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Research paper

"Mapping of sources and uses of information on external development finance"

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Executive summary

The study seeks to answer three questions regarding the current state of reporting and data gathering of statistical databases on external development finance, at the global and regional level:

(i) Who is collecting data on public and private financing in support for development, including a section on peace expenditures and climate change financing;

(ii) Where is this data stored, and how accessible it is to different groups of users;

(iii) How is data collected (mechanisms and quality standards), and how does this compare to OECD-DAC's own data collection system.

The study applies a heuristic methodology to identify statistical databases and similar sources of information in order to create a database of databases on external financing for development. The methodology first defines combinations of generic actors and financial instruments in order to inform a set of queries in bibliographic databases and search engines. Second, these search queries are applied to three sets of sources of information resembling a similar number of generic users ('*personas*'): (1) bibliometric analysis using WoS (World of Science), Scielo (Scientific Electronic Library Online) and Google Scholar, including newspapers and blog entries, for specialized users but not necessarily on the topic of financing for development; (2) bibliographic analysis of OECD, World Bank and other expert institutions' reports on development finance for specialized users on financing for development data; and (3) general queries in search engines such as Google for a diversity of users. Third, using big-data analysis and visualization techniques, the mapping exercise shows databases about financial instruments channeling external financing, according to the type of generic users and actors that provide development finance. Fourth, a list of databases (LDB) build from those quoted in the bibliography from search queries is a result of this analysis.

The LDB organizes databases to compare their quality of reporting across different financial instruments, as well as to provide information about their coverage, periodicity, availability and access, primary sources of information, and compliance with common reporting frameworks, among other characteristics. In addition, it has a subset of databases for two specific sectors: peace and development and climate change.

The analysis from the mapping exercise and the building of the LDB lead to four main conclusions. First, the universe of databases hosting statistical information on development financing is broad but comprehensible. The mapping exercise gives a detailed picture of which institutions are collecting data and how different groups of

users utilize them in their reports, blog entries, documents, academic publications and books. For example, more specialized users on development finance (*persona 2*) quote and use data from global, harmonized databases more frequently, while other users (*persona 1 and 3)* tend to use more specific sources such as national or sector-related statistical sources. However, differences between *personas* are not conclusive: with different emphasis, the three groups of users tend to quote similar sources across instruments.

Second, the mapping visualization shows that among the fragmentation of databases, there is a group of global and (to a lesser extent) regional institutions that are making clear efforts to generate comprehensive databases about financial flows to developing countries, using common frameworks and quality standards. Among them, the OECD-DAC Creditor Reporting System, World Banks' World Development Indicators, IMF's International Financial Statistics, and UNCTAD's Statistical Databases provide one-stop databases for a variety of financial instruments and actors. International capital market instruments are a particular case with their own set of databases, reporting mechanisms and standards.

Third, previous research has shown an explosion of financial instruments channeling development financing during the last decade, yet databases are only capturing part of these advances. Beyond international public finance, there is less detailed information such as project-level data. For example, private sector financial mechanisms tend to report aggregate data, but this may change in the future as international organizations demand more transparency and data harmonization. This has already started in the case of blending finance instruments, when public institutions require comparable standards to their partners. The LDB has identified other niches of private sector financing instruments where efforts are converging to provide consistent and periodic data such as in the case of Public Private Partnerships (PPPs), remittances, trade financing, capital market operations, and similar efforts at the regional level in alliance with multilateral institutions. These are key starting points so that the OECD-DAC technical areas may promote alliances to improve data collection and harmonization.

Fourth, even when data is available for most financial instruments, the overall picture that emerges resembles a 'collage' of sources of statistical data whose diverse approaches, definitions, scope, perspective, duplication and double counting of financial flows, and coverage makes it extremely difficult (if not impossible at the current stage of reporting) to add them up in order to build a comprehensive view of the size and scope of development financial flows to developing countries. Better reporting is a first step to generate a clearer picture, yet the main challenge is how to generate common frameworks that include this new diversity of financial mechanisms. This effort is comparable to what ODA donors did in the past to generate a common platform of reporting and analysis of their international cooperation, although this time for a more complex development finance landscape.

1. Introduction

The international development financial system —the collection of institutions providing financial resources to developing countries— is evolving rapidly, reacting to global economic shocks and geopolitical shifts over the last decade. As a consequence, the supporting institutional framework of this system, led by global institutions mainly focused on providing international public finance, has turned outdated and unable of introducing comprehensive reforms to integrate these new developments, actors and innovative financial mechanisms.

Bezanson, Sagasti and Prada (2005) elaborated three statements ten years ago, which are now part of a common sense to describe such system. First, its growing complexity with new donors, instruments, approaches and a broader set of mandates, has not necessarily implied a homogeneous improvement of financial options for all developing countries:

> "There is a multiplicity of institutions involved in international development finance but, considered as a whole, they are not up to the task of providing resources to different types of developing countries in the amounts and in the forms required. Current institutional arrangements are characterized by a lack of overall coherence, by policies that are in conflict and that cancel one another out, by an overall governance deficit and by problems in the delineation of mandates. In addition, there is a lack of accountability, insufficient transparency and inadequate representation of developing countries in decision-making. Resource flows are not predictable, some sources of external finance are very unstable, and there is an inadequate match between financing instruments and developing country needs. At the beginning of the 21st century, the structure of international development finance is skewed in favor of highly concentrated and mobile (mostly private) flows to emerging economies and against more balanced and steady long-term flows to emerging, middle-income and low-income countries."[1]

The financial crisis has also shown how and in what magnitude long-term resources can recede even in items that were growing steadily —particularly in the case of emerging economies whose balance of payments were improving through more trade, foreign direct investment and international capital market operations. During the crisis, the international community temporarily turned its focus towards international public financing: global and regional financial institutions enhanced their lending capacity and balance sheet in order to provide precautionary funding, while directing a significant part of these resources to low-income countries. Nevertheless, there is a consensus that public resources may not be enough in the course of subsequent financial shocks and only a small group of countries have shielded themselves against future shocks by acquiring insurance, liquidity credit lines or accumulating international reserves.

Second, the priorities of development financial institutions rapidly change as new development challenges emerge: ten years ago it was clear that adding new mandates to international financial institutions could potentially divert scarce resources. The international community has been trying to shift focus from poverty and aid towards a

[1] Bezanson, K., F. Sagasti and F. Prada (2005), *The future of the financing for development system: Challenges, scenarios and strategic choices*, Oxford, Palgrave; Executive summary p. iii

more comprehensive vision of international public goods and development finance. Topics such as financial stability, security and peace in a multipolar world, climate change, transnational crime, and promotion of international trade, to name just a few, require international cooperation and collective action from various stakeholders. However, the rationale of promoting collective action across diverse actors and institutions still needs to materialize at the global (or regional) political level.

Third, despite a bigger capacity of developing countries to finance their development process and contribute with knowledge and financial resources to development challenges, their voice, views and influence over reforms have not increased accordingly. Emerging economies ten years ago, and now a larger group of middle-income countries, are exerting more influence beyond their national borders. Similarly, private sector flows like foreign direct investment, have grown steadily and now account for a great share of financial inflows to developing countries —with the exception of low-income economies dependent on international public financial mechanisms such as ODA. Nevertheless, visions from both actors are just starting to influence reforms of the international development financial system, implying a mix of complementarity and competition that will drive future reforms, as well as changing definitions and perspectives.

These three trends give context and contribute to explain why a fragmented international development financial system correlates with a fragmented collection of external finance statistical databases. Beyond official assistance and related financial instruments, there are few comprehensive, harmonized, and integrated databases. This situation resembles a stovepipe system providing only a partial understanding of development financing and how financial flows interact in developing countries.

The main objective of this study is to generate a database of databases reporting statistical data about external financial flows to developing countries. This is part of the DAC's High Level Meeting mandate about new ways to measure external development finance.[2] Specifically, the report seeks to answer three questions regarding the current state of reporting and data collection of external development finance at the global and regional level:

(i) Who is collecting data on public and private financing for development, including a section on peace expenditures and climate change financing;

(ii) Where is this data stored, and how accessible it is to different groups of users;

(iii) How is data collected (mechanisms and quality standards), and how does this compare to OECD-DAC's own data collection system.

The first section presents a conceptual framework to describe the new landscape of actors and financial mechanisms channeling external financing to developing countries, based on previous research from the authors. This section also explains the methodology for the bibliometric analysis, its relation to the conceptual framework and

[2] OECD (2012), *2012 DAC High Level Meeting Communiqué*. Available in the following link.

how to interpret the visualization diagrams of databases. The second section shows the visualization diagrams of identified databases during the bibliometric analysis and include a sub-section for climate change and peace financing databases. The third section organizes and explains the relationships between databases of financial instruments and the information they provide about financial flows to developing countries. The last section of conclusions and recommendations explore further avenues of research and how the OECD-DAC technical areas could help improve the quality and comprehensiveness of databases on external financial flows to developing countries. An exhaustive list of databases (LDB), build from the results of the bibliometric analysis, is presented in the annex section.

2. Conceptual framework and methodology for mapping statistical databases

There is a knowledge gap regarding the composition of external financial flows to developing countries. On the one hand, academics and experts on development financing fairly know the range of actors and institutions channeling financial resources to developing countries and which financial mechanisms are used for that purpose. On the other hand, not all of these mechanisms and institutions provide detailed information about the amounts, conditions, sources and uses, extent of development purpose, impacts and beneficiaries of the financial resources they mobilize.

Our main point is that this is not just a problem of reporting and transparency. The hypothesis behind this mapping exercise is that a fragmented international development financial system is related to a fragmented map of external finance statistical databases. Like in a stovepipe, information flows but the sum of the pieces does not give a complete understanding of how the international development financing system and the diversity of actors and financial mechanisms interact in developing countries.

2.1. Context of the methodology and search queries

The three trends described in the introduction section about the evolution of the international development financial system give context to some decisions made when designing the methodology.

First, the growing complexity of the development financial system means that developing countries —although at a different pace— have expanded their access to financial mechanisms for their development process. With the exception of countries with closed financial markets, under conflict or with poor capacity to mobilize financial resources on their own, most economies have gradually opened and are able to access to mobilize resources from the private sector and capital markets, while continuing to receive support from international public finance institutions.

From a developing country perspective, every financial inflow contributes to the capital current account of their balance of payments. However, each item is conceptually different: every financial instrument has its own purpose, conditions and

process of negotiation, thus requiring different capacities to manage them. Annex 1 presents an inventory and taxonomy of financial instruments, acknowledging that similar instruments coming from different groups of donors are not necessarily similar. However, identifying databases for each combination of donors and category of instruments is a Sisyphean task.

A methodology to identify statistical databases must recognize this granularity and diversity; otherwise it would lead to an incomplete list of databases. Table 1 presents a matrix to inform search queries to identify databases. It also shows a preliminary mapping to assess to what extent information is available in order to put emphasis in areas with information vacuums during the search queries. For example, it is well known that, regarding bilateral assistance, there is better information in the case of OECD-DAC donors, while 'non-DAC', 'South-South Cooperation', 'emerging bilateral' or 'non-traditional' donors are in the process of developing metrics and databases —to name a few ways of categorizing other groups of bilateral donors.

Table 1. **Generic types of financial instruments and actors channeling finance to developing countries[1] according to the availability of statistical data**

Type of financial instruments	Actors providing external development financing									
	Bilateral		Multilateral				Private sector		Capital markets	Global
	DAC	Other donors	United Nations	WB, RDBs	IMF / regional	SRDBs	For-profit	Non-profit /individual		
Loans	X	X		X	X	X	X			
Grants	X	X	X	X	X	X	X	X		
Bonds / equity				X		X	X		X	
Foreign direct investment							X			
Remittances								X		
Market creation / support	X	X	X	X		X	X		X	
Specific-purpose fund / facility	X	X	X	X		X	X	X	X	
Taxes and fees							X			X
Payments for services							X			
Combined value instruments							X	X	X	
Public-Private partnerships	X			X			X		X	
Risk mitigation /management	X	X		X		X	X		X	
Debt management / reduction	X	X		X	X	X				
International liquidity	X	X			X					

LEGEND[2]

X	Data is part of comprehensive databases
X	Fragmented data between actors and donors
X	Data poorly reported or instrument not yet implemented

Notes: [1]"Bilateral DAC" are official donors; emerging donors and South-South cooperation are "other bilateral donors". Multilateral actors, distinguishes between the World Bank, regional development banks (RDBs) and sub-regional development banks (SRDBs); [2] A blank space indicates that the institution does not offer such instrument.

Second, a changing set of development challenges, mandates and interests from a growing group of stakeholders is putting more pressure on financial resources, particularly on international public resources from bilateral and multilateral institutions. This implies a growing demand to recognize contributions from donors to mandates and sectors. The case of international public goods is a valid example: contributions from bilateral and multilateral institutions could be well established from their commitments to these sectors (like the case of ODA's 'Rio markers' for environment), although contributions from the private sector or individuals are much

harder to trace. The post-2015 MDGs agenda is likely to increase demands for attribution to specific causes.

This extra layer of complexity adds more fragmentation to statistical information databases. In addition, several areas of development financing have been nodes of financial innovation aimed at mobilizing private sector and international capital market resources. Since these institutions follow a market rationale, their interests are not necessarily aligned to the idea of mandates and global development challenges — although some instruments such as private and individual philanthropy, corporate social responsibility or bottom-of-the-pyramid approaches are often considered as counterexamples of this statement.

The intersection of development and markets' financial innovation is producing a new set of instruments. Multilateral development banks and private foundations have been very active at bringing these innovations for development purposes. Related to these sectors, there are now niches of information producing relevant data, although somehow disconnected from other sources of information. For example, the health sector is now experimenting with future purchases of vaccines[3]; multilateral development banks are using syndicated bonds to promote capital markets with domestic currencies[4] and promoting PPPs for infrastructure through risk mitigation instruments for private investors; and UN international organizations have been helping low-income countries to obtain grades for issuing sovereign debt,[5] among other examples.

Therefore, the methodology should be able to identify these new developments, even though the development purpose of some of these flows is still under debate. In some occasions, this requires going beyond mainstream definitions in order to reach sources of information that could potentially improve our understanding of how financial flows interact in developing countries.

Third, competition and complementarity between actors within the international development financial system are driving the next wave of reforms. This means that different perspectives need to be taken into account to improve the overall metrics through which the international community conceptualizes this system —and similarly in the case of identifying databases. For example, the traditional focus on country-to-country financial flows become inadequate when taking into account capital market operations such as investment funds acquiring sovereign debt; or when FDI uses different vehicles to channel investment like in the case of fiscal paradises or within transnational organizations. Even in some cases thinking in financial flows is tricky. For example, most

[3] The Advance Market Commitment, an instrument of the Global Alliance on Vaccines and Immunization (GAVI), commits to purchase future production vaccines in case of Pneumococcal.

[4] The International Finance Corporation (IFC) of the World Bank Group has issued bonds to strength local currency markets. See IFC (2013), "Mitigating vulnerabilities: IFC and local capital markets development" presented at the 2013 High Level Caribbean Forum (September 19-20, 2013; Nassau, Bahamas).

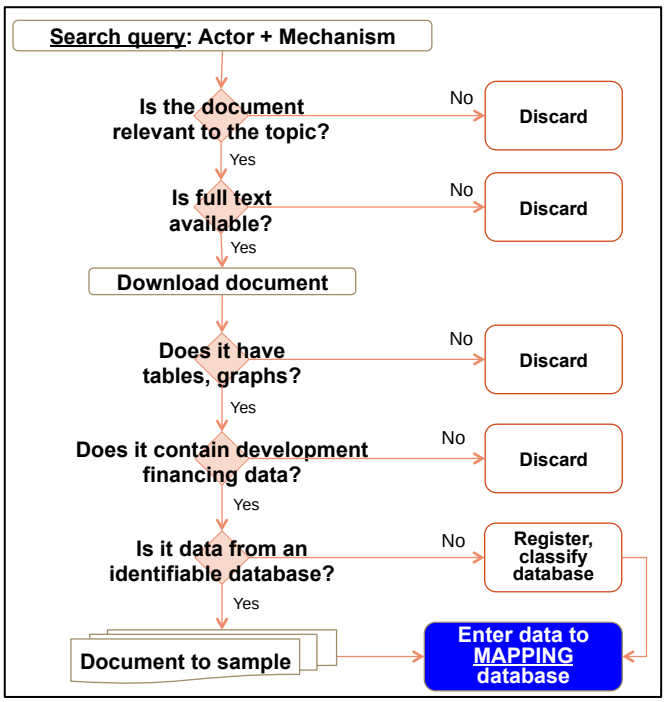
[5] UNDP and the US State Department started collaboration in 2003 to help Sub-Saharan countries obtain a credit rating and facilitate future issuances. Here is a recent evaluation of how credit ratings are working for Africa by the Financial Times, and how they will look in the future by Standard & Poor's.

South-South Cooperation activities have no common metrics to value them in monetary terms, thus international organizations keep track on the number of activities.[6]

2.2. Methodology of bibliometric analysis: Personas and search queries

After exploring different options to search for statistical databases, we focused on the bibliometric analysis. Using big data applications, bibliometric analysis makes possible to process a large numbers of documents using pre-determined search queries. This is equivalent to asking a large number of authors (through their publications) about the databases of financial flows to developing countries they use.

Figure 1. **Description of the process to produce the MAPPING database**



The first step consists on defining search queries to identify relevant documents to extract databases from. Table 1 shows combinations of financial mechanisms and actors to define search queries. Applied directly to bibliographic databases as search queries (figure 1), the results are filtered to those documents relevant to the field of development financing and available as full-text documents.

After downloading a relevant document, we analyze and extract data from it. It is worth noting that search engines use their own algorithms to measure relevance, based on the number of quotations or downloads. Even when a document is found relevant, we process only those that mention or analyze development financing data. In those cases, we register the database where data come from and linked the database to a specific bibliographic record in order to build a list of databases (LBD) and count the times a specific database is mentioned. These are the main inputs for the database mapping.

Second, the methodology proposes a mechanical way to identify different user groups' patterns of using statistical data on development financing. The (big) assumption behind is that different users apply distinctive search strategies when looking for statistical data, even though these search strategies are not exclusive of a specific group of users. However, if defined in broad terms, it may help to identify average patterns regarding the use of statistical databases from generic groups of users. In any case, applying search queries to an additional bibliographic database has low additional costs.

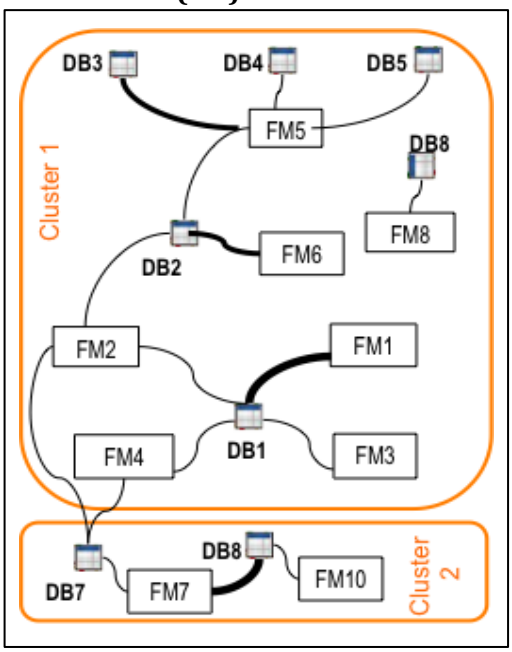
[6] The Latin American region has completed an exercise to harmonize data about SSC. Nevertheless, only a portion of activities has complete information about costs and financial transfers. See SEGIB (2014), *Informe de la Cooperación Sur-Sur en Iberoamérica 2013-2014*, Madrid: SEGIB.

Therefore, we apply search queries to three sets of sources of information resembling a similar number of generic users ('*personas*'): (1) Those specialized, academic users but not necessarily in the topic of financing for development use WoS, Scielo and Google Scholar, covering academic papers, newspapers and blog entries; (2) Specialized users on financing for development data restrict their searches to OECD, World Bank and other expert institutions' reports on development finance; and (3) general queries in search engines such as Google for a diversity of users looking for financial development data.

These categories of generic users are broad and their search strategies through determined bibliography are not exclusive to derive definitive conclusions. Nevertheless, this is an alternative to other options explored, although with less promising results.[7] The main limitation of any methodology is not being able to observe actual users' use of databases and their search queries. Even though it is possible to obtain data from users in some databases (through surveys for example), it could only cover a small group of users of the main statistical databases at a huge cost.

The third step of the methodology consists of interpreting the results from search queries and applying visualization techniques to map big-data from the bibliographic analysis. Figure 2 shows the link between financial mechanisms (FMs) and databases (DBs) whose thickness represents the number of bibliographic records that mention this relationship. A group of DBs may host data of several FMs, as well as FMs may be part of more than one DB. Diagrams to visualize these relationships, in the form of clusters, will show which DBs cover a broader range of financial mechanisms, and similarly, which FMs have more DBs to obtain information from.

Figure 2. **Databases (DB), financial mechanisms (FM) and clusters**



The last step consists of organizing a list of databases (DBs) to compare the quality of reporting across different financial instruments, as well as to provide information about their coverage, periodicity, availability and access, primary sources of information, and compliance with common

[7] Other options considered were: (i) Use IP access data to major servers of digital data in order to identify use patterns of actual users, but concerns about privacy and managing large amounts of data without structure and zero information about single uses made this option extremely difficult to implement; (ii) analysis of a random sample of queries directed to OECD's specialists, suggests a rough division between specific research-related questions (~40 percent), clarification of figures (~30 percent), help with getting data (~28 percent) and the rest corresponds to a variety of queries; but we cannot observe the queries that users enter directly into databases, likely those more skillful; (iii) surveys to experts in specific fields usually refer to the most organized, harmonized databases and overlook ad-hoc databases; and (iv) surveys directed to members of epistemic communities in Latin America showed limited knowledge of DBs outside global databases such as OECD, WB and UN for international cooperation —this methodology was unlikely to capture the diversity of DBs about external financial flows.

reporting frameworks, among other characteristics. Using observable characteristics of DBs or FMs, it is possible to graph these combinations to obtain a different set of clusters. For example, separating paid and non-paid DBs; DBs with global, regional, or national coverage; or FMs channeling financial flows from private or public sector actors, among other combinations.

3. Results from the bibliographic analysis

3.1. A fragmented map of databases

This section presents two key messages. First, the universe of databases hosting statistical data on international development financing is broad but comprehensible. The methodology, using predetermined search queries in bibliographic databases, has generated enough data to capture the diversity of databases recording data on financial flows to developing countries, organized by generic types of actors and the financial mechanism utilized to channel financing. Nevertheless, there are less conclusive results regarding the three groups of users: in general, the three *personas* tend to quote the same databases yet with few variations worth noting.

Second, the mapping of bibliographic records shows that among the fragmentation of databases there is a group of global and (to a lesser extent) regional public institutions making clear efforts to build comprehensive databases about a diversity of financial flows to developing countries, using common frameworks and quality standards. Among them, OECD-DAC's Creditor reporting System (CRS), World Bank's World Development Indicators (WDI), IMF's International Financial Statistics (IFS), and UNCTAD's Statistical Databases provide one-stop databases for a variety of financial instruments and actors. International capital markets have a similar structure, with centralized data organized by global financial organizations from the private sector.[8]

Databases and bibliographic records. We run eight general queries from combinations of generic actors and two to four sub-queries for each one in order to capture databases specific to a group of financial instruments (21 search queries in total). Table 2 presents a map of search queries according to the following notation: the first digit denotes the general query and the second a sub-query using specific financial instruments.

On average, eight general queries by three *personas* resulted in 40-60 bibliographic records each, composing a database of nearly 600 bibliographic records passing the criteria of figure 1.[9] Each of these bibliographic records quotes at least one

[8] International capital market instruments have a broad array of institutions providing data services, usually at a fee; and also some examples of comprehensive databases, yet mostly disconnected from other databases regarding financial flows to developing countries. These financial flows have their own set of databases, reporting mechanisms and standards. Therefore, data is mostly fragmented although few specialized institutions are gathering, harmonizing data such as the Bank of International Settlements (BIS) and few trading companies such as Wharton's Research Data Services (WRDS), Bloomberg's Professional Service, Thomson Reuters, and S&P's Compustat, among others.

[9] Excluding persona 3 (i.e. general search queries in Google and other general search engines), it was possible to keep track of how the sample of bibliographic records was forming. Each search query could yield a large number of bibliographic records sorted according to the algorithms of the bibliographic

financial database, although it was likely to quote more than one. From this sample, we identify near 200 different databases hosting data of financial flows to developing countries, with a sub-sample referred specifically to peace and climate change financing.

Table 2. **Search queries** (combinations of actors and financial instruments)

Generic type of financial instruments	Actors providing external development financing							
	Bilateral		Multilateral			Private sector		Capital markets
	DAC	Other donors	United Nations	Global / Regional	Sub-regional	For-profit	Non-profit /individual	
Loans - grants	Q1a	Q2a	Q3a	Q4a	Q5a	Q6a	Q7a	
Bonds - equity				Q4b	Q5b	Q6b	Q7b	Q8a
Other: Risk mitigation				Q4c	Q5c			Q8b
Other: Generic	Q1b	Q2b	Q3b	Q3d	Q5d	Q6c		

It is worth noting that this figure probably underestimates the total number of DBs hosting information about financial flows to developing countries, particularly when we take into account those at the national level. For example, each central bank has data about its country's balance of payments; the same with national cooperation agencies and multilateral development banks whose databases describe their own operations. Thus, the bibliographic records show that authors tend to complement general macro information from harmonized, global databases with data from regional and national databases.

Visualization diagrams. Figure 3 represents the most aggregated information from the data obtained in the bibliographic analysis through search queries. Using only DBs quoted in more than two bibliographic records, figure 3a organizes DBs by generic actors providing financial resources while figure 3b does by financial instruments (FIs).

The message is straightforward: providing and organizing data about financial flows to developing countries is a task where international organizations have taken a leading role. Although there are DBs that authors use to describe financial flows from various actors or through specific FIs, there is another group of DBs that host more comprehensive data, covering a wide spectrum of actors and FIs. These DBs are exclusively hosted by global public organizations such as the OECD, World Bank, and the UN. This is also true for databases connecting a group of FIs (figure 3b): it is more likely to find public organizations (regional or national) collecting data for more than one group of FIs. This pattern prevails when plotting data at a more disaggregated level.

Figure 4 shows all DBs organized by generic types of instruments and the diversity of databases used in our sample of bibliographic records. Within each category (marked in a different color), the DBs refer to a category of actors (bilateral, multilateral, private sector and capital markets). This graph shows the extent of fragmentation of sources of data about financial flows to developing countries. By connecting these categories of FIs, a group of international organizations are providing a bridge between sources of

database. On average, of 100 documents identified as relevant to the topic and the search query, we only downloaded 20-40 percent of them (i.e. those documents containing financial data and quoting a database where this data come from). In the case of persona 3, the average number of documents relevant and mentioning databases was much lower.

information and, thus, are more frequently quoted in our sample of bibliographic records. Yet, in absolute terms they are a relatively small fraction of databases quoted in the bibliographic sample.

A closer look explains why the fragmentation in our sample simply reflects the diversity (and fragmentation) of FIs in the international development financial system. Figure 5 expands FIs into more detailed categories. First, most DBs have only partial data about a similar financial flow. For example: (a) DBs about FDI differ whether it collects data at the country level, net or gross, outward or inward, and stocks or flows; or (b) bilateral aid data is fragmented because some DBs host data only for some countries (Arab countries, for instance), or under different categories such as South-South, non-ODA, or technical cooperation, among others. Therefore, the diversity of DBs reinforces the idea of a stovepipe system that provides detailed data about each instrument, but whose parts do not add up. Such diversity is captured by our methodology of scanning bibliography.

The thickness of each connecting line in figure 5 represents the number of times a single DB is quoted in our bibliographic sample. For each category of FIs, only the group of comprehensive DBs hosted by international organization captures the majority of quotes for a diversity of FIs. Even though this group of DBs presents harmonized data about a set of financial flows, they only partially capture the granularity of information about financial flows to developing countries. Moreover, the figure also shows that DBs may be hosting data about similar financial flows, yet under a different definition or perspective. For example, FDI information can be considered a country-to-country flow according to some DBs, but other DBs consider other perspectives, such as firm-to-firm flows or investment through international capital market instruments.

A note about 'personas' in search queries. We expected to find differences between search queries of the *personas*, based on searches in three sets of bibliographic databases. In general, these differences are small: the set of bibliographic records for each persona have similar characteristics, and the group of compiled databases is also similar.[10]

There are two trends worth noting that might become significant in a large sample. First, *persona* 2 represents the most specialized user because we restrict search queries to bibliography from a specific group of international organizations and think tanks focused on the topic of development financing. In general, these bibliographic records use more databases on average per publication, but not enough to be a significant difference compared to other *personas*. Second, these bibliographic records tend to use harmonized, comprehensive databases such as OECD-DAC's CRS and World Bank's WDI more frequently in absolute terms, but also complement this information with other

[10] Most bibliographic records, around 80 percent, are reports, documents, academic publications and books whether specialized in the topic of development financing or not; 15 percent were new records coming from search queries in open search engines such Google.com; and the rest of bibliographic records were a few number of publications specialized in specific instruments unlikely to show in the previous records.

datasets, particularly with data at national- or sector-level. Nevertheless, on average these characteristics also appear in more general queries (*personas* 1 and 3).

Access to DBs. Fragmentation of DBs means additional opportunities to access to data about financial flows to developing countries. The cost of accessing DBs is not a restriction. Figure 6 shows that most DBs are open-access (light blue DBs): multilateral and bilateral flows, including FDI and trade, and most private sector flows.

Only a small group of DBs requires access fees and most of them host data about private sector financing. For public sector data, we have identified a group of paid-access DBs that use public information, from OECD and WB, although providing information for specialized use: for example, InfraPPPworld in the case of infrastructure projects or sites for investors targeting ODA procurement. Other group of paid databases captured in the bibliographic analysis relate to trade data or containing data valuable for investors. These DBs use visualization techniques or add value to open-access data for a profit.

Most paid DBs appear in the case of international capital markets and related private sector operations. For example, Bloomberg's Professional Service, Thomson Reuters, or S&P's Compustat provide data about capital market operations, including specific DBs for emerging economies as well as information about companies investing there. Like in the case of ODA data, some companies use information from these companies to provide value-added services, like the case of Bureau Van Dijk's Mint —to mention just one of many sites advising investors about investing in developing countries.

Nevertheless, we can argue that all of these DBs are, in practical terms, accessible. Even though they charge a fee —Bloomberg can charge up to US$20,000 a year for real-time access to international capital market data through a proprietary terminal— these companies host past data about financial flows that could be useful for academic purposes. As we will see in the next section where we describe some characteristics of these DBs, the key message is that the private sector through international capital market operations generates a vast amount of data at the level of companies, investment funds, stock exchange sites and specific financial instruments. Most of this information is already accessible to investors, think tanks, governments and universities through data management companies. Therefore, access is not a constraint: the actual challenge is to make this data compatible with other flows to developing countries since international capital markets have their own language and mechanisms to organize their data.

Peace and climate change. For this section we run a similar bibliographic search although restricted to bibliography relevant for the two sectors. Even in that case, the resultant group of DBs was very similar to more general search queries. In both cases, we needed to apply more restricted search queries in order to capture the diversity of financing instruments, particularly regarding climate change. For that reason, we used an updated inventory from the author's previous research of financial mechanisms for

the case of Peace (annex 2)[11] and Climate Change (annex 3)[12] in order to inform more specific search queries for both sectors.

The structure of financing for peace activities is less complex than climate change in two aspects. First, almost all resources for peace activities come from international public finance (bilateral, multilateral and the UN). Even though the private sector mobilizes resources from donations and humanitarian organizations (or could also do if a proposal to tax arms sales is ever implemented), its role is relatively small. In contrast, financing climate change adaptation or mitigation not only involves private sector activities and international public finance, but there is also a huge potential of international capital markets. Search queries and DBs should reflect these differences.

Second, the structure of financing of climate change activities is evolving rapidly, introducing new financial mechanisms and utilizing the innovation power of financial markets to mobilize resources from the private sector. In contrast, the intrinsic characteristics of peace activities —closer to the definition of a global public good— make this sector less innovative in terms of FIs, relying mostly on concessional financing, grants and contributions. Therefore, climate change requires more specific search queries to capture the diversity of instruments.

Both aspects were well covered during the bibliographic analysis. In the case of peace, a general query of 'peace and financing' returned 300+ bibliographic records, and after selecting a sample of the first 100,[13] only 22 of them provided direct references to statistical databases. In contrast, climate change financing produced 1,000+ bibliographic references; but after checking the first 80 bibliographic records, 30 of them already had direct references to DBs. This is probably an indication of climate change as a sector more intensive in the use of data about financing options than the peace sector.

Figure 7 shows the sub-sample of bibliographic records related to peace and climate change financing, organized by financial mechanisms. As expected, almost all DBs in the case of peace refer to grants and contributions for peacekeeping operations, whereas the case of climate change financing includes a wider scope of FIs (Figure 8). Moreover, two conclusions from the group of general queries also apply in the case of these sectors.

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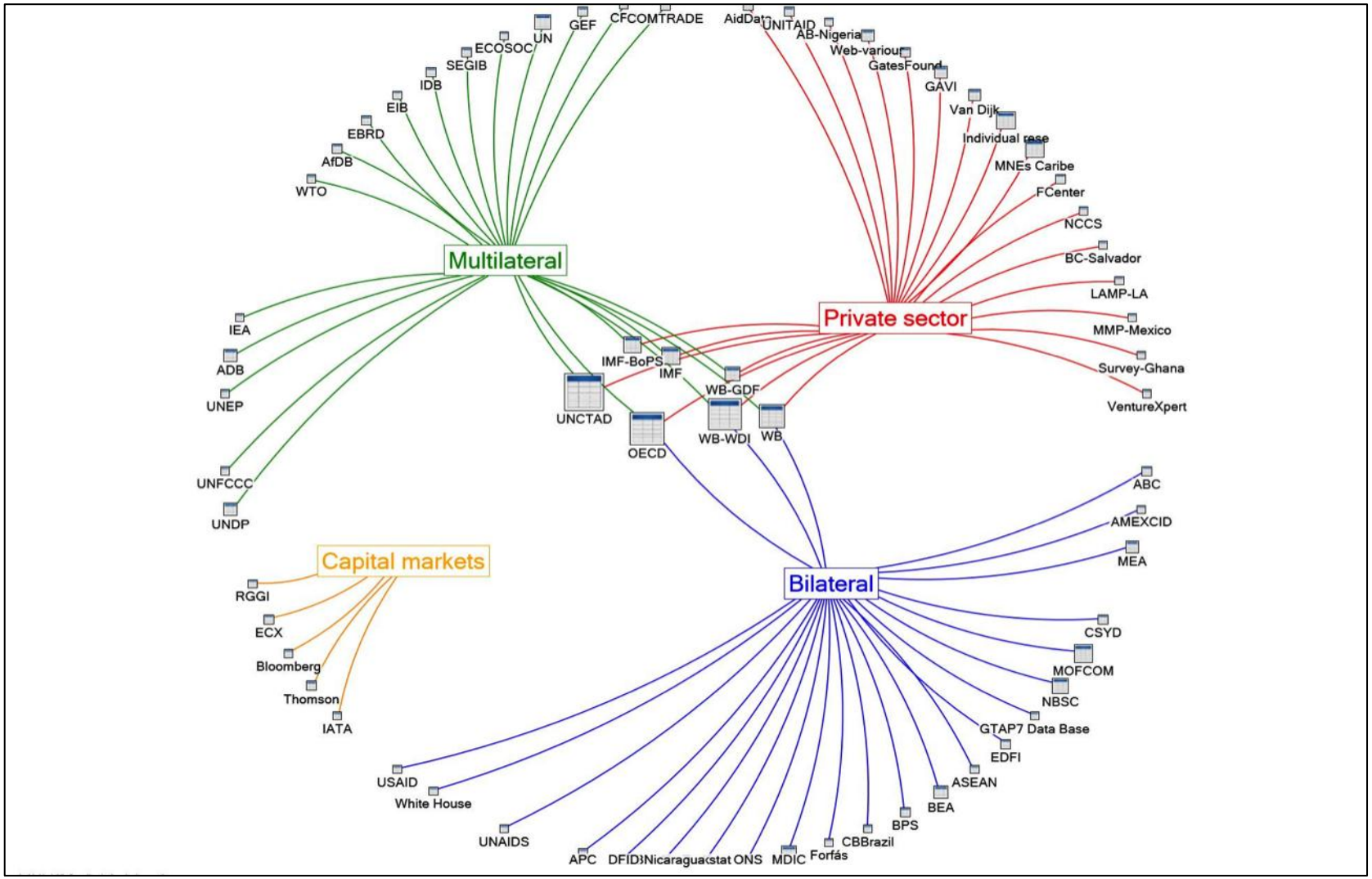
[11] "Case study: Financing peace", background paper in Sagasti, F. and K. Bezanson (2001), *Financing and Providing Global Public Goods: Expectations and Prospects*, Ministry for Foreign Affaire of Sweden 2001.

[12] Prada, F. (2009), "Climate change financing: Developing countries' options and challenges for mitigation and adaptation", background paper for the World Economic and Social Survey (WESS 2009).

[13] Search engines such as Google Scholar and bibliographic databases apply an algorithm to assign 'relevance' to bibliographic records, following the characteristic of the text string in the search queries. Therefore, we used to select the first 100 records expecting that every search query will result in at least 20 to 30 records containing DBs. Restricted search queries by sector (peace and climate change) followed the same idea, but under the string 'peace' only 22 records contained DBs, while the string 'climate change' resulted in 30 records in the first 80 records.

Figure 3. **Sample of most quoted databases, organized by:**

(a) **Generic actors providing development financing**



(b) **Aggregated group of financial instruments**

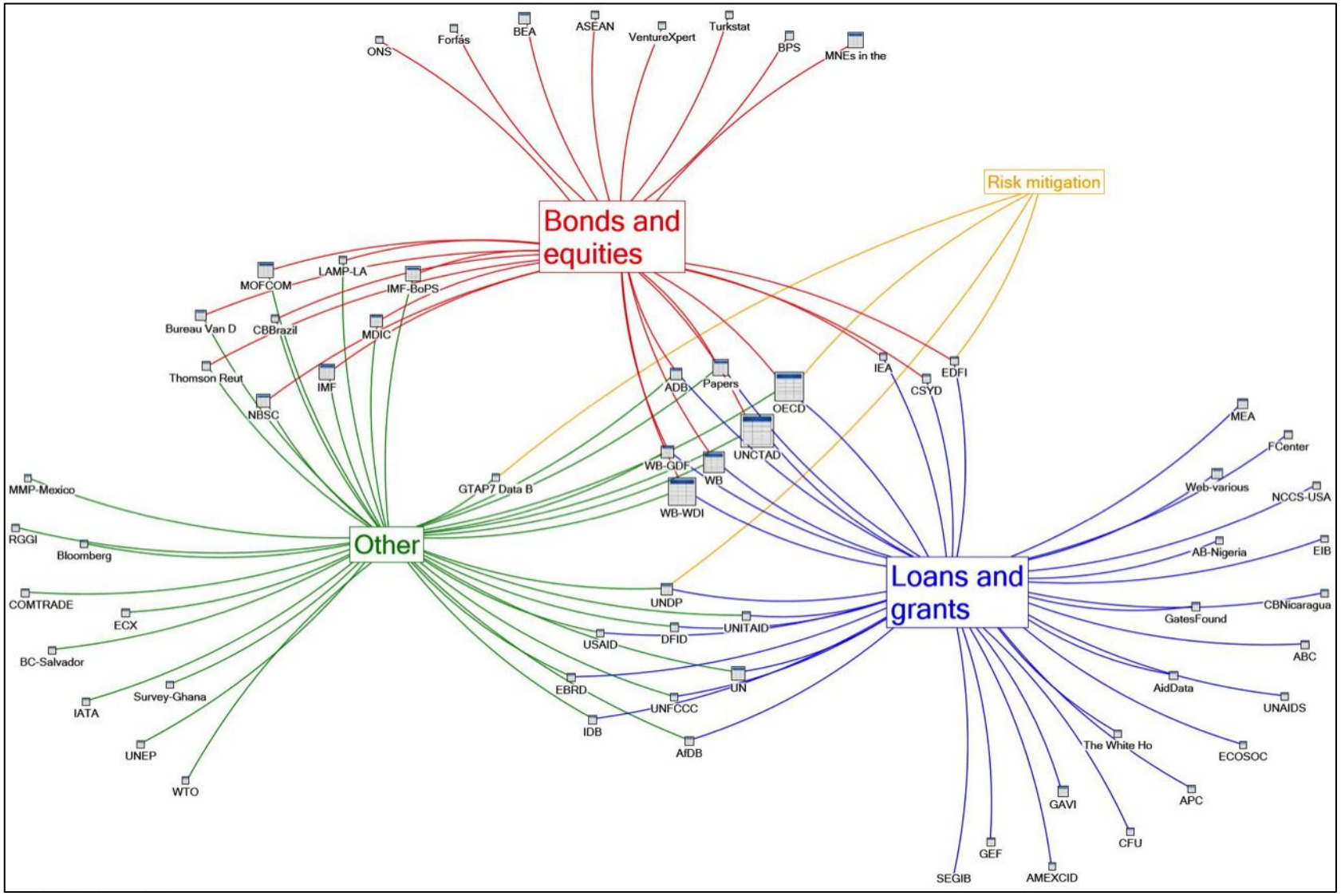


Figure 4. **All databases, by aggregated group of financial instruments**

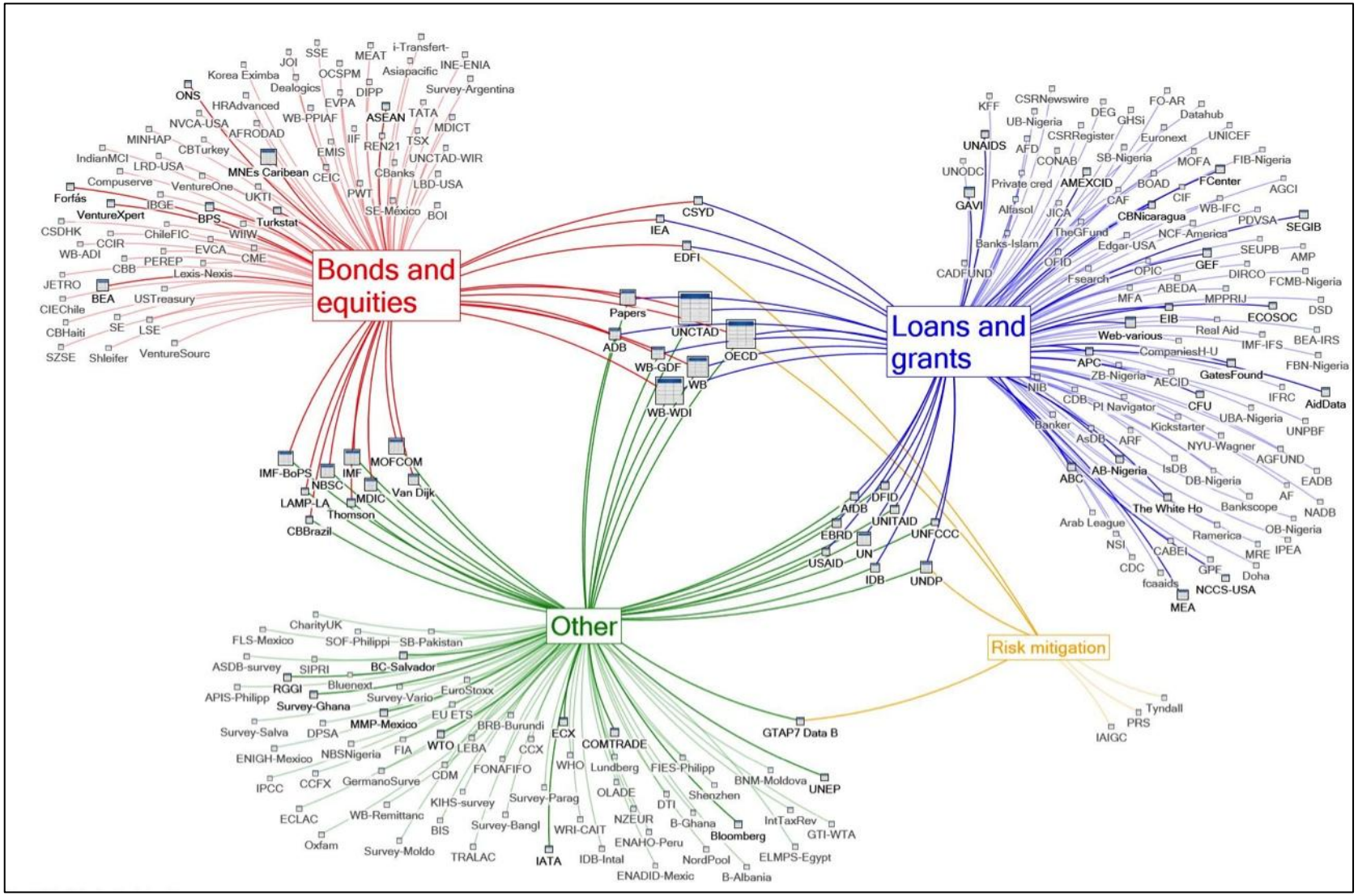


Figure 5. **Categories of financial instruments covered in DBs**

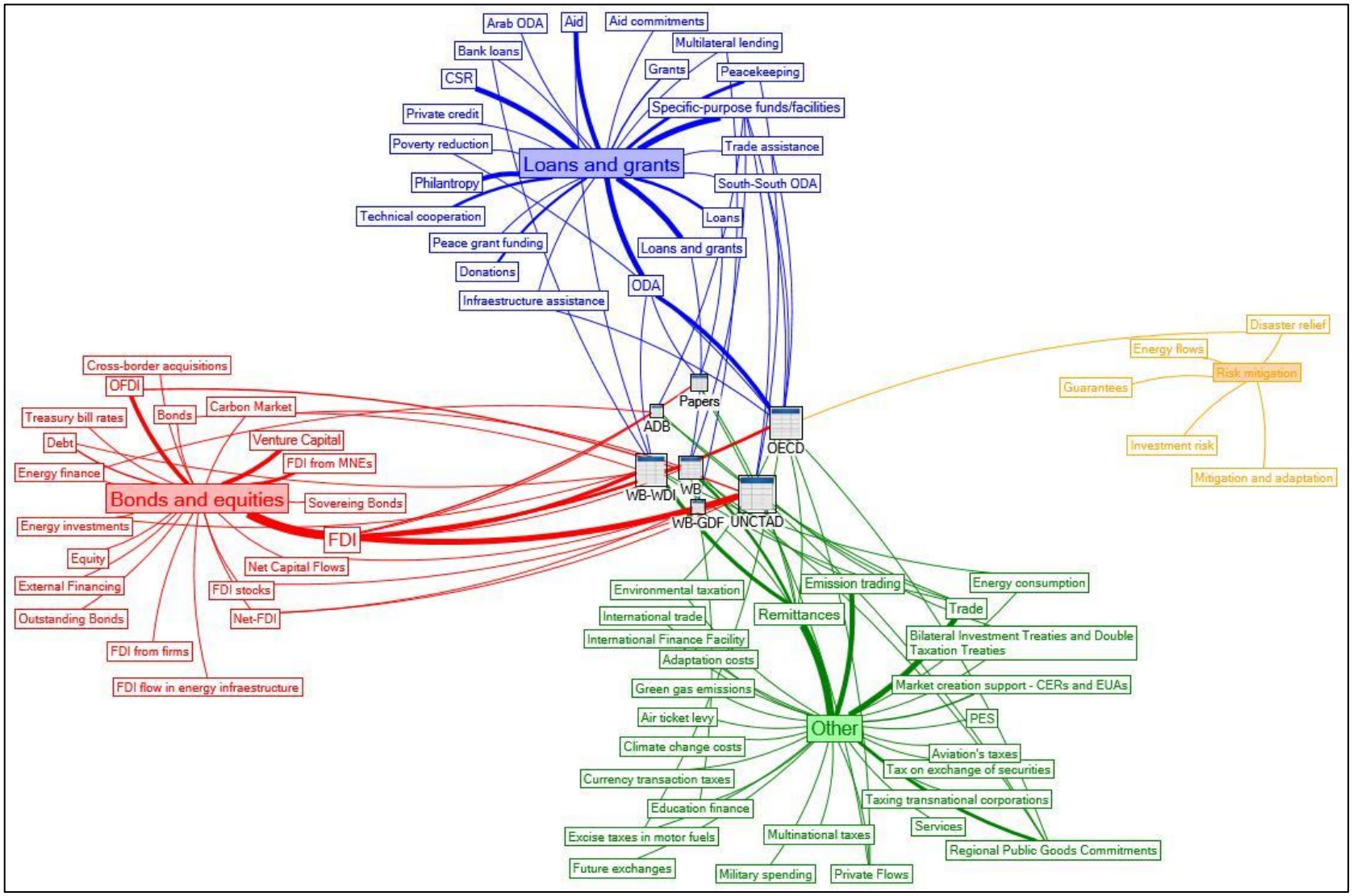


Figure 6. **Categories of financial instruments covered in DBs**

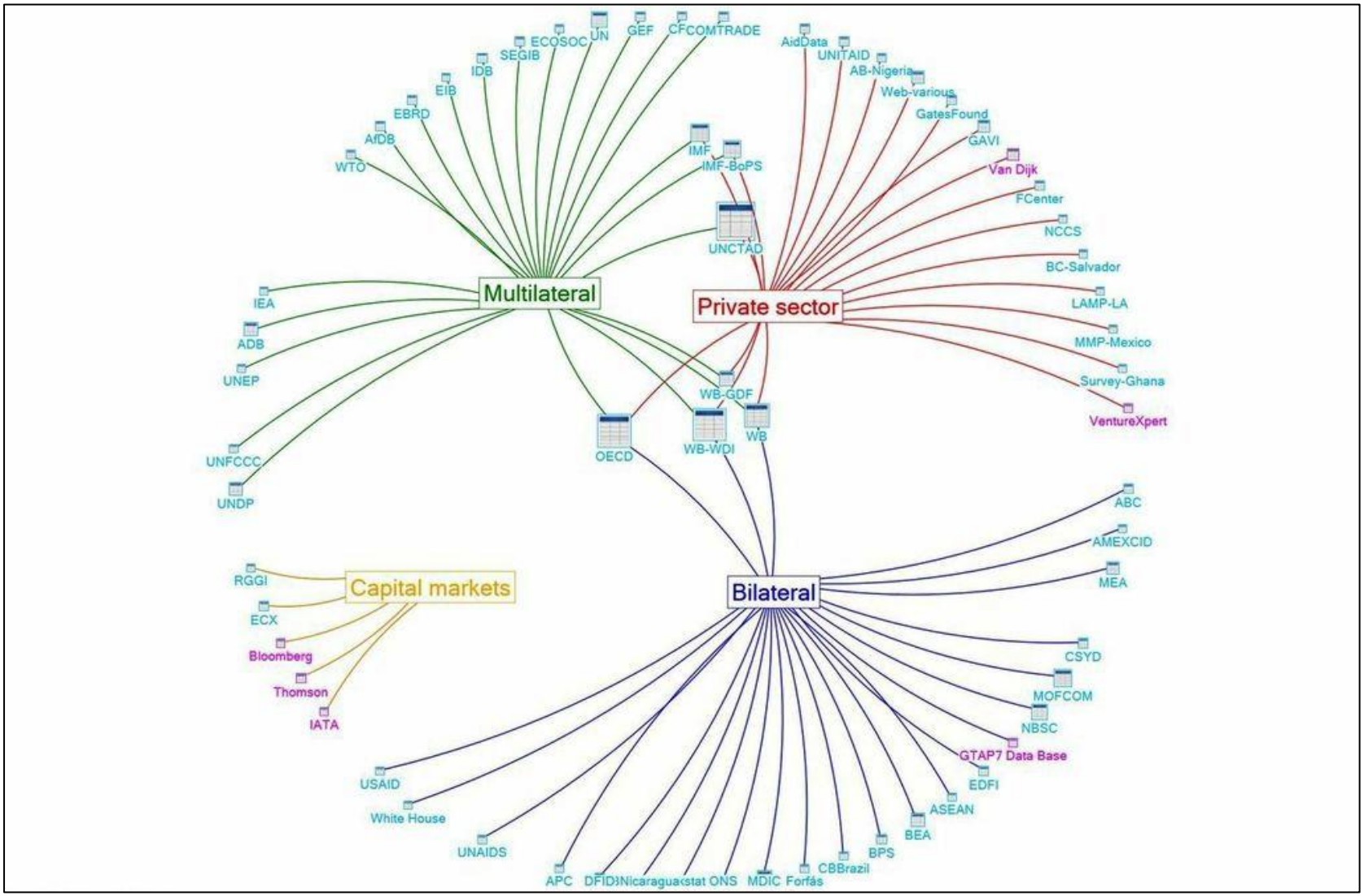


Figure 7. **DBs in the case of peace financing**

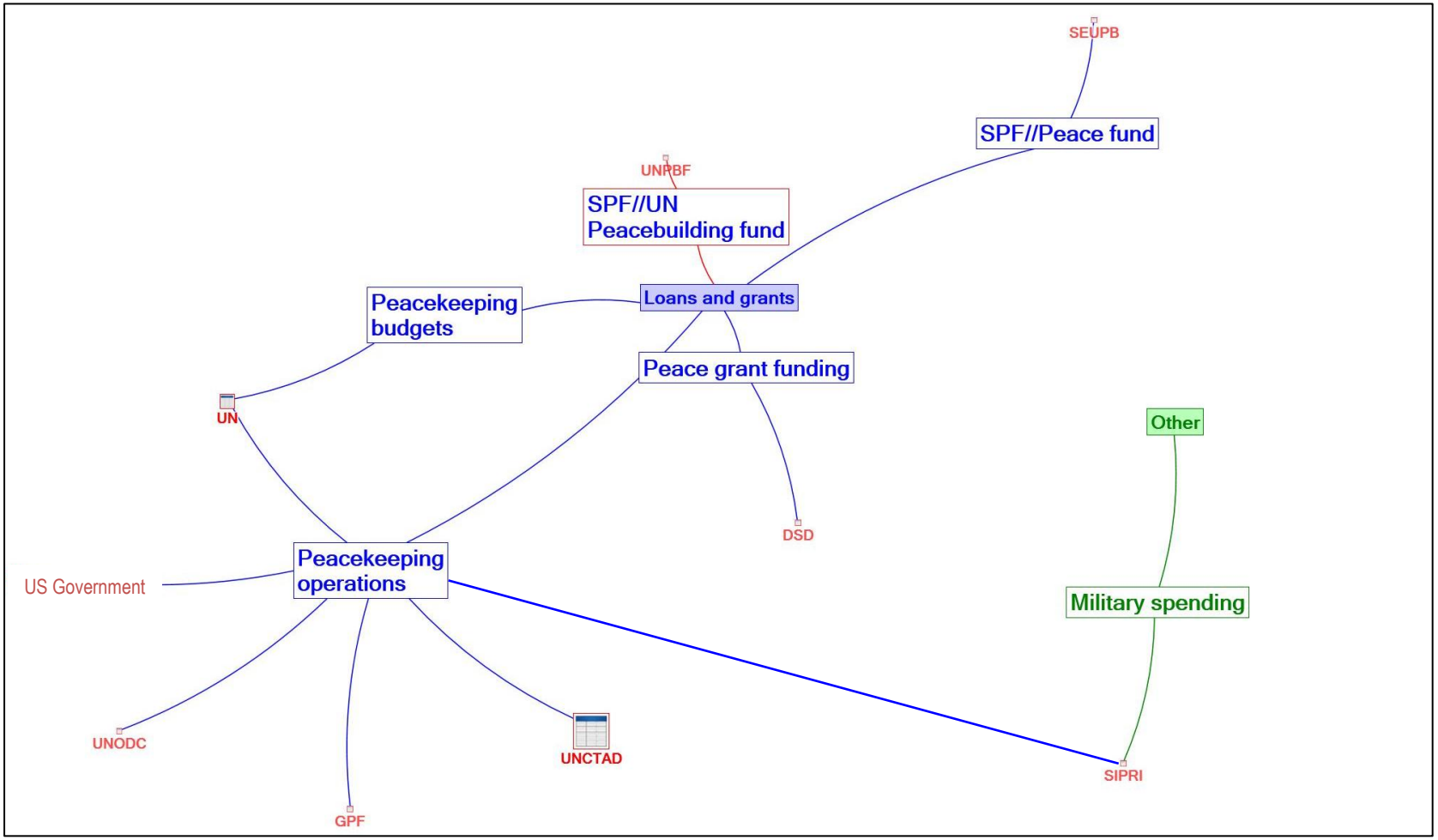
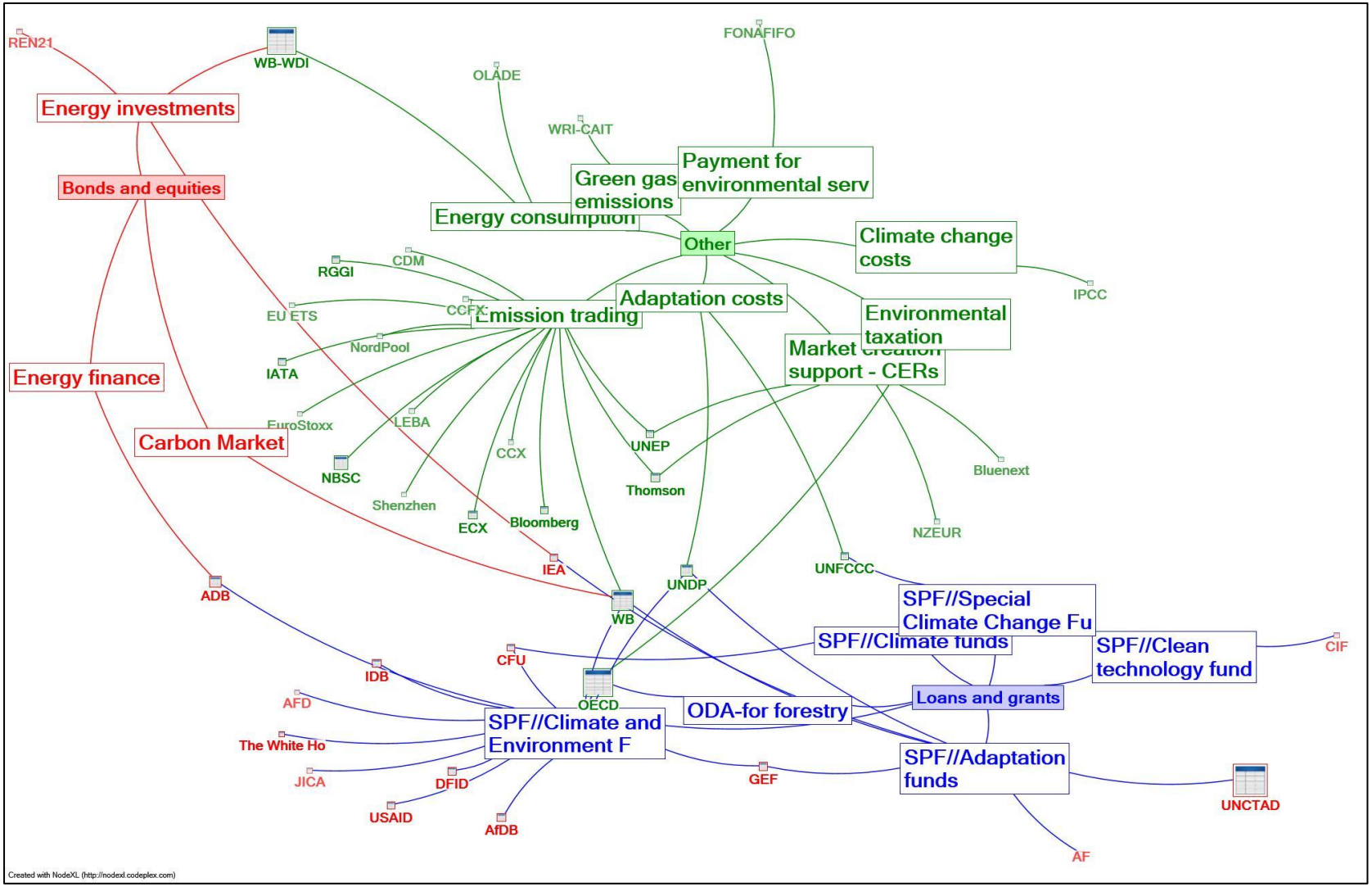


Figure 8. **DBs in the case of climate change financing**



First, a small group of DBs hosted by global public organizations stand out among the fragmentation of DBs, providing free access to a wide variety of FIs. In the case of climate change financing, regional institutions also play a role. Second, this fragmentation, in the case of climate change, also means an opportunity to obtain data from various sources. Data from transactions of carbon markets are frequently quoted from public access DBs (WB for example) even though this is data for which Bloomberg charges a fee.

Gathering climate change data has received a lot of attention, generating a small niche of abundant data. Nevertheless, structuring and harmonizing this data is the real challenge, reflecting well what also occurs in the more general landscape of development finance. Yet, a few attempts worth noting provide an inventory of sources of information. For example, the Climate Policy Initiative, a non-profit alliance of various institutions, has mapped the landscape of climate financing using a comprehensive framework —although it cannot provide, at this stage, a definitive global figure due to lack of data.[14] This is an example of a non-profit providing and financing a public good, since most of the funding for this exercise comes from the Open Society foundation yet with technical support from the World Bank.

3.2. A closer look to the list of databases (LDBs)

This section describes, organizes and hierarchizes the list of databases (LDB) built from the series of search queries of bibliographic databases reviewed for this study (see Annex 4 for the complete list of DBs). The organization of the LBD resembles the structure of search queries in table 2: it is organized around four groups of generic actors providing external development finance (bilateral, multilateral, private sector and capital markets) with sub-divisions when relevant (for example, separating non-for-profit private sector actors from for-profit ones, or UN agencies from Multilateral Development Banks). Across these actors, the purpose is to compare how different DBs report similar financial flows.

From this analysis, there are two key messages. First, previous research has shown an explosion of FIs channeling development financing during the last decade, yet DBs are only capturing part of these advances. Beyond international public finance there is less detailed information such as project-level data. For example, private sector FIs tend to provide aggregated figures, but this may change in the future as international organizations demand more transparency and data harmonization. Table 3 summarizes these findings.

Beyond public sector and international organizations providing financing at concessional terms, it is less likely to find comprehensive global databases. Yet slowly, there are some bridges that may contribute to change this situation in the future. This is the case of blending finance instruments because public agencies usually require

[14] See Climate Policy Initiative (2013), The landscape of Climate Financing 2013. A visualization map of sources of climate financing is available at http://www.climatefinancelandscape.org/flows-diagram/

comparable standards for their partners from the private sector. There are other niches of private sector financing instruments where efforts are converging to provide consistent and periodic data such as in the case of Public Private Partnerships (PPPs), remittances, trade financing, capital market operations and similar efforts at the regional level in alliance with multilateral institutions. These are key starting points so that the OECD-DAC technical areas may promote alliances to improve data collection and harmonization.

Table 2. **Characteristic of DBs reporting financial flows to developing countries**

From / Flows at	Public sector and international organizations	Private sector and capital markets
Concessional terms	• Identifiable DBs, hosted by international organizations collecting national data. • Free-access, open platforms, multiple options for downloading primary data. Harmonized data, theory-based definitions. • Global (and regional) coverage, project-level data. • Special cases: Less data available for South-South Cooperation and Subregional Development Banks.	• Data on foundations, philanthropy and corporate social responsibility institutions Is mostly self-reported. Few attempts to conform global DBs. • Free-access to aggregated data, primary data is less accessible. Growing visibility putting more pressure on definitions (e.g. development purpose) • Data is partial: mix data, less at project-level. • Special cases: Crowdfunding; impact investing
Non-concessional, market terms	• Identifiable DBs for MDBs, DAC bilateral and other multilateral organization; (ii) non-DAC (e.g. China, Brazil, Venezuela) tend to produce their own data and comprehensive DBs are not frequent. • Gap in case of access: 1st group provides free-access, theory-based data. 2nd less disclosure. • Country-to-country coverage. More data on conditions in case of 1st group, less so in 2nd group. • Special cases: More data on infrastructure projects or technical cooperation.	• Identifiable DBs, but partial, fragmented, non-harmonized data. Capital markets have their own reporting standards and definitions. • Problems of confidentiality, access fees are important but not determinant. • Gaps between developed / developing countries reporting. Multiple FIs, difficult to centralize data. • Special cases: More data available in PPPs, blending finance is creating bridges.

The second message from this section is less optimistic. Even when data is available for most FIs, the overall picture that emerges resembles a 'collage' of sources of statistical data whose diverse approaches, definitions, scope, perspective, duplication and double counting of financial flows, and coverage, makes it extremely difficult (if not impossible at the current stage of reporting) to add them up in order to build a comprehensive view of the size and scope of development financial flows to developing countries.

There are gaps of information across categories of actors and instruments, which the LDB helps to identify. The following sections analyze the main characteristics of groups of DBs reporting financial flows to developing countries, organized according to a set of generic actors channeling financing to developing countries.

a. ***Bilateral actors***. DBs mainly refer to two groups of country-to-country cooperation.[15] First, country donors reporting to the OECD-DAC, frequently called 'traditional' donors or ODA donors, may also include non-DAC countries. Second, a

[15] Some specific databases, particularly in the case of OECD-DAC donors, include decentralized (city-to-city, subnational-to-subnational government) cooperation, or bilateral funds-to-country, among others. This is possible using information at the project-level, since it is possible to identify all the cooperating partners.

group of developing countries as recipients of international cooperation; or as donors in South-South Cooperation (SSC) activities. Other DBs also refers to them as non-DAC donors, "non-traditional" donors.

Broadly, these two groups represent two groups of DBs with particular attributes. Countries in the first group report their international cooperation activities with similar standards and definitions to the Creditor Reporting System. Each country also produces detailed data and hosts its own DBs with detailed information about conditions, purposes, sectors, and other attributes at the level of projects, grants and concessional loans. It is worth noting that this group of DBs host financial data from a donor's perspective.

The second group of developing countries report data to the World Bank, IMF and UN agencies about financial flows through their financial systems, which is also hosted in DBs of their Central Banks or Ministries of Finance. In order to distinguish bilateral inflows from other components, DBs such as the WB's WDI or IMF's IFS single out official bilateral inflows. Nevertheless, it is difficult to match the figures of bilateral flows from DBs from a donor's perspective and a recipient's perspective: for example, ODA figures usually do not match because not all uses of ODA (e.g. administrative costs) constitute a financial transfer that recipient countries register. National agencies also register bilateral projects, but there is no comparable effort in recipient countries to aggregate national data. An additional problem is that reporting and data gathering capacities are unevenly distributed among developing countries, as this International Public Partnership report about information on sources of financing of public budget suggests.[16]

When countries in the second group become donors, DBs register these financial flows as South-South Cooperation (SSC). In general, SSC countries provide data about their activities, some of them with project-level details, but definitions to classify FIs in their national DBs differ. There are some efforts like AidData.org to harmonize SSC bilateral flows from national data, but the main challenge is that not all information is available to discern whether a specific project has a development purpose, has concessional conditions or serve to other purposes.

Academic studies and think tanks are targeting some of the main SSC providers, to analyze data about their cooperation programs. One challenge is different definitions on what constitute development cooperation. For example, China, Venezuela and Brazil consider some FIs like export credits, support to their national companies, or acquisitions of external debt from developing countries, as part of their cooperation programs. Among this fragmentation, a regional exercise carried out by Latin American countries and the Ibero-American Secretariat (SEGIB in Spanish) has completed the first harmonized DB of SSC, although recognizing that this is a work in progress. Having agreed on common definitions and mechanisms to report is the main step towards more transparency.

[16] International Public Partnership (2012), Budget Survey 2012: Open budgets transform lives.

Regarding specific FIs, we have already mentioned competing definitions on what constitutes development financing in both groups of countries. In addition, there is the issue of perspective (donor and recipient). Nevertheless, a common effort between the Bank of International Settlements (BIS), OECD, IMF and WB will contribute to mitigate this issue in the future through the Joint External Debt Hub (JEDH). A special case is that of guarantees and other risk mitigation instruments for private sector investors where global institutions are working together to harmonize data.[17] There is definitively an incentive to provide better data about projects and financial instruments from the private sector, when public funding is also present.

Accessing this data is free when available. Although the IMF has recently started to charge a fee for the use of its IFS database, most data about financial flows is free and downloadable through different platforms. Moreover, there are ongoing efforts to harmonize DBs from different organizations and share common platforms, particularly through the involvement of multilateral organizations.

b. ***Multilateral actors***. We consider three types of actors in this case, whose differences in terms of use of FIs, quality of reporting and availability of financial data. First, the UN agencies and international organizations —usually associated with regional cooperation programs or integration mechanisms— mainly provide grants to developing countries and administer fiduciary funds for a multiplicity of actors from the public and private sector. Second, the group of the World Bank and regional development banks (RDBs) provide a broad range of FIs and continuously innovate, taking advantage of their catalytic role at mobilizing resources from the private sector and international capital markets. Third, a group of sub-regional development banks (SRDBs) which is very similar to the previous one. We wish to single them out, as their operations have been traditionally under the radar of development financing and their reporting capacities are weaker.

Each institution produces primary data about their operations and financial flows to developing countries. For example, the UN has designed a few platforms to integrate their reporting about projects, programs and funds they administer, but most of their agencies also report to the World Bank and the OECD. This is similar to the case of the second group (World Bank and RDBs), which produces information about their own operations as well as report to other organizations. In both cases, these institutions provide detailed information about their operations and projects, due to their compliance with transparency standards as public institutions. SRDBs and regional integration institutions, in contrast, are less likely to report in harmonized DBs.[18]

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[17] For example, an OECD survey to a diverse group of development financial institutions suggest that bilateral and multilateral agencies have been active extending guarantees to mitigate risks in developing countries, at around US$5 billion a year. See Mirabile, M., J. Benn and C. Sangaré (2013), "Guarantees for Development", OECD Development Co-operation Working Papers, No. 11, OECD Publishing.

[18] Latin America has a dense network of MDBs. The Latin American Development Bank, a former sub-regional development bank owned by Andean countries, now commits more resources than the World Bank and the Inter-American Development Bank in the Andean region. A similar case is that of the Central

Things become more complex when we shift the focus towards FIs. With the exception of UN agencies that mostly provide grants and administer funds for projects, regional and sub-regional MDBs have strong connections with the private sector and international capital markets, and thus, have developed a broad range of instruments where they mix financing from different sources. Thus, information about MDBs financing also form part of other DBs when they focus on a specific sector or instrument. For example, three areas are currently generating data from resources that MDBs are contributing to mobilize: climate change financing, risk mitigation instruments for private investors, and infrastructure funding through PPPs.

MDBs are potential allies to strengthen data that developing countries generate and to build bridges with other actors providing development financing. Their privileged position of articulating various actors and their connections to the private sector and international capital markets have made these institutions well placed for innovations in developing financing. This advantage could also be instrumental in helping to integrate and harmonize financial data from a multiplicity of actors, as well as standardize reporting.

c. ***Private sector*.** Here we distinguish two groups of private sector financial flows to developing countries. On the one hand, for-profit private sector investors channel financing through a broad range of FIs such as foreign direct investment, trade, and acquisition of external sovereign or private sector debt, among others. On the other hand, the private sector also channels financing through grants and projects from private foundations and corporate social responsibility agencies.

Both groups relates to DBs with distinctive characteristics. In the for-profit category, most DBs tend to report information at an aggregate level, making it difficult to assess the purpose of specific operations (whether it is related to development or not). Public DBs such as UNCTAD, IMF and OECD presents aggregated data of country-to-country flows, such as in the case of FDI. In contrast, private sector DBs tend to report this information as company-to-company or investment fund-to-instrument transactions, which make more sense for investors. Nevertheless, efforts such as the Coordinated Direct Investment Survey (CDIS) and the Coordinated Portfolio Investment Survey (CPIS) from several international organizations will help to harmonize data and generate more detailed information at the project level. JEDH, through the BIS, is also harmonizing data about the banking sector and their support to developing countries' finances.

A great share of information is hosted in private DBs, particularly from those organizations targeting investors in emerging economies. In general this is better data because institutional investors require high levels of transparency —particularly for

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American Bank for Integration and the Caribbean Development Bank, which are important sources of financing. See Prada, F., "World Bank, Inter-American Development Bank, and Subregional Development Banks in Latin America and the Caribbean: Dynamics of a system of MDBs", document presented RSIS/ADBI Conference "The Evolving Global Architecture: From a Centralized to a Decentralized System" (Singapur March 26th-27th 2012).

listed companies in stock exchanges. DBs like Reuters or Bloomberg generate information for investors on the main companies investing in developing countries. Nevertheless, it is difficult to harmonize data from balance of payments (recipient's perspective) with that of companies' balances (provider's perspective).

In the case of the non-for-profit sector, not all grants and projects' information from foundations or corporate social responsibility agencies provide clear information about their purpose, beneficiaries and impacts. In general, DBs tend to show financial aggregated data from some donors (US and UK philanthropy sectors tend to report better than other countries), but in most cases there is fragmented data from individual organizations. Some DBs have difficulties to report this information as country-to-country activities, since some of these actors have operations at the regional level. Nevertheless, some attempts to dialogue and organize data of foundations may contribute to influence other organizations to standardize reporting and measuring their development impact.[19]

Again, there are areas where the interaction with global development institutions will be important. We have already mentioned that PPPs, climate change financing, and microfinance, among many others, are creating bridges and common definitions to integrate datasets about the private sector contributing to development financing.

d. ***International capital markets*****.** Markets require a certain degree of transparency for investors, and specialized DBs have created their own standards and metrics to register these types of financial operations —and there are cases when the main DBs provide different methodologies and results when valuating some of these instruments.[20] Although data is fragmented among many providers, there are also a small number of institutions gathering and integrating data —mainly rating agencies and data-for-investors providers. Even though most of them charge a fee to access real-time data about international capital market transactions, the costs are not necessarily prohibitive and some academic institutions mirror part of this information.

The main challenge is the fragmentation of data among a myriad of companies listed in international capital markets, structuring deals in real time and using financial instruments that are difficult to value (for example, derivatives such as options and futures). Analysts frequently argue that it is still a reduced number of emerging countries that have access to these financing options, and they are likely to be upper middle-income countries. Nevertheless, issuing debt in international capital markets is an area where MDBs have been instrumental through syndicate financing and the use of

[19] This is the case of the Bellagio Initiative, see Institute of Development Studies, The Resource Alliance and The Rockefeller Foundation (2011), "Philanthropy: current context and future outlook", background paper for *The Bellagio Initiative: The Future of Philanthropy and Development in the Pursuit of Human Wellbeing*.

[20] For example, the case of credit swaps, where different agencies lead to different methodologies and the errors are systematic, particularly during turbulent times where the divergence between agencies expands. See Mayordomo, S., J.I. Peña, and E. Schwartz (2011), Are all Credit Default Swap Databases Equal?, Documentos de Trabajo No 44, España: Comisión Nacional de Valores de Mercado.

risk mitigation instruments to reduce exposure to inflation, interest rate, political, and exchange rate risk. More countries will access these instruments in the future.

4. Conclusions and recommendations

This section summarizes the study's key messages and provides recommendations to advance in the effort of building a system of comprehensive databases of financial flows to developing countries.

First, the mapping of DBs also reflects the fragmentation of the current international development financial system. Therefore, this is not only a problem of transparency. Better reporting is a first step to generate a clearer picture, yet the main challenge is how to generate common frameworks that include this diversity of financial mechanisms.[21] This effort is comparable to what ODA donors did in the past to generate a common platform of reporting and analysis of their international cooperation, although this time for a more complex development finance landscape.

Second, the scanning methodology has been able to capture the diversity of DBs by applying a bibliographic analysis and big-data visualization techniques. From these results, it is possible to derive concrete recommendations. The international development financing system is getting more complex as the private sector, international capital markets and some emerging countries (the "emerging players" in development financing) consolidate their position. A bibliographic analysis could be also a good tool to track how these actors are more frequently mentioned because of their innovations in the development landscape, for example.

Third, the visualization diagrams clearly show the key position of a group of international organizations providing the services of generating harmonized, high-quality data on financial flows to developing country and gathering, systematizing national data. It shows a similar pattern with a small group of institutions in the private sector, which may be willing to join efforts with public institutions to improve data about private sector and capital market financial flows to developing countries. In this regard, there is an important role for regional organizations at creating bridges between data sources that can be replicated in other regions.[22]

Fourth, some areas where various actors from the public, private sector are working together are generating important niches of data (e.g. climate change financing, PPPs, and infrastructure, among others). Supporting these efforts will be key to creating common standards to gather information of these new mechanisms. Thus, working with regional development banks, which work with many actors and are using a variety of

[21] Canada's attempt to organize its support beyond aid in a single platform, including their national firm's investment in developing countries and other outflows (a Canadian International Development Platform).
[22] The Economic Commission of Latin America (ECLAC) produces periodic reports about development financing in the region. This is how an attempt to measure external debt in a comprehensive way, thus including public and corporate debt using publicly available data. See Bustillo, I., and H. Velloso (2013), Debt financing rollercoaster: Latin American and Caribbean access to international bond markets since the debt crisis, 1982-2012, Santiago de Chile: CEPAL.

FIs, could be a good starting point to generate common frameworks for data management.

There are already working teams at the OECD exploring how to integrate non-ODA financial flows to the Creditor Reporting System, in areas such as guarantees for development, export credit, non-DAC aid, and climate finance, as well as refining definitions and metrics of specific component of ODA and other official flows. Our mapping exercise shows that there are various efforts to harmonize development financing data; and our list of DBs has singled out those working on creating comprehensive standardized data among clusters of financial instruments. Ultimately, these efforts are contributing to our common objective of better knowing the quality and amounts of public and private financing going to developing countries, using a systemic approach that provide incentives for more transparency and better reporting capacities.

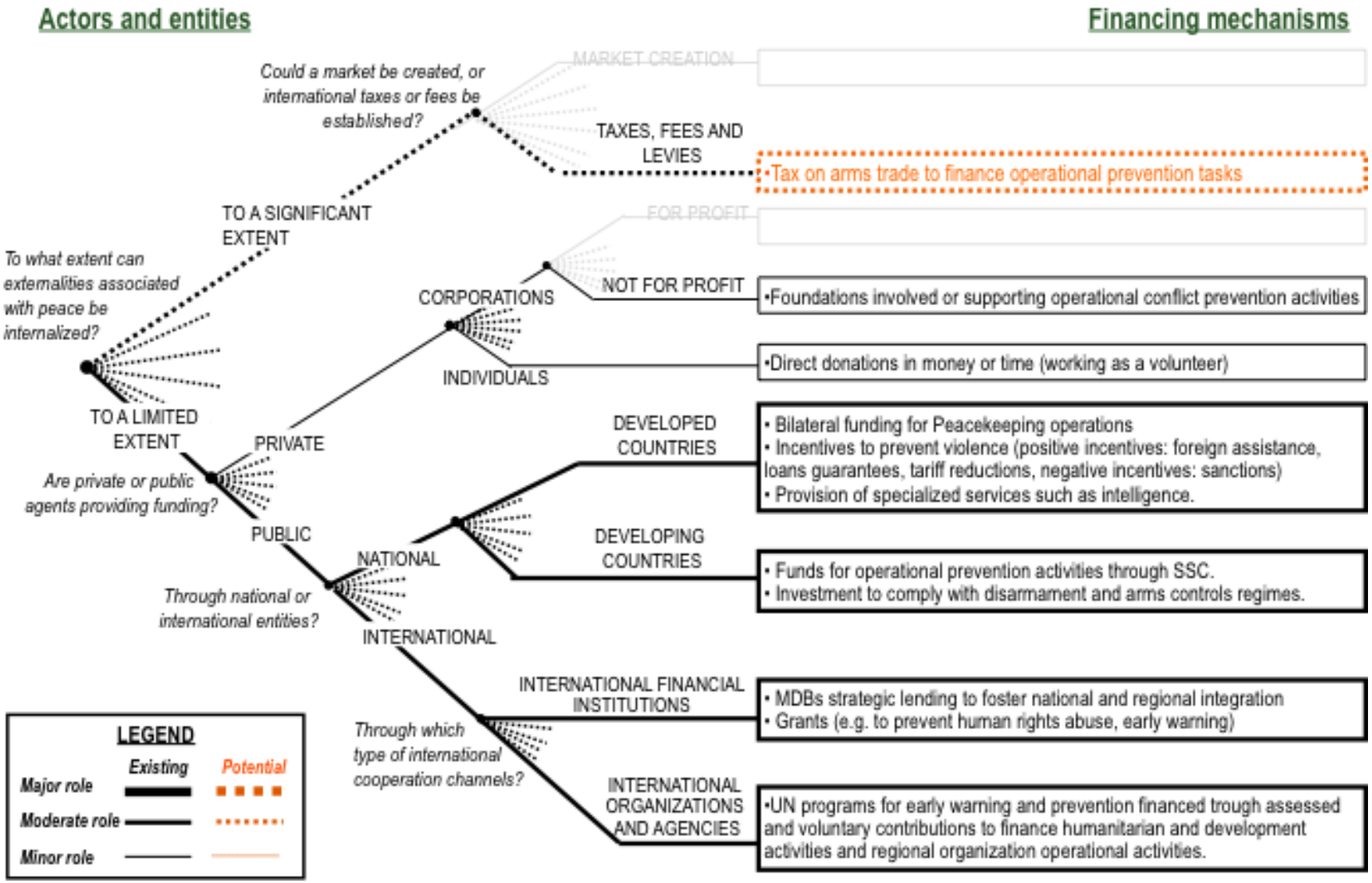
ANNEX 1. **List of financial instruments by functional categories and actors offering them**

Financial instruments			Actors									
			Bilateral		Multilateral				Private sector			
Type	**Sub-type**	**Specific instruments** (examples)	**DAC**	**Other**	**United Nations**	**World Bank, RDBs**	**IMF / regional**	**SRDBs**	**For-profit**	**Non-profit**	**Capital markets**	**Global**
Loans	For projects / programs		X	X		X	X	X	X		X	
	Mixed with donation to reduce interest	IBRD-IDA: blended loan	X	X		X	X	X		X		
	Microfinance	Facility: Apex Funds	X	X		X		X	X	X		
	Contingent credit lines	Disaster: CAT-DDO				X						
		Liquidity: IMF-ESF					X					
		General: Counter-cyclical DDO	X	X		X						
		Sovereign lending	X	X		X		X				
	Concessional loans		X	X		X	X	X				
	Trade financing / export credits	US OPIC, UK Export Credit Department	X	X				X				
	Multi-donors: rescue programs		X	X		X	X	X				
Donations / Grants	Result-based support	Cash on delivery, Output-based aid, result-based aid	X		X	X						
	Budget support	EU MDG Contract	X									
		Global Fund, IDA Performance-based	X	X		X		X				
	Private sector philanthropy, CSR, individuals								X	X		
	Project / Programs / Pre-investments		X	X	X	X	X	X	X	X		
	Technical cooperation grants		X	X	X	X	X	X		X		
Bonds	Sovereign, syndicated			X		X		X	X			
	Indexed as mechanisms to mitigate risks	GDP, commodity prices, inflation							X		X	
		Catastrophes				X		X			X	
	Social criterion	Green bonds				X						
Foreign direct investment	Mergers and acquisitions, through investment funds, investment in company securities (equity)								X			
Remittances	For consumption, social investment									X		

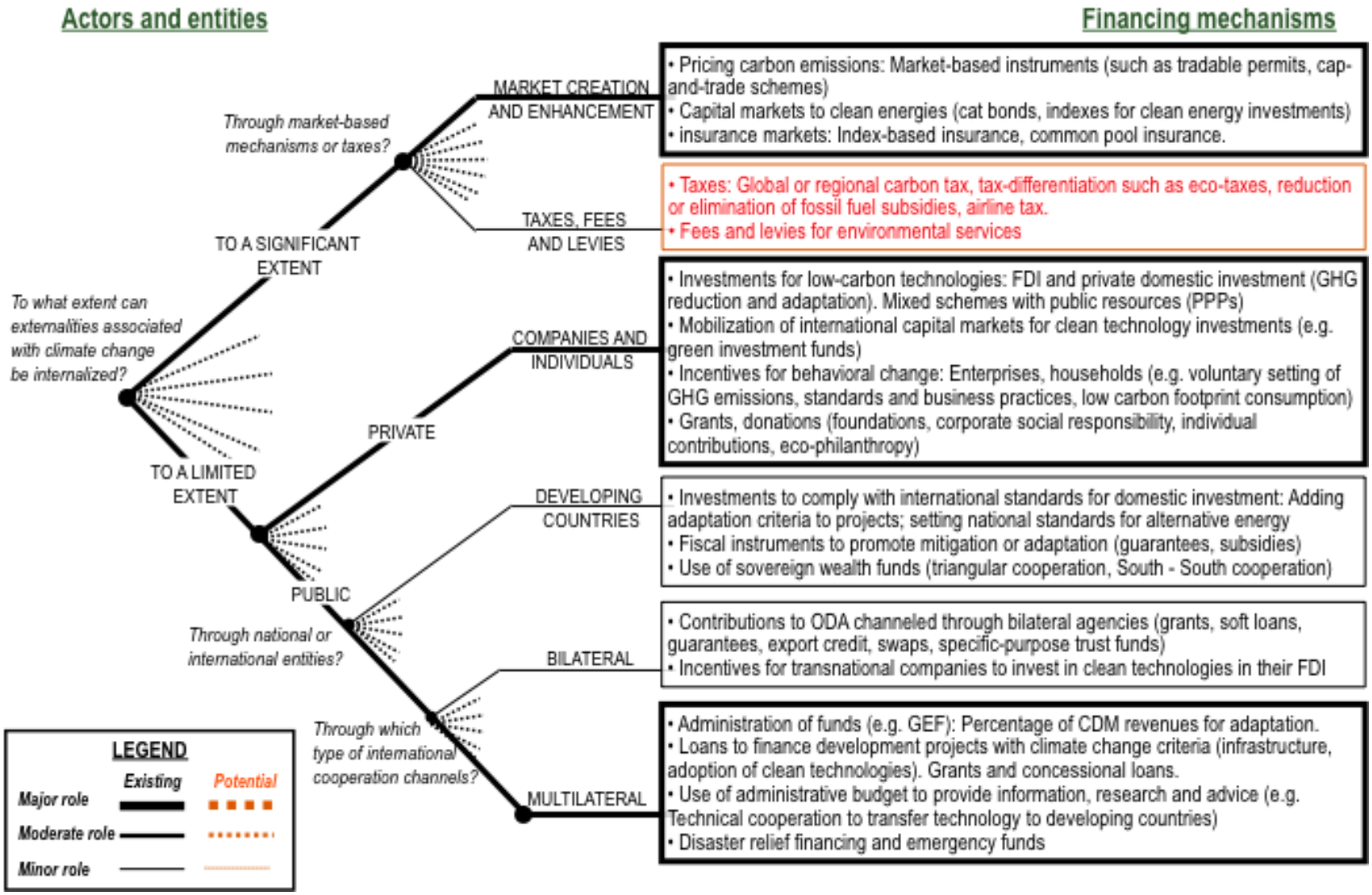
Financial instruments			Actors									
			Bilateral		Multilateral				Private sector			
Type	Sub-type	Specific instruments (examples)	DAC	Other	United Nations	World Bank, RDBs	IMF / regional	SRDBs	For-profit	Non-profit	Capital markets	Global
Market creation / support	Purchase agreement by contract	AccessRH, PG4Health			X					X		
	Buy-outs / Prizes	Patent purchases, pre-sales offerings			X					X		
	Auction / sale of emission permits	CERs, limits for carbon emission	X	X					X		X	
	Bonds to create domestic capital market					X		X	X		X	
Specific purpose funds / facilities	Via 2% sales of CERs	Adaptation fund									X	
	Various contributions	Carbon fund				X			X		X	
	Securitization of aid flows	Global FFI, FFI for Immunization-FFIm										
	Funds / programs / investment		X		X					X		
	Counter-cyclical funds			X							X	
Taxes and fees	Global taxes	Arms, air tickets, currency transactions										X
Payments for services	User fees, contributions	Environmental services, REDD	X	X					X			
Combined value instruments	Sustainable investment fund (social criteria)								X		X	
	Via consumption	(PRODUCT)RED								X		
	Corporate social responsibility (CSR), Bottom-of-the-Pyramid approaches								X	X		
	Global lotteries for charity (proposed)											X
	Person-to-person donation / crowdfunding	Kiva.org, MyC4, Babyloan, Wokai								X		
	Securitization	Microfinance bonds				X			X	X		
Risk mitigation / management	Provision of insurance	Index-based insurance	X			X		X	X		X	
		Micro-insurance	X	X		X		X	X			
	Loans	In local currency	X			X		X				
	Guarantees (partial, credit, based on policies, politics, regulatory, among others)		X			X		X	X			
	Investment risk	Venture funds and derivatives	X	X		X		X				
	Sovereign defaults	CACs									X	

Financial instruments			Actors									
			Bilateral		Multilateral				Private sector			
Type	Sub-type	Specific instruments (examples)	DAC	Other	United Nations	World Bank, RDBs	IMF / regional	SRDBs	For-profit	Non-profit	Capital markets	Global
Cancellation of debt	Repurchase of debt	Debt Reduction Facility - IDA	X			X						
		Multilateral Debt Relief Facility				X	X	X				
	Debt exchange	Debt-for-nature, Debt2Health	X	X		X		X				
	HIPC initiative		X			X	X	X				
	Unilateral cancellation of debt		X	X		X		X				
	Consultative groups	Brady, Paris Club	X									
International liquidity	Bilateral credit lines – FED, central banks		X									
	Special drawing rights (SDRs) issuance						X					
	Monetary funds (proposal of an Asian Monetary Fund or BRICS development bank, Latin American Fund of reserves)			X			X					

ANNEX 2. **List of financial instruments and financing mechanisms, by type of actor or entities: Peace**



ANNEX 3. **List of financial instruments and financing mechanisms, by type of actor or entities: Climate Change**



ANNEX 4. **Complete list of databases, by generic actor and coverage of financial instruments**

The following section organizes the DBs identified during the bibliographic analysis. The first level of organization refers to whose financial flows to developing countries each DB reports. The second level of organization refers up to what extent the group of DBs has coverage of financial instruments for the particular category of actors.

Using the first criteria, we are using eight groups of DBs, according to the classification in section 3.2: (i) bilateral DAC; (ii) bilateral non-DAC; (iii) UN and other global organizations; (iv) global and regional multilateral organizations; (v) sub-regional organizations; (vi) for-profit private sector; (vii) non-for-profit private sector; and (viii) International capital markets.

The next level of organization differentiate between: (i) comprehensive databases, those that host data for a group of actors and/or financial instruments, thus requiring a degree of harmonization, common standards and protocols for reporting activities, at the global or regional level; and (ii) specific databases, reporting on a limited group of countries, focusing at the national- or agency-level, or on specific instruments. Although this division is imprecise due to the diversity of DBs, it identifies which DBs hosting institutions could contact the Statistics and Development Finance Division of the OECD Development Cooperation Directorate to keep track of their efforts to aggregate financial data.

How to read this database of DBs? Each row contains information of one database. For each of the DBs, we have compiled information about its web address (hyperlink and acronym in blue) the level of information of its data (global, regional or national), referred to which type of countries (developed, developing or both categories), and whether there is a fee for accessing (colored in green). In the column 'observations' we include information available about coverage, access, and quality standards, among others.

In case a DB has data on climate change financing, an asterisk (*) will indicate so, and (**) in the case of peace financing; the specific link and information will be in the column 'observations'. In some cases, a group of similar DBs will be grouped according to common characteristics, such as the case of national agencies or central banks. Some of these institutions provide information to global databases as well, yet most bibliographic records identified through the analysis of bibliographic databases still quote national and very specific data, suggesting that harmonized DBs provide only a partial understanding of financial flows to developing countries.

1. **DAC BILATERAL** actors providing financing for development

a. Comprehensive data

Data Source	Level	Country	Observations
OECD (CRS) and other DBs	Global	DAC countries	• Loans, concessional loans, grants and project data for DAC countries. With data reported by DAC countries about their overseas activities, CRS host information at the project level, including conditions, sector, amounts, and descriptions. • This is the most complete DB about international public finance
World Bank (WDI, former Global Development Finance), IMF International Financial Statistics and BIS	Global	All	• Using BOP and banking data reported by developing countries, it is possible to extract information about debt originated in developed countries. • Only BIS (and OECD) provides specific information about debt, others only maintain aggregated data at the country level—not at the project/transaction level.
Joint External Debt Hub (JEDH)	Global	All	• (See private sector for more information). This DB reports inflows to developing countries, and some correspond to operations between developing countries, particularly in the case of bilateral loans or joint-finance of projects, such as infrastructure. In that case, some specific project will also show in the World Bank's infrastructure database.
AidData.org – Complete datasets of selected institutions			• Several agencies are providing historical information about their cooperation programs in single datasets. These include some non-DAC countries, like Brazil and China.
http://www.aidflows.org			• AidFlows visualizes how much development financing is provided and received around the world. Some countries are listed as both a financier and a beneficiary. Data sources include the OECD's Development Assistance Committee, showing global development aid, plus the World Bank, the Asian Development Bank and the Inter-American Development Bank, reporting on their respective development financing activities.
International Aid Transparency Initiative (IATI)	Global	Developed	• Visualization using data from IATI, which host data that seeks to be comprehensive across developed countries' own responsibility.

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Center for Global Development: Quality of ODA	Global	DAC and non-DAC	• The Quality of Official Development Assistance (QuODA) measures donors' performance on 31 indicators of aid quality to which donors have made commitments.
Paris Club Database	Global	DAC	• Contains data about restructured official debt from DAC countries • Data about swaps-for-nature *
Real Aid Reports	Global	DAC	• Using data from CRS, Real Aid identifies the component that constitute a cross-border transaction, subtract administrative costs, and applies a strict definition of the project's development purpose.
International cooperation agencies data	Global	DAC	• Each country, besides reporting to the CRS, also host data about their own cooperation

			program. Despite there are comprehensive DBs, authors and bibliographic records tend to provide quotations from specific country data.
Climate change financing	Global	DAC	• Climate Funds Update* and Climate Investment Funds contains data about bilateral projects for climate change. • OECD CRS has updated its database about Rio Markers: See OECD DAC Statistics on Climate-related Aid, OECD DAC Statistics on Aid to Climate Change Adaptation and OECD DAC Statistics on Aid to Climate Change Mitigation

2. **Non-DAC BILATERAL** actors providing financing for development

a. Comprehensive data

Data Source	Level	Country	Observations
OECD - Development finance reporting of countries beyond the DAC	Global	Non-DAC	• Reporting "ODA-like" flows from non-DAC countries. Although the DB only comprise a small number of non-DAC countries, some of them have strong development cooperation programs.
South South Cooperation Database by the Ibero-American Secretariat	Regional	Latin America	• A four year exercise with Latin American countries has resulted in the most comprehensive database of SSC activities, projects and programs in the region. Even though there are various information gaps—only a fraction of projects has data about costs and most have no evaluation due to its small scale. • Raw data is not available yet. SEGIB also gathers raw data about each individual project.
AidData.org – Complete datasets of selected institutions	Global	All	• Several agencies are providing historical information about their cooperation programs in single datasets. These include some non-DAC countries, like Brazil and China.
Joint External Debt Hub (JEDH) and other DBs like OECD-CRS, World Bank and IMF.	Global	All	• (See private sector for more information). This DB reports inflows to developing countries, and some correspond to operations between developing countries, particularly in the case of bilateral loans or joint-finance of projects, such as infrastructure. In that case, some specific project will also show in the World Bank's infrastructure database.

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Contributions to multilateral organizations	Regional	Non-DAC	• DAC countries report contributions to multilateral organizations as part of their cooperation programs. Developing countries are becoming more active, making it necessary to start compiling data on these contributions —some of them are reported as part of bilateral cooperation programs, and multilateral institutions have this information in their annual reports. (For instance, the creation of the BRICs Development Bank)
BRIC's contribution to the health sector	Regional	BRICs	• BRIC economies are increasing their support. Among general data from a variety of donors, this DB gathers data about research and figures of contributions. See http://www.ghsinitiatives.org/brics-report

International cooperation agencies data	National	Developing	• Countries more active in SSC report the results of their cooperation programs, such as Agencia Brasileña de Cooperación (ABC), Agencia de Cooperación Internacional de Chile, Agencia Mexicana de Cooperación Internacional para el Desarrollo (AMEXCID), Agencia Presidencial de Cooperación al Desarrollo-Colombia, among others; China through their Commerce Department and South Africa through its Department of International Relations and Cooperation-South Africa. Nevertheless, this self-reported information also has problems of definitions, since reports do not explicitly follow international agreed standards like in the case of similar financial flows. • Data from SSC funds is self-reported. See Fondo Argentino de Cooperación Sur-Sur y Triangular, African Renaissance Fund, and Arab Gulf Program for United Nations Development Organizations (AGFUND), Arab League and China-Africa Development Fund
Illicit Financial Flows from Developing Countries: 2001-2010	Global	Developing	• This report gathers information about illicit financial flows to developing countries due to trade misreporting, drug trafficking, international crime, among others. • Raw data and estimations are not available to download.
http://china.aiddata.org/	National	China	• A multilateral organization has gathered data about Chinese Development Finance, as part of the harmonization of datasets carried out by AidData.org AidData is also trying to harmonize information from other BRIC countries. • Complements and complete other attempts to gather and harmonize development data beyond DAC countries. See for example, the Reality of Aid.

3. **Multilateral actors:** United Nations other international organizations

a. Comprehensive data

Data Source	Level	Country	Observations
OECD (CRS) – UN Agencies and international organizations	Agency	All	• Some grant-making UN agencies and trust funds report to this DB, such as UNDP, UNWRA**, WFP, UNICEF, WHO and UNHCR**
Operations of UN Agencies **	Global	All (as well as countries under peace operations)	• A platform that provides users with dynamic and linked information about over 1,000 ongoing projects around the world in an open and easy-to-view format. • It also includes financing of peacekeeping operations and programs related to humanitarian relief in conflict zones, as well as grants associated to these programs.
Stockholm International Peace Research Institute**	Global	All	• Information about military expenditures at the country level, it also reports data on peacekeeping operations, as reported by national statistics and UN agencies.

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Information about international organizations	Agency	All	• Most international organizations have a double role as donors and recipients. Some of these organizations, such as the UN Economic Commission in every continent, are ODA beneficiaries. Other regional integration agencies are also aid beneficiaries or work in partnership with bilateral partners. In both cases, their data will be part of specific projects and reported in OECD-CRS. • In general, data about grant-making of these institutions is self-reported and consigned in their annual reports.
Databases about climate change funds* and peace funds**, and funds administered or implemented by UN Agencies	Global	All	• Each fund operating under UN also provides its own data, such as the United Nations Peace building Fund, as well as the UNCHR and UNWRA. • Similarly in the case of climate change funds, such as the Adaptation Fund, UNFCCC in UNDP, the Clean Development Mechanism and the UNEP Risk Centre. • This happens in general for every fund and agency at the UN (UNCTAD, UNDOC, UNICEF), but this information is also gathered in more comprehensive DBs, such as the OECD-CRS (some UN funds provide data about their grants).
Climate Funds Update* and Climate Investment Funds*, and the Intergovernmental Panel on Climate Change *			• These DBs gather information about several funds administered by international organization and multilateral actors. Data available at the project level and as aggregate figures, with historical data. The IPCC contains also more varied information and research, as well as case studies using national data.
International Federation of Red Cross and Red Crescent Societies **	Agency	All	• Information on operations, including peace and development projects. See http://www.ifrc.org/en/publications-and-reports/ifrc-annual-report-2012/

4. **Multilateral actors:** Global and regional organizations providing development finance

a. Comprehensive data

Data Source	Level	Country	Observations
World Bank – (WDI, former Global Development Finance)	Agency	Regional	• For the major RDBs, this DB includes information about financial flows (net flows and net transfers, commitments and disbursements), instruments (concessional and non-concessional), as well as IMF operations data. There is no project-level data, but allocations to each country. • Financial flows reported by countries, through their BOP data. The JEDH database (see private sector) also provides information of instruments and amounts provided by RDBs.
OECD - CRS	Agency	Regional	• For the major RDBs, this DB includes information about financial flows (net flows), instruments (concessional and non-concessional), as well as IMF operations data. Project-level data is included, as well as information about conditions, sectors, data markers, as well as participating partners.

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Individual RDBs: information about loans, grants, private sector operations, and risk mitigation instruments.	Agency	Regional	• Agencies such as the Asian Development Bank, the African Development Bank, the Inter-American Development Bank and the European Bank for Reconstruction and Development report their own data through their websites and annual reports. Other institutions like the European Investment Bank or the Islamic Development Bank, among others, also provide information about their own operations and financial balances.
Infrastructure and PPPs data (see private sector for-profit)	Global		• As part of their blending financing, as well as promoters of FDI and risk mitigation instruments, MDBs financing is part of other DBs such as the World Bank's Private Participation in Infrastructure Database and the InfraPPP World.

5. **Multilateral actors:** Sub-regional organizations providing development finance

a. Comprehensive data

Data Source	Level	Country	Observations
World Bank – (WDI, former Global Development Finance)	Agency	Sub-region	• It does not include information about SRDBs, only for the four regional and the World development banks.
OECD - CRS	Agency	Sub-region	• It does not include information about SRDBs, only for the four regional and the World development banks.
Individual research	Agency	Regional and sub-regional	• Preliminary attempt to compile data about multilateral financing in Latin America. See Prada, F., "World Bank, Inter-American Development Bank, and Subregional Development Banks in Latin America and the Caribbean: Dynamics of a system of MDBs". This could be replicated in other regions by compiling financing figures from annual reports of individual organization.

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Individual SRDBs: information about loans, grants, private sector operations, and risk mitigation instruments.	Agency	Sub-region	• Agencies such as the Andean Development Corporation (now the Latin American Development Bank), the Arab Bank for Economic Development in Africa, the Caribbean Development Bank, the Central American Bank for Economic Integration, the East African Development Bank, and the European Bank for Reconstruction and Development, among others, report their own data through their websites and annual reports. • Some of them are participating in infrastructure deals, working with the private sector. Some projects in climate change and infrastructure also appear in more comprehensive DBs. • The prospects of a BRIC development bank, as recently announced, would create a trans-regional development bank.

6. **Private actors:** For-profit, including debt financing (commercial banking), equity (private sector investment, foreign direct investment) and portfolio (domestic and international capital markets financing the private sector)

a. Comprehensive data

Data Source	Level	Country	Observations
Joint External Debt Hub (JEDH)	Global	All	• A common effort between the Bank of International Settlements (BIS), OECD, IMF and WB. This is the first joint attempt to bridge two perspectives when collecting data: the creditor (market) analysis, and the debtor (national) analysis. By bridging both perspectives into a single DB, this could be an important step towards debt harmonization. It includes a comparator to estimate gaps. • Regarding private sector data, it is mostly provided by BIS Banking data from information of banks and institutional investors—a creditor (market) analysis. OECD and the World Bank complement this information, see below.
Bank of International Settlements	Global	All	• BIS host several DBs regarding specific types of financial flows. For example, the cross-border lending and borrowing of internationally active banks in key financial centers, including offshore centers (banking statistics); issuing activity in international and domestic securities markets (securities statistics); activity in over-the-counter and exchange-traded derivatives markets (derivatives statistics and Triennial Survey); external debt positions of individual countries based on BIS banking and securities statistics as well as on data from other international organizations (external debt statistics, see also JEDH); payment and settlement systems in major financial centers (payment statistics); and series on credit to private non-financial sectors for 40 economies (statistics on credit to the private sector) • All data is available and downloadable in different formats.
IMF: International Financial Statistics and Balance of Payments (BOP)	Global	All	• The BOP database is a key source of information of a list of IMF databases. In the case of private sector data—including debt and equity—, countries report financial flows through agreed standards. These standards have been implemented in most developing countries through technical cooperation, and have been coordinated with other international organizations such as the Bank of International Settlements (BIS) and the OECD.
IMF: Coordinated Direct Investment Survey (CDIS) and Coordinated Portfolio Investment Survey (CPIS)	Global	All	
World Bank (WDI) and UNCTAD	Global	All	• Regarding private sector for-profit data, the WB gathers information from BOP data from developing countries, collecting information about financial flows to developing countries from all type of donors (bilateral, multilateral and private sector, for debt and equity flows). • Gather information about FDI and cross-border operations.
OECD (CRS)	Global	All	• DAC countries report data about foreign direct investment (country-to-country), not including information about specific projects.
The Banker Database, similar to other DBs such as the EIU Data services, EIU World Investment Service, Mynt Global or Zephyr.	Global and company, bank level	All	• A service by the Financial Times, this database gathers information of 5,000+ banks in almost every country. It includes market data, financial results of international operations. • Other similar databases provide comparable information, mainly gathering data from institutions and national sources, for example the Economist Intelligence Unit, and other think-thanks providing data to private sector investors.

The FDI Market	Global and company level	All	• FDI Market is an online database tracking cross-border greenfield investment covering all sectors and countries worldwide. It provides real-time monitoring of investment projects, capital investment and job creation to track and profile companies investing overseas. • Other companies such as the Bureau Van Dijk-Amadeus/Orbis provide data from different sources organizing a platform for investors' decision making; CEIC is another premium platform with similar data (including data on international capital market instruments).

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Central Banks, taxing authorities and banking regulators' data about domestic companies operations	National	All	• Despite there exists fairly well organized and comprehensive DBs on private sector financing, most bibliographic records utilize national data to complement their findings. • Most data is organized country-to-country, particularly around BOP statistics. Reporting quality and reliability depends on the overall capacities of statistical systems in each country. • Other countries have more information, although access is restricted. See the case of the US business census, which provide panel data for businesses
Regional and national agencies providing information about FDI or promoting FDI	National and Regional	All	• CESEE countries gather FDI (outward and inward) data through a regional initiative called WiiW Database. Like most examples, they have country-to-country data, rather than gathering deals form a company's perspective. At the regional level, regional integration agencies host data on FDI and cross-investment. See, ASEAN for South East Asia. • Agencies promoting FDI, such as the Japanese Overseas Investment, the US Overseas Private Investment Corporation (OPIC), or the Ministry of Commerce of the People's Republic of China (MOFCOM), among others, provide data about FDI and business deals of their companies. Data is not always available to download, but reports are available.
World Bank's Private Participation in Infrastructure Database	Global	All	• Covers infrastructure projects in developing countries with participation of the private sector since 1990. Sectors: Water, energy, transport and telecommunications. Provides aggregated data at the national level, but also includes information at the project-level. Provides information about financial sources for specific projects. All data is downloadable.
InfraPPP World	Global	All	• It provides similar information about infrastructure projects than the WB's PPI-DB, yet it charges a fee since it provides real-time data to track companies performance and project implementation, as well as data about mergers and acquisitions.
Egmont Group of Financial Intelligence Units	Case studies	Partial	• Database of cases of illegal financial flows, including misuse of grants and donations. • Partners include FIUs, public entities with complete access to financial and tax records at the national level. These data is not available online, but they could be important partners to report to DBs about financial flows to developing countries.
The China Global Investment Tracker	National	China	• Created by the American Enterprise Institute and The Heritage Foundation, this is the only publicly available, dataset of large Chinese investments and contracts worldwide (excluding bonds). Details are available on 1,250 attempted transactions -- failed and successful – valued at US$100 million

Dow Jones – Private equity; Thomson Reuters Investment Banking	Regional, Global	All	• Provides information about valuation of companies and deals of companies listed. This is similar for other companies structuring this type of deals. • There are DBs that are specific to certain instruments, like in the case of venture capital. Some data is captured at the regional level, see http://www.evca.eu/media/142790/2013-European-Private-Equity-Activity.pdf; this is an example of a DB that charges a fee for information about European venture capital (PEREP Analytics).
SIGMA EXPLORER* (specific to the insurance market)			• DB for catastrophes and premiums data, some events are climate change related, from 1970 to 2013. Insurance market including emerging markets and compilation of premiums. See http://media.swissre.com/documents/sigma3_2013_en.pdf • Other site to explore is the Bernan Union, gathering companies related to the insurance sector and export credits http://www.berneunion.org/about-the-berne-union/berne-union-members/

7. **Private actors:** Non-for-profit

a. Comprehensive data

Data Source	Level	Country	Observations
Foundation Center	Global	All	• Data on international giving of US Foundations (around 10 percent of the total). http://data.foundationcenter.org/ • Host a DB with resources for civil society organizations http://www.grantcraft.org/ • Brazil, India, China and Russia philanthropy http://foundationcenter.org/gainknowledge/research/pdf/philanthropy_bric.pdf
AidData	Global	All	• A group of foundations working in development and international NGOs are reporting data about their projects. Yet, this is not necessarily harmonized with other data (for example, aid data that this site also host), and report on a voluntary basis.
NGO Aid Map	Global	All	• Project released by InterAction, an alliance of NGOs. Data is provided by members on a voluntary basis. The result is a map with the list of projects and amounts by project.
World Bank – Remittances, UNCTAD	Global	All	• About prices. See http://remittanceprices.worldbank.org/en • About figures. See Migration and Remittances Factbook, or UNCTAD
CorporateRegister.com	Global	All	• Database about reports of CSR activities, as these companies report. • Limited coverage due to self-reporting. This DB only gathers information.
Global Impact Investing Ratings System (GIIRS)	Company level	All	• GIIRS is a comprehensive and transparent system for assessing the social and environmental impact of companies and funds. It also host B Analytics, the largest database of social and environmental performance data for private companies and on certified B Corporations & GIIRS rated companies and funds. • Measuring impact investment at the firm level is challenging, but could provide better data about investment activities.

ASSET4, Thomson Reuters DBs*	Company level	All	• Environmental, social and governance (ESG) information based on 250+ key performance indicators (KPIs) and 750+ individual data points along with their original data sources. Used to track impact performance of companies
WINGS			• Worldwide Initiatives for Grantmaker Support still do not have data available and downloadable. Restricted access to members, it is providing a platform for 150+ foundations in 53 countries to disclosing data and creating data harmonization. This is an overview of the data they are gathering http://www.wingsweb.org/resource/resmgr/images/infographic_network_profile.jpg • OECD is following this initiative through the OECD Global Network of Foundations Working for Development (netFWD).
Charities Aid Foundation	Global	All	• Survey of individual across the world based upon data from Gallup's World View World Poll, which is an ongoing research project carried out in 135 countries representing 90+ percent of the world's population. The survey asks questions on many different aspects of life today including giving behavior.
The Center for Civil Society Studies	Global	All	• Gathers information about funding of NGOs, in order to identify which sources of revenue they depend on. There is a specific question about funding from private foundations. • Information about volunteering http://ccss.jhu.edu/wp-content/uploads/downloads/2013/04/JHU_Global-Civil-Society-Volunteering_FINAL_3.2013.pdf

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Chinese foundation's data	National	China	• Several reports on China Philanthropy, issued by Sun Yat-Sen University, China Charity & Donation Information Center, China Private Foundation Information, Beijing Normal University One, Foundation Philanthropy Research Institute and Chinese Academy of Social Sciences, among others. This has been a very active area of research, particularly from US and UK universities and think-tanks.
Hudson Institute (US data on private sector giving). Other similar DBs with information only in the US, see the National Center of Charitable Statistic, the Foundation Search,	National	US and other developed countries	• Attempts to harmonize data, but calculate volunteering only for the US, include religious foundation activities. Difficult to separate national from international expenditures in the case of US foundations activities. Data not available in downloadable format. • Special report on emerging economies. See figure 3 in p.12 of the 2013 report
Bill&Melinda Gates Foundation and other foundations like The Rockefeller Foundation, Siemens Foundation, and Ford, among others	Global	Developing	• Foundations tend to self-report their own activities. • Data is not harmonized, although some of these institutions are attempting to report to global databases, particularly the biggest foundations in US and Europe.
Kickstarter, and other sites like FundaGeek, TechMoola or RocketHub.	Projects	All	• Crowdfunding data is provided by each site, although some attempts to harmonize data can be seen in Global Giving http://www.globalgiving.org/
Corporate websites (CSR)	Individual company	All	• Various individual DBs were identified during bibliographic search, quoting CSR figures. For example, banks and companies recorded more than 50 mentions: Diamond Bank, First City Monument Bank, First Inland Bank, and Intercontinental Bank, among others. • Figures are not standardized: self-reporting of activities without analysis of development impact or purpose. Most refer to aggregated figures, unlikely to report micro-data about individual projects.

Remittances databases from individual countries	National	Developing	• From household surveys (e.g. El Salvador). Micro-level data. • From Central Banks, as part of their banking sector transactions. • DBs like the World Bank have harmonized data utilizing also banking records, and Balance of Payments data. Recently the WB launched the Migration & Remittances Data, with bilateral information of financial flows.

8. Databases with data about financing from **INTERNATIONAL CAPITAL MARKETS**

a. Comprehensive data

Data Source	Level	Country	Observations
Institute of International Finance	Global	Developed	• The 'Capital Flows to Emerging Markets' series (see May 2014 edition) contains an overview of financial data where IIF merges national with other regional, private and global sources. Comprehensive approach to organize figures.
Emerging Markets Information Service (EMIS)	Global	Developing (emerging)	• Recently acquired by CEIC (an Euromoney Institutional Investor company) • Offered as premium-service for investors interested in information about companies in 100+ developing countries, including valuations, debt issuance, investment projections, among others. Using also OECD and WBs data.
Thomson Reuters, Bloomberg, and other market data analysis institutions	Global	All	• Data at market-level and company-level, pricing and valuation of FIs, and market Indices. Host 19 different DBs to analyze data on financial markets. • Bloomberg's Professional Service, or S&P's Compustat offer similar services. Harmonizing data between them is difficult, particularly in the topic of valuations. Agencies are competing to provide premium data services, therefore there are few incentives to collaborate and share information as a public good. Other instruments, like data on risk mitigation: • They host detailed DBs about specific instrument of interest of emerging countries; such as inflation linked bonds and other risk mitigation instruments. See https://index.barcap.com/Benchmark_Indices/Inflation-Linked/EMGILB or https://www.spdrseurope.com/library-content/public/Intro_EM_Linked_Bonds.pdf • only 11 are listed in the Barclays Emerging Markets Government Inflation-Linked Bond index (EMGILB); and the nine that make it into the Barclays Emerging Markets Tradable Government Inflation-Linked Bond index (EMTIL).
CBonds	Global	All	• This DB offers data on different bond issues, such as Eurobonds of Emerging Markets, or form other markets. The Bond database is organized by region, country, sector, industry, issue type, currency, listing, coupon and other parameters.
PRS Group	Global	All	• Offers market data but also analysis of political risk at the country level. This resembles services such as The Economist Intelligence Unit, or Market Analysis from a group of think-tanks offering country analysis for a fee.
The Climate Bonds Initiative *	Global	All	• Produce reports using Bloomberg data, but its reports have a common analysis to assess what constitute a climate bond. This institution, with the support of HSBC, an international bank a financial service

			provider, is aiming at generating protocols of certification. • Not DB is available, only reports with data harmonization.
IMF: Coordinated Portfolio Investment Survey (CPIS); WB's WDI and OECD	Global	All	• Not comparable to market data since these DBs host country-to-country data from BOP. In general, they have information about short-term and long-term portfolio investment on a yearly basis. IMF provides information disaggregated by specific instruments, others provide only aggregated figures.
Ycharts	Global	All	• Ycharts offers a free real-time service (like Yahoo! Finance does), but provides most information gathered in Bloomberg Terminals, Reuters or Factset. • Following several collaborations to harmonize international capital market data, such as Smart Stream and Euroclear, Bloomberg, Thomson-Reuters, SWIFT, IBM and Golden Source, and DTCC.
Credit Rating agencies	Global	All	• Most rating agencies usually associated to financial information providers such as Bloomberg or Reuters, host information about capital markets and instruments. These institutions compile their data in terms of indexes that market can track on a daily basis. • Fitch, S&P and Moody's generate most indexes, particularly for developing country issues. China, through Dragon Credit, provides an alternative way to rate countries' debt emissions.
Emerging market trader association	Global	Developing	• EMTA compiles information from industry participants in five categories: Brady bonds, sovereign and corporate Eurobonds, loans, local currency and USD-denominated local instruments, and debt options and warrants. • They conduct survey to gather information about trading since 1992 to national authorities.

b. Data about specific instruments or actors

Data Source	Level	Country	Observations
Futures Industry Association	Global	All	• Data and standards for futures negotiations. FIA gathers data and presents aggregate data for the public (see publications) • Also an advocacy group for reform and promotion of the futures market.
International Exchange (The ICE)			• System of clearing houses for energy and commodity markets. It works with several stock exchanges and concentrates data on specific operations.
Ecosystem Marketplace *	Global	All	• Contains information about three markets: Forest, Carbon and Biodiversity. • Figures are still preliminary, but the DB applies a conceptual framework to single out environment related figures.
London Stock Exchange	National	UK	• Most countries have data about instrument trading, market trends and information about *listed companies and FIs*. Trading and diversity of FIs depend on the development of the specific market. • This is the input for comprehensive DBs about international capital markets, most agencies such as Thomson Reuters or Bloomberg collate this information from different stock exchanges and their own tracking of FIs trading.
Shanghai stock exchange	National	All	
Other countries' stock exchanges	National	All	
Eurex Dow Jones EURO STOXX *	Global	Developed	• Eurex Group reports interest rate derivatives, equity and equity index derivatives, dividend derivatives, volatility derivatives, exchange traded funds derivatives, commodity derivatives and inflation derivatives.
Point Carbon *	Global	All	• Recently acquired by Thomson Reuters, which is seeking to gather complete information about trading of

			carbon markets.
The EU Emissions Trading System *	Global	All	• For climate change, most bibliographic records pointed to DBs containing information on financial instruments in capital markets. Some of these references to DBs are concentrated specifically in the energy sector, others gather data also about FIs trading. Like in the case of Stock Exchanges, these databases tend to concentrate very specific information, for particular markets and instruments. • Other DBs, like the European Union Climate exchange, describe information about policies and future funding from European countries. • DBs are more reliable when gathering market data at the instrument level, when trading prices and volumes are observable.
BlueNext *	Regional	Developed	
European Climate Exchange *	Regional	Developed	
Nord Pool *	Regional	Developed	
Chicago Climate Exchange *	National	Developed	
Chicago Climate Futures Exchange *	National	Developed	
London Energy Brokers Association *	National	Developed	
New Zealand Emission Unit Register *	National	Developed	
Regional Greenhouse Gas Initiative *	National	Developed	
Shenzhen stock exchange *	National	Developing	
Dealogics and other think-tanks providing data-for-investors	Global	All	• Investment fund providing data for investors, adding value with technical assistance. • In general, they use data from other agencies and national data, but offers value-added services for investors.