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Fiscal rules, growth and employment: A developing country perspective

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Preface

The primary goal of the ILO is to work with member States towards achieving full and productive employment and decent work for all. This goal is elaborated in the ILO Declaration 2008 on *Social Justice for a Fair Globalization*,[1] which has been widely adopted by the international community. Comprehensive and integrated perspectives to achieve this goal are embedded in the Employment Policy Convention of 1964 (No. 122), the *Global Employment Agenda* (2003) and – in response to the 2008 global economic crisis – the *Global Jobs Pact* (2009) and the conclusions of the *Recurrent Discussion Reports on Employment* (2010 and 2014).

The Employment Policy Department (EMPLOYMENT) is engaged in global advocacy and in supporting member States in placing more and better jobs at the center of economic and social policies and growth and development strategies. Policy research and knowledge generation and dissemination are essential components of the Employment Policy Department's activities. The resulting publications include books, country policy reviews, policy and research briefs, and working papers. [2]

The *Employment Policy Working Paper* series is designed to disseminate the main findings of research on a broad range of topics undertaken by the branches of the Department. The working papers are intended to encourage the exchange of ideas and to stimulate debate. The views expressed within them are the responsibility of the authors and do not necessarily represent those of the ILO.

Azita Berar Awad
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[1] See http://www.ilo.org/public/english/bureau/dgo/download/dg_announce_en.pdf
[2] See http://www.ilo.org/employment.

Foreword

The paper argues that fiscal rules – which have become popular in recent years - need to be re-examined from a development perspective. The original set of fiscal rules inspired by the European Union's Stability and Growth Pact were too simplistic and not adapted to developing country circumstances. There has also been a tendency to conflate the more stringent convergence criteria required for currency unions with national fiscal rules – the latter would often benefit from a more flexible framework.

The paper provides empirical evidence to show that that developing countries with and without fiscal rules show no marked divergence in terms of labour market indicators, with the exception of labour productivity. Cross-country regressions suggest that fiscal rules do not have a statistically significant positive impact on either growth or domestic investment. In light of such evidence, the paper concludes that fiscal rules, if at all relevant, need to be redesigned to fit developing country circumstances better. The future lies in bringing together justifiable concerns about fiscal sustainability with mainstream development concerns about promoting growth and employment. In such an integrated framework, the primary objective is to promote core development goals in a fiscally sustainable manner, not to pursue arbitrarily specified fiscal targets.

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Abbreviations

AfDB	African Development Bank
CEMAC	Central African Economic and Monetary Community
ECCU	Eastern Caribbean Currency Union
EMU	Economic and Monetary Union
FDI	Foreign Direct Investment
HIPC	Heavily-Indebted Poor Countries
ILO	International Labour Organization
IMF	International Monetary Fund
MDGs	Millennium Development Goals
OECD	Organization for Economic Cooperation and Development
UEMOA	West African Economic and Monetary Union
UN-ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
WEF	World Economic Forum
WHO	World Health Organization

1 Introduction

1.1 Introduction

The global financial crisis has prompted a rethinking of conventional economic wisdom, including the appropriate role of fiscal policy in managing economic volatility (Blanchard et al., 2010 and 2013; Draghi, 2014).[1] Fiscal rules seek to promote macroeconomic stability, but often do not accommodate employment, growth and development objectives. This is all the more important for developing countries, where development objectives, such as the Millennium Development Goals (MDGs), come into play with regard to poverty reduction, employment promotion, education, and health (Roy et al., 2006). Several commentators argue that the current *"first generation"* design of fiscal rules is inadequate to suit country-specific circumstances (e.g. Auerbach, 2008; Dell'Ariccia, 2010; De Grauwe, 2011; Schächter et al., 2012; Wyplosz, 2012; Schmidt-Hebbel, 2014). Some of these analysts argue that these rules uncritically replicate those in place for developed economies – especially the European Union's Maastricht Criteria and its Stability and Growth Pact. The assumption – often implicit – is that improved fiscal performance will translate into enabling conditions that will create growth and employment.[2] However, robust evidence is rarely marshalled to support such a proposition.

In light of the sparse literature on the appropriate role of fiscal rules in the development process, this paper discusses the relationship between fiscal rules, economic growth and employment in low and middle-income countries. It begins by classifying fiscal rules by typology and tracing their evolution across the world. This is followed by a critical review of the literature on the rationale for and design of fiscal rules. A dedicated section assesses whether developing countries that have adopted fiscal rules do better than developing countries that have not adopted fiscal rules. This assessment is largely descriptive in nature and relies heavily on selected statistics pertaining to public debt, growth and labour market indicators. This is followed by some illustrations on the effects of fiscal rules on competitiveness, growth and investment based on cross-country regressions. The paper then considers the case of three developing countries with fiscal rules, including their fiscal trajectory and their legal framework, in order to illustrate some of the diversity of rules and policies in place. A concluding section summarizes the main findings and suggests a way forward.

1.2 Fiscal Rules: Typology, Scope and Trends

A fiscal rule represents numerical limits on budgetary aggregates during the budget cycle (Kopits and Symansky, 1998). The definition of the budget cycle may vary and the rules may target revenues, total debt stock, the annual budget deficit or specific categories

[1] The emphasis in the cited papers is on re-thinking monetary policy in an advanced country setting. Nevertheless, there is discussion of the counter-cyclical properties of fiscal policy and its primary role as an instrument for debt management.

[2] For example, one of the best known papers on this topic highlights preliminary evidence that appropriately designed fiscal rules are '…associated with better fiscal performance' (Schächter et al., 2012:37). Yet another paper argues the need for building 'budget institutions' for developing countries '…seeking either fiscal consolidation or overall fiscal discipline' (Gupta and Ylaoutinen, 2014:4).

of expenditure. Table 1., based on the taxonomy from Schächter et al. (2012), provides an overview of the different types of fiscal rules.

Table 1. Types of Fiscal Rule

Type of Rule	Description	Observations	Examples
Budget Balance Rule	Commits the government to a balance over the budget cycle	Varying degrees of complexity – many governments are refining this rule and increasingly using the structural budget (i.e. excluding the effect of automatic stabilizers) for calculation; associated with economic and currency unions	Central African Economic and Monetary Community, Chile, Eastern Caribbean Currency Union, European Union, Indonesia, Mongolia
Debt Rule	Details the size of the debt that can be acquired, and/or the maximum proportion of the budget that can be allocated to debt servicing	Associated with currency unions	Brazil, Central African Economic and Monetary Community, Eastern Caribbean Currency Union, European Union, Indonesia, Kenya
Expenditure Rule	Imposes limits on how much can be spent during the budget cycle		Brazil, European Union, Mongolia
Revenue Rule	Imposes restrictions on how revenue can be spent	Usually related to natural resources, revenue rules seek to ensure they are used for productive investments	Kenya

Source: IMF (2014) and Wyplosz (2012).

Table 2. below illustrates the number of countries with fiscal rules in place in 2014 by income category, following the national income classification system used by the World Bank in 2014.[3] The table depicts a greater incidence of fiscal rules among wealthier countries: more than half of high-income countries and 40 per cent of the upper-middle-income countries have some sort of fiscal rule. A critical factor in the adoption of fiscal rules is the existence of economic and currency unions: the Central African Economic and Monetary Community[4] (CEMAC), the Eastern Caribbean Currency Union[5] (ECCU), the Economic and Monetary Union (EMU) of the European Union and the West African Economic and Monetary Union[6] (UEMOA) impose balanced

[3] Low-income economies: GDP per capita of USD 1045 or less; Lower-middle-income economies: GDP per capita of between USD 1045 and USD 4125; Upper-middle-income economies: GPD per capita of between USD 4126 and USD 12745; and High-income economies: GDP per capita of USD 12746 or more.
[4] The CEMAC comprises Cameroon, the Central African Republic, Chad, Equatorial Guinea, Gabon and the Republic of Congo.
[5] The ECCU consists of Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia and St. Vincent and the Grenadines.
[6] The UEMOA comprises Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo

budget and debt rules upon their members. Not surprisingly, eight of the 10 low-income economies with fiscal rules are Member States of either the CEMAC or the UEMOA, while in the lower-middle-income category four out of the 11 are members of currency unions.

Table 2. Countries and Territories[7] with Fiscal Rules by Income Category (2014)

Type of Rule	Low-Income	Lower-Middle-Income	Upper-Middle-Income	High-Income	Total	Examples
Budget Balance Rules	8	12	16	33	67	Benin, Brazil, Cameroon, Chile
Debt Rules	10	12	16	30	66	Indonesia, Jamaica, Liberia, St. Kitts and Nevis
Expenditure Rules	0	1	8	31	40	Mongolia, Namibia, USA
Revenue Rules	1	0	0	4	5	Australia, Kenya
Total Countries and Territories with at least one Fiscal Rule	10	13	22	39	84	
Percentage of total Countries and Territories with at least one Fiscal Rule	28%	23%	40%	52%	39%	

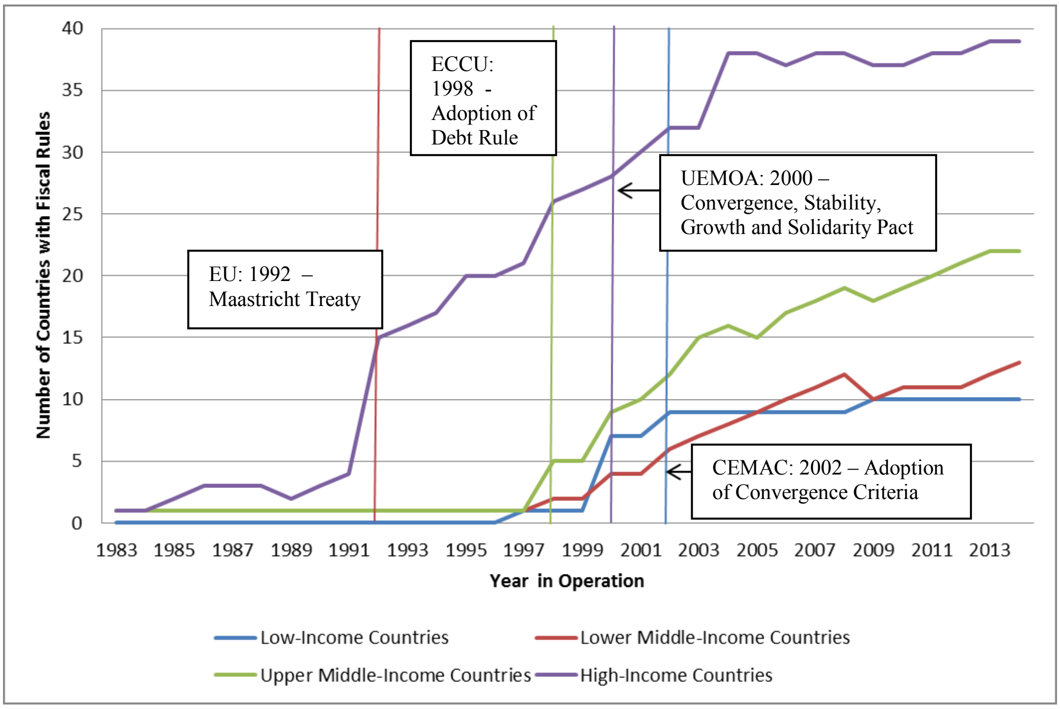
Note: countries can have more than one fiscal rule in place.

Source: IMF (2014) and World Bank (2014).

Figure 1. plots the adoption of fiscal rules over time by income group, using GDP per capita level in 2012 to define development status (according to the World Bank classification); the vertical lines reflect dates of adoption of convergence criteria agreements in currency unions. With the exception of Malaysia and Indonesia, which adopted balanced budget legislation in 1959 and 1967 respectively, high-income countries were the main adopters of fiscal rules in the period between 1985 and 1993, which was marked by the European Union's Maastricht Treaty in 1992. The next period, the interval 1997-2007, was characterized by an increase in fiscal rules adoptions by low-income and lower-middle-income countries, with the 1997 UEMOA and CEMAC blocs in Sub-Saharan Africa adopting their convergence criteria – inspired from the Maastricht Criteria (World Bank, 2013) – in 2000 and 2002 respectively. Upper-middle-income countries have also been adopting fiscal rules during the period 2000-present, with several economies in Latin America (e.g. Argentina, Brazil, Colombia and Peru) adopting fiscal rules in the aftermath of the Asian Financial Crisis. This chart suggests that developing countries mainly adopted fiscal rules in the period 1997-2013, with the initial cohort of lower-income countries doing so to facilitate currency union convergence aims.

[7] The Hong Kong SAR, China, in the high-income category, is the only territory with a fiscal rule in place.

Figure 1. Year in Operation vs. Number of Countries with Fiscal Rules according to the 2014 World Bank Income Classification



Note: Malaysia, Indonesia and Germany adopted fiscal rules earlier, in 1959, 1967 and 1982 respectively.
Source: IMF (2014) and World Bank (2014).

2 Fiscal Rules: A Critical Review

IMF literature from the 1990s to the 2000s (see e.g. Kopits and Symansky, 1998 and Schächter et al. 2012) and the figures in the previous section point to the increasing adoption of fiscal rules by countries, especially developing countries, from 1996 onwards. However, recent literature drawing lessons from the financial crisis criticises this first generation of fiscal rules as arbitrary and non-contingent on the economic situation of the country (see e.g. Kumar et al., 2009; Papadimitriou, 2011). The concern is that fiscal rules, at least as currently framed, constrain spending – especially public investment and social transfers (Chowdhury and Islam, 2012; Dessus and Varoudakis, 2013). This in turn constricts growth, stymies job creation and impedes progress towards development objectives (e.g. Francis, 2013).

Another group of commentators (e.g. Wyplosz, 2012 and Schmidt-Hebbel, 2014) focuses on the tension between framing fiscal rules such that they are credible, yet flexible. They argue that fiscal rules should allow governments to attenuate these rules during unexpected events to help the economy recover and protect the population, especially the most vulnerable. Other authors, such as Perotti (2007), criticise the original fiscal rules as being too loose and prone to "budget gimmicks" (p.35); they lacked credibility due to governments' tendencies to discard them when expedient. They advocate strengthening legal enforcement to make such rules more viable and credible.

A third group of commentators questions the need for fiscal rules at all in certain countries, given their record of self-imposed fiscal policy discipline (e.g. Simarmata, 2007) or their use of other effective budgeting policies to achieve fiscal sustainability without compromising policy space (e.g. Gollwitzer, 2012; Sharma and Strauss, 2013). Recent IMF literature (e.g. Schächter et al., 2012; Samake et al., 2013) also advocates making provisions that public investment and other priority spending objectives be exempted from fiscal rules, along with designing a well-specified escape clause to help cope with economic downturns and avoid pro-cyclical fiscal policy (Ter-Minassian, 2012). This section briefly reviews (i) the arguments for fiscal rules, (ii) the general criticisms against them, and (iii) the specific criticism linked to developing countries, before suggesting design improvements to make fiscal rules compatible with growth and development objectives.

2.1 Arguments for Fiscal Rules

Overview

Conventional economic thinking maintains that fiscal rules promote growth by providing macroeconomic stability: this creates an environment conducive to private investment and growth, thereby facilitating job creation (e.g. Arellano Cadena and Hernández Trillo, 2006). Public investment is relegated to a secondary role, focused on essential infrastructure and services. This is the view traditionally espoused by institutions such as the European Commission (European Council, 2005), the International Monetary Fund (IMF) (e.g. Kopits and Symansky, 1998), the Organization for Economic Cooperation and Development (OECD) (e.g. OECD, 2014) and the World Bank (e.g. World Bank, 2015). Economists who support this view consider fiscal rules to be signals of government commitment to medium-term macroeconomic stability (e.g. Kydland and Prescott, 1977; Kopits and Symansky, 1998; Bergman et al., 2013). Hence, they stress the need for credibility and sustainability of such rules, rather than the impact of their design on public investment and other economic variables (Roy et al., 2006). Implicit assumptions are that this credibility – and the investment climate it engenders – compensates for any losses in public investment or social protection spending imposed by such rules (especially during cyclical downturns), and that the rules will facilitate and speed up economic recovery from such a downturn.

Fiscal rules as a commitment device

Proponents hold that fiscal rules are necessary as a commitment device to bind policy-makers to balancing their budgets, lest they be tempted to spend more than is sustainable due to the shorter term gains they would derive by doing so. Without strong fiscal rules, governments may be tempted to break ex-ante commitments about prudent fiscal policy, as they stand to make immediate gains (Alesina and Tabellini, 1990). Moreover, the costs of this "time-inconsistency" usually affect the economy after the government has finished its term, which dissociates the decision-maker from its consequences. Authors such as Von Hagen and Harden (1995), Debrun and Kumar (2007) and Strawczynski (2014) describe elected governments as facing a "common pool problem" when it comes to prudently spending public funds, similar to delegating the spending decision to an agent in principal-agent analysis. This leads to a pro-deficit bias as governments cater to popular and special interests which might yield immediate political benefits (see e.g. Alesina and Perotti, 1995; Patel, 2010), rather than invest in pro-growth investments whose payoffs/dividends are not aligned with political cycles. The electoral cycle can tempt incumbent governments to favour spending sprees, for instance prior to elections (e.g. Ebeke & Ölçer, 2013; Mohan, 2014); governments are also prone to capture by special interest groups, intent on rent-seeking (de Barros Lisboa and Abdel Latif, 2013). If there are several such groups, the "voracity effect" can be a significant non-productive drain on public finances (Tornell and Lane, 1999). As such, fiscal rules are seen as a device to credibly bind governments to responsible and sustainable spending patterns.

Responding to the objective of intergenerational fairness

Besides stabilization of the economy, fiscal rules are also linked to intergenerational equity concerns and to protect future generations from the debts of their predecessors (e.g. Lee and Moon, 2013). Most societies are unwilling to saddle succeeding generations with large debts. Moreover, authors such as Samake et al. (2013) believe that policy-makers aspire to smooth government spending over their term along the lines of the permanent income hypothesis. In this respect, fiscal rules seek to spread the benefits/burdens across generations without privileging or penalising a particular cohort. Several countries explicitly enshrine this principle in their constitutions; notably, France, Germany, Hungary, Italy and Spain all adopted balanced-budget laws in their constitutions during the period 2009-2011 (Delledonne, 2012). Fiscal rules may also help mitigate some of the pressures of population ageing (Lee and Moon, 2013; Anderson et al., 2014), as they force governments to adopt policy measures to cope with rising costs due to geriatric care and pension obligations. The elderly tend to participate more frequently in elections and thereby can constitute a special interest group (Hollanders and Koster, 2012). In this respect, fiscal rules can serve as a way of preventing them from being privileged over other generations by the government due to their electoral weight.

Managing commodity revenues

Another related rationale for fiscal rules takes the form of revenue rules to make use of commodities and natural resources that are exhaustible and ensure that the benefits are spread over several generations. Examples include copper in Chile (Schmidt-Hebbel, 2014) or oil in Cameroon (Bauer, 2014) and Scotland (Fiscal Commission Working Group, 2013).[8] Due to the importance of commodities in certain economies, fiscal rules might also serve as means to protect and give space to the non-commodity sector. For instance, Medas and Zakharova (2009) find that the non-oil primary balance in many Middle East and North African oil producers is negatively related with oil prices. This suggests that when fiscal rules discriminate between oil and non-oil revenues, a more balanced economic development is achieved, by avoiding side-lining the non-oil sector. This is the reasoning underlying the CEMAC's revision of its balanced budget rule in 2008: Member Countries switched from using actual oil revenue to using a three year average, to avoid large variations in government spending linked to changes in the price of oil (IMF, 2013).

Fostering transparency and accountability

Fiscal rules are also presented as a means to help governments achieve greater transparency and accountability; Blöndal et al. (2009) note that they can form part of budgeting process reforms designed to avoid corruption and misappropriation of funds. Fölscher (2006) argues that parliamentary involvement and oversight of the budgeting process is necessary for accountability and the endorsement of government policies such as fiscal rules. The absence of fiscal rules may reflect the institutional makeup of the government, rather than sound existing fiscal policies. For instance, Elbadawi and Soto (2011) ascribe the non-adoption of fiscal rules in the Middle East and North Africa to the lack of democratic governments in the region and incomplete systems of checks and balances, along with the benefits of oil revenue. Fiscal rules can serve as a device to strengthen democracy by making governments more accountable for their spending, especially if parliament is involved in the oversight process.

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[8] This was a proposal in the event of Scottish independence in 2013.

Coordination in currency unions

A major objective of fiscal rules is to achieve fiscal and economic convergence in currency unions such as the EMU, with its Stability and Growth Pact. The IMF identifies three other such unions comprised of developing countries and using fiscal rules: the CEMAC, the ECCU and the UEMOA. In these currency blocs, fiscal rules serve as convergence criteria to integrate the markets, reduce the inflation rate and prevent individual members from embarking on large spending sprees that might strain the union (De Grauwe, 1992). Interestingly, the Multilateral Monetary Area[9] does not make use of fiscal rules at a supranational level, although Namibia has a debt and expenditure rule at the national level. Although, using panel data, Castro (2007) finds that the European Union's Stability and Growth Pact has not negatively affected growth in Member States, the impact of the Pact during the aftermath of the 2007 Financial Crisis has attracted considerable criticism from Papadimitriou (2011), Wyplosz (2012) and others about its design and implementation. As such, it is unclear how suitable the Pact is as a template for the design of fiscal rules for convergence in other currency unions like the CEMAC and the UEMOA, let alone for developing countries not involved in such unions.

Other reasons for fiscal rules

Fiscal rules can also help governments maintain realistic revenue expectations, given their systematic tendency to overestimate economic growth and fiscal developments (Gollwitzer, 2012). Other considerations might be to strengthen monetary policy, as fiscal discretion can undermine monetary policy commitments (Dixit and Lambertini, 2001). Seifert (2012) and others also argue that fiscal rules can prevent subnational deficits in federal states, as these can represent a hidden liability to otherwise fiscally-sound central governments. Many US states have balanced-budget rules. In their study of balanced budget rules in US states, Alesina and Bayoumi (1996) find that there is no cost with regard to increased output variability, although they make no mention of employment or equity concerns. Certain commentators view fiscal rules as a means of establishing the credibility of new and emerging states, especially if independence is a contested affair (Fiscal Commission Working Group, 2013).

Fiscal rules can also benefit small and developing countries by compensating for their vulnerability to external shocks and under-developed financial markets. In contrast, higher-income economies are more likely to have fiscal rules in place due to their more developed financial sectors and greater openness to capital markets: they need to reassure private investors and creditors. Kawai and Morgan (2013) argue that fiscal rules need not focus on restricting expenditure; they might also serve as a useful incentive to expand the tax base, which is often narrow in developing countries.

2.2 General Criticism

Undue numerical focus

Many criticise fiscal rules as binding, yet arbitrary and non-contingent, constraints, often with an excessive focus on numerical targets (Kydland and Prescott, 1977;

[9] The Multilateral Monetary Area comprises Lesotho, Namibia, South Africa and Swaziland. It is also different from the other currency unions in that each Member maintains their own currency, which is pegged to the South African Rand. The dominant position of South Africa, making up 95 per cent of the Area's GDP in 2013 (World Bank, 2013) may obviate the need for fiscal rules as convergence criteria.

Wyplosz, 2012). Some of the framers of the EU's Stability and Growth Pact concede that the 3 per cent budget deficit and the 60 per cent government debt targets are arbitrary and not derived from a particular theory or experience (Bofinger, 2003). Simarmata (2007) views the numerical targets prescribed by the IMF for Indonesia as equally arbitrary: he is critical that these targets did not take into account Indonesia's economic situation nor the institutional history of its government's fiscal policy. Authors also point to the difficulty in accurately forecasting the output gap and favour using target bands instead of specific targets for greater flexibility (e.g. Burger and Marinkov, 2012). In a similar vein, the Maastricht Criteria and other fiscal rules designed with economic convergence in mind risk making governments prioritise these criteria, rather than domestic growth and development objectives. Indeed, recent events seem to have vindicated this criticism. Following the outbreak of the sovereign debt crises in parts of the EMU in 2010, policy-makers decided to restore fiscal sustainability by seeking a strict enforcement of the available fiscal rules. The result was a synchronized fiscal consolidation that led to a cumulative output loss of 7.7 per cent of EMU GDP between 2011 and 2013 (Gechert et al., 2015). Indeed, the EMU has become a lesson in avoiding policy mistakes that can be engendered by a strict adherence to fiscal rules rather than an exemplar worthy of emulation by others.

Other commentators, such as Gollwitzer (2012), Sharma and Strauss (2013) view that numerical targets on their own tend to have a limited impact; they are more effective if accompanied by procedural rules, as by themselves, they can be inflexible and constrain economic policy space. Lastly, numerical targets often encourage creative accounting practices to meet them (Perotti, 2007), limiting their effectiveness in achieving fiscal objectives in the first place.

Moreover, on their own, numerical rules risk becoming the focus and end objective of fiscal policy, making governments less likely to take other considerations related to the economic cycle and development goals. Roy et al. (2006) argue that fiscal policy, including fiscal rules, places emphasis on providing for a sustainable macroeconomic environment at the expense of "inclusive" dimensions of growth. The ten developing countries that have experienced the greatest change in their human development index value in the period 1980-2013 have not had fiscal rules (UNDP, 2014). Musgrave and Musgrave (1989) and Asaju et al. (2014) point out that sound macroeconomic stability includes targeting levels of unemployment, as well as inflation and economic growth; fiscal rules should be designed to take into account employment objectives.

Risks to public investment and social policy

Another concern is that fiscal rules disproportionately constrict public investment, including social transfer payments. Dahan and Strawczynski (2013) find that OECD countries with fiscal rules tend to reduce government budget deficits by cutting social transfer payments, often with significant consequences for income equality and equity concerns. In the EMU, the coordinated fiscal consolidation between 2011-2013 were associated with a cumulative cut in public expenditure of 2.4 per cent of GDP, out of which 79 per cent was a cut in public investment and transfer payments (Gechert et al, 2015: Table 3., p.5).

The cases where public investment is exempted from the ambit of fiscal rules are criticised by some authors (e.g. Asaju et al. 2014) as possibly leading to heavy government spending without productive results. Yet this is a case for policies aiming at shoring up the quality of public investment, rather than dismissing it as a fruitless exercise. In their study of Pakistan over the period 1964-2011, Masood Ahmed and Ammad Ali (2014) identify public investment as a key driver of growth, employment creation and private investment. They are concerned that the 2013 IMF agreement with

Pakistan to reduce the budget deficit will necessarily curtail public investment, impacting on employment creation and private investment.

In the same vein, although fiscal rules are often presented as way of conserving the revenues derived from natural resources across generations, Samake et al. (2013) point out that such revenues might also be efficiently invested immediately for the benefit of the current and future generations. A necessary condition is that these revenues be used for efficient public investment aimed at expanding production for future generations to make use of. Moss (2011) and van der Ploeg and Venables (2011) suggest that saving windfalls for the future through fiscal instruments (such as sovereign wealth funds) is sub-optimal in the presence of pervasive poverty. It is socially beneficial to use revenue windfalls stemming from, say, oil bonanzas, to finance comprehensive income transfer programmes, which revenue rules would restrict. Fiscal rules can also encourage one-off measures, such as privatization, in order to meet targets. These can be harmful if the services or resources constitute public goods and are not suited for privatization due to economic or political considerations. Furthermore, privatization does not increase government income in a sustainable way and it reduces the policy space of future governments.

Pro-cyclicality of fiscal rules

The *"first generation"* of fiscal rules are often pro-cyclical: they reduce the government's ability to spend during an economic downturn while not really constraining its spending during upturns. This has been observed in both developed (Wyplosz, 2012) and developing economies (Daude et al., 2011; Bova et al., 2014; Klemm, 2014), with Gupta and Ylaotinen (2014) finding that, in the low-income countries included in their study, *"Fiscal objectives do not accommodate business cycles"*. Dessus and Varoudakis (2013) study fiscal policy in the UEMOA countries and find public investment in the currency union to be strongly pro-cyclical relative to that in other countries in the region. They link this with the monetary union's strict fiscal convergence criteria, coupled with the highly dissimilar nature of its members' economies. Von Hagen and Wolff (2004) find that EMU Member States tended to resort to creative accounting to circumvent the Stability and Growth Pact during recessions to fund recovery measures, putting the value of such fiscal rules into question.

However, Bova et al. (2014) note that newer fiscal rules, with well-defined escape clauses and cyclically-adjusted budgets, *"may be associated with less procyclicality"*. Indeed, such newer rules and prudent budgetary policies in Brazil and Indonesia gave them the policy space needed to cope with the drop in demand during the 2007-2008 Financial Crisis. This counter-cyclical policy was achieved by public investment programmes to expand infrastructure, create employment and boost domestic demand to compensate for the fall in demand for exports (ILO, 2011a and 2011b). Yet this fiscal space is only useful if governments can acquire short-term debt in order to support such programmes, requiring discretion for the budget cycle to take into account the severity and length of the economic downturn. Chile has recently modified its fiscal rule to allow for more counter-cyclical spending; in its original formulation, the rule was acyclical, constraining government fiscal policy during economic downturns (Berganza, 2012). This demonstrates that fiscal rules need to be refined, in developed and developing countries, to allow for more counter-cyclical policies and protect public investment during economic downturns.

Turner (2014) points to the globalization of international finance and capital flows as increasing countries' exposure to potential exogenous shocks, such as the recent financial crisis. Fiscal rules were seen as a means to help cope with economic downturns brought on by the business cycle, since governments would reduce deficits or might even accumulate surpluses in preparation for economic downturns. But the severity of such shocks on fiscal policy has made many authors question whether fiscal rules are effective in the presence of contingent liabilities (e.g. Kumar et al., 2009). In other words, when systemically important parts of the private sector, such as banks, accumulate unsustainable private debt, the government – both in developed and developing countries – often ends up assuming private sector liabilities. This will strain public finances despite the government pursuing prudent public debt management policies. Countries like Ireland and Spain had a budget surplus prior to the 2007 Financial Crisis, but accumulated large deficits from having to bail out the banking sector. Blöndal et al. (2009) and Francis (2013) note that the 1997 Asian Crisis similarly plunged Indonesia into a severe budget deficit after years of conservative fiscal policy, because the government had to intervene to save the banking sector. This is a critical and unresolved issue that advocates of fiscal rules need to address.

Fiscal rules at the subnational level

Another issue is the extent to which national fiscal rules can be effective if subnational units of government are not incorporated in this framework. Seifert (2012) expresses concern that Indonesia or India's fiscal prudence might be undone by state governments, negating any benefits from observing fiscal prudence at the central government. In contrast, Brazil's 2000 Law of Fiscal Responsibility imposes deficit limits on state governments and local administration, while allowing the central government a higher ceiling so that it might be better placed to assist subnational units facing financial difficulties (Araújo, 2012). In the same vein, all US States except Vermont have balanced budget rules. Indonesia's central government also retains significant control over the disbursement of funds to local government in order to control spending (Blöndal et al., 2009). Conversely, successful subnational rules may not be suitable for the central government. Notably, Alesina and Bayoumi (1996) caution against applying their findings about the performance of US states with budget balanced rules to the national level: *"one may argue that appropriate procedures may enforce fiscal discipline without the need for too constraining balanced budget rules"* (p.9). In any case, without either comprehensive fiscal rules taking subnational units into account, or fiscal rules for these units themselves, national governments will still be exposed to potential liabilities stemming from these units.

Redundancy of fiscal rules

A final general criticism holds that successful fiscal rules merely make explicit existing government policies and, as such, are ineffective; prudent fiscal policy depends on the government's institutional history rather than on the nature and design of the rule itself. In their study, Schächter et al. (2012) caution that the correlation between fiscal rules and sound fiscal performance might reflect government attempts to "lock in" the gains of fiscal consolidation (p.46), rather than a causal relationship. At other times, fiscal rules simply reflect credit-constraints faced by the countries in question and their inability to make use of external sources of financing for their investments (e.g. Kawai and Morgan, 2013; Sharma and Strauss, 2013). In the aftermath of the 1997 Asian Financial Crisis, many Asian countries embarked on conservative fiscal policies due to the limited availability of credit and a reluctance to rely on the IMF's Structural Adjustment Programmes. De facto, rather than de jure, fiscal rules, where governments accumulate savings and restrict spending during booms without formally committing to a specific policy or numerical target, may allow for more policy flexibility. This is important given the severity of recent financial crises: for instance, Indonesia observed a fairly conservative fiscal policy until this was destroyed by the 1997 Crisis (Blöndal et al., 2009). Although it violated the IMF-prescribed limits on budgetary spending, the Indonesian government has never violated the numerical targets that the government set for itself in 2004, based on its pre-1997 institutional practice (Simarmata, 2007). As such, prudent fiscal policy and successful adherence to a fiscal rule may be more linked to a government's institutional history, than to the structure of the rule itself.

2.3 The Developing Country Context

Meeting development goals

The issue of suitable fiscal rules should go beyond the discussion of how to design them to cope with business cycles. In the presence of pervasive poverty and vulnerability in many developing countries, adequate domestic resource mobilization to finance development priorities, such as meeting the MDGs (Roy et al., 2006) and social protection floors (Sharma and Strauss, 2013), needs to be addressed. Yet, fiscal rules are rarely, if ever, linked to the financing requirements of the MDGs and social protection floors. This reflects the fact that fiscal rules are concerned with constraining spending, rather than with the sustainable financing of required spending. For instance, Roy et al. (2006) note that:

> *"There have been very few systematic attempts to calculate the development payback of a scaled up public investment programme. This is so not because such a payback is difficult to calculate, but due to a paradigmatic dogmatism that views the role of public finance as being essentially prudential" (Roy et al., 2006:ii).*

Governments sometimes give development priorities a low priority in their budgeting, even in spite of international commitments such as the 2010 Abuja Declaration (WHO, 2010).[10] Fiscal rules risk further entrenching such tendencies with their focus on numerical targets and restricting public investment without taking into consideration development objectives. This is a glaring gap in the conceptualization of fiscal rules as perceived from a development perspective.

The challenge of institutional capacity

A further concern is that many lower-income countries lack the organizational and institutional capacity, due to the scarcity of human resources, to establish the strong budgeting, reporting and oversight mechanisms necessary to establish and operate effective fiscal rules (Schick, 1998; Sharma and Strauss, 2013). Without such *"pre-requisites for effective implementation*", fiscal rules are unlikely to be sufficiently tailored to the country context. In their panel study of a set of advanced, emerging and developing countries, Bergman and Hutchinson (2014) find that fiscal rules are effective at reducing policy pro-cyclicality, provided that a minimum level of government efficiency is present in the countries in question. However, they also argue that supranational rules can compensate for low government efficiency. Samake et al. (2013) caution that inefficiencies linked to the public investment process can impede the benefits of resource bonanzas. Furthermore, Moss (2011) points out that many developing countries have been unsuccessful in setting up offshore wealth funds to save such the revenues from such bonanzas for transparency purposes and future use. Instead, he suggests that these revenues be distributed to citizens via cash transfer schemes. Other commentators (e.g. Prakash and Cabezon, 2008; Gollwitzer, 2012) point to the structure of public financing

[10] The 2010 Abuja Declaration commits African countries to spend 15 per cent of their government budget on health (WHO, 2010: p.10)

institutions as important for budgeting and fiscal rule design and implementation, with hierarchal systems leading to more fiscal discipline.

Even countries with substantial administrative resources may face other priorities (i.e. other than implementing a fiscal rule) for their use. Fiscal rules and the associated mechanisms can detract from the human resource needs of other government agencies and programmes: Calitz et al. (2013) and Sharma and Strauss (2013) caution that fiscal advisory councils risk drawing on scarce human resources. They suggest that at times it is best to recognise that the institutional pre-requisites are not in place and adopt a more pragmatic approach to implementing fiscal rules or similar policies.

2.4 Suitable Fiscal Rules

The recent financial crisis and the experience of this *"first generation*" of fiscal rules has prompted economists such as Papadimitriou (2011) and Schmidt-Hebbel (2014) to question the suitability of the design of such rules in developed as well as developing countries. This sentiment is echoed by IMF authors such as Schächter et al. (2012). As noted, they now tie the design of effective fiscal rules with public investment and social protection concerns, as well as suitable escape clauses. The debate centres on the perceived need for the credible, binding commitment of fiscal rules with numerical targets, while allowing for deviations in case of short-run needs to cope with the business cycle and financial crises. These escape clauses would only be activated when the economy is in crisis. Wyplosz (2012) expresses concern about detailed definitions of economic downturns, financial crises and their duration, since these are often both unexpected and dissimilar each time. There needs to be agreement as to when and for how long fiscal rules can be suspended for in order for escape clauses to be effective. It may also be difficult for smaller low-income countries to acquire the large reserves necessary to serve as a cushion during downturns. This also poses the dilemma of whether to forego or postpone important public investment projects for the sake of acquiring this fiscal space as envisaged by these fiscal rules.

One solution is to make this a democratic decision, as in the case of Brazil, where only the Senate can decide if the country is facing an economic crisis and authorise the government to waive the expenditure and debt rules. However, such measures might take some time to agree upon and implement, slowing down the government's response and mitigating the effectiveness of temporarily discarding the fiscal constraints. Gollwitzer (2012) suggests formal delegation of budgetary oversight to an institutional agent, such as the ministry of finance, to depoliticise the targets set and decisions regarding the nature and length of an economic downturn. At the same time, the decision as to over what length of time to define a downturn is likely to remain divisive. Alternative solutions focus on improving the budgetary process, including the setting of clear definitions of what constitutes productive investments and important elements of a social protection system oriented towards protecting the poor and the vulnerable. In fact, Sharma and Strauss (2013) propose fiscal rules as a means to explicitly provide for and safeguard social transfers. As such, it is important that fiscal rules be framed to take into account development and social protection objectives.

Sharma and Strauss (2013) advocate experimenting with fiscal rules and related policy instruments to better adapt them to suit a country's needs and capacities, including identifying whether the institutional pre-requisites are in place. One option they suggest is to use a policy guideline to learn and fine tune the fiscal rule as an informal policy without formally committing to it; another is to formally adopt a rule and enhance the capacity to implement it through an iterative process. Clearly this process requires time and refinement, which need to be incorporated into the fiscal rules framework under consideration. The IMF and World Bank's (2006) "fiscal diamond" could serve as a useful framework to identify the different dimensions of government funding to reconcile fiscal rules with development objectives. It focuses on four broad axes of government fiscal space – external resources (especially concessional development assistance), debt, expenditure efficiency and revenue efforts – which could serve as a basis for designing sustainable fiscal rules without an excessive focus on numerical targets.[11]

Another possibility would be to involve experts with development, health and labour economic expertise in the design and framing process to ensure that the resulting fiscal rules are balanced, sustainable and aligned with the country's development and social protection objectives. This might include offering the technical support of, on the one hand, international organizations with expertise on fiscal policy, such as the IMF and the World Bank, and, on the other hand, labour market and health-care financing knowledge from pertinent UN agencies. Ultimately, governments need to reconcile fiscal sustainability with their country's development needs. This means explicitly taking account of development objectives and striving to expand the revenue and funding bases in order to better carry out their policies aimed at reducing poverty, increasing social protection and striving for universal health coverage.

3 Fiscal Rules and Selected Indicators

3.1 Fiscal Rules, Growth and Labour Market Indicators: Some New Evidence

A major concern about the suitability of fiscal rules for developing countries is whether or not they impede attaining development and employment objectives by constricting governments' ability to borrow and spend. Do developing countries with fiscal rules perform better in terms of growth, debt and labour market indicators? Moreover, are differences in performance linked to income level? This section seeks to answer these questions.

First, this section compares the average performance between developing countries with and without fiscal rules in terms of per capita GDP growth, central government debt and selected labour market indicators over a 16-year period (from 1997 to 2013). It uses a simple statistical analysis to assess whether the differences in performance are statistically significant and presents the results in two tables (3. and 4.). All developing countries which had some form of de jure fiscal rule as defined by the IMF's (2013) *Fiscal Rules Dataset* during part of this period were included[12], except for transition economies, the Maldives and Mongolia – the latter two only adopted their fiscal rules legislation in 2013. This data, however, includes Argentina and India, who operated under a fiscal rule for eight year and four years respectively in the period of 1997-2013.

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[11] The so-called 'fiscal diamond' derives its name from the fact that the four axes can be depicted in a graph. Such a graphical depiction constitutes the shape of a diamond.

[12] 45 developing countries have at least one fiscal rule, but data is missing for certain countries for the period from 1997 to 2013. Consequently data from 38 countries was used for the comparisons of average performance: Argentina, Benin, Botswana, Brazil, Burkina Faso, Cabo Verde, Cameroon, Central African Republic, Chad, Colombia, Republic of Congo , Costa Rica, Côte d'Ivoire, Dominica, Ecuador, Gabon, Grenada, Guinea-Bissau, India, Indonesia, Jamaica, Kenya, Liberia, Malaysia, Mali, Mauritius, Mexico, Namibia, Niger, Nigeria, Pakistan, Panama, Peru, Saint Lucia, Saint Vincent and the Grenadines, Senegal, Sri Lanka and Togo.

The growth per capita data is from the World Bank's (2014) *World Development Indicators*, while the central government debt data is from the IMF's (2014) *World Economic Outlook Database.* The labour indicators are from the ILO's (2014a) *Global Employment Trends* database and are defined as follows:

- Working Poverty – the share of working poor in total employment, defined as earning less than USD 2 a day at purchasing-power parity;
- Vulnerable Employment – the proportion of own-account workers and contributing family members in total employment;
- Labour Productivity – the value of goods and services produced by a worker during one year;
- Unemployment Rate – the percentage of the labour force that is unemployed; and
- Employment Rate – the employment-to-population ratio.

T-tests were performed to test the null hypothesis that the mean values for developing countries with fiscal rules are the same as for those without them (or in other words, to test the null-hypothesis that the difference between the mean values equals zero). The results are summarised in the two tables below, and are presented by income categories (according to the World Bank classification).

Table 3. Fiscal Rules, GDP Growth per Capita and Government Debt (1997-2013): Statistical Tests of Significance for Differences in Means

Growth per Capita (% Change)	With Fiscal Rules	Without Fiscal Rules	T-Statistic	P-Value	T-Critical Value
All Developing Countries	2.41	2.48	-0.25	0.40	1.65
Low-Income Countries	2.34	1.89	0.69	0.25	1.65
Lower-Middle-Income Countries	2.79	2.66	0.41	0.34	1.65
Upper-Middle-Income Countries	2.23	2.72	-1.00	0.16	1.65
Central Government Debt (Debt-to-GDP Ratio)	**With Fiscal Rules**	**Without Fiscal Rules**	**T-Statistic**	**P-Value**	**T-Critical Value**
All Developing Countries	66.18	64.22	0.62	0.27	1.65
Low-Income Countries	98.95	76.19	2.34	0.01	1.65
Lower-Middle-Income Countries	67.87	62.61	1.11	0.13	1.65
Upper-Middle-Income Countries	50.01	57.14	-2.38	0.01	1.65

Source: Authors' calculations based on World Development Indicators (2014).

With regard to GDP growth per capita, developing countries without fiscal rules performed marginally better overall than those with fiscal rules, mainly in the upper-middle-income category (0.5 per cent better). However, none of these differences in mean growth per capita is statistically significant (see Table 3.). In terms of central government debt, as measured by debt-to-GDP ratio, the countries without fiscal rules had slightly lower levels of debt during the period examined (overall, 2 per cent lower). This was especially the case in the low-income category, where the difference is statistically significant: low-income countries with fiscal rules had debt levels of 99 per cent of their GDP on average, whereas those without fiscal rules had an average of 76 per cent of their GDP. One explanation might be that nine[13] of the 10 low-income countries with fiscal rules are part of the Heavily-Indebted Poor Countries (HIPC) initiative, so their existing central government debt in the 1990s was very high. Since then, the HIPC initiative only partially wrote off these governments' debts. Fifteen of the remaining 24 low-income countries without fiscal rules were part of the HIPC initiative, which may reduce the debt burden in that subset. In the upper-middle-income category, the countries without fiscal rules tended to accumulate 7 per cent more central government debt on average, perhaps reflecting more developed economies' easier access to external and internal finance (Kawai and Morgan, 2013): they can borrow more easily and thus have higher debt levels if unconstrained by fiscal rules.

Table 4. Fiscal Rules and Selected Labour Market Indicators (1997-2013): Statistical Tests of Significance for Differences in Means

Working Poor (% Pop earning less than 2 USD)	With Fiscal Rules	Without Fiscal Rules	T-Statistic	P-Value	T-Critical Value
All Developing Countries	42.25	43.43	-0.77	0.22	1.65
Low-Income Countries	74.50	76.78	-1.68	0.05	1.65
Lower-Middle-Income Countries	54.79	38.10	8.97	0.00	1.65
Upper-Middle-Income Countries	12.40	14.20	-1.69	0.05	1.65
Vulnerable Employment (% Labour Force)	**With Fiscal Rules**	**Without Fiscal Rules**	**T-Statistic**	**P-Value**	**T-Critical Value**
All Developing Countries	58.44	57.10	1.07	0.14	1.65
Low-Income Countries	86.94	78.82	6.49	0.00	1.65
Lower-Middle-Income Countries	68.59	57.62	7.05	0.00	1.65
Upper-Middle-Income Countries	32.67	32.49	0.16	0.44	1.65
Labour Productivity (Output per Worker, 2005 base)	**With Fiscal Rules**	**Without Fiscal Rules**	**T-Statistic**	**P-Value**	**T-Critical Value**
All Developing Countries	6785.49	5054.68	6.06	0.00	1.65
Low-Income Countries	1109.08	952.57	3.53	0.00	1.65
Lower-Middle-Income Countries	3108.05	3475.69	-2.26	0.01	1.65
Upper-Middle-Income Countries	13021.38	11777.58	2.99	0.00	1.65
Total Unemployment (% Labour Force)	**With Fiscal Rules**	**Without Fiscal Rules**	**T-Statistic**	**P-Value**	**T-Critical Value**
All Developing Countries	8.31	8.80	-1.63	0.05	1.65
Low-Income Countries	6.56	5.83	2.94	0.00	1.65
Lower-Middle-Income Countries	6.83	9.47	-4.23	0.00	1.65
Upper-Middle-Income Countries	10.47	11.14	-1.35	0.09	1.65
Employment Rate (Employment as % of the Population)	**With Fiscal Rules**	**Without Fiscal Rules**	**T-Statistic**	**P-Value**	**T-Critical Value**
All Developing Countries	60.34	59.59	1.19	0.12	1.65
Low-Income Countries	65.99	71.32	-5.50	0.00	1.65
Lower-Middle-Income Countries	59.24	57.22	2.05	0.02	1.65
Upper-Middle-Income Countries	57.30	50.00	9.42	0.00	1.65

Source: Authors' calculations based on the Global Employment Trends (2014a).

[13] As of September 2014, eight low-income countries with fiscal rules had completed the HIPC initiative (IMF, 2014): Benin, Burkina Faso, Central African Republic, Guinea-Bissau, Liberia, Mali, Niger and Togo. Chad was classified as in the process of completing the HIPC initiative.

Table 4. shows that lower-middle-income countries with fiscal rules tend to have a statistically significant higher share of working poor than those without such rules (16.7 per cent more). This might be due to the limited scale of social protection schemes in place for countries with fiscal rules in that category, owing to the limited funds available. Many such countries face challenges in increasing their revenue base to fund comprehensive schemes, an example being Indonesia (Blöndal et al., 2009). Among low-income and upper-middle-income countries, the difference between countries with and without fiscal rules is not statistically significant.

Secondly, all income categories of developing countries with fiscal rules have a higher share of vulnerable employment than those without, although this difference is statistically significant only in the low-income and lower-middle-income subsets. In the low-income category, the difference amounts to 8.1 per cent of the labour force on average, while it is 11 per cent in the lower-middle-income category.

With regard to labour productivity, workers in developing countries with fiscal rules appear to be on average more productive than those in countries without such rules. This is especially evident in the upper-middle-income (the productivity gap is approximately 1244 USD on average) and in the low-income economies (the productivity gap is approximately 157 USD on average). Among the lower-middle-income economies, those without fiscal rules perform better, with workers producing roughly 368 USD more than those in countries with fiscal rules. This is the only labour market indicator for which all differences in mean output per worker are statistically significant.

In terms of unemployment, results were mixed. Countries with fiscal rules tend to perform better than those without them, in the lower and upper-middle income categories. Among the low-income economies, those with fiscal rules have unemployment rates of 0.7 per cent higher on average than those without them for this time-period. In contrast, among lower-middle-income countries, those with fiscal rules had unemployment rates on average 2.64 per cent lower than those without fiscal rules.

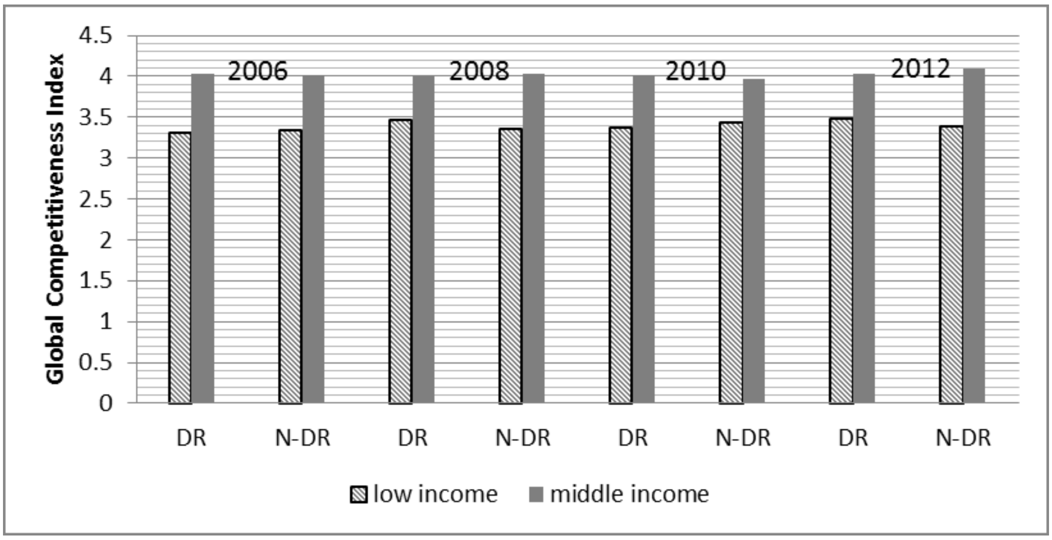
Results were similarly mixed with regard to the employment rate of developing countries with and without fiscal rules. In the lower and upper-middle-income subsets, countries with fiscal rules had employment rates 2 per cent and 7.3 per cent higher than those without fiscal rules respectively. In contrast, in the low-income subset of countries, those without fiscal rules had employment rates around 5.3 per cent higher on average than those with fiscal rules.

3.2 Fiscal Rules and Competitiveness

The implementation of fiscal rules is understood to provide sustainability and responsibility to fiscal policy and thus yield better budgetary outcomes. This is expected to generate more confidence in the economy and increase growth through higher investment. Following this logic, are countries that adopt fiscal rules more attractive as investment destinations? Figures 2. and 3. show the performance of low and middle-income countries with and without fiscal rules in terms of competitiveness, using the World Economic Forum's (WEF) competitiveness index (fiscal rules are not part of the construction of the index). The World Economic Forum (2013) defines competitiveness as '*the set of institutions, policies, and factors that determine the level of productivity of a country [...] The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to grow faster over time*'.

Countries with fiscal rules (debt rule and balanced budget rule) do not appear to perform better than countries without fiscal rules in terms of the WEF competitiveness index. Regarding the debt rule, as per Figure 2, middle-income countries exhibit a higher competitiveness index compared to low-income countries, but there is not much variation between countries which adopted this rule and countries which did not. There is also small variation in performance over time (in both income categories). Middle-income countries with balanced budget rules (Figure 3.) also have a stable trend over time, with a narrowing gap between countries that adopted the rule and countries that did not. Low-income countries with balanced budget rule exhibit a lower competitiveness score than countries without this fiscal rule, but this gap has also been shrinking in the last decade.

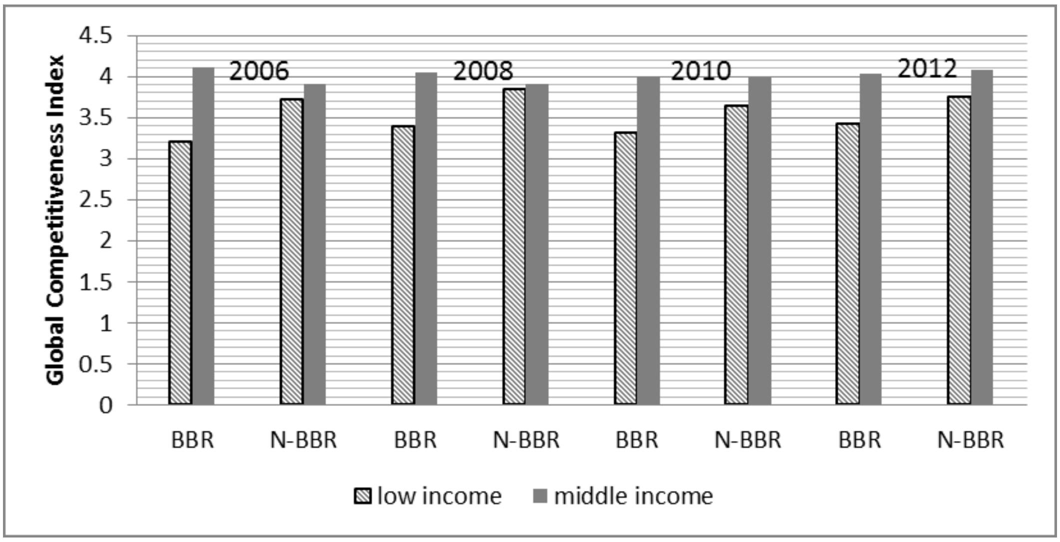
Figure 2. Debt Rules and Competitiveness in Low and Middle-Income Countries



Note: DR: debt rule; N-DR: no debt rule

Source: World Economic Forum (2013) and IMF Fiscal Rules Database.

Figure 3. The Balanced Budget Rule and Competitiveness in Low and Middle-Income Countries



Note: BBR: balanced budget rule; N-BBR: no balanced budget rule

Source: World Economic Forum (2013) and IMF Fiscal Rules Database.

Although there is no evidence that countries with fiscal rules perform better in terms of competitiveness compared to countries without such rules (at least in the WEF index), the real effects of fiscal rules should appear (in case they do) on growth and its main driver, investment (both local and foreign). As argued in the literature, the commitment from a government with a sound fiscal rule would act as a credible signal regarding stability (with public finances in order). This would, in turn, attract investors seeking for a stable environment for investment.

3.3 Fiscal Rules and Investment

Some studies on advanced countries analyse the impact of fiscal rules on economic growth in European countries (Castro, 2007; Afonso and Tovar Jalles, 2012) and conclude that fiscal rules do have a positive impact on growth (however, their size effects are rather moderate). In this section, we provide some illustrations on the effects of fiscal rules on GDP per capita, investment and foreign direct investment (FDI) for a sample of low and middle-income countries[14] over the period 1990-2012. We build a simple panel dataset to study the relationship between the most common fiscal rules (the debt rule and the balanced budget rule) and growth, investment and FDI based on well-known cross-country growth equations[15] (Barro and Sala-i-Martin, 2004). In this sense, the results presented here are illustrative. The emphasis on illustration as opposed to comprehensive evidence stems from the fact that panel regressions have well-known limitations (reverse causality, omitted variable bias, among others) so that the results presented here should be considered with care. With this caveat in mind, the reader's attention is drawn to the results that are reported in a technical appendix to this paper.

Table A2. in the appendix shows the impact of fiscal rules (balanced budget rule and debt rule) on GDP per capita growth. The regressions include the most general determinants of growth (the investment rate, government consumption and human capital accumulation) as well as the lagged level of GDP to account for convergence. In addition, we include robust standard errors and report both results with and without time fixed effects to show the consequences of including year dummies. The results of the control variables have the expected signs (Barro and Sala-i-Martin, 2004). However, the estimates for the fiscal rules do not appear to have a positive effect on GDP per capita growth. The debt rule is not significant in all estimations. The balanced budget rule is also not significant without time fixed effects, but becomes significant with time fixed effects and presents a quite large and negative coefficient. This is an interesting result due to the size of the estimated negative impact on growth and deserves further research along the lines indicated here to test its robustness.

When we use investment as the dependent variable (in Appendix Table A3.) we find that both fiscal rules do not have a significant effect on the investment rate. In this specification the major controls are population and GDP per capita growth (two proxies of the market's purchasing power) and the inflation rate, which has a negative sign, as expected (see Table A3.). While fiscal rules do not appear to affect local investment, the results appear to be different with respect to FDI. Appendix Table A4. presents the results for the effect of both balanced budget and debt rules on FDI. Both rules appear to have positive and (marginally) significant estimates: countries adopting either fiscal rule would experience an increase of 1.4 percentage points on the share of FDI than countries without such a rule (although the results lose significance when time fixed effects are

[14] The list of countries is the same as in Appendix 2.
[15] The baseline specification is the first column in each regression table.

added). At the same time, one should not ignore other determinants of FDI such as the GDP per capita growth in the previous year as a robust driver of growth and government consumption, and inflation levels as deterrents of FDI.

Although the results of these illustrations should be interpreted cautiously, it is worth noticing that there is no evidence that fiscal rules contribute to better growth or investment outcomes (the exception being FDI). As per Appendix Table A2., fiscal rules do not appear to significantly affect growth in the case of low and middle-income countries. These results, in addition to the mixed results discussed previously (in terms of growth, debt and labour market indicators and competitiveness performance), would suggest a more cautious stance regarding policy advice on fiscal rules implementation in developing countries.

4 Country Case Examples

This section presents brief examples of the fiscal rules in three developing countries. The aim is to illustrate how these rules apply in specific country contexts, including the factors underlying their adoption and their legal implications. The examples chosen are meant to reflect cultural, economic and geographic diversity. Brazil and Indonesia were chosen as they are large emerging economies and can marshal considerable resources in their budgets. They have differing institutional experiences with fiscal policy, with Indonesia having adopted a balance budget rule very early in 1967. In contrast, Cameroon is a smaller economy and has a less developed infrastructural and institutional base. Commodities play an important role in these three economies. Cameroon is also different in that it is subject to a supranational, rather than a national, fiscal rules regime, linked with the CEMAC convergence criteria. The fiscal trajectory of the countries, presenting the growth of GDP per capita and the debt-to-GDP ratio[16] trends, is shown graphically for each country, along with the year of adoption of the fiscal law. Each example concludes with brief descriptions of some of the challenges these countries face in terms of macroeconomic and labour market policies.

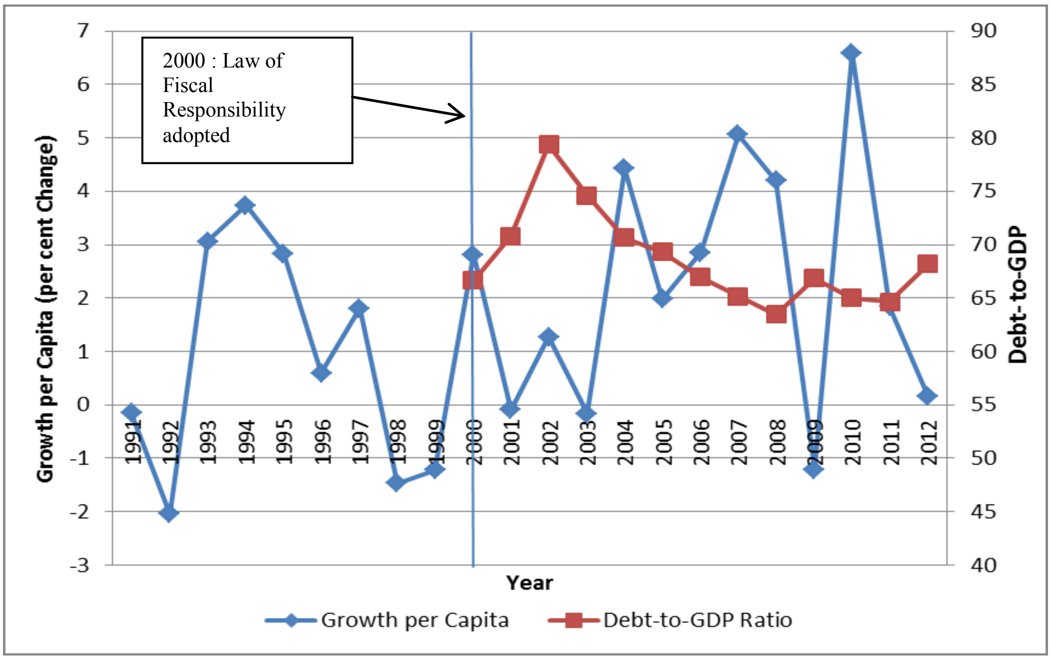
4.1 Brazil

The Brazilian economy faced high inflation in the early 1980s, despite primary fiscal surpluses up until that point. The deteriorating economic situation was a major political preoccupation, precipitating the transition to democracy in 1985 and leading to a number of inflation stabilization plans enacted by the succeeding governments. These focused on wage and price freezes, starting with the 1986 Cruzado plan, but none reduced the inflation levels to the satisfaction of the Government until the 1994 Real Plan (Gracia et al., 2014). While civil service wage and salary freezes constituted the fiscal dimension of these plans, they paradoxically occurred at a time of increased social spending linked with supporting disadvantaged groups in society. Indeed, Gracia et al. (2014) highlight that unemployment benefits were introduced as part of the 1987 Bresser Plan, while the national health insurance scheme, the Sistema Único da Saúde, was created in 1990. Many of these social and welfare schemes were anchored in the 1988 Constitution, reflecting the social preoccupation for a more inclusive society (de Barros Lisboa and Abdel Latif, 2013).

[16] While data for GDP per Capita Growth is available from 1990 onwards, the debt-to-government ratio is only available as of 2000 onwards.

The 1998 Crisis induced Brazil to introduce measures to ensure fiscal surpluses (ILO, 2011a), most notably the Law of Fiscal Responsibility (IADB, 2007). While Araújo (2012) analyses the Law in terms of reassuring investors and lenders following the crisis, de Barros Lisboa and Abdel Latif (2013) link it to a need to ensure the long-term viability of government finances for the social programmes adopted as part of the 1985 re-democratization. The ILO (2011a) notes that the budget surpluses accumulated was necessary in order to ensure social protection and alleviate the impact of the economic downturn on the most vulnerable during the 2007 Crisis, without commenting on whether the Law of Fiscal Responsibility was a necessary tool to accumulate this "protection cushion". President Rousseff had earlier evoked the possibility of modifying the Law of Fiscal Responsibility to cope with the impact of the 2007 Financial Crisis only to face strong protest from the business community (Reuters, 2012), but no immediate action is planned.

Figure 4. Brazil, GDP per Capita Growth vs. Debt-to-GDP Ratio



Source: IMF (2014) and World Bank (2014).

Since Brazil adopted the Law of Fiscal Responsibility in 2000, growth per capita has been increasing overall, though this seems to have been the trend in the 10 years prior to 2000 as well. Hence, one cannot suggest that the Law of Fiscal Responsibility provided the institutional basis for higher growth. Furthermore, growth volatility remains a challenge. There were declines in GDP per Capita in 1992, 1998-1999 and 2009, representing the different crises, but the overall trend has been an increasing, if highly volatile, growth rate. Similarly, the debt-to-GDP ratio increased until it reached 79.4 per cent of GDP in 2002, before stabilising in the region of 65-70 per cent of GDP from 2005 onwards. In terms of labour market and poverty indicators, the number of vulnerably employed workers decreased from 35 per cent to 28 per cent of the labour force in the period 2004-2008, while unemployment increased significantly from 6.0 per cent to 9.6 per cent of the labour force between 1993 and 1999, after which it steadily decreased until it reached 6.7 per cent in 1999.

The 2000 Law of Fiscal Responsibility encompasses the federal, state and municipal levels of Government (Araújo, 2012) and is outlined in the Table 5.:

Table 5. The Brazilian Law of Fiscal Responsibility

	Ceiling	Time-period for measurement	Time-frame for readjustment (if ceiling is broken)	Penalties	Notes
Expenditure Rule (since 2000)	50 per cent of current spending (federal level); 60 per cent of current spending (state and municipal levels)	4 months	8 months	Prison terms (outlined in the Fiscal Crimes Law)	Includes pensions, payments to subcontractors
Debt Rule (since 2000)	120 per cent of current revenue (national and state level)	12 months	12 months	None	No borrowing permitted; No loans between federal, state and municipal governments permitted

Source: Araújo (2012) and IMF (2014).

The Law of Fiscal Responsibility requires the presentation of fiscal administration reports at four-month intervals, with a detailed account of budget execution and compliance with the provisions of the fiscal rules. There is also a Golden Rule provision, whereby net borrowing cannot exceed the volume of capital spending. The Federal Government determines the debt-accumulation limits of States (Bastos and Pineda, 2011). The Law of Fiscal Responsibility contains two escape clauses which suspend the application of the debt ceiling. The first escape clause applies in case of a Congress-declared state of national calamity or state of siege. The second one applies in case of economic recession, defined as a growth rate of less than 1 per cent of GDP over a period of one year. In the latter case, the period for redressing a breach in the debt ceiling is doubled to two years (IADB, 2007).

The Central Bank of Brazil and the Treasury Department also play a role in managing public debt, notably through the Annual Borrowing Plan. The stated objectives are to convert bonds to longer-term yields, to diversify the borrowing base and to create a secondary debt market (Araújo, 2012). The latter two objectives require a degree of macro-economic stability and militate in favour of comprehensive fiscal rules. The continuing task of expanding the coverage of the social protection system, especially employment insurance, and the need for investment in education remain important challenges for Brazil (ILO, 2011a), but the way the Government has used the Law of Fiscal Responsibility suggests that it is reasonably well aligned with growth and employment objectives.

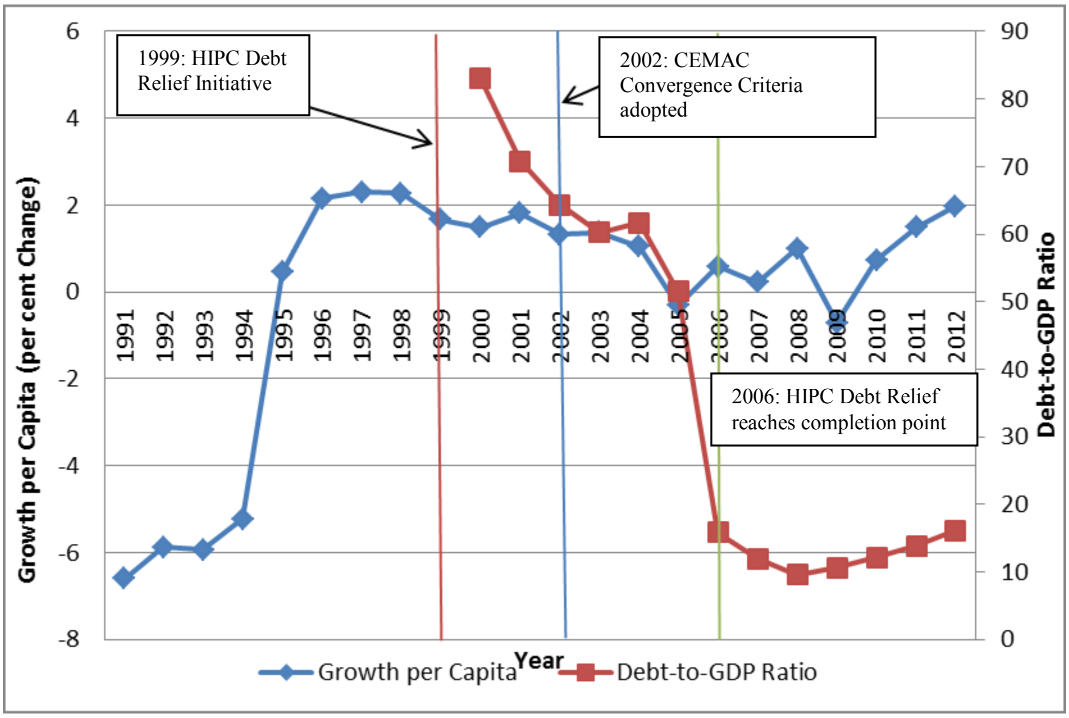
4.2 Cameroon

Cameroon is a member of the Economic and Monetary Community of Central Africa (CEMAC), sharing a common currency, the CFA Franc, with the Central African Republic, Chad, Equatorial Guinea, Gabon and the Republic of Congo. The CEMAC Member States convergence criteria are inspired by the European Union's Maastricht

Criteria and aim to foster intra-regional trade and integration. Earlier on, Cameroon had embarked on a series of reforms to address the consequences of stagnation at the behest of the IMF and other development partners; this included participating in the Heavily-Indebted Poor Countries (HIPC) initiative in 1999, where some of its debts were gradually forgiven.

In Cameroon, oil continues to play a large role in government finances, despite constituting only 15 per cent of GDP and the economy being more diversified than that of neighbouring oil-producing countries (Samake et al., 2013). Oil revenue has been subject to fiscal rules since 1985 to take into account depleting reserves and the volatility of oil prices. The IMF sponsored a zero overall budget balance target as part of its Poverty Reduction and Growth Facility for 2000-04, but with limited results in terms of growth. Iossifov et al (2009) argue that Cameroon could engage in further deficit spending to bolster growth and infrastructure improvements, including in human capital. However, several authors (e.g. Samake et al., 2013) express concerns about low administrative capacity, governance challenges, and their impact on the efficiency of public investment. In this context, the fiscal rules of the CEMAC convergence criteria are presented as a means of compelling the government to prioritise certain spending objectives relating to development goals.

Figure 5. Cameroon, GDP per Capita Growth vs. Debt-to-GDP Ratio



Source: IMF (2014) and World Bank (2014).

Figure 5. shows that Cameroon has been reducing its debt levels from 2000, when the time series begins and prior to the CEMAC's adoption of its balanced budget rule in 2002. Cameroon benefitted from the Heavily-Indebted Poor Countries (HIPC) initiative in 1999, where some of its debts[17] were gradually forgiven, which accounts for the steady reduction in the national debt seen on the graph above. Samake et al. (2013) note that

[17] At the completion point in 2006, this amounted to a reduction of 27 per cent of Cameroon's external debt burden, after traditional debt relief measures (AfDB, 2006).

while the debt to GDP ratio remains reasonably low, they remain concerned that the expected path for the primary deficit over the medium-term is quite high, as debt levels appear to be slowly, but steadily rising since 2008. Growth in GDP per capita also increased from -5.2 per cent to 0.5 per cent between 1994 and 1995, before the CEMAC adopted its fiscal rules. Since then, it has remained mainly in a band between 0 per cent and 2 per cent, aside from 2005 and 2009 when Cameroonian growth per capita was negative. Between 1996 and 2012, vulnerable employment gradually decreased from 81 per cent to 75 per cent of the labour force, while the unemployment trend has been more erratic, swinging from 3.4 per cent of the labour force in 1995 to 8.1 per cent the following year, and then decreasing to 3.8 per cent in 2012.

The 2002 CEMAC convergence criteria are outlined in the Table 6.:

Table 6. The CEMAC Convergence Criteria

	Ceiling	Time-period for measurement	Penalties	Notes
Balanced Budget Rule (since 2002; modified 2008)	Revenue minus expenditure must be in balance or surplus	12 months	None	Expenditure excludes foreign-finance capital expenditure; Revenue side excludes grants
Debt Rule	70 per cent of current GDP	12 months	None	
Inflation Target	3 per cent	12 months	None	

Source: Leke (2012) and IMF (2014).

In 2008 the CEMAC Commission introduced two supplementary criteria. First, the basic structural fiscal balance as a proportion of nominal GDP should be in balance or surplus, a concept derived by replacing actual oil revenue with its three-year moving average to reduce volatility in revenue accounting. Second, the non-oil basic fiscal balance as a proportion of non-oil GDP should be in balance or in surplus, which should also partially shield government finances from the effects of volatility in the price of oil (IMF, 2013). There are no penalties for breaking any of the targets, with the CEMAC Commission relying on entreaties from its members and other governments to encourage a Member State to adhere to the targets.

Although there exists a multilateral surveillance mechanism to independently monitor adherence to the convergence criteria, commentators such as Iossifov et al. (2009) and Leke (2012) feel it could be improved. However, the limited resources available to Cameroon and the pressing need to tackle a shortfall in infrastructure and human capital investment make it difficult to see the strengthening of the surveillance mechanism as a priority for the development of Cameroon and the CEMAC in the near future. In short, it is doubtful whether supranational fiscal rules have enabled Cameroon to meet its core development and employment objectives.

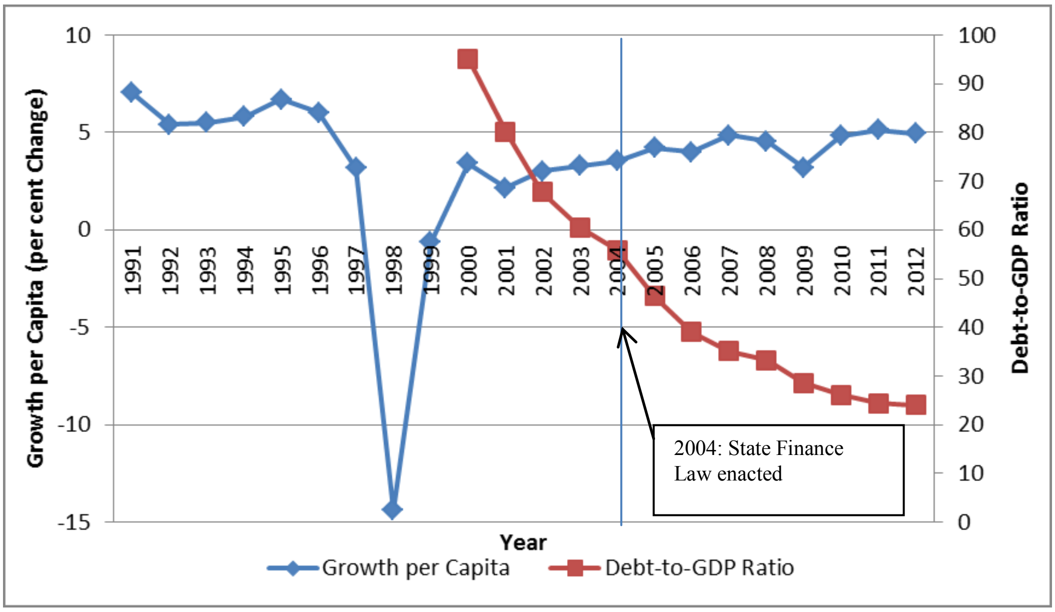
4.3 Indonesia

Indonesia originally adopted its balanced budget rule in 1967, during the transition to the *New Order* under Suharto. The difficult economic situation inherited from the Sukarno administration prompted the new government to adopt a conservative fiscal policy to reduce government debt and inflation (Kingsbury, 2005). This led to Indonesia having been consistently described as having a conservative fiscal policy prior to the

1997 Asian Crisis (Kingsbury, 2005; Simarmata, 2007; Blöndal et al., 2009; Francis, 2013).

Indonesia was badly affected by the Asian Financial Crisis despite having a relatively low public debt (25 per cent of GDP) and a current budget surplus immediately prior to the crisis (Blöndal et al., 2009). The rising deficit reflected the cost of shoring up the banking sector and the government's limited access to domestic and international credit, aside from the IMF, due to political instability. As a result, the government refrained from increasing the budget deficit beyond 2.5 per cent of GDP during the crisis by cutting public investment and spending earmarked for development projects. Since then, it has steadily decreased its debt level by both limiting government spending and expanding the revenue base.

Figure 6. Indonesia, GDP per Capita Growth vs. Debt-to-GDP Ratio



Source: IMF (2014) and World Bank (2014).

From Figure 6., it seems that Indonesia was well on the way to reducing its debt-to-GDP ratio before 2004, having already gone below the 60 per cent of GDP threshold mentioned in its 2004 fiscal law in the period 2002-2003. Since 2006, debt levels have remained below 40 per cent of GDP, reinforcing Simarmata's (2007) view that Indonesia's fiscal law came into being to codify existing policy and to reinforce the confidence of foreign investors and institutions such as the IMF. Growth per capita has been between 2 per cent and 5 per cent since recovery from the Asian Crisis in 1999-2000. The number of working poor culminated at 66 per cent of the labour force in 2003, before decreasing to 62 per cent by 2012. Unemployment peaked at 11.2 per cent of the labour force in 2005, before almost halving to 6.1 per cent by 2012.

Francis (2013) notes that Indonesia's conservative fiscal policy might impede its progress towards its national development and equity objectives, especially if revenue is not increased by improving tax collection. In 2007, 1 per cent of taxpayers contributed 60 per cent of the tax-derived income (Blöndal et al., 2009). For their part, Kawai and Morgan (2013) consider the use of generic food and fuel subsidies to be a large drain on the treasury, amounting to 25.1 per cent of the 2013 government budget (Wihardja, 2013). As such subsidies do not target only the poorest, Kawai and Morgan (2013) advocate switching to direct monetary transfers to the poor instead.

Indonesia's 2004 State Finance Law and Government Regulation 23/2003 is directly inspired from the Maastricht Criteria of the European Union (Blöndal et al., 2009; Wihardja, 2013); the fiscal rule component is outlined in Table 7., below:

Table 7. State Finance Law and Government Regulation 23/2003 of Indonesia

	Ceiling	Time-period for measurement	Time-frame for readjustment (if ceiling is broken)	Penalties
Balanced Budget Rule (since 1967)	3 per cent of GDP in any given year	12 months	12 months	None
Debt Rule (since 2004)	60 per cent of current GDP (central and local level)	12 months	12 months	None

Source: Blöndal et al. (2009) and IMF (2014).

The law also forms part of a wider set of regulations, aimed at improving budgeting and audit procedures. Blöndal et al. (2009) links this to a desire for more fiscal control and discipline in the light of the delegation of revenue-raising and spending-powers to local government, as well as to reduce the scope for corruption and misappropriation of funds.

A major challenge remains the large size of government food and fuel subsidies, especially as these are not specifically directed at the poor and constitute a large portion of government spending (Kawai and Morgan, 2013). The large size of the informal economic sector also poses a challenge, as workers in it contribute less to social insurance schemes (ILO, 2011b) and their non-participation in the formal economy limits the tax base and subsequent government revenue base.

5 Concluding Remarks

In the 1990s and early 2000s, the IMF and others were promoting fiscal rules as a means of establishing credible fiscal responsibility and macroeconomic stability. The impact of the 2007 Financial Crisis and careful analysis of the performance of the first cohort of developing countries has revealed that the original set of fiscal rules inspired by the European Union's Stability and Growth Pact were too simplistic and not adapted to their circumstances, in most cases. There has also been a tendency to conflate the more stringent convergence criteria required for currency unions with national fiscal rules – the latter would often benefit from a more flexible framework.

One exception might be countries that are large commodity exporters, where large shifts in price can have a significant impact on their revenue. Still, certain authors have remarked that developing countries where fiscal rules were seen as effective, such as Indonesia, had a record of conservative fiscal policy and the institutional and administrative resources to support such a framework. As such, the rule merely enshrined an existing institutional policy of the government.

The developing countries with and without fiscal rules show no marked divergence in terms of labour market indicators, with the exception of labour productivity. This suggests that fiscal rules, if at all relevant, need to be redesigned to fit local circumstances better and to be compatible with other development, economic growth and employment objectives.

In light of the above conclusions, what is the way forward? A lot depends on the rationale behind the adoption and implementation of fiscal rules in developing countries. Focusing on debt sustainability is essential, but not sufficient. Fiscal policy in general, and fiscal rules in particular, are crucially incomplete in low and middle-income countries if they are disconnected from mainstream development concerns.

This is where bringing fiscal rules within the broad remit of development finance remains a challenge. What is needed is an approach that consistently advocates the essential principles of a sustainable resource mobilization strategy geared towards meeting core development and employment goals. This should have a dual dimension: (a) a short-term one in which governments develop the fiscal and institutional capacity to cope with business cycles; and (b) a long-term one in which sustainable spending plans are developed to meet nationally adapted MDGs and social protection floors.[18] This is where the notion of a 'fiscal diamond' (IMF and World Bank, 2006), which identifies both internal and external sources of sustainable financing, can play a crucial role in guiding fiscal objectives.[19] As the literature stands now, the integration of development finance with the mainstream literature on fiscal policy is yet to take place. While commendable efforts have been made to estimate spending requirements of low and middle-income countries within an explicit development framework, and while the need for raising domestic revenue as a proportion of a developing country GDP has often been made, this strand in the development finance literature seem to have evolved independently of the literature on fiscal policy, that is still overwhelmingly governed by issues pertaining to fiscal sustainability. The future lies in bringing together justifiable concerns about fiscal sustainability with mainstream development concerns about promoting growth and employment. In such an integrated framework, the primary objective is to promote development in a fiscally sustainable manner, not to pursue arbitrarily specified fiscal targets.

[18] Examples include UN-ESCAP (2013) and ILO (2008).
[19] As noted, the 'fiscal diamond' is discussed in an important 2006 Report of the Development Committee of the World Bank and IMF. Unfortunately, it has not been used extensively enough since then.

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Annex

Appendix 1: Regression Tables

Table A1.: Description of Variables

Variable	Description	Source
gdp_ca_growth	Growth rate of GDP per capita	World Development indicators
gdp_ca	Level of GDP per capita	World Development indicators
investment	Gross Fixed capital formation as percentage of GDP	World Development indicators
YR_sch	Average years of schooling (population 15-65 years old)	Barro-Lee Database
gov_cons	Government's consumption over GDP	World Development indicators
pop_growth(t-1)	population's annual growth rate	World Development indicators
ln_population	log of population	World Development indicators
inflation (t-1)	Inflation, GDP deflator (annual percentage)	World Development indicators
FDI	Foreign direct investment as percentage of GDP	World Development indicators
Balanced Budget Rule	Dummy for Balanced Budget Rule, 1 if in place, 0 otherwise	IMF Fiscal rules Database
Debt Rule	Dummy for Debt Rule, 1 if in place, 0 otherwise	IMF Fiscal rules Database

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Table A2.: Fiscal Rules on Growth per Capita (only Low and Middle-Income Countries, Period 1990-2012)

	gdp_ca_growth	gdp_ca_growth	gdp_ca_growth	gdp_ca_growth	gdp_ca_growth	gdp_ca_growth	gdp_ca_growth	gdp_ca_growth
gdp_ca (t-1)	-0.000685***	-0.000688***	-0.000686***	-0.000711***	-0.000677***	-0.000732***	-0.000668**	-0.000717***
	(0.008)	(0.002)	(0.008)	(0.002)	(0.009)	(0.002)	(0.010)	(0.002)
investment (t-1)	0.0277	-0.00679	0.0273	-0.000212	0.0225	-0.00110	0.0229	0.000500
	(0.689)	(0.929)	(0.690)	(0.998)	(0.745)	(0.988)	(0.742)	(0.995)
YR_sch (t-1)	2.137***	-0.246	2.121***	-0.395	1.966**	-0.256	2.003**	-0.391
	(0.003)	(0.768)	(0.005)	(0.633)	(0.012)	(0.759)	(0.012)	(0.636)
gov_cons (t-1)	-0.155	-0.0582	-0.155	-0.0461	-0.143	-0.0664	-0.143	-0.0479
	(0.441)	(0.764)	(0.451)	(0.805)	(0.495)	(0.740)	(0.496)	(0.804)
pop_growth(t-1)	0.0636	0.613	0.0639	0.776	0.0612	0.694	0.0578	0.784
	(0.942)	(0.445)	(0.942)	(0.310)	(0.944)	(0.396)	(0.947)	(0.317)
inflation (t-1)	-0.000833	-0.000611	-0.000838	-0.000290	-0.000790	-0.000637	-0.000742	-0.000305
	(0.508)	(0.562)	(0.510)	(0.794)	(0.526)	(0.544)	(0.557)	(0.782)
Balanced Budget Rule			0.0518	-2.104***			-0.373	-2.034***
			(0.926)	(0.007)			(0.523)	(0.004)
Debt Rule					0.525	-1.031	0.755	-0.169
					(0.513)	(0.293)	(0.404)	(0.855)
_cons	-6.656	5.286	-6.571	5.659	-5.816	5.457	-6.064	5.674
	(0.190)	(0.397)	(0.205)	(0.387)	(0.254)	(0.391)	(0.241)	(0.387)
N	733	733	733	733	733	733	733	733
R^2	0.062	0.205	0.062	0.219	0.063	0.209	0.063	0.219
Time effects	No	Yes	No	Yes	No	Yes	No	Yes
Method	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects

p-values in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, using robust standard errors

Data sources: IMF Fiscal Rules database and the World Bank´s World Development Indicators

Table A3.: Fiscal Rules on Investment (only Low and Middle-Income Countries, Period 1990-2012)

	investment	investment	investment	investment	investment	investment	investment	investment
gdp_ca_growth (t-1)	0.247***	0.240***	0.243***	0.238***	0.242***	0.239***	0.242***	0.238***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
pop_growth (t-1)	1.901***	2.364***	2.007***	2.385***	1.985***	2.389***	2.014***	2.396***
	(0.006)	(0.007)	(0.007)	(0.006)	(0.008)	(0.006)	(0.007)	(0.006)
gov_cons (t-1)	0.00311	-0.00912	0.0244	-0.0120	0.0271	-0.0158	0.0286	-0.0159
	(0.973)	(0.930)	(0.780)	(0.905)	(0.754)	(0.874)	(0.742)	(0.873)
inflation (t-1)	-0.00101***	-0.00108***	-0.00100***	-0.00107***	-0.000988***	-0.00107***	-0.000995***	-0.00106***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Balanced Budget Rule			1.084	-0.504			0.795	-0.299
			(0.363)	(0.706)			(0.375)	(0.775)
Debt Rule					1.015	-0.586	0.419	-0.445
					(0.436)	(0.678)	(0.703)	(0.699)
_cons	17.81***	17.10***	16.94***	17.12***	16.99***	17.13***	16.83***	17.14***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	850	850	850	850	850	850	850	850
R^2	0.099	0.168	0.104	0.168	0.103	0.168	0.104	0.168
Time Effects	No	Yes	No	Yes	No	Yes	No	Yes
Method	**Fixed Effects**	**Fixed Effects**	**Fixed Effects**	**Fixed Effects**	**Fixed Effects**	**Fixed Effects**	**Fixed Effects**	**Fixed Effects**

***p*-values in parentheses** * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$**, using robust standard errors**
Data sources: IMF Fiscal Rules database and the World Bank´s World Development Indicators

Table A4.: Fiscal Rules on FDI (only Low and Middle-Income Countries, Period 1990-2012)

	FDI	FDI	FDI	FDI	FDI	FDI	FDI	FDI
gdp_ca_growth (t-1)	0.162***	0.119**	0.160***	0.116***	0.154**	0.119**	0.156**	0.117**
	(0.009)	(0.014)	(0.009)	(0.010)	(0.012)	(0.012)	(0.011)	(0.010)
YR_sch_1 (t-1)	0.754	0.0153	0.572	-0.00534	0.608	-0.0140	0.558	-0.0192
	(0.109)	(0.956)	(0.220)	(0.983)	(0.190)	(0.954)	(0.229)	(0.936)
ln_population	1.378	3.618	1.810	3.723	1.828	3.696	1.904	3.745
	(0.525)	(0.178)	(0.415)	(0.179)	(0.406)	(0.179)	(0.390)	(0.180)
gov_cons (t-1)	-0.199**	-0.174**	-0.178**	-0.173**	-0.162**	-0.181**	-0.164**	-0.178**
	(0.019)	(0.017)	(0.019)	(0.016)	(0.043)	(0.021)	(0.036)	(0.020)
inflation (t-1)	-0.00167**	-0.00130**	-0.00179**	-0.00117*	-0.00126	-0.00141**	-0.00150*	-0.00128**
	(0.046)	(0.040)	(0.023)	(0.058)	(0.130)	(0.039)	(0.062)	(0.041)
Balanced Budget Rule			1.372**	-0.597			0.822	-0.427
			(0.048)	(0.587)			(0.106)	(0.615)
Debt Rule					1.431*	-0.580	0.848	-0.392
					(0.052)	(0.597)	(0.133)	(0.642)
_cons	-0.0236	0.0452	0.0230	0.147	-0.393	0.275	-0.215	0.273
N	719	719	719	719	719	719	719	719
R^2	0.117	0.207	0.132	0.207	0.138	0.207	0.139	0.208
Time Effects	No	Yes	No	Yes	No	Yes	No	Yes
Method	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects

p-values in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, using robust standard errors
Data sources: IMF Fiscal Rules database and the World Bank´s World Development Indicators

Appendix 2: List of Countries with Fiscal Rules by World Bank Income Category as of September 2013 (IMF, 2013 and World Bank, 2014)

(*Transition economies)

Low-Income Countries

Benin (2000-present)
Burkina Faso (2000-present)
Central African Republic (2002-present)
Chad (2002-present)
Guinea-Bissau (2000-present)
Kenya (1997-present)
Liberia (2009-present)
Mali (2000-present)
Niger (2000-present)
Togo (2000-present)

Lower-Middle-Income Countries

Armenia* (2008-present)
Cabo Verde (1998-present)
Cameroon (2002-present)
Republic of Congo (2002-present)
Côte d'Ivoire (2000-present)
Georgia* (2014-present)
Kosovo* (2006-2008, 2010-present)
Indonesia (1967-present)
Pakistan (2005-present)
Mongolia (2013-present)
Nigeria (2007-present)
Senegal (2000-present)
Sri Lanka (2003-present)
India (2004-2008)

Upper-Middle-Income Countries

Botswana (2003-present)
Brazil (2000-present)
Bulgaria* (2003-present)
Colombia (2000-present)
Costa Rica (2001-present)
Dominica (1998-present)
Ecuador (2003-present)
Gabon (2002-present)
Grenada (1998-present)
Hungary* (2004-present)
Jamaica (2010-present)
Malaysia (1959-present)
Maldives (2012-present)
Mauritius (2008-present)
Mexico (2006-present)
Namibia (2012-present)
Panama (2002-2005, 2006-present)
Peru (2000-present)
Romania* (2007-present)
Saint Lucia (1998-present)
Saint Vincent and the Grenadines (1998-present)
Serbia* (2010-present)
Argentina (2000-2008)

Appendix 3: List of Countries participating in the Highly Indebted Poor Country (HIPC) Initiative as of September 2014 (IMF, 2014)

Post-Completion HIPC Countries with Fiscal Rules
Low-income HIPC countries with fiscal rules
Benin
Burkina Faso
Central African Republic
Guinea-Bissau
Liberia
Mali
Niger
Togo

Lower-Middle-Income HIPC Countries with Fiscal Rules
Cameroon
Republic of Congo
Côte d'Ivoire
Senegal

Post-Completion HIPC Countries without Fiscal Rules
Low-income HIPC countries without fiscal rules
Afghanistan
Burundi
Comoros
Democratic Republic of Congo
Ethiopia
The Gambia
Guinea
Haiti
Madagascar
Malawi
Mozambique
Rwanda
Sierra Leone
Tanzania
Uganda

Lower-Middle-Income HIPC Countries without Fiscal Rules
Bolivia
Ghana
Guyana
Honduras
Mauritania
Nicaragua
São Tomé e Príncipe
Zambia

Countries in the process of completing HIPC
With fiscal rules
Chad

Countries still eligible for HIPC
All without fiscal rules
Eritrea
Somalia
Sudan

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