006	General government exp. health/total health exp.	Dummy variable for decision and completion point	RE, GMM	+
			General government exp. health/total gov. exp.			+
			per capita government health exp. (PPP, USD)			+
Welander (2016)	56 DCs	1967-2014	Infant mortality	Dummy variable for decision and completion point	Diff-in-Diff	-
			Neonatal mortality			n.s.
			BCG vaccine	+		
			DPTI vaccine	+		
			Measles vaccine	+		
Marcelino and Hakobyan (2014)	35 post-CP HIPCs, 36 non-HIPCs LICs	1996-2011	Real per capita GDP growth	Dummy variable for the completion point	GMM, Diff-in-Diff	n.s.
			Investment/GDP			n.s.
Djimeu (2018)	48 SSA countries (30 HIPCs, 18 non-HIPCs)		GDP growth	Dummy variable for the interim and the post-completion point periods	Diff-in-Diff	n.s.
			Private investment			n.s.
			Public investment			+
			Foreign direct investment			n.s.

