EPS PEAKS Our Expertise. Your Knowledge.

ECONOMIC AND PRIVATE SECTOR

PROFESSIONAL EVIDENCE AND APPLIED KNOWLEDGE SERVICES

HELPDESK REQUEST

Fragile states' economies

What does fragility mean for economic performance?

Joseph Holden and Margarethe Pagel

Nathan Associates

September 2012

coffey international development · ODI · University of Birmingham · Nathan · LSE Enterprise · Oxford Policy Management

EPS-PEAKS is a consortium of organisations that provides Economics and Private Sector Professional Evidence and Applied Knowledge Services to the DfID.

To find out more or access PEAKS services or feedback on this or other output, visit the EPS-PEAKS community on http://partnerplatform.org/eps-peaks or email the Helpdesk service at EPS-helpdesk@partnerplatform.org

Contents

1 Introduction

Although fragile states share many commonalities (a majority of workforce in agriculture, for example), their economies do vary in composition and size. Within our definition of fragility, GDP per capita ranges from $200 to $5,000, and just over a third (11 of the 29) are countries with substantial production in either minerals or oil.

From extreme conflict and political strife to simple under-development, there can be great risk from investing in these fragile states. This perceived risk to the investor may vary depending on the type of conflict, or become undermined by large potential gains, particularly in natural resources. Unsurprisingly, the relationship between fragility and conflict is a substantial one, although quantifying this relationship becomes complicated. Nearly half of fragile countries suffer some form of conflict, however, according to our simple regression analysis, there does not appear to be a clear and significant negative correlation between conflict and foreign investment among developing countries. The FDI that we do see flowing into developing countries is largely for natural resource industries, specifically oil, gas and minerals. This is supported by our regression analysis which shows a strong and substantial correlation between oil reserves and FDI and mineral production and FDI. Although the relationship between resources and conflict is less statistically clear, the resource curse provides one theory by suggesting that an abundance of natural resources, and especially a dependence on them, can lead to corruption and conflict instead of economic growth. Natural resource investment solely for extraction purposes should also be closely examined as this investment may not have as positive or substantial an effect on economic growth as outwardly perceived.

Aside from a country's natural resources, an investor may also assess market attractiveness, human capital, and infrastructure levels in determining investment. A recent growth in land deals, particularly in Africa, demonstrates an interest in the physical capital of the land itself as well. However, even with a four-fold increase in FDI to fragile and conflict-affected countries, the majority of that investment went to the oil industries of natural resource producing countries.

1.1 The scope and structure of this paper

This paper will look at fragile states and their characteristics in terms of FDI (and sources of), local investment, and sectoral composition for both where possible. It will focus on the World Bank CPIA<3.2 definition of fragility. Efforts will be made to differentiate between types of fragile states where appropriate, with a particular focus on post-conflict states, and possible booms in investment associated therewith.

Having undertaken significant desk research, data collection and analysis, the structure of this paper attempts to best present our findings. The structure we have used is therefore as follows:

- Relationships found between fragility and conflict-affliction and economic performance. This summarises our definitions, findings from literature review, and some presentation of data on key relationships.
- Data analysis on FDI in fragile states. This section presents the analysis we have undertaken including some regressions undertaken on fragility and FDI.
- The literature review presents in tabular form a summary of interesting papers on the core questions of interest. The table presents the most relevant findings from these papers.

2 The relationships between fragility and economic performance

The concept of what constitutes a 'fragile state' is not firmly defined academically or across development agencies. However, it is principally seen as a '*fundamental failure of the state to perform functions necessary to meet citizens' basic needs and expectations'*[1]. Fragile states are described as '*incapable of assuring basic security, maintaining rule of law and justice, or providing basic services and economic opportunities for their citizens'*. A number of other definitions have been provided by different agencies:

- The OECD DAC recently characterised fragile states as: 'unable to meet [their] population's expectations or manage changes in expectations and capacity through the political process'[2]. While, "States are fragile when state structures lack political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their populations"[3].
- DFID's working definition of 'fragile states' covers "states where the government cannot or will not deliver core functions to its people"[4].
- The World Bank defines a country as a Fragile State if it is "a low income country or territory, IDA eligible, with a CPIA score of 3.2 (rounded) or below. Countries are considered core fragile states if their CPIA is below 3.0. Countries are considered marginal fragile states if their CPIA score is between 3.0 and 3.2" [5]. The World Bank presents this more objective indicator as "guidance" and notes that "the CPIA scores provide guidance on the "spectrum" of fragility and should not be interpreted as hard and fast rules. Countries with CPIA below 3.2 may not exhibit fragility and there may be some aspects of fragility in countries with CPIA scores above 3.2"[6].

Fragile states are a separate set from conflict-affected states, however there is often much overlap between the two groups. It can be expected that countries where a State is failing may be much more likely to experience conflict, while the causality is also likely to run in reverse with conflict leading to fragility. Even the concept of conflict-affliction is difficult to objectively measure:

- The World Bank does "not presently define conflict-affected states as such definitions could reflect a political bias (Governments of client countries may define conflict differently than international institutions such as the World Bank)".
- A common academic definition of conflict is based on battle-deaths per year, as used in the Armed Conflict Database maintained by the International Peace Research Institute of Oslo (PRIO) and Uppsala University. Under this methodology, events

[1] http://www.gsdrc.org/go/fragile-states/chapter-1--understanding-fragile-states/definitions-and-typologies-of-fragile-states

[2] Ibid.

[3] http://www.oecd.org/development/conflictandfragility/38368714.pdf

[4] http://www.dfid.gov.uk/mdg/aid-effectiveness/fragile-states.asp

[5] The CPIA stands for the Country Policy and Institutional Assessment (CPIA), a series of 16 measures on countries' performance in implementing policies that promote economic growth and poverty reduction. The CPIA is also referred to by the World Bank as the IDA Resource Allocation Index (IRAI), and is used to determine ALLOCATION of World Bank International Development Association (IDA) resources.

[6] http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/STRATEGIES/EXTLICUS/0,,contentMDK:22310165~menuPK:6432437~pagePK:64171531~piPK:64171507~theSitePK:511778,00.html

resulting in more than 25 battle-deaths per year are defined as minor conflicts. Events resulting in more than 1,000 battle-deaths are defined as major conflicts. Research like the Armed Conflict Database also differentiates between international conflicts, intrastate conflicts (civil wars) and one-sided violence by state and non-state actors[7].

In addition to fragile states and conflict-affected states, is the idea of a failed state. A failed state is somewhat of an amalgam of the two concepts in that it includes the idea of not being able to provide public services, as well as a loss of control of a state over its own territory or a loss of the monopoly over the legitimate use of physical force therein. The main measure of a failed state comes from the Fund for Peace:

- The Failed States Index (FSI) rates countries across a range of indicators including demographic pressures, refugees, poverty and economic decline, factionalised elites and a number of other measures. Countries are then categorised in categories determining their level of failure, these range from Very High Alert, to Alert, to Warning, to Stable to Sustainable.[8]

Annex 1 shows the degree to which different categories of fragility and conflict overlap. This looks at countries with a World Bank CPIA index a score of less than 3.2 (in 2011), whether the country has a category of conflict or post-conflict under the Uppsala University database, and thirdly countries in the top four categories of the FSI (in 2012) - Very high alert, High alert, Alert and Very High Warning.

There are 13 countries that cross all three of these categories, these are: Afghanistan, Burundi, Central African Republic, Chad, the DRC, Cote d'Ivoire, Guinea, Haiti, Liberia, Mauritania, Pakistan, Sudan and Yemen[9]. There are 24 countries that tick two of the boxes, and 18 countries that tick just one.

2.1 The economies of fragile states

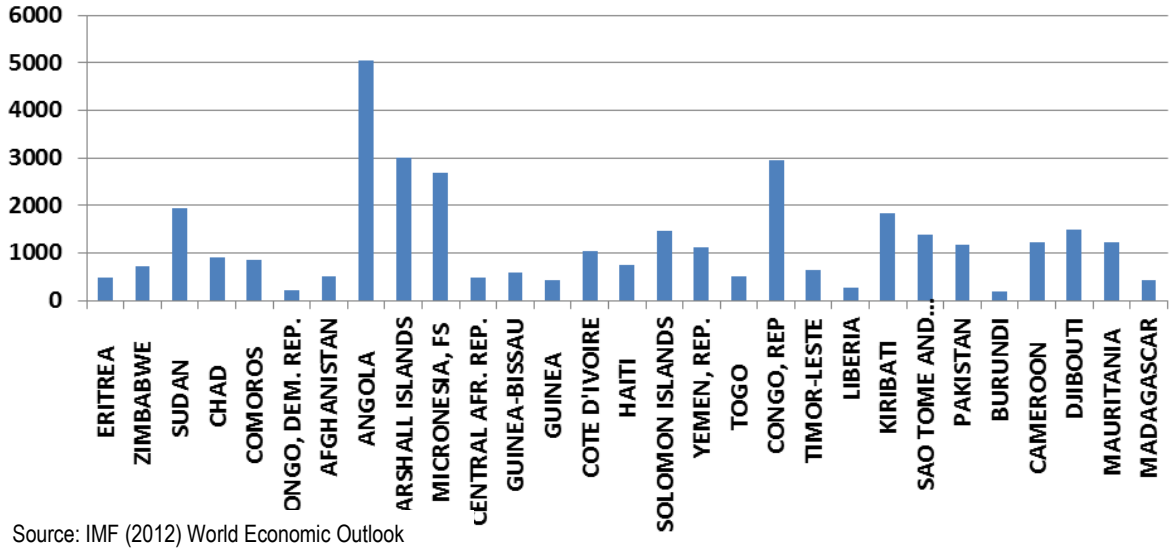
Using the World Bank definition, there were 29 countries that would be considered fragile in terms of having a CPIA score less than 3.2 and being IDA eligible in 2011. However, of these countries, just 14 had an income below $1025 GDP per capita in 2011 and therefore met the World Bank's 'Low Income' criteria[10], while 13 countries had an income between $1026 and $4035 and 'Lower Middle Income' status, and Angola had an income above this and formed part of the 'Upper Middle Income group'. As a result, under the strict World Bank definition of a fragile state, there are just 14 of them. However, in order to look at fragile states in more depth, we remove the income criteria from our working definition, since this will lead to tautological outcomes in terms of the economic characteristics of fragile states. ***We therefore stick to the simple definition of having a rounded CPIA of less than or equivalent to 3.2.***

Under this definition, there are 29 fragile countries. For these countries, mean GDP per capita is $1256 and median GDP per capita is $984. In addition, 13 out of the 29 countries (46 per cent) have some level of conflict as defined by Uppsala University. In contrast, the 29 countries with the next level of CPIA scores (between 3.2 and 3.65) have a mean GDP per capita of $1790 and

[7] http://www.pcr.uu.se/research/UCDP/
[8] http://www.fundforpeace.org/global/?q=fsi-about
[9] It should be noted that the World Bank CPIA does not have scores for Somalia, South Sudan or the West Bank and Gaza.
[10] http://data.worldbank.org/about/country-classifications - We use GDP per capita rather than GNI per capita to calculate the countries in each group.

a median GDP per capita of $1300, while just 6 out of the 31 have a conflict indicator (19 per cent).

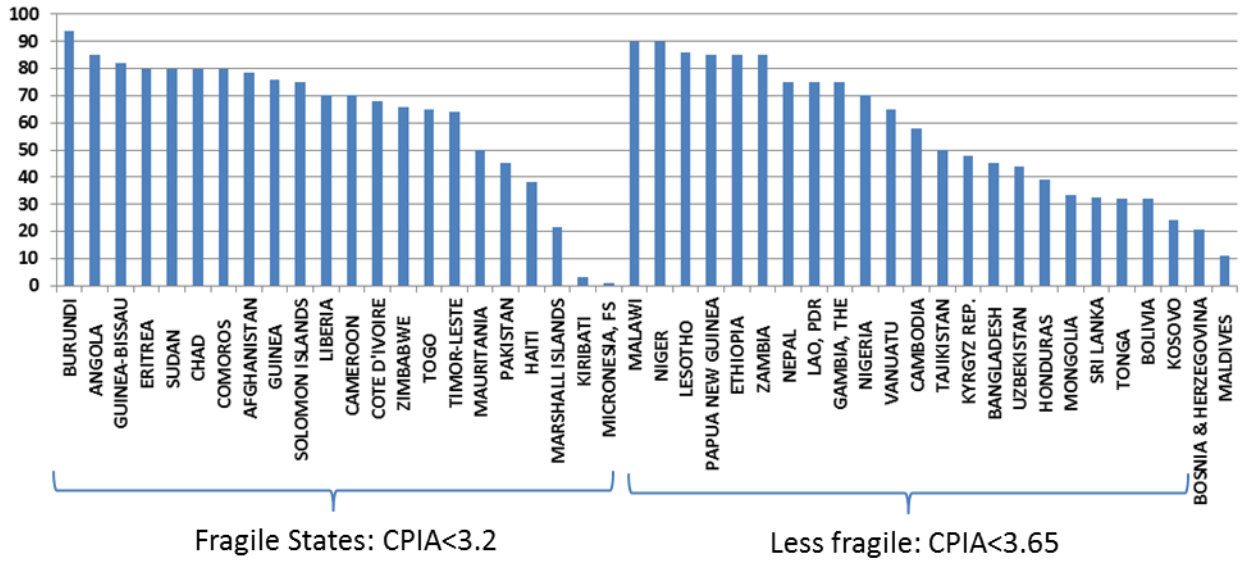
Figure 1: Fragile states (countries with less than 3.2 CPIA average) and GDP per capita



Source: IMF (2012) World Economic Outlook

As shown in Figure 1 there is significant variation between the sizes of the economies of the fragile states, at least in terms of GDP per capita. Figure 2 shows the share of the labour force working in agriculture in each of the fragile states, as well as countries with higher CPIA scores as a comparator group. The mean is 62 per cent of the labour force in agriculture for fragile states, and 56 per cent for those that are less fragile. The median figure shows greater variation, with 70 per cent of the labour force in agriculture in fragile states, and just 54 per cent in those that are less fragile.

Figure 2: Share of labour force in agriculture



Source: CIA (2012) World Factbook

From this data there is already an indication that when we talk about fragile states we are talking about a diverse group of economies. There are countries such as Burundi, which are both

extremely poor (GDP per capita of $197) and have over 90 per cent of the labour force working in agriculture. There are countries such as Angola, which while having a large share working in agriculture, has a much larger GDP per capita ($5061) due to the presence of oil. There are also countries such as Pakistan, with a higher GDP per capita than the average failed state ($1164) and a much lower share of the population working in agriculture (45 per cent). Clearly the reasons and implications for fragility will vary across such different types of states. Furthermore, within the group of less fragile states, with low CPIA scores but not low enough to meet the World Bank fragility definition, there are a number of countries that are very poor and agriculturally dependent – for example Ethiopia. These countries are also of interest in that due to institutional measures they have not fallen in to the fragile states group.

2.2 Conflict, investment and growth

The link between fragility and conflict is strong as shown by the 46 per cent of fragile countries experiencing some form of conflict under the Uppsala definitions compared to just 19 per cent of comparator countries. The link between conflict and economic structure has been widely discussed in the academic literature. Kosuke and Weinstein (2000) for example find that a unit increase in the geographical spread of civil war reduces private domestic investment by about 0.4 per cent of GDP annually while wide-spread civil wars reduce GDP growth rates by 1.25 per cent a year.

However, the literature also extols causality in the other direction, i.e. from a country's economic structure to the prevalence of civil wars. Bannon and Collier (2003) report that each additional percentage point of growth reduces the risk of conflict by about 1 percentage point. However, there is a strong link between commodity dependence and conflict - a country that is otherwise typical but has primary commodity exports around 25 per cent of GDP has a 33 per cent risk of conflict, but when such exports are only 10 per cent of GDP, the risk drops to 11 per cent.

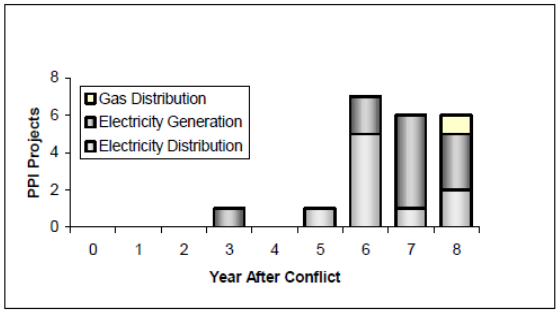
Table 2.1 Civil Wars Linked to Resource Wealth, 1990–2002

Country	*Duration*	*Resources*
Afghanistan	1978–2001	Gems, opium
Angola	1975–2002?	Oil, diamonds
Angola (Cabinda)	1975–	Oil
Cambodia	1978–97	Timber, gems
Colombia	1984–	Oil, gold, coca
Congo, Rep. of	1997	Oil
Congo, Dem. Rep. of	1996–97, 1998–	Copper, coltan, diamonds, gold, cobalt
Indonesia (Aceh)	1975–	Natural gas
Indonesia (West Papua)	1969–	Copper, gold
Liberia	1989–96	Timber, diamonds, iron, palm oil, cocoa, coffee, marijuana, rubber, gold
Morocco	1975–	Phosphates, oil
Myanmar	1949–	Timber, tin, gems, opium
Papua New Guinea	1988–	Copper, gold
Peru	1980–95	Coca
Sierra Leone	1991–2000	Diamonds
Sudan	1983–	Oil

Note: Separatist conflicts are listed in italics.

Much further evidence on particular case studies outlines this link between commodity dependence or resource wealth with conflict, and in particular internal conflict. The table below from Ross (2003) shows 15 civil wars from 1990-2002 reputedly linked to resource wealth – and it should be noted that while this often includes oil it does not always do so.

Figure 5: Large-scale Investment in Energy Projects in Post-Conflict Countries

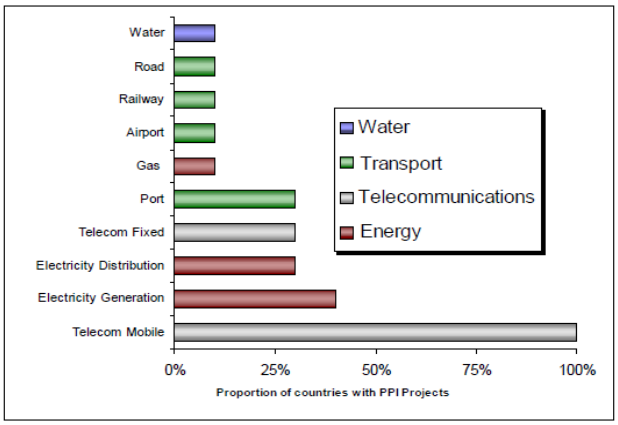


Source: PPI Database. For dataset, see Footnote 9.

There is also an extensive literature in to the economies of post-war economies, and the risk of falling back into conflict. Collier (1999) demonstrates that peace does not recreate either the fiscal or the risk characteristics of the pre-war economy: there is a greater risk of renewed war. This shows that *it is difficult to escape conflict and the risk profile of an economy for foreign investors is unlikely to change for some time*.

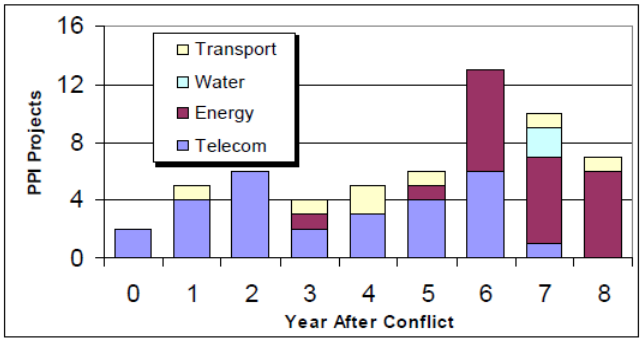
Collier (ibid.) further shows that if a civil war lasts only a year, it is found to cause a loss of growth during the first five years of peace of 2.1 per cent per annum, a loss not significantly different from had the war continued. But if war has been sufficiently long the capital stock will have adjusted to a level below that desired in post-war conditions. In this case capital repatriation enables the economy to grow more rapidly than during the pre-war period - thus Collier finds *the peace dividend for the ending of prolonged civil wars to be large*. In addition, peace also reverses the compositional changes caused by prolonged civil war. An implication is that after the end of long wars the war-vulnerable activities experience very rapid growth: the peace dividend is augmented by compositional change.

Figure 12: Proportion of Post-Conflict Countries with Private Infrastructure Projects, by Sector

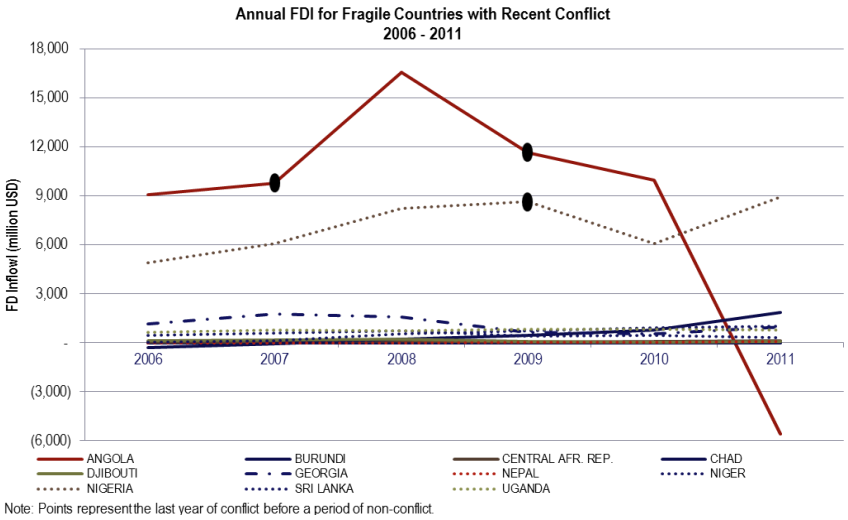


For dataset, see Footnote 4.

Figure 11: Sectoral Dispersion of PPI Over Time in Post-Conflict Countries



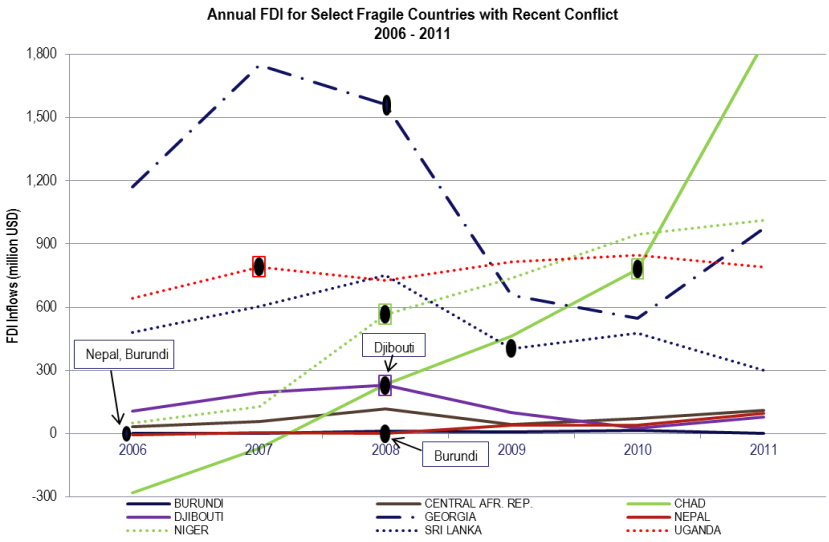
For dataset, see Footnote 9.



Note: Points represent the last year of conflict before a period of non-conflict.

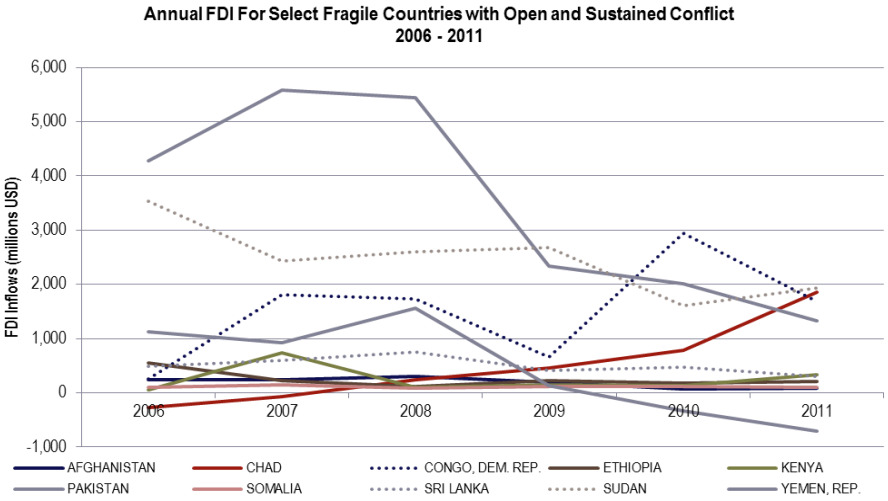
Source: Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012; UNCTADstat; UNCTAD World Investment Report Annex 1

Schwartz et al (2004) look at some specific investments post war and the sectoral composition thereof. The figures to the right show some of this data (using the World Bank Private Participation in Infrastructure - PPI dataset). This shows that post-conflict investment has been centred in the telecoms sector initially, followed by transportation, and energy investments at about year 6 after conflicts end. This is likely to be a function of the time horizons for these investments,



Note: Points represent the last year of conflict before a period of non-conflict.

Source: Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012; UNCTADstat; UNCTAD World Investment Report Annex 1



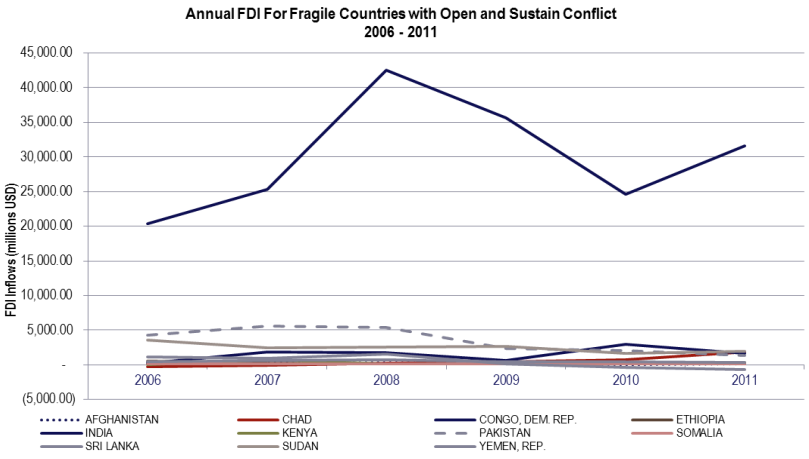
Source: Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012; UNCTADstat; UNCTAD World Investment Report Annex 1

recent boom in investment flows, although these are also oil inflows. Djibouti saw its FDI decrease in the three years after conflict ended. Niger and Uganda both saw increases in FDI following conflict, again both may be linked to resource wealth. Georgia following conflict in 2008 saw a significant fall in FDI, although this may be due to the specificities of its situation.

In fact, we find little evidence between sustained incidence of conflict and FDI flows. India in whereby the markets for telecoms are likely to exist and provide returns to investors at a relatively early stage. The large outlays for energy investments may require a longer time horizon to reap sufficient rewards to make investment viable, and therefore a longer period of peace may be required to bring the confidence required for the investments to take place.

Our research looked into the link between investment and recent incidents of conflict. We did not find a strong link between the end of conflict and changes in investment. Partly this may be a result of the small sample, and partly due to the timing in terms of global events. Angola has seen a big drop off since 2009 for example, while Nigeria has remained relatively steady. Both countries are oil dependent however.

Looking at a range of smaller countries there is mixed evidence. Chad has seen a



Source: Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012; UNCTADstat; UNCTAD World Investment Report Annex 1

particular which has seen open and sustained conflict as defined by the Uppsala University methodology (>1,000 battle deaths) has not felt the impact in terms of FDI. FDI flows have seen volatility over the period from 2006 to 2011, but have overall been on an upward trend.

India's experinence may be down to its size. Looking at smaller countries there is a mixed pattern in terms of open and sustained conflict and FDI flows. The table below shows countries that have experienced this category of major conflict in recent years and the years in which they have experienced them. For a number of these countries FDI has remained extremely low over the period from 2006 to 2011 – for example Afghanistan and Somalia. While Pakistan and Yemen have seen significantly deteriorating FDI performance. Two countries notably buck the trend, these are Chad and the DRC – both of these countries have experienced significant bounces post-conflict in FDI flows. This leads us to a question about what is determining such large variation in performance.

Years of Open and Sustained Conflict by country 2006 - 2011

Country	Years
Afghanistan	2006, 2007, 2008, 2009, 2010, 2011
Chad	2006
Congo, Dem. Rep.	2009
Ethiopia	2011
India	2006, 2007, 2008, 2009
Kenya	2011
Pakistan	2008, 2009, 2010, 2011
Somalia	2007, 2008, 2009, 2010, 2011
Sri Lanka	2006, 2007, 2008, 2009
Sudan	2006, 2010, 2011
Yemen, Rep.	2011

Note: Countries with at least 1,000 battle deaths in a year are considered to be in open and sustained conflict.

Source: Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012.

2.3 What determines investment flows to fragile states?

Jere Behrman (1972) identified four motives of companies undertaking FDI. This provides a rationale for understanding the way investors are likely to be looking at a state prior to investment. We believe this methodology is useful for understanding how fragile states are likely to be viewed by investors for different types of investment[11].

- **Resource seeking FDI:** The resource seeking investors are motivated by their need for cheap resources including human, physical, technological or organisational resources.
- **Market seeking FDI:** The market seeking investment is motivated solely by entering new markets and increasing company's profits. This type of investment is justified by large market size and purchasing power of the consumers.
- **Efficiency seeking (global sourcing FDI):** The efficiency seeking investment, as the name suggests is motivated by production process efficiencies improvement. What can characterize this investment is that the investors are interested in forming partnerships with suppliers or even competitors, i.e. using same distribution network,

[11] Quoted in Sung-Hoon Lim, (2005) "Foreign investment impact and incentive: a strategic approach to the relationship between the objectives of foreign investment policy and their promotion", International Business Review, Volume 14, issue , pp.61- 76

in in order to benefit from economies of scale, economies of scope and shared ownership, i.e. investment risk diversification.

- **Strategic asset/capabilities seeking FDI:** The last motive for foreign direct investment called strategic asset or capability seeking is quite similar to resource seeking investments, the main difference is, however, that the company wants to obtain certain foreign resource not only to improve its efficiency but also to improve the quality of its offering, provide new features to its product and significantly increase its market share.

This taxonomy is one that applies to all countries. When applying this to fragile economies, one must ask the question what aspects of fragility mean for the operating environment for investors. An investor looking at a particular country will have in mind a risk profile for the location, in which they will invest if it is clear they can gain a stable future stream of revenue and profit from their investment. The degree to which this is possible will depend on the type of investment they are looking at. For example, efficiency-seeking investments in the manufacturing sector are likely to require a large amount of infrastructure and logistical conditions to be in place, as well as local skills, in order for the investment to be viable. Resource-seeking investments in the minerals sector are unlikely to face so many requirements.

UNCTAD's Potential and Attraction Index

UNCTAD use their own Inward FDI Attraction and Potential indices to measure how countries should do in terms of FDI and how they do in practice. The Attraction Index ranks countries by the FDI they receive in absolute terms and relative to their economic size. It is the average of a country's rankings in FDI inflows and in FDI inflows as a share of GDP. The 2012 WIR looks at FDI flows over the 2009–2011 period for this indicator.

The Inward FDI Potential Index captures four key economic determinants of the attractiveness of an economy for investors. They are the attractiveness of the market (for market-seeking FDI), the availability of low-cost labour and skills (to capture efficiency-seeking FDI), the presence of natural resources (resource-seeking FDI), and the presence of FDI-enabling infrastructure. Countries are ranked according to their attractiveness for FDI on each of these broad determinants using a range of proxy indicators, as summarized in box table I.3.1. The index purposely includes only economic determinants and indicators in order to facilitate its use as a tool for measuring policy effectiveness.

Box table I.3.1. Measuring FDI Potential: FDI determinants and proxy indicators

Market attractiveness	• Size of the market (GDP (purchasing power parity)) • Spending power (per capita GDP (purchasing power parity)) • Growth potential of the market (real GDP growth rate)
Availability of low-cost labour and skills	• Unit labour cost (hourly compensation and labour productivity) • Size of manufacturing workforce (existing skill base)
Presence of natural resources	• Exploitation of resources (value of fuels and ores exports) • Agricultural potential (availability of arable land)
Enabling infrastructure	• Transport infrastructure - (road density: km of road per 100 km^2 of land area) - (percentage of paved roads in total) - (rail lines total route-km) - (liner shipping connectivity index) • Energy infrastructure - (electric power consumption) • Telecom infrastructure - (telephone lines/100 inhabitants) - (mobile cellular subscriptions/100 inhabitants) - (fixed broadband Internet subscribers/100 inhabitants)

Source: UNCTAD.

Figure I.20. FDI Attraction Index vs FDI Potential Index Matrix, 2011
(Quartiles)

FDI Attraction Index \ FDI Potential Index	4th quartile (Low)	3rd quartile	2nd quartile	1st quartile (High)
1st quartile (High)	Chad, Liberia, Madagascar, Niger	Albania, Bahamas, Congo, Congo (Democratic Republic of), Equatorial Guinea, Jordan, Lebanon, Luxembourg, Mongolia, Mozambique, Zambia	Bulgaria, Ghana, Ireland, Israel, Nigeria, Norway, Panama, Turkmenistan, Uruguay	Australia, Belarus, Belgium, Brazil, Chile, China, Colombia, Hong Kong (China), Kazakhstan, Malaysia, Peru, Poland, Russian Federation, Saudi Arabia, Singapore, Switzerland, Ukraine, United Kingdom, Viet Nam
2nd quartile	Armenia, Cambodia, Guinea, Nicaragua, Saint Vincent and the Grenadines, Solomon Islands	Costa Rica, Georgia, Honduras, Kyrgyzstan, Libya, Maldives, Malta, Namibia, Seychelles, Sudan, United Republic of Tanzania	Brunei Darussalam, Croatia, Dominican Republic, Egypt, Estonia, Iraq, Portugal, Qatar, Serbia, Tunisia, Uzbekistan	Austria, Canada, Czech Republic, France, Germany, Hungary, India, Indonesia, Mexico, Netherlands, Romania, Spain, Thailand, Turkey, United Arab Emirates, United States
3rd quartile	Antigua and Barbuda, Belize, Cape Verde, Central African Republic, Djibouti, Dominica, Fiji, Grenada, Guyana, Mali, São Tomé and Principe, Vanuatu	Barbados, Botswana, Cameroon, Lao People's Democratic Republic, the former Yugoslav Republic of Macedonia, Mauritius, the Republic of Moldova, Myanmar, Uganda, Zimbabwe	Algeria, Azerbaijan, Bolivia (Plurinational State of), Denmark, Gabon, Guatemala, Iceland, Jamaica, Latvia, Morocco, Oman, Pakistan, Syrian Arab Republic, Trinidad and Tobago	Argentina, Finland, Iran (Islamic Republic of), Italy, Japan, Korea (Republic of), South Africa, Sweden
4th quartile (Low)	Afghanistan, Benin, Bhutan, Burkina Faso, Burundi, Comoros, Côte d'Ivoire, Eritrea, Gambia, Guinea-Bissau, Haiti, Kiribati, Lesotho, Malawi, Mauritania, Nepal, Rwanda, Samoa, Sierra Leone, Suriname, Swaziland, Togo, Tonga	Angola, Bangladesh, Bosnia and Herzegovina, El Salvador, Ethiopia, Kenya, Papua New Guinea, Paraguay, Senegal, Tajikistan, Yemen	Bahrain, Ecuador, Greece, Kuwait, Lithuania, New Zealand, Philippines, Slovakia, Slovenia, Sri Lanka	Venezuela (Bolivarian Republic of)

Above expectations | In line with expectations | Below expectations

Source: UNCTAD.

Source: UNCTAD (2012)

The UNCTAD (2012) shows a distinct pattern in which a number of fragile states perform better than would be expected. OECD (2008) reported that *'foreign direct investment (FDI) to 42 fragile and conflict-affected states more than quadrupled from USD 5 billion in 2000 to USD 21 billion in 2006. However, over 70 per cent of all FDI in fragile and conflict-affected states (USD 11.1 billion per annum on average 2000-2007) went to Angola, Chad, Equatorial Guinea, Nigeria, Pakistan and Sudan—all of which but Pakistan are natural resource producers, and where FDI mostly reflects expansions in projects within the oil industry (see Figure 0.7).'* [12] This pattern has continued in more recent years. In 2011, Mozambique, Zambia, Sudan, Chad, the DRC, Guinea, Bangladesh, Tanzania and Niger all experienced FDI inflows above $1 billion – all but Tanzania were viewed by UNCTAD as above expectations.

As the table below shows, these countries were responsible for most of the top 10 largest greenfield projects in LDCs in 2011 as reported by UNCTAD (2012) – notably two gas investments and one power investment in Mozambique, oil investments in Uganda and Equatorial Guinea, two mining investments in the DRC, biomass in Lao and a power investment in Tanzania. The clear picture is again on the importance of resource-seeking investments in these markets, many of which are fragile states.

[12] OECD 2008 Annual Report on Resource Flows to Fragile and Conflict-Affected States

Table II.4. The 10 largest greenfield projects in LDCs, 2011

Host economy	Industry	Investing company	Home economy	Estimated investment ($ million)	Estimated jobs created
Mozambique	Fossil fuel electric power	Jindal Steel & Power	India	3 000	368
Uganda	Oil and gas extraction	Tullow Oil	United Kingdom	2 000	783
Mozambique	Natural, liquefied and compressed gas	Eni SpA	Italy	1 819	161
Mozambique	Natural, liquefied and compressed gas	Sasol Petroleum International	South Africa	1 819	161
Equatorial Guinea	Oil and gas extraction	Noble Energy	United States	1 600	626
Democratic Republic of the Congo	Copper, nickel, lead and zinc mining	Freeport McMoRan	United States	850	1 459
United Republic of Tanzania	Fossil fuel electric power	Castletown Enterprises	United Kingdom	799	118
Zambia	Copper, nickel, lead and zinc mining	Non-Ferrous China Africa (NFCA)	China	700	1 201
Democratic Republic of the Congo	Iron ore mining	Sundance Resources	Australia	620	1 063
Lao People's Democratic Republic	Biomass power	Thai Biogas Energy	Thailand	558	700

Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Land grabs

Although of a smaller magnitude than large resource-based investments, there has been a growing trend towards land investments in Africa. As the table and map below show, these investments have been centred in a number of fragile states[13]. Sparks (2012) reports that the DRC had large land deals for nearly half of domestic agricultural land; while Mozambique had deals for a fifth of its land. The clear trend is for these investments to be centred in fragile states. The principle origins of demand for such investments are from the Gulf States of Saudi Arabia, UAE, Qatar, Kuwait and Bahrain, China, South Africa, Japan, Russia, South Korea, the US, and UK

Table 1: Large Land Deals as Percentage of Domestic Agricultural Land

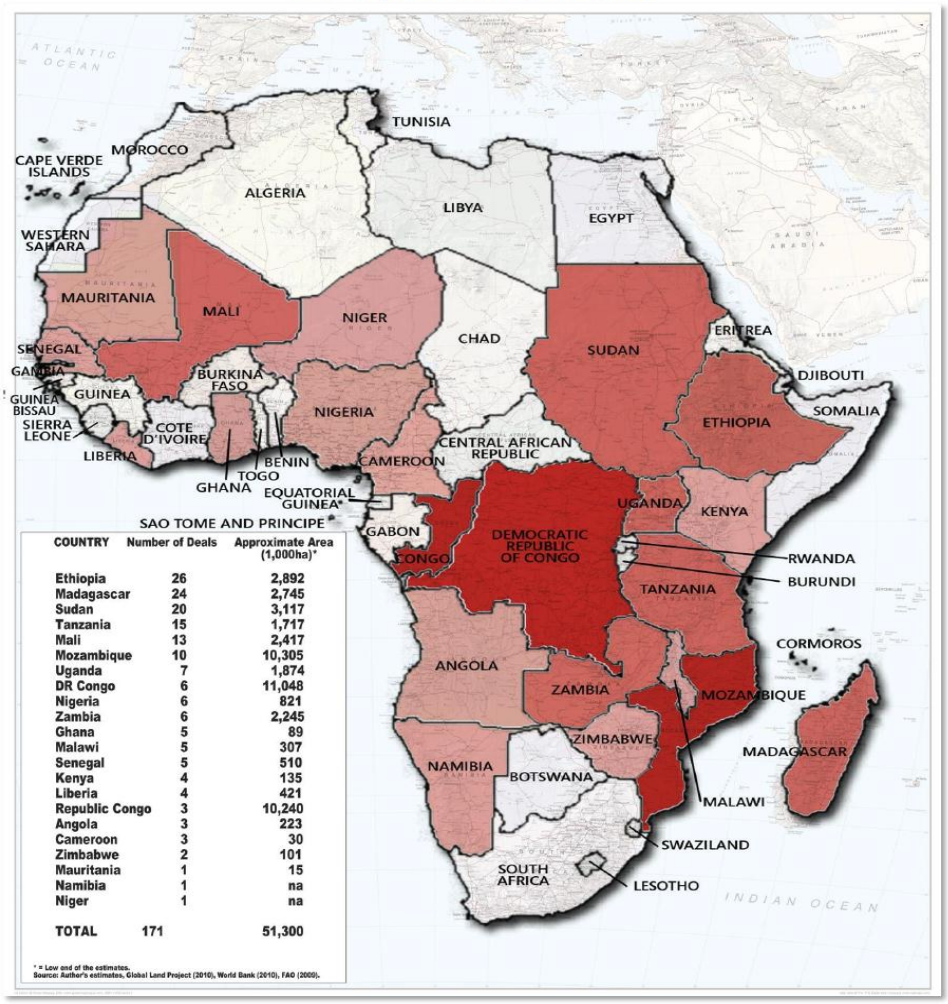
	Percentage
Madagascar	6.7
Ethiopia	8.2
Sudan	2.3
Mozambique	21.1
DR Congo	48.0

Source: Estimates from Global Land Project, 2010

and other EU members (Sparks, 2012). There are various types of buyers, including state-owned enterprises, sovereign wealth funds, foreign and domestic private sector investors, and central government agencies.

[13] Sparks (2012) – see Literature Review for full reference

MAP 2: Number of Land Deals and Land Area



COUNTRY	Number of Deals	Approximate Area (1,000ha)*
Ethiopia	26	2,892
Madagascar	24	2,745
Sudan	20	3,117
Tanzania	15	1,717
Mali	13	2,417
Mozambique	10	10,305
Uganda	7	1,874
DR Congo	6	11,048
Nigeria	6	821
Zambia	6	2,245
Ghana	5	89
Malawi	5	307
Senegal	5	510
Kenya	4	135
Liberia	4	421
Republic Congo	3	10,240
Angola	3	223
Cameroon	3	30
Zimbabwe	2	101
Mauritania	1	15
Namibia	1	na
Niger	1	na
TOTAL	171	51,300

* = Low end of the estimates.
Source: Author's estimates, Global Land Project (2010), World Bank (2010), FAO (2009).

Source: Sparks (2012)

2.4 What determines remittances to fragile states?

Gathering data on remittances only adds to the data collection difficulty for developing countries. Remittances are comprised of millions of discrete, private income transfers that are difficult (if not impossible) to accurately track and measure.

Ralph Chami contrasts remittances with other forms of capital flows, and argues that remittances have a negative correlation with GDP growth, as opposed to other types of capital flows (such as FDI) that have positive relationships. Remittances are compensatory, cyclical transfers that are altruistically motivated, which differentiates them from other capital flows that are profit driven. Chami and his colleagues find that remittances have a statistically significant, negative relationship with GDP thus proving their hypothesis that remittances are intended to serve as compensation for poor economic performance as opposed to capital for economic development.[14]

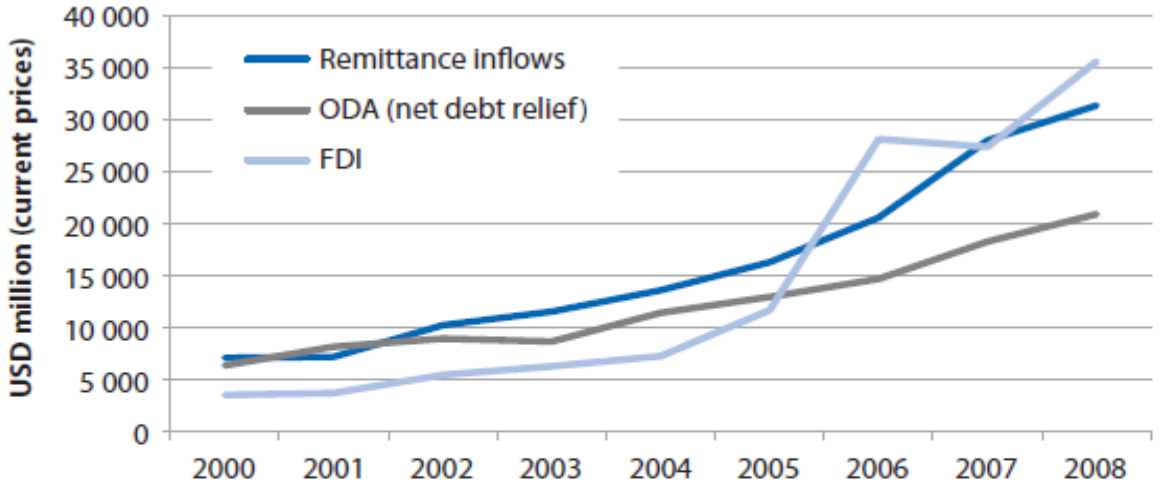
Recent findings have highlighted that conflict and post-conflict countries (for instance, Afghanistan, Côte d'Ivoire, Liberia and Somalia) are often highly dependent on remittances. "The slow recovery of livelihoods and persistent violence or repression ensure high levels of migration

[14] Chami, Ralph (2005) "Are Immigrant Remittance Flows a Source of Capital for Development?" IMF Staff Papers, Vol. 52, No. 1, pp. 55-81.

and the need for remittances in such countries for several years after conflict and crisis have ended" [15] More than 90% of remittances in 2007 were concentrated on a few countries, notably Haiti, Kenya, Liberia, Nepal, Nigeria, Pakistan, Sudan, Tajikistan, Uganda, the Palestinian Administrated Areas and Yemen. [16]

It is clear that remittance inflows have been massively increasing in recent years. As the figure below from OECD (2010) shows, remittance inflows have largely matched FDI inflows into fragile states until very recently. This means remittance inflows to fragile states exceeded $30 billion in 2008, forming a massive proportion of capital flows to these states. *See Annex 2 for a list of countries with remittance inflows of at least 10% of GDP.*

Figure 9.1. Comparison of FDI, remittances and aid to fragile states, 2000-08*



*For comparative purposes, the figure only includes data for the 29 fragile states for which remittance data is available.

Sources: OECD DAC online database; World Bank Development Indicators database; World Bank Migration and Development data; IMF *Regional Economic Outlook* (various, 2009); UNCTAD (2009), *World Investment Report: Transnational Corporations, Agricultural Production and Development*, UNCTAD, New York.

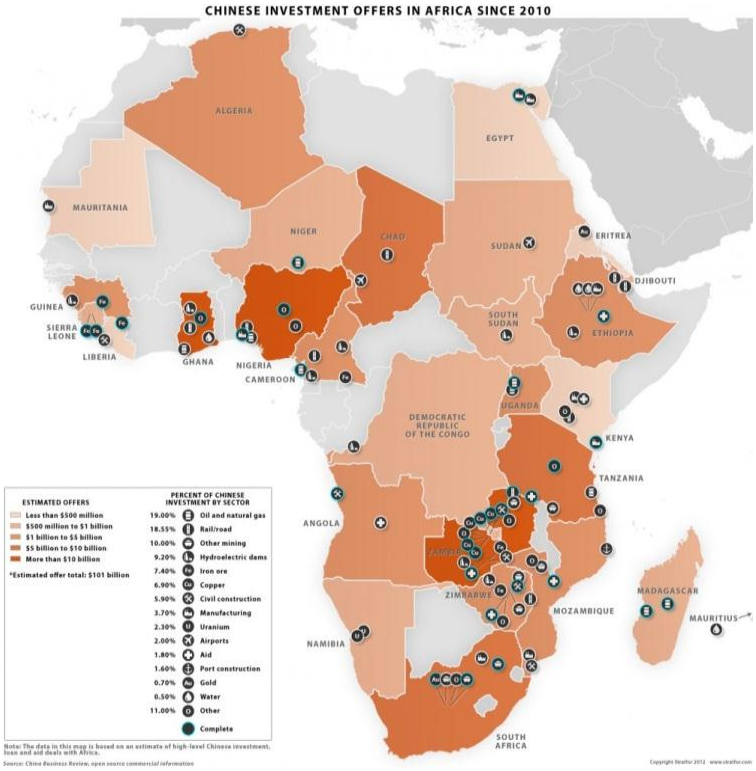
Source: OECD (2010)

[15] International Peace Academy, 2006
[16] OECD 2008 Annual Report on Resource Flows to Fragile and Conflict-Affected States

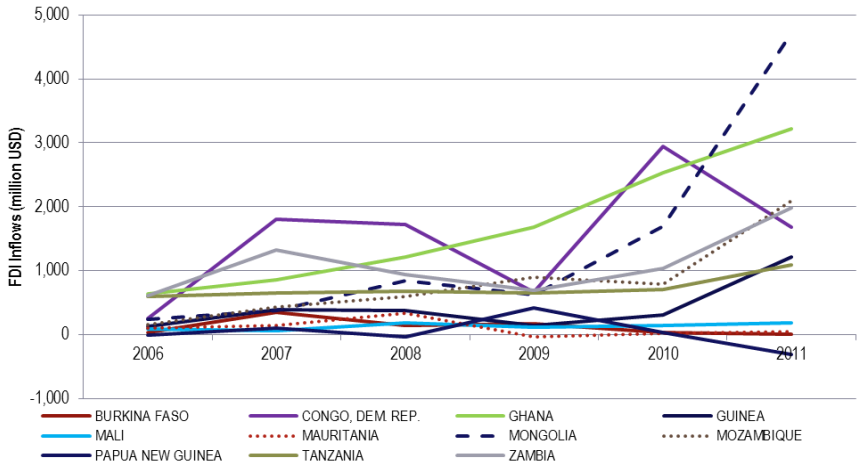
2.5 A typology for research: resources as the key

From the relationships we see between fragility, conflict and investment flows, we believe that the only sensible typology for understanding the relative performance of these states is through an understanding their differences from the perspective of investors. Given that the majority of FDI flows to LDCs are likely to be driven by the resource-seeking motives of foreign multinationals, differences in FDI experience is likely to be explained by this behaviour.

This is also reinforced by China's recent flurry of investments in LDCs, particularly in Africa. While data is poor in general, the map here indicates where Chinese investments have been centred



Source: http://www.businessinsider.com/map-chinese-investments-in-africa-2012-8



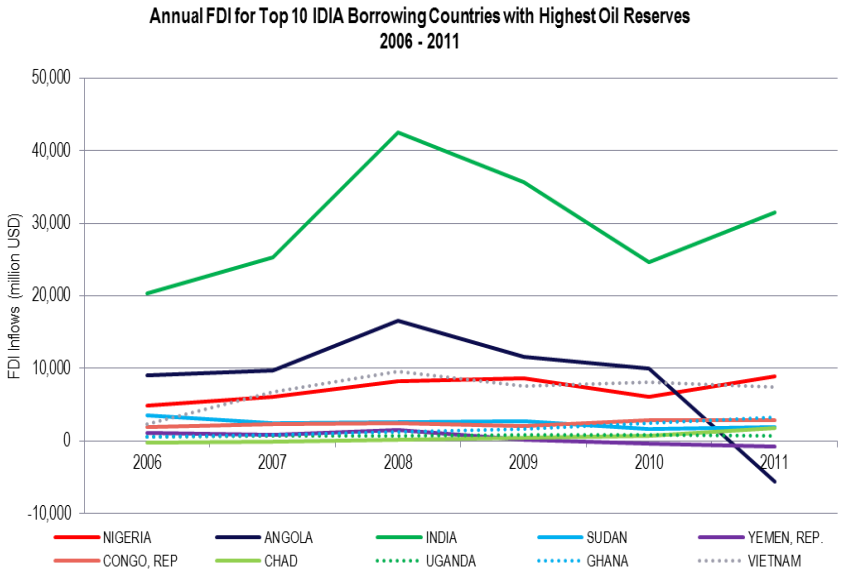
Note: A country with at least 1 billion USD from the mining of a specific mineral is considered to have significant mineral production.

Source: Ore data from British Geological Survey (2012) World Mineral Production: 2006-2010; Price data from World Bank (2012) Pink Sheets.

and this indicates a resource focus, with significant investment in Nigeria, Chad and the DRC among fragile states. However, according to China's statistical bulletin, flows have moved from mining and infrastructure to services in recent years (wholesale, retailing, leasing, real estate, and hospitality business). Mlachila and Takebe (2011) of the IMF still maintain that the majority of Chinese investment in Africa is in resources.

Our research shows that FDI to countries with resources is significantly higher than for other countries. India is the general exception among the group together with Vietnam, since FDI is not centred on the petroleum industry. For other countries, including Nigeria, Angola and Chad, FDI does tend to focus on the oil industry.

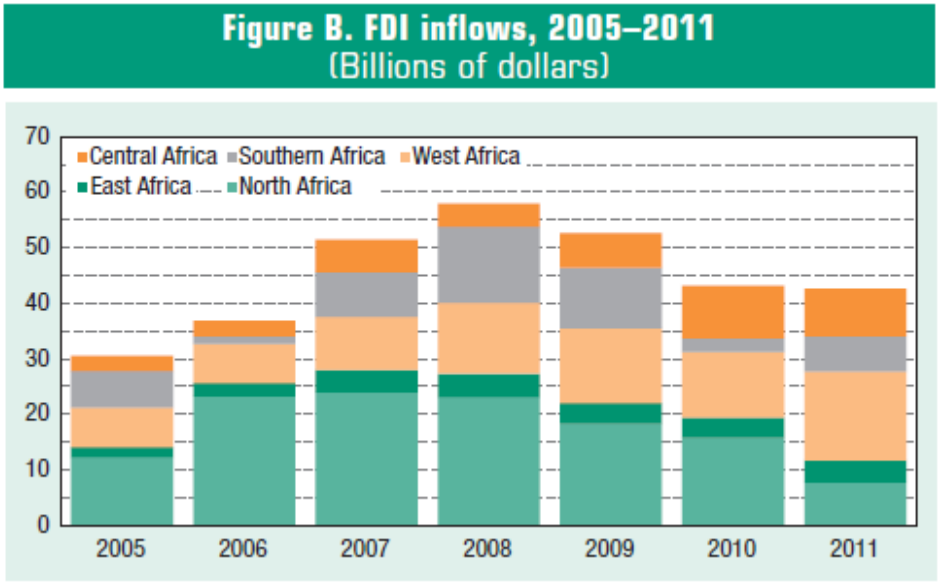
The pattern of oil producing states is also mirrored by countries with significant mineral production – we classify these countries as those with >$1 billion annual production for a major mineral group. As shown in the figure here, annual FDI to these countries has seen significant increases. This includes the DRC, Zambia and Mongolia, all of which have seen mineral related booms. It also includes countries such as Ghana and Mozambique that offered investors both fossil fuels and minerals opportunities and have seen significant FDI booms in recent years as a result. A few countries have major mineral production but have not exploited this with large amounts of FDI – these include Mali, Papua New Guinea and Mauritania.



Source: U.S. Energy Information Administration (http://www.eia.gov/).

Africa

Figure B shows African FDI inflows by region. North Africa generally claims about one third of Africa's FDI inflows, although this proportion has nearly halved due mainly to diminished inflows to Egypt and Libya, which, traditionally, have been major recipient countries. West Africa's inflows, on the other hand, have grown in recent years, with the majority (about 75 per cent) claimed by Ghana and Nigeria. Oil-rich Nigeria attracted the most FDI of any African country in 2011. West Africa's Guinea has seen substantial growth in FDI, which is also likely to continue due to Chinese investment in alumina and bauxite projects. [17] Investment in central Africa has also increased, and is seen mainly in the Congo, Equatorial Guinea and the Democratic Republic of Congo, all of which are rich in natural resources. The region of east Africa has historically been one of the lowest in terms of FDI inflows due to lack of natural resources, but recent gas finds are likely to change that.[18] Specifically, Ghana, Uganda, Guinea,



[17] UNCTAD World Investment Report 2012.

[18] *"As most countries in this sub-region have not been considered rich in natural resources, they have not traditionally attracted large investments into export-oriented production in the primary sector, except in agriculture.*

Mozambique, Tanzania are likely to show growth in FDI due to new and developing oil and gas reserves. Table D (Africa) depicts the breakdown of greenfield projects in Africa by industry, showing the largest investments in mining, quarrying and petroleum and coke, petroleum and nuclear fuel.

Africa

Table D. Greenfield FDI projects by industry, 2010–2011
(Millions of dollars)

Sector/industry	Africa as destination		Africa as investors	
	2010	2011	2010	2011
Total	**88 918**	**82 315**	**16 662**	**16 551**
Primary	**20 237**	**22 824**	**1 246**	**4 640**
Mining, quarrying and petroleum	20 237	22 824	1 246	4 640
Manufacturing	**39 506**	**31 205**	**7 506**	**4 798**
Food, beverages and tobacco	1 888	5 185	175	628
Coke, petroleum and nuclear fuel	23 235	9 793	5 684	2 212
Metals and metal products	2 093	5 185	429	9
Motor vehicles and other transport equipment	2 568	3 118	99	-
Services	**29 175**	**28 286**	**7 910**	**7 113**
Electricity, gas and water	5 432	10 477	899	1 441
Construction	7 630	3 303	-	1 223
Transport, storage and communications	6 381	5 345	2 627	68
Business services	5 429	5 619	1 274	2 282

We see an increase in projects in electricity, gas and water within the services sector as well as metals and metal products in the manufacturing sector. But, as we see from the steady mining statistics and as the WIR warns us, an increase in these sectors does not necessarily mean growth from resource extraction.

> *This shift is more about diversification of natural resource- related activities than a decline of the extractive industry. Many of the projects in manufacturing and services are premised on the availability of natural resources or play a supporting role for the extractive industry.* (UNCTAD WIR 2012)

We continue to see this pattern of investment across all LDCs, with mining, quarrying and petroleum making up over a third of all greenfield investment (table D Least Developed Countries, table 11.4 in section 2.3 showing the 10 largest greenfield projects in LDCs for 2011).

Least Developed Countries

Table D. Greenfield FDI projects by industry, 2010–2011
(Millions of dollars)

Sector/industry	LDCs as destination		LDCs as investors	
	2010	2011	2010	2011
Total	**39 714**	**33 304**	**732**	**923**
Primary	**11 871**	**11 796**	**-**	**-**
Mining, quarrying and petroleum	11 871	11 796	-	-
Manufacturing	**17 838**	**11 848**	**501**	**424**
Food, beverages and tobacco	606	1 125	30	31
Coke, petroleum and nuclear fuel	10 525	5 197	466	393
Non-metallic mineral products	876	1 505	-	-
Metals and metal products	1 079	1 205	-	-
Services	**10 006**	**9 660**	**231**	**499**
Electricity, gas and water	3 430	4 499	-	-
Transport, storage and communications	1 549	1 908	11	-
Finance	1 824	1 478	207	426
Business services	1 297	929	7	26

In the rest of this paper we set out to explore these relationships further. Firstly through some econometric analysis on relationships between fragility and capital flows. Secondly through a literature review showing more detailed academic work on the issues discussed.

However, the discovery of gas fields is likely to change this pattern significantly." UNCTAD World Investment Report 2012.

3 FDI in fragile states

In pursuit of a more technical approach, we compiled a panel dataset for a sample of developing countries and factors of interest and ran a series of regression analyses. Our goal was to determine the existence of significant correlation between these explanatory variables (such as natural resources, conflict, and geographical location) and a country's FDI.

3.1 Methodology

Multiple regression analysis is a statistical tool used by economists to test hypotheses about relationships between observed outcomes and factors believed to explain these outcomes. In attempt to better understand the relationship between fragile economies and FDI, we looked at a subcategory of developing countries and compiled a short list of relevant and measurable factors that we believed would influence the amount of investment a country received. Based on the above research and findings, we decided to look at each country's natural resources, geographical location, conflict level, level of development, and reputation in the international community.

We divided natural resources into oil and minerals, and classified each country according to the size of their respective oil reserves and mineral production. A country with at least 5 billion barrels of crude oil was considered "large", less than 5 billion but at least 1 billion barrels was considered "medium", and less than 1 billion but at least 0.5 billion was considered "small" (*Oil_L*, *Oil_M*, and *Oil_S*, respectively). Countries with less than 0.5 billion barrels of crude oil were categorised as having insignificant reserves in terms of major flows of FDI.[19] The countries that produced at least 1 billion USD of minerals (either copper, aluminium, nickel, gold, iron ore, zinc, lead, or tin) were flagged as significant mineral producing countries (denoted by the dummy variable *Mineral*)[20]. Taking a page from Paul Collier's hypothesis, we flagged each country that does not have access to seaborne trade as landlocked (denoted by the dummy variable *LL*).

We have categorised each country into five mutually exclusive categories of conflict levels. Countries that have been out of conflict for 5 to 10 years are considered "Fragile State" (*Con_FS*), while countries that have been out of conflict for less than 5 years are considered "Post Conflict" (*Con_PC*). Of the countries that are currently engaged in conflict, those with more than 1,000 battle deaths in that year are categorised as "Open and Sustained Conflict" (*Con_OS*) and those with less than 1,000 battle deaths, but at least 25 are "Latent Conflict" (*Con_LC*).[21] The remaining countries are considered "Non Conflict" and make up the base for this class variable.

The last factor we looked at is the country's level of fragility in its state, policies and institutions as measured by the World Bank's Country Policy and Institutional Assessment (CPIA). The 16 sub-indicators of the CPIA are averaged as the IDA Resource Allocation Index (IRAI) [22] score, which the World Bank uses to assess the policy and institutional needs in a country year to year. The IRAI score measures "a) economic management; (b) structural policies; (c) policies for social inclusion

[19] U.S. Energy Information Administration, http://www.eia.gov/.
[20] This was calculated for 2010 data on world prices and country level production data. Prices for these minerals came from the World Bank Pink Sheets. Production data were the latest available from the British Geological Survey, World Mineral Production Report 2006 – 2010. http://nora.nerc.ac.uk/16920/1/WMP2006-2010.pdf
[21] Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012
[22] The IRAI is the "overall country score" on the CPIA.

and equity; and (d) public sector management and institutions" and thus is indicative not only of a country's development, but also of how the country is perceived in the international community[23]. We use the country's previous year score as an explanatory variable, denoted by the lagged *IRAI*, since investment decisions take time to implement.

We pulled the above data for the 81 IDA Borrowing Countries for years 2006 to 2011, as well as the best available information on FDI for the same years (measured in millions of USD) [24] and assembled our final model as depicted below:

$$FDI_{t,i} = \beta + \beta_1 IRAI_{t-1,i} + \beta_2 Con\_FS_{t,i} + \beta_3 Con\_LC_{t,i} + \beta_4 Con\_OS_{t,i} + \beta_5 Con\_PC_{t,i} + \beta_6 Mineral_{t,i} + \beta_6 LL_{t,i} + \beta_7 Oil\_L_{t,i} + \beta_8 Oil\_M_{t,i} + \beta_9 Oil\_S_{t,i}$$

t = year (2006 – 2011)
i = country

3.2 Data and results

Issues

Collecting reliable data for fragile and lesser developed countries always poses an issue due to lack of availability and consistency. An initial look at our model and availability of underlying data brings some possible issues to mind, including multicollinearity and sampling bias. The issue of multicollinearity arises when two or more explanatory variables are correlated to each other. This can skew the independent relationship that each variable has with the dependent variable and cause errors in the interpretation. The resource curse, for example, depicts a causal relationship between natural resources and violence within a country. A quick correlation test on our data, however, shows that the battles deaths and oil reserve amounts are not correlated to any significant extent across our dataset. Our sample of countries may also pose an issue due to their lack of randomness. We looked at 81 IDA borrowing countries, which gave us the maximum amount of data if we wanted to include the IRIA score. However, there may be underlying characters of the countries that we included that would affect the relationships we are looking at. Countries that have low GDP per capita but are not on the World Bank's IDA borrowing list (such as Syria, Philippines, Swaziland, and Guatemala) may share characteristics among themselves which caused them to be excluded. This sampling bias may create a systemic error within the data because not all of the developing countries are equally represented in the analysis.

The coefficients depicted below represent the perceived measurable affect that each factor has on the dependent variable, based solely on the data used. The following table shows the respective t-values for each explanatory variable and indicates which coefficients are considered statistically significant.

$$FDI_{t,i} = -1372 + 471 IRAI_{t-1,i} + 78 Con\_FS_{t,i} + 21 Con\_LC_{t,i} + 2166 Con\_OS_{t,i} - 379 Con\_PC_{t,i} + 1819 Mineral_{t,i} - 392 LL_{t,i} + 10999 Oil\_L_{t,i} + 1044 Oil\_M_{t,i} + 461 Oil\_S_{t,i}$$

[23] http://www.worldbank.org/ida/IRAI-2011.html
[24] The source for FDI data is the UNCTAD World Investment Report 2011 Annex tables for 2006-2010 and the UNCTAD World Investment Report 2012 for 2011 FDI data.

Contributors to Foreign Direct Investment in Developing Countries
Panel Estimation, 2006 - 2011

Dependant Variable: FDI (USD millions)

Independent Variable	Estimation
Constant	-1372.36**
	(-2.53)
IRAI	471.41***
	(2.90)
Conflict type: Fragile State	77.94
	(0.20)
Conflict type: Latent Conflict	20.79
	(0.05)
Conflict type: Open and Sustained Conflict	2165.59***
	(3.65)
Conflict type: Post-Conflict	-378.38
	(-0.90)
Conflict type: Non Conflict [1]	-
	-
Mineral	1819.19***
	(5.02)
Landlocked	-392.28
	(-1.34)
Oil - Large	10998.67***
	(16.79)
Oil - Medium	1043.61*
	(1.72)
Oil - Small	460.82
	(1.40)
Oil - N/A [1]	-
	-

Note: *significant at 10 per cent; **significant at 5 per cent; *** significant at 1 per cent.
[1] Each class variable (level oil reserves and conflict type) requires a "base" state that exists if none of the other categories are applicable. These dummy variables are left out of the regression, and the estimates of the remaining class variables are interpreted relative to the base state.

Interpretation

From our results, we concluded that there are positive, statistically significant relationships between the amount of FDI that a country receives, and its natural resources. Developing countries that have large oil reserves receive, on average, $11 billion more in foreign investment than countries with no oil reserves. Countries with medium and small oil reserves have less substantial and less significant (but still positive) relationships with FDI levels. A lesser developed country with substantial mineral resources will, on average, receive $1.8 billion more in FDI.

A country's IRAI score from the previous year has also shown to have a positive and significant effect on receiving investment. Every increase of 0.1 in a country's IRAI score leads to an average increase of $4.7 million in foreign investment.

Our other results are less conclusive due mainly to large standard errors. The characteristic of being landlocked shows to have a negative relationship with FDI, but the large standard error makes it impossible to assume a strong and indicative correlation between the two. Running this

model on a broader sample (all countries instead of just IDIA borrowing countries) may help us to determine whether there is a more substantial relationship.

Our conflict coefficients do not tell the story that we originally thought they would, but the fact that a country in open and sustained conflict has a positive and significant correlation with FDI points to some underlying relationships that we may not be fully grasping. Our theory that countries in open conflict may scare investors is not necessarily disproved, but our underlying data and assumptions may beg a closer look. One possible explanation is natural resources. For some countries, the potential wealth gain from natural resources such as oil may offset the risk posed to investors of being in open and sustained conflict. The following table shows the countries that we categorised as having open and sustained conflict, as well as their respective natural resources categories.

Oil Reserves, Mineral Production and Average Annual Deaths per Million People for Countries in Open and Sustained Conflict, 2006 - 2011

Country	Years	Average Annual Deaths/per Million During Conflict	Oil	Mineral
Afghanistan	2006, 2007, 2008, 2009, 2010, 2011	207.58	NA	No
Chad	2006	134.97	Medium	No
Congo, Dem. Rep.	2009	30.14	Medium	Yes
Ethiopia	2011	14.96	NA	No
India	2006, 2007, 2008, 2009	1.03	Large	Yes
Kenya	2011	47.47	NA	No
Pakistan	2008, 2009, 2010, 2011	61.59	Small	No
Somalia [1]	2007, 2008, 2009, 2010, 2011	-	NA	No
Sri Lanka	2006, 2007, 2008, 2009	254.10	NA	No
Sudan	2006, 2010, 2011	35.65	Large	No
Yemen, Rep.	2011	45.36	Medium	No

Note: Countries with at least 1,000 battle deaths in a year are considered to be in open and sustained conflict; Countries with at least 1 billion USD in minerals are flagged as "Yes" for the mineral variable; The oil categories of "Small", "Medium", "Large" and "NA" are described under the above Methodology section.
[1] Missing Somalia population statistics.
Source: Department of Peace and Conflict Research, UCDP Battle-Related Deaths Dataset v. 5-2012.

Another contributing factor may be our measure of conflict. Putting each of the countries into buckets helped to bunch our countries and enabled us to draw conclusions from a qualitative characteristic as opposed to a continuous variable. However, these categories can be misleading if we want to look at the overall effect of the conflict. 1,000 battle deaths across all of India, for example, may be less of an indicator of substantial conflict than 1,000 battle deaths in Chad.[25] The type of conflict may also have an impact on the investors willingness to accept risk. *"Countries which have geographically isolated conflicts have had greater success in attracting investment than those experiencing full blown civil wars, or where conflicts have resulted in the failure of the state to retain sovereign control"* [26]

[25] After substituting battle deaths per capita in for conflict type in our model, we found that the relationship was still positive, but now it was insignificant.
[26] Schwartz, Jordan; Hahn, Shelly and Bannon, Ian. (2004) "The Private Sector's Role in the Provision of Infrastructure in Post-Conflict Countries: Patterns and Policy Options". Social Development Papers, Conflict Prevention & Reconstruction. The World Bank.

The UCDP Battle-Related Deaths dataset enables other breakdowns of the deaths (by individual conflict, for example, as opposed to aggregating battle deaths by country) that may enable further, more conclusive analysis.

3.3 Conclusion

Based on our sample of 462 usable observations, we can cautiously infer some relationships between FDI and our explanatory variables of interest. As hypothesised, countries with valuable and/or substantial resources tend to attract greater amounts of investment. While unsurprising, this strong correlation between oil/mineral producing countries and the amount of foreign investment supports our resource-seeking theory substantially. Although this increases FDI, receiving investment purely for extraction may have other consequences as the literature suggests a link to further conflict. For these countries that rely so heavily on natural resources, diversifying or developing additional industries (such as processing for the natural resources) will enable foreign investment to have a greater effect on development.

Although the explanatory conflict variables did not have the results that we hypothesised, they do bring to light several issues to consider and other possible relationships to examine. Our specific definition and relatively limited data may not fully account for the complex relationship between conflict in developing countries and investment inflows.

3.4 Further research

Due to data and time limitations, we were unable to review all the questions of interest. Further research could look at a number of additional interesting issues including:

- Levels of domestic investment (reliable and comparable data on this is difficult to find) and how they are impacted upon by fragility, conflict, resources etc.
- Types of conflict – do civil wars have a different impact upon investment than larger international conflicts involving more than one country? (Uppsala University have additional databases differentiating conflicts, so this could be possible)
- Remittances as a dependent variable – how do the independent variables we use impact upon remittance flows. (See Annex 2 for detailed data on remittance flows)
- Further geographical aspects – the presence of "bad neighbours" or conflict in neighbouring countries, and the impact this has on investment flows.
- Country size – how does population affect investment flows?
- Types of investors – how do different country sources of investment respond to conflict, fragility etc.? (data on country source is difficult to find in detail).

4 Literature review

Table: Summary of the literature

Author, Title, Source	Description
Jordan Schwartz, Shelly Hahn, Ian Bannon (2004) "The Private Sector's Role in the Provision of Infrastructure in Post-Conflict Countries: Patterns and Policy Options" The World Bank Social Development Papers, Conflict Prevention & Reconstruction. Paper no.16	- Countries emerging from a conflict urgently need to provide access to basic infrastructure services for their populations, but they lack adequate public revenues, government capacity and investor interest to re-establish these services quickly. Although donors often support the early phases of post-conflict reconstruction with generous aid packages, post-conflict public sectors are often constrained by extremely weak absorptive capacity. At the same time, a large number of urgent policy priorities in the immediate post-conflict period means that governments rarely focus on establishing a welcoming investment climate that can spark the interest of potential private investors in infrastructure. Thus, for the first few years they confront a bitter paradox—they can neither absorb fully reconstruction aid nor can they attract much private investment to infrastructure sectors that could offset the state's low absorptive capacity. - This paper examines private investment patterns in post-conflict countries based on the Bank's Private Participation in Infrastructure database, and looks at some success stories that may offer useful policy lessons for other post-conflict countries. The investment patterns show that telecoms investments, particularly mobile telephony, materialize immediately after (sometimes even before) the end of the conflict. Electricity generation and distribution projects start to emerge about three years after the conflict and increase in frequency after year five. Private investment in transport and water tend to come much later. Within the transport sector, seaports receive the majority of private investment. The experiences of a number of conflict-affected countries, such as the Philippines, Mozambique, El Salvador and Guatemala, however, suggest that there is much in the policy front that conflict countries can do to speed up private investment in infrastructure, and thus the contribution of the private sector to reconstruction processes and the resumption of growth. - Policy recommendations suggest that the timing of reforms is important. Stepped arrangements may also be considered, including a planned progression from modest forms of private participation in infrastructure (e.g., service or management contracts) to deeper forms such as leases or long-term concessions. Government can also encourage (and especially refrain from constraining or regulating out of existence) the development of small-scale private service providers. Although they are generally not well captured in the data, a number of case studies and user surveys suggest that these entrepreneurs often play a key role in the absence of fully-functioning states, established public utilities and major private investments. - The paper also examines the positive correlation between risk ratings and the ability of post-conflict countries to attract private investment in infrastructure. Given the influence of the perceptions of risk on long-term investment, donors and governments may benefit from addressing those elements of political and economic risks that are within their control or influence. Specifically, there is a role to play for donors that can assist with the re-establishment or deepening of short-term finance, banking and insurance, as well as consider mechanisms to provide political risk

Author, Title, Source	Description
	insurance for foreign investors interested in infrastructure sectors. A key feature that affects country risk ratings is the government's track record in the payment for publicly-contracted goods and services, respecting contracts, and allowing foreign investors to repatriate capital. Since telecoms operators are the first to arrive, the ability of the government to demonstrate good contractual faith and establish an appropriate regulatory framework can have a powerful demonstration effect on other investors.
Kosuke Imai and Jeremy M. Weinstein (2000) **"Measuring the Economic Impact of Civil War" CID Working Paper No. 51. Harvard University**	- This paper contributes to the existing analysis both theoretically and methodologically. In particular, we explore the economic channels through which civil war affects growth by investigating two theoretical arguments. First, civil war impacts the domestic economy by reducing the level and growth of the capital stock. The occurrence of civil war initiates capital flight and thus dramatically reduces private investment. Second, political economy models suggest that internal conflicts affect the aggregate domestic economy by worsening the government's fiscal balance. Economically, governments shift expenditure from output enhancing activities into the conduct of war. Politically, they face weaker incentives to maintain fiscal balance owing to a shorter time horizon and weaker accountability to an electoral constituency. We directly test these two potential explanations. Our results indicate that the driving force behind the negative effects of civil war on economic growth is a decrease in domestic investment, and in particular, private investment. - We investigate the characteristics of civil war that are the most damaging for the domestic economy. Civil wars vary tremendously in their scope. Some wars are fought entirely in one region of the country, while in others the fighting extends throughout the countryside and into urban areas. Some civil wars may involve high levels of civilian fatalities as in Sierra Leone, Mozambique, and Guatemala, while others may be fought largely between competing militaries. In our empirical analysis, we find that the scope of the civil war significantly influences the magnitude of the economic effects. Wars that spill out across the entire country, require the highest level of military recruitment, and result in the greatest number of fatalities are the most damaging to the domestic economy. - Civil war affects the capital stock in two ways. First, internal conflict reduces the existing stock of capital. Residential structures, roads, bridges, ports, and factories are targeted and destroyed by competing militaries in wartime. The level of the capital stock is also affected over time by changes in investment and the rate of depreciation. In order for the capital stock to grow, the level of investment in the maintenance and expansion of the capital stock must outpace the rate of depreciation on the existing stock. Since civil war increases the rate of depreciation and reduces investment, growth in the capital stock is stunted. Civil war, therefore, reduces both the level of the capital stock and its rate of growth. - This suggests that a major way in which civil war affects the economy is through dramatic reductions in domestic investment. According to this perspective, the flight of capital is the driving force behind the economic costs of conflict. For example, Collier (1999) develops a model of economic output that distinguishes between liquid and fixed capital. The distinction is that the former is likely to be responsive to changes in the economic environment, while fixed capital such as supplies of land, buildings, and unskilled labour is unlikely to move easily even as the economic environment deteriorates. His model shows that the destructive effects of civil war reduce the stock of potentially mobile capital.

Author, Title, Source	Description
	The paper tests five hypotheses: Hypothesis 1 (Growth Hypothesis) Civil war has a negative impact on economic growth. Hypothesis 2 (Gross Investment Hypothesis) Civil war negatively affects the domestic economy by reducing gross domestic investment. Hypothesis 3 (Private Investment Hypothesis) Civil war negatively affects the domestic economy by reducing private domestic investment rather than public investment. Hypothesis 4 (Fiscal Policy Hypothesis) Civil war negatively affects the domestic economy by increasing the government budget deficit. Hypothesis 5 (Geographical Spread Hypothesis) Wide-spread civil wars involve larger economic costs than wars fought in small, concentrated regions. - The results in the table give fairly strong support for our Private Investment Hypothesis. It is easy to see that the effect of civil war on private investment is more than three or four times as large as that on public investment. A unit increase in the geographical spread of civil war reduces private domestic investment by about 0.4 per cent of GDP annually. The results are consistent over time, although the standard error doubles in the case of the 1990s. In contrast, the effect of civil war on public investment is very small and statistically insignificant. - In this paper, we have four main findings. First, civil war has a negative impact on economic growth. The rate of growth of the capital stock is reduced as civil war drives down domestic investment. In particular, civil wars reduce private investment because private agents are better able to respond to increases in the uncertainty of the economic environment. We find no evidence that civil wars have negative effects on the fiscal balance of governments. - Second, we find that the effect on growth depends on the scope of civil war. By assuming away variation across civil wars, the estimate of economic effects is imprecise. We improve existing studies by introducing a measurement of civil war variation that reflects differences in the geographic spread of war. The results suggest that wide-spread civil wars are five times more costly than narrowly fought internal conflicts and reduce GDP growth rates by 1.25 per cent a year. - Third, we improve estimation by imputing missing data and applying more appropriate statistical models to the analysis of political influences on economic outcomes. We argue that the use of pooled OLS models may result in incorrect substantive conclusions when unobservable cross- country differences are not taken into account. Fixed and random effects models lend support to our arguments about the links between civil war and the economy, and more accurately fit the structure of the data used in this and previous analyses. - Finally, we qualify our results by systematically exploring the uncertainty associated with the point estimates of economic cost. In doing so, we recognize problems of fundamental uncertainty that the previous literature ignores. Although the point estimates of the civil war variables are statistically significant often at the 99 per cent level, the model specification of economic growth is poor. As a result, the economic effects of conflict disappear when we run simulations to compute the expected effects for different scenarios. The expected effects, even across thousands of simulations, have large variance and fail to support clear cut conclusions about the costs of conflict.

Author, Title, Source	Description
Macartan Humphreys (2005) "Natural Resources, Conflict and Conflict resolution: Uncovering the mechanisms" Journal of conflict resolution, Vol.49 No.4 508-537	The interpretation of the resource-conflict link that has become most publicized-the rebel greed hypothesis-depends on just one of many plausible mechanisms that could underlie a relationship between resource dependence and violence. The author catalogues a large range of rival possible mechanisms, highlights a set of techniques that may be used to identify these mechanisms, and begins to employ these techniques to distinguish between rival accounts of the resource-conflict linkages. The author uses finer natural resource data than has been used in the past, gathering and presenting new data on oil and diamonds production and on oil stocks. The author finds evidence that (1) conflict onset is more responsive to the impacts of past natural resource production than to the potential for future production, supporting a weak states mechanism rather than a rebel greed mechanism; (2) the impact of natural resources on conflict cannot easily be attributed entirely to the weak states mechanism ,and in particular the impact of natural resources is independent of state strength;(3) the link between primary commodities and conflict is driven in part by agricultural dependence rather than by natural resources more narrowly defined, a finding consistent with a "sparse networks" mechanism;(4) natural resources are associated with shorter wars, and natural resource wars are more likely to end with military victory for one side than other wars. This is consistent with evidence that external actors have incentives to work to bring wars to a close when natural resource supplies are threatened. The author finds no evidence that resources are associated with particular difficulties in negotiating ends to conflicts, contrary to arguments that loot-seeking rebels aim to prolong wars.
Paul Collier and Jan Willem Gunning (1999) "Explaining African Economic Performance" Journal of Economic Literature, Vol. 37, No. 1 (Mar., 1999), pp. 64-111	- We will argue that African governments have behaved in ways damaging to the long-term interests of the majority of their populations because they served narrow constituencies. They have been damaging partly through "sins of commission" such as agricultural taxation, and partly through "sins of omission," such as failure to provide adequate infrastructure. - The ratings of the three major riskrating services are largely explicable in terms of the economic characteristics of a country, such as its level of reserves, but Africa is rated significantly worse than warranted by these characteristics (Nadeem Ul Haque, Mark Nelson, and Donald Mathieson 1998). There is thus a significant Africa dummy in risk ratings. Jaspersen, Aylward, and Knox (1998) find that the Africa dummy persists in all their regressions of foreign direct investment during 1990-94. They conclude: "This gives some support to the conjecture that investors may be irrationally averse to committing FDI to African countries, since the Africa effect appears to dominate a range of fundamental economic, political and social risk factors in the regression analysis." - Further, the reform countries were those with the worst risk ratings, as shown in Figure 1, which relates the risk ratings to a World Bank classification of 26 countries into strong reformers, weak reformers, and those in which policy has deteriorated (World Bank 1994). - We have seen that there is clear evidence that perceived risks are indeed high. Potentially, the returns to investment may still be low despite macroeconomic policy reform because of the intrinsic disadvantages of geography, because macroeconomic policy is unimportant, or because of the poor microeconomic policy environment. However, we have seen that according to the regression evidence, the disadvantages of geography are at least over the medium term more than offset by catchup, and

Author, Title, Source	Description
	that macroeconomic policy is potent. This suggests that medium-run growth is constrained by perceptions of high risk and debt overhang, and by poor microeconomic policies.
Ian Bannon and Paul Collier eds. (2003) "Natural Resources and Violent Conflict: Options and actions" The World Bank	- Recent research suggests that developing countries face substantially higher risks of violent conflict and poor governance if they are highly dependent on primary commodities. Revenues from the legal or illegal exploitation of natural resources have financed devastating conflicts in a large number of countries across regions. When a conflict erupts, it not only sweeps away decades of painstaking development efforts but also creates costs and consequences—economic, social, political, regional—that live on for decades. The outbreak of violent domestic conflict amounts to a spectacular failure of development—in essence, development in reverse. Even where countries initially manage to avoid violent conflict, large rents from natural resources can weaken state structures and make governments less accountable, often leading to the emergence of secessionist rebellions and all-out civil war. Natural resources are never the sole source of conflict, and they do not make conflict inevitable. But the presence of abundant primary commodities, especially in low-income countries, exacerbates the risks of conflict and, if conflict does break out, tends to prolong it and makes it harder to resolve. - In this chapter we review the results of the Collier-Hoeffler model and their findings on the links between natural resources and conflict (Collier and Hoeffler 2003). After testing for a number of factors, Collier and Hoeffler find that three are significant—the level of income per capita, rate of economic growth, and structure of the economy, namely, dependence on primary commodity exports. Doubling per capita income roughly halves the risk of a civil war. Each additional percentage point of growth reduces the risk by about 1 percentage point. The effect of primary commodity dependence is nonlinear, peaking with exports at around 30 per cent of gross domestic product (GDP). A country that is otherwise typical but has primary commodity exports around 25 per cent of GDP has a 33 per cent risk of conflict, but when such exports are only 10 per cent of GDP, the risk drops to 11 per cent (figure 1.1) Ethnic and religious composition also matters. Societies in which the largest ethnic group accounts for 45 to 90 per cent of the population—which Collier and Hoeffler term "ethnic dominance"—have a risk of conflict about one-third higher. Other than in the case of ethnic dominance, ethnic and religious diversity actually reduces the risk of rebellion. Once a country has had a civil war, its risk of renewed conflict rises sharply, although this risk fades gradually over time at about 1 percentage point a year. - Where rural areas produce primary commodities with high economic rents, generally for export, it is a relatively simple matter for rebel groups to run an extortion racket, levying protection charges on producers or carrying out some of the trade themselves. The bestknown examples are the conflict diamonds of Angola and Sierra Leone. Alluvial diamonds are particularly well suited as a business line for rebels because the technology is so simple that the group can directly enter the extraction process and diamonds are a small, high-value commodity that is easy to hide and transport and has a readily accessible international market. As Michael Ross discusses in chapter 2, a number of other commodities such as coltan, drugs, gold, and timber have, at various times, been linked with civil wars in developing countries. In the case of high-value agricultural exports, the rebel group is not directly involved in production but levies informal taxes on producers and traders. The most spectacular example is

Author, Title, Source	Description
	that of illegal drugs, which, because of their illegality, are very high value. But even lower-value export crops are sometimes the target of rebel extortion—the Revolutionary United Front in Sierra Leone started by levying informal taxes on coffee and only shifted its activities to diamonds once it was well established. - Violent secessionist movements are statistically much more likely if the country has valuable natural resources, with oil being especially dangerous. Examples include Aceh (Indonesia), Biafra (Nigeria), Cabinda (Angola), Katanga (ex-Congo), and West Papua (Indonesia). There is some evidence that rebel leaders greatly exaggerate the likely gains from controlling the resources. This exaggeration is in part strategic, as secessionist leaders simply seize on the resource issue to build support for their movement. For example, leaders of the GAM (Gerakan Aceh Merdeka) rebellion in Aceh propagated the notion that secession would turn the province into another Brunei. Ross (2002) estimates that this was more than a tenfold exaggeration. But leaders themselves may also succumb to the glamour of the riches to be had from natural resources and overestimate the likely windfalls. The discovery of a new natural resource or a higher endowment of a known resource greatly increases the risk of conflict in low-income countries, especially if the resource is oil (figure 1.2). In many such instances, ethnic cleavages can appear to cause the rebellion. In most societies, wherever a valuable resource is discovered, some particular ethnic group is living on top of it and has an incentive to assert its rights to secede. All ethnically differentiated societies have a few romantics who dream of creating an ethnically "pure" political entity, but the discovery of resources has the potential to transform such movements from the romantic fringe into an effective and violent secessionist movement. Although this type of secessionist movement appears ethnically based and cloaks its justification in the rhetoric of ethnic grievances, it would seem a mistake to consider ethnicity or religion as the driver of conflict
Michel Ross (2003) "The Natural Resource Curse: How Wealth Can Make You Poor" in Ian Bannon and Paul Collier eds. (2003) "Natural Resources and Violent Conflict: Options and actions" The World Bank	- It may seem paradoxical that a "gift" from nature of abundant gemstones, gold, or oil tends to cause economic distress. Yet study after study has found that resource-dependent economies grow more slowly than resource-poor economies.2 A recent report by the World Bank, for example, looks at the economic performance in the 1990s of countries that have large mining sectors (World Bank 2002).3 It finds that in countries with medium-size mining sectors (between 6 and 15 per cent of all exports), gross domestic product (GDP) per capita fell at an average rate of 0.7 per cent a year over the course of the decade. In countries with large mining sectors (between 15 and 50 per cent of exports), GDP per capita dropped an average of 1.1 per cent a year, while in countries with very large mining sectors (over 50 per cent of exports) GDP per capita dropped a remarkable 2.3 per cent a year. Collectively these mining states saw their GDP per capita fall 1.15 per cent a year— a drop over the course of the decade of almost 11 per cent (World Bank 2002; see also Ross 2002c). - This is a catastrophic record on economic grounds alone. But it also has implications for the susceptibility of these states to civil war: recent scholarship shows that when a country's growth rate turns negative, a civil war is more likely to break out (Collier and Hoeffler 2001; Hegre 2002). In the three years leading up to the war in the Democratic Republic of Congo, for example, GDP growth averaged –5.56 per cent; in the three years before the Congo Republic's civil war, growth was –1.94 per cent; on the eve of Liberia's civil war, growth averaged –1.34 per cent (figures are from World Bank 2001). - Resource wealth tends to promote civil wars through a third mechanism, by giving

Author, Title, Source	Description
	people who live in resource-rich areas an economic incentive to form a separate state.9 Table 2.6 lists nine secessionist civil wars in regions that have abundant mineral resources.10 These resourceinspired insurrections have several common elements. One is that, before the resource was exploited, people in these regions had a distinct identity—whether ethnic, linguistic, or religious—that set them apart from the majority population. Another is the widespread belief that the central government was unfairly appropriating the wealth that belonged to them and that they would be richer if they were a separate state. Finally, in most cases, local people bore many of the costs of the extraction process itself— due to land expropriation, environmental damage, and the immigration of labor from other parts of the country.
Paul Collier (1999) **"Doing Well out of War" World Bank Paper prepared for Conference on Economic Agendas in Civil Wars, London, April 26-27, 1999.**	- Conflicts are far more likely to be caused by economic opportunities than by grievance. If economic agendas are driving conflict, then it is likely that some groups are benefiting from conflict and that these groups therefore have some interest in initiating and sustaining it. - The combination of large exports of primary commodities, low education, a high proportion of young men and economic decline between them drastically increase risks. Greed seems more important than grievance.
Paul Collier (1999) **"On the economic consequences of civil war" Oxford Economic Papers 51 (1999), 168-83**	- A model of the economic effects of civil war and the post-war period is developed. A key feature is the adjustment of the capital stock through capital flight. Post-war this flight can either be reversed or continue, depending partly upon how far the capital stock has adjusted to the war. The model is tested on data for all civil wars since 1960. After long civil wars the economy recovers rapidly, whereas after short wars it continues to decline. We then consider the effect on the composition of economic activity, distinguishing between war-vulnerable and war-safe activities. Evidence for Uganda shows such compositional effects to be substantial. - The present paper explicitly quantifies the effects of civil war on growth both during the war and during the first five postwar years. The data set used for growth rates is the now-standard Penn World Tables, covering the period 1960-89. The innovation is to combine this with the standard source on civil wars (Small and Singer, 1982 and 1994). This data set gives the dates of the starting and ending of all civil wars since 1816 by month, defined on a common set of objective criteria.5 This permits a focus upon civil war as opposed to the wider concept deployed in both Knight et al. and the pioneering applied growth studies of Barro (1991). Combining the data sets provides a sample of 92 countries of which 19 had civil wars. - The dependent variable was the decade average per capita GDP growth rate of each country between 1960 and 1989. This makes the study directly comparable with other recent work on the determinants of growth such as Easterly and Levine (1998) and closely comparable to studies which take as the dependent variable the growth average over periods longer than a decade, such as Sachs and Warner (1995). The disadvantage with such a formulation is that the short term dynamics of the growth process are not analysed; the advantage is that by including only structural variables characterising the economy at the start of the decade the problem of endogeneity is reduced. In the main results presented below OLS was used as in Easterly and Levine, and Sachs and Warner. The results are then tested against fixed and random effects models. - Civil war is a sufficiently devastating phenomenon that it is likely to have large effects on both the level and composition of economic activity. This paper has

Author, Title, Source	Description
	proposed simple theoretical frameworks for these effects and tested them for war and post-war periods. During civil wars GDP per capita declines at an annual rate of 2.2 per cent relative to its counterfactual. The explanation proposed in this paper is that the decline is partly because war directly reduces production and partly because it causes a gradual loss of the capital stock due to destruction, dissaving, and the substitution of portfolios abroad. These affect sectors differentially. The sector intensive in capital and transactions (manufacturing), and the sectors which supply capital (construction) and transactions (transport, distribution and finance), contract more rapidly than GDP as a whole. The sector with opposite characteristics (arable subsistence agriculture) expands relative to GDP. - Despite these severe effects of civil war the restoration of peace does not necessarily produce a dividend. Peace does not recreate either the fiscal or the risk characteristics of the pre-war economy: there is a higher burden of military expenditure and a greater risk of renewed war. The desired capital stock is consequently lower than had there been no war, although being higher than that desired during the war. Because downward adjustment of the capital stock is a slow process, that prevailing at the end of the war may still be above not only its desired wartime level but its desired post-war level. In this case, which is inevitable if the war is very brief, the decline in the capital stock can be expected to continue, yielding a war overhang effect. Empirically, if a civil war lasts only a year, it was found to cause a loss of growth during the first five years of peace of 2.1 per cent per annum, a loss not significantly different from had the war continued. - However, if the war has been sufficiently long the capital stock will have adjusted to a level below that desired in post-war conditions. In this case capital repatriation enables the economy to grow more rapidly than during the pre-war period. Empirically, this peace dividend for the ending of prolonged civil wars was found to be large. - Peace also reverses the compositional changes caused by prolonged civil war. An implication is that after the end of long wars the war-vulnerable activities experience very rapid growth: the generalised peace dividend is augmented by compositional change.
Ghassan Dibeh (2008) **"Resources and the Political Economy of State Fragility in Conflict States" UNU-WIDER Research Paper No. 2008/35**	- This paper studies state failure and governance in two conflict-states in the Middle East: Iraq and Somalia. Iraq is currently undergoing a social experiment under which a new form of government is being constructed after the passage of autocratic rule. The government envisaged is a consociational democratic state designed a priori as a political mechanism for the redistribution of resources, mainly oil. Somalia represents a stateless society or anarchy. The paper argues that in resource-rich countries such as Iraq, the consociational project leads to an Olson-type rent-seeking confessional behaviour that hampers economic growth and development. The rent-seeking behaviour in Iraq is fuelling the insurgency that perceives the consociational system as a grabbing attempt of the country's resources by other ethnic groups. However, state construction is possible since there is a positive economic effect of combining government and resources. In Somalia, on the other hand, the developments and the evolution of anarchy since state collapse in 1991 exemplify the result of prolonged conflict in a resource-poor state. The lack of resources, direct access of producers to resources and low productivity and weak redistributional potential of combining resources and government offer no material incentives to the various groups for resurrecting central authority.

Author, Title, Source	Description
Montfort Mlachila and Misa Takebe (2011) "FDI from BRICs to LICs: Emerging Growth Driver?" IMF Working Paper WP/11/178	- Despite the rapid increase in FDI flows to LICs, there have been relatively few studies that have specifically examined these flows. This paper attempts to partially fill the void by throwing light on one particularly dynamic aspect of global FDI—flows from Brazil, Russia, India and China (BRICs). The paper finds that official data sources undoubtedly underestimate the volume and scope of FDI flows as many small and medium-sized enterprises (SMEs) do not always register their investment. As a result, while it is difficult to estimate accurately the growth impact of BRIC FDI, there is case study evidence that it is increasingly significant. Second, while initial investment, mostly by state-owned companies, has often been destined for natural resource industries, over time, investment has been spreading to agriculture, manufacturing, and service industries (e.g., telecommunications). Third, FDI from BRICs flows into many non resource-rich countries in LICs and plays a significant role in growth in those countries. - First, starting from a low base, BRIC FDI inflows to LICs have grown rapidly. The growth of the Chinese FDI stock is, in particular, phenomenal; it increased by 20-fold in just seven years from 2003 to 2009. Even this is likely to be an underestimate since many small and medium-sized enterprises (SMEs) do not always register their investment. Second, while initial investment from China, mostly by state-owned companies, has often been destined for natural resource industries, over time, investment has been spreading to agriculture, manufacturing, and service industries (e.g., telecommunications). Third, many non resource-rich countries have also attracted significant investment. Moreover, private companies, particularly small and medium-sized ones, have become the most dynamic investors, with the potential to form industrial clusters in some LICs as seen in East Asia. - Chinese FDI to most LICs in official statistics is grossly underestimated. In the words of Kaplinsky and Morris (2009), "Official estimates of China's FDI are contradictory, confusing and almost certainly understate their true significance". For instance, according to Chinese data sources, Angola does not feature among the top five recipients of Chinese FDI in Africa, although it is well-established that the country is one of the biggest recipients of Chinese cooperation (Kaplinsky and Morris, 2009). - Chinese FDI to SSA comes in various forms and through various financing mechanisms (Boxes 2,4 and 5). There are many actors involved, ranging from individual private entrepreneurs to vary large state-owned enterprises. Many of investment projects in natural resources took the form of packaged investment involving related infrastructure projects. The financing arrangements also range from own private financing to loans from the Chinese EXIM Bank or other state-owned banks. The China-Africa Development Fund has also played an increasingly important role in providing private equity financing for joint ventures. - The natural resource and infrastructure sectors attract the biggest share of Chinese FDI to SSA in terms of volume. Sectoral allocation of Chinese FDI to SSA countries seems to be concentrated on natural resources and related infrastructure (Boxes 2, 3 and 4). Due to the paucity of the data, the exact sectoral allocation of Chinese FDI to SSA countries is not known. However, since the largest recipients of Chinese FDI and economic cooperation in SSA are mostly natural resource countries, it is reasonable to conclude that Chinese FDI to SSA countries is mostly concerned with natural resources and infrastructure in terms of value.8,9,10 Chinese investment in the resource sector extends to many countries (Box 3). UNCTAD (2010) noted that the mining industry is the main destination of greenfield investment in Africa.

Author, Title, Source	Description
Steen Nordstrøm (2008) **"Fragility and natural resources" DIIS Policy Brief**	- In several countries, including Angola, Chad, Nigeria and Sudan, wealth in the form of natural resources has spurred not economic growth, but corruption, repression and violent conflict. This so-called resource curse affects many but certainly not all fragile states. - The risk of a state descending into resource-based conflict or authoritarianism is highly correlated with the degree of resource dependence. Table 1 offers an overview of the resource dependence of selected fragile states. - It is counterintuitive to think that presence of valuable natural resources should lead to a lack of economic development. Yet such natural riches frequently result in poor economic performance and the persistence of authoritarian political regimes. - Resource-rich fragile states owe their economic difficulties to corruption, mismanagement and the downward spiral or so-called Dutch Disease. The latter entails appreciation of the resource-exporting country's currency and, in the case of fragile states, significant difficulties in establishing viable industries outside resource extraction. Failing to create economic diversification and to develop industries that involve
E.C. (2009) **"Overcoming fragility in Africa" European Report on Development**	- Fragile countries are also exposed through lower inflows of FDI, due to a "wait and see" attitude of investors in uncertain situations, (possibly) lower inflows of foreign aid and lower migrants' remittances. Intra-African remittances are particularly relevant because migrants from fragile countries cannot afford the high costs of migrating to high-income countries and move nearby. But the main destination markets for migrants of fragile countries, Nigeria and South Africa, have been the only Sub-Saharan African countries directly affected by the crisis. - While the literature recognises the negative impact of bad domestic governance and corruption on FDI inflows, recent work provides some empirical indications of the reverse effect of FDI on host country governance structures and the ultimate manifestations of state fragility: conflicts and civil wars. Recent research has not provided conclusive empirical evidence on the relationship between FDI and conflicts. - Polachek et al. (2005) find that FDI reduces the likelihood of international conflicts, and trade and FDI complement each other in reducing conflicts, while Gissinger and Gleditsch (1999) suggest that in the poorest countries FDI has positive effects on economic welfare, but negative effects on distribution and political unrest. By contrast, Barbieri and Reuveny (2005) find that FDI in the least developed countries reduces the duration of civil wars, but not the likelihood of their onset. - Empirical literature does not provide definitive support to the hypothesis a positive link between FDI and other dimension of state fragility such as corruption. A recent cross-country analysis by Larrain and Tavares (2007) suggests that FDI significantly decreases corruption in the host country, and their results are robust to the inclusion of several determinants of openness in addition to trade intensity and the average tariff , including dependence on natural resources, ethnic fractionalisation and the size of the economy and government expenditure. - The relationship between FDI and corruption, however, may depend on the level of development and democracy of the host country. Zhu (2007), for instance, provides empirical support for the view that FDI inflows are likely to reduce corruption in more developed democracies and to increase corruption in less developed nondemocratic countries. - Though not definitive, these results highlight the challenges of FDI policies. First, overcoming state fragility and building strong democratic institutions may be

Author, Title, Source	Description
	necessary to capture the economic benefits of FDI. Second, while openness to FDI in fragile contexts can reduce the risks of intrastate conflicts, it also needs some form of regulation to promote the quality of investment rather than its quantity. Clearly important for FDI to contribute to the local economy is a legal and accounting framework that encourages transparency and accountability in investors' home countries. Insights on the nexus between FDI and state fragility can come from a closer look at the main recipients of FDI flows in Sub-Saharan Africa. In only 13 out of 29 Sub-Saharan African fragile countries, the share of FDI inflows on GDP is above the Sub-Saharan African average (itself low, at 3.2%, compared with 4.8% for South East Asia). Most of them are rich in oil and natural resources (Angola, Chad, the Republic of Congo, Equatorial Guinea, Nigeria, São Tomé and Príncipe Sierra Leone and Sudan). - So, to understand the impact of FDI on state fragility, it is necessary to first understand the natural resource endowments. So, while FDI can potentially have a positive impact on growth and poverty reduction, negative externalities prevail when the quality of institutions is low, enhancing the likelihood of conflict and bad management. The resulting vicious circle magnifies the impact of FDI on fragility. To transform this vicious circle into a virtuous one, governments (if legitimate) must commit to a fair distribution of rents by tying their hands. But the low credibility of governments in fragile countries makes a virtuous circle unlikely, unless external agents (such as international organisations) push for and guarantee the commitments.
Ralph Chami, Connel Fullenkamp and Samir Jahjah (2005) **"Are Immigrant Remittance Flows a Source of Capital for Development?" IMF Staff Papers Vol.52 No.1**	- There is a general presumption in the literature and among policymakers that immigrant remittances play the same role in economic development as foreign direct investment and other capital flows, but this is an open question. We develop a model of remittances based on the economics of the family that implies that remittances are not profit-driven, but are compensatory transfers, and should have a negative correlation with GDP growth. This is in contrast to the positive correlation of profit-driven capital flows with GDP growth. We test this implication of our model using a new panel data set on remittances and find a robust negative correlation between remittances and GDP growth. This indicates that remittances may not be intended to serve as a source of capital for economic development.
OECD (2008) **"Annual report on resource flows to fragile and conflict affected states"**	- Investment is a critical driver of growth and employment—key issues underpinning stability and peace. Foreign direct investment (FDI) to 42 fragile and conflictaffected states more than quadrupled from USD 5 billion in 2000 to USD 21 billion in 2006. However, over 70 per cent of all FDI in fragile and conflict-affected states (USD 11.1 billion per annum on average 2000-2007) went to Angola, Chad, Equatorial Guinea, Nigeria, Pakistan and Sudan—all of which but Pakistan are natural resource producers, and where FDI mostly reflects expansions in projects within the oil industry.
OECD (2010) **"Resource Flows to Fragile and Conflict-Affected States"**	- Investment in fragile states ran counter to this overall trend with Fdi flows increasing by one-third compared to 2007 (unctad, 2009).However, there is divergence between investment flows to african fragile states and to fragile states in other regions. investment in african fragile states has grown by almost 44% since 2007, whereas Fdi to non-african fragile states, which have shown markedly slower growth since the beginning of the decade, has declined by 8.6% - However, early 2009 data suggest that FDI to Africa as a whole is likely to decline in

Author, Title, Source	Description
	2009, and as investors become more risk averse, the future outlook for fragile states is uncertain. the slowdown in the global economy has also been accompanied by falling global commodity prices. this is likely to affect several fragile states in africa, where many new natural resource exploration and exploitation projects that were started in response to the surge in global commodity prices may be postponed or cancelled (unctad, 2009). against these trends, evidence suggests that china's state enterprises are currently exploiting opportunities to purchase newly cheap assets in africa, particularly in the energy sector (ids, 2009b). - Fragile states with high levels of dependence on foreign financing, including Kenya, Nigeria and Uganda, are seeing a tightening across their banking sector. this is also affecting the operations of foreign banks in their local economies, and reducing the availability of private credit (iMF, March 2009b). However, exporters in kenya are reporting that it is exchange rate volatility, not access to credit, that is most affecting their businesses (ids, 2009b). - On a more macro level, governments are having difficulty raising capital. Bond issues have been put on hold in uganda and kenya (odi, 2009g). costs of borrowing and servicing debt have escalated following currency depreciation against the dollar. Borrowing conditions have, in general, become more arduous. these constraints have severely restricted the overall capacity of fragile state governments to react to the financial crisis. - These increases in FDI are, to a large extent, driven by investment in natural resource production. the nine oil-producing nations in the list of fragile states accounted for 79% of the increase in Fdi to the group in the years 2003-08. in fact 69% of this increase went to just two oil-producing states: angola and nigeria. that the presence, or potential presence, of exploitable natural resources is a major determinant of Fdi levels is further reinforced by the fact that four out of five of the biggest beneficiaries of Fdi among fragile states are oil-producing nations. - While volumes of remittance flows to fragile states are small in comparison to larger economies such as India, China and Mexico, they are significant as a proportion of GDP. in aggregate, for countries where data are available, remittances as a proportion of gdP in 2008 were double for fragile states (4%) than for developing countries in general (1.9%). this proportion has also been increasing over time (Figure 9.9.). For some fragile states, remittances are particularly significant. tajikistan and tonga, for example, are among the largest beneficiaries of all developing countries with remittances exceeding one-third of gdP in 2008 (tajikistan reaching almost 50%), with nepal (22%) and Haiti (18%) also benefiting considerably. - Over the last eight years remittances have consistently outpaced ODA to fragile states, and have also exceeded levels of foreign direct investment in six of those eight years. the comparatively lower volatility of remittances provides an additional macroeconomic benefit, although still subject to cyclical fluctuations (see text below) (Buch, kuckulenz and le Manchec, 2002). this role has been recognised by a number of fragile states: guinea-Bissau, são tomé and Principe and timor-leste have emphasised the positive developmental impacts of international migration in their PRsPs, with the role of remittances highlighted in the development strategies of ethiopia, nepal, dRc, liberia and Pakistan (luthria, 2009; Black and sward, 2009). - The positive investment effects of remittances are complex and far from automatic. local institutions structure the relationship between remittances and growth. excessively high transaction costs in sub-saharan africa – up to 25% of the sum –

Author, Title, Source	Description
	are linked to widespread government practices of restricting the institutions able to offer remittance transfers. Payout locations are thus few, distant and dominated by a handful of transfer companies.
Donald L. Sparks (2012) **"Large Scale Land Acquisitions In Sub-Saharan Africa: The New Scramble?" International Business & Economics Research Journal. Volume 11, Number 6**	- Almost three-fourths of the world's recent "land grabs" have occurred in sub-Saharan Africa, estimated at some 50 million hectares, which is almost equal to the size of Spain (World Bank, 2010; FAO, 2005; Global Land Project, 2010). As most of the recent land acquisitions involve farmland, and since agriculture is so vital to Africa's ability to reduce poverty and hunger, this is a particularly important topic. These large acquisitions raise concerns about the dangers of neglecting local needs and exacerbating social tensions in already fragile states (Coutla et al, 2009; World Bank, 2010). - These land grabs have received intense media and academic attention and from August 2008 to April 2010, there were 236 articles in the press about African land deals (Global Land Project, 2010). - The principle origins of demand are from the Gulf States of Saudi Arabia, UAE, Qatar, Kuwait and Bahrain, China, South Africa, Japan, Russia, South Korea, the US, and UK and other EU members (Cotula et al, 2009). There are various types of buyers, including state-owned enterprises, sovereign wealth funds, foreign and domestic private sector investors, and central government agencies. - The key drivers behind the recent land grabs include increasing population growth, urbanization and changes in the food tastes in many of these countries, increasing demand for biofuels and, perhaps most importantly, food security (Daniel and Mittal, 2009; Smaler and Mann, 2009; Zoomers, 2010). As these originating countries become more urbanized and wealthier, their demands for beef increases and cattle rising requires massive amounts of grain for feed. The food security concerns from investor countries comes as a result of the food price hikes during 2007-2008 which caused many countries to reconsider their policies to reduce their vulnerability to food imports. These hikes caused social unrest in 33 countries. In addition, rice and wheat yields have stabilized, so the scope for increased yields are lower than in recent years. Also, many government policies are being put in place for food and energy diversification. While there are a variety of reasons causing these spikes, the increased demand for bio-fuels (which reduced the amount of food crops on the world market) was an important catalyst (Mitchell, 2010; Friends of the Earth, 2010).
UNCTAD (2012) **"World Investment Report 2012"**	- In the LDCs, large divestments and repayments of intracompany loans by investors in a single country, Angola, reduced total group inflows to the lowest level in five years, to $15 billion. More significantly, greenfield investments in the group as a whole declined, and large-scale FDI projects remain concentrated in a few resource-rich LDCs. - Investments in mining, quarrying and petroleum remained the dominant form of FDI in LDCs, although investments in the services sector are increasing, especially in utilities, transport and storage, and telecommunication. About half of greenfield investments came from other developing economies, although neither the share nor the value of investments from these and transition economies recovered to the levels of 2008–2009. India remained the largest investor in LDCs from developing and transition economies, followed by China and South Africa. - In landlocked developing countries (LLDCs), FDI grew to a record high of $34.8 billion. Kazakhstan continued to be the driving force of FDI inflows. In Mongolia, inflows more than doubled because of large-scale projects in extractive industries.

Author, Title, Source	Description
	The vast majority of inward flows continued to be greenfield investments in mining, quarrying and petroleum. The share of investments from transition economies soared owing to a single large-scale investment from the Russian Federation to Uzbekistan. Together with developing economies, their share in greenfield projects reached 60 per cent in 2011. - In small island developing States (SIDS), FDI inflows fell for the third year in a row and dipped to their lowest level in six years at $4.1 billion. The distribution of flows to the group remained highly skewed towards taxfriendly jurisdictions, with three economies (the Bahamas, Trinidad and Tobago, and Barbados) receiving the bulk. In the absence of megadeals in mining, quarrying and petroleum, the total value of cross-border M&A sales in SIDS dropped significantly in 2011. In contrast, total greenfield investments reached a record high, with South Africa becoming the largest source. Three quarters of greenfield projects originated in developing and transition economies. - Continued fall in FDI inflows to Africa but some cause for optimism. FDI flows to Africa were at $42.7 billion in 2011, marking a third successive year of decline, although the decline is marginal (figure B). Both cross-border mergers and acquisitions (M&As) (tables B and C) and greenfield investments by foreign transnational corporations (TNCs) (tables D and E) decreased. In terms of share in global FDI flows, the continent's position diminished from 3.3 per cent in 2010 to 2.8 per cent in 2011 (figure B). FDI to Africa from developed countries fell sharply, leaving developing and transition economies to increase their share in inward FDI to the continent (in the case of greenfield investment projects, from 45 per cent in 2010 to 53 per cent in 2011; table E). - However, this picture of an overall declining trend in FDI does not reflect the situation across all parts of the continent. The negative growth for the continent as a whole was driven in large part by reduced flows to North Africa caused by political unrest and by a small number of other exceptions to a generally more positive trend. Inflows to sub-Saharan Africa recovered from $29.5 billion in 2010 to $36.9 billion in 2011, a level comparable with the peak in 2008 ($37.3 billion). - North Africa has traditionally been the recipient of about one third of inward FDI to the continent. Inflows in 2011 halved, to $7.69 billion, and those to the two major recipient countries, Egypt and Libya, were negligible. Outward FDI from North Africa also fell sharply in 2011 to $1.75 billion, compared with $4.85 billion in 2010. These figures are in stark contrast with the peak of 2008 when the outward FDI of North African countries reached $8.75 billion. - Flows to West Africa were destined primarily for Ghana and Nigeria, which together accounted for some three quarters of the subregion's inflows. Guinea emerged with one of the strongest gains in FDI growth in 2011, a trend that is likely to continue in the next few years in view of the $6 billion that State-owned China Power Investment Corporation plans to invest in bauxite and alumina projects. Overall, inward FDI flows to West Africa expanded by 36 per cent, to $16.1 billion. - The bulk of FDI in Central Africa goes to three commodity-rich countries: the primarily oil-exporting Congo and Equatorial Guinea and the mineralexporting Democratic Republic of the Congo. Although inward FDI flows to Congo grew strongly in 2011, weak inflows to the Democratic Republic of the Congo affected the region as a whole and resulted in inward investment flows to Central Africa falling by 10.2 per cent overall to $8.53 billion.

Author, Title, Source	Description
	- Inward FDI to Southern Africa, recovered from a 78 per cent decline in 2010, more than doubling its total to $6.37 billion. This reversal was precipitated primarily by the sharp rebound of flows to South Africa, the region's largest FDI recipient. Inflows to Angola, however, declined by over $2 billion. - East Africa, with historically the lowest FDI inflows in sub-Saharan Africa, reversed the downward trend of 2009–2010 to reach $3.96 billion, a level just 5 per cent below the peak of 2008. As most countries in this subregion have not been considered rich in natural resources, they have not traditionally attracted large investments into exportoriented production in the primary sector, except in agriculture. However, the discovery of gas fields is likely to change this pattern significantly. - New oil- and gas-producing countries are emerging as major recipients of FDI. Oil production in sub-Saharan Africa has been dominated by the two principal producer countries, Angola and Nigeria. Nigeria was Africa's largest recipient of FDI flows ($8.92 billion) in 2011, accounting for over one fifth of all flows to the continent. In gross terms, Angola attracted FDI inflows worth $10.5 billion, although in net terms, divestments and repatriated income left its inflows at -$5.59 billion. - Aside from these major oil-producing countries, investors are looking farther afield in search of oil and gas reserves. Ghana, in particular, benefited from FDI in the newly developed Jubilee oil field, where commercial production started in December 2010. Elsewhere, Tullow Oil (United Kingdom) announced its plan to invest $2.0 billion to establish an oil refinery in Uganda. Noble Energy (United States) also announced plans to invest $1.6 billion to set up production wells and a processing platform in Equatorial Guinea. Inward FDI flows to Uganda and Equatorial Guinea were $792 million and $737 million respectively in 2011, but announced greenfield projects show future investments of $6.1 billion in Uganda and $4.8 billion in Equatorial Guinea, indicating strong FDI growth in these countries. - If oil reserves off the Atlantic coast of Africa have drawn significant FDI to that region, natural gas reserves in East Africa, especially the offshore fields of Mozambique and the United Republic of Tanzania, hold equal promise. In 2011, inflows of FDI to Mozambique doubled from the previous year, to $2.09 billion. New discoveries of large-scale gas reserves continue to be made in 2012. Development of gas fields and the liquefied natural gas (LNG) industry will require huge upfront investments and presents considerable technological challenges. FDI is certain to play a large role in developing this industry in the region, as exemplified by the plans announced by Eni (Italy) to invest $50 billion to develop the gas fields recently discovered in Mozambique. - Sectoral shift emerging, especially towards services. The limited volume of FDI to Africa tends to make inflows vary widely from year to year. Nevertheless, viewed over a longer time period, a discernible sectoral shift is taking place in FDI to Africa. Data on greenfield projects by three-year periods show that, contrary to popular perceptions, the relative importance of the primary sector is declining, although the total value of projects is holding steady (figure II.1). - The data on projects in services in the period 2006–2008 are inflated by the announcements of no fewer than 13 construction projects worth more than $3 billion each, which take many years to complete. Still, a general ascendancy of the services sector is clear. Aside from the construction industry, projects are drawn into industries such as electric, gas and water distribution, and transport, storage and

Author, Title, Source	Description
	communications in the services sector and industries such as coke, petroleum products and nuclear fuel in the manufacturing sector. - This shift is more about diversification of naturalresource- related activities than a decline of the extractive industry. Many of the projects in manufacturing and services are premised on the availability of natural resources or play a supporting role for the extractive industry. Such projects include a $15 billion project by Western Goldfields (Canada) to construct a coal-fired power station in Nigeria and an $8 billion project by Klesch & Company (United Kingdom) to build an oil refinery in Libya, both announced in 2008. - Better prospects for 2012. The region's prospects for FDI in 2012 are promising, as strong economic growth, ongoing economic reforms and high commodity prices have improved investor perceptions of the continent. Relatively high profitability of FDI in the continent is another factor. Data on the profitability of United States FDI (FDI income as a share of FDI stock) show a 20 per cent return in Africa in 2010, compared with 14 per cent in Latin America and the Caribbean and 15 per cent in Asia (United States Department of Commerce, 2011: 51). In addition to traditional patterns of FDI to the extractive industries, the emergence of a middle class is fostering the growth of FDI in services such as banking, retail and telecommunications. UNCTAD's forecast of FDI inflows also points to this pattern (figure I.10). It is especially likely if investor confidence begins to return to North Africa and compensates for the recent declines in this region.

Annex 1: Overlaps between categories of fragility and conflict

The following table shows the degree to which different categories of interest overlap. Firstly this is the average score on the World Bank CPIA index, where a score of less than 3.2 is used to consider fragility, the data here comes from the World Bank IRAI 2011. Secondly is the Uppsala status of conflict. Thirdly, is the category on the Fund for Peace Failed States Index 2012.

There are 13 countries that cross all three of these categories, these are: Afghanistan, Burundi, Central African Republic, Chad, the DRC, Cote d'Ivoire, Guinea, Haiti, Liberia, Mauritania, Pakistan, Sudan and Yemen. There are 24 countries that tick two of the boxes, and 18 countries that tick just one.

Country	<3.2 CPIA average?	Uppsala status?	FSI category	Boxes ticked?
AFGHANISTAN	Yes	Open and sustained conflict	High Alert	**3**
ANGOLA	Yes	No Conflict	Very High Warning	2
BANGLADESH	No	No Conflict	Alert	1
BHUTAN	No	No Conflict	Very High Warning	1
BOLIVIA	No	No Conflict	Very High Warning	1
BURKINA FASO	No	No Conflict	Very High Warning	1
BURUNDI	Yes	Post-conflict/conflict settlement and resolution	Alert	**3**
CAMBODIA	No	No Conflict	Very High Warning	1
CAMEROON	Yes	No Conflict	Alert	2
CENTRAL AFR. REP.	Yes	Latent Conflict	High Alert	**3**
CHAD	Yes	Latent Conflict	High Alert	**3**
COMOROS	Yes	No Conflict	Very High Warning	2
CONGO, DEM. REP.	Yes	Latent Conflict	Very High Alert	**3**
CONGO, REP	Yes	No Conflict	Alert	2
COTE D'IVOIRE	Yes	Latent Conflict	High Alert	**3**
DJIBOUTI	Yes	No Conflict	Very High Warning	2
ERITREA	Yes	No Conflict	Alert	2
ETHIOPIA	No	Latent Conflict	Alert	2
GAMBIA, THE	No	No Conflict	Very High Warning	1
GEORGIA	No	Post-conflict/conflict settlement and resolution	Very High Warning	2
GUINEA	Yes	Failed State	High Alert	**3**
GUINEA-BISSAU	Yes	No Conflict	Alert	2
HAITI	Yes	Failed State	High Alert	**3**
INDIA	No	Latent Conflict	High Warning	2
KENYA	No	No Conflict	Alert	1
KYRGYZ REP.	No	No Conflict	Very High Warning	1
LAO, PDR	No	No Conflict	Very High Warning	1
LIBERIA	Yes	Failed State	Alert	**3**
MADAGASCAR	No	No Conflict	Very High Warning	1
MALAWI	No	No Conflict	Very High Warning	1
MAURITANIA	Yes	Latent Conflict	Very High Warning	**3**
MICRONESIA, FS	Yes	No Conflict	High Warning	2
MOZAMBIQUE	No	No Conflict	Very High Warning	1
NEPAL	No	Post-conflict/conflict settlement and resolution	Alert	2
NIGER	No	No Conflict	Alert	1
NIGERIA	No	Failed State	High Alert	2
PAKISTAN	Yes	Open and sustained conflict	High Alert	**3**
PAPUA NEW GUINEA	No	No Conflict	Very High Warning	1
RWANDA	No	Latent Conflict	Very High Warning	2
SAO TOME AND	Yes	No Conflict	High Warning	2

PRINCIPE				
SENEGAL	No	Latent Conflict	High Warning	2
SIERRA LEONE	No	No Conflict	Alert	1
SOLOMON ISLANDS	Yes	No Conflict	Very High Warning	2
SOMALIA	NA	No Conflict	Very High Alert	1
SOUTH SUDAN	NA	No Conflict	High Alert	1
SRI LANKA	No	Post-conflict/conflict settlement and resolution	Alert	2
SUDAN	Yes	Open and sustained conflict	High Alert	3
TAJIKISTAN	No	Latent Conflict	Very High Warning	2
TIMOR-LESTE	Yes	No Conflict	Alert	2
TOGO	Yes	No Conflict	Very High Warning	2
UGANDA	No	Latent Conflict	Alert	2
UZBEKISTAN	No	Latent Conflict	Very High Warning	2
YEMEN, REP.	Yes	Open and sustained conflict	High Alert	3
ZAMBIA	No	No Conflict	Very High Warning	1
ZIMBABWE	Yes	No Conflict	High Alert	2

Annex 2: Migrant remittance inflows for select countries

Migrant Remittance Inflows by Country, (US$ million) 2000 - 2011

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011e	Remittances as a share of GDP, 2010 (%)
Tajikistan	..	..	79	146	252	467	1,019	1,691	2,544	1,748	2,254	2,680	31.0%
Lesotho	478	402	390	557	627	604	586	625	596	623	746	753	28.6%
Moldova	179	243	324	487	705	920	1,182	1,498	1,897	1,211	1,392	1,562	23.2%
Samoa	..	..	..	..	1	1	1	97	111	119	122	129	22.5%
Kyrgyz Republic	9	11	37	78	189	322	481	715	1,232	992	1,275	1,500	20.8%
Nepal	111	147	678	771	823	1,212	1,453	1,734	2,727	2,986	3,469	4,070	20.0%
Tonga	..	53	66	60	69	69	79	101	94	72	72	66	19.7%
Lebanon	..	..	2,544	4,743	5,591	4,924	5,202	5,769	7,181	7,558	7,558	7,558	19.6%
Kosovo	..	..	..	..	624	705	774	922	1,046	973	932	932	17.5%
El Salvador	1,765	1,926	1,954	2,122	2,564	3,030	3,485	3,712	3,758	3,405	3,449	3,636	15.7%
Jamaica	892	1,058	1,260	1,398	1,623	1,784	1,946	2,144	2,181	1,908	2,044	2,158	15.2%
Honduras	484	623	818	883	1,175	1,818	2,367	2,648	2,858	2,512	2,640	2,873	15.0%
Bosnia and Herzegovina	1,607	1,525	1,526	1,749	2,072	2,043	2,157	2,700	2,735	2,133	1,906	2,021	12.9%
Jordan	1,845	2,011	2,143	2,201	2,330	2,500	2,883	3,434	3,794	3,597	3,641	3,554	12.8%
Guyana	27	22	51	99	153	201	218	283	278	267	373	399	12.5%
Togo	34	69	103	149	179	193	232	284	337	335	335	347	12.2%
Nicaragua	320	336	377	439	519	616	698	740	818	768	823	920	11.7%
Haiti	578	624	676	811	932	986	1,063	1,222	1,370	1,376	1,474	1,571	11.7%

Senegal	233	305	344	511	633	789	925	1,192	1,476	1,350	1,350	1,442	11.0%
Albania	598	699	734	889	1,161	1,290	1,359	1,468	1,495	1,318	1,156	1,221	10.9%
Philippines	6,961	8,769	9,735	10,243	11,471	13,566	15,251	16,302	18,642	19,765	21,423	22,974	10.7%
Serbia	..	..	..	..	..	..	..	3,064	2,710	3,936	3,351	3,719	10.4%
Guatemala	596	634	1,600	2,147	2,628	3,067	3,700	4,236	4,460	4,019	4,232	4,489	10.2%
Gambia, The	..	..	..	56	61	59	64	56	65	80	116	125	10.0%

Source: World Bank staff calculation based on data from IMF Balance of Payments Statistics Yearbook 2011 and data releases from central banks, national statistical agencies, and World Bank country desks. See Migration and Development Brief 12 for the methodology for the forecasts.