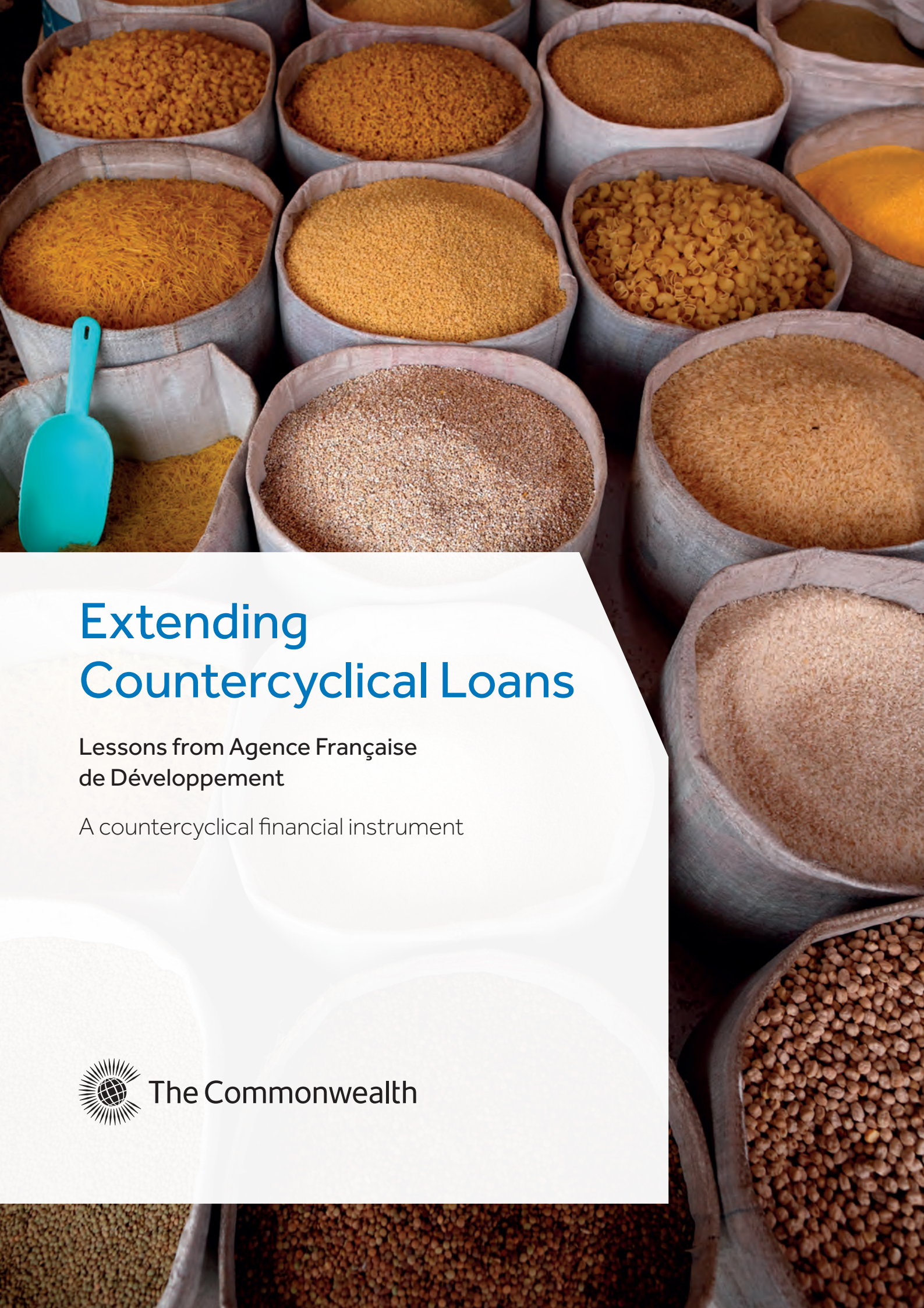




Extending Countercyclical Loans

Lessons from Agence Française
de Développement

A countercyclical financial instrument



The Commonwealth

Extending Countercyclical Loans

Lessons from Agence Française de
Développement

A countercyclical financial instrument



The Commonwealth

Commonwealth Secretariat
Marlborough House
Pall Mall
London SW1Y 5HX
United Kingdom

©Commonwealth Secretariat 2016

Published and printed by the Commonwealth Secretariat

Authors: Sebastian Espinosa and David Nagoski, White
Oak Advisory
Edited by Heidi Tavakoli

Acknowledgements: We would like to thank the Agence
Française de Développement (AFD) for providing technical
inputs for this report and useful advice. This report was
produced by White Oak Advisory, an independent financial
advisory firm providing specialist, high-level and conflict-
free advice to governments and other clients on matters
relating to sovereign finances and sovereign debt. For
more information, visit www.whiteoakadvisory.com

All rights reserved. No part of this publication may be
reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic or mechanical,
including photocopying, recording or otherwise without
the permission of the publisher.
Printed and published by the Commonwealth Secretariat.
Views and opinions expressed in this publication are the
responsibility of the authors and should in no way be
attributed to the institutions to which they are affiliated or
to the Commonwealth Secretariat.

Wherever possible, the Commonwealth Secretariat uses
paper sourced from sustainable forests or from sources
that minimise a destructive impact on the environment.

Copies of this publication may be obtained from:

Publications Section
Commonwealth Secretariat
Marlborough House
Pall Mall
London SW1Y 5HX
United Kingdom
Tel: +44 (0)20 7747 6534
Fax: +44 (0)20 7839 9081
Email: publications@commonwealth.int
Web: www.thecommonwealth.org/publications

Contents

Abbreviations and Acronyms	3
Executive Summary	4
1. Introduction.....	7
1.1 Understanding AFD's experience	7
1.2 Countercyclicality in context	7
2. Overview of AFD's Loan Offering	10
2.1 Background to AFD's Operations.....	10
2.2 AFD's loan offering	10
3. Experience with the PTCC	12
3.1 Background to the design of the PTCC	12
3.2 Description of the PTCC loan product	12
3.3 PTCCs in practice	13
3.4 Comparative analysis of the PTCC	15
3.5 Discussion of possible constraints	17
4. Experience with the PRVR.....	19
4.1 Background to the design of the PRVR	19
4.2 Comparative analysis of the PRVR	19
4.3 Discussion of the PRVR	21
5. Charting a Future Course for CCLs	23
5.1 Lessons from the AFD experience	23
5.2 Themes for future consideration.....	24
References	26
Annex 1: AFD's Operations	27
Funding model	27
Geographical features of AFD's existing sovereign loan portfolio.....	27
Strategy.....	28

Acronyms and Abbreviations

AFD	Agence Française de Développement
CCL	Countercyclical Loan
GDP	Gross Domestic Product
HIPC	Highly Indebted Poor Country (Initiative)
NPV	Net Present Value
OECD	Organisation for Economic Co-operation and Development
PRVR	Prêt à Remboursement Variable et Reechelonable
PTC	Prêt Très Concessionnel
PTCC	Prêt Très Concessionnel Contracyclique
RCS	Ressources à Conditions Speciales
USD	US Dollar

Executive Summary

Over the last decade, the Agence Française de Développement (AFD) has pioneered the use of countercyclical loans to better respond to the inherent vulnerability of many developing country borrowers to export shocks. Commodity price swings have intensified in the last 25 years, and over the same period the majority of debt crises in the Highly Indebted Poor Country Initiative (HIPC) countries have followed an export shock. This illustrates the need for a new approach to debt financing in support of better management of these shocks.

AFD responded with the introduction of its countercyclical loan in 2007 – known as the Prêt Très Concessionnel Contracyclique (PTCC) – to allow a sovereign borrower a stay on debt service payments following a terms of trade shock. PTCC is a variant of the agency's traditional highly concessional sovereign loans available to low-income countries. The key difference is that the PTCC carries a shorter fixed grace period on principal (of five years rather than ten), but in exchange allows the borrower to benefit from an additional five-year 'floating' grace period on principal if export revenue falls below a certain threshold.

Uptake of the PTCC has been relatively modest, with only 16 loans being extended to just five Sub-Saharan borrowers for a total of less than €350 million. The countercyclical feature has not been activated on any of the outstanding PTCCs – as most loans are still within their original grace period – so it is too early to assess the efficacy of this instrument in regards to debt sustainability.

A number of factors are likely to have contributed to the limited uptake of PTCCs. From a supply perspective, PTCCs are no more expensive for AFD than its other highly concessional loans, suggesting that all loans of this type are equally preferred by AFD. They are, however, financed by a relatively small concessional loan from the French Treasury, and (in its current form) total commitments for PTCCs could not exceed approximately £100 million per annum. This ceiling is still above current financing levels, implying that weak demand is a bigger driver of limited use.

Demand factors are likely to primarily concern borrower awareness and servicing costs. Meagre borrower awareness of the merits of PTCCs, due

to a modest marketing campaign from AFD, may have restricted demand. Furthermore, the PTCC is less favourable financially to a borrower using the standard financial metrics of net present value (NPV) and short-run debt service obligations (over the first ten years of the loan) as compared to AFD's other most common highly concessional loan; the Prêt Très Concessionnel (PTC). Only if the PTCC is triggered at the end of its initial grace period for a full five-year period would these costs equal those of a PTC for a borrower. Debt managers and policy-makers in borrower countries often prefer loan products that have a longer fixed grace period at the start of the loan, allowing for lower debt service payments in the short run, even if the quid pro quo is the ability to benefit from a further grace period in the future in event of a shock to export. This may explain the greater preference for AFD's other highly concessional loans, which offer fixed grace periods that are twice as long as those offered by the PTCC.

Nonetheless, when assessing debt service payments across the lifetime of the loan, the PTCC payments will almost always be less than those offered by the PTC, providing value for overall debt sustainability.

In an effort to extend the countercyclical concept to middle-income borrower countries, AFD has more recently designed the Prêt à Remboursement Variable et Reechelonable (PRVR). The PRVR is based on AFD's standard (i.e. non-concessional) sovereign loans. As in the case of the PTCC, the borrower also stands to benefit from a 'floating' grace period on principal, although this additional grace period can be triggered largely at a time of the borrower's own choosing, with no need for a triggering request to point to any type of exogenous shock. What is more, the 'floating' grace period only allows 50 per cent of principal repayments to be deferred, and not 100 per cent as in the case of the PTCC. In return for this added flexibility, the borrower pays an annual fee, or premium, to AFD.

Even though the PRVR remains notional for now, preliminary quantitative analysis indicates that the borrower would be materially worse off for having chosen a PRVR (activated or not) both in terms of NPV and total debt service payments as compared to a standard AFD sovereign loan. This is based on assumptions for the countercyclical premium, AFD borrowing cost, and AFD administrative margin.

With virtually every category of debt financing that is available to sovereign borrowers based on fixed repayment schedules, it will take some time for both borrowers and lenders to properly assess the advantages and disadvantages of countercyclical loans, and to adapt these loan products in ways that makes them better suited to their objectives. Certain themes can already be discerned in AFD's pioneering work that may provide useful pointers for the future development of these instruments:

1. **Relative appeal is crucial:** The AFD experience seems to suggest that flexibility per se might not be a sufficiently important factor on its own to sway a borrower's interest in countercyclical loans. Sovereign borrowers will remain firmly focused on the relative cost of AFD's loans. It is likely that AFD could increase the appeal of its countercyclical loans offering if it were to ensure that the available alternatives were financially similar to those of the PTCC.
2. **The importance of simplicity:** By their very nature, countercyclical loans involve repayment profiles that are more complex than those of traditional loans. Some features of the PTCC add an excessive degree of complexity, which may make prospective borrowers wary. In order not to diminish the appeal of these important products, consideration should be given to eliminating complex features that may be beyond the monitoring ability of strained debt management offices, and that generate limited material benefits for borrowing countries.
3. **Consider incorporating other types of triggering events:** Review of the latest trade data for PTCC borrowers suggests that broadening the trigger criteria, based upon the needs of prospective borrowers, may be valuable. Indeed, the fact that most of the existing PTCC borrowers are not close to being able to declare a triggering event under their loans – despite the greatest global financial crisis in 70 years – could undermine the perceived utility and effectiveness of the product in the eyes of prospective borrowers.
4. **Proactive demand development should be pursued:** A strong and co-ordinated marketing drive of countercyclical products should strengthen sovereign borrowers' awareness of the availability and advantages of countercyclical loans. Significant demand among lower and middle-income borrowers is likely to exist, but unless debtor countries are aware of the relative benefits of these approaches, uptake will be modest. Different sovereign borrower groups with a strong 'shared experience' ethos should be engaged in discussions around optimal product design. In these discussions, it will be important to seek borrowers' views on what shocks they are most exposed to. Opening the door to different triggers could increase the relevance of countercyclical loans, while still addressing the same fundamental problems of uncertainty and vulnerability that AFD has identified.
5. **A symmetrical approach may encourage uptake:** Countercyclical loans may be less appealing to sovereign borrowers if they are more expensive than non-countercyclical alternatives. So their widespread adoption may require a shared approach to costs. One way of doing this may be to consider the principle of symmetry in the structuring of countercyclical loans. Sovereign borrowers that are exposed to exogenous shocks may in principle be willing to consider debt instruments that can be tailored to their payment capacity not just during downswings, but also during upswings. While this approach may seem novel, it is becoming more common for middle-income borrowers to enter commercial swap arrangements that are essentially based on the same principle of symmetry and which can lead to quicker debt repayment when capacity is greater. A focus on symmetry may – in certain cases – also encourage private sector lenders to consider countercyclical structures that use a potential 'upside' instead of unviable fees to pay for the built-in flexibility.
6. **Scale and critical mass are key:** Countercyclical loans may play an important role in averting disorderly defaults following an exogenous shock, but for this to occur these loans will need to affect a material portion of a sovereign borrower's debt stock. A concerted effort to make countercyclical loans a more mainstream form of debt financing for vulnerable developing country economies will require a considerable degree of co-ordination between sovereigns and lenders, and between different lenders, with the aim of achieving scale and critical mass. This will likely require the leadership of a small number of development finance institutions with the right profile and with a sufficiently strong level of commitment.

1. Introduction

1.1 Understanding AFD's experience

Over the last decade, the Agence Française de Développement (AFD) has pioneered the use of countercyclical loans to better respond to the inherent vulnerability of many developing country borrowers to export shocks.

The agency's work in this area has coincided with a period of increasing uncertainty in the global markets for developing countries. Pronounced volatility in commodity markets, coupled with signs of structural decline in Organisation for Economic Co-operation and Development (OECD) nations and a weakening in China's outlook, has clouded economic prospects and complicated policy-making for many export-dependent nations in the developing world. Meanwhile, debt levels among developing and OECD countries alike have risen sharply. While some sovereign borrowers have been able to access concessional financing over the period, many middle-income countries in particular have had to rely on expensive and inflexible commercial borrowing to cover financing shortfalls and meet other financing needs.

Although still in its relative infancy, AFD's countercyclical loan (CCL) initiative stands out as one of the few examples of a prominent member of the international development finance community experimenting with the terms of the grace period on the repayment of its financing, in response to the financing and debt challenges being faced by many

of its borrowers. With this in mind, the objective of this study is to understand and assess AFD's experience to date with this innovative loan product.

The first section examines why a new approach is required, examining recent experience of fluctuations in commodity prices and performance of public debt in developing countries. The second section provides a brief overview of AFD's lending operations, followed by a third section presenting AFD's experience with CCLs for low income countries (i.e. Prêt Très Concessionnel Contracyclique (PTCC)). The fourth section examines AFD's proposed CCL for middle income developing countries (i.e. Prêt à Remboursement Variable et Reéchelonnable (PRVR)), after which the final section identifies themes and lessons from AFD's experience that could be of relevance to sovereign borrowers and official sector creditors with an interest in exploring the benefits and applicability of CCLs in a wider context.

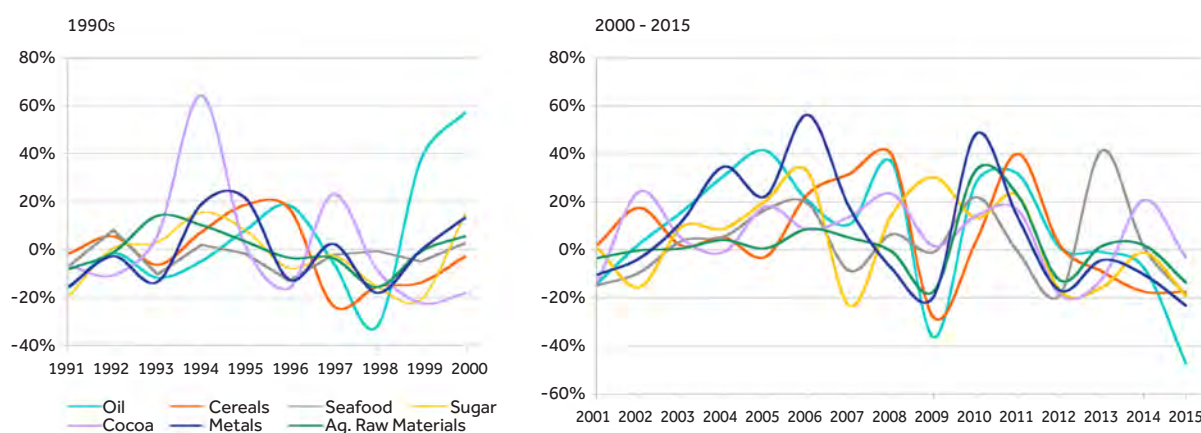
1.2 Countercyclicity in context

1.2.1 Increasing uncertainty for exports from developing nations

AFD's introduction of CCLs in 2007 coincided with a period of markedly higher uncertainty for developing countries that were heavily reliant on export earnings for foreign currency inflows, fiscal revenue and economic growth more generally. This uncertainty has only intensified over the

Figure 1.1 Volatility on the rise

Annual change in key commodity prices, 1990-2015 (%)



Source: IMF, April 2016

Table 1.1 Debt and fiscal balance (*Figures as % GDP*)

	Debt / GDP		Fiscal Balance	
	2006	2015	2006	2015
Emerging and Developing Economies ¹	39	45	1.4	-4.5
Emerging and Developing Commonwealth Countries	52	55	-0.3	-3.4

Source: IMF, World Economic Outlook, April 2016. Notes: ¹ - IMF Aggregate

course of the last decade, with commodity exporters becoming subjected to a period of sharp exogenous swings that started in the lead-up to the global financial crisis and which were then given further impetus by the uncertainty and monetary stimulus that followed.

As shown in Figure 1.1, annual price fluctuations of oil, metals, cereals, fish, sugar, cocoa and agricultural products increased significantly both in the lead-up to the global financial crisis, and in subsequent years.

The dynamic of commodity price movements over the last 15 years has broken from previous historical

Example 1.1 Copper prices and commercial borrowing in Zambia

During the 1990s and in the 2000-05 period, copper, which accounts for roughly 80 per cent of Zambia's exports (by value), experienced relatively little annual price variation.

However, beginning in 2005, the metal's price entered a period of striking volatility, initially rising by 300 per cent over just three years, and then erasing nearly all of its gains during the height of the global financial crisis. During 2011, copper prices spiked again – this time to four times their 1990 level – before entering the most recent period of steady decline as concerns surfaced over Chinese demand.

Along with this volatility has come a massive pro-cyclical cycle in Zambia's finances. During 2006 alone, for example, fiscal revenues as a share of GDP nearly doubled. Since then, however, fiscal revenue has fallen by a fifth.

Since 2012, Zambia has managed the precipitous drop in the price of its key export in part by issuing US\$3 billion in Eurobonds (approximately 10 per cent of GDP). While the path of copper prices and fiscal revenue is clearly uncertain for the authorities, the repayment schedules on these bullet and 'soft' bullet bonds are very much 'set in stone'. Over the near term, Zambia must devote roughly 5 per cent of fiscal revenues annually simply to the payment of interest; over the medium term, the authorities face a dramatic spike in required repayments.

Although Zambia's exposure to a single export is unusual, the challenges it faces in managing the debt incurred to dampen the cyclicalities of its fiscal and export revenues, and general investment levels in the economy, are shared by many sovereign borrowers in the developing world.

Copper price

Monthly, relative to 1990 level, January 1990 - April 2016



Source: US Federal Reserve

trends in several respects: its extended duration; the occurrence of sharp contractions after price increases; weak correlation among movements in different commodities; and partial decoupling with expansion / recession cycles in OECD countries.

1.2.2 Rising public debt

Over the same period, the steady reduction in public debt ratios that developing nations had previously registered first slowed and then reversed itself. Since the global financial crisis began public debt as a share of Gross Domestic Product (GDP) in emerging and developing countries has risen by 6 percentage points (from 39 per cent to 45 per cent of GDP) according to the International Monetary Fund (IMF). This marked increase in average public debt burdens has been driven in part by a deterioration in fiscal balances: between 2006 and 2015, developing countries went from an overall fiscal surplus to deficit, with overall balances widening by a significant six percentage points of GDP.

This trend is also apparent among emerging and developing members of the Commonwealth. As illustrated in Table 1.1, these members of the Commonwealth have, as a whole, fared well relative to peers over the last decade but average government debt and overall fiscal balance ratios have still widened even if debt to GDP levels remain high.

1.2.3 The challenges of managing debt in the face of uncertainty

Perhaps more importantly, rising debt ratios among commodity exporters have drawn attention to the question of how these countries – and in particular those with low-income levels – can best manage repayment obligations in the face of increased uncertainty over future export earnings. In recent years, many such borrowers within this group have increased their reliance on borrowing from private sector sources in order to address their incremental funding needs.

This financing has not only been expensive, with interest rates often between 7 and 10 per cent for sub-investment grade issuers, but has also effectively increased the vulnerability of the borrowers to refinancing risk and shocks: when material financing gaps do emerge, it is usually impossible to adjust repayment schedules for debts owed to bondholders and commercial banks without a restructuring of these facilities.

2. Overview of AFD's Loan Offering

2.1 Background to AFD's operations

2.1.1 Overview

AFD's mission is focused on reducing poverty and inequality, promoting sustainable economic growth, reducing negative climate change impacts, and promoting biodiversity and social and environmental responsibility in the developing world. It does so by providing loans to both public and private sector borrowers in developing countries and the French Overseas Territories.

The organisation funds its lending activities primarily through the capital markets, with additional funding provided by the French Treasury to subsidise AFD's lending. AFD redirects most of its earnings to fund further subsidies on its lending activities, and therefore operates on the basis of a 'break-even' model. The grants that AFD channels to priority countries are funded separately by the French Foreign Affairs Ministry.

In general terms, AFD provides:

- **non-concessional loans** for projects in line with French government policy that do not require concessional funding;
- **concessional loans** for projects with environmental and social objectives (minimum size of €10 million); and
- **grants** for studies, seminars and knowledge creation.

See Annex 1 for additional information on AFD's operations.

2.2 AFD's loan offering

2.2.1 General sovereign lending framework

AFD's sovereign loan products are based on a framework that blends AFD's own borrowing costs with the available subsidy pools in varying degrees in order to arrive at different interest rates for the end-borrower.

From AFD's perspective, any sovereign loan with an interest that has been subsidised in one way or another from either the Ressources à Conditions

Speciales (RCS) or through the French Treasury grant mechanism is considered to be concessional, whereas a loan that is in essence a pass-through of AFD's own market borrowing cost is considered non-concessional.

AFD's sovereign lending framework is not only attractive to developing country borrowers relative to what they can realise from commercial sources, it is also competitive with the rates offered by multilateral development banks.

2.2.2 Concessional sovereign loans

AFD provides three highly concessional loans to the poorest countries, and these are subsidised by RCS resources and the French Treasury grant:

1. **The Prêt Très Concessionnel (PTC)**: The door-to-door tenor is 30 years, based on a 10-year grace period on principal followed by equal semi-annual repayments over 20 years. The rate of interest is fixed at an annual rate of 1 per cent. As of end-May 2016, AFD's portfolio of PTC loans amounted to €700 million. This exposure was accounted for by ten countries across a total of 33 individual loans. The projects financed with PTC loans cover those in the agriculture, water, urban development, road and infrastructure development, and education sectors. The PTC is financed solely from RCS resources.
2. **The Prêt Très Concessionnel Contracyclique (PTCC)**: Instead of the ten-year grace period at the start of the loan, the PTCC has a five-year fixed grace period on principal followed by a five-year floating grace period. Like the PTC, the rate of interest is fixed at an annual rate of 1 per cent and repayments are semi-annual. The PTCC initially carries a final maturity of 25 years, but this is extended to 30 years if the full floating grace period is called down. As with the PTC, the PTCC is financed solely from RCS resources.
3. **The IMF-compliant loan**: This is available to any country in an IMF programme that is also on the Development Assistance Committee (DAC) list of Overseas Development Assistance (ODA) recipients.

2.2.3 Non-concessional sovereign loans

AFD's standard non-concessional sovereign loans are effectively based on a pass-through to the borrower of AFD's market funding cost, plus a margin that covers its operating cost, which is estimated at 75 basis points, or 0.75 per cent.¹ Depending on the income category of the borrowing country, an element of subsidy can then be introduced to reduce the overall rate of interest through a blend with market rates.

Tenors for standard sovereign loans can vary, but will typically be between 15 and 25 years, including grace periods. Grace periods on principal are generally in the zero to six-year range.

Table 2.1 provides an estimate of the cost of concessional and non-concessional sovereign loans products for AFD. The table, which assumes that AFD borrows at 1 per cent for 15–25 year tenors and has an administrative margin of 0.75

per cent, indicates that AFD can provide loans at a comparable cost to other official lending institutions with subsidies that range from 0 per cent (for upper middle-income countries) to 0.4 per cent (for low-income countries).

Table 2.1 Indicative range of AFD sovereign loan rates

Estimated euro interest rates by income category

Income group	Tenor (yrs)	Rate (after subsidy), %
Low	15–25	1–1.35
Lower middle	15–25	1.55
Upper middle	15–25	1.75

Notes: Assumes AFD borrows at 1% for 15–25 years

In practice, we understand that AFD's borrowing cost and administrative margin vary and that subsidies may rise to above 0.4 per cent.

¹ This is an estimation as actual operational costs vary based on the characteristics of the financial instrument and the borrower country.

3. Experience with the PTCC

The Prêt Très Concessionnel Contracyclique, or PTCC, is presently the only countercyclical loan – whether concessional or otherwise – to have been extended by AFD. In this section we describe the key PTCC features, discuss AFD's experience with its roll-out, and assess the advantages and disadvantages of this loan product from both the borrower's and lender's perspective.

3.1 Background to the design of the PTCC

The development of AFD's first CCL product began in 2006. AFD recognised that many low-income countries that had benefitted from the extensive levels of debt relief through the Highly Indebted Poor Country Initiative (HIPC) were once again looking to borrow, although this time from a stronger macroeconomic base.

More specifically, there was a view within AFD – as in other development finance institutions – that the hard-fought gains in terms of improvements to debt dynamics made possible by HIPC completion should be preserved, and that efforts should be made by both borrowers and lenders to ensure that the inevitable future borrowing needs of poor countries were satisfied in ways that did not threaten debt sustainability. For AFD, an important piece of the puzzle was gaining a good understanding of the factors that had led to the unsustainable debt burdens and sovereign defaults of the past. In particular, AFD was determined to avoid what it perceived to be the mistake of the 'soft loan' strategy – a strategy that placed an unwarranted degree of faith in the supportive effect of low interest rates and long repayment periods on debt dynamics, while ignoring the potentially catastrophic effect that the level of debt, irrespective of its cost, can have on overall debt sustainability.

While the causes of sovereign debt distress are multiple and complex, the AFD Economics Department pointed to the high dependence of low-income countries on volatile hard currency earnings derived from commodity exports. Suspecting that negative export shocks could play a significant role in triggering debt distress in low-income countries, AFD's economists analysed data for the preceding 30 years, and concluded that over this period almost 60 per cent of debt crises among HIPCs had been preceded by an export shock.

With this in mind, the department identified the need for a loan product for low-income countries that would be based on a repayment profile that could be adjusted in the event that an export shock adversely affected the sovereign borrower. It was concluded that, from a practical perspective, the best way to introduce the desired element of countercyclicity into the new loan product would be to base the repayment structure around a 'floating' or movable grace period that would allow the borrower to suspend principal repayments for a predetermined period in the event of a clearly defined export shock occurring.

The objective of the PTCC, as the loan product became known, was to make it less likely that an export earnings shock would trigger a full-blown sovereign debt crisis by creating temporary breathing space for the stricken debtor country to recover, rather than to compensate the sovereign borrower for any reduction in export earnings.

3.2 Description of the PTCC loan product

The PTCC is effectively a variation of the PTC, AFD's most concessional loan product available only to lower-income countries. Instead of the PTC's 30-year door-to-door tenor, however, the PTCC initially carries a final maturity of 25 years. Just as importantly (if not more), the ten-year fixed grace period on the principal that applies to the PTC is reduced to five years in the case of the PTCC.

In exchange for the reduced grace period at the outset, the PTCC borrower retains the right to defer up to ten semi-annual principal instalments (whether consecutive or not) upon the occurrence of a 'triggering event' that is linked to falls in export earnings. Any principal instalments that are not paid on schedule as a result of the activation of the loan's countercyclical feature are then deferred to the end of the amortisation period. This de facto lengthening of the loan's maturity by six months for the deferral of every individual semi-annual principal maturity means that the PTCC's door-to-door tenor could end up being increased by up to five years (to match the PTC's 30 years) in the event that the maximum deferral allowance of ten semi-annual principal instalments is used up.

It is important to stress that the 'floating' grace period feature of the PTCC applies only to the principal, and that interest must be paid in full and on schedule by the borrower, even if a triggering event has occurred.

The triggering event definition is uniform and concise across the documentation for all existing PTCCs. More specifically, a triggering event is considered to have occurred when the borrower country's exports for the 'current' year are less than 95 per cent (when expressed in euros) of the annual average for the preceding five-year period. To enable an objective assessment of export performance patterns, the loan documentation identifies the Global Trade Atlas (compiled by GTIS) as the data source to be used by both borrower and lender when seeking to establish whether or not a triggering event has occurred (although an alternative data source can be used subject to the mutual agreement of both parties).

Critically, the deferral of principal maturities by AFD upon the occurrence of a triggering event is planned to be automatic, subject to the receipt of a formal request from the borrower. However, the borrower is not obliged to request a deferral, even if a triggering event has technically occurred on the basis of reported trade data.

Any principal maturities that are deferred following the occurrence of a triggering event attract interest at a rate of 1 per cent per annum.

Another technical aspect of the countercyclical feature of the PTCC is the existence of a reserve account, which provides additional financial benefits for borrowers. AFD pays, on behalf of the borrower, the interest accruing (at 6M EURIBOR minus 1 per cent) on a notional amount that equates to the difference between the actual principal balance outstanding on every principal repayment date (starting with the second one), and the theoretical balance that would be outstanding at the same point in time had the maximum five-year 'floating' grace period been activated immediately upon the end of the initial fixed five-year grace period. The amounts accruing to this reserve account, known as the Dedicated Account, can then be used by the borrower in two different ways. If a triggering event occurs after the point at which the borrower has used up the maximum number of allowable deferrals of principal instalments (i.e. ten), the borrower can tap the reserve account in order to fund further principal repayments as these fall due. If no triggering events have occurred as the

loan approaches maturity, the borrower can apply whatever amounts are in the reserve account at that point in time to reduce the final principal instalment that is payable.

The purpose of this feature of the PTCC is clearly to provide some additional flexibility for the borrower beyond the maximum five-year 'floating' grace period, and also to reward borrowers who have not made full use of the 'floating' grace period as the loan approaches final maturity. However, it is questionable whether the amounts accruing to the reserve account could ever be sufficient to make a material difference to the borrower, especially in today's low-interest rate environment.

3.3 PTCCs in practice

3.3.1 Take up of PTCCs

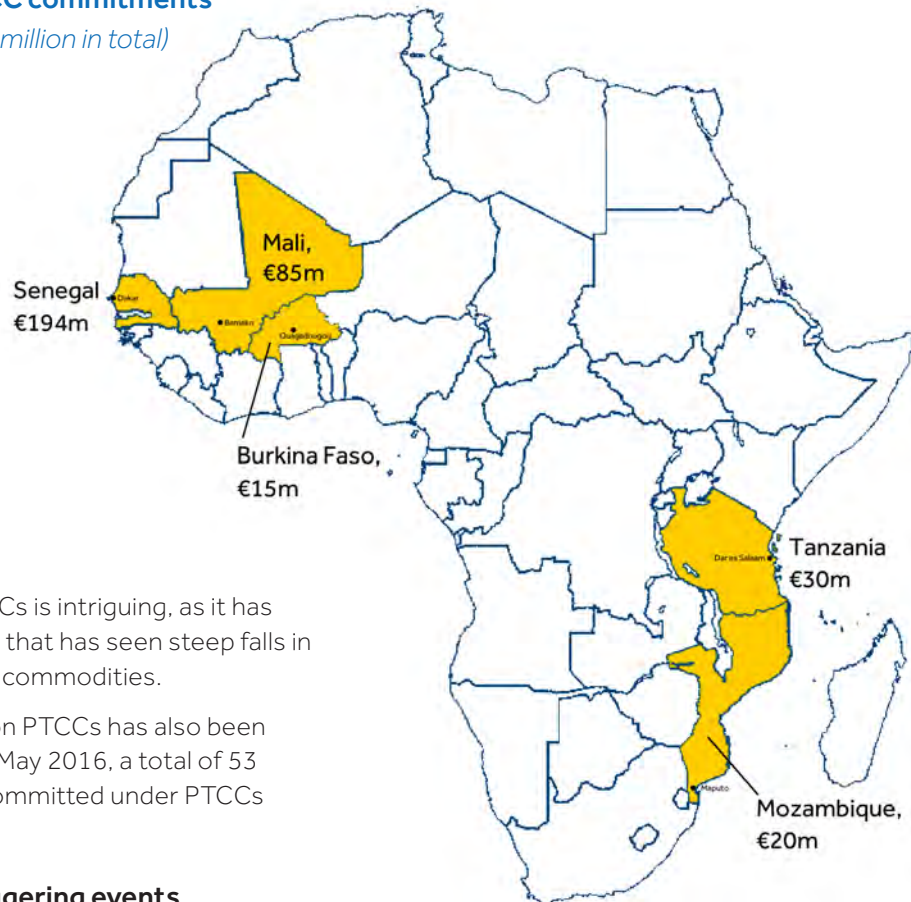
The first country to contract a PTCC was Burkina Faso. The loan, approved by the Board in December 2007 for a total amount of €15 million, was extended to benefit the country's key cotton export sector in the context of volatile world cotton prices. The funds were on-lent by the authorities to the national cotton producers association via a separate loan instrument that replicated the PTCC's countercyclical feature. Senegal followed shortly after, contracting a €30 million loan in December of the same year for a sanitation and decontamination project.

Since those early days, a further 14 PTCCs have been extended by AFD (making 16 in total), to five Sub-Saharan African countries, for a total commitment of €344 million. 81 per cent of the amounts committed by AFD under the PTCC are associated with only two borrowing countries (Mali and Senegal).

The projects funded through the PTCC window have primarily been in the water & sanitation, electricity, road, and education sectors.

AFD's total commitment for PTCC is a small part of its total portfolio. It is equivalent to half the size of PTC commitments (which is €700 million) and is offered to half the number of countries. So the average size of loan commitments under the PTCC window is equivalent to that for the PTC at approximately €22 million.

The pace of PTCC take-up has slowed in recent years, with only one PTCC having been contracted in each of 2014 and 2015. The timing of the apparent decrease in the rate of

Figure 3.1 AFD's PTCC commitments*(As at May 2016, €344 million in total)*

the contracting of PTCCs is intriguing, as it has coincided with a period that has seen steep falls in the prices of the major commodities.

The draw-down rates on PTCCs has also been relatively low. As of 31 May 2016, a total of 53 per cent of amounts committed under PTCCs remained undisbursed.

3.3.2 Analysis of triggering events

To date, there has been no activation of the countercyclical feature under any of the 16 PTCCs that have been extended by AFD. In fact, the 'newness' of the PTCC loan product means that in most cases, the use of the countercyclical feature is currently impossible due to the fact that facilities are still within the fixed five-year grace period on principal.

Of the 16 outstanding PTCCs, only four are already outside of the grace period and amortising. Of these, three have been amortising for more than two years: the first facilities to have been contracted by Burkina Faso and Senegal, and a €30 million facility contracted by Tanzania in mid-2010. A second Senegalese facility began to amortise in the first quarter of 2015. The full amounts committed by AFD under these four facilities have been drawn by the borrower.

A second complication affecting the analysis of triggering events in the case of PTCCs (and potentially agreement over the determination of such events) is the relatively vague contractual language used in the documentation. The definition of the triggering event is unclear as to whether the term 'current year' is used to mean the last calendar year for which trade data is available, or the last rolling 12-month period for which trade data

is available when the determination of a triggering event is being attempted. Furthermore, trade data from the Global Trade Atlas is published with a time lag of around four months.

For the purposes of this analysis, we have reviewed export data for PTCC borrower countries using World Trade Organization data (although the PTCC loan documentation refers simply to 'exports', we have assumed that this is a reference to exports of goods only, and not to goods and services). Due to the limited availability of monthly breakdowns, in most cases we have compared calendar-year data for 2014 with the average for the preceding five-year period. In the case of Mozambique, we have been able to use calendar year 2015 as the reference year.

This data indicates that export revenues have generally expanded at a robust pace since the introduction of PTCCs. This annual across-the-board growth has resulted in export levels that – with the exception of Mozambique – are not close to meeting the AFD's trigger event definition, which is based on a fall in export revenue in excess of 5 per cent over the average for a preceding five-year period.

Table 3.1 Recent export performance among PTCC borrowers

Annual export revenue as % of average export revenue from preceding five years

	2013	2014	2015
Burkina Faso	186	153	n/a
Senegal	113	117	n/a
Tanzania	105	130	n/a
Mozambique	138	151	74
Mali	n/a	163	n/a

The data presented in Table 3.1 suggests that none of the three countries that are already amortising their PTCCs could have declared a triggering event as of the end of 2014. Remarkably, the available data suggests that these countries' export earnings have in fact been increasing in recent years, despite the collapse of world commodity prices. Although understanding the export dynamics of individual PTCC borrower countries is beyond the scope of this study, we anticipate that any adverse effect of falls in commodity prices has been more than offset by volume gains, or indeed by the increasing importance of non-traditional exports. It is of course also possible that the five-year average that is being used as the reference point for measuring purposes could amount to a historical 'low' base if it already captures the start of the decline in world commodity prices. The use of euros (EUR) as the basis for the calculation could also be causing some distortion: many of the goods exported have prices denominated in US dollars (USD), creating additional movement in export value simply by movement in USD/EUR exchange rate.

The fixed grace period on three further PTCCs will expire over the next 12 months. One of these is also owed by Senegal, with the other two owed by Mali. On the basis of the latest available trade data, Mali is not on course for a triggering event either. Due to a significant decline (in EUR terms) of its reported exports in 2015, Mozambique is currently in a position to declare a theoretical triggering event (with export revenue currently running at 74 per cent of the average for the preceding five-year period). This borrower (which at the time of writing is a prime candidate to become the first HIPC beneficiary to once again accumulate an unsustainable debt burden) is barely halfway

through the grace period on its PTCC. It will be interesting to see if the export trend that is currently discernable will continue so as to eventually allow Mozambique to declare a triggering event on its PTCC in 2018, or whether indeed a broader debt crisis will bring about an alternative resolution through the Paris Club mechanism.

3.4 Comparative analysis of the PTCC

3.4.1 Costs of a PTCC if grace period extension is not triggered

In order to analyse the comparative cost of a PTCC to a sovereign borrower, repayment costs are projected for a hypothetical €25 million loan with a 1 per cent interest rate under both the PTC and PTCC frameworks. In Table 3.2 we compare the costs of both to a borrower, assuming the 'floating' grace period in the PTCC is not triggered. For all NPV analyses in the paper, we use a discount rate of 8 per cent. We believe this rate is representative of the minimum level at which the low-income countries would be able to borrow commercially.

Table 3.2 Comparative costs of a PTCC not subject to a triggering event

Projected costs on a EUR 25 million loan, up-front disbursement (Figures in EUR million)

	PTC	PTCC	Difference
Net present value (Total)	16.8	14.4	-2.4
Principal (Total)	25.0	25.0	
Interest (Total)	5.1	3.8	-1.3
<i>Note: First 10 years' debt service</i>	2.5	8.6	+6.1

As indicated in the first row of Table 3.2, in NPV terms the PTC is more valuable to a borrower than the PTCC (if untriggered). The lower NPV for the PTCC is driven by the much higher debt service during the first ten years of the loan: the PTCC's debt service is over four times that of the PTC during this period.

Nevertheless, the PTCC (if untriggered) is more beneficial for long-term debt sustainability because the total principal and interest payments are lower than for the PTC due to the shorter maturity of the PTCC.

3.4.2 Costs of a PTCC if grace period extension is triggered

The same assumptions as before are used, except here the triggering of the PTCC's 'floating' grace period for the full five years is added. So the maturity of the PTCC is extended to 30 years and is equal to that of the PTC. In Table 3.3, the costs of servicing a PTCC where the floating grace period is triggered in Year 11 is compared to one that is triggered in Year 20 and to a similar-sized PTC.

Table 3.3 Comparative costs of a PTCC subject to a triggering event

Projected costs on a EUR 25 million loan, up front disbursement (Figures in EUR million)

	PTC	PTCC triggered after 10 years	PTCC triggered after 19 years
Net present value (Total)	16.8	15.8	14.8
Principal (Total)	25.0	25.0	25.0
Interest (Total)	5.1	4.8	4.2
Note: First 10 years' debt service	1.7	8.6	8.6

This improves the PTCC's appeal from an NPV perspective when compared to the PTC, but only slightly. The most beneficial scenario for the borrower is one in which the 'floating' grace period is triggered as early as possible. For example, a triggering event at Year 11 (for a full consecutive five-year period) narrows the NPV loss to the borrower of having elected the PTCC over the

PTC.² In a scenario where the full five-year 'floating' grace period is not triggered until Year 20, the NPV loss in relation to the PTC option increases. This is because the later trigger of the grace period effectively brings forward debt service to the earlier period of the loan, which is less affected by the discounting over time.

Following this logic, debt service payments are affected in the opposite direction. So total debt service payments are lower the later the floating period is triggered. These payments will always be smaller for the PTCC than the PTC, as long as the triggering event happens after 5.5 years.

In summary, the PTCC is less favourable financially to a borrower using the standard financial metric of NPV, as well as a consideration of initial cash flow drain over the first ten years (or time until a development project might produce a return). Only if the PTCC is triggered at the end of its initial grace period for a full five-year period would these costs equal those of a PTC for a borrower. Nevertheless, assessing debt service payments across the lifetime of the loan, the PTCC payments will almost always be less than those offered by the PTC, providing value for overall debt sustainability.

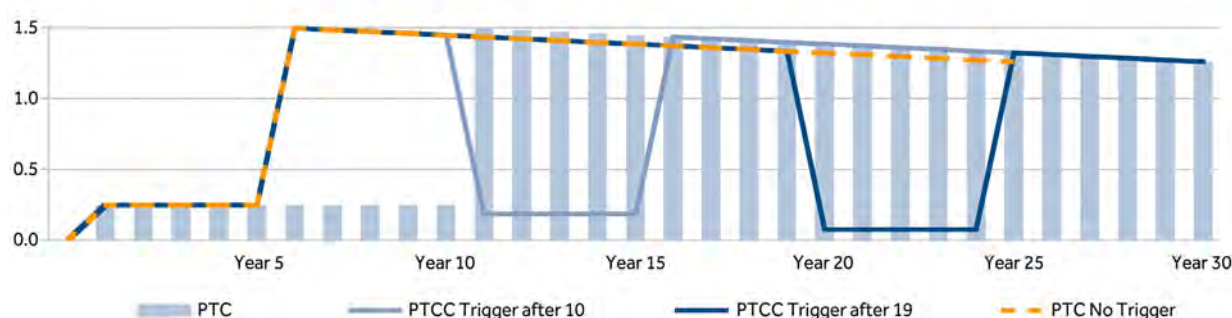
3.4.3 Debt service comparison

The chart in Figure 3.2 illustrates the annual debt service profile of the PTC (columns) and each PTCC scenario simulated in the tables above (lines).

2 The comparative NPV result above is not particularly sensitive to the discount rate. A lower discount rate would modestly reduce the difference between the PTC and PTCC, but not the ranking of them from the perspective of the borrower. A discount rate above 8 per cent (which, in practice, would be likely for most borrowers eligible for the PTCC) would further increase the relative costs of the PTCC for the borrower vis-à-vis the PTC.

Figure 3.2 PTC / PTCC debt service comparison

Projected annual debt service on a EUR 25 million loan, PTC (columns) vs. PTCCs (lines). Figures in EUR million



3.5 Discussion of possible constraints

3.5.1 Discussion of possible supply side constraints

The relatively modest growth in AFD's portfolio of PTCCs since the product's inception raises the question of whether lukewarm demand on the part of eligible borrowers is a reason for this, or whether supply-side constraints have also played a factor.

The PTCC is subsidised from a finite source of funds that is also used to subsidise PTCs and other AFD loan products, so the growth of PTCCs is limited. The PTCC and PTC are fully funded by the RCS, and according to AFD the allocations for the PTCC and PTC are unlikely to go beyond half of the RCS allocation. This would be approximately €200 million a year, given recent patterns, allowing €100 for PTCCs. So there is financial scope to increase the size of the current PTCC loan portfolio, but in its current form it will always remain a small proportion of AFD's portfolio.

From a financial perspective, the cost of the PTCC to AFD is approximately the same as the PTC so they are equally preferable. This is because AFD does not maintain a 'buffer account' to cover any shortfall in principal payments if the floating grace period is triggered.

That said, there is a small difference in operational procedures. In particular, it would appear that the asset management and monitoring systems employed by AFD are unable to cope with flexible repayment schedules, forcing the AFD treasury to create individual stand-alone spreadsheets for tracking each outstanding PTCC. This may have marginally increased the operational costs of the PTCC, but there is no suggestion that this operational complication has in any way affected the supply or marketing of PTCCs on the part of AFD.

Discussions with AFD officials have indicated that a concerted institutional drive has never actually taken place in earnest to market PTCCs to eligible borrowers, and to raise awareness of the loan's countercyclical feature among them. This may have been because the PTCC was originally designed by the AFD Economics Department, and was driven from that department rather than from the Policy or Operational Departments. Consequently, it is possible that AFD officers that interface with Ministry of Finance officials may have been less

familiar with the product and its relative merits as compared with the non-countercyclical alternatives, such as the PTC.

3.5.2 Discussion of possible demand side constraints

The absence of any obvious supply-side constraints to the rollout of PTCCs, and the discussions held with AFD officials, indicate that insufficient demand for the PTCC loan product from borrower countries is likely to be the primary factor explaining why the PTCC portfolio has not grown more aggressively. This is confirmed through discussions with both operational and treasury AFD officials, who suggested that at no point has a request from an eligible borrower for a PTCC been turned down due to insufficient AFD funds being available.

Interviews with the Ministry of Finance officials in low-income countries that have weighed up the advantages and disadvantages of the PTCC product in relation to those of the alternatives offered by AFD were not within the scope of this study. However, one key feature of the PTCC has almost certainly played an important role in diminishing the relative appeal of the product in the eyes of borrower countries: the reduced grace period that borrowers are guaranteed to benefit from throughout the life of the loan.

From AFD's perspective, the halving of the fixed ten-year grace period that applies to PTCs at the outset of the loan is of course the quid pro quo of the borrower's ability under the PTCC to benefit from a 'floating' grace period of up to five years when hard currency earnings come under strain. The assessment of the trade-offs from a borrower's perspective may be more complicated, however.

Traditionally, when contracting new debt, sovereign borrowers have attached considerable importance to the length of grace periods on the principal. Lenders have very much played along, and a long grace period is seen as a measure of a loan offer's concessionality and attractiveness from a borrower's perspective. The appeal of a long grace period to a borrower, however, lies not necessarily in any NPV benefit, but simply in the fact that the start of repayments is delayed for as long as possible.

With this in mind, we expect that many debt managers in low-income countries will struggle to justify forgoing a guaranteed ten-year grace period on the principal in favour of a guaranteed grace period of only five years, with only the possibility

of a further five years if, and only if, an export shock occurs. The fact that the 'floating' grace period could be called upon when it is needed most by the country's economic authorities will undoubtedly be seen as an important consideration by the borrower, but it is unlikely to trump the appeal to debt managers of pushing out the start of repayment as far out as possible, especially bearing in mind the fact that fiscal planning in low-income countries is invariably a short-term affair.

Of course, the problem per se is not the five-year fixed grace period offered under the PTCC, but rather the fact that it has been offered alongside PTCs carrying a ten-year fixed grace period. Interestingly, interviewees involved in designing the PTCC suggested that the working assumption was that PTCs would be phased out upon the introduction of PTCCs.

A move now by AFD to phase out PTCs would almost certainly lead to a rapid increase in the take-up of PTCCs from low-income countries, especially those currently looking to contract new PTCs. While there would likely be grumbles from debt managers who face significant reductions in guaranteed grace periods on the principal, AFD could point to growing evidence that long grace periods could be contributing to the accumulation of unsustainable debt burdens in low-income countries and beyond. Shorter grace periods not only make it more likely that sovereign borrowers will start to pay debt down even as they contemplate further borrowing, but can also encourage policy-makers to factor in the burden of repayment into economic and fiscal planning at the point at which the loans are being contracted.

Indeed, a number of highly-indebted middle-income sovereigns that have had to restructure their debt over the last five years have opted to

replace old commercial claims with new ones that (after 'haircuts' on the principal) have short grace periods, and in some cases, none at all. Having experienced the consequences of an unsustainable accumulation of debt, these sovereign borrowers have been keen to pay down remaining debt sooner rather than later. Creditors have naturally been only too happy to recoup their remaining principal more quickly, after suffering often-considerable losses.

The problem of scale is of course another factor that may have hindered a more rapid take up of PTCCs, and remains a more general challenge to the effectiveness of countercyclical debt instruments more broadly. While the concept of a flexible repayment schedule that can be adapted more or less to match the payment capacity of a sovereign borrower that is vulnerable to exogenous shocks may make perfect sense at a conceptual level, whether or not a loan on offer contains countercyclical features is unlikely to be the most pressing issue in the mind of a debt manager if the bulk of the public debt does not have this flexibility. While the activation of the 'floating' grace period on this modest portion of public debt would undoubtedly prove helpful to debt managers in the face of an export shock, with all other creditors expecting payment on schedule the resulting deferral would not 'move the needle' at a macro level; hence it is very unlikely that it would help avert debt distress should the crisis affecting the borrower be a particularly acute one.

The need for a co-ordinated approach to the countercyclical concept in development finance across creditor categories, and between creditors and borrowers, is likely to be central to efforts to make countercyclical loans more relevant to debt management in developing countries.

4. Experience with the PRVR

4.1 Background to the design of the PRVR

4.1.1 Origins

In 2013, AFD decided to build on the PTCC by extending its CCL offering to countries beyond lower-income countries. It did so by developing the Prêt à Remboursement Variable et Reéchelonnable (PRVR), which, in general terms, is a loan product based on AFD's standard sovereign loan, but with a built in element of flexibility. Like the PTCC, the flexibility component centres around 'floating' or movable grace periods. In contrast to the PTCC, however, the borrower pays for this flexibility in the form of an annual fee or premium due to AFD. In recognition of this fee, AFD allows the borrower to utilise the 'floating' grace period largely at a time of its choosing, regardless of whether a specific shock – be it exogenous or otherwise – has occurred.

Critically, the PRVR for now remains a prototype, as it has not as yet been extended to a borrowing country by AFD. The analysis in this section is therefore limited to the PRVR as a notional lending instrument.

4.1.2 Description of the loan product

The interest rate on the PRVR is set in exactly the same way as in the case of AFD's standard sovereign loans. The base is AFD's own market borrowing costs, with an administration margin added. The resulting rate can then be lowered through subsidy (using the French Treasury grant mechanism) in the case of lower middle-income countries and upper middle-income countries, although the subsidy values differ.

In terms of maturity structure, the PRVR is based on a 20-year door-to-door tenor, comprising a fixed grace period on the principal of five years, followed by 15 years of equal semi-annual repayments. As in the case of the PTCC, the borrower can benefit from a 'floating' grace period of up to five years. In contrast to the PTCC, however, the borrower can elect to activate the 'floating' grace period at any point of its choosing, without the need to justify its request for activation on the basis of a triggering event of any kind. Although it is unclear how this would work contractually (a draft PRVR loan agreement is not yet in existence), AFD has stated that as lender it would retain the right to

reject a request for a deferral in cases where the institution believes that the PRVR borrower is pursuing imprudent macroeconomic policies. In this sense, it could be argued that the PRVR is not strictly speaking a pure CCL as, in theory, the 'floating' grace period could be activated by a borrower simply wishing to divert the freed up funds to a different project in the middle of its budget cycle.

As in the case of the PTCC, a maximum of ten semi-annual principal maturities – whether consecutive or not – can be subject to a deferral. Unlike with the PTCC, however, only 50 per cent of each affected principal maturity can be deferred, with the remaining half having to be paid on schedule along with the interest. If the full floating grace period was exercised, the loan could be extended by 2.5 or 5 years, depending on the payment preferences of the borrower. AFD has indicated that deferred amounts would attract an additional interest rate margin that would vary depending on the country and project in question, and that this margin could be in the 50–90 basis point range.

The pricing of the annual premium or fee that the borrower would pay would be calculated by AFD on the basis of internal rate of return of the RCS at the point at which the PRVR is contracted. This methodology stems from the fact that internally AFD would tap RCS resources to offset the liquidity impact of the activation of the 'floating' grace period on PRVRs. The use of the RCS internal rate of return (IRR) would therefore in theory ensure that the RCS is not left 'out-of-pocket' as a result of PRVR 'floating' grace period activation. Indications provided by AFD suggest that the PRVR annual fee could be in the 20–80 basis point range.

4.2 Comparative analysis of the PRVR

Although AFD has not been able to provide precise pricing levels for its PRVR prototype, for the purposes of our comparative analysis we have used a set of assumptions derived from our discussions with AFD officers in order to project debt service under several PRVR scenarios against the service due under a standard sovereign loan with no countercyclical feature.³

³ This is an estimation as actual operational costs would vary based on the characteristics of the financial instrument and the borrower country

In our comparison, we use the same terms / assumptions for sovereign loans as set out in Section 2.2 above (1.75 per cent interest rate, consisting of 1 per cent borrowing cost plus 0.75 per cent margin). For the purposes of determining an illustrative interest rate for the PRVR, we have taken this same interest rate and added a 50 basis point countercyclical premium or fee (i.e. the midpoint of the 20 to 80 basis point range provided by AFD), in order to arrive at a total PRVR annual rate of 2.25 per cent. We have also assumed that any amounts deferred under the PRVR framework increase the interest rate on the deferred maturities by 70 basis points to 2.95 per cent.

We have assumed no subsidy in either the standard sovereign loan or PRVR. In terms of maturity structure, we have assumed an identical repayment period for both loans, comprising a 20-year door-to-door tenor, including a fixed grace period of five years.

Finally, for the purposes of NPV calculations, the cash flows generated by both loans have been discounted at 6 per cent (slightly lower than in the case of the PTC and PTCC, in view of the fact that the hypothetical borrower is assumed to be an upper middle-income country, with likely market access).

4.2.1 Costs of a PRVR that does not undergo deferral

In Table 4.1, we compare from a borrower's perspective the cost of a PRVR that does not trigger a partial deferral of principal maturities against that of a standard sovereign loan from AFD.

Table 4.1 Comparative cost of a PRVR that does not undergo deferral

Projected costs on a EUR 25 million loan, up-front disbursement (Figures in EUR million)

	Standard sovereign loan	PRVR	Difference
Net present value (Total)	9.0	7.9	-1.1
Principal (Total)	25.0	25.0	
Interest + Premium (Total)	5.6	7.2	+1.6
<i>Note: First 10 years' debt service</i>	12.4	13.5	+1.2

The only difference between the standard sovereign loan and the PRVR is the countercyclical premium

or fee of 50 basis point that is added to the interest cost. This means that the PRVR borrower would pay an additional €1.6 million in debt service costs over the 20-year life of the facility. In NPV terms, a PRVR that does not make any use of the 'floating' grace period would cost the borrower €1.1 million more than a standard sovereign loan of the same maturity.

4.2.2 Costs of a PRVR that is deferred

In Table 4.2, we compare the costs to the borrower of servicing a PRVR that makes full use of the maximum allowable 'floating' grace period of five years in two different scenarios: the first assumes the deferral starts at the end of the fixed five-year grace period, while the second assumes it starts after 19 years. The door-to-door tenor of the standard sovereign loan would be 20 years. For the PRVR deferred after five years this is extended up to 23.5 years, and 21 years for the PRVR deferred after 19 years.

Table 4.2 Comparative costs of a PRVR facility that is deferred

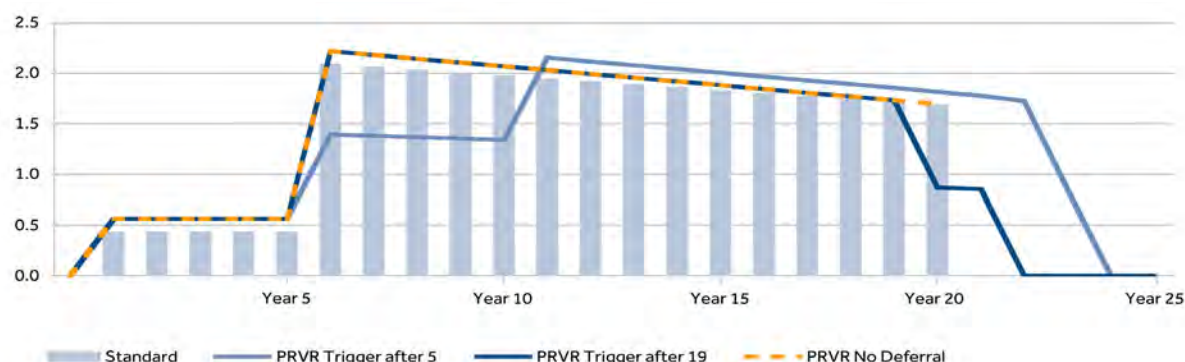
Projected costs on a EUR 25 million loan, up-front disbursement (Figures in EUR million)

	Standard sovereign loan	PRVR deferred after 5 years	PRVR deferred after 19 years
Net present value (Total)	9.0	8.6	7.9
Principal (Total)	25.0	25.0	25.0
Interest + Premium (Total)	5.6	8.9	7.2
<i>Note: first 10 years' debt service</i>	12.4	9.6	13.5

As in the case of the PTCC, the most favourable scenario for a borrower from a NPV perspective is one in which the maximum allowable 'floating' grace period of five years is used up as soon as possible, which is straight after the end of the fixed five-year grace period. For example, if the additional grace period kicks in after 19 years, the NPV terms to the borrower is reduced by €0.7 million compared to a PRVR deferred after five years, and €1.1 million compared to a standard sovereign loan. What is most significant here, however, is that under this scenario total debt service payments are also

Figure 4.1 PRVR/ standard sovereign loan debt service comparison

Projected debt service on a EUR 25 million loan, standard sovereign loan (columns) vs. PRVRs (lines). Figures in EUR million



higher because of the countercyclical premium and additional interest on deferred stock.

In summary, our analysis using rough assumptions for the countercyclical premium, AFD borrowing cost, and AFD administrative margin indicates that the borrower would be materially worse off for having chosen a PRVR (activated or not) both in terms of NPV and total debt service payments as compared to a standard sovereign loan.

4.2.3 Debt service comparison of a standard loan and PRVRs

Figure 4.1 shows a chart comparing the annual debt service of a standard sovereign loan with that of the hypothetical PRVRs discussed above (line graphs).

4.3 Discussion of the PRVR

4.3.1 Discussion of possible supply-side constraints

While the amount of funding that AFD can raise in the market each year is not unlimited, we would expect that the PRVR's reliance on AFD market borrowing activities rather than on a limited pool of scarce RCS resources would have made it easier for AFD to roll out PRVRs with scale relative to PTCCs.

Moreover, the fact that the margin component of the PRVR is intended to ensure that AFD recoups all of its intermediation costs (even before the premium for the countercyclical feature is added in) means that the lender would have no financial incentive to restrict the availability of PRVRs.

Instead, it would appear that non-monetary supply-side constraints on PRVR rollout are present. First, the fact that no PRVRs have been extended to date seems partly to be explained by a limited marketing

drive for the product on the part of AFD. Second, it appears that AFD staff members are not fully aware of the PRVR's potential benefits.

4.3.2 Discussion of possible demand-side constraints

AFD has indicated that the PRVR has only ever been seriously discussed with one potential sovereign borrower. After closer analysis, it is understood that the borrower decided that a different loan product was better suited to its purposes.

Of course, it is impossible to draw conclusions on the relative merits of the PRVR while the product remains unused and largely 'on the drawing board'. However, generally speaking, we note that the relatively modest scope of deferrals that is available under PRVRs could limit interest from borrowers. With only 50 per cent of principal maturities eligible to be deferred upon the activation of 'floating' grace periods, borrowers stand to benefit from limited levels of cash flow relief. The fact that a fee is payable for this flexibility, that deferred amounts would attract a surcharge (in the form of an additional interest rate premium), and the risk that AFD could reject a 'floating' grace period activation request if it is unhappy with the macro policy stance of the borrower, are all likely to reduce the appeal of the PRVR further in the eyes of prospective borrowers.

In some ways, it can be argued that the fee or premium that AFD would look to charge PRVR borrowers in exchange for the loan's built-in flexibility is somewhat problematic at a conceptual level. From a financial perspective, the primary issue confronting a lender that provides a significant volume of countercyclical or flexible loans is one of cash management: the lender needs to ensure that procedures are in place to ensure that there

are no temporary liquidity shortfalls in the event that any deferrals making up the countercyclical features are triggered. Because the timing and impact of deferrals cannot be known by AFD in advance, it has had to make assumptions when structuring the loan.

In the case of PRVRs, AFD has tried to simplify this assessment by introducing a pool of refinancing resources with a yield (or cost) that can be broadly known in advance: the RCS. However, the computation at the outset of fees that are based on the assumption that deferrals will automatically result on additional costs to the lender in all likelihood ‘overpenalises’ borrowers, especially if no deferrals take place or if the refinancing in practice occurs at a cost that is lower than the original cost of the funding that financed the facility in the first place. Moreover, given the limited take up of PTCCs and scope for PRVRs with current assumed terms, this liquidity management cost appears hypothetical at best: the sums involved are so small from a deferral in a CCL portfolio around the current size that it is not clear that a cost to the lender would be created. In order

to avert this problem, lenders may wish to introduce mechanisms that recalibrate assumed costs with actual costs at the end of the actual facility.

However, there is a more fundamental question here. The AFD’s approach assumes that any costs that are involved in making CCLs available to vulnerable sovereigns must be borne by the borrower. Depending on the magnitude of the fees being sought, it is quite likely that this assumption will eventually prove problematic for developing country borrowers. This is because they will be able to make the argument, and quite convincingly, that if CCLs can in fact reduce the likelihood that an exogenous shock will lead to debt distress and possibly default, the lenders stand to gain as much as the borrowers from the buffer that CCLs can provide, if not more. The next step in the argument would be that it is therefore only fair and equitable that any costs associated with the provision of flexible repayment schedules should – at the very least – be shared between lenders and borrowers.

5. Charting a Future Course for CCLs

5.1 Lessons from the AFD experience

5.1.1 An idea ahead of its time

The CCL concept remains in its infancy, and it could even be argued that CCLs were an idea ahead of their time when AFD began to introduce the PTCC. With virtually every category of debt financing that is available to sovereign borrowers based on fixed repayment schedules, it will take some time for both borrowers and lenders to properly assess the advantages and disadvantages of CCLs, and to adapt these loan products in ways that make them better suited in practice to their specific requirements. It is also the case that the concentration of AFD's experience with CCLs in a small group of Sub-Saharan post-HIPC borrowers that have turned out to have been less exposed to the sharp commodity price swings of recent years than many other AFD borrower countries, makes it more difficult still to draw firm conclusions.

Yet despite the relative 'newness' and limited scope of the AFD experiment with CCLs, certain themes can already be discerned in the AFD experience that may provide useful pointers for the development of CCLs in a broader context. Indeed, the case for a more broad-based application of CCLs would appear to be supported by the rapidly rising levels of uncertainty that are adversely affecting the outlook for growth and macroeconomic stability in developing countries and beyond.

5.1.2 Relative appeal

The limited scope of the AFD experience would seem to also suggest that flexibility per se might not be a sufficiently important factor on its own to sway a borrower's interest in CCLs. Even though the debt servicing costs over the lifetime of the loan are lower for the PTCC than its closest non-countercyclical option (the PTC), comparative analysis in this report has shown PTCCs offer lower NPVs and higher immediate debt service costs under all scenarios. The costs borne by the debtor are particularly sensitive to the triggering of the floating grace period. For example, the NPV of the PTCC is the lowest in a scenario in which the borrower does not trigger the floating grace period.

Furthermore, if a triggering event for the PTCC occurs after ten years, total debt servicing outlays during the first ten years of the loan could be up to four times higher for the borrower as compared to under the PTC – a prospect that is likely to act as a considerable disincentive to public debt managers.

It is likely that AFD could increase the appeal of its CCL offering if it were to ensure that the available alternatives were financially similar to those of the PTC (assuming the PTC will be retained). The appeal of both products could also be enhanced in the eyes of borrowers, if the scope of the deferral could be widened to include interest maturities as well as principal.

In the case of the PRVR prototype, it could make sense for AFD to consider finding ways to reduce or altogether eliminate the countercyclical fee or premium – even if this means withdrawing the borrower's ability to trigger the 'floating' grace period at a time of its own choosing.

5.1.3 Relative complexity

Because of their very nature, CCLs involve repayment profiles that are more complex than those of traditional loans. Some features of the PTCC – such as the use of reserve accounts that can potentially provide additional flexibility and reward borrowers that do not make use of the available deferrals – are likely a function of AFD's interest in containing the debt service burdens of some of its poorest borrowers. While this objective is of course commendable, an excessive degree of complexity may make prospective borrowers wary to a degree. In order not to diminish the appeal of these important products, we believe consideration should be given to eliminating complex features that may be beyond the monitoring ability of strained debt management offices, and which in any case are unlikely to generate material benefits for borrowing countries.

5.1.4 Choice of trigger

The choice by AFD of variations in export revenue as the trigger for the 'floating' grace periods in PTCCs can certainly be understood from a number of perspectives, including a linkage of export shocks with sovereign debt accumulation. However, our

review of the latest trade data in the case of PTCC borrowers suggests that the case may exist for AFD to consider broadening the trigger criteria, based upon the needs of prospective borrowers. Indeed, the fact that most existing PTCC borrowers are not even close to being able to declare a triggering event (leaving aside the fact that a number of PTCCs are still within their fixed grace periods) under their loans, despite the greatest global financial crisis in 70 years, could undermine the perceived utility and effectiveness of the product in the eyes of prospective borrowers.

There is also an issue about the current data used for the triggering event, which according to AFD is produced at a lag of four months, undermining the possibility of the stay on principal payments being immediately implemented after an exogenous shock.

5.2 Themes for future consideration

5.2.1 Proactive demand development

A strong and co-ordinated marketing drive at the institutional level is critical to ensure that as many prospective borrowers as possible become aware of the availability of CCLs and understand their advantages. Significant demand among lower- and middle-income borrowers is likely to exist. Different sovereign borrower groups with a strong 'shared experience' ethos, such as small states and small island developing states, would benefit from exploring how a loan with a countercyclical option could be best designed to suit their needs. The Commonwealth Secretariat would be a useful facilitator of such discussions.

In these discussions, we believe it will be important to earnestly seek borrowers' views on what shocks they are most exposed to. For example, opening the door to triggers based around tourism arrivals (in the case of small states), the occurrence of environmental disasters, the price of specific commodities (i.e. irrespective of volume), prudent fiscal stances in response to GDP downturns or other triggers that borrowers may wish to propose, could increase the relevance of CCLs, while still addressing the same fundamental problems of uncertainty and vulnerability that AFD has identified.

We also expect that the appeal of CCLs to prospective developing country sovereign borrowers will be constrained if they perceive that there is an additional cost to them of choosing CCLs over non-countercyclical alternatives (be this in the

form of fees or shorter grace periods). It is quite likely that CCLs can play an important role in reducing the financial vulnerability of sovereign borrowers exposed to exogenous shocks, but their widespread adoption by developing country borrowers will in all likelihood require a shared approach to costs.

5.2.2 Symmetrical benefits

While we believe that the official sector is better placed to provide such leadership at the outset, attention must also turn to ways for encouraging greater interest on the part of private sector creditors.

One possible way of doing this may be to consider the principle of symmetry in the structuring of CCLs. We believe that sovereign borrowers that are exposed to exogenous shocks may in principle be willing to consider debt instruments that can be tailored to their payment capacity not just during downswings, but also during upswings. This could be done in different ways. As an example, during a shock, as well as the principal being deferred, the rate of interest could fall by a certain percentage. The lender could then recoup the lost margin once the shock has passed and the borrower's payment capacity has recovered. More radically, the borrower could agree to benefit from a suspension of payments upon the occurrence of a predetermined shock in exchange for an 'accelerated' repayment scheduled, which would be triggered once exports (or another variable) exceed an agreed threshold. Opening the door to the possibility that the borrower may end up repaying its debts more quickly if it experiences a significant improvement in its payment capacity could support more prudent debt management in certain types of countries.

While these structures might seem relatively radical, we note that it is becoming more and more common for middle-income borrowers to enter commercial swap arrangements that are essentially based on the same principle of symmetry and which can lead to quicker debt repayment when capacity is greater. Although more complex, recent discussions at the international level have also touched upon the implications of GDP-linked payments in the case of sovereign bonds.

Symmetry is important, because it may in certain cases encourage private sector lenders to consider countercyclical structures that use a potential 'upside', instead of unviable fees to pay for the built-in flexibility. Of course, private sector creditors are likely to maintain that dynamic repayment schedules such as the one outlined above do not

lend themselves to easy pricing (and therefore trading). One approach that is being explored in private sector lending contracts that could provide a balanced approach is one that avoids an extension in overall tenor if a 'floating' grace period is triggered. As an example, when restructuring its Eurobond in late 2015, Grenada issued a new bond containing a 'hurricane clause' designed to provide the borrower with some flexibility in the event of another disruptive natural disaster. Future repayments are adjusted upwards in order to take the shorter repayment period into account. For Grenada, the fixed repayment period of 15 years was in line with its efforts to keep the remaining debt burden on a downward trajectory. For commercial creditors, sticking with a fixed overall maturity was important in terms of keeping pricing adjustments simple.

Generally, we believe the trade-offs between pricing complexity and reduced vulnerability to distress of different types of CCL variants should be a key focus area for the international community.

5.2.3 Enhancing scale

In our view, AFD's adoption of CCLs is already poised to have an important impact on the economic development of the five borrowers

that have contracted PTCCs. Although the overall quantum of funding is small relative to the AFD's overall portfolio and that of other development institutions, the €344 million provided is a material amount of funding for these borrowers post-the HIPC initiative. What is more, the development of the facilities with the debt offices of the five countries is tangible encouragement for them to proactively monitor potential shocks and engage in debt management more generally.

Of course, for CCLs to also play a role in averting disorderly defaults – where an exogenous shock tilts a sovereign borrower into a temporary liquidity crunch (as opposed to instances where long-term debt sustainability is fundamentally under question) – CCLs will need to affect a material portion of a sovereign borrower's debt stock. A concerted effort to make CCLs a more mainstream form of debt financing for vulnerable developing country economies will require a considerable degree of co-ordination between sovereigns and lenders, and between different lenders, with the aim of achieving scale and critical mass. This will likely require the leadership of a small number of development finance institutions with the right profile and with a sufficiently strong level of commitment.

References

AFD (2014), AFD Annual Report, Agence Française de Développement, Paris.

AFD (2015), AFD Half-Year Financial Statements, June, Agence Française de Développement, Paris.

AFD (2013), 'Counter-cyclical loans: The experience of AFD', presentations, Commonwealth Secretariat and UN Development Programme (UNDP) Workshops, Port of Spain, January 2013, and Capetown, March 2013.

Berensmann, Kathrin (2010), 'How to Prevent and Resolve Debt Crises in LICs?', paper for German Development Institute, Bonn, January.

Cohen, D, H Djoufelkit, P Jacquet and C Valadier (2008), 'Lending to the Poorest Countries: a New Counter-cyclical Debt Instrument', document de travail n° 269 du Centre de développement de l'OCDE, Paris, October.

Griffith-Jones, Stephany (2012), 'Analysis of Instruments to Help Countries Cope with Unforeseen Shocks: the Case of the CCL', paper prepared for the Commonwealth Secretariat, London.

Fitch Ratings (2015), Agence Française de Développement (AFD), Full Rating Report, September, Paris

International Monetary Fund (2016), IMF Finances, available online, June 2016.

International Monetary Fund (2016), World Economic Outlook Database, April 2016.

International Monetary Fund (2015), 'Where are Commodity Exporters Headed? Output Growth in the Aftermath of the Commodity Boom', chapter 2 in World Economic Outlook, October, IMF, Washington, DC.

International Monetary Fund and World Bank (2011), Managing Volatility in Low-Income Countries: The Role and Potential for Contingent Financial Instruments, October.

Standard & Poor's (2016), Research Update: French Development Bank Agence Française de Développement Affirmed At 'AA/A-1+'; Outlook Remains Negative, February.

World Bank (2008 and 2015), Annual Reports, World Bank, Washington, DC.

World Bank (2010), Enhancing IDA's Capacity to Respond to Severe Crises, February, World Bank, Washington, DC.

Annex 1: AFD's Operations

AFD, which is 100 per cent owned by the French state, operates in more than 90 countries and in the French Overseas Territories. The organisation has approximately 1,800 employees in Paris and in 72 field offices.

As of end 2014, 18 per cent of AFD's portfolio was in the form of loans extended to private sector borrowers with no sovereign guarantee. These assets are managed by AFD's PROPARCO unit.

Funding model

As described above, the bulk of AFD's funding requirement is satisfied through regular market issuances. In 2015, AFD issued in excess of €5 billion in market securities. AFD has an 'AA' rating from Standard & Poor's and Fitch, in line with the rating of the French government.

Figure A1.1 Falling borrowing costs

French 10-year borrowing cost, last 10 years, monthly



Over the last ten years, France's borrowing costs have dropped dramatically as global interest rates have declined – despite the interim downgrade of its credit rating from 'AAA'. As indicated in Figure A1.1, French borrowing costs for a ten-year maturity have fallen from around 4 per cent in 2006 to around 0.5 per cent in 2016, in line with those of other Eurozone governments. AFD's own market borrowing costs over the last decade have been partly complicated by swap arrangements which rose with Euribor rates in 2012; since this time, however, rates have generally returned to low and favourable levels for on-lending.

In addition to the amounts raised through its market borrowing programme, AFD receives funding each

year from the French state that is earmarked for specific purposes:

- a 30-year (including 10-year grace period) low-interest (0.25 per cent per annum) loan from the French Treasury, which is used to capitalise a soft funding pool for low-income countries known as the Ressources à Conditions Spéciales (RCS); (the loan amount received by AFD from the French Treasury in 2015 was approximately €400 million);
- a grant from the French Treasury that is used to subsidise or 'blend' the interest rates applying to AFD's standard sovereign loan product, which are not funded from the RCS (in 2015, this grant was in the region of €300 million); and
- a grant from the French Foreign Affairs Ministry that is utilised by AFD to provide grants to priority countries that appear on a list that is updated by the Foreign Affairs Ministry on an annual basis (in 2015, the grant provided by the Foreign Affairs Ministry was approximately €250).

As of the end of 2014, AFD's debt to the French Treasury stood at €3 billion.

Geographical features of AFD's existing sovereign loan portfolio

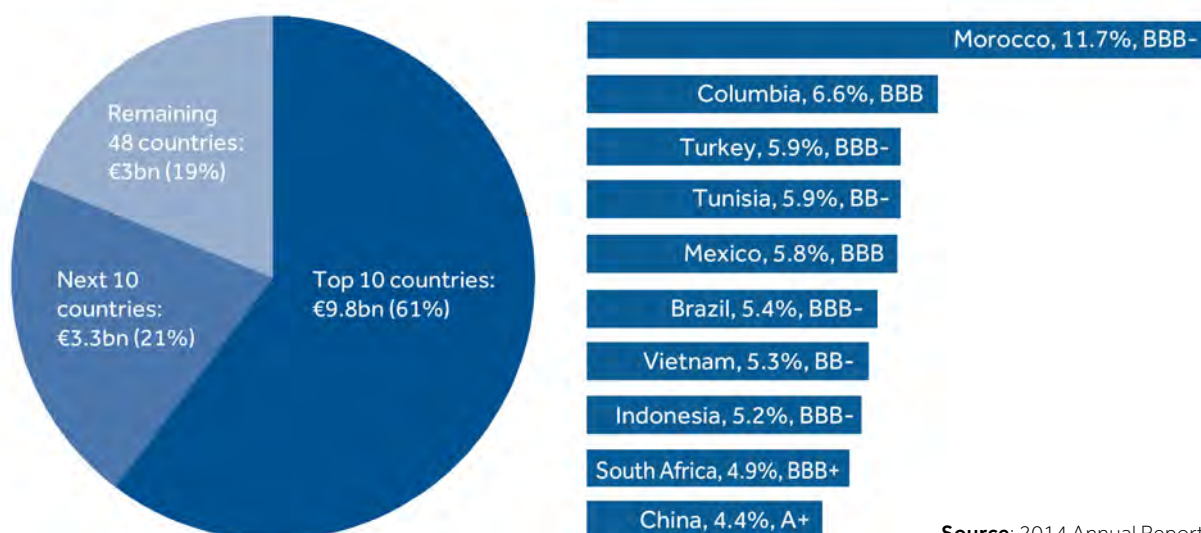
As shown in the pie chart in Figure A1.2, AFD's loans to sovereign borrowers are relatively concentrated by value from a geographical perspective.

Of the €16 billion in loans disbursed and outstanding to sovereign borrowers (i.e. excluding French Overseas Territories) as at end 2014, €10 billion (61 per cent) had been extended to ten borrowers. Of the remaining €6 billion of exposure, more than half was accounted for by loans to the next ten largest borrowers; the remainder was spread across a total of 48 borrowers.

As shown in the bar chart in Figure A1.2, Morocco is by far the largest single AFD borrower country, accounting for 12 per cent of all exposure alone. All but two of the top ten borrower countries have an investment grade rating (Vietnam and Tunisia, the only non-investment grade borrowers in this group, are rated in the 'BB' group).

Figure A1.2 Concentrated lending

Distribution of €16 billion disbursed loans as of end-2014, as % sovereign portfolio
Existing AFD portfolio and Fitch credit rating for top ten borrowers



Source: 2014 Annual Report, Fitch

Strategy

After relatively flat approval levels of around €4 billion per annum from 2009–13, AFD has set out to significantly grow its portfolio – eyeing a potential doubling of its 2014 approval levels by 2020 through its business plan. Approvals in 2013 and 2014 were already up by around 13 per cent on average, with AFD targeting annual approvals of €8 billion by the end of this decade.

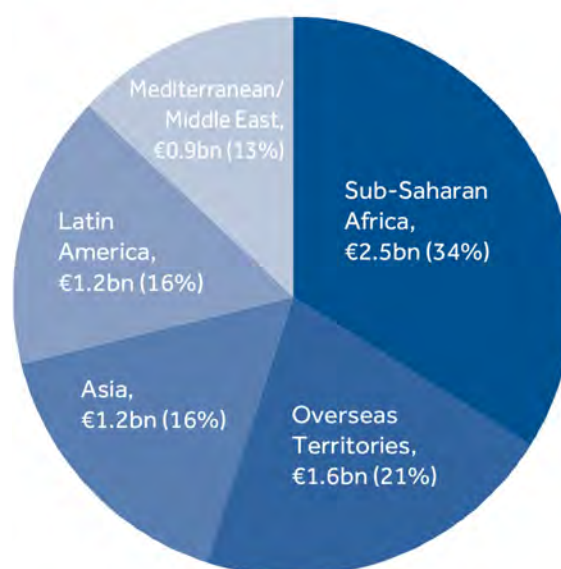
This increase in funding will target low-income countries. In particular, AFD intends to grow the proportion of lending to Sub-Saharan Africa from 28 per cent of its end-2014 portfolio of sovereign loans (with South Africa the largest borrower among this group, with 18 per cent of the total). Although details of AFD's 2015 lending approvals have not been released yet, its targets for the year included €2.5bn for Sub-Saharan Africa – a 34 per cent share of total target commitments. AFD is also targeting non-sovereign public sector lending, and in particular projects that will support climate change adaptation.

This commitment to increase development lending is remarkable given the context of pressures on the state to cut the fiscal deficit and public debt levels, and ongoing reductions in domestic social spending.

AFD intends to fund its expansion strategy primarily by increasing its borrowing in the capital markets, with annual market issuance expected to increase

Figure A1.2 Concentrated lending

2015 AFD lending targets by region, as % of total



Source: AFD website

from the €5 billion targeted for 2015 to €8 billion by 2018. Furthermore, AFD is in the process of setting out a new five-year Strategic Orientation Plan for the 2017–22 period. Together with the appointment of a new chief executive officer (Mr Rémy Rioux assumed his position at the end of May 2016), this strategic review could introduce further shifts in institutional strategy.

Commonwealth Secretariat

Marlborough House, Pall Mall
London SW1Y 5HX
United Kingdom

thecommonwealth.org