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Harnessing Public Trade Finance to Foster a Green Economy in Developing Countries: Current State of Play and Way Forward

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List of acronyms

CDM	Clean Development Mechanism
CER	Certified Emission Reduction
ECA	export credit agency
ECGD	Export Credits Guarantee Department
FAST	Finance Alliance for Sustainable Trade
G8	Group of Eight
GHG	greenhouse gas
HIC	high-income country
IDA	International Development Agency
IFC	International Finance Corporation
JI	Joint Implementation
LIC	low-income country
LMIC	lower-middle-income country
MDB	multilateral development bank
OECD	Organisation for Economic Co-operation and Development
SCM	Subsidies and Countervailing Measures
UK	United Kingdom
UMIC	upper-middle-income country
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

Abstract

This paper investigates the potential to harness trade finance to foster the development of a green economy in developing countries.

The world is facing multiple crises of sustainability: global financial crisis, climate change, and the overuse of natural resources. Many developing countries are additionally destabilized by poverty, disease, corruption, and failures in democratic governance and education.

The transition to a green economy is recognised by a variety of organizations and experts as a ground-breaking way forward, combining economic development, social welfare and environmental protection. In order to shift to a green economy, changes in production and consumption practices, and therefore also in trade patterns, are crucial. This makes the leverage power of leading export credit agencies, which totalled an exposure of USD 1.7 trillion in 2011, colossal.

The objectives of this paper are twofold. First, we investigate the current state of play in trade finance. We show a double centralization of flows - sectoral and geographical - fuelled by the undermining of institutions' original mandates. We also highlight the shortcomings of the recent '*do no harm*' regulations implemented in the sector. Secondly, building on the ever-increasing interest in green trade, we formulate recommendations for public agencies to '*do good*' by bridging the financing gap and being a driving force of the shift to a sustainable world.

In order to tackle these questions, this research conducts a quantitative and qualitative analysis of trade finance flows from the world's leading trade finance institutions over the last decade. Data is taken from the International Union of Credit & Investment Insurers and the Organisation for Economic Co-operation and Development. The theoretical analysis builds on an extensive literature review and the examination of reforms undertaken in the public and private trade finance sectors.

Introduction

The world is currently facing a triple crisis of sustainability (Addison, *et al*., 2010). On top of socio-economic issues, such as the global financial crisis, the debt crisis in Europe, rising inequalities and unemployment, the threat of climate change related to an over-reliance on fossil fuels and the unsustainable (over-)use, depletion and pollution of other natural resources from freshwater to soil and from fisheries to forests, is potentially pushing the world to levels of dangerous instability. Developing countries, and particularly Africa, are additionally destabilized by high levels of poverty, unemployment, inequality, disease, corruption, and failures in democratic governance and education.

The transition to a green economy, stemming from the concept of sustainable development, has been recognised as a ground-breaking way forward, combining economic development, social welfare and environmental protection. As defined by the Brundtland Report in 1987, "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNWCED, 1987). Building on this definition, a green economy is "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities" (UNEP, 2011).

In order to shift to a green economy, changes in production processes, production and consumption practices (UNEP, 2009), and therefore also in the trade patterns which underpin globalised consumption and production, are crucial. Trade finance, by providing critical fluidity and security to enable the movement of goods and services, plays a key role in the transitional process to a green economy. It lies at the heart of the global trading system and is the underpinning component of growth in most sectors (Auboin and Meier-Ewert, 2008) as more than 90% of trade transactions rely on some form of credit, insurance or guarantee (Auboin, 2007).

However, the financial crisis which hit markets late in 2008 resulted in a trade finance gap estimated at up to USD 300 billion at the end of 2008 (Chauffour and Malouche, 2011). In addition, sustainable trade is affected by a persistent financing gap: in the sustainable coffee sector only, the gap was valued at USD 780 million in 2007 (FAST, 2009). This makes the leverage power of leading export credit agencies (ECAs)[1], which totalled an exposure of USD 1.7 trillion in 2011[2], colossal (Berne Union, 2012).

Building on this opportunity, this paper investigates the current state of play in state-led trade finance and envisions a way forward to harness public trade finance to foster a green economy in developing countries.

The paper proceeds as follows: Section 2 reviews the original mandate and successive reforms undertaken by the public trade finance sector to reduce ECAs' negative sustainability impact and provide specialised products for green economy projects in developing countries. Section 3 analyses public trade finance flows from the last decade (2002-2011) on a geographical and sectoral basis and shows that ECAs have fuelled 'policy perversity' by undermining their original mandate and recent regulations and focusing their activities on developed and fast-growing economies as well as traditional high-profit brownfield sectors. Section 4 formulates recommendations for public trade finance to foster a green economy in developing countries. The enlargement and consolidation of current regulations would reorient ECAs towards their initial mandate and reduce the sustainability impact of their activities. Further innovation would allow ECAs to answer the increasing demand for tailor-made products for green economy projects in developing countries. Section 5 concludes.

[1] ECAs are institutions which undertake official export credit activities (pure cover, official export financing and any combination of the two) for or on behalf of governments. There are many different types of ECAs. They can be government departments or agencies, or commercial institutions administering an account for or on behalf of government, separate from the commercial business of the institution (OECD, 2008).

[2] The 49 leading ECAs are gathered in the International Union of Credit & Investment Insurers, also known as the Berne Union.

The public trade finance framework

1.1 National mandates: the original commitment to fostering sustainable development in developing countries

ECAs are state(-led) institutions and their mandates generally demand support, or at the very least respect, for the commitments made by the country of origin in terms of sustainability and development. More specifically, most ECAs originate from countries that are Parties to (among other multilateral environmental agreements) both the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, and committed to reducing their greenhouse gas (GHG) emissions and facilitating the transfer of environmentally-sound technologies to developing economies[3].

The mandate of the Export Credits Guarantee Department (ECGD), the United Kingdom's (UK) ECA, illustrates this point clearly. Even though the ECGD aims to "[help] exporters of UK goods and services to win business, and UK firms to invest overseas", it must also "ensure its activities accord with other Government objectives, including those on sustainable development, human rights, good governance and trade" (ECGD, 2009). Its Business Principles state that the "ECGD will press for reform on sustainable development and human rights issues in relation to export credits" and "encourage responsible trade with, and investment in, developing countries" (ECGD, 2000).

Apart from their original national mandate, ECAs remained unregulated for several decades. The ECGD, the oldest ECA in the world, was founded in 1919, and the Berne Union, the organization structuring ECAs, was created in 1934, but the first genuine international regulation concerning public trade finance only appeared in 1978 and the first initiative related to sustainable development originated in 1999. Since then, two parallel trends can be observed: the development of '*do no harm*' impact assessment recommendations and the creation of the policy space to '*do good*' by financing and insuring green economy (and other socio-economically beneficial or developmental) projects.

1.2 The Common Approaches: recommendations to do 'no harm'

The first trend has been the emergence of sustainability impact assessment recommendations to ensure that ECAs' activities do not have detrimental environmental, social and developmental impacts.

Following official calls by Organisation for Economic Co-operation and Development (OECD) (1998) and G8 (1999) countries and the 1999 OECD Council Meeting, OECD countries agreed in 1999 to "refine the case-by-case voluntary environmental information exchange" for larger multi-sourced projects in environmentally sensitive sectors by giving room for increased information sharing and coordination between various ECAs (OECD, 1999).

This resulted in the adoption in 2001 of the Draft Recommendations on Common Approaches on the Environment and Officially Supported Export Credit, the first genuine sustainability-orientated agreement. The review of 2001 Draft Recommendations (also known as 'Revision 6') implemented by OECD countries' ECAs on a voluntary and unilateral basis resulted in the "Common Approaches" in 2003. They defined the non-legally binding environmental assessment procedure that ECAs should follow. Most notably, projects should comply with the environmental standards of the host country or relevant international standards[4], whichever are more stringent. For most sensitive projects, environmental information should be made publicly available and standards should be monitored by the OECD Working Party on Export Credits and Credit Guarantees (known as the "Export Credit Group") (OECD, 2003).

The Common Approaches were updated in 2005 and 2007. Revisions primarily focused on improving transparency and public disclosure. They clarified that exports to both new projects and existing operations should be reviewed before ECAs commit to providing official support. The environmental assessment procedure was updated to take into account new World Bank Safeguard

[3] Articles 4.5, 4.8 and 4.9 of the UNFCCC and Articles 10(c) and 11(b) of the Kyoto Protocol.

[4] The relevant international standards are those of the World Bank Group and, where applicable from a geographical viewpoint, those of development banks. Members may also benchmark against any higher internationally recognized environmental standards.

Policies and International Finance Corporation (IFC) Performance Standards. It also aimed at improving experience sharing with non-OECD countries (OECD, 2007).

In June 2012, OECD countries agreed on a new Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence. In addition to enhancing coherence and clarity on standards and information exchange, the new Common Approaches added human rights to the impact assessment procedure and qualified GHG emissions as potential environmental impacts by incorporating provisions for reporting of projected emissions from projects exceeding 25 000 annual tonnes CO2-equivalent and of mitigation actions for all new high carbon intensity fossil fuel power projects (OECD, 2012a).

These successive evolutions, despite carrying no obligations for the sector, represent a step in the right direction by potentially reducing the adverse impact of ECAs. *Ex ante* impact assessment of development decisions can make a significant contribution to achieving sustainable development (Jacobs and Sadler, 1989), and sustainability impact assessments have become well established at project level in order to integrate the analysis of environmental, social and economic issues (Bond *et al*., 2001). The voluntary aspect of the Common Approaches remains, however, to be a factor that strongly undercuts their positive influence on the sector. Despite strong criticism on environmental bases, the World Bank financed in 2010 the construction of the Medupi Power Station in South Africa, the largest coal-fired power station in the world, for USD 3.0 billion. The French Compagnie française d'assurance pour le commerce extérieur (known as COFACE) also covered a EUR 1.2-billion loan from five French banks associated with the supply of turbines and related services from French company Alstom.

1.3 The Arrangement and Sectoral Understandings: the opening of the policy space to 'do good'

The second trend has consisted in the creation of the policy space for ECAs to provide custom-tailored conditions. This tendency, which started in 2005, finds its foundations in the first genuine international regulation concerning public trade finance, the 1978 OECD Arrangement on Guidelines for Officially Supported Export Credits (hereafter referred to simply as 'the Arrangement').

The Arrangement, negotiated in order to prevent ECAs from undercutting one another and distorting capital markets by offering very advantageous financial terms to domestic firms, has established a set of minimum terms for all transactions with repayment periods of two years or more. It links the terms ECAs can offer to prevailing market and commercial rates for comparable services (OECD, 1978)[5].

The Arrangement acquired an internationally binding status as part of the Uruguay Round of the General Agreement on Tariffs and Trade. The Agreement on Subsidies and Countervailing Measures (SCM) that came into force on 1 January 1995 clarified the consistency of official export credits to international trade law. The SCM Agreement states that official export credits that are below market rates and whose costs are not recovered over the long term are considered *export subsidies* and therefore subject to sanction. As this provision would signify the end of most official export credit, the Annex I (k) of the SCM Agreement also establishes a 'safe haven' or 'carve-out', i.e. exceptions for members to "an international undertaking on official export credits" (WTO, 1994). This implicitly refers to the OECD Arrangement, and signifies that trade finance institutions that comply with the rules set by OECD provisions cannot be challenged before the World Trade Organization (WTO) (Maurer, 2003; Harmon *et al.*, 2005). If Parties tend to interpret the 'safe haven' so broadly that it includes almost all forms of official export finance, its scope has been narrowed by the WTO. According to the WTO arbitration panels, the 'safe haven' only includes official financing support. Pure cover is not part of the exception and must therefore satisfy a "market test"[6] in order not to be considered a prohibited subsidy.

As this ruling limits the scope of action of ECAs and the necessary space to grant tailor-made products which could be used to promote sustainable development (Harmon *et al.*, 2005), the Arrangement allows for sectoral understandings, such as for nuclear power plants, ships, civil aircraft and more recently renewable energy, water and climate change mitigation projects.

[5] It also regulates the use of tied aid by restricting it to low-income countries or non-financially viable projects, and setting minimum grant requirements.

[6] The "market test" is implied in the Article 1 of SCM Agreement which defines a subsidy as a payment that confers a "benefit" (WTO, 1994). Successive WTO panels have established that a "benefit" exists when the exporter or investor obtains terms from the ECA that are more generous than the best available commercial offer for a comparable transaction.

Since the 2005 Sector Understanding on Renewable Energy Technologies and Water Projects, ECAs are able to offer 15-year repayment terms for these exports (OECD, 2005). In June 2009, OECD countries have gone a step further in allowing repayment terms of up to 18 years for these projects. They have also increased the flexibility in the definition of repayment schedules to take into account for instance seasonal income variability, and revised the fixed interest rate regime so as to match these longer financing terms (OECD, 2009a, b and c). In 2012, the Sector Understanding on Export Credits for Climate Change Mitigation, Renewable Energies and Water Projects confirmed the 18-year repayment period for renewable energy and water projects and extended it to carbon capture and storage projects. The new Understanding also granted 15-year repayment periods for fossil fuel substitution projects (OECD, 2012b).

At the same time, the allowed coverage of local costs (to be made in the receiving country), has been increased from 15 to 30% of each export credit package on 1 January 2008 (OECD, 2008). This ceiling was raised to 45% in 2012 for small renewable energy projects but remained at 30% for large renewable energy, mitigation and water projects (OECD, 2012b).

These agreements have opened the critical space for state(-led) institutions to grant customised conditions to exporters. Empirical evidence has made the case for tailor-made finance and insurance packages (UNEP, 2004; Aboulnasr, 2006; Conlin, 2008; Morphy, 2007 and Power-technology.com, 2009). By reducing the final price of the electricity generated by renewable energy-based power plants, favourable financing terms make green exports more profitable and competitive. Offering tailor-made terms is critical to bringing new businesses into green economy sectors, particularly where technologies are not yet fully mature and carry a measure of technology risk (for example, concentrated solar power is common in the United States and Spain, but not in many other countries). Moreover, trade finance packages specially made for green exports considerably reduces risk for ECAs as they exactly match exporters' needs in terms of costs and income structure. In other words, custom-made packages remove significant barriers to export, and above all, become a significant selling point for financial institutions being approached to finance new projects. Financing local costs, such as labour, technology and management capabilities, has also been proven to have beneficial development impacts.

Policy perversity: the double centralisation of public trade finance

Against this background, and echoing the trade-environment divide (Esty, 1996 and 2001; Halle, 2006 and 2009), the analysis of leading ECAs' trade finance flows from the last decade shows that ECAs have fuelled "policy perversity" (Maurer and Bhandari, 2000) by undercutting the national commitments and OECD provisions for export countries, and concentrating their activities on developed and fast-growing economies as well as traditional brownfield sectors.

At the geographical level, total trade finance flows originating from Berne Union members have been characterised by a double domination of developed and fast-growing economies.

As illustrated in Figure 1, from 2005-2011[7], high-income countries (HICs) and upper-middle-income countries (UMICs) respectively accounted for 77% and 18% of short-term trade finance from Berne Union's ECAs. In addition, Table 1 shows that the ten main recipients, which are all developed economies with the exception of China, totalled 51% of flows. On the opposite, lower-middle-income counties (LMICs) attracted 5% of flows while less than 1% of short-term insurance was directed to low-income countries (LICs). On the same period, HICs' share has slowly eroded from 82% to 73% of total flows, mostly captured by UMICs which registered an increase from 14% to 20%. LMICs' share slightly increased from 4% to 6% while LICs stayed somewhat stagnant well under 1%.

Long-term flows, captured in Table 2 and Figure 2, follow the same geographical repartition, even though they are slightly more diversified with the ten primary countries concentrating 39% of flows over the 2005-2011 period. Emerging countries, namely China (4th), Russia (7th), Brazil (9th) and India (12th) also feature more noticeably. HICs and UMICs respectively totalled 60% and 27% of long-term flows while LMICs received 12%. LICs' share remained very low around 1%, mostly due to unfavourable domestic environments, poorly developed banking sectors, perceived credit risk and limited penetration of global markets. However, long-term insurance has been increasingly directed to HICs over the 2005-2011 period (from 52% to 60%), while other country groupings all lost ground.

[7] Data before 2005 have not been made available.

Table 1: Main recipients of short-term trade finance from Berne Union institutions from 2005-2011

Country	Annual average (in billion USD)	Percentage of total
United States	59.0	7.7%
Germany	54.9	7.1%
Italy	52.8	6.9%
France	48.5	6.3%
United Kingdom	43.1	5.6%
Spain	36.2	4.7%
China	30.1	3.9%
Netherlands	25.8	3.4%
Belgium	23.0	3.0%
Switzerland	19.3	2.5%
Total Top 10	392.6	51.0%
Total	770.6	100%

Table 2: Main recipients of long-term trade finance from Berne Union institutions from 2005-2011

Country	Annual average (in billion USD)	Percentage of total
United States	93.8	7.3%
Italy	59.5	4.6%
Germany	57.1	4.4%
China	53.5	4.1%
United Kingdom	51.3	4.0%
France	50.0	3.9%
Russia	41.1	3.2%
Spain	38.0	2.9%
Brazil	32.2	2.5%
Netherlands	31.4	2.4%
Total Top 10	507.8	39.3%
Total	1 292.0	100%

Source: Berne Union data extracted from the World Bank Joint External Debt Hub database

In addition to HICs, a handful of fast-growing champion economies have overshadowed other countries in their income group. While the Democratic Republic of Congo (14% of flows directed to LICs), Bangladesh (14%), Kenya (11%) and the Democratic People's Republic of Korea (9%) accounted for 48% of total flows to LICs, India (20% of flows to LMICs), Indonesia (15%), Egypt (9%) and Pakistan (6%) totalled half of trade finance to LMICs. Likewise, China (18%), Russia (11%), Brazil (10%) and Turkey (9%) attracted 47% of UMICs' flows. Besides, concentration has progressively increased over time on those (or new, like Ethiopia) attracting destinations.

Figure 1: Short-term insurance flows from Berne Union's ECAs from 2005-2011 (in USD)

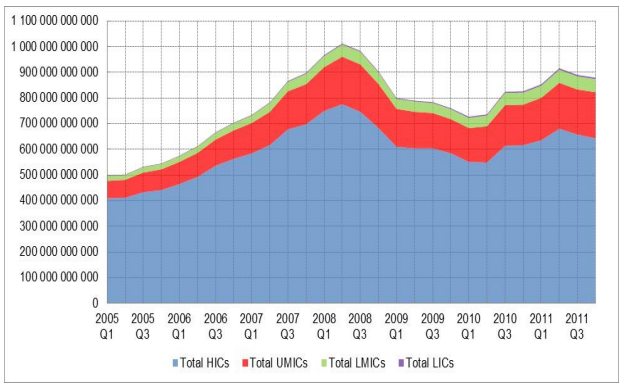
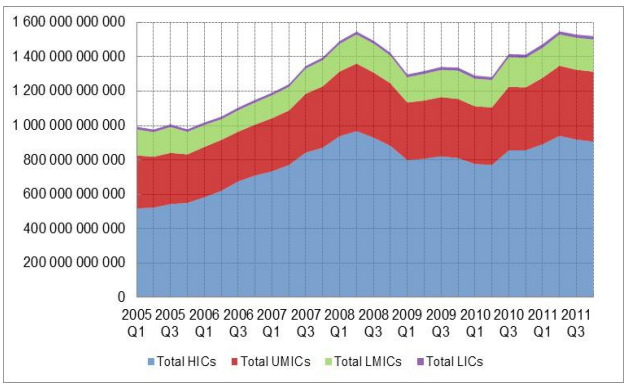


Figure 2: Long-term insurance flows from Berne Union's ECAs from 2005-2011 (in USD)



Source: Berne Union data extracted from the World Bank Joint External Debt Hub (JEDH) database

At the sectoral level, traditional, high-profit, brownfield sectors have tremendously dominated trade finance flows to developing and emerging economies, neglecting green economy projects.

From 2002-2009[8], as demonstrated in Figure 3, OECD countries' long-term export credits to developing countries have been concentrated on five sectors gathering 91% of flows, namely transport and storage (31%), industry (24%), energy (18%), communications (11%) and mining (8%). Other sectors, such as agriculture, fisheries, education, social infrastructures and services, and government and civil society all individually accounted for less than 1%. Flows to developing and emerging countries

[8] Data from 2010-2011 have not yet been made available.

from 2002-2009, represented in Figure 4, confirm the domination of these sectors and highlight the limited share of renewable energy and cogeneration (1%) as well as water supply and sanitation (1%).

Figure 3: Official long-term export credits from OECD countries to International Development Association (IDA)-only countries[9] by broad sector from 2002-2009

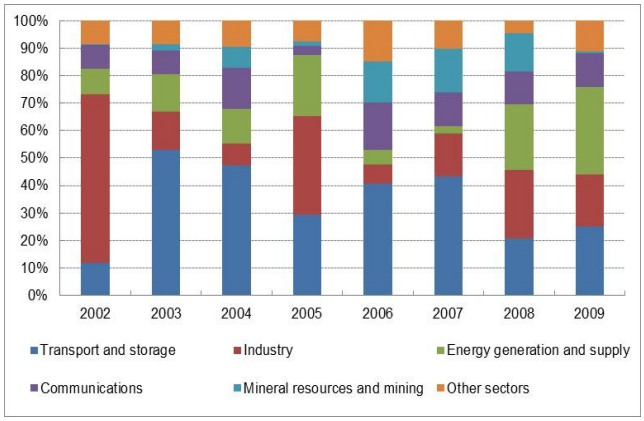
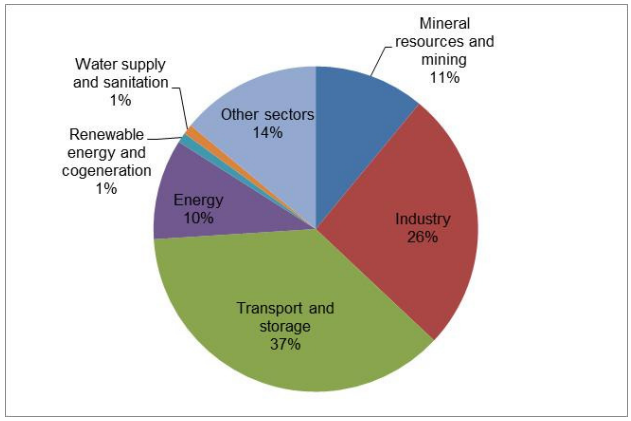


Figure 4: Official long-term export credits from OECD countries to developing and emerging countries by sector from 2002-2009



Source: OECD data

Recommendations

In order to bridge the divide between ECAs' mandate and actual export credit flows, this paper recommends engaging in two complementary trends: the broadening and tightening of current legislation, and the use of the available policy space to further innovate and grant tailor-made products for green economy projects in developing countries.

1.4 Tightening and broadening current regulations

The first recommendation is to further enlarge and strengthen the current international regulations. Even though environmental and social impact assessment procedures have been improved over the past few years, in line with OECD agreements, areas in need of improvement still exist.

Governments should first ensure that ECAs respect their sustainable development objectives, which would mechanically tighten their standards. The sector would also benefit from an upward harmonization of sustainability assessment procedures worldwide, particularly regarding consultations with affected communities. Despite being a springboard to stringent regulations, the current situation creates confusion and criticism, by allowing standards to vary from one project to another. Harmonizing standards, by also bringing emerging and developing countries to the table of negotiations (as part of the WTO Working Group on Trade, Debt and Finance created in November 2001 with the Doha Development Round), would pave the way for a genuine international approach including non-OECD countries and open the door for the further incorporation of development and sustainability impacts (Harmon *et al.*, 2005). Harmonization would also help reduce the duration of the environmental assessment procedure, which would be an asset, as the ability to offer attractive financing solutions in a very short period of time is key for ECAs' competitiveness.

This trend should be accompanied by further progress in terms of information disclosure (such as financed projects, project-based CO2 emissions). An appropriate balance between protecting commercial confidentiality and ensuring due transparency would ensure that state(-led) institutions are held accountable for their activities while not jeopardising exporters' willingness to apply for trade finance. Critically, information must be released before acceptance and inception of a project so that any challenge to

[9] IDA-only countries are countries that are eligible to receive resources from the World Bank's IDA. As of July 2012, 81 countries are eligible. Eligibility for IDA support depends first and foremost, but not exclusively, on a country's relative poverty, defined as gross national income per capita below an established threshold and updated annually (in fiscal year 2012: USD 1 175). Source: IDA, 2012.

sustainability can still be addressed. When relevant, ECAs should also provide explanations about their decisions to support a project.

In addition, ECAs hold the discretionary power to decide whether or not to support a project that derogated from international standards, thereby weakening sustainability commitments. Practices such as "constructive engagement" by the ECGD, a process which provides an opportunity to an application failing to meet sustainability obligations to be brought up to standards while still receiving provisional approval, clearly undermine the goal of sustainability (UK House of Commons, 2008).

Finally, OECD guidelines must be generalised to ensure that all projects require a sustainability assessment before being covered by an ECA. The current state of play leaves non-OECD countries' ECAs as well as many projects short of proper (in the case of civil aerospace and defence exports[10]) or, at times, any (in the case of transactions of less than two years) sustainability assessment.

This multi-pronged approach would allow for a better oversight of ECAs' activities and reinforce developmental and sustainability compliance for trade finance. It represents a viable alternative to the unsatisfactory and extremely unlikely adoption of coercive measures directing public trade finance flows towards the development of a green economy in developing countries. Even though portfolio caps or an international moratorium, on both sectoral and geographical bases, could stimulate a shift to sustainable projects and developing countries (Harmon *et al*., 2005; Maurer, 2003), a non-international regime could be inefficient or counterproductive. If a banned technology can be financed by non-complying trade finance institutions, the restriction can be easily overcome by exporters (thus resulting in a form of 'leakage'). Such a restriction could even favour exports in environmentally-harmful technologies if non-complying institutions offered beneficial financial terms (Schaper, 2004).

In addition, the German ECA Euler Hermes Kreditversicherungs AG and PricewaterhouseCoopers AG have conducted a cost-benefit analysis of the OECD Common Approaches on German exporting companies and trade finance, and demonstrated that while reducing the competitiveness gap to the advantage of sustainable projects, Common Approaches do not have a clear negative impact on exports and trade finance flows. It also establishes that abandoning the environmental assessment procedure would not decisively improve OECD companies' cost structure compared to emerging countries' companies (Schaltegger *et al.*, 2009).

1.5 Innovating for the green economy in developing countries

The second recommendation is to use the available policy space to further innovate and provide adequate information and products for green economy exports to developing countries.

ECAs offer the ideal environment for experimentation and could be used as laboratories for designing custom-made financing packages for green economy projects. Thanks to their capacity to bridge the gap between governments, the private sector and development banks, ECAs have the opportunity to partner with local and international institutions through risk sharing mechanisms that would make market segments less risky and thus more attractive (Martins, 2009).

There is room to partner and further provide local currency financing. This segment holds real business opportunities for trade finance as many developing countries have volatile currencies and companies are increasingly looking for financing in local currency. Besides, currency devaluation and transfer risks are sources of political and commercial risk that trade finance institutions are generally reluctant to shoulder. Partnership-based local currency financing and insurance would address these two concerns by expanding the supply for such products, and dividing risk between several institutions (Harmon *et al*., 2005; Mirow, 2009; Zoellick, 2009).

ECAs could also partner to jointly finance a group of small-scale projects with similar features. Bundling such projects would reduce cost and risk while facilitating the access to trade finance for small-scale projects. A significant component of green export projects is cutting-edge and experimental. As such, these projects are rather small and do not require much financing, but are quite risky. Bundling brings a sustainable solution to the table. While this *modus operandi* raises some technical issues for finance institutions, such as the national link of ECAs and the necessity to agree on the distribution of risks, none of them are insurmountable *per se*

[10] Civil aerospace and defence projects are respectively assessed by the International Civil Aviation Organization and specific governmental procedures which generally reveal nothing of the environmental, social, developmental and human rights impacts.

(Harmon *et al*., 2005) and it may even offer an opportunity for an ECA to provide a competitively differentiated offering compared to its peers.

Bundling Clean Development Mechanism (CDM) renewable energy projects could be a very efficient entry point for trade finance institutions. Most CDM renewable energy projects are small scale and eligible for Fast Track procedures (i.e. simplified baseline and project approval procedures). Bundling such projects would reduce upfront transaction costs linked *inter alia* to CDM Fast Track processing and Certified Emission Reductions (CERs) verification and monitoring, facilitate the attraction of CER purchasers, help attract investors and support from trade finance institutions and minimise risks for trade finance institutions. To keep the structure simple, bundling could be restricted to projects of a similar type, for instance only renewable energy or only energy-efficient transportation projects. Even better would be to bundle projects with more similar features, such as size, technology supplier, major investors, CER verification and monitoring experts, CER buyer, region, etc. The more analogous the projects, the less risky the bundling (Smallridge, 2004).

This would also contribute to increasing the product offer for 'Kyoto-compliant deals'. Since the creation of Kyoto Protocol's 'flexible mechanisms', the demand for specific risk-mitigating tools for CDM/JI projects has increased sharply. More and more export-based projects link their economic viability on their qualification as Kyoto projects. Despite some ECAs having participated in early 'Kyoto deals'[11] and the launch of the first private carbon delivery guarantee insurance[12] in 2004 by Austrian Garant Insurance, French Global Sustainable Development Project and Swiss Re Greenhouse Gas Risk Solutions (Dlugolecki and Lafeld, 2005), financial institutions have only just started to tailor specific products to answer this rising demand (Mill and Lecomte, 2006).

This trend could be complemented by setting up an international 'one-stop shop' aimed at providing information about opportunities in green sectors. Such a 'clearing house' would provide the information required for better coordination by banks, insurance companies, suppliers and potential customers as well as political decision-makers (Schaltegger *et al*., 2009; Schaper, 2004; and Trade Finance, 2004b). Both Germany and Canada have paved the way for such an international body. Germany set up the Deutsche Energie-Agentur (German Energy Agency) which includes an export initiative responsible for providing information on the potential of foreign renewable energy and energy efficiency technology markets as well as on the financial support available to export these technologies. Likewise, Export Development Canada partnered in 2004 with the Globe Foundation to launch Globe-Net, an Internet-based initiative aimed at providing market information on business opportunities for Canadian exporters in environmental goods, technologies and services.

Conclusion

In conclusion, ECAs have historically developed their activities without specific consideration of environmental and developmental principles. They are therefore not fulfilling their original mandate of supporting exports to risky overseas markets. They have focused their activities on developed and fast-growing economies, i.e. safe and profitable markets, and neglected developing countries. At the same time, they have channelled trade finance products to traditional 'brown' sectors such as oil and gas development.

However, the policy perversity fuelled by ECAs is not fatal. In the 1990s, national aid agencies and MDBs went through a process of reform which has led to critical improvements. Aid for Trade programmes aimed at facilitating trade finance access, such as the IFC's Global Trade Finance Program, have also been established at the regional and international levels since 1999. The necessity to address social and environmental impacts of development financing has been acknowledged and most institutions, including the World Bank Group and the OECD's Development Assistance Committee, have adopted environmental standards and practices.

The opportunity to harness trade finance to accelerate the transition to a green economy is manifest. Public trade finance institutions, through the OECD Export Credit Group, have progressively strengthened their voluntary standards for sustainability

[11] See for example Trade Finance, 2004 and Wancata, 2006.

[12] A carbon delivery guarantee is an insurance product where the re-insurer/insurer acts as guarantor for future CER delivery. Financial compensation is paid to exporters in case CERs are not delivered according to agreed terms and conditions. The package generally also covers political risk insurance (including host industry insolvency, seller insolvency, political and country risk) and business interruption (Dlugolecki and Lafeld, 2005).

impact assessment. Successive sectoral agreements have also opened the policy space for ECAs to offer products tailor-made for green exports from OECD economies to developing economies.

In addition, a change in receptivity has been visible over the last few years and most trade finance institutions have realised the advantages of investing in green trade. They have begun to design financial terms and products custom-made for the needs of green exporters. This trend is encouraging but remains only the preliminary stage of a genuine transition. While tough further efforts from trade finance are required, the necessary business potential and policy space do exist which, along with the emerging change in receptivity of trade finance, opens the door for truly international action to harness trade finance in support of a growing green economy in developing countries.

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