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The global financial crisis and its impact on renewable energy finance

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Abbreviations

BNDES	Country's national development bank
CCS	Carbon Capture and Storage
FS	Frankfurt School of Finance & Management
IASB	Inter-American Development Bank
IPO	Initial Public Offering
IPP	Independent Power Producers
ITC	Investment Tax Credit
MW	Megawatt
NEF	New Energy Finance
OPEC	Organization of Petroleum Exporting Countries
PE	Private Equity
PTC	Production Tax Credit
PV	Photovoltaics
RE	Renewable Energy
SEFI	Sustainable Energy Finance Initiative
UNEP	United Nations Environment Programme
VC	Venture Capital

Executive Summary

After global renewable energy sector growth had been continually breaking its own record year after year since 2004, in late 2008 the impact of the financial crisis began to show through, particularly in the flow of debt from banks to renewable energy developers. Although new investment in the sector grew to $155bn in 2008, up modestly from $148bn in 2007, investment in the second half of the year was down 17% on the first half, and down 23% on the final six months of 2007. In the first quarter of 2009, new financial investment fell to $13.3bn, the lowest quarterly value since Q1 2006.

The investment surge of recent years was just starting to ease the supply-chain bottlenecks when the credit crunch arrived and cut demand. The result has been a dramatic and permanent change to the dynamics of the industry. On the supply side prices are falling towards marginal costs, and several players will consolidate. On the demand side renewable energy targets will still drive utilities to build projects, but fewer developers and independent power producers will be involved.

This study was carried out to gain a more differentiated picture of the impact of the global financial crisis on the renewable energy sector by determining changes and trends in investment flows for renewable energy technologies and companies as the cost of capital rises and access to credit becomes more difficult. The results are based on both survey-based empirical research and transaction-based data analysis. With few exceptions, the findings of the two groups correlate.

Finance flows

Total private capital investment in **early stage technology and expansion** in companies - via **venture capital (VC) and private equity (PE)** - grew by 60% from $11.1bn to $17.7bn. Two-thirds of this investment was new equity**.** The year 2009 has started slowly, with only $1.8bn of VC/PE investment in the first quarter. Venture capital and private equity investors in companies are cutting back, rationing their remaining capital, and waiting out the economic storm.

Public markets were hit hard. In 2008 investment in clean energy firms via the world's stock markets **tumbled 51%** to $11.4bn. Activity noticeably slowed in the second half of 2008, and the public markets have effectively been closed for clean energy fund raising so far in 2009. This is due to energy prices collapsing by 70%, longer-established businesses being favoured over risk-technologies, and an aversion to companies with high capital requirements.

Investment in renewable energy power projects **(asset finance)** slowed down in the final three months of 2008 and the trend worsened in the first quarter of 2009. The worsening situation during the fourth quarter forced many developers and sponsors to **abandon deals** and larger transactions stayed the course more successfully than smaller deals. A less significant impact of the financial crisis is that the cost of borrowing has increased, which for strong projects is not a major problem. More significantly, the banks have

started to **shorten the period for loan repayment**, with some allowing only up to five years or less, which puts the refinancing risk on the project sponsor. Lending is expected to resume in the second half of 2009, depending on when the banks feel strong enough again. Governments have taken over significant stakes in many leading banks in Europe, putting them in a position to **pressure the banks** to lend to renewable energy.

The price of **commodities** that are essential to renewable energy projects such as steel for wind turbines has come down, as has the cost of shipping. On the other hand, lower oil and gas prices have made it harder for renewable energy sources to compete and will continue to do so in the short term. The economics of experience curves and oil and gas depletion, however, are working powerfully to level the playing field. Renewable energy technologies are becoming cheaper as they reach scale and achieve higher levels of operating experience. With targeted policy support, they should be able to compete with fossil fuels in the mid to long term.

Winners and losers

Small-scale project developers and **independent power purchasers** (IPP) are finding it difficult to finance their projects and are selling out to more established players. A strong trend towards **consolidation** is being observed. Money is only being lent to corporates with strong balance sheets with whom the banks have very close relationships. As bigger deals generally have the security of larger, more creditworthy developers, they are naturally more likely to reach completion under difficult circumstances than smaller deals with less well-established counterparties.

Developers are having increasing difficulty reaching financial close on their projects due to a marked decrease in the availability of project debt. This, however, could provide **investment opportunities** for liquid, fast-moving buyers, such as utilities and corporates.

Government support through stimulus packages, especially in the US, will bring new capital and new lenders to the table, which will help small and medium-sized developers get through the credit squeeze. Investors seeking yields will be attracted to the RE sector (pension funds, insurance companies, individuals) and 75% of institutional asset owners surveyed by New Energy Finance are expected to increase allocation to clean energy by 2012.

Regional differences

Investment in renewable energy projects in the US has slowed down more quickly than in EU-Europe, where wind and solar projects – especially in Spain – have continued to be financed. Asset Finance investment in China has also fallen, but the government is taking an increasingly active role to support a rapidly growing industry through domestic demand for products. New-build asset finance in Brazil has given way to refinancing as state-owned banks move to fill the financing gap left by private sector banks, particularly in the ethanol sector.

Policy and regulations

The end of 2009 should see the most significant breakthrough in international climate negotiations since Rio in 1992, especially as the US has signalled its intention to play a leading role in the negotiations leading up to Copenhagen in December. The survey respondents almost unanimously consider an international climate agreement to be very important. In the short term, however, the main impetus for investment in renewable energy will have to come from national government policies. Since the economic crisis broke, many of the large developed economies have announced measures designed to stimulate investment in renewable energy and energy efficiency. Leading governments have committed $183bn to clean energy within their various stimulus packages, with $61bn targeted at energy efficiency and $34bn at renewable energy projects. However, it could take up to six months for the money to flow down from governments to companies and projects.

With their bail-outs, a number of governments have taken ownership of commercial banks, which puts them in a position to require that the banks lend significantly to renewable energy and other low-carbon options.

In terms of **types of policies**, a clear majority of the survey respondents ranked feed-in tariffs as the most effective in promoting renewable energy. It must be noted, however, that most of the respondents were European, who have a great deal of experience with feed-in tariffs.

The **carbon market** is currently being negatively affected, however, in the longer term material carbon prices are expected, though with major regional differences, especially with the possibility of a robust federal cap-and-trade system in the US. Putting a significant price on carbon will help to level the playing field, which will steer investment away from fossil fuels and attract it to renewable energy.

In summary, there is reason to see a bright future for renewable energy in the long term. The year 2009 will be characterised by a mixture of consolidation and optimism. The clean energy sector should emerge strongly as a key component of a long-term stable low-carbon global economy, provided governments act now to build and strengthen the framework conditions to make that happen.

1 Introduction

What started as a credit crunch around the middle of 2007 developed rapidly from mid - 2008 into a financial and economic crisis. The insolvency of Lehman Brothers on 15 September 2008 and the subsequent bankruptcies of other well-known financial institutions triggered a domino effect, causing more banks to close, stock markets to tumble, and entire industries to stagger. Access to finance has become more difficult and expensive. In an attempt to keep the financial system from collapsing, governments and central banks in particular have stepped in with non-traditional measures and have reduced interest rates to almost zero.

The renewable energy sector was managing to withstand the credit crunch better than many other sectors through the summer of 2008, which was helped by high oil prices. But come September, it too suddenly started to feel the impact. Fear and risk-aversion began to infect the financial markets, making financing for clean energy projects hard to find. Clearly, the sector was not going to escape the financial crisis.

1.1 Purpose of the study

The purpose of this study is to gain a more differentiated picture of the impact of the global financial crisis on the renewable energy sector by determining changes and trends in investment flows for renewable energy technologies and companies as the cost of capital rises and access to credit becomes more difficult. It seeks to identify what these changes can mean for certain renewable energy technologies, for certain kinds of financing, and in certain regions, and how these shifts will alter the renewable energy landscape. Based on a two-track approach comprising empirical research and transaction-based data analysis, the study extracts the essence of the different aspects of the financial market and economic developments and draws conclusions as to whether and to what extent the current economic crisis might stifle RE market growth in both the short and the long term. Since investor confidence will be critical to continued growth, the study aims to capture the mood of some key players in the sector.

The study compares the personal perceptions and expectations of a sample of key representatives of commercial banks, investment institutions, renewable energy, infrastructure providers, and multilateral and bilateral financial institution with objective financial data and analysis provided by New Energy Finance. In other words, the study provides a view of what people in the business are thinking and what is actually happening.

2 Methodology

The study consists of two parts:

1. The latest authoritative figures and analysis of clean energy investment from research firm New Energy Finance Ltd., the world's most comprehensive database of investors and investments in clean energy.
2. The more "subjective" findings obtained through a survey conducted among targeted experts from commercial banks, investment companies, infrastructure providers, and multilateral and bilateral financial institutions.

Cross-references are made to determine where there are correlations or inconsistencies between the two bodies of findings.

2.1 Methods of data collection

Part 1. The first analysis is provided by New Energy Finance (NEF), a specialist provider of analysis to the world's leading investors in renewable energy, bio fuels, low-carbon technologies, and the carbon markets. NEF tracks deal flow in venture capital, private equity, mergers and acquisitions, public markets and asset finance all around the world.

All NEF figures in this report, unless otherwise credited, are based on the output of the Desktop database of New Energy Finance Desktop – an online portal to the world's most comprehensive database of investors and transactions in clean energy.

The New Energy Finance Desktop collates all organisations, projects and investments according to transaction type, sector, geography and timing. It covers 26,000 organisations (including start-ups, corporates, venture capital and private equity providers, banks and other investors), 15,000 projects and 10,000 transactions.

The following renewable energy projects are included: all biomass, geothermal and wind generation projects of more than 1MW, all hydro projects of between 0.5 and 50MW, all solar projects of more than 0.3MW, all marine energy projects, and all bio fuels projects with a capacity of 1million litres or more per year.

Where deal values are not disclosed, New Energy Finance assigns an estimated value based on comparable transactions. Deal values are rigorously back-checked and updated when further information is released about particular companies and projects. The statistics used are historic figures, showing confirmed / disclosed investment.

New Energy Finance continuously monitors investment in renewable energy and energy efficiency. This is a dynamic process: as the sector's visibility grows, information flow improves. New deals come to light and existing data is refined, meaning that historic figures are constantly updated.

Definitions

New Energy Finance tracks deals across the financing continuum, from R&D funding and venture capital for technology and early-stage companies through to public market financing for projects and mature companies. Investment categories are defined as follows:

Venture capital and private equity: all money invested by venture capital and private equity funds in the equity of companies developing renewable energy technology. Similar investment in companies setting up generating capacity through Special Purpose Vehicles is counted in the asset financing figure.

Public markets: all money invested in the equity of publicly quoted companies developing renewable energy technology and clean power generation. Investment in companies setting up generating capacity is included in the asset financing figure.

Asset financing: all money invested in renewable energy generation projects, whether from internal company balance sheets, from debt finance, or from equity finance. Excludes refinancings and short term construction loans.

Mergers and acquisitions: the value of existing equity purchased by new corporate buyers in companies developing renewable technology or operating renewable energy projects.

Part 2. A specially-designed standardised questionnaire was used to survey representatives of the financial and renewable energy sectors for the purpose of eliciting their perceptions, observations, and projections of the current and future developments of the financial crisis and its impact on the renewables market. The survey was conducted over the period from mid-January through end of March 2009. It was run online. Personal invitations to participate in the survey were sent by email. Only the invited person had access to the survey. This was to ensure that the target group responded personally rather than delegating the task to more junior staff who might not have the necessary experience and overview to be able to give representative responses.

The persons invited to respond to the survey, included decision-making level representatives of

- Infrastructure providers
- Commercial banks and investors in sustainable energy
- Multilateral and bilateral financial institutions

In total, 76 selected and invited experts participated in the survey. Of the total survey population, wind and solar industries were best represented, followed by hydro and bio fuel industries. 32 were commercial bankers or investors, 29 were infrastructure providers, and 13 were from a multilateral or bilateral financial institution.

The qualitative and quantitative analysis comprised univariate as well as multivariate analysis with the full dataset and subsets. To crosscheck the results, in-depth qualitative interviews were conducted with a few selected professionals

2.2 Limitations of the research

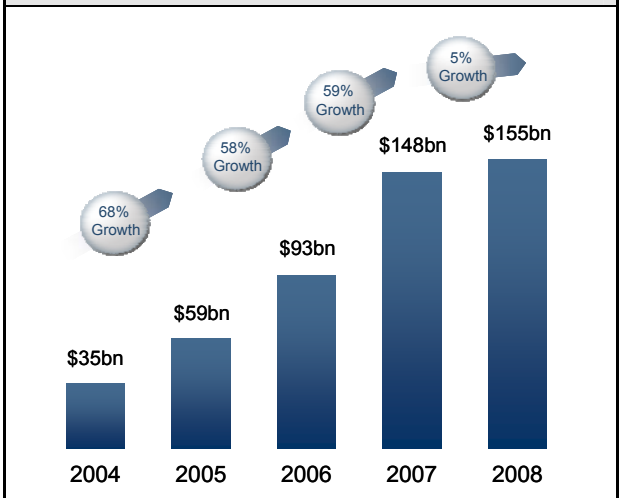
A significant part of the data was collected through a survey completed by a small and defined target group. As this form of research depends on voluntary participation, the responses may very well differ from the opinions of non-participants. Since the respondents are all involved in some way in the renewable energy business, there is a significant amount of bias leaning towards more optimism.

The number of participants and distribution of sectors and regions is small. In addition, responses are influenced by sector and country experience, which limits the perspective and makes the responses very subjective. Most of the respondents are from Europe and have very specific experience with renewable energy. Sector and regional aspects are taken into account in analysing the results.

3 Current Status of Clean Energy Investment

In 2008, clean energy resisted the credit crunch more successfully than many other sectors for much of the year, helped by sky-high oil prices. But it suddenly felt the impact from September onwards. Although new investment in the sector grew to $155bn last year, up modestly from $148bn in 2007 (see Figure 1), investment in the second half of the year was down 17% on the first half, and down 23% on the final six months of 2007. In Q1 (first quarter) 2009 third party new investment fell to $13.3bn, the lowest quarterly value since Q1 2006 (also see Questionnaire results in Section 4, Question 2c).

Figure 1: Global Clean Energy Investment, 2004-2008: $ billion



Estimated total new investment only. Grossed-up and buffered values are based on disclosed deals. Adjusted for reinvestment. Geared re-investment assumes a 1 year lag between VC/PE/Public Markets funds raised and re-investment in projects

Source: New Energy Finance

Clean energy share prices fell 61% in 2008, more sharply than the overall stock market. Although there has been a tentative rally since the low of last November, it has made up only a fraction of the lost ground. One of the reasons clean energy share prices under-performed in late 2008 was a general flight from risk and from growth sectors. Investor mood will be critical to continued growth.

Over the past few years the cost of clean energy has been unnaturally high, defying the experience curve because of supply-chain bottlenecks and soaring commodity prices. The investment surge of recent years was just starting to ease the bottlenecks when the credit crunch arrived to put the squeeze on demand. The result has been a dramatic and permanent change to the dynamics of the industry. On the supply side, prices are falling towards marginal costs, and several players will consolidate. On the demand side, there will be a much clearer focus on sectors, geographies and business models that work.

The drivers that propelled the sector along so dramatically for the past five years are still at work – climate change, energy insecurity, fossil fuel depletion, new technologies etc. There is also a strong core of demand for clean energy based on firm mandates: renewable portfolio standards, renewable fuel standards, building codes, efficiency regulations and the like. There are also markets where clean energy can provide strong economic returns, even in a period of lower energy prices.

Central bank rates are at historic lows, but banks are still too worried about solvency to lend. When lending does start to flow, clean energy projects offer a reliable stream of

revenues from good counter-parties, the utilities, and should therefore be appealing to bank lending, especially those banks that have historically financed projects.

The year 2009 should see the most significant breakthrough in international climate negotiations since Rio in 1992, especially as the US has signalled its intention to play a leading role in the negotiations leading up to Copenhagen in December (also see Questionnaire results in Section 4, Question 4l).

However, in the short term the main impetus will have to come from government policies. Since the economic crisis broke, many of the large developed economies have announced measures designed to stimulate investment in renewable energy and energy efficiency (also see Questionnaire results, Question 4a & 4b). The leading governments have made committed $155bn to clean energy within their various stimulus packages, but there has been a large divergence among countries in the generosity and clarity of their measures (also see Questionnaire results, Question 4c, 4d & 4l).

Announced initiatives include $588m for research and development in energy efficiency and climate protection research in Germany; a 10-year extension to the Renewables Obligation in the UK, providing some extra comfort for offshore wind project developers; the European Union-wide €3.5bn financial package which includes support for offshore wind projects and carbon capture and storage (CCS); a three-year extension of the Production Tax Credit for wind in the US, and the introduction of a Department of Treasury grant for renewable energy projects; and new €100m funds in Ireland to support environment-friendly investment and innovations in clean energy.

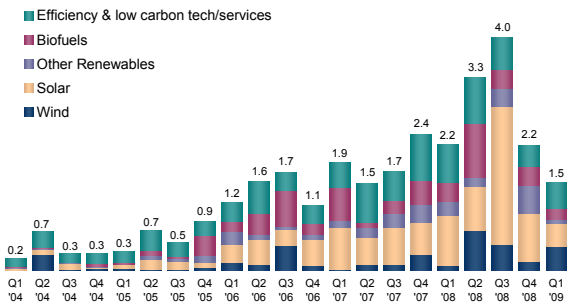
In summary, 2009 will be characterised by a mixture of consolidation and optimism. However, the clean energy sector should emerge strongly as a key component of a long-term stable, low-carbon global economy (also see Questionnaire results in Section 4, Question 2e).

3.1 Venture Capital & Private Equity Investment

While difficult economic conditions led to the contraction of most asset classes in 2008, venture capital (VC) and private equity (PE) investment held strong with $32.4bn of investment in companies and projects, an increase of 21% on 2007. Record investment volumes in H1(first half) 2008 preceded surprisingly soft falls in H2 2008 despite rampant global destruction of wealth, difficulty accessing debt, and low investor confidence due to the global financial crisis. The downturn in public market investment did not extend to total private capital investment in early stage technology and expansion capital investment as private investment in companies grew by 60% from $11.1bn to $17.7bn. Two-thirds of this investment was new equity.

Encouraged by strong long-term fundamentals and investor enthusiasm the number of clean energy, environmental/cleantech, and & climate change focused funds also peaked in 2008 totalling $7.9bn in funds raised, despite the lack of investor exits.

Figure 2: Clean Energy Venture Capital & Private Equity New Investment in Companies by Sector, 2005 - 2009: $ billion



Estimated total new investment only. Grossed-up and buffered values are based on disclosed deals.

Source: New Energy Finance

2009 has started slowly with only $1.8bn of VC/PE investment in Q1 (see Figure 2), a trend consistent with overall venture investment which has just experienced its worse quarter since 1997. Venture capital and private equity investors in companies are retrenching, rationing their remaining capital, and waiting out the economic storm (also see Questionnaire results, Question 1a). The IPO window will remain closed at least through H1 2009 and potential acquirers will continue to be too busy shoring up their respective balance sheets limiting potential investor exits. There will be a severe winnowing of portfolio companies as funds focus on potential winners and let clones and 'me-toos' die. There will also be a focus on less capital-intensive models, and a flight to quality among funds, with only the best being able to raise money.

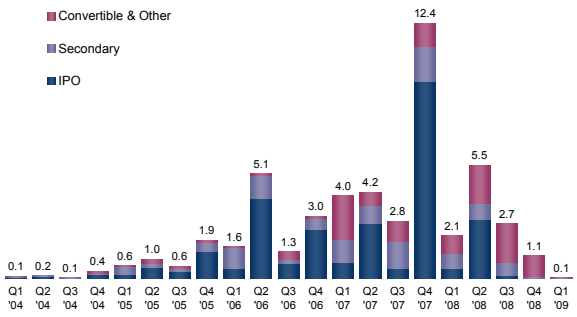
3.2 Public Market Investment

In 2008 investment in clean energy firms via the world's stock markets tumbled 51% to $11.4bn, from $23.4bn in 2007. Activity noticeably slowed in the second half of 2008, and the public markets have effectively been closed for clean energy IPOs and fund raising so far in 2009 - only $100m was raised in Q1 (see Figure 3) - resulting in a backlog of deals waiting for conditions to improve. Overall IPO fund raising in Q1 was 97% down on the same quarter of 2007. By mid-February 2009, there were known to be 39 solar companies looking to raise funds via the public markets, although some of these are likely to end up in the hands of Asian conglomerates or cash-rich solar companies before long.

Fewer companies chose to make their debut on the public markets. In 2008, 18 companies floated on the world's main exchanges, raising a total of $3.6bn. This was 30 fewer than during 2007, when 48 clean energy firms completed IPOs, raising $13.6bn. Solar dominated public market activity, taking over from wind, which led the field in 2007, raising $6.4bn on the world's stock markets in 2008. This represented 56% of the clean energy total, more than all other clean energy sectors combined.

The WilderHill New Energy Global Innovation Index (NEX), a benchmark index of 88 clean energy stocks, tells the same story (see Fig. 4). In the first two weeks of 2008, it lost 23.4% of its value, falling from 457.6, very near its all-time high, to 350.5. It later staged a recovery and seemed to defy gravity for much of the spring and summer, trading mainly in the 350-450 range, before declining again in the final quarter of 2008. However, over the last six years it has still outperformed the NASDAQ and S&P indices.

Figure 3: Clean Energy Public Market Investment by Type, 2005 - 2009: $ billion



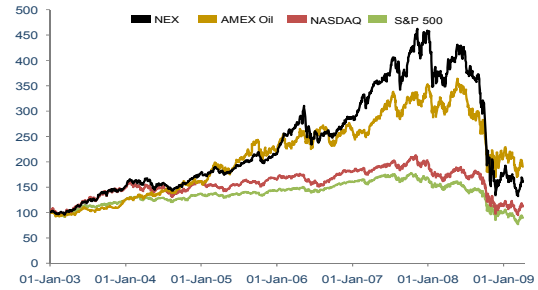
Estimated total new investment only. Grossed-up and buffered values are based on disclosed deals.

Source: New Energy Finance

There are three reasons why the sector has been hit so hard. First, with energy prices collapsing by 70%, clean energy stocks were bound to suffer – they are, after all, energy companies. Second, investors shunned stocks with any sort of technology or execution risk in favour of longer-established businesses. Third, in an era of sharply constrained credit, investors penalised companies with high capital requirements – even the more established, asset-based clean energy companies, which carry no technology risk, are deemed to be capital-hungry because they are high-growth (also see Questionnaire results in Section 4, Question 1a).

Nevertheless, in the final quarter of 2008, solar companies still accounted for half of the much-depleted supply of fund-raising transactions, and just over half of all funds raised on the public markets. However, much of this money was raised in a single deal. In December 2008, German PV module manufacturer Conergy raised $503m in a deeply discounted rights issue. With its underlying share price falling fast, investor appetite was severely weakened, leaving underwriter Dresdner Bank holding a large tranche of the shares.

Figure 4: Wilderhill Global Innovation Index (NEX) vs. other indices: 2003 - 2009



Index Values as of 23 February 2009; AMEX Oil, NASDAQ and S&P 500 rebased to 100 on 1 Jan 2003.

Source: New Energy Finance

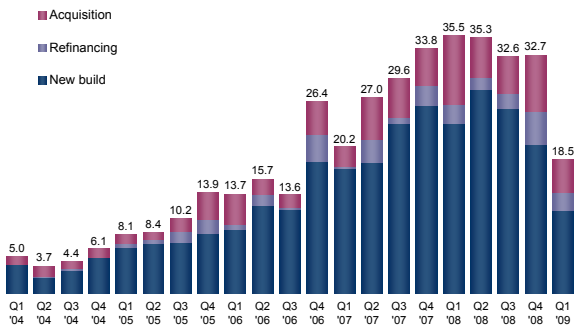
3.3 Asset Finance Investment

Investment in renewable energy power projects slowed right down in the final three months of 2008. The number of deals fell to 207, the lowest number for more than two years, and the volume of new investment (excluding refinancings and project acquisitions) fell to $20.5bn, down 21% from Q3 2008 and Q4 2007 (see Figure 5).

The trend worsened in Q1 2009, with only 88 deals completed, raising $11.5bn in new build financing (also see Questionnaire results, Questions 1a & 1b). The largest sectors for asset financings are wind, solar and bio fuels (see Fig. 6). The Q4 and Q1 figures mostly

indicate the deals to which banks were already committed and for which money had already been set aside, before the global financial crisis really took hold in late 2008/early 2009. A common view is that it will be the middle of this year before the real impact on the industry is known (also see Questionnaire results, Question 5).

Figure 5: Clean Energy Asset Finance Investment by Financing Type, 2005 - 2009: $ billion



Estimated new investment, refinancings and acquisitions. Grossed-up and buffered values are based on disclosed deals

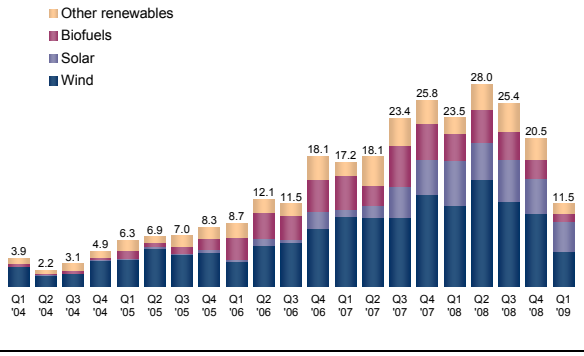
Source: New Energy Finance

The worsening situation during the fourth quarter forced many developers and sponsors to abandon deals. Average deal size increased to $131m in Q1 2009 and $178m in Q4 2008, up from $113m in Q3 2008 and $81.1m during the final quarter of 2007. This indicates that larger transactions stayed the course more successfully than smaller deals. Bigger deals generally have the security of larger, more creditworthy developers and are naturally more likely to reach completion under difficult circumstances than smaller deals with less well-established counterparties.

Relationships with banks are now of paramount importance to developers, especially given the shift away from on-balance-sheet and syndicated equity financing to project finance deals. Anecdotal evidence strongly suggests that banks have almost stopped lending altogether, with fresh money only being lent to corporates with strong balance sheets with whom the banks have very close relationships. However, clean energy is not being singled out as banks are avoiding lending to any industry whilst they restructure. In Q4 2008 and Q1 2009 many banks have been looking at their deposit base, at their capital base, and the value of their loan books, so they can work out how much they can lend.

A less significant impact of the financial crisis is that the borrowing spreads have risen. Spreads for an onshore wind farm in Western Europe have increased to about 225 points over inter-bank rates (e.g. Libor and Euribor) from an average of about 170bp in the second half of 2008 and just over 100bp in the first half of last year. In November, for instance, the EUR 545m ($695m) 16-year Castrel financing, which backs FCC's acquisition of Babcock & Brown Wind's 412MW wind portfolio in Spain, was priced at 190bp over Euribor. Meanwhile, Caxia Capital's EUR 140m ($187m) acquisition of Babcock & Brown's 102MW Arganil greenfield assets was priced at 230-270bp over Euribor with a 150bp upfront fee.

Figure 6: Clean Energy Asst Finance New Investment by Sector, 2005 - 2009: $ billion



Estimated total new investment only. Grossed-up and buffered values are based on disclosed deals.

Source: New Energy Finance

There is considerable variation in the rates that banks charge, depending on the location, the size of the project and the technology used. Onshore wind projects, for example, will enjoy a smaller spread than offshore, and solar PV a smaller spread than solar thermal (also see Questionnaire results, Question 1e). Offsetting these increases are sharp declines in official interest rates in recent months, with the European Central Bank rate having fallen to 2%, the Bank of England rate now down at 0.5% and those in the US approaching zero.

Although the cost of borrowing has increased, it has not been crippling, with net increases in borrowing rates of 50-100bps which strong projects should be able to stand. More significantly, the banks have started to shorten the tenor of deals in recent months. Bankers report that while some of their peers are still prepared to lend for 15 years (compared with 18-20 years in 2007), other banks are offering much shorter deals of five years or less, placing the refinancing risk on the sponsors (also see Questionnaire results, Question 1e). Banks are also insisting on higher upfront fees and that the proportion of debt to equity is reduced (also see Questionnaire results in Section 4, Question 1d).

New Energy Finance recently surveyed a number of European banks and received assurances from Royal Bank of Scotland, Rabobank, Landesbank Baden-Württemberg and the Bank of Scotland that they remain committed to the sector. Renewable energy projects are seen as stable and a growth area (also see Questionnaire results in Section 4, Question 3a & 3b). In addition, there appear to have been few redundancies in the utilities and project finance departments of banks, whereas corporate finance and leveraged security departments have been haemorrhaging people in the last few months (also see Questionnaire results in Section 4, Question 1m).

In addition, the price of commodities that are essential to renewable energy projects such as silicon for solar panels and steel for wind turbines has come down, as has the cost of

shipping (also see Questionnaire results, Question 1i). Conversely, lower oil and gas prices have made it harder for renewable energy sources to compete, (also see Questionnaire results, Questions 1i) however, the economics of experience curves and oil and gas depletion are working powerfully to level the playing field. Clean energy technologies are becoming cheaper as they reach scale and achieve higher levels of operating experience. Also the policy framework has been placed on a surer footing in Europe and the arrival of a new renewables-friendly administration in the White House has added much needed support.

Banks in different countries will have different views on lending to renewable projects. Those in the UK have been hardest hit in terms of lending. RBS, for instance, had 80% of its business outside the UK, but now that the government owns close to 70% of the bank its focus is going to be on British business. Germany's economic minister meanwhile has said he wants Commerzbank, which received €18 billion of fresh capital from the government, to support German companies in return. This will have a knock-on effect as projects, particularly larger ones, rely on co-operation (also see Questionnaire results in Section 4, Question 1l).

The solar industry is potentially on the ascendant in the US, whilst many countries in Europe are pausing for breath after a period of intense growth. A cut in the solar feed-in tariffs in Germany, Italy and the Czech Republic at the start of last year prompted a frenzy of deal-making in the final months of 2008. Meanwhile, Spain's solar market is set for a dramatic slowdown as the national cap for 2009 is set at 500MW, down from 2.6GW installed in 2008.

Lending is expected to resume in the second half of 2009, but in the meantime investment in renewable power projects will fall, as seen in Q1 2009. Much depends on when the banks feel strong enough to lend again. Many are in a precarious position and face further big write-offs this year on commercial and residential real estate, private equity-owned companies, mortgage-backed securities and a host of other assets (also see Questionnaire results, Question 1h). Governments have already taken large if not majority stakes in many leading banks in the UK, Ireland and Europe and more state ownership looks inevitable. Their policies will be crucial to the speed of recovery and, importantly for this sector, they are now in a position to pressure the banks to lend to renewable energy.

3.4 Q1 2009 Sector Overview

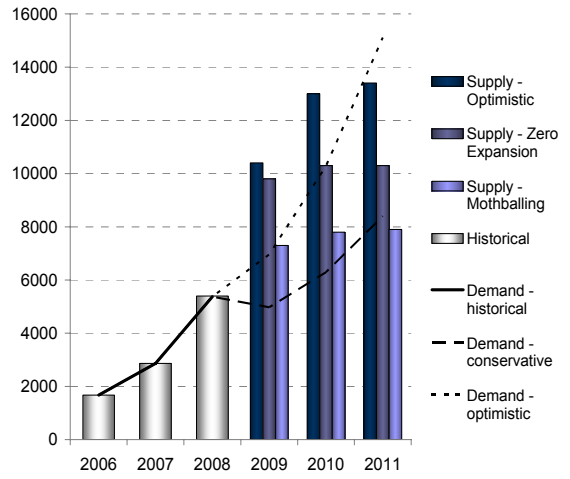
Solar

The dynamics defining the PV market are shifting rapidly. The days of a silicon bottleneck are now a distant memory as demand has fallen and a slew of new capacity has come on line. As a result, silicon and module supply is increasing (see Figure 7), and module prices are expected to fall by 40% from USD4/W to USD2.40/W by the end of 2009. Falling prices are hurting manufacturers right along the silicon-to-module value chain, yet on the other hand, they have triggered a sharp pick-up in demand from project developers and for rooftop systems. Correspondingly, capex for solar projects will fall significantly in 2009, while feed-in tariffs and other government support mechanisms remain stable, thereby

increasing returns (also see Questionnaire results, Question 4e & 4f). Difficulties in accessing capital for the traditionally fragmented development industry will create acquisition and financing opportunities for utilities and corporates (also see Questionnaire results, Question 2a & 2b).

Those ready to capitalise on the upturn include German chemical giant Wacker Chemie, a big supplier of silicon to both the solar power and semiconductor industries. The company recently announced that it has bought 550 acres of land in Tennessee with a view to building a $1bn olysilicon factory. The move marks the company's first foray into the US, a market where a new confidence seems to be taking hold. The flawed tax credit system has recently been repaired by a Treasury programme that promises to pay cash instead of tax credits (which are no longer in demand due to the sharp fall in profits at many financial institutions). Utilities are also now eligible for the Investment Tax Credit (ITC) and have been stepping up direct investment in solar projects, for example Pacific Gas & Electric has announced a 500MW PV installation programme covering northern and central California, while New Jersey's Public Service Electric & Gas filed for approval to add 120MW of PV worth $773m throughout its service area.

Figure 7: PV module supply/demand expectations, 2006-2011: MW



Note: Demand/Supply – Supply based on discounted announcement supply model from NEF Desktop data, using different assumptions by scenario. Demand based on a scrutinised build-up of all major markets. Updated 25 February 2009

Source: New Energy Finance

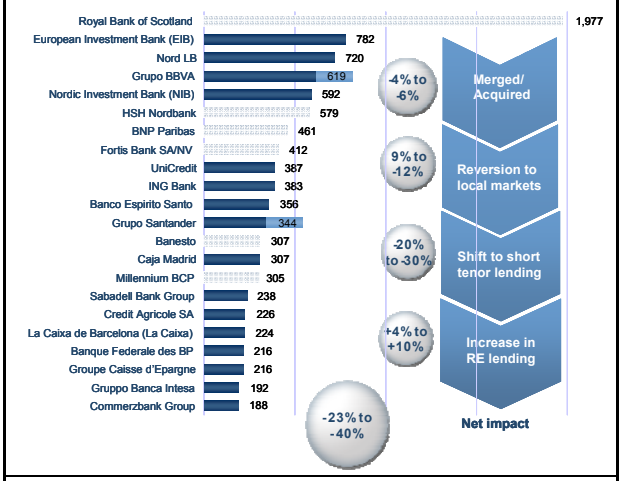
Acquisitions of project pipelines have also been on the increase as a range of companies – from renewable power generators to module manufacturers – have sought to increase their market share. These include Spain's Fotowatio, who is buying nearly all of MMA Renewable Ventures' solar assets from beleaguered parent MuniMae for $19.7m; third-party PV financier Recurrent Energy, who has acquired a PV project pipeline representing a potential nameplate capacity of roughly 350MW from Chicago-based developer UPC Solar for an undisclosed price; and Arizona-based thin-film module maker First Solar who has bought OptiSolar's project pipeline, including the planned 550MW Topaz project in California and 21 projects planned for Ontario, which is on the verge of approving aggressive new solar feed-in tariffs that compare with the most generous regimes in Europe.

Spain's solar thermal market is being carried forward at a good pace by a number of well-resourced players. Ibereolica has agreed finance for two of eight proposed 50MW parabolic trough solar projects in Extremadura and Andalucia, and Acciona is also building a series of five 50MW parabolic trough plants.

Wind

The biggest problem facing the capital-intensive wind sector is that debt financing is still scarce. While banks generally want to lend to renewable energy, many are finding it hard to agree fresh credit packages, because their own cost of funding has gone up or because their balance sheets are still in intensive care. Developers are therefore having increasing difficulty reaching financial close on their projects due to a marked decrease in the availability of project debt. However, this could provide investment opportunities for liquid, fast-moving buyers, such as utilities and corporates (also see Questionnaire results, Question 2a & 2b). Asset prices could fall in 2009 and there could be considerably less competition for these assets.

Figure 8: Top wind project finance lenders to EU-27 2007 and 2008, and reduction in 10-year debt availability: EURm & %



Note: Project finance lending converted to EUR at constant rate of 0.78968 EUR to USD. Banks shaded light blue have either been merged or acquired (e.g. Fortis), reverted to their local markets (e.g. HSH Nordbank) or shift to short term tenor lending e.g. RBS, BNP Paribas)

Source: New Energy Finance

New Energy Finance estimates that the leading European wind project financiers provided €10 billion of lending to the wind sector in 2007/8. In 2009, however, 10-year debt availability has reduced by between 23% and 40% (see Figure 8). Some lenders, such as Fortis Bank, have been merged or acquired, whilst others have reverted to their local markets (e.g. HSH Nordbank) or shifted to short term tenor lending (e.g. RBS, BNP Paribas). A couple of lenders (Grupo BBVA and Grupo Santander) have increased their renewable energy lending.

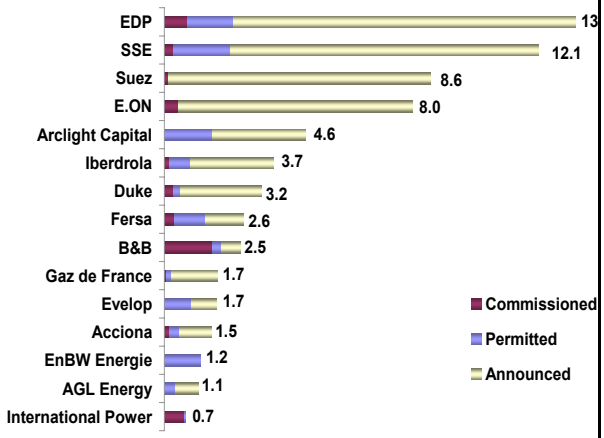
Those companies that manage to arrange financing – generally only strong developers and manufacturers with whom the lenders have a very close relationship – have found it more expensive relative to official interest rates in recent months. By February 2009, the average interest rate charged to developers of a European onshore wind or solar PV project was around 225 basis points over Euribor, compared to just 80 basis points when debt finance was plentiful in 2007. However, there are signs of a thaw. A recent auction of a wind farm developed by German firm Plambeck was very well attended and fetched a price that, according to one attendee, was "as high as it gets in Germany".

The shortage of debt finance has meant there is less demand for wind turbines, and prices look set to fall this year. Clipper Windpower anticipates a 15% to 20% decrease in 2009 production compared with 2008, and shed 90 jobs in January this year, some 11% of its total workforce. The company blamed customers delaying orders "as a result of their inability to find finance". Denmark-based turbine maker Siemens Wind Power also said it

would have to trim its workforce by up to 400 and lower production levels as credit conditions continue to bite (also see Questionnaire results, Question 1m).

Acquisitions have been in target growth markets of the major utilities such as the US, France, UK and CEE. The focus of this activity has changed in 2007-2008 from EU markets towards the US (see Figure 9). The sum of all acquisitions in EU markets (nearly 35GW) is significantly lower than that of the US (41GW).

Figure 9: Top 15 buyers of wind assets in 2007-2008: GW



Note: Includes all acquisitions by subsidiary companies up to October 2008.

Source: New Energy Finance

Planning progress in the offshore sector, for example in Sweden and the UK, is being translated into big orders for wind turbines. German turbine manufacturer REpower Systems has agreed to supply RWE Innogy, the renewables arm of RWE, with 250 of its offshore turbines, and Siemens' has a preliminary agreement to make up to 500 3.6MW turbines for Danish utility Dong.

Undoubtedly the biggest boon to the wind industry in recent months is the shake-up of the US renewable subsidy regime initiated by President Osama's $787bn stimulus package. By late 2008 the system of tax credits used to incentives renewable energy projects had become all but useless. The market for tax equity investments, which is used to monetise the tax credits that developers themselves cannot use, had shrunk from around two dozen active participants to just four or five players with substantially reduced appetite for investment.

The policies contained in the American Recovery and Reinvestment Act turns the current, complex project financing structure on its head and dramatically expands the options available to wind developers. It extends the Production Tax Credit (PTC) for three years providing unprecedented long-term certainty, and offers developers of PTC-eligible projects the option to exploit the generally more favourable Investment Tax Credit. The law also extends through to the end of 2009 the 'bonus' 50% depreciation, which allows developers to expense a major portion of the projects' capital costs in the first year. Perhaps the most significant measure is the introduction of a cash grant in lieu of tax credits, thus opening up the US to traditional project finance structures employed in Europe and elsewhere that involve simple debt and equity. As the PTC and ITC still run into the general problem of a lack of tax appetite from traditional tax equity investors, the grant programme is a critical change that will do most to unfreeze the market.

While overall scarcity of capital in the broader market is a key issue, the new regime will bring a larger pool of lenders to the table. Even though larger, better capitalised developers will continue to dominate in a capital-constrained environment, the legislation

potentially breathes new hope into small and midsized developers who have been hardest hit by the credit squeeze.

Bio fuels

The international financial crisis is taking a heavy toll on Brazil's formerly unstoppable ethanol and sugarcane industry. The cheap and plentiful US dollar-denominated debt that once fuelled tremendous growth is now crippling many producers as the value of the Brazilian real has tumbled against the dollar. In addition, a shortage of credit has halted many an expansion plan, and there are reports of companies unable to raise finance to cover the cost of day-to-day operations. New Energy Finance research shows that investment in ethanol producing assets fell by half in Q4 2008 and is expected to fall much further in the first quarter of 2009.

The country's national development bank (BNDES) has responded by increasing the volume of money it will lend. This year it has allocated a BRL 7 billion (USD 3.1 billion) credit line for new sugar and ethanol mill financings, up 8% from BRL 6 billion in 2008. While this extra money is very welcome, it is becoming harder to access. This is mainly because there is a growing scarcity of commercial banks willing to shoulder the burden of new debt packages alongside BNDES and its regional counterpart the Inter-American Development Bank (IADB), both of which mandate that a portion of the risk of new project financings must be taken by commercial banks.

A lack of available credit has not only thrown a spanner into the works of new ethanol project financings, it has also made it difficult for some companies to pay workers' salaries and repair plants. As a consequence, a number of such companies have either sold or bartered their stock of ethanol, thereby pushing down prices and leading to fears of a shortage for the start of the next season. In an effort to remedy this situation the Brazilian minister of agriculture Reinhold Stephan's recently introduced a new BRL 2.5bn ($1.1bn) credit line to encourage sugar and ethanol mills to build up their stock of the fuel.

The economic downturn has also increased interest in the acquisition of distressed assets. On 13 March 2009, Brazil's largest sugar and ethanol producer Cowan announced plans to buy major sugarcane producer Nova America from Rezoned Barossa for BRL 1.58bn ($685m), which would give it control of 10.5% of Brazil's sugarcane market and 9.5% of its ethanol production capacity.

The badly ailing US ethanol sector also has its fair share of distressed assets. Bankrupt ethanol producer Vera Sun Energy has accepted bids totalling $993m from Valero Energy, West LB, Dougherty Funding, and Amstar Financial Services to buy all 16 of its ethanol plants. Oil company Valero Energy successfully bid for seven Vera Sun plants and one future development site for a total of $477m, or the equivalent of $0.61 per gallon of installed capacity - compared to the roughly $1/gallon it cost to build a Greenfield plant at the start of the ethanol excitement in 2006 or the $2/gallon it cost at the height of the boom.

In March, the European Commission imposed and made effective immediately "anti-dumping" and "anti-subsidy" duties on imports of US bio diesel. According to the

European Bio diesel Board, US producers rely on the market across the Atlantic for some 80% of their sales. For European producers however it will be something of a relief, although the industry is in a parlous state after two years of problems with over-capacity, volatile feedstock prices and low-cost competition from the Americas. There will also be wider concern that the new European tariff could trigger retaliatory action of some kind in the US in a different product area.

Biomass & Waste-to-Energy

The biomass sector has not made the great strides seen in wind and solar, however, occasionally it appears to take a great leap forward. In February 2009 Swedish power giant Waterfall announced that it plans to spend DKK 5bn ($861m) rebuilding three coal-fired power plants in Denmark to burn biomass, replacing up to 0.72 million tonnes of coal per year. A similar proposal by Drab, operator of the UK's largest coal-fired power station, involves building three 300MW biomass power stations in partnership with Siemens at a total cost of GBP 2bn ($2.8bn).

Waste gasification is also attracting interest in the UK and US. UK-based waste-to-energy developer Waste2Tricity has launched a bid to build a GBP 135m ($199m) gasification and fuel cell plant in London, and US based Zen-Gen raised $20m in its second round of financing to fund commercialisation of its waste-to-synthetic gas process.

In Germany the new EEG environmental subsidy package has scaled back support for grouped small-scale biogas installations, threatening the viability of some projects. Under the new rules, which were rolled out in January this year, several small plants built next to each other are considered as one facility and thus will receive a smaller feed-in tariff per kWh.

It is thought that about 250 projects are likely to be affected by the amendment, which is also valid for already-commissioned plants, not only new-builds. One project which will be seriously affected is locally-based biogas specialist Navarro's 20MW Pinking. It comprises around 40 separate fomenters, which aims to feed into the natural gas grid, as opposed to burning the fermented output directly for electricity. The project will require an upfront investment of around €100m, but now stands to receive 45% less in revenue from government subsidy. The project belongs to 5,600 individual small investors.

Carbon Markets

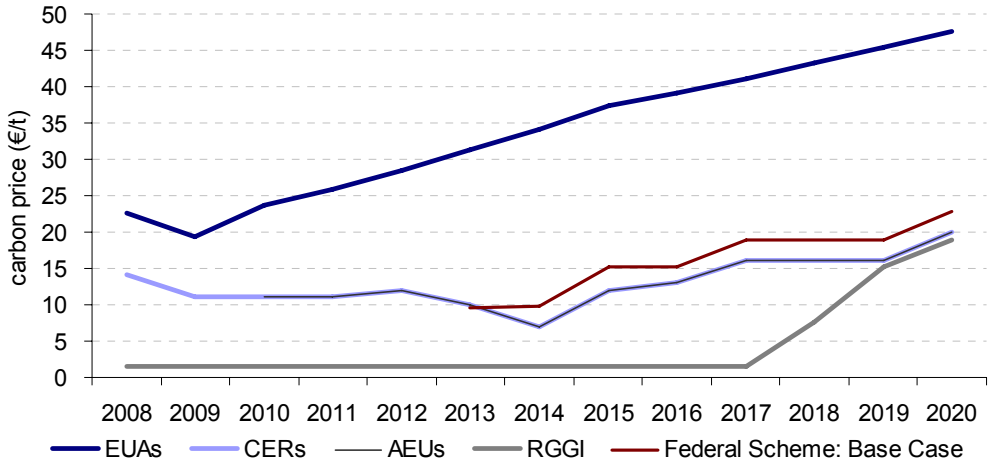
In spite of the gloomy economic conditions, the international community still appears to be committed to tackling climate change. Further progress on finding a successor to Kyoto is likely at Copenhagen in December 2009, and although this may not result in an all-encompassing international agreement, it may well provide the framework to support unilateral emission reduction commitments and trading schemes. In time, these schemes could easily merge into a new global carbon market.

Long-term commitments to tackling emissions growth will not only stem from the meeting in Copenhagen this year. Unilaterally the EU and Australia are putting in place legislation to implement emission reduction targets extending to 2020, supported by cap and trade

legislation. President Osama's commitment to investing in clean energy, energy efficiency and renewable energy is also likely to drive the US to implement some form of climate change legislation.

That said, despite the upbeat political rhetoric, such decisions need political capital at a time when politicians are more preoccupied with protecting jobs than saving the planet. The level of ambition in Australian and US emissions targets has been watered down for the time being with a view to reducing compliance costs.

Figure 10: Carbon credit price projections from fundamentals (€/tCO2)



Source: New Energy Finance

Overall, New Energy Finance expects material carbon prices for the foreseeable future, and multiple carbon prices being created by the presence of individual regional schemes (see Figure 10). The highest prices are likely to continue to be seen in Europe, with lower prices in Australia and on the global carbon market. The US market is also likely to have relatively low prices, of the order of €10-20/tCO2 under a federal programme.

At the current time, the developing world should continue to benefit from carbon emissions trading as it will remain a source of emission credits, while it is unlikely to take on any form of hard targets in the near future. (Also see Questionnaire results, Question 4h - k).

4 Survey results

The primary research was conducted using a structured survey targeting a range of key actors in the renewable energy and the finance sectors. To cross-check the results, in-depth qualitative interviews were held with key representatives of the sustainable energy finance sector. Where applicable, a "reality check" was done on the survey responses by cross-referencing the data and analysis from New Energy Finance in order to determine whether the perceptions and experience of the participants confirm or contradict the objective data. For questions asking respondents to predict a future event (e.g. carbon price in 2020), a reality check was not possible and therefore no conclusion could be drawn.

The quantitative analysis comprised university as well as multivariate analysis with the full datasets and subsets.

The questions were divided into four groups:

1. Finance flow,
2. Losers and winners,
3. Regional impacts, and
4. Policy and regulations.

The questionnaire can be found in Annex 1.

Presentation of the survey results[1]

1. Finance flows

Question 1a: Will investment focus on mature technologies rather than innovation?

Reason for the question

This question is based on the assumption that due to the financial crisis, primarily lower-risk, more mature sectors will attract investment.

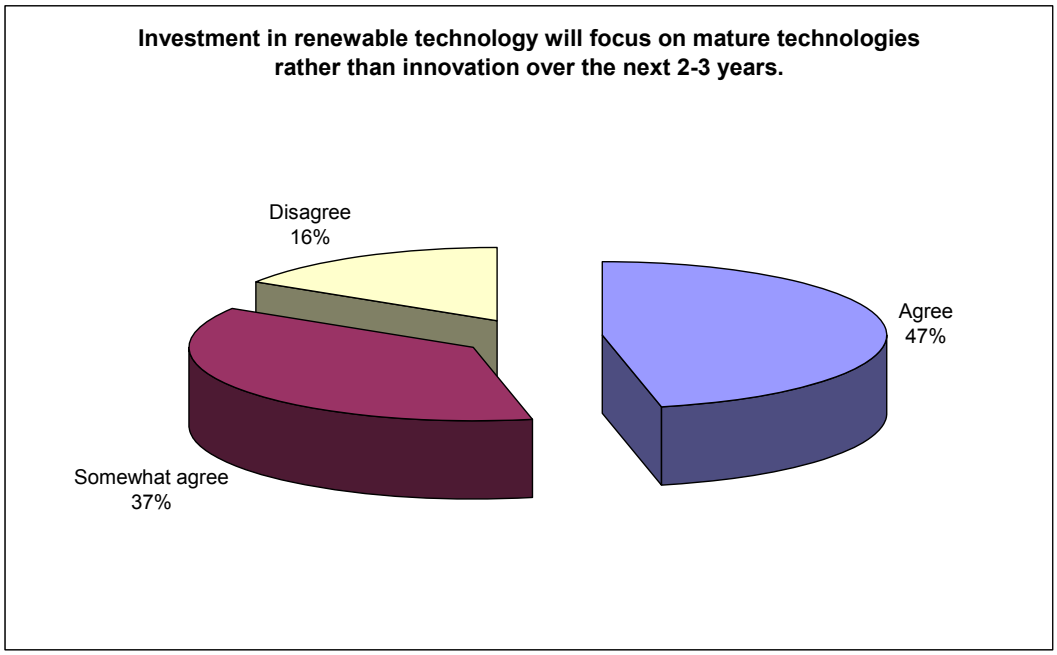
Result of the survey

Asked whether investment in RE in the short term (2-3 years) will focus on mature technologies rather than on innovation, the majority (84%) responded that they expect

[1] Some of the survey questions have not been included in the analysis, as the responses indicate that not all the respondents understood the question the same way, or because the question had lost relevance since the beginning of the survey period.

investors to focus less on innovation and more on established technologies. However, 37% of the participants only somewhat agreed, while 16% did not agree. 33% of the respondents who did not agree are infrastructure providers and 50% came from the private banking and investor sector.

Figure 11: Question 1a: Will investment in renewable technology focus on mature technologies rather than innovation over the next 2-3 years?



Reality check

Investment in RE power projects slowed right down in the final three months of 2008. The number of deals fell to 152, the lowest number for more than two years, and the volume of investment (including refinancing and project acquisitions) fell to $27.2bn, down 13% from Q3 2008 and off a quarter from Q4 2007. The trend worsened in Q1 2009, with only $11.5bn raised in new build financing, and only 88 deals completed. The most mature technologies – wind, solar and bio fuels – accounted for over 85% of new investment in Q4 and Q1. The Q4 and Q1 figures mostly indicate the deals to which banks were already committed and for which money had already been set aside before the global financial crisis really took hold in late 2008/early 2009.

Whilst the most mature technologies continue to attract asset finance investment – albeit at lower levels than previously seen – new and emerging technologies have received substantial support from venture capital and private equity investors. In fact, VC and PE investment in companies increased by 60% from $11.1bn in 2007 to $17.7bn in 2008. The leading technologies for VC investment were thin-film solar, energy efficiency and next generation bio fuels. The year 2009 has started slowly with only $1.8bn of VC/PE investment in Q1. Venture capital and private equity investors in companies are retrenching, rationing their remaining capital, and waiting out the economic storm.

Conclusion

In volume terms, investment is focused on mature technologies, such as wind, solar and bio fuels, but mainly because the roll-out of these technologies requires large amounts of capital. The most promising new and emerging technologies are still receiving investment, albeit at a smaller scale, as they are at an earlier stage in their development lifecycle. It is therefore difficult to make appropriate comparisons between mature and innovative technologies.

Question 1b: What will happen to project finance due to banks having less liquidity?

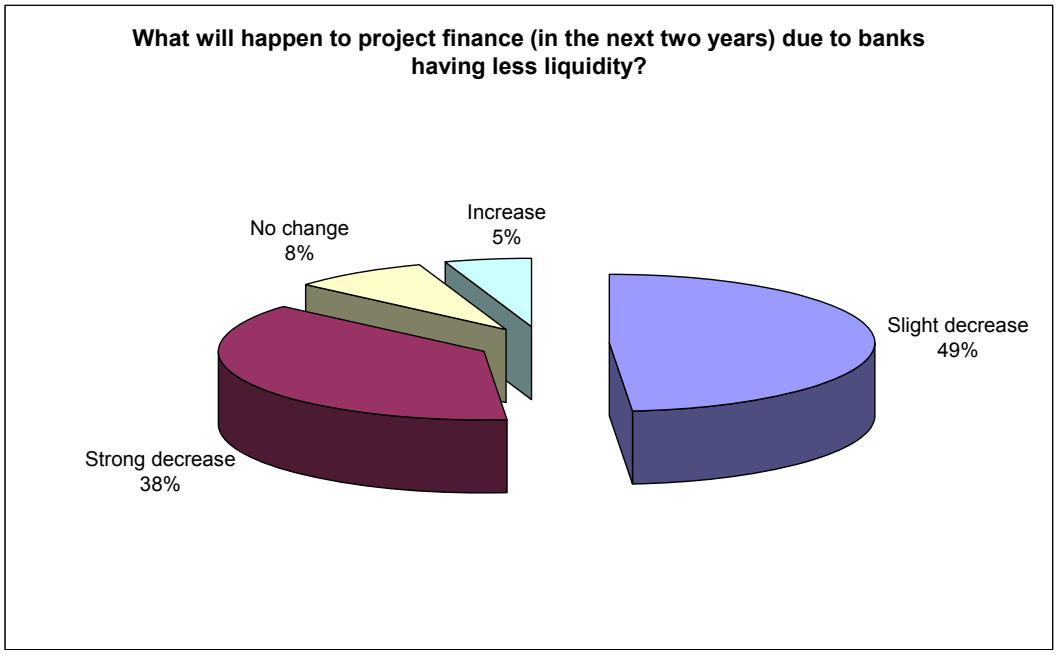
Reason for the question

Most renewable energy projects are debt financed and the shortage of liquidity is expected to have a big impact on the renewable energy sector as a whole.

Result of the survey

According to the survey responses, renewable energy projects (over the next 2 years) will be negatively affected by the downturn in lending due to liquidity problems. 38% of the respondents predict a strong decrease and 49% a slight decrease in project finance. 33% of the respondents who expect there will be no change came from the private banking and investment sector.

Figure 12: Question 1b: What will happen to project finance (in the next two years) due to banks having less liquidity?



Reality check

The worsening financial situation during the fourth quarter forced many developers and sponsors to abandon deals. Although the number of completed deals fell, the average deal size increased to $131m in Q1 2009 and $178m in Q4 2008, up from $113m in Q3 2008 and $81.1m in Q4 2007. This indicates that larger transactions stayed the course more successfully than smaller deals. Bigger deals generally have the security of larger, more creditworthy developers and are naturally more likely to reach completion under difficult circumstances than smaller deals with less well-established counterparties.

Conclusion

The level of project finance is certainly decreasing, but a number of transactions have still been completed in the last six months. The onus is now very much on the quality and track record of projects and their participants. The long-term impact may be positive, as the quality of the projects will be under higher scrutiny, but for many projects this new situation means simply that they will not materialise.

Question 1e: How does risk perception change compared to basic corporate lending?

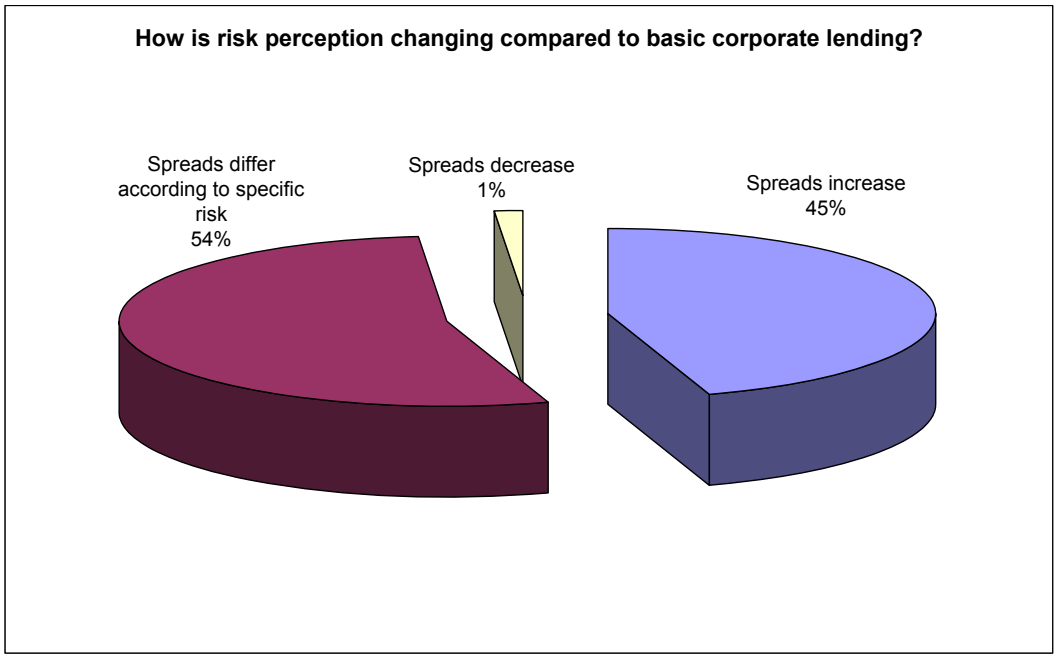
Reason for the question

The financial crisis has impacted nearly every sector in the economy. Having experienced the crash of booming sectors and being faced with reduced liquidity, financial institutions appear more risk averse when it comes to lending.

Result of the survey

On the one hand, there was strong agreement (45%) that spreads (difference between borrowing and lending costs) will increase across entire corporate lending, but on the other hand, a higher share of the respondents (54%) felt that lending spreads would be more strongly influenced by sector, country, company and project-specific risk. In any case, only 1% disagree that spreads are decreasing. Among the respondents from the private bank and investor sector, 53% think spreads will increase in general, while 47% assume that spreads will differ according to specific risks.

Figure 13: Question 1e: How is risk perception changing compared to basic corporate lending?



Reality check

Relationships with banks are now of paramount importance to project developers, especially given the shift away from on-balance-sheet and syndicated equity financing to project finance deals. Anecdotal evidence strongly suggests that banks have almost stopped lending altogether, with fresh money only being lent to corporate with strong balance sheets with whom the banks have very close relationships. However, clean energy is not being singled out, as banks are avoiding lending to any industry whilst they restructure their own balance sheets. In Q4 2008 and Q1 2009, many banks have been looking at their deposit and capital bases, and the value of their loan books, to work out how much they can lend. Banks which have received government support through bail-outs are being encouraged to lend to small businesses and infrastructure projects, such as RE.

Although banks have reduced their official interest rates in recent months – the European Central Bank rate having fallen to 2%, the Bank of England rate now down at 0.5% and those in the US approaching zero – the spreads for RE projects have actually risen. For example, spreads for an onshore wind farm in Western Europe have increased to about 225 points over Libor (London Interbrain Offered Rate) and Euripi (Euro Interbrain Offered Rate) from an average of about 170bp in the second half of 2008 and just over 100bp in the first half of last year. There is considerable variation in the rates that banks charge depending on the location, the size of the project and the technology used. Onshore wind projects, for example, will enjoy a smaller spread than offshore and solar PV a smaller spread than solar thermal.

Conclusion:

Spreads have definitely increased in recent months, but more and more the terms being offered by banks are dependent on specific risk factors relating to each project. The survey responses correlate with reality.

Question 1f: How are the conditions for project finance changing in terms of guarantees?

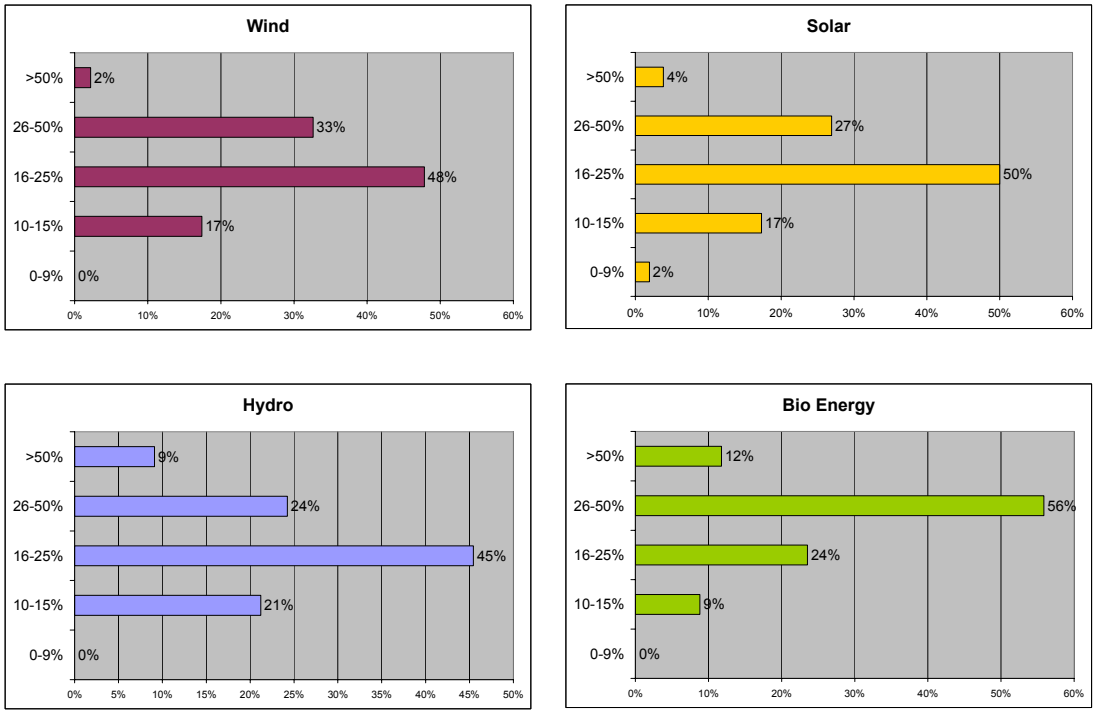
Reason for the question

When the perception of risk is higher, the banks tend to ask for higher guarantee (collateral) requirements. Higher collateral requirements may be an obstacle for the realization of projects.

Result of the survey

The four Figures provide illustrations as to how industry experts expect guarantee (collateral) conditions from lending institutions to change as a result of the financial crisis. The range of percentages indicates the expected guarantee requirement of the lending institution. The results need to be taken with caution. Only a small number of respondents answered the questions for each particular technology. For example, for the question in relation to wind, 30 out of a total of 76 did not answer the question or had no opinion. This can be explained partly by the fact that respondents were from different sectors and probably only felt competent to answer the question about their own sector.

Figure 14: Question 1f: How are the conditions for project finance changing in terms of guarantees?



Wind (N=46): Nearly half of the respondents (48%) expects lending institutions could require 16-25% of the value of the loan as collateral, while 33% would even expect 26-50%. Only 2% of the respondents expect more than 50%.

Solar (N=52): Similar to the wind sector, half of the respondents (50%) expect lending institutions could require 16-25% of the value of the loan as collateral. The share of respondents who expect 10-15% of the value of the loan as collateral is slightly larger (with 17%) than in the case of wind power (17%).

Hydro (N=33): The respondents' expectations are similar to those found for wind and solar. The majority of the respondents (45%) expect lending institutions could require 16-25% of the value of the loan as collateral. 21% of the respondents would expect 10-15%. Slightly more (24%) expects 26-50%.

Bio Energy (N=34): The expectations are different in the case of bio energy. The majority of the respondents (56%) expect lending institutions could require 26-50% of the value of the loan as collateral, while only 9% expects 10-15%.

Reality check

Banks are insisting on higher upfront fees and the proportion of debt to equity has been reduced. Some solar PV project developers have raised rounds of more than $ 200 m because now they need to hold a medium-term equity stake in the project to secure bank financing.

Conclusion

The banks are de-risking their share in projects by ensuring that the developer is the one who loses if the project does not perform. The high collateral requirement in the bio energy sector reflects the higher risk perception from the banking side. This indicates that the sector compared to wind and solar projects are either much more risky or not interesting enough for the commercial banking side.

Question 1g: What is the maximum tenor of a "bankable" renewable energy project?

Reason for the question

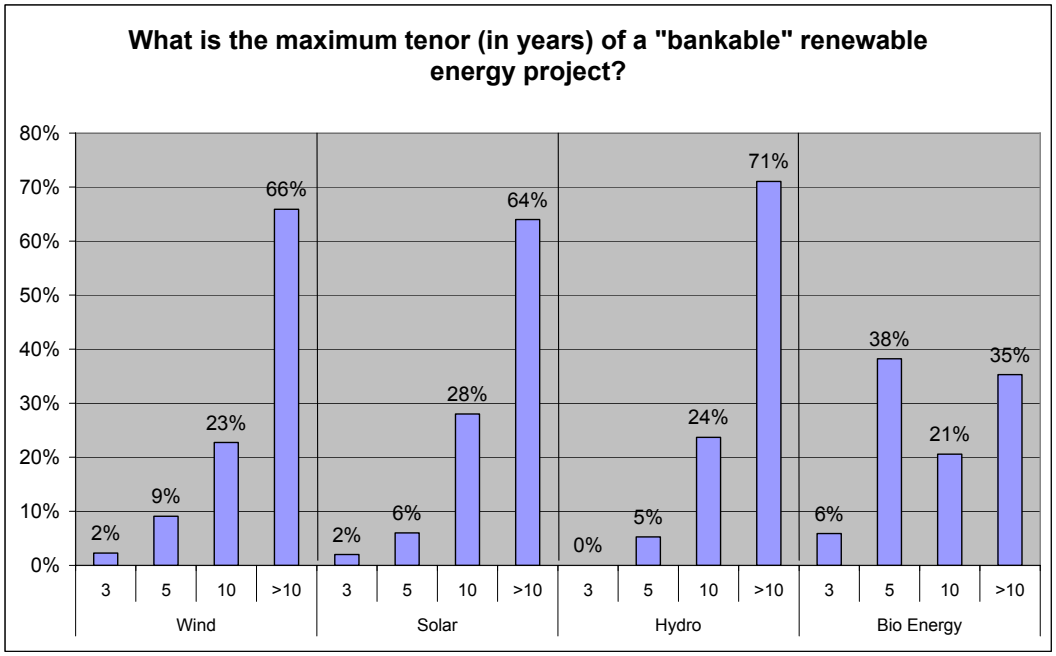
The question sought to determine whether loan tenor (debt repayment period) has been impacted by the financial crisis. A shorter tenor generally means higher repayments as lending institutions seek to recover their capital over a shorter time period. This increases the on-going costs of a project, thereby reducing the potential returns.

Result of the survey

In this Figure, various opinions as to the time to maturity or repayment of different RE projects are presented. The results for wind, solar and hydro projects show that the majority of participants believe that the repayment period for bankable projects is normally at least ten years. Only bio energy projects are seen as being subject to shorter tenors less than ten years.

Similar to the previous question, the results need to be interpreted with caution. In the case of wind, 42% did not answer the question, nor had no opinion. In case of solar, 34%, in case of hydro, 50% and in case of bio energy 55%, did not answer the question, nor had no opinion. The reason for this trend is partly based on the field the respondent's particular sector and their focus of activities. The expectations were similar for the four different sectors in the case of six respondents (who believe that bankable projects in all four sectors are normally more than ten years in duration).

Figure 15: Question 1g: What is the maximum tenor of a "bankable" renewable energy project?



Reality check

Although the cost of borrowing has increased, it has not been crippling, with net increases in borrowing rates of 50-100bps, which strong projects should be able to stand. More significantly the banks have started to shorten the tenor of deals in recent months. Bankers report that while some of their peers are still prepared to lend for 15 years (compared with 18-20 years in 2007) other banks are offering much shorter deals, of five years or less, placing the refinancing risk on the sponsors.

Conclusion

Certainly a large number of deals have tenors greater than ten years, but the maximum tenor has reduced, and in some cases is now five years or less. The survey respondents have a more optimistic perception than the quantitative evidence would warrant.

Question 1h: What percentage of the market do you expect to be subject to changed loan conditions? … To be postponed? … To be cancelled?

Reason for the question:

The expected change in finance market will automatically result in changed conditions for RE financing. However, it seems difficult to predict to what degree and for which RE sector most changes will occur.

Result of the survey:

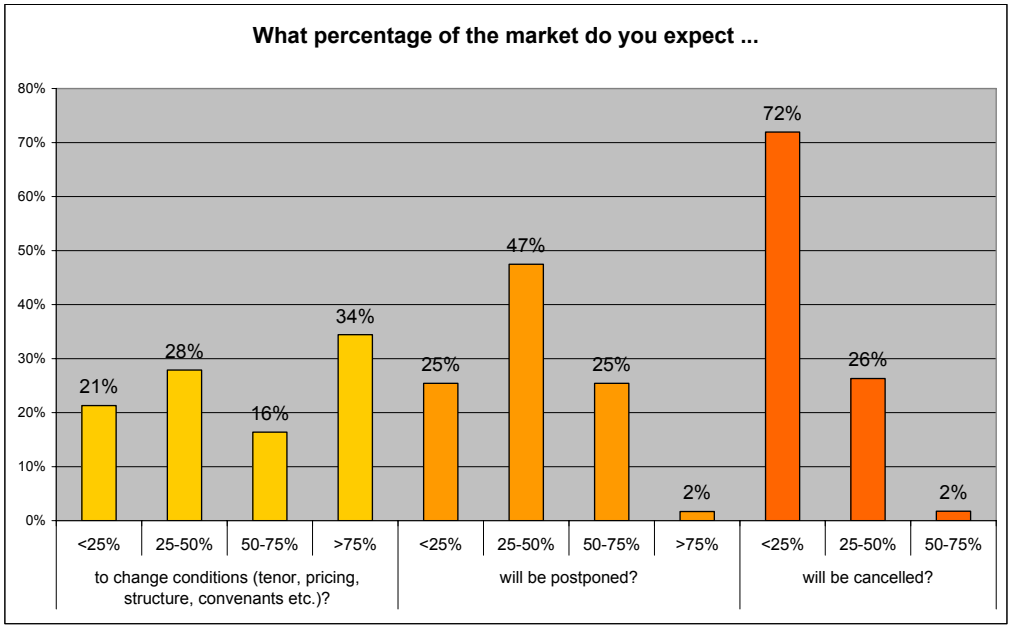
Three different potential impacts on RE projects as a result of the financial crisis were presented to the survey participants: a change in loan conditions, postponement or cancellation of projects.

As regards changed loan conditions, 80% of the respondents answered this question. The answers show no agreement as to what percentage of projects would be subject to changed finance conditions, only that a substantial number of RE projects will have to be renegotiated. The lack of agreement is due to the high uncertainty among the respondents, which reflects the current general levels of uncertainty in the market.

There was stronger consensus with regard to the other two potential impacts. 78% of the respondents answered to which degree they expect RE projects will be postponed. 47% of the respondents believe 25-50% of the RE projects will be postponed, while 25% of the groups of respondents believe less than 25% will face a delay. 45% of the respondents who think 25-50% of the projects will be postponed are from the bank and finance sector and 38% are infrastructure providers.

75% of the respondents replied to the question as to what extent RE projects will be cancelled. The majority (72%) expects less than 25% will be cancelled, which reflects a positive attitude towards the RE future. Of the 26% who expect that 25-50% of the projects will be cancelled, 40% are from the banking and finance sector and 53% are infrastructure providers.

Figure 16: Question 1h: What percentage of the market do you expect…?



Reality check

While banks generally want to lend to RE projects, many are finding it hard to agree fresh credit packages because their own cost of funding has gone up or because their balance sheets are still in intensive care. Developers are therefore having increasing difficulty reaching financial close on their projects due to a marked decrease in the availability of project debt.

Lending is expected to resume in the second half of 2009, but in the meantime investment in renewable power projects will fall, as seen in Q1 2009. New Energy Finance estimates that the leading European wind project financiers provided €10 billion of lending to the wind sector in 2007/8. However, in 2009 10-year debt availability has reduced by between 23% and 40%. Some lenders, such as Forties Bank, have been merged or acquired, whilst others have reverted to their local markets (e.g. HSH nor bank) or shifted to short term tenor lending (e.g. RBS, BNP Paribas). A couple of lenders (Group BBVA and Group Scamander) have increased their renewable energy lending.

Much depends on when the banks feel strong enough to lend again. Many are in a precarious position and face further big write-offs this year on commercial and residential real estate, private equity-owned companies, mortgage-backed securities and a host of other assets. Governments have already taken large if not majority stakes in many leading banks in the UK, Ireland and Europe and more state ownership looks inevitable. Their policies will be crucial to the speed of recovery and, importantly for this sector; they are now in a position to pressure the banks to lend to renewable energy.

Conclusion:

The current financial climate is generally leading to projects being postponed rather than cancelled. Some projects are still being financed, although the terms are different to 12 months ago. It is possible that some of the postponed projects are not financially viable given current spreads, tenors and oil/gas prices, and they will be cancelled in due course. The survey responses and the reality check indicate that the financial crisis has a concrete negative impact on the RE finance. But this can also be seen as a healthy correction of the bubble that emerged during the recent years. The scarce liquidity is challenging the RE sector and those that survive will have very good chances to grow fast, as part of the competitors may disappear.

Question 1i: Effect of commodity prices

i: Decrease in steel prices – wind turbines become cheaper

Reason for the question

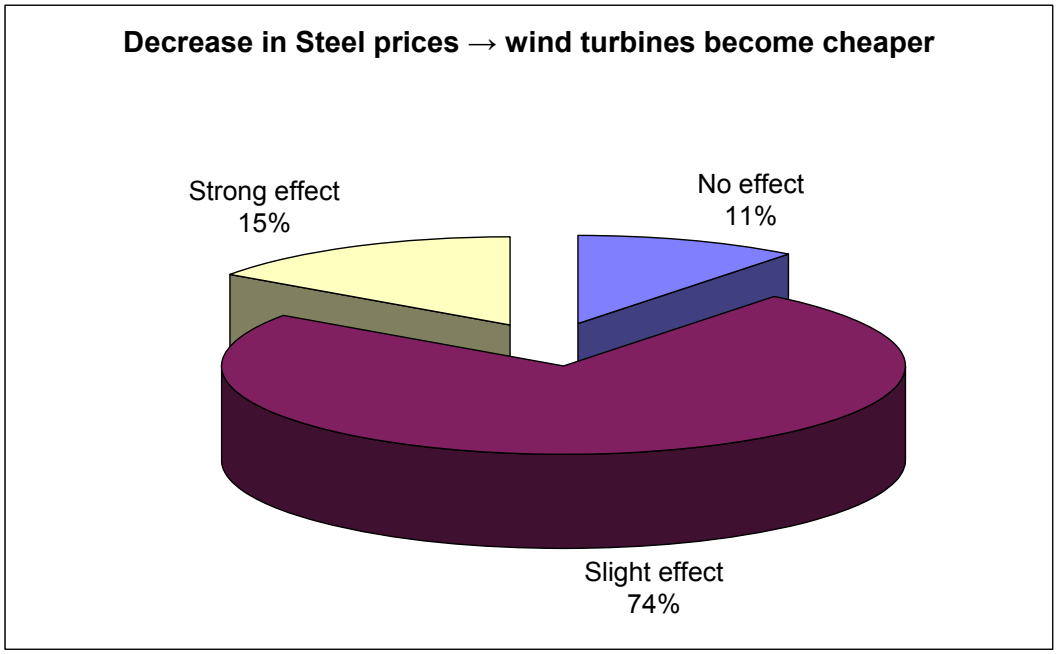
The price for raw ingredients of the world economy, such as steel, surged over the last seven years. Rising prices affected a number of industries, including the RE sector, as wind turbines and electricity power generation plants became more and more expensive to build.

Since early summer 2008, steel prices have tumbled as a result of the financial crisis and economic slowdown. Prices of metals like aluminium, copper, and nickel have dropped by a third or more.

Result of the survey

87% of the respondents answered the question as to whether lower steel prices will affect the wind turbine prices. Most expected them to have a slight effect (74%), whilst only 15% predicted a strong effect. Only 11% expected no effect. Interestingly, of those who felt lower steel prices would have a strong effect. In the Annex you can find the exact distribution among the sectors and regions.

Figure 17: Question 1i i): Decrease in steel prices – wind turbines become cheaper



Reality check

The price of commodities that are essential to RE projects such as steel for wind turbines has come down, as has the cost of shipping. However, steel is only one of many factors affecting the wind turbine prices. More significantly the wind turbine supply bottlenecks of 2007 and early 2008 have been alleviated as more manufacturing capacity has come on line – albeit at the same time as demand is being constrained by the unavailability of project finance. Market power is therefore shifting from sellers to buyers. New Energy Finance's anecdotal evidence indicates that turbine prices have fallen in Q1 2009 – in some cases with discounts of 5-20% on 2008 prices being offered – pre-payment demands are being reduced, and deferral charges are being waved.

Conclusion

Lower steel prices are having a positive impact on wind turbine prices, but changes in supply and demand are having a larger impact.

ii. Decrease in oil and gas prices – incentive for RE production lowered?

Reason for the question

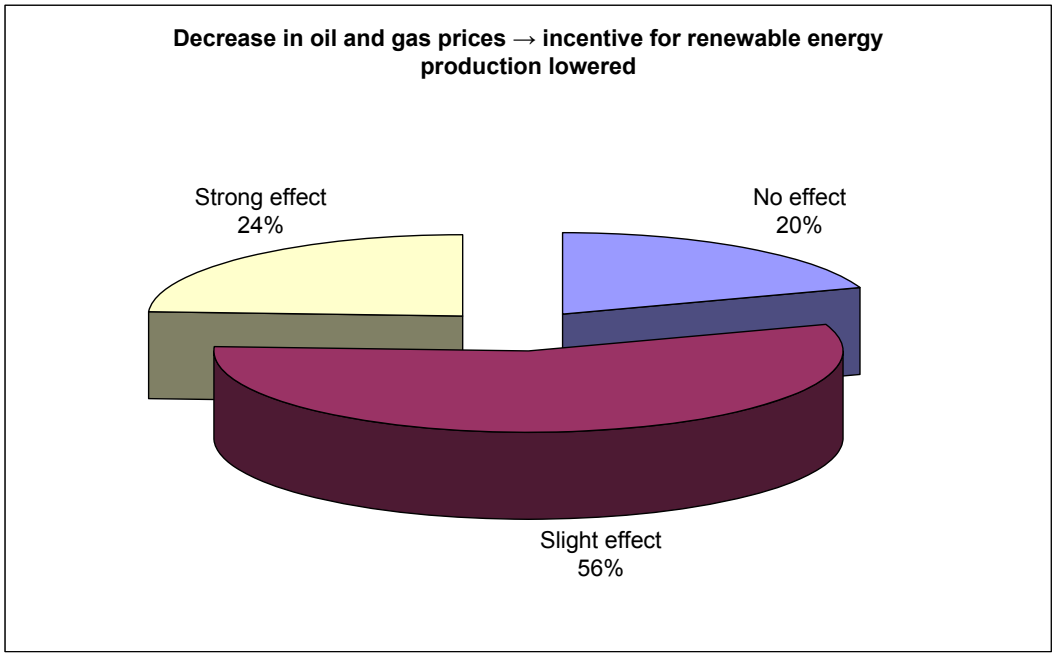
Recent falls in oil and gas prices are assumed to undercut the incentive for investing in renewable energy.

Despite efforts by OPEC as well as non-OPEC regions to cut the output of oil and gas, prices have fallen drastically as effects of the financial crisis on the real economies has started to materialise. Worries have spread among those developing renewable energy technologies, which fear that public support and financing for energy innovations will wane as oil prices tumble.

Result of the survey

The survey participants were asked whether lower oil and gas prices would have an impact on RE uptake. 87% answered this question. More than half of the respondents (56%) expect lower oil and gas prices to have only a slight effect. This clearly reflects the argument made in response to question 1i i) that other factors along with the commodity prices impact investment in RE. Moreover, analysts predict that long term, oil prices will rise again, making RE more attractive.

Figure 18: Question 1i ii): Decrease in oil and gas prices – incentive for RE production lowered



Reality check

Whilst the price of commodities that is essential to RE projects have come down, lower oil and gas prices have made it harder for renewable energy sources to compete. However, the economics of experience curves, coupled with oil and gas depletion, are working

powerfully to level the playing field. Clean energy technologies are becoming cheaper as they reach scale and achieve higher levels of operating experience.

Conclusion

Lower oil and gas prices are impacting on the returns achieved by RE projects, but the impact is on a case-by-case basis since each project has its own cost characteristics and competitive position relative to fossil based generation which it is seeking to displace. Going forward, oil and gas prices are likely to increase – especially with the wider adoption of carbon prices – whilst RE technology become cheaper.

iii. Lower commodity prices will have short, mid or long term effect?

Reason for the question

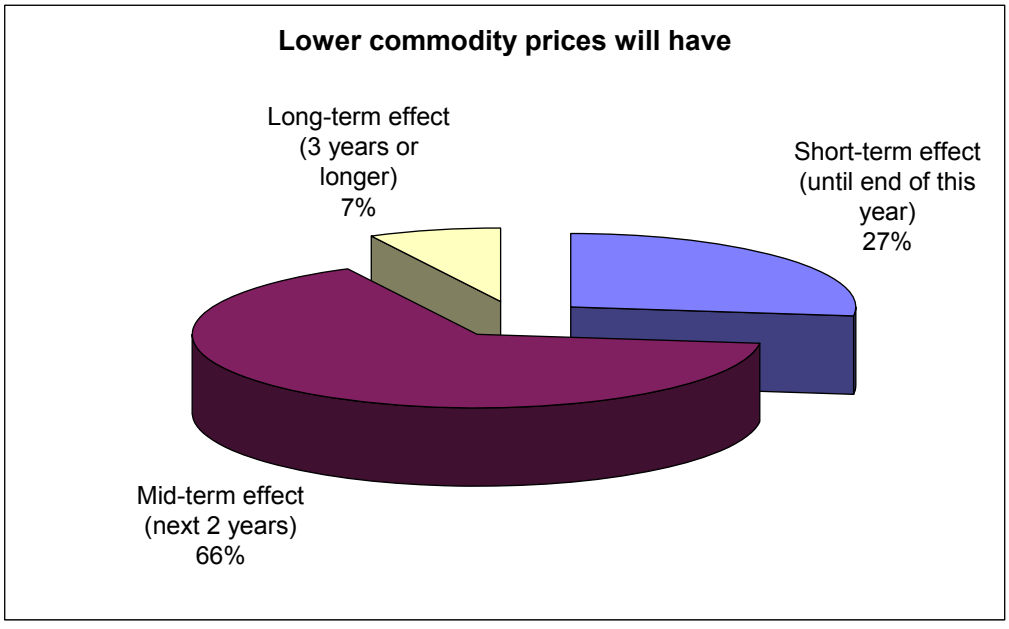
After dramatic increases in the prices of most commodities in the last three years, prices are retreating. Projections are being made as to how long the fall will last.

Result of the survey

88% responded to the question about the duration of the impact of falling commodity prices. 66% believe that it will have a mid-term effect (for the next two years), 27% believe that it will last until the end of 2009, and only 7% forecast the effects will have a long-term effect of 3 years or longer.

Comparing the answers of the previous two questions (effect of steel and gas/oil prices) with the answers about duration, a clear trend could be observed. The same group that expects only a slight effect of decreased oil/gas and steel prices (42%), believes it will have a mid-term effect only (next 2 years). Only 2% believes that reduced oil/gas and steel prices will have a strong effect, expect a long-term effect of three years or longer.

Figure 19: Question 1i iii): Lower commodity prices will have…



Reality check

The impact of changes in commodity prices on RE projects should lessen over time. In the short term, RE technologies will be relatively more expensive than mature fossil fuel technologies, such as oil and gas, but they will continue to receive government subsidies and support to enable them to compete. Increases in component supply and short term reductions in demand should reduce the costs of RE power generation. In the mid to long term, RE technologies should have reached sufficient scale to compete with oil, gas and coal, particularly if a carbon tax, or cap and trade mechanism, has been introduced for fossil fuel power generation.

Conclusion

Whilst two years is a likely timeframe for the impact of changes in commodity prices on RE projects, external macro-economic factors will affect the exact timing.

Question 1j: To what extent does financial innovation have a future, given the reputation damage?

Reason for the question

The resale of sub prime debt in the form of complex derivatives has been severely criticised following the collapse of the sub prime market and the resulting financial crisis. Not too long ago, index-based products were considered as one of the most important developments in the financial markets and were a commonly traded financial instrument. Index-based products and all forms of hedging have suffered severe reputation damage.

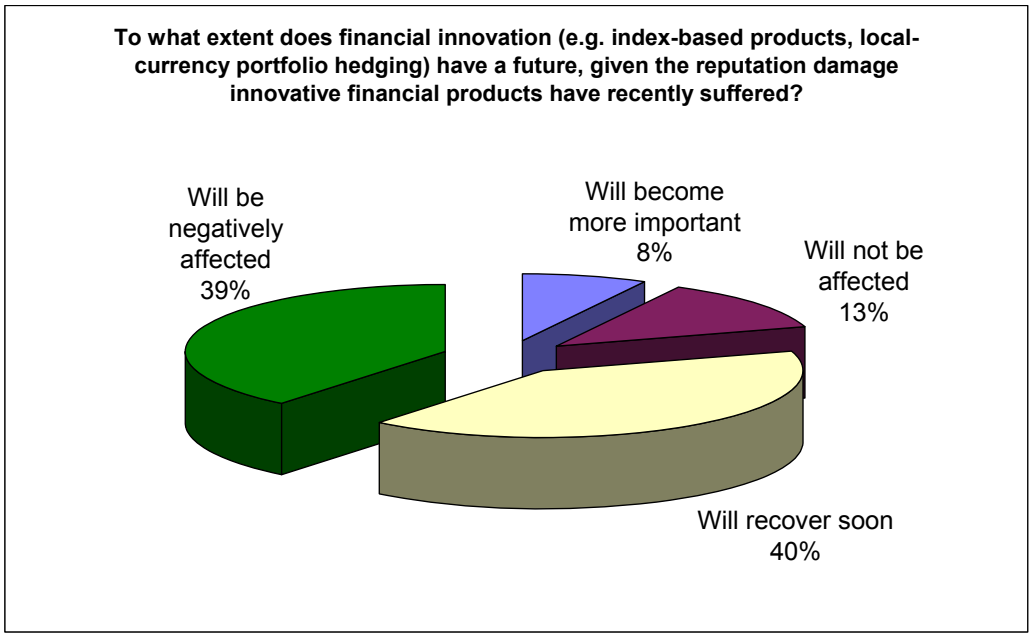
Result of the survey

This Question sought to find out to what extent respondents thought this damage will affect the future of financial innovation. Of the 84% who answered this question, a large share (40%) expects that financial innovation will recover soon, as compared to an equally large share (39%), who predicts they will be negatively affected. The vast majority, however, does not see a bleak future for financial innovation.

Among the 45% responding infrastructure providers who answered the question, 48% expect a negative impact, 32% believe they will recover soon, and 12% of the respondents see no impact and 8% feel they will become more important again.

Among the 50% of the respondents from the private banks and investment sector, 26% expect a negative impact, 63% believe they will recover soon, and 7% see no impact.

Figure 20: Question 1j: To what extent does financial innovation have a future, given the reputation damage?



Reality check

No quantitative evidence available.

Conclusion

The survey suggests that in some cases financial innovation will return, but in other cases will not. The macro financial environment – albeit under new regulations - will drive the level of future innovation.

Question 1i: How important are these financial products to the RE sector

Reason for the question

How heavily are infrastructure providers leveraged, and how would any major swing in the derivatives markets affect their output and consequently their business obligations to project clients all over the world? The same can be asked for RE projects that are financed by financial agents that are heavily dependent upon the performance of the financial markets themselves. What significance do movements as large as the ones we are witnessing in the current crisis have on the renewable energy sector?

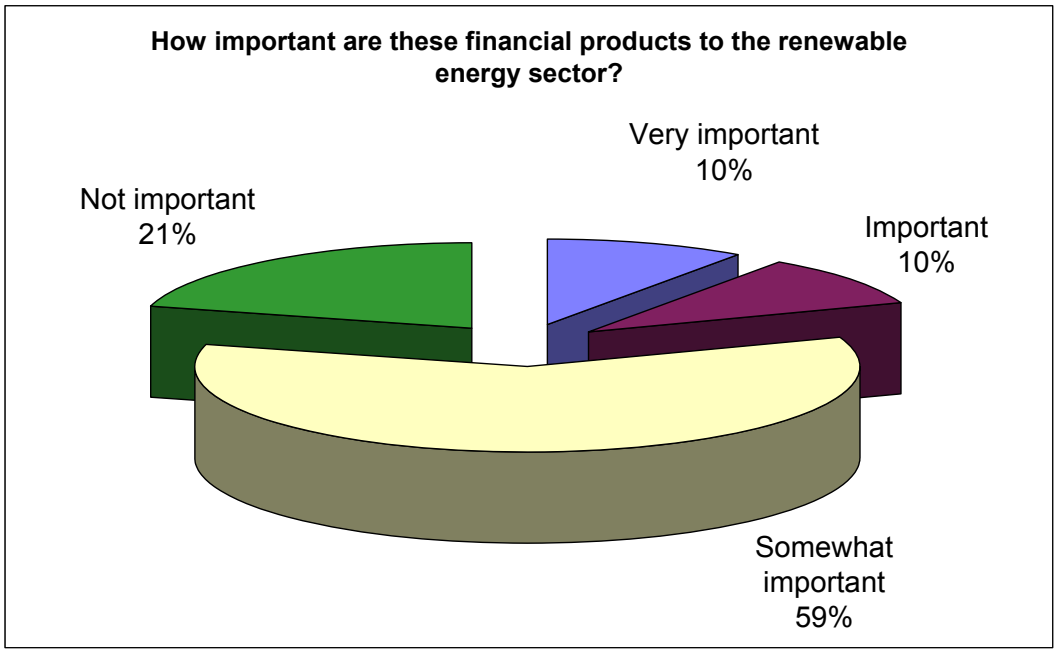
Result of the survey

The survey participants were asked how important the future of innovative financial instruments are for the RE sector. Of the 82% survey participants who answered this question, a large share (59.6%) considers these financial products to be somewhat important. Among this group, about 46% feel these products will recover soon, while another 43% feel they will be negatively affected. Of the 10% who believe the financial

innovations are very important for the RE sector, 50% also think they will become more important.

Of the 79% of the respondents who believe the innovative financial instruments are important to some degree, 41% fear the products' reputation has been negatively affected (Question 1j).

Figure 21: Question 1k: How important are these financial products to the renewable energy sector



Reality check

No quantitative evidence available.

Conclusion

The survey suggests that financial products are generally important to the RE sector, although risk-free cash generating assets (such as subsidised wind farms and solar plant) are most attractive to players with the lowest cost of capital, which minimises the options for innovative financial products.

Question 1l: How has the market turmoil affected your own business planning in terms of volume?

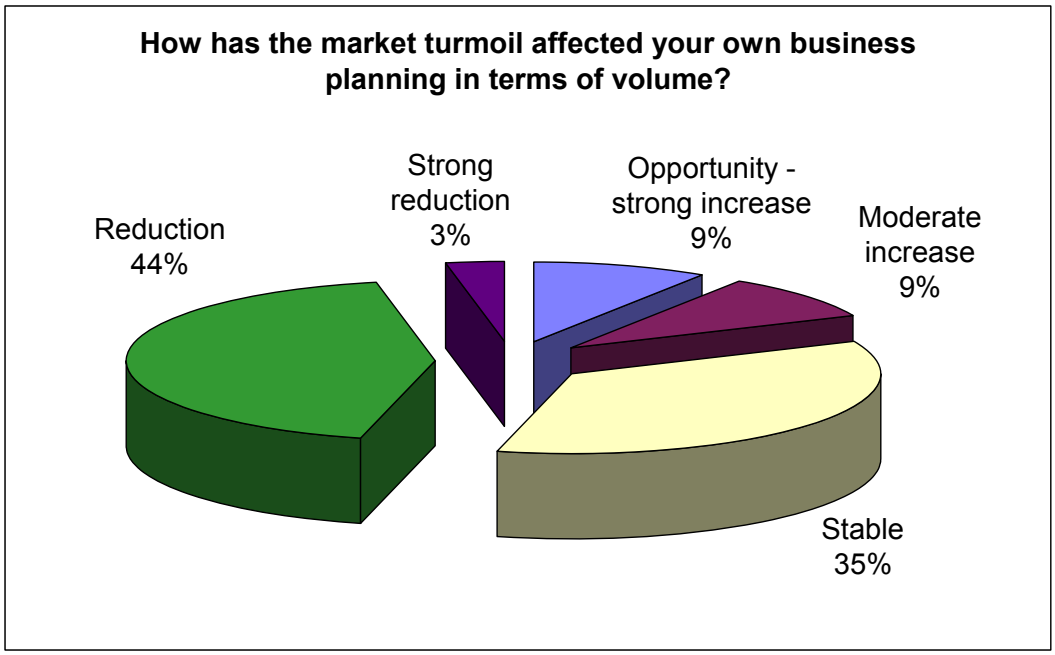
Reason for the question

A reduction in activity will reduce the volume of RE projects being financed and constructed, which will impact upon the availability of utilities – and governments- to meet their RE and emissions reductions targets.

Result of the survey

86% of the respondents answered the question whether the current turmoil was affecting their business planning in terms of volume. The results show that a little less than half (44%) already had reduced volume, while more than a third (35%) had experienced no change thus far. A smaller percentage experienced the current turmoil as an opportunity, with a strong increase or at least moderate increase in volume.

Figure 22: Question 1l: How has the market turmoil affected your own business planning in terms of volume?



Reality check

New Energy Finance recently surveyed a number of European banks and received assurances from Royal Bank of Scotland, Rabobank, Landesbank Baden-Wurttemberg and the Bank of Scotland that they remain committed to the sector. Renewable energy projects are seen as stable and a growth area. However, banks in different countries will have different views on lending to renewable projects. Those in the UK have been hardest hit in terms of lending. RBS, for instance, had 80% of its business outside the UK but now that the government owns close to 70% of the bank its focus is going to be on British business. Germany's economic minister meanwhile has said he wants Commerzbank, which received €18 billion of fresh capital from the government, to support German companies in return. This will have a secondary effect as projects, particularly larger ones, rely on co-operation.

Developers are having increasing difficulty reaching financial close on their projects due to a marked decrease in the availability of project debt. However, this could provide investment opportunities for liquid, fast-moving buyers, such as utilities and corporates. Asset prices could fall in 2009 and there could be considerably less competition for these assets.

Conclusion

Whilst a large number of participants foresee a reduction in their business volume, this could be a temporary affect, and/or the gap could be filled by more established players such as corporates or utilities.

Question 1m: How is the market turmoil affecting your staff planning?

Reason for the question:

A reduction in staff numbers will reduce the volume of RE projects being financed and constructed, which will impact upon the availability of utilities – and governments – to meet their RE and emission reductions targets.

Result of the survey

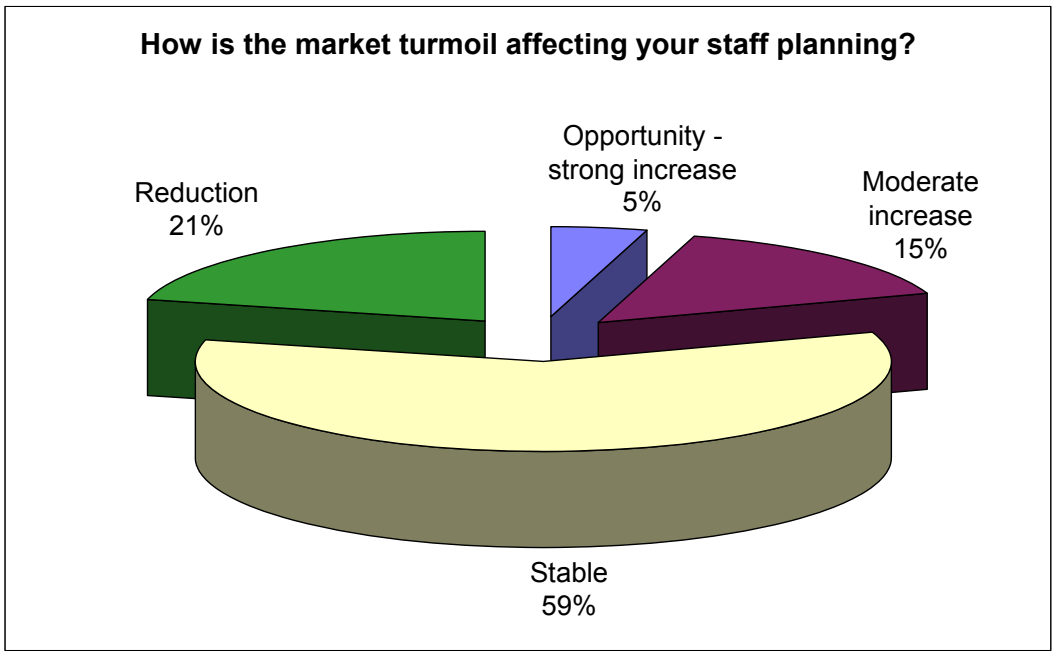
87% respondents answered the question regarding how the market turmoil is affecting their staff development. While the majority (59%) of them believe staff planning will stay stable, 21% of the respondents expect a reduction.

37% out of 47% respondents who believe that the market turmoil will reduce the volume of the business also expect a reduction in staff, while 63% of them believe the number of staff will not change.

70% out of 35% respondents who believe that the market turmoil will not affect their volume of business (stable) do not expect any change in employment.

The results reflect the general optimistic market trend. Although growth of the RE sector has slowed down, in the long term renewables will be a major part of the global low-carbon economy.

Figure 23: Question 1m: How is the market turmoil affecting your staff planning?



Reality check

So far there appear to have been few redundancies in the utilities and project finance departments of banks, whereas corporate finance and leveraged security departments have been haemorrhaging people in the last few months.

Conclusion

Stability in staff planning – and few redundancies to date – bodes well for the future development of the RE sector since the project and finance expertise will be retained. Staff who have been made redundant should be well placed to secure employment in the future.

Part 2. Losers and Winners:

Question 2a: How will small, independent energy infrastructure providers cover their costs?

Reason for the question

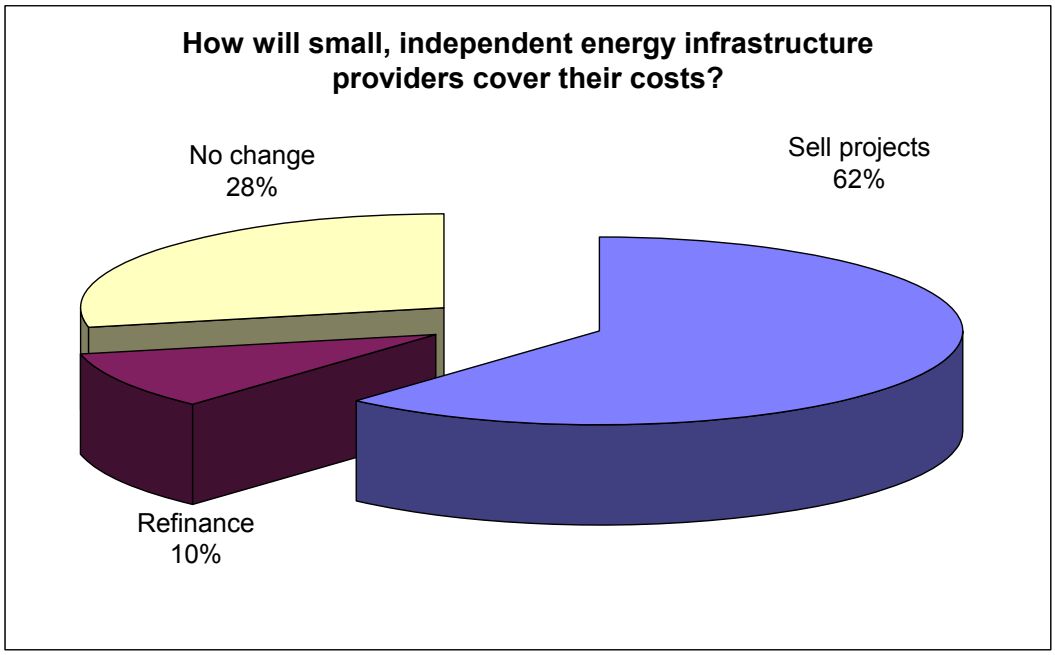
In an industry with high up-front capital costs, easy and quick access to finance is essential. Small infrastructure providers with weak balance sheets are particularly impacted by the financial crisis as they struggle to finance their highly leveraged projects.

Result of the survey

Survey participants were asked how smaller firms would deal with these short-term dilemmas. 62% expect that projects will be sold. 28 % expect no change.

Among the infrastructure providers, 50% believe the financial crisis will not cause any change for small independent infrastructure providers in covering their costs. 70% of the others expect them to sell off projects. Among the 45% of the representatives of the banking and investment sector, only 15% believe there will be no change for small developers in covering their costs. The rest expects small firms will sell projects.

Figure 24: Question 2a: How will small, independent energy infrastructure providers cover their costs?



Reality check

Small-scale project developers and IPPs are increasingly finding it difficult to finance their project pipelines and are selling out to larger, more established players. Within wind, project developers in developing markets, such as Eastern Europe and China are being acquired. During Q1 2009, there have been a number of acquisitions of solar project pipelines in North America and several acquisitions of commissioned assets. Solar projects are being bundled to make them more attractive to low cost-of –capital investors, such as pension funds.

Conclusion

Projects are being sold by small, independent developers and independent power producers (IPPs), but there is not a wholesale firesale of such assets. In fact, some developers are successfully raising equity to enable them to secure bank financing.

Question 2b: Who will benefit from the crisis?

Reason for the question

In the current market conditions there are likely to be winners and losers amongst the different participants involved in financing, constructing and operating RE projects, and in developing and commercialising new innovative technologies.

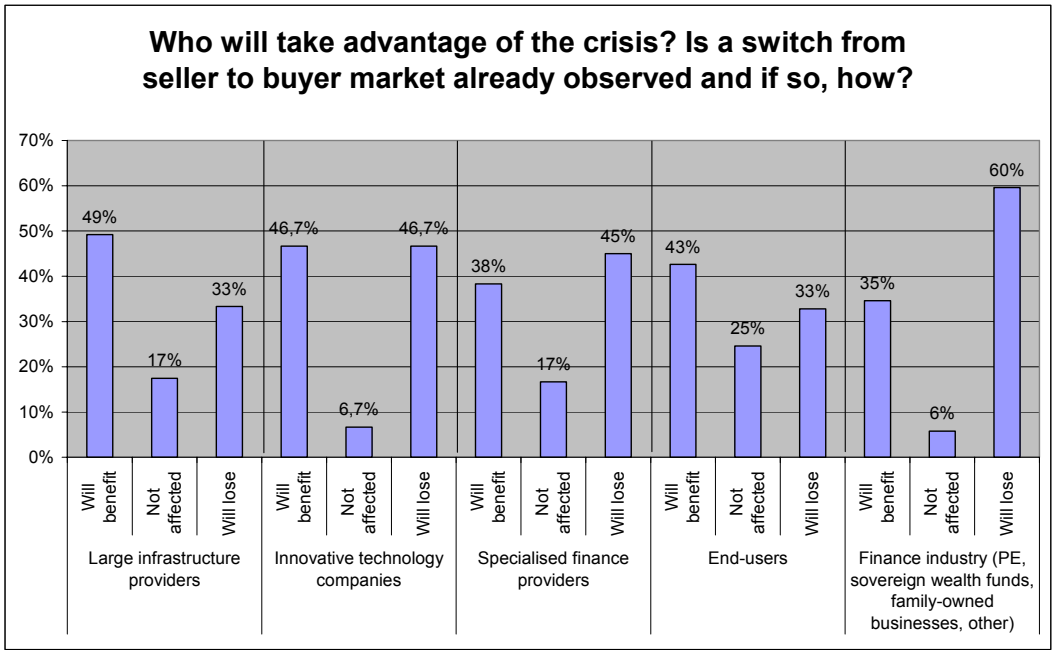
Result of the survey

From the responses of 83% of the participants, there is no clear agreement as to who will be the big winner. About half (49%) expect large infrastructure providers to benefit, while 33% believe these are the ones who will lose out. It is interesting that so many see large infrastructure providers as the losers, because intuitively it would seem that they would benefit from having strong balance sheets and from lower commodity prices, so they don't have to rely on external finance for new projects.

The same applies to the responses for innovative technology companies. 46.7% expect they will benefit and another 46.7% think they will lose. As discussed under Question 1a, less mature technologies might not attract the necessary project finance, as finance institutions will have stronger risk management practices in place. However, new and emerging technologies are still getting venture capital support. With regard to specialised finance providers and for the finance industry, 38% and 35%, respectively, expects them to benefit, while 45% and 60%, respectively, believe they will lose. Among the 42% respondents from the banking and investment sector who answered, 50% predict that the finance industry will lose and 45% think the sector will benefit.

The respondents believe end users will mainly benefit (43%) or will not be affected at all (25%). However, 33% think, end-users will lose.

Figure 25: Question 2b: Who will take advantage of the crisis?



Reality check

Within wind, acquisitions have been in target growth markets of the major utilities such as the US, France, UK and CEE. The focus of this activity has changed in 2007-2008 from EU markets towards the US. The sum of all acquisitions in EU markets (nearly 35GW) is significantly lower than that of the US (41GW). Wind specific corporate M&A volumes

have fallen in the last two quarters, although this masks continued acquisitions of project developers in developing markets, such as Eastern Europe and China. Consolidation is likely to continue as smaller developers and IPPs struggle to raise capital. Investment by PE firms has been low in Q1 2009.

The top 20 owners of wind assets and well capitalised new comers are well positioned to take a significant share of the annual wind installation, having lost market share to new entrants and a very long tail of small scale IPPs and developers. Within turbine manufacturing, new, undercapitalised or less tested manufacturers are struggling to sell turbines, and the major manufacturers are gaining market shares as the market shrinks.

Within solar, difficulties in accessing capital for the traditionally fragmented development industry will create acquisition and financing opportunities for utilities and corporates. During Q1 2009, there have been a number of acquisitions of project pipelines in North America and several acquisitions of commissioned assets. Further acquisition activity is expected in the second half of 2009.

The economic downturn has also increased interest in the acquisition of distressed assets in the Brazilian bio fuels sector by established corporate players. The US ethanol sector has seen many companies sell off distressed assets to corporates and private financiers. European biodiesel producers have suffered two years of problems with over-capacity, volatile feedstock prices and low-cost competition from the Americas, which has seen many players fail.

Conclusion

It is too soon to identify the real winners and losers, although some trends are beginning to emerge, such as the strengthened position of corporate players. However, the RE sector will likely go through several supply-demand cycles over the next couple of decades as the industry scales-up to meet its targets.

Question 2c: What is your expectation for the market volume of Private Equity, Venture Capital, Project Finance, Capital Markets, Public Finance Projects?

Reason for the question

Finance is the life-blood of the renewable energy sector. Without fresh capital new technologies will not be developed, and projects will not be built. There are many sources of capital, with different requirements from their providers. Some providers are impacted more than others by the current crisis.

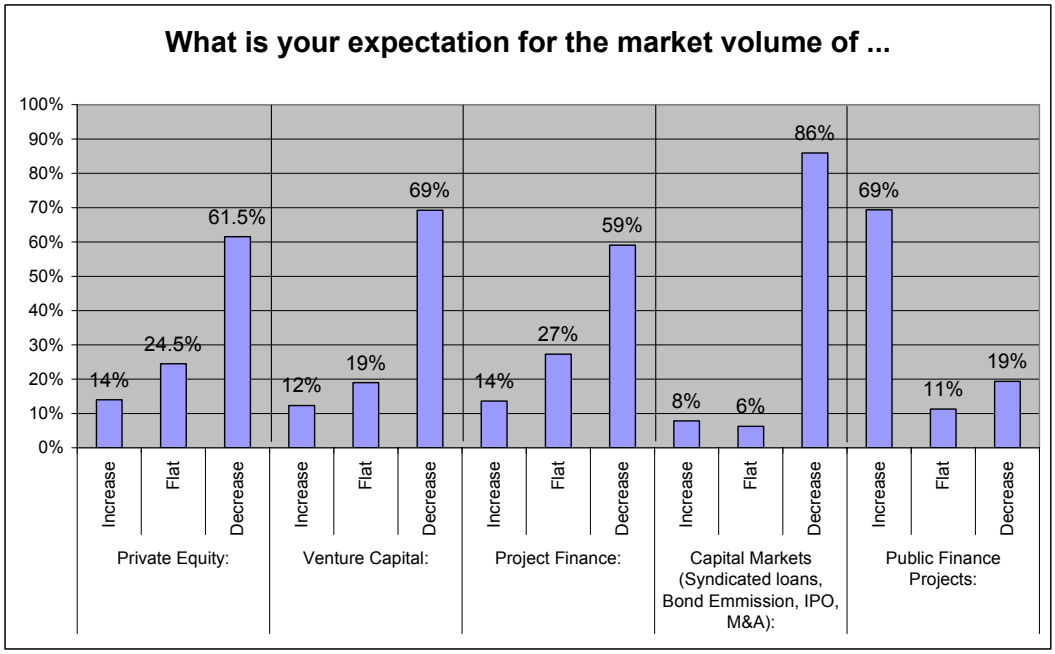
Result of the survey

Respondents were asked to estimate the future market volume for private equity, venture capital, project finance, capital markets, and public finance. The results show that a substantial share of the respondents expect all types of commercial finance to decrease in

market volume (PE 61%, VC 69%, project finance 59% and capital markets 86%, respectively).

68% of the respondents predict that as capital becomes less accessible and more expensive, governments are going to be taking up a substantial share of the financing for renewable energy. Public financing, such as that made available by the various stimulus packages currently emerging, will bring new pools of capital into the sector.

Figure 26: Question 2c: What is your expectation for the market volume of... ?



Reality check

Although new investment in the sector grew to $155bn last year, up modestly from $148bn in 2007, investment in the second half of the year was down 17% on the first half, and down 23% on the final six months of 2007. In Q1 2009 third party new investment fell to $13.3bn, the lowest quarterly value since Q1 2006. Venture capital and private equity new investment was $1.8bn, a 22% fall compared to Q4 2008, and 34% lower than Q1 2008. Capital market new investment was less than $100m, only 6% of the amount raised in Q4 2008, and 3% of the Q1 2008 investment. New build asset finance investment (including project finance) was $11.5bn, half the figure for Q1 2008. Private sector investment volumes are not expected to recover until the second half of 2009.

Government support for projects through their stimulus packages is taking different forms – but also taking time to find its way to RE companies and projects. Undoubtedly the biggest boon to wind and solar industry in recent months is the shake-up of the US renewables subsidy regime initiated by President Obama's $787bn stimulus package. By late 2008 the system of production and tax credits used to incentivise RE projects had become all but useless. The market for tax equity investments, which is used to monetise the tax credits that developers themselves cannot use, had shrunk from around two dozen

active participants to just four or five players with substantially reduced appetite for investment.

The policies contained in the American Recovery and Reinvestment Act turns the current, complex project financing structure on its head and dramatically expands the options available to wind developers. It extends the Production Tax Credit for three years providing unprecedented long-term certainty, and offers developers of PTC-eligible projects - including utilities - the option to exploit the generally more favourable Investment Tax Credit. The law also extends through to the end of 2009 the 'bonus' 50% depreciation which allows developers to expense a major portion of the projects' capital costs in the first year. Perhaps the most significant measure is the introduction of a cash grant in lieu of tax credits thus opening up the US to traditional project finance structures employed in Europe and elsewhere that involve simple debt and equity. As the PTC and ITC still run into the general problem of a lack of tax appetite from traditional tax equity investors, the grant programme is a critical change that will do most to unfreeze the market.

While overall scarcity of capital in the broader market is a key issue, the new regime will bring a larger pool of lenders to the table. Even though larger, better capitalised developers will continue to dominate in a capital-constrained environment, the legislation potentially breathes new hope into small and midsized developers who have been hardest hit by the credit squeeze.

Conclusion

Current investment volumes indicate a move away from financial investors as the main source of capital towards corporates and governments. However, government support will take time to have an impact, so there is likely to be a hiatus in investment during 2009. Financial players will continue to invest in the RE sector once macro economic conditions are stabilised, and government support has materialised.

Question 2e: How will the RE sector as a sustainable investment continue... ?

Reason for the question

Sustainable investment is defined as "socially and environmentally responsible investment". Despite the financial and economic crisis, the RE sector might be in a favourable position relative to other sectors, as it is considered to add value and create jobs.

Result of the survey

72% of our respondents agree that renewable energy will continue to be an important sustainable investment asset. 20% believe that there will be no change as a result of the financial crisis, and 8% believe renewables will fare more poorly than before as a sustainable investment.

Figure 27: Question 2e: How will the RE sector as a sustainable investment continue ...?

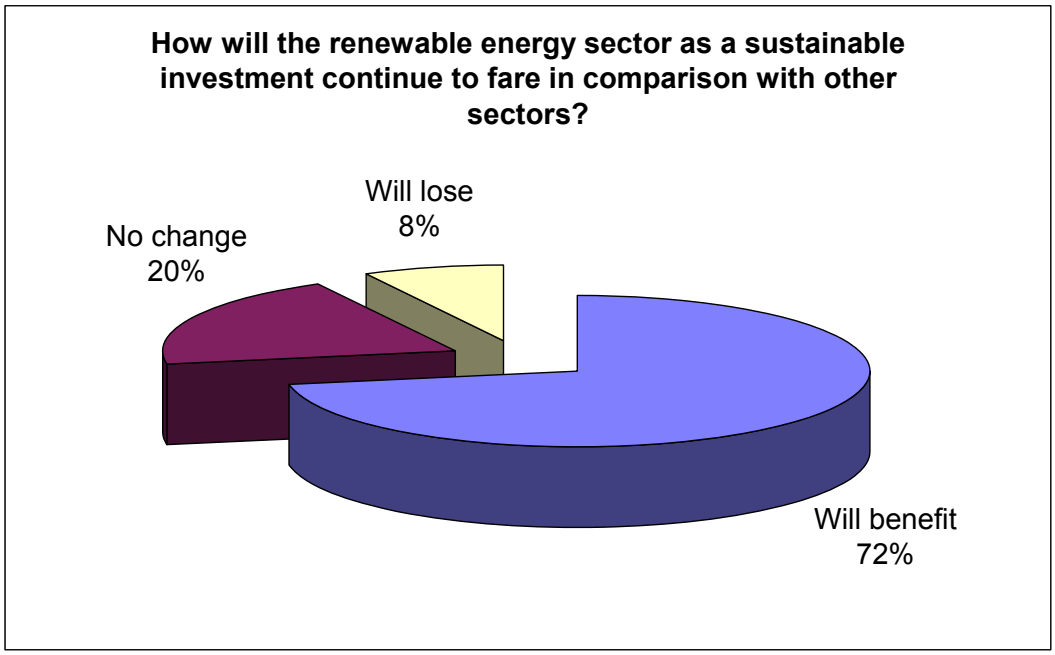
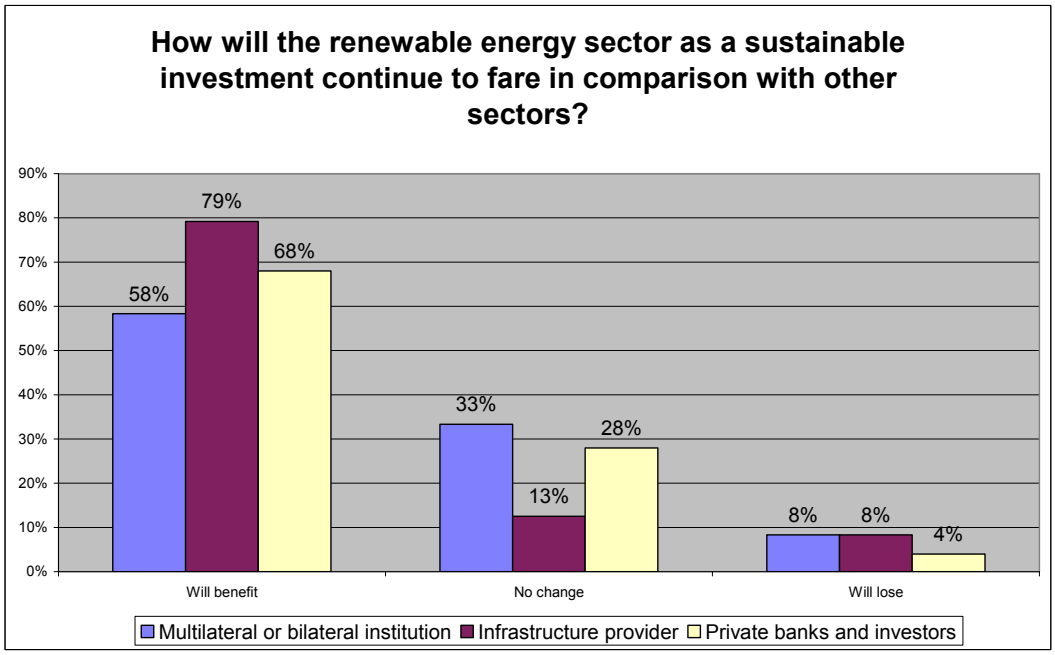


Figure 28: Question 2e: How will the RE sector as a sustainable investment continue...? (sector comparison)



Reality check

New Energy Finance's analysis of more than 100 leading institutional asset managers and owners, in total representing more than $1 trillion of invested assets, suggests that approximately 75% expect to have more money invested in clean energy by 2012 than

they do today, and many of them say they are now more disposed to increase their exposure to the sector than they were 12 months ago. The most popular ways of increasing exposure between now and 2012 are likely to be through direct investment in renewable energy projects such as wind and solar; through investment in quoted clean energy shares; and through investments in carbon projects, credits and related companies. Other investment categories favoured included private equity, timber and forestry, venture capital and agricultural commodities. The sectors subject to the most interest from investors were renewable energy (97%), energy efficiency (64%), water (49%) and waste (43%).

Conclusion

The macro drivers for RE – energy security, climate change, increased energy demand, etc. – will support the continued roll out of mature RE technologies, and the development of new innovative technologies. An increasing number of financial investors will deploy capital into the sector as utilities and governments seek to meet their RE and emissions reduction targets

Part 3. Regional Impacts

Question 3a: Will Europe suffer the same problems as the US?

Reason for the question

Opinions have varied as to whether the global financial crisis will mean tough times ahead everywhere and to the same degree. Some feel that the euro zone is not in a huge crisis. IMF figures suggest the European economy is in tougher straits that previously thought. While the US is putting in stimulus money, Europe is counting on its regulatory mechanisms. In terms of renewable energy, the banks not lending money is a problem on both sides of the Atlantic.

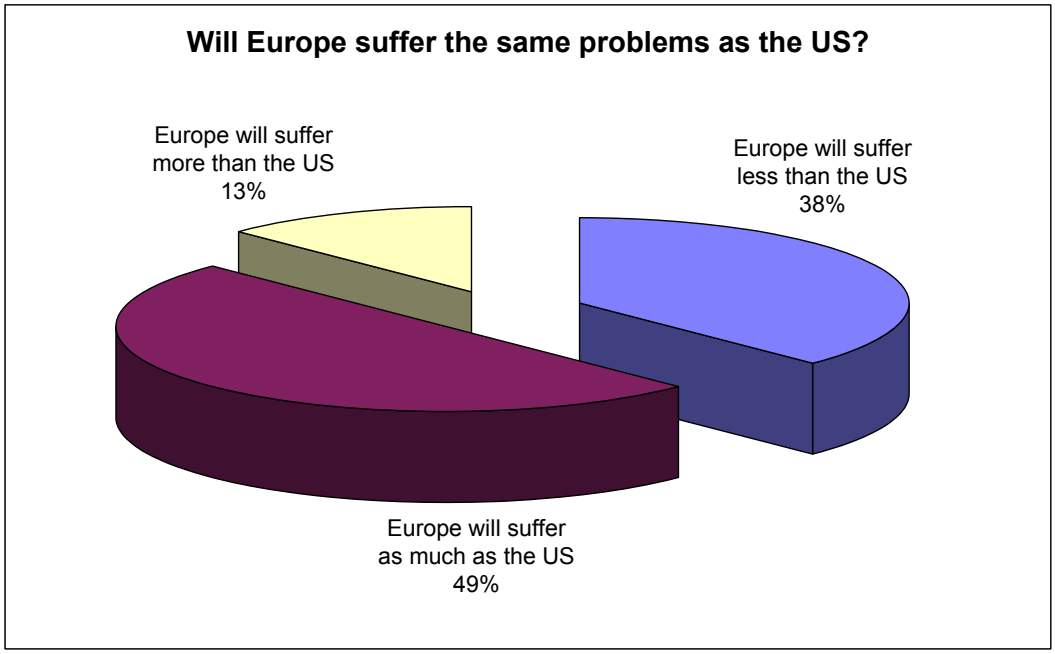
Result of the survey

The majority of the respondents (49%) expect the EU will suffer as much as the US, while 38% think Europe will suffer less than the US. Of those, 42% are private bankers and investors and 37.5% are infrastructure providers. 38% believe Europe will suffer less than the US.

From the small group of respondents (13%) who predict that Europe will suffer more than the US, two are European, two from Asia and four work internationally. 38% (one from Asia, one from Germany and one international) had already experienced a negative impact of the financial crisis on their business. (See question 1j)

Among the 38% respondents who expect Europe will suffer less than the US, 43% experienced stable business, despite the turmoil. 13% of them experienced strong growth and another 13% expect a moderate increase. (See question 1k.)

Figure 29: Question 3a: Will Europe suffer the same problems as the US?



Reality check

Asset finance of new-build renewable energy projects in the US totalled just $500m in Q1 2009, compared to $2bn in Q4 2008 and just over $5bn in Q1 2008. The Obama stimulus funds have not yet started to flow. These figures show just how much they are needed. In contrast, asset finance investment in EU-Europe was $6.5bn in Q1 2009, mainly in wind and solar projects (in Spain).

Conclusion

It is not yet possible to determine who will suffer more, as the results of the survey show.

Question 3b: Can Europe's renewable energy targets be realised?

Reason for the question

The EU is committed to reducing its overall emissions to at least 20% below 1990 levels by 2020. The survey participants were asked if they believe the EU will be able to reach the RE targets by 2020.

Result of the survey

Of the 83% who answered this question, the majority (63%) believes Europe's RE targets can be realised.

Among the Europeans who expect the European RE targets can be realised (57%), 9% have experienced a strong increase in business volume, and 17% a moderate increase (see question j). Among the Europeans who believe European RE targets cannot be realised

(36%), 77% already faced a reduction of their own business volume, while 23% had stable business volume (see question 1k).

Figure 30: Question 3b: Can Europe's renewable energy targets be realised?

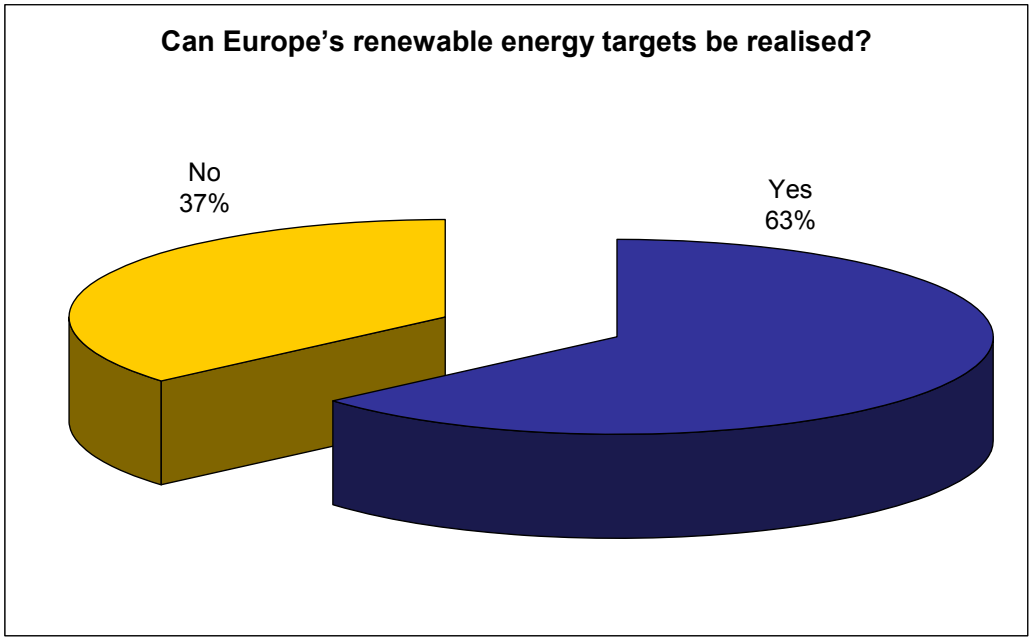
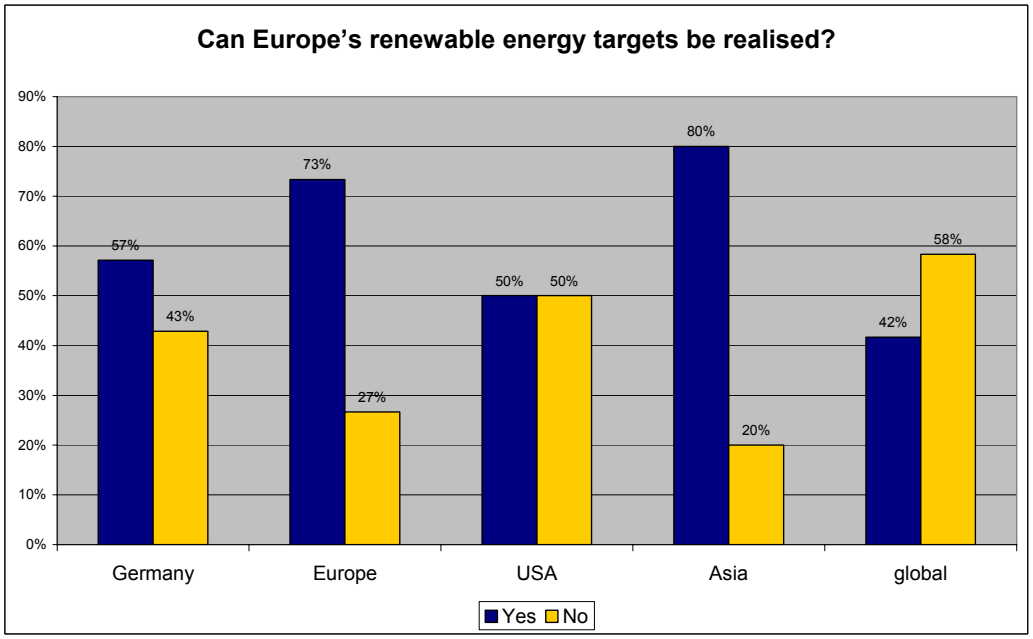


Figure 31: Question 3b: Can Europe's renewable energy targets be realised? (distribution according to where respondents are from)



Reality check

The reality check will be available in 2020.

Conclusion

The vast majority of the experts believe the targets can be achieved.

Question 3c: Do you expect the investment flow to developing countries to...

Reason for the question:

The previous financial crisis in the 1990s affected some developing countries (especially in Asia), in particular, partially fragile energy infrastructures were shaken. With regard to the current crisis, it is not expected that the extent will be the same as in the 1990s when instability had its source in developing countries themselves.

However, substantial declines in total net private flows to developing countries are already being observed and a sharp decline in 2009 is expected. Due to reduced global economic activities, the flow of remittances and foreign direct investment in sectors such as energy is slowing down. In general, with tighter credit conditions and less appetite for risk, investment growth in the developing world is projected to fall from 13% in the 2007 to 3.5% in 2009, deeply significant because a third of GDP growth can be attributed to it (Global Economic Prospects 2009 World Bank).

Result of the survey

84% of the participants responded to the question as to whether the investment flow to developing countries will be affected by the financial crisis. The majority (60%) believes the investment flow will decrease. The other share of the respondents perceives the situation more positively, with 17% thinking that investment flow will be unchanged and even a quarter of the sample group believing it will increase.

Figure 32: Question 3c: You expect the investment flow to developing countries to...

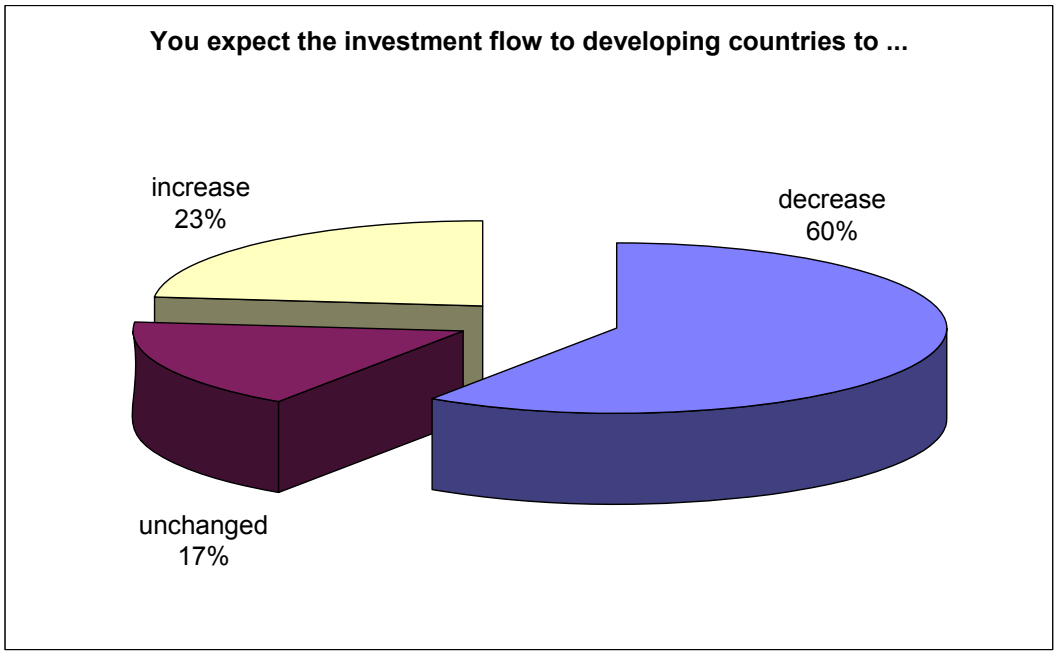
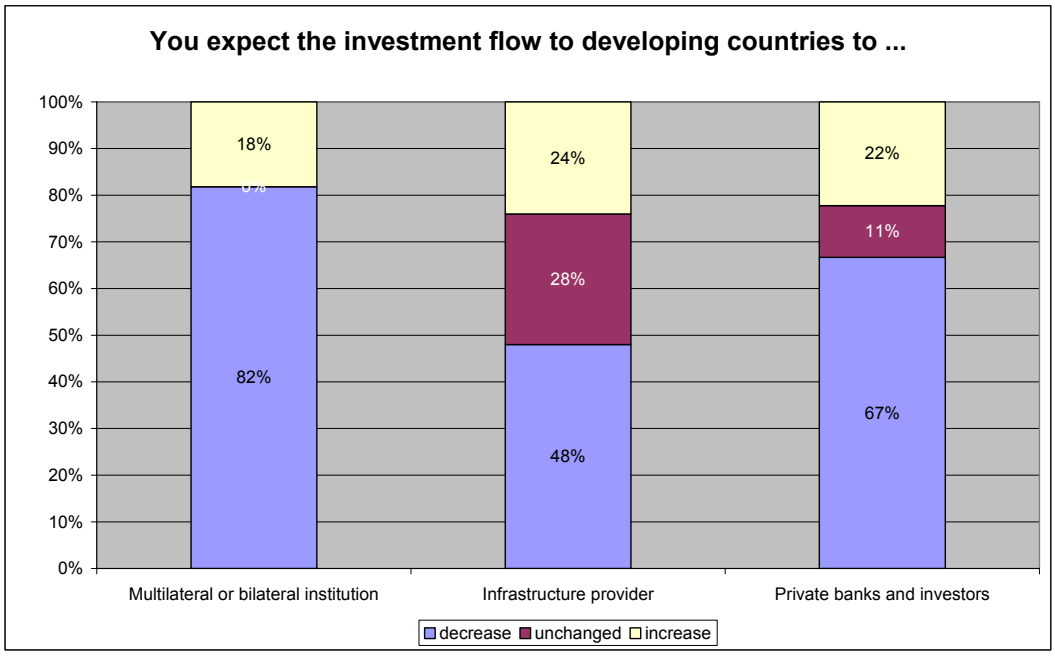


Figure 33: Question 3c: Do you expect the investment flow to developing countries to... (sector comparison)



Reality check

Asset Finance investment in China totalled $0.9bn in Q1 2009, approximately 25% of each quarter's investment in 2008. However, 2009 will be a year of change for China's key clean energy sector as the government takes an increasingly active role to support a rapidly growing industry in a difficult economic environment. New Energy Finance estimates that approximately $66bn of the announced $586bn Economic Stimulus Package is targeted at the clean energy sector, which will generate much needed domestic demand for its products, such as wind turbines and solar panels, mainly via the large utility companies.

In Brazil, new-build asset finance was down sharply in Q1 2009 at $900m, compared to $3.3bn in Q4 2008. But refinancing shot up to $1.4bn, more than half of the global total, from virtually nothing in Q4 – showing how state-owned banks are moving to fill the financing gap left by private sector banks, particularly in the ethanol sector. This may provide a pointer to the rest of the world on what can be achieved by the public sector if there is political will.

Clean energy project investment in India is a fraction of China's total, and the government's $13.7bn two-part stimulus package includes no dedicated funding for renewable energy or energy efficiency measures.

Conclusion

The survey participants have a realistic perception of the impact on investment in developing countries.

Part 4. Policy and regulations

Question 4b: Is fixing the economic crisis taking priority away from addressing the climate crisis?

Reason for the question

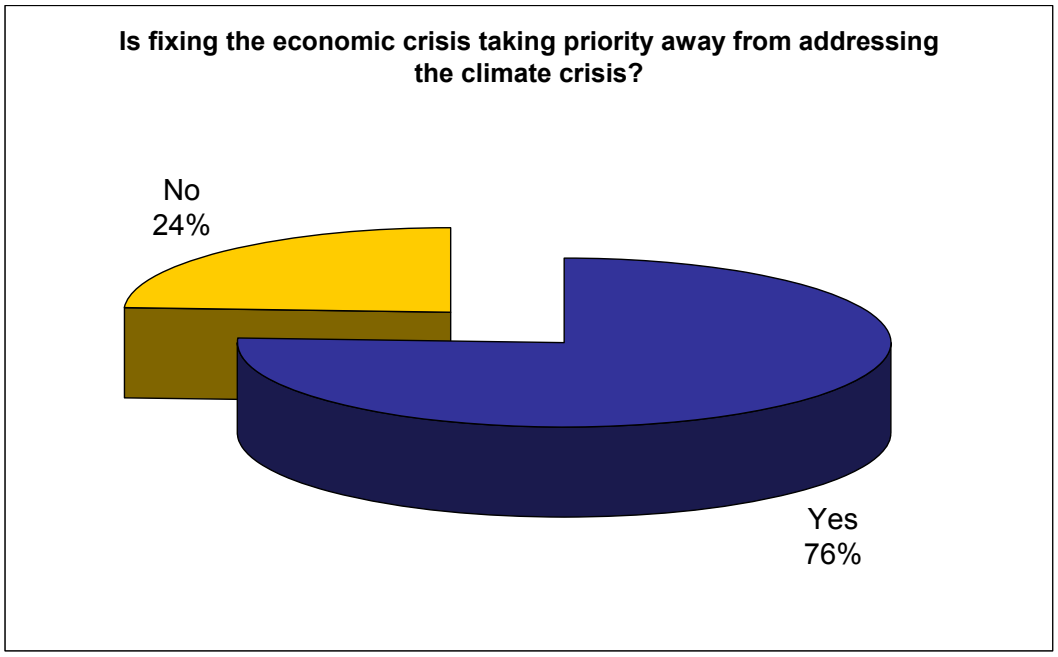
In a time of economic crisis, the public and the politicians are less willing to focus on an issue like global warming because they see other, more pressing issues.

Result of the survey

The vast majority of 76% believes that the financial crisis is indeed taking priority away from addressing the climate crisis. Of these, however, 26% expect that governments will provide support for renewable energy, while 40% expect more support for renewable energy and 11% significantly more support.

Among the group of respondents who do not think the focus on the financial crisis is taking priority away from the climate crisis, no one expects less government support for clean energy and 53% of them think more support will be provided, while 20% expects even significantly more support for renewable energy.

Figure 34: Question 4b: Is fixing the economic crisis taking priority away from addressing the climate crisis?



Reality check

In terms of the general public, in the US, for example, a Gallup poll taken in March found a six percent drop from last year in the number of people who are worried a "great deal" or a "fair amount" about global warming, after that number had been increasing for the previous five years. The economy is currently swamping all other issues.

Government support for low-carbon technologies through their stimulus packages is taking different forms. According to an analysis by ecofys and Germanwatch, of the $1.1 trillion worth of stimulus packages analysed, the adjusted climate-friendly expenditure amounts to just $73 billion – a tiny share (6.6%) of the total stimulus.

Conclusion

The survey responses correlate with reality.

Question 4d: How large is the role of the governments in promoting renewable energy in...?

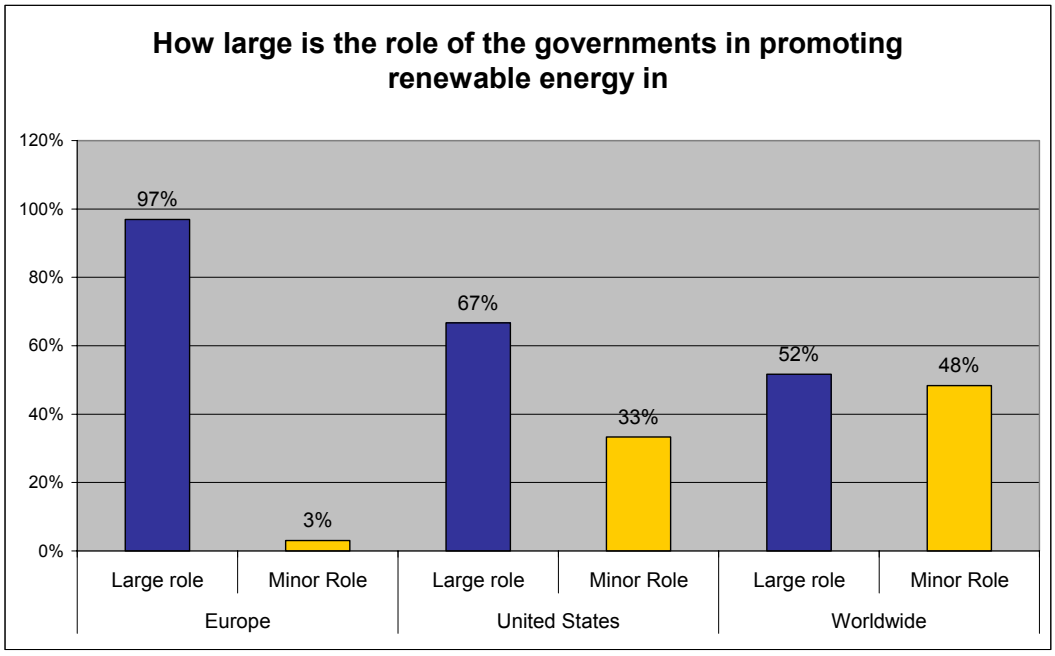
Reason for the question

Policy support is crucial for renewable energy development, but this support is not Policy frameworks are needed to enable businesses and investors to make returns on investments in low-carbon energy. European countries have become leaders in renewable energy due to favourable, stable policy support. President Obama is now pushing a bigger government role in fostering the development of technologies to reduce emissions and alternatives to fossil fuels.

Result of the survey

The role of governments in promoting RE is seen to differ from region to region. 97% of the respondents believe that government plays a large role in Europe, as opposed to 67% who see government in the US playing a large role. 33% believe that government promotion plays a minor role in the US. As regards the role of governments in the RE sector worldwide is concerned, 52% feel that governments play a large role, whilst 48% believe that governments play only a minor role.

Figure 35: Question 4d: How large is the role of the governments in promoting renewable energy in Europe, the US, worldwide?



Reality check

In Europe renewable energy policies tend to be better funded, targeted, and more consistent than elsewhere. However, President Obama is now taking significant steps towards promoting renewable energy with a stimulus package that aims to double the amount of renewable energy produced over the next three years. The ten year budget also set out plans to invest $150bn of the revenue from the cap-and-trade scheme in clean tech R&D.

Conclusion

In Europe governments play a huge role in promoting renewables, but the US is likely to catch up.

Question 4e: What kinds of policy frameworks are most effective in promoting renewable energy?

Reason for the question

There has been a great deal of positive and negative experience with different types of policies to promote renewable energy.

Result of the survey

Asked what kind of policy framework is the most effective one, the majority of the respondents (81%) indicate that they believe feed-in tariffs are the most effective policy frameworks.

Only 10% see capital subsidies/grants as the right tool and only 5% think Renewable Energy Portfolios Standards are effective and have worked in the past.

The answers seem to provide a clear picture. However, caution must be exercised, as most of the respondents are from Europe, where feed-in tariffs have been successful in many countries.

Figure 36: Question 4e: What kinds of policy frameworks are most effective?

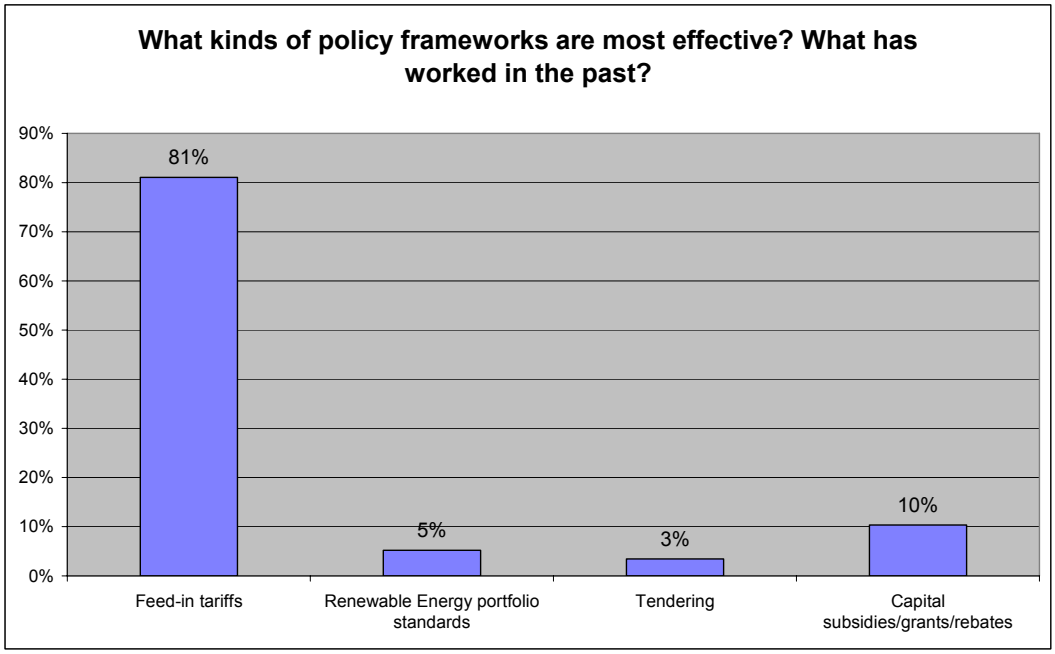
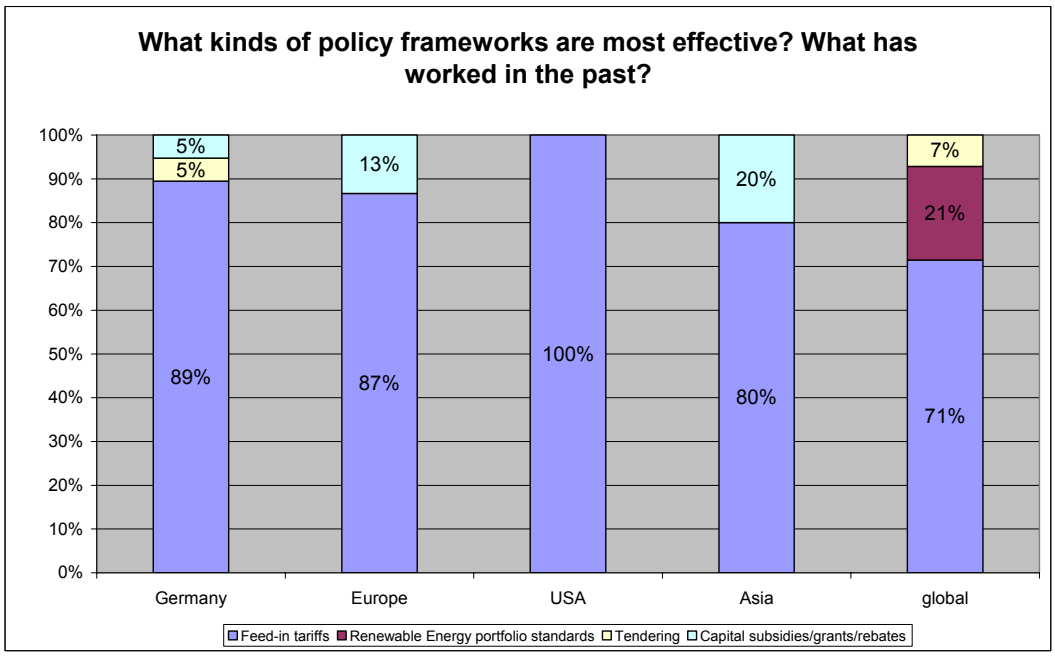


Figure 37: Question 4e: What kinds of policy frameworks are most effective...? (regional comparison)



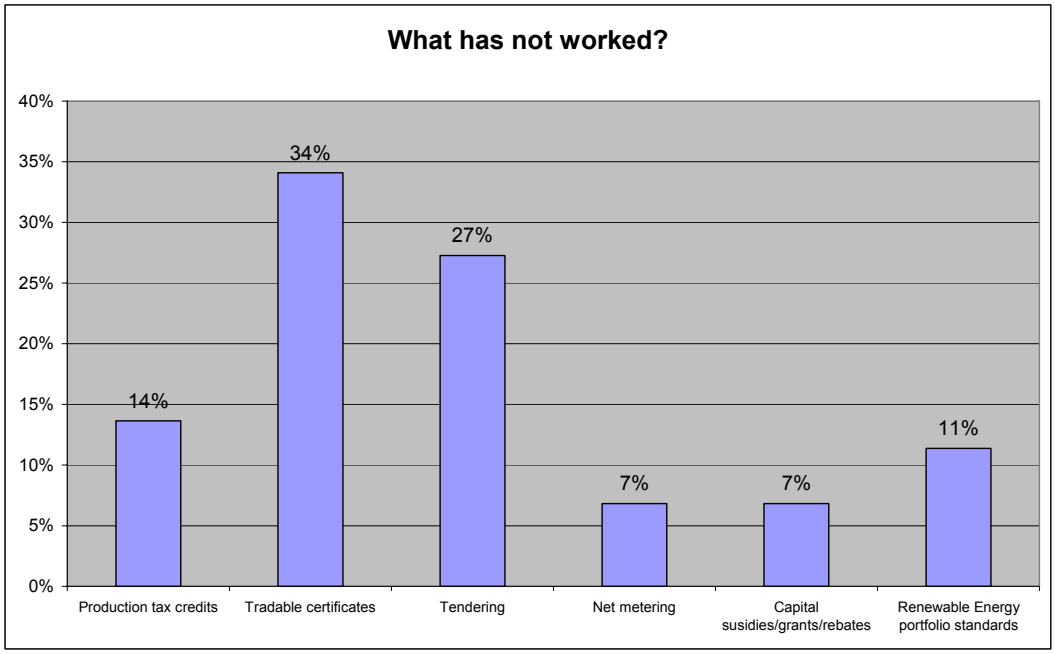
Question 4g: What has not worked

Result of the survey

The survey participants were asked to rank instruments they felt do not work. 34% of the 58% respondents named tradable certificates as being not effective, while 27% chose

tendering. Only a minority of 7% felt capital subsidies, grants and rebates are not effective.

Figure 38: Question 4g: What has not worked?



Reality check

In a survey taken of the delegates at the New Energy Finance Summit in March 2009, feed-in tariffs as well as renewable portfolio standards were considered two of the most effective policy tools (after efficiency regulations and standards, and carbon cap and trade) in shifting the world to a low-carbon future in the long term. An objective comparison of effectiveness between instruments, such as between feed-in tariffs and quota obligations schemes, is not possible, since all have had success and failures in different countries and depending on different technologies. Key is the design and the implementation of the policies.

Conclusion

The responses to questions 4e and 4f have to be taken together. They surely reflect the experience - or lack thereof - the respondents have had with the different instruments. Feed-in tariffs are seen very favourably in Europe, where there is not as much experience with quote mechanisms and tendering. Production tax credits in the US have been criticised because of their stop-and-go nature, leaving investors with little confidence. This again shows that the design and the implementation of policies are key to their effectiveness.

Question 4i: How will the carbon market be affected by the financial crisis in 2012-2020?

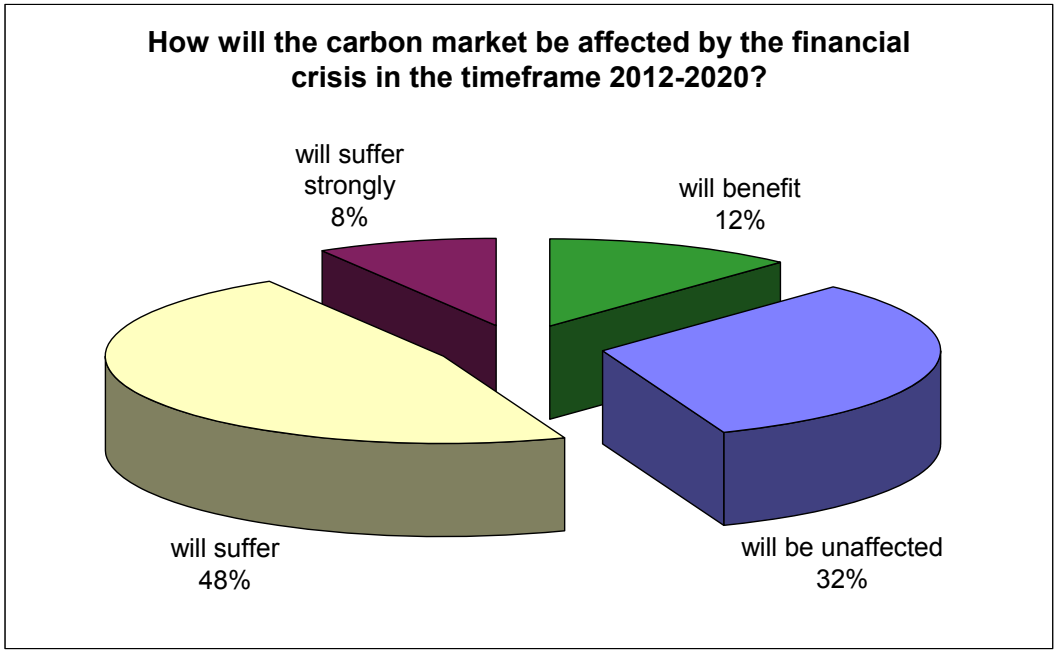
Reason for the questions 4h and 4i

The global financial crisis and its adverse impact on the global economy are seen by some to be negative drivers for the carbon market. Others, however, hold that carbon prices are affected less than most asset classes.

Result of the survey

Asked how the carbon market will be affected by the financial crisis, the participants (78%) responding to the question did not provide a clear trend. 56% believe the carbon market will be negatively affected (48% expect the carbon market will suffer and 8% think it will suffer strongly), while other respondents think it will be unaffected (32%) or will benefit (12%).

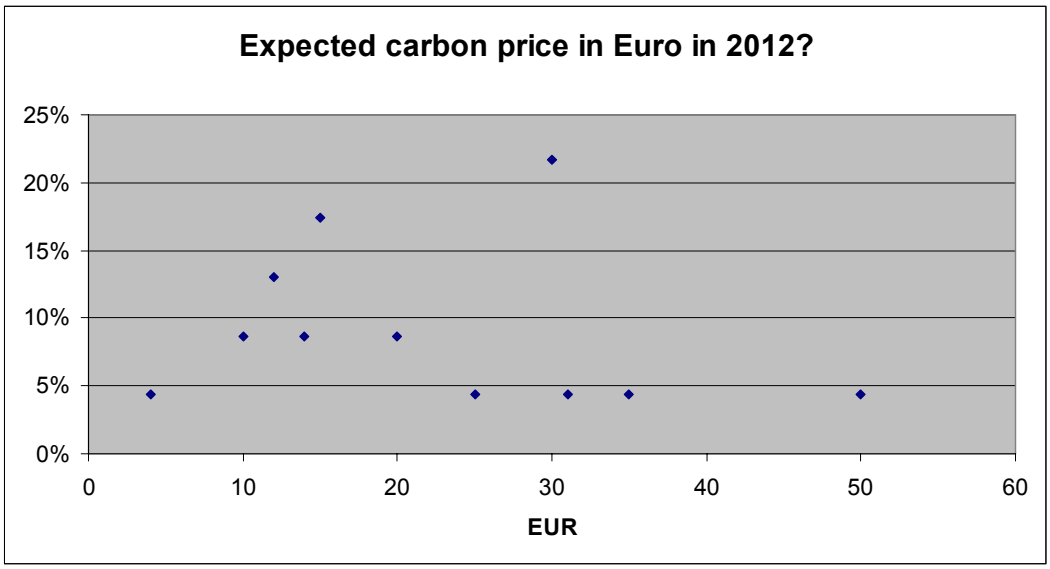
Figure 39: Question 4i: How will the carbon market be affected by the financial crisis in 2012-2020?



Question 4j: What do you expect the carbon price to be in Euro in 2012?

Respondents were asked to predict the carbon price in the year 2012 and were given a list to choose from. Only 23 respondents ventured a guess. The average price turned out to be EUR 22.83.

Figure 40: Question 4j: Expected carbon price in Euro in 2012?



Reality check

According to New Energy Finance, material carbon prices are expected for the foreseeable future, though with major regional differences. In particular, multiple carbon prices are likely to be created by the presence of individual regional schemes. The highest prices are likely to continue in Europe, with lower pries in Australia and on the global carbon market. The US market is also likely to have relatively low prices, of the order of €10-20/tCO2 under a federal programme. In Q4 2009, new carbon finance sees the developing world continuing to benefit from carbon emissions trading as it will remain a source of emissions credits, while it is unlikely to take on any form of hard target in the future.

Conclusion

The estimations of the survey respondents correlate with those of the evidence-based research. At this point in time, it may not be possible to make any mid-term predictions.

The fact that that only a small number of respondents dared to make a guess is understandable, as the carbon market is very complex and factors affecting prices reflect many different fundamentals and linkages with post-2012 market structures.

Question 4k: What will happen in the carbon markets after 2020 regionally and internationally?

Reason for the question

After an initial slowdown caused by the economic downturn, the issue of climate change, expectations for a global climate deal and expectations for a US emissions trading scheme which drives the carbon market, could ensure that the carbon market to comes back and develops further in the long term

Result of the survey

Asked about the future of the carbon market (after 2020), most responded positively. The

majority of the respondents (69%) expect the carbon market will develop dynamically after 2020. Among them, only 11% expect the carbon market will benefit from the financial crisis between 2012 and 2020 and 41% think it will be unaffected (see question 4i).

Among the group of respondents that expects that the carbon market will not work after 2020 (10%), 80% thought that the carbon market will already suffer or suffer strongly between 2012 and 2020 (see question 4i):

Figure 41: Question 4k: What will happen in the carbon markets after 2020 regionally and internationally?

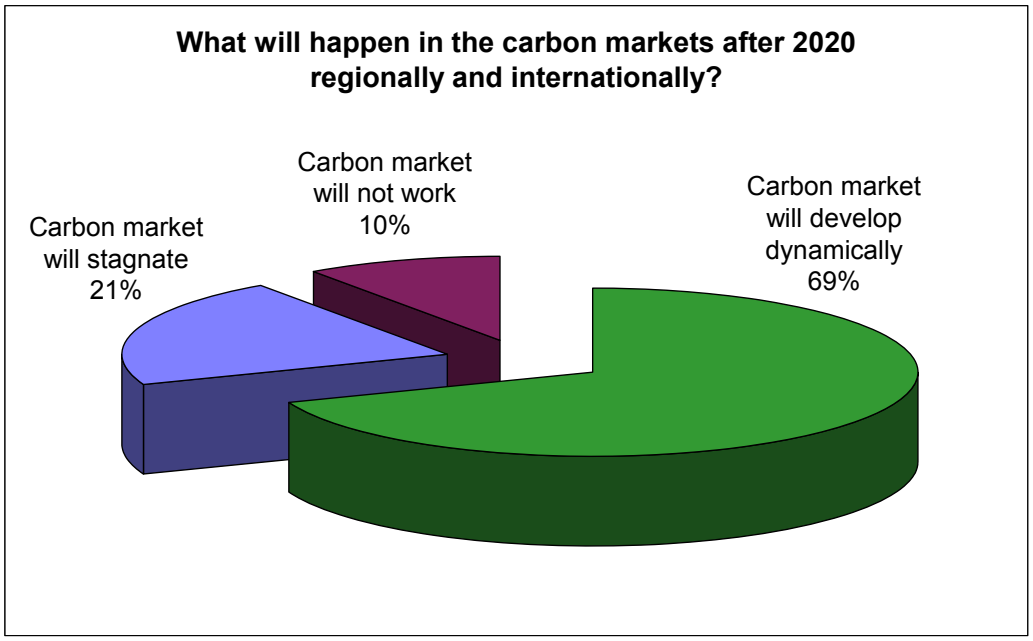
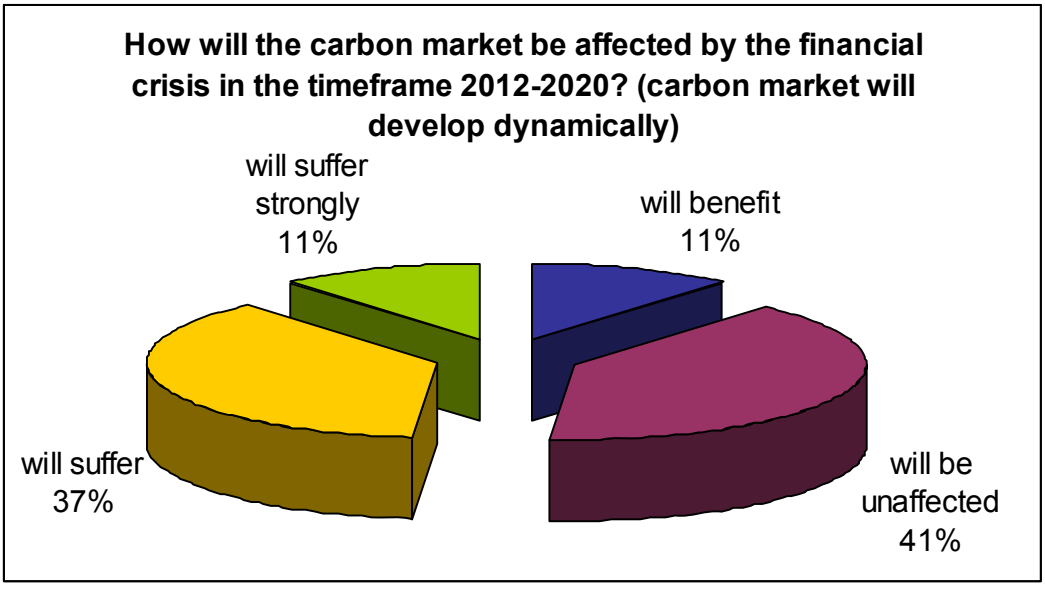


Figure 42: Question 4k: (carbon market will develop dynamically); How will the carbon market be affected by the financial crisis... ?



Reality check

In spite of the gloomy economic conditions, the international community still appears to be committed to tackling climate change. Further progress on finding a successor to Kyoto is likely at Copenhagen in December 2009, and although this may not result in an all-encompassing international agreement, it may well provide the framework to support unilateral emission reduction commitments and trading schemes. In time, these schemes could easily merge into a new global carbon market.

In the meantime all eyes in the carbon market are turned towards Washington, DC. A robust federal cap-and-trade system in the US can indeed open the door towards an OECD-wide carbon market by means of integrating the European and American systems

Conclusion

The survey results correlate with reality.

Question 4l: What is the importance of an international climate agreement?

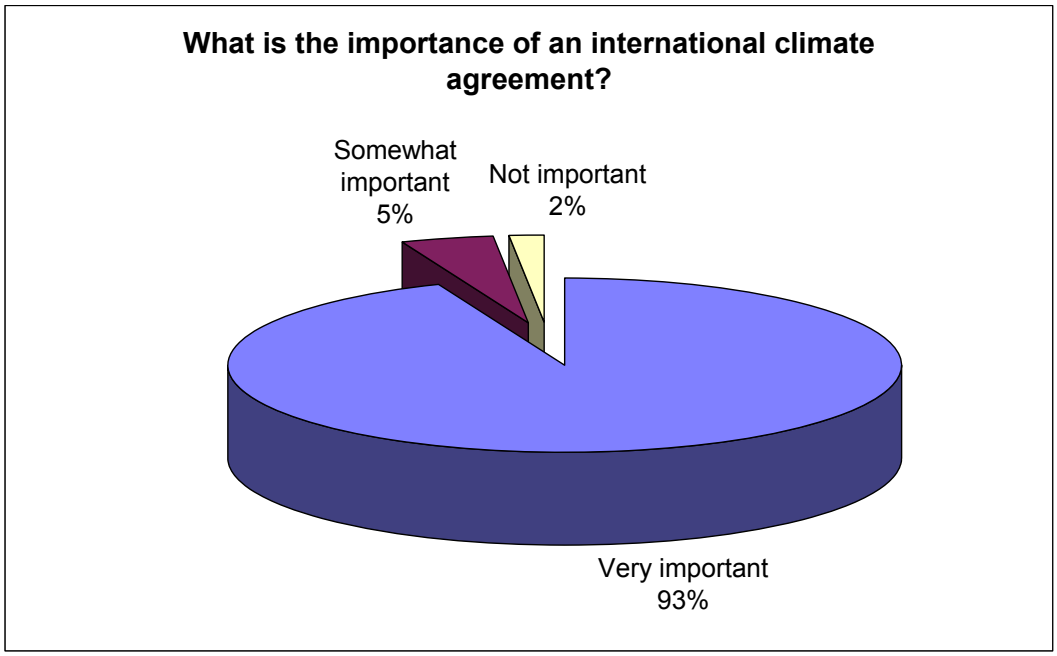
Reason for the question

World governments are expected to agree on an ambitious and effective climate change deal to follow on the first phase of the UN's Kyoto Protocol, which expires in 2012.

Result of the survey

The response to the question regarding the importance of an international climate agreement was almost unanimous: 93% of the 86% of the respondents consider an international agreement as very important. This no doubt reflects a selection bias. However, it underscores once again that investors in the renewable energy sector need policy to help them make their decisions.

Figure 43: Question 4l: What is the importance of an international climate agreement?



Reality check

New Energy Finance's Global Futures report finds that investment needs to reach $500 billion a year by 2020 if carbon dioxide emissions from the world's energy system are to peak before 2020. The NEF analysis shows that a peak much before 2020 currently looks "highly unlikely".

Conclusion

Investors are concerned about climate change and climate policy, because these will have an impact on both the global economy as well as on individual assets. A strong global agreement will underpin investor confidence in the direction that regional and national climate policy will take and will support investors in their engagement with companies.

Question 4m: What are the clean energy policy requirements of institutional investors?

Reason for the question

Different types of policy support have been developed to attract investments in renewable energy.

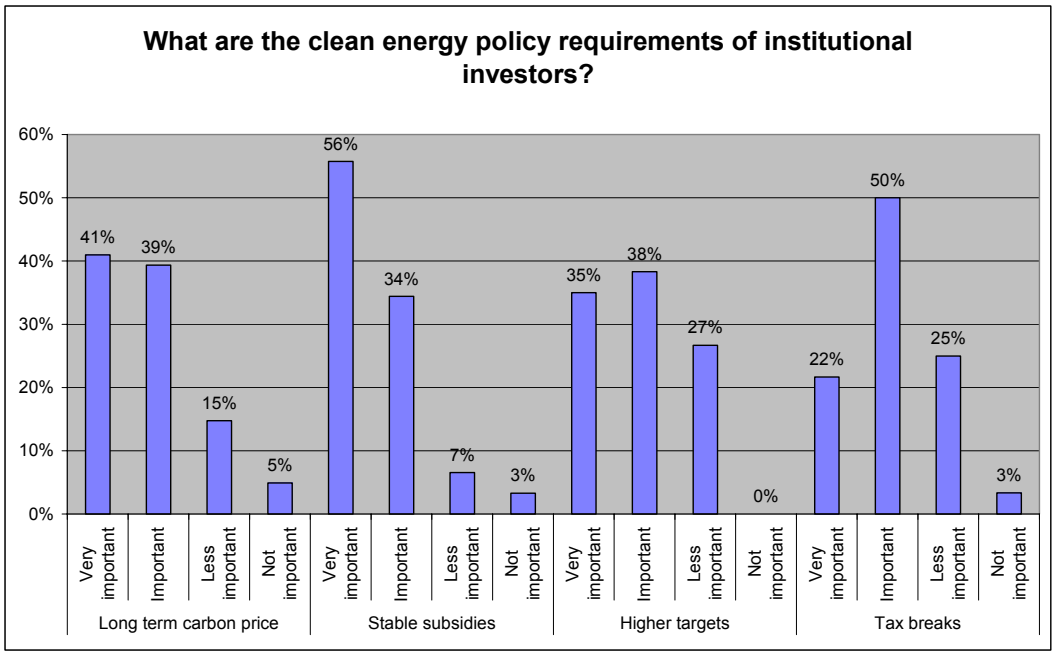
Result of the survey

Participants were asked which policies institutional investors require when investing in renewables. They were given four kinds of policies: long-term carbon price, stable

subsidies, higher targets, tax breaks. Of the 80% who answered, 60% of the respondents think all four tools are either important or very important for institutional investors.

In terms of long-term carbon prices, 39% of the respondents consider them important for investors and 41% very important. 56% of the respondents believe stable subsidies are very important and 34% think they are important. As for higher targets, a large share (38%) believes they are important for investors and 35% believe they are very important. Half of the respondents (50%) ranks tax breaks as important for institutional investors, while 25% think this instrument is less important.

Figure 44: Question 4m: What are the clean energy policy requirements of institutional investors?



Reality check

In a survey taken of the delegates at the New Energy Finance Summit in March 2009, feed-in tariffs as well as renewable portfolio standards were considered two of the most effective policy tools (after efficiency regulations and standards, and carbon cap and trade) in shifting the world to a low-carbon future in the long term. Tax incentives were ranked further down. This may be linked to the negative experience with the US production tax credit (PTC), which expired three times in five years (see also questions 4e and 4f).

Conclusion

All of the four suggested policy instruments are considered important by the respondents. More important than the specific policy itself is its design and stability. To be effective policies have to be stable, predictable and long-term. The fact that tax breaks is the lowest ranked instrument may be linked to the negative experience with the US production tax credit (PTC), which expired three times in five years.

Question 5: How long is this economic downturn likely to last?

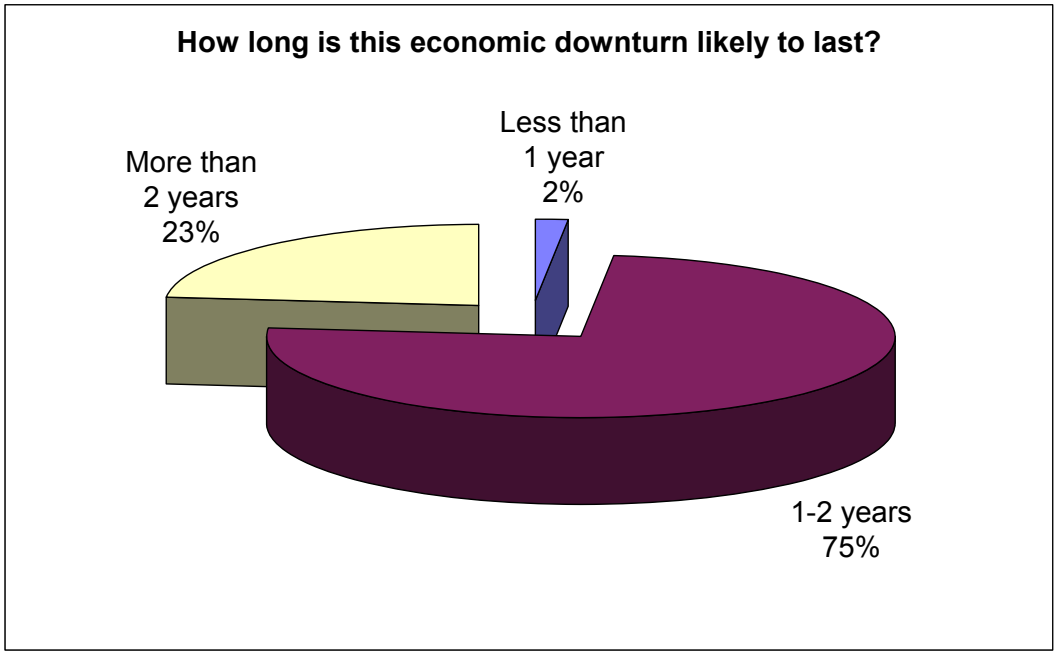
Reason for the question

Past global economic recessions have lasted from 6 to 16 months. The Great Depression in the 1930s lasted about 43 months. The current downturn is said to have begun in December 2007. How optimistic or pessimistic are our respondents?

Result of the survey

The vast majority (75%) of the 84% of the respondents who answered was optimistic, believing that the hard times would be over in two years. Of these, a little more than a third (38%) had stated in question 1l that they'd experienced a stable business volume, while just under half (45%) had said their business volume was decreasing. Among the group of respondents who expect the crisis to last more than two years, about half (47%) had stated that their business volume was decreasing.

Figure 45: Question 5: How long is this economic downturn likely to last?



Reality check

The reality check will be done in a few years time.

Conclusion

The survey population generally seems to be optimistic.

5 Conclusion

According to the survey, the economic downturn should not last more than two years. In the meantime, however, capital will remain in short supply and access to finance will be difficult and costly. Many survey respondents are already undergoing a downward adjustment of their own business planning. The survey concluded that due to reduced liquidity, financing for renewable energy projects will decrease over the next two years. Investment flow to developing countries, in particular, will decline. Lower commodity prices will only have a temporary impact on costs and investment. The majority expects that the market volume of private equity, venture capital, project finance and capital markets will decrease further in the foreseeable future, while government financing of renewable energy will increase.

Energy policies such as long-term carbon prices, stable subsidies, high targets and tax brakes are considered important requirements of institutional investors. The majority of survey participants think governments can best help them through the crisis with financial incentives and loans. Moreover, feed-in tariffs were considered the most effective policy framework, while tradable certificates and tendering were less favoured. A large share of the survey participants expects the carbon market to be adversely affected by the financial crisis from 2012 to 2020, but the majority is certain it will develop dynamically after 2020.

Most survey participants expect the economic crisis to take priority away from addressing climate change, and almost unanimously agree on the importance of an international climate agreement. But the majority also believes that the European renewable energy targets can be achieved.

The survey further concludes that innovative financial models, despite the reputation damage they've recently suffered, will recover and regain importance for renewable energy finance.

In general, the survey population is cautiously optimistic about the future of renewable energy and the findings give encouraging signs that the mood of investors and the industry, despite the many hurdles still to jump until full economic recovery, is turning positive.

About UNEP

UNEP is working to create the policy and economic framework whereby sustainable energy can increasingly meet the global energy challenge. Changing attitudes and helping mainstream financiers to consider sustainable energy investments are key components of the energy work within UNEP and the starting point for the UNEP Sustainable Energy Finance Initiative.

SEFI provides current and targeted information to financiers and facilitates new economic tools that combine social and environmental factors – both risks and returns – as integral measures of economic performance.

SEFI is modelled as a platform to provide financiers with the tools, support and networks to drive financial innovation that improves the environmental performance of the energy mix. The overall strategy is to use this platform and modest amounts of capital to convene financiers, engage them to do jointly what they may have been reluctant to do individually, and to catalyze public-private alliances that together share the costs and lower the barriers to sustainable energy investment.

About New Energy Finance

New Energy Finance is the world's leading independent provider of research to investors in renewable energy, biofuels, low-carbon technologies and the carbon markets. The company's research staff of 80 (based in London, Washington, New York, Palo Alto, Beijing, New Delhi, Tel Aviv, Cape Town, Sao Paulo and Perth) tracks deal flow in venture capital, private equity, M&A, public markets, asset finance and carbon credits around the world.

Services include the New Energy Finance Weekly Briefing, New Energy Finance Desktop, New Energy Finance Regional and Sector Focus Reports, as well as a daily news service and weekly podcasts reviewing the latest clean energy news. New Energy Finance co-publishes the world's first global clean energy market index, the WilderHill New Energy Global Innovation Index (ticker symbol NEX). New Energy Finance's subscription-based Insight Services provide in-depth market analysis to investors in Wind, Solar, Biofuels, Biomass, Carbon, VC/PE, Assets & Infrastructure, Public Markets, China and the US.

New Energy Finance also undertakes bespoke research and consultancy, and runs senior-level networking events, including the New Energy Finance Summit.

New Carbon Finance, a division of New Energy Finance, provides analysis and price forecasting for the European, US and global carbon markets.

www.newenergyfinance.com

About Frankfurt School of Finance & Management – designated UNEP Collaborating Centre

Frankfurt School of Finance & Management (FS) is a leading private business school based in Frankfurt am Main, with over 86 regional education centers spread across Germany and several joint ventures abroad, including a shareholding position in Shanghai International Banking and Finance Institute. The International Advisory Services of Frankfurt School is a well-known provider of microfinance training and technical assistance in developing and transition countries all over the world and hold local offices in Kenya, Serbia, Bosnia and Herzegovina, Montenegro, Macedonia, Kosovo, Romania, Moldova and Ukraine.

The activities of the Frankfurt School of Finance & Management are focused on addressing the needs and requirements of the financial sector in developing as well as developed countries. The activities are built on four pillars: Educational Programs, Educational Consulting in Germany, Research and International Advisory Services.

www.frankfurt-school.de

Annex 1: Questionnaire

Impact of global financial crisis on funding for the renewable energy market

- A joint study by UNEP, Frankfurt School of Finance & Management, and New Energy Finance -

With this survey we aim to analyse the potential impact on investment flows for renewable energy technologies and companies as capital becomes more expensive and access to credit more difficult. Conclusions will be drawn as to what these changes can mean for certain renewable energy technologies, for certain kinds of financing, and in certain regions, and how these shifts will alter the renewable energy landscape.

Name (optional, and will be kept confidential) _____

Sector:
- □ Multilateral or bilateral institution
- □ Infrastructure provider
- □ Private banks and investors

1. Finance flows:

a. Investment in renewable technology will focus on mature technologies rather than innovation over the next 2-3 years.

□ Agree □ Somewhat agree □ No opinion □ Disagree

b. What will happen to project finance (in the next two years) due to banks having less money?

- □ Strong decrease
- □ Slight decrease
- □ No change
- □ Increase

c. How are the conditions for project finance changing as far as debt-equity is concerned (debt-equity ratio)?

□ Higher □ No Change □ Lower

d. How are the conditions for project finance changing as far as guarantees are concerned?

□ Higher □ No Change □ Lower

e. How is risk perception changing compared to basic corporate lending?

- □ Spreads increase
- □ Spreads differ according to specific risk
- □ Spreads decrease

f. What is the required equity percentage ratio of a "bankable" renewable energy project?

	0-9%	10-15%	16-25%	26-50%	>50%	No opinion
Wind	□	□	□	□	□	□
Solar	□	□	□	□	□	□
Hydro	□	□	□	□	□	□
Bio Energy	□	□	□	□	□	□

g. What is the maximum tenor (in years) of a "bankable" renewable energy project?

	3	5	10	>10	No opinion
Wind	□	□	□	□	□
Solar	□	□	□	□	□
Hydro	□	□	□	□	□
Bio Energy	□	□	□	□	□

h. What percentage of the market do you expect ...?

to change conditions (tenor, pricing, structure, covenants etc.)?

□ Less than 25% □ 25-50% □ 50-75% □ More than 75%

Will be postponed?

□ Less than 25% □ 25-50% □ 50-75% □ More than 75%

Will be cancelled?

□ Less than 25% □ 25-50% □ 50-75% □ More than 75%

i. Effect of commodity prices

i. Decrease in Steel prices → wind turbines become cheaper

□ No effect □ Slight effect □ Strong effect

ii. Decrease in oil and gas prices → incentive for renewable energy production lowered

□ No effect □ Slight effect □ Strong effect

iii. Lower commodity prices will have

□ Short-term effect (until end of this year)

□ Mid-term effect (next 2 years)

□ Long-term effect (3 years or longer)

j. To what extent does financial innovation (e.g. index-based products, local-currency portfolio hedging) have a future, given the reputation damage innovative financial products have recently suffered?

□ Will become more important
□ Will not be affected
□ Will recover soon
□ Will be negatively affected

k. How important are these financial products to the renewable energy sector?

□ Not important
□ Somewhat important
□ Important
□ Very important

l. How has the market turmoil affected your own business planning in terms of volume?

□ Strong reduction
□ Reduction
□ Stable
□ Moderate increase
□ Opportunity - strong increase

m. How is the market turmoil affecting your staff planning?

□ Strong reduction
□ Reduction
□ Stable
□ Moderate increase
□ Opportunity - strong increase

2. Losers and winners:

a. How will small, independent energy infrastructure providers cover their costs? (single choice)

□ Sell projects □ Refinance □ As until now

b. Who will take advantage of the crisis? Is a switch from seller to buyer market already observable and if so, how?

	Will benefit	Will lose	No affect	No opinion
Innovative technology companies:	□	□	□	□
Large infrastructure providers:	□	□	□	□
Specialised finance providers:	□	□	□	□
End-users:	□	□	□	□
Finance industry (PE, sovereign wealth funds, family-owned companies, other):	□	□	□	□

c. What is your expectation for the market volume of …

	Increase	Flat	Decrease	No opinion
Venture Capital:	□	□	□	□
Private Equity:	□	□	□	□
Project Finance:	□	□	□	□
Capital Markets (Syndicated Loans, Bond Emission, IPO, M&A):	□	□	□	□
Public Finance Projects:	□	□	□	□

d. The time of >20% RoE investments is over. What does that mean for renewable energy infrastructure projects esp. in developing countries (with potentially lower RoE, higher implementation risk)?

□ Will benefit □ no change □ Will lose

e. How will the renewable energy sector as a sustainable investment continue to fare in comparison with other sectors?

□ Will benefit □ no change □ Will lose

3. Regional impacts:

a. Will Europe suffer the same problems as the US?

- □ Europe will suffer less than the US
- □ Europe will suffer as much as the US
- □ Europe will suffer more than the US

b. Can Europe's RE targets be realised?

- □ Yes
- □ No

c. You expect the investment flow to developing countries to ...

□ increase □ unchanged □ decrease

4. Policy and regulations:

a. How in your view will the financial crisis affect government support of clean energy?

- □ Significantly less support for clean energy
- □ Less support for clean energy
- □ No change
- □ More support for clean energy
- □ Significantly more support for clean energy

b. Is fixing the economic crisis taking priority from addressing the climate crisis?

□ Yes □ No

c. How can governments support the sector through this credit crunch? (single choice)

□ Policy support schemes □ Policy targets □ Financial incentives

□ Provision of credit

d. How large is the role of the government in promoting renewable energy in

Europe?	□	Large role	□	Minor role
United States?	□	Large role	□	Minor role
Worldwide?	□	Large role	□	Minor role

e. What kinds of policy frameworks are most effective? What has worked in the past? (single choice)

□ Feed-in tariffs □ RE portfolio standards □ Capital subsidies/grants/ rebates

□ Tradable certificates □ Production tax credits □ Net metering □ Tendering

f. Are there any alternative policy frameworks not mentioned in the previous question that you would like to draw attention to?

_____

g. What has not worked?

□ Feed-in tariffs □ RE portfolio standards
□ Capital subsidies/grants/ rebates □ Tradable certificates
□ Production tax credits □ Net metering □ Tendering

h. If there are any other policy frameworks that have been used but have not been effective, please mention below.

_____

i. How will the carbon market be affected by the financial crisis in the timeframe 2012-2020?

□ will benefit strongly □ will benefit □ will be unaffected
□ will suffer □ will suffer strongly

j. Expected carbon price in Euros in 2012?: _____ Euro

k. What will happen in the carbon markets after 2020 regionally and internationally?

□ Carbon market will develop dynamically
□ Carbon market will stagnate
□ Carbon market will not work

l. What is the importance of an international climate agreement?

□ Very important □ Somewhat important □ Not important

m. What are the clean energy policy requirements of institutional investors?

a. long term carbon price:

□ very important □ important □ less important □ not important

b. stable subsidies:

□ very important □ important □ less important □ not important

c. higher targets:

□ very important □ important □ less important □ not important

d. tax breaks:

□ very important □ important □ less important □ not important

5. How long is this economic downturn likely to last?

□ Less than 1 year □ 1-2 years □ more than 2 year

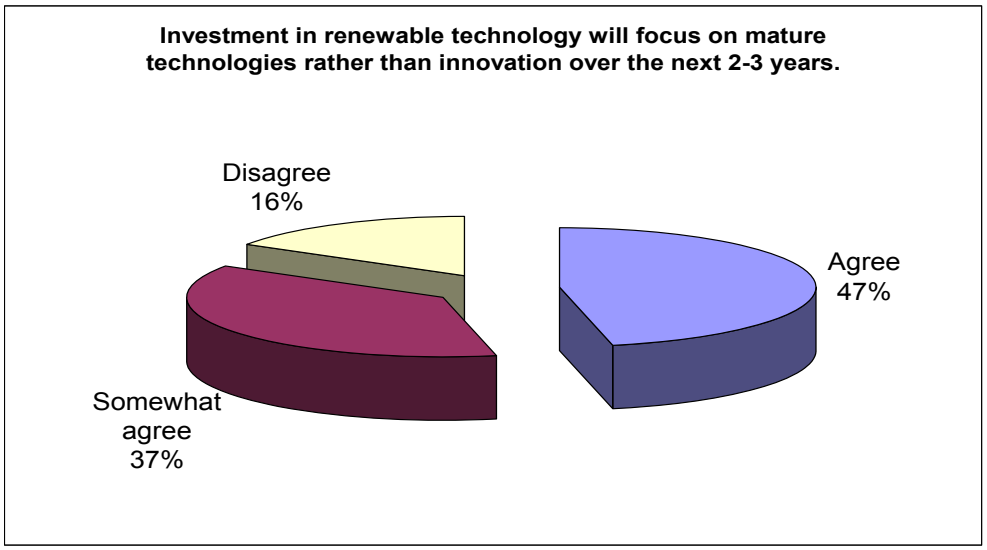
Annex 2: Detailed questionnaire results

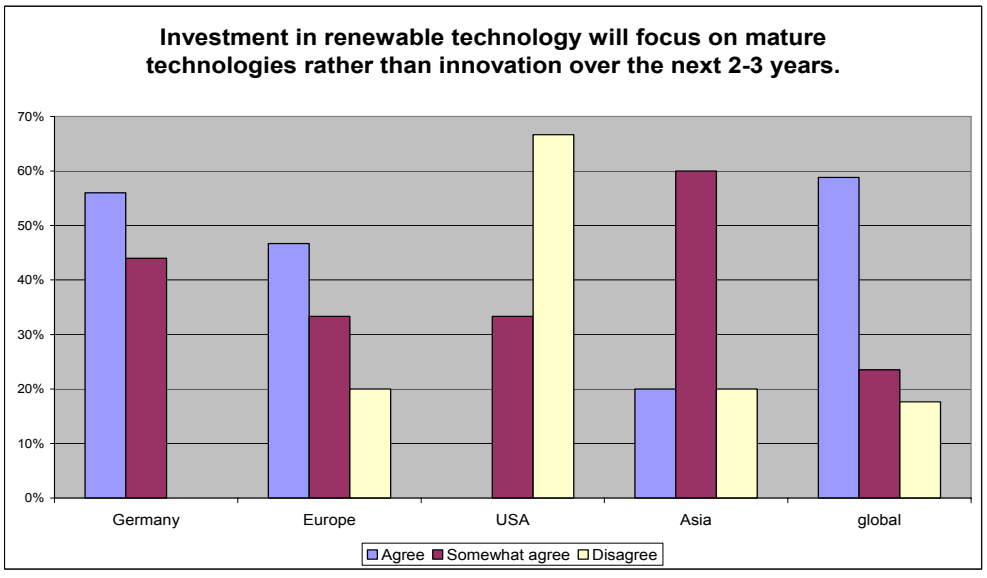
1 Finance flows:

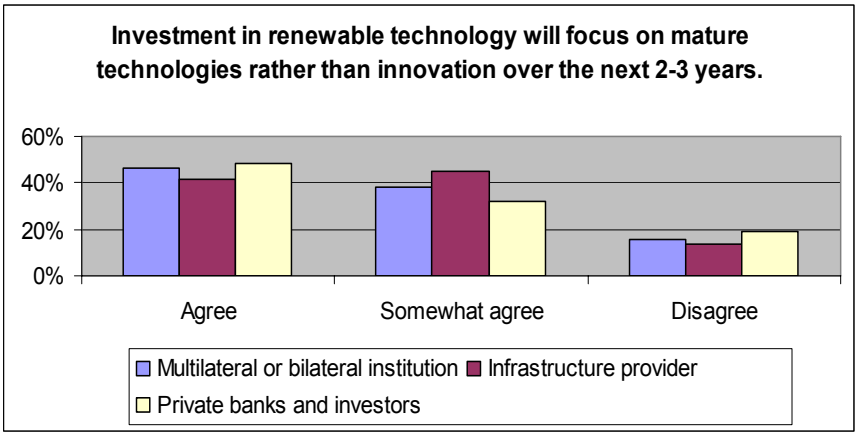
Note: 2 Participants of the survey are active as infrastructure provider and investor. This might cause small discrepancies, as their option is reflected in both categories.

1.a Investment in renewable technology will focus on mature technologies rather than innovation over the next 2-3 years.

	Agree		Somewhat agree		disagree	
Total	**35**	**47%**	**28**	**37%**	**12**	**16%**
Multilateral/ Bilateral Institutions	6	46%	5	39%	2	15%
Infrastructure providers	12	41%	13	45%	4	14%
Private Banks/ Investors	15	48%	10	32%	6	19%
No sector	2	100%	1	0%	1	0%
Germany	14	56%	11	44%	0	
Europe	7	47%	5	33%	3	20%
USA	0	0%	1	33%	2	67%
Asia	1	20%	3	60%	1	20%
global	10	59%	4	24%	3	17%
No region	3	30%	4	40%	3	30%

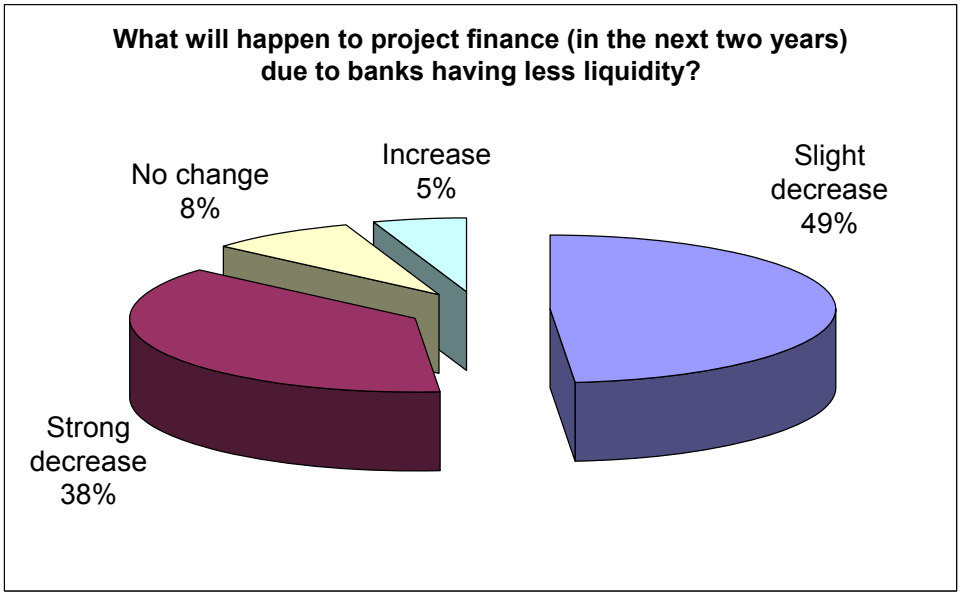


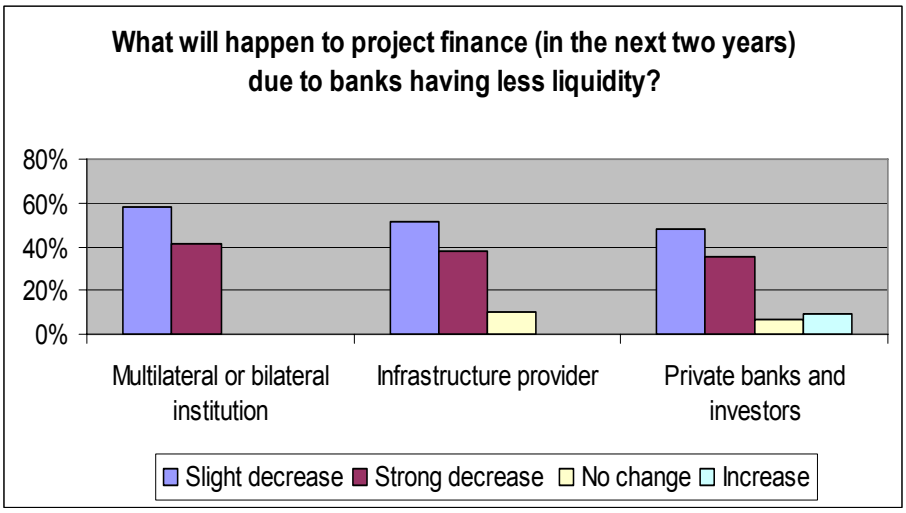


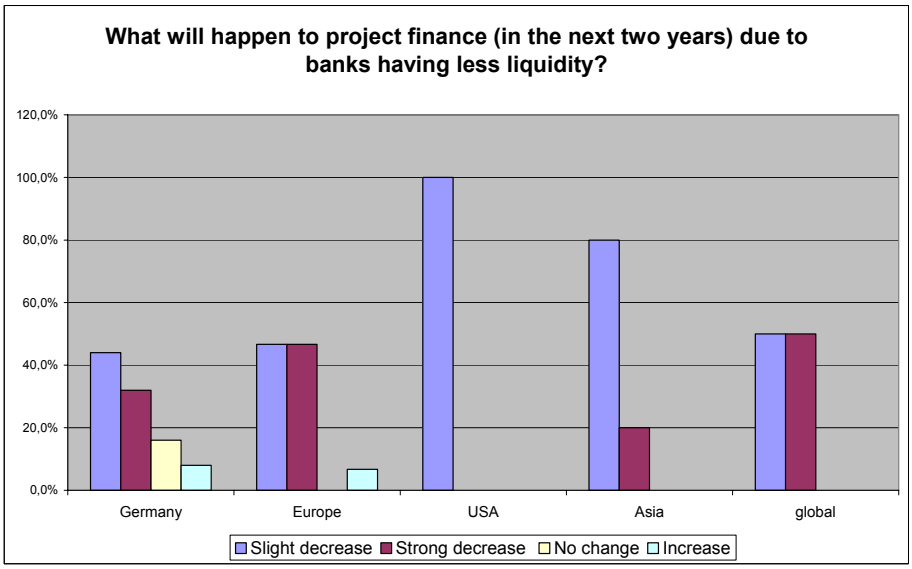


1.b What will happen to project finance (in the next years) due to banks having less money?

	Strong decrease		Slight decrease		No change		Increase	
Total	**28**	**38%**	**36**	**49%**	**6**	**8%**	**4**	**5%**
Multilateral/ Bilateral Institutions	5	42%	7	58%	0	0%	0	0%
Infrastructure providers	11	38%	15	52%	3	10%	0	0%
Private Banks/ Investors	11	35%	15	48%	2	6%	3	10%
No sector	2	50%	0	0%	1	25%	1	25%
Germany	8	32%	11	44%	4	16%	2	8%
Europe	7	46.6%	7	46.6%	0	0%	1	6.6%
USA	0	0%	2	100%	0	0%	0	0%
Asia	1	20%	4	80%	0	0%	0	0%
global	8	50%	8	50%	0	0%	0	0%
No region	4	36%	4	36%	2	18%	1	9%

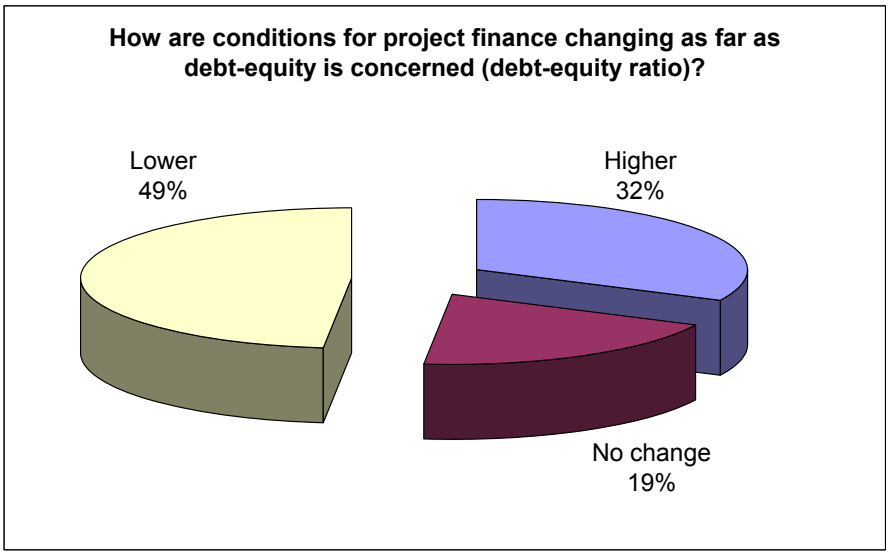


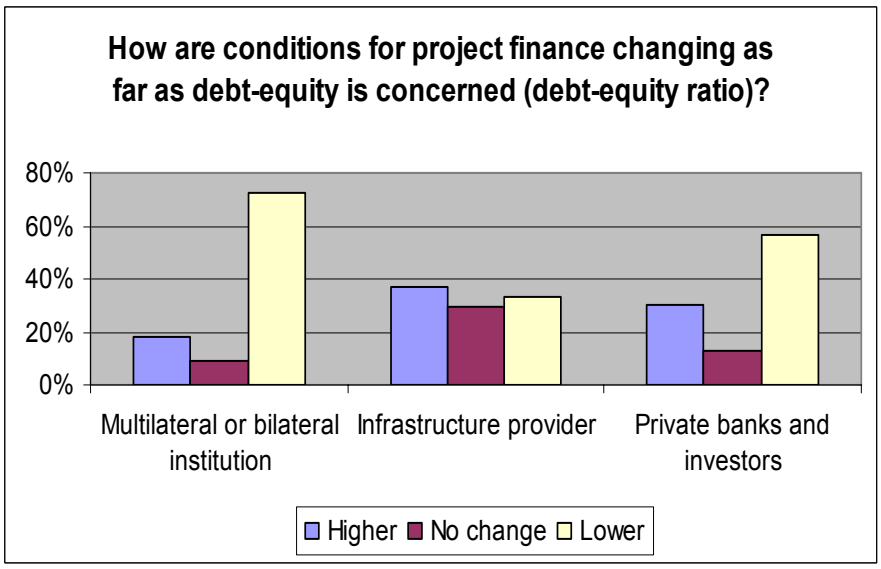


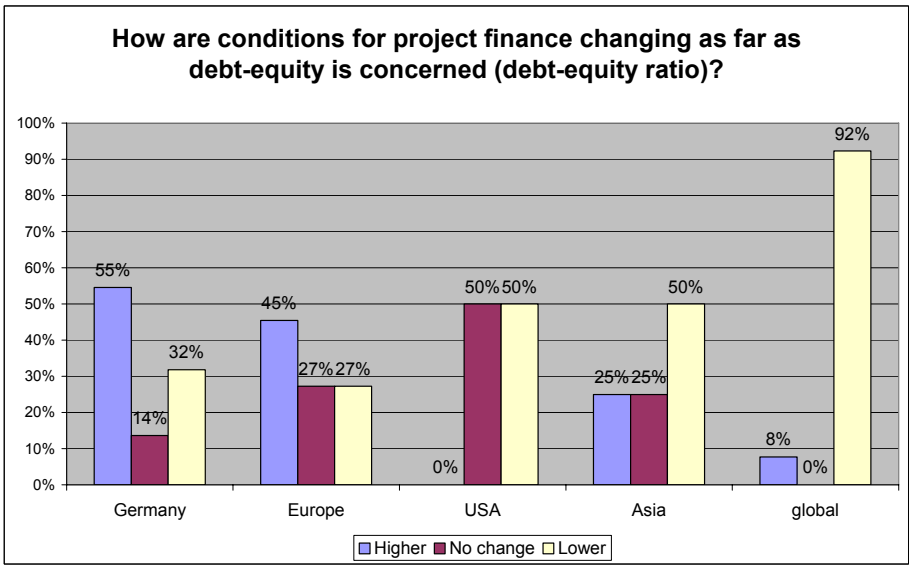


1.c How are conditions for project finance changing as far as debt-equity is concerned (debt-equity ratio)?

	Higher		No change		Lower	
Total	**20**	**32%**	**12**	**20%**	**30**	**48%**
Multilateral/ Bilateral Institutions	2	18%	1	9%	8	72.7%
Infrastructure providers	10	37%	8	29.7%	9	33.3%
Private Banks/ Investors	7	30%	3	13%	13	56%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	12	54%	3	14%	7	32%
Europe	5	46%	3	27%	3	27%
USA	0	0%	1	50%	1	50%
Asia	1	25%	1	25%	2	50%
global	1	8%	0	0%	12	92%
No region	1	10%	4	40%	5	50%

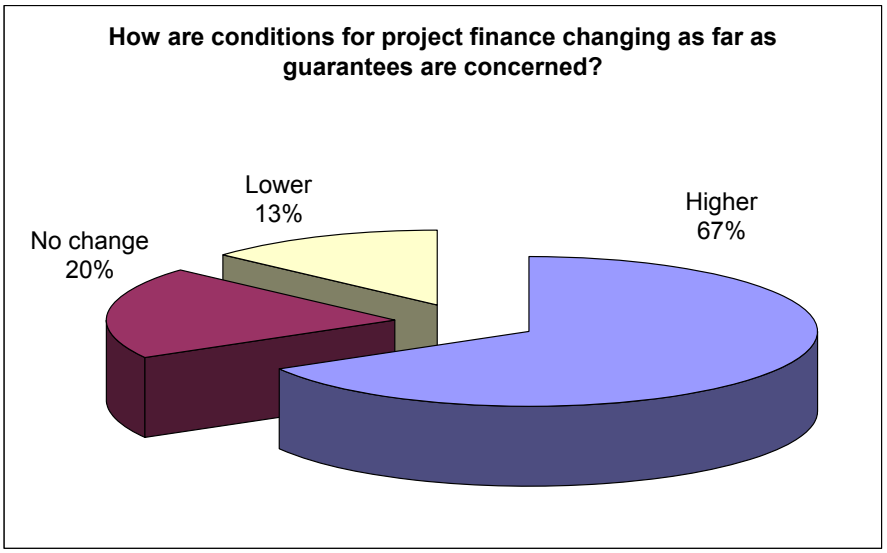

How are conditions for project finance changing as far as debt-equity is concerned (debt-equity ratio)?
Lower 49%
Higher 32%
No change 19%

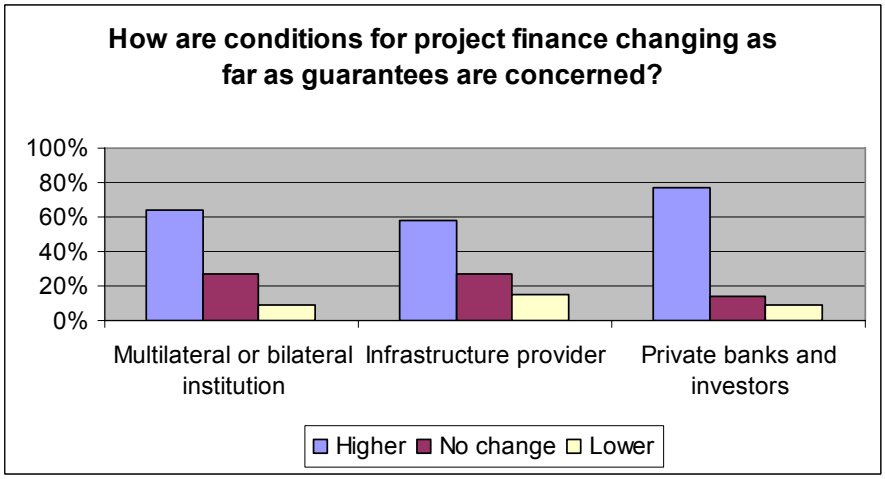

How are conditions for project finance changing as far as debt-equity is concerned (debt-equity ratio)?
80%
60%
40%
20%
0%
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors
Higher
No change
Lower

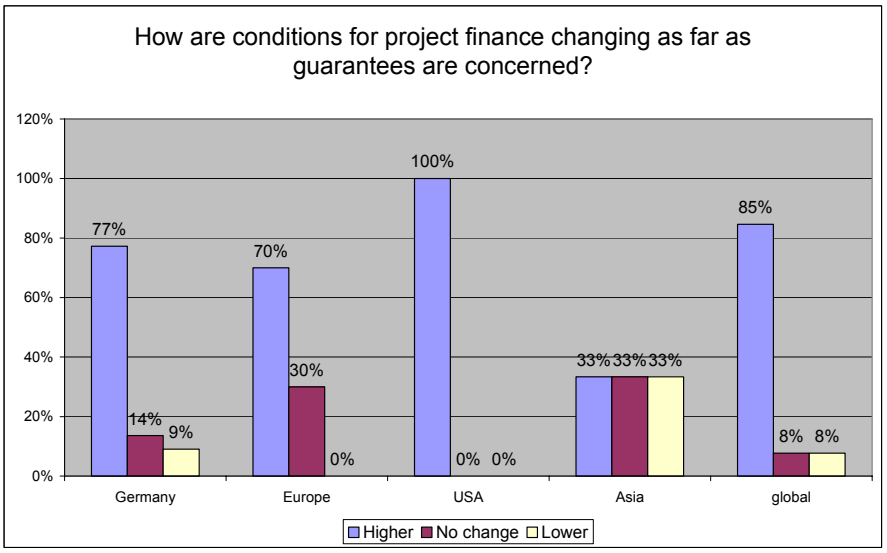

How are conditions for project finance changing as far as debt-equity is concerned (debt-equity ratio)?
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
55%
14%
32%
45%
27%
27%
0%
50%
50%
25%
25%
50%
8%
0%
92%
Germany
Europe
USA
Asia
global
Higher
No change
Lower

1.d How are conditions for project finance changing as far as guarantees are concerned?

	Higher		No change		Lower	
Total	**40**	**67%**	**12**	**20%**	**8**	**13%**
Multilateral/ Bilateral Institutions	7	64%	3	27%	1	9%
Infrastructure providers	15	58%	7	27%	4	15%
Private Banks/ Investors	17	77%	3	14%	2	9%
No sector	2	67%	0	0%	1	33%
Germany	17	77%	3	14%	2	9%
Europe	7	70%	3	30%	0	0%
USA	2	100%	0	0%	0	0%
Asia	1	33.3%	1	33.3%	1	33.3%
global	11	84%	1	8%	1	8%
No region	2	20%	4	40%	4	40%

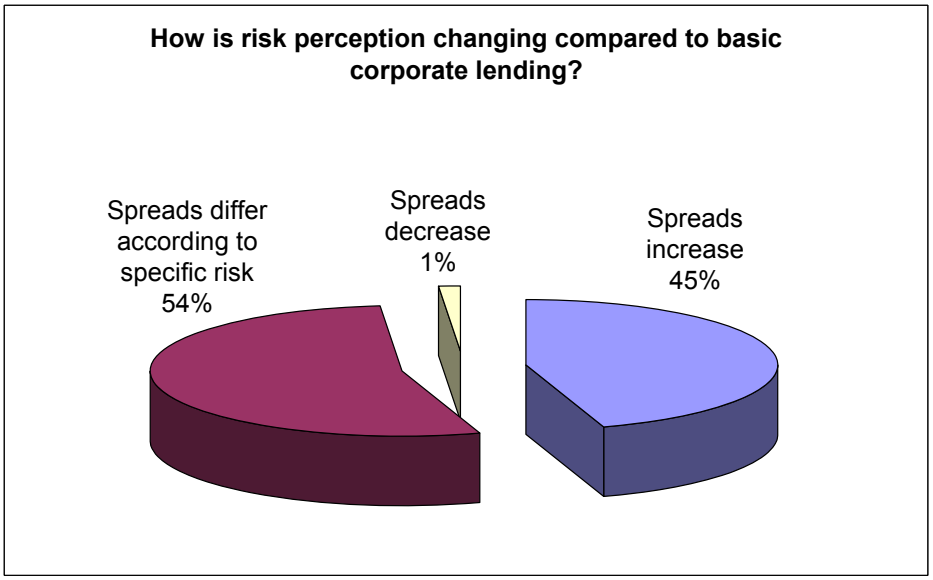


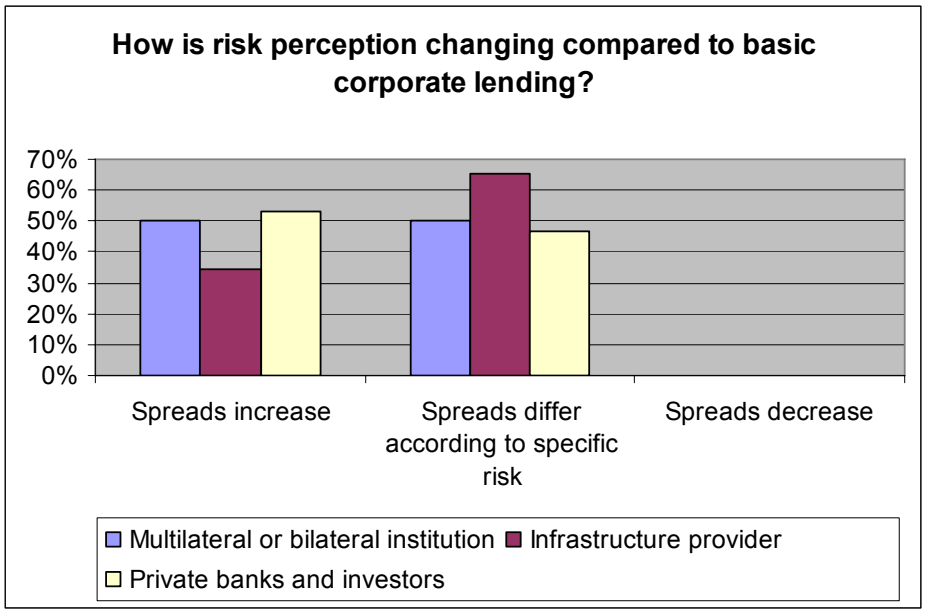


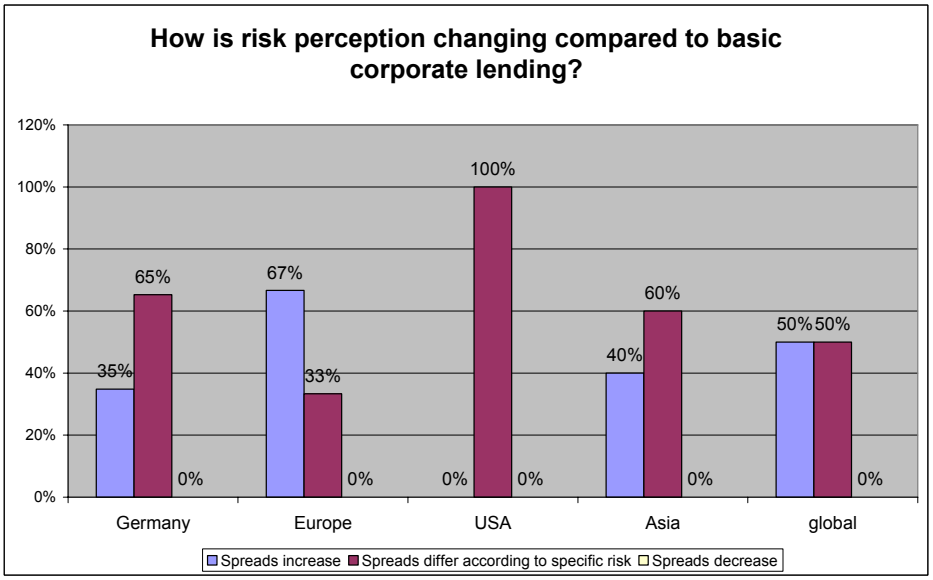


1.e How is risk perception changing compared to basic corporate lending?

	Spreads increase		Spreads differ according to specific risk		Spreads decrease	
Total	**31**	**45%**	**37**	**54%**	**1**	**1%**
Multilateral/ Bilateral Institutions	6	50%	6	50%	0	0%
Infrastructure providers	9	35%	17	65%	0	0%
Private Banks/ Investors	16	53%	14	47%	0	0%
No sector	0	0%	2	67%	1	33%
Germany	8		15		0	0%
Europe	10	67%	5	33%	0	0%
USA	0	0%	2	100%	0	0%
Asia	2	40%	3	60%	0	0%
global	8	50%	8	50%	0	0%
No region	3	37%	4	50%	1	13%



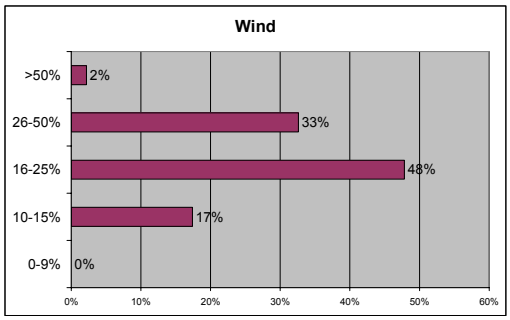

How is risk perception changing compared to basic corporate lending?
70%
60%
50%
40%
30%
20%
10%
0%
Spreads increase
Spreads differ according to specific risk
Spreads decrease
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors

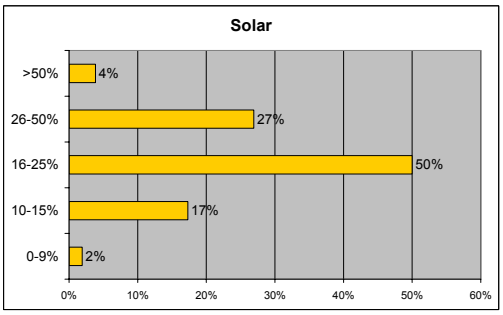

How is risk perception changing compared to basic corporate lending?
120%
100%
80%
60%
40%
20%
0%
35%
65%
0%
67%
33%
0%
0%
100%
0%
40%
60%
0%
50%
50%
0%
Germany
Europe
USA
Asia
global
Spreads increase
Spreads differ according to specific risk
Spreads decrease

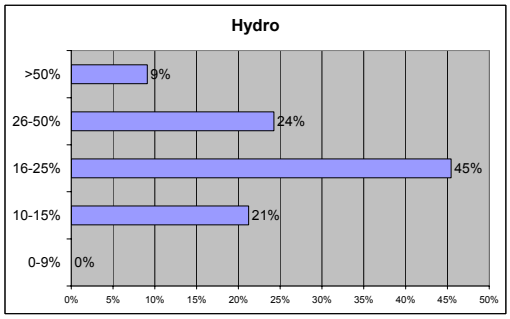
1.f How are conditions for project finance changing as far as guarantees are concerned?

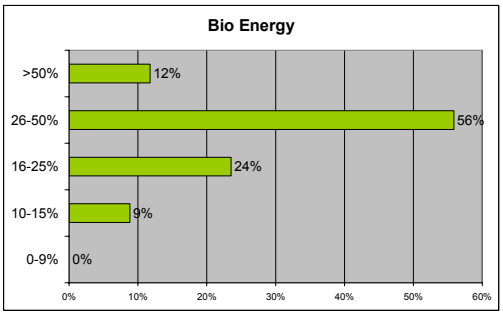
	Wind										Solar									
	0-9%		10-15%		16-25%		26-50%		>50%		0-9%		10-15%		16-25%		26-50%		>50%	
Total	**0**	**0%**	**8**	**17%**	**22**	**48%**	**15**	**33%**	**1**	**2%**	**1**	**2%**	**9**	**17%**	**26**	**50%**	**14**	**27%**	**2**	**4%**
Multilateral/ Bilateral Institutions	0	0%	1	17%	3	50%	2	33%	0	0%	0	0%	0	0%	4	57%	2	29%	1	14%
Infrastructure providers	0	0%	2	15%	4	31%	6	46%	1	8%	1	5%	3	15%	8	40%	7	35%	1	5%
Private Banks/ Investors	0	0%	5	21%	13	54%	6	25%	0	0%	0	0%	5	23%	13	59%	4	18%	0	0%
No sector	0	0%	0	0%	2	67%	1	33%	0	0%	0	0%	1	33.3%	1	33.3%	1	33.3%	0	0%
Germany	0	0%	4	24%	7	21%	6	35%	0	0%	1	5%	4	20%	11	53%	4	20%	0	0%
Europe	0	0%	0	0%	6	60%	3	30%	1	10%	0	0%	0	0%	6	60%	2	20%	2	20%
USA	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%
Asia	0	0%	0	0%	1	33%	2	67%	0	0%	0	0%	1	50%	1	50%	0	0%	0	0%
global	0	0%	2	18%	7	64%	2	18%	0	0%	0	0%	1	9%	6	55%	4	36%	0	0%
No region	0	0%	2	50%	1	25%	1	25%	0	0%	0	0%	3	37.5 %	1	12.5%	4	50%	0	0%

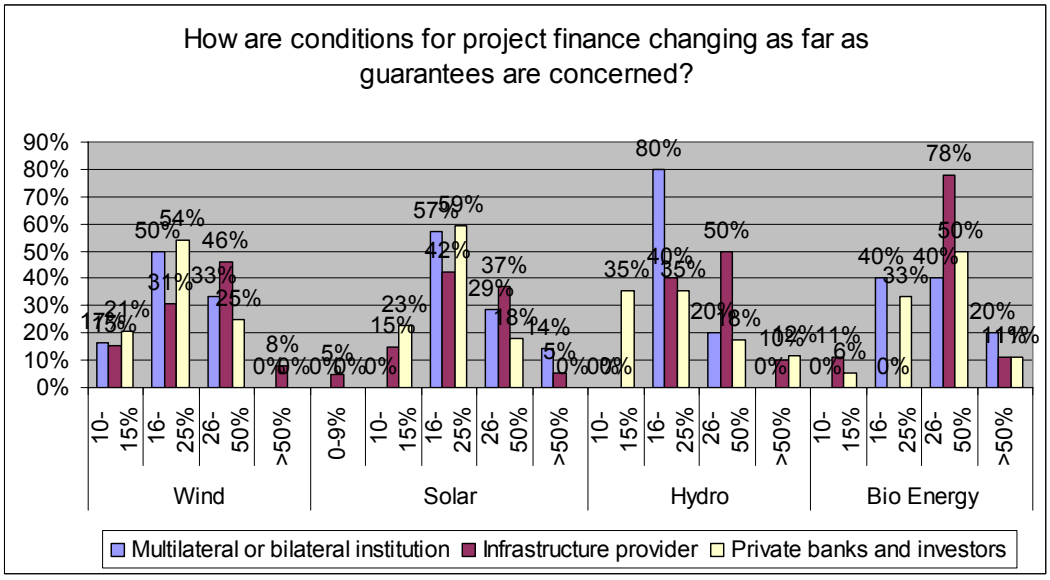
	Hydro										Bio energy									
	0-9%		10-15%		16-25%		26-50%		>50%		0-9%		10-15%		16-25%		26-50%		>50%	
Total	**0**	**0%**	**7**	**21%**	**15**	**45%**	**8**	**24%**	**3**	**9%**	**0**	**0%**	**3**	**9%**	**8**	**24%**	**19**	**56%**	**4**	**12%**
Multilateral/ Bilateral Institutions	0	0%	0	0%	4	80%	1	20%	0	0%	0	0%	0	0%	2	40%	2	40%	1	20%
Infrastructure providers	0	0%	0	0%	4	40%	5	50%	1	12.5%	0	0%	1	11%	0	0%	7	78%	1	11%
Private Banks/ Investors	0	0%	6	35%	6	35%	3	18%	2	6%	0	0%	1	6%	6	33%	9	50%	2	11%
No sector	0	0%	1	50%	1	50%	0	0%	0	0%	0	0%	1	50%	0	0%	1	50%	0	0%
Germany	0	0%	3	23%	6	46%	3	23%	1	8%	0	0%	0	0%	3	25%	8	67%	1	8%
Europe	0	0%	0	0%	2	40%	2	40%	1	20%	0	0%	0	0%	1	17%	3	50%	2	33%
USA	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%
Asia	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1	50%	0	0%	1	50%	0	0%
global	0	0%	1	12.5%	6	75%	0	0%	1	12.5%	0	0%	0	0%	3	33%	5	56%	1	11%
No region	0	0%	3	50%	1	17%	2	33%	0	0%	0	0%	2	50%	1	25%	1	25%	0	0%


Wind
>50%
26-50%
16-25%
10-15%
0-9%
2%
33%
48%
17%
0%
0%
10%
20%
30%
40%
50%
60%


Solar
>50%
26-50%
16-25%
10-15%
0-9%
4%
27%
50%
17%
2%
0%
10%
20%
30%
40%
50%
60%


Hydro
>50%
26-50%
16-25%
10-15%
0-9%
9%
24%
45%
21%
0%
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
50%

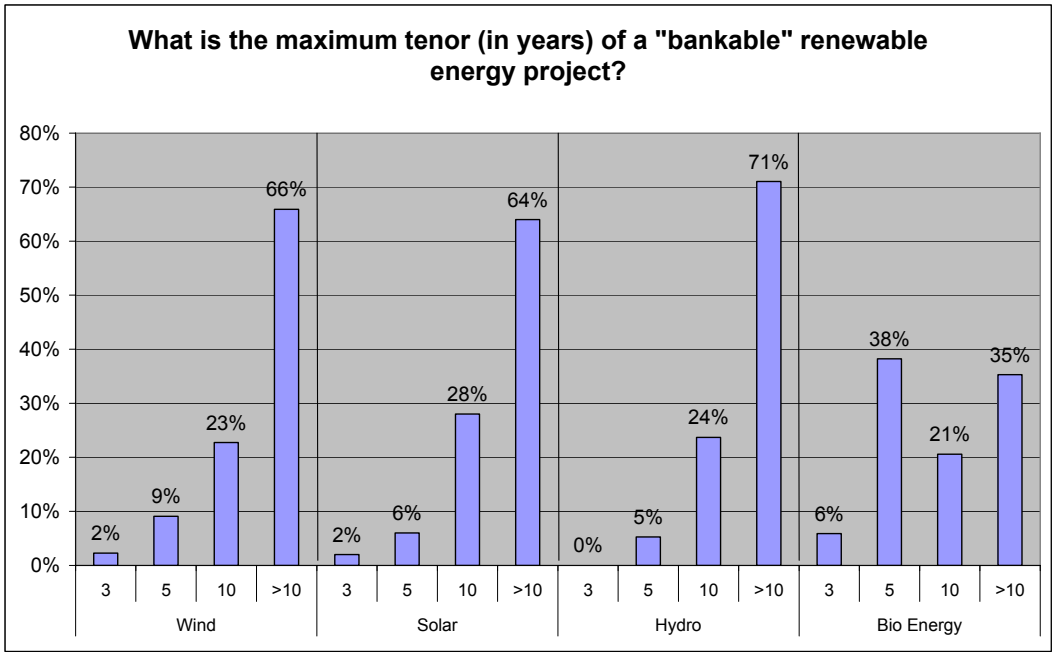

Bio Energy
>50%
26-50%
16-25%
10-15%
0-9%
12%
56%
24%
9%
0%
0%
10%
20%
30%
40%
50%
60%

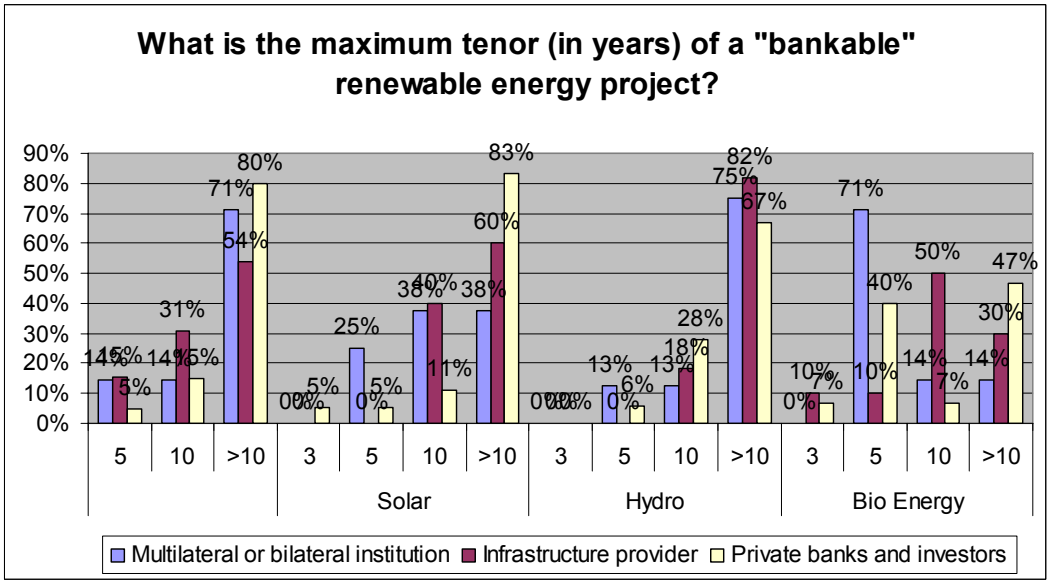

How are conditions for project finance changing as far as guarantees are concerned?
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
10-15%
16-25%
26-50%
>50%
0-9%
Wind
Solar
Hydro
Bio Energy
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors

1.g What is the maximum tenor (in years) of a "bankable" renewable energy project?

	Wind								Solar							
	3		5		10		>10		3		5		10		>10	
Total	**1**	**2%**	**4**	**9%**	**10**	**23%**	**29**	**66%**	**1**	**2%**	**3**	**6%**	**14**	**28%**	**32**	**64%**
Multilateral/ Bilateral Institutions	0	0%	1	14%	1	14%	5	71%	0	0%	2	25%	4	50%	2	25%
Infrastructure providers	0	0%	2	15%	4	31%	7	54%	0	0%	0	0%	7	37%	12	63%
Private Banks/ Investors	1	5%	1	5%	3	15%	16	80%	1	5%	1	5%	2	11%	15	79%
No sector	0	0%	0	0%	2	67%	1	33%	0	0%	0	0%	1	33%	2	67%
Germany	0	0%	1	6%	5	29%	11	65%	0	0%	0	0%	5	26%	14	74%
Europe	0	0%	0	0%	0	0%	10	100%	0	0%	1	9%	0	0%	10	91%
USA	0	0%	1	100%	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%
Asia	0	0%	1	33%	2	67%	0	0%	0	0%	0	0%	2	100%	0	0%
global	1	10%	1	10%	2	20%	6	60%	1	9%	2	18%	3	27%	5	45%
No region	0	0%	0	0%	1	33%	2	67%	0	0%	0	0%	3	50%	3	50%

	Hydro								Bio Energy							
	3		5		10		>10		3		5		10		>10	
Total	**0**	**0%**	**2**	**5%**	**9**	**24%**	**27**	**71%**	**2**	**6%**	**13**	**38%**	**7**	**21%**	**12**	**35%**
Multilateral/ Bilateral Institutions	0	0%	1	12.5%	1	12.5%	6	75%	0	0%	5	71%	1	14%	1	14%
Infrastructure providers	0	0%	0	0%	2	18%	9	82%	1	11%	0	0%	5	56%	3	33%
Private Banks/ Investors	0	0%	1	5%	5	28%	12	67%	1	6.5%	6	40%	1	6.5%	7	47%
No sector	0	0%	0	0%	1	50%	1	50%	0	0%	1	50%	0	0%	1	50%
Germany	0	0%	0	0%	5	36%	9	64%	2	15%	2	15%	3	23%	6	46%
Europe	0	0%	0	0%	1	13%	7	88%	0	0%	3	50%	1	17%	2	33%
USA	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%
Asia	0	0%	0	0%	1	100%	0	0%	0	0%	1	50%	1	50%	0	0%
global	0	0%	2	20%	1	10%	7	70%	0	0%	7	78%	0	0%	2	22%
No region	0	0%	0	0%	1	20%	4	80%	0	0%	0	0%	1	33%	2	67%

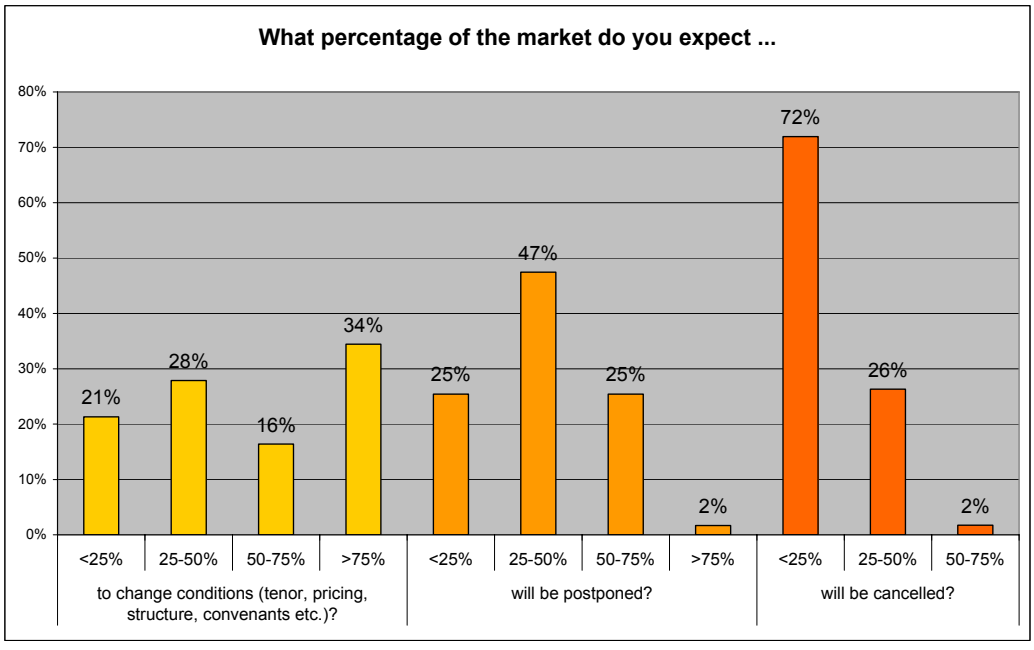

What is the maximum tenor (in years) of a "bankable" renewable energy project?
80%
70%
60%
50%
40%
30%
20%
10%
0%
2%
9%
23%
66%
2%
6%
28%
64%
0%
5%
24%
71%
6%
38%
21%
35%
3
5
10
>10
Wind
Solar
Hydro
Bio Energy

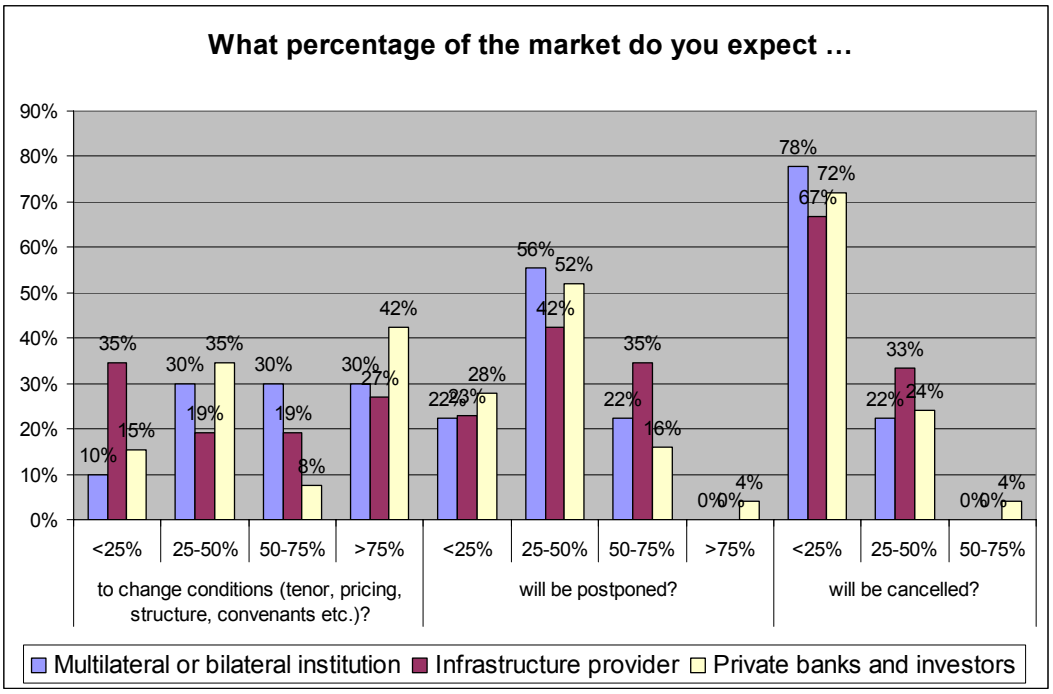

What is the maximum tenor (in years) of a "bankable" renewable energy project?
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
5
10
>10
Solar
Hydro
Bio Energy
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors

1.h What percentage of the market do you expect …

	to change conditions (tenor, pricing, structure, convenants etc.)?								will be postponed?							
	>25%		25-50%		50-75%		>75%		>25%		25-50%		50-75%		>75%	
Total	13	21%	17	28%	10	16%	21	34%	15	25%	28	47%	15	25%	1	2%
Multilateral/ Bilateral Institutions	1	10%	3	30%	3	30%	3	30%	2	22%	5	56%	2	22%	0	0%
Infrastructure providers	9	35%	5	19%	5	19%	7	27%	6	23%	11	42%	9	35%	0	0%
Private Banks/ Investors	4	15%	9	35%	2	8%	11	42%	7	28%	13	52%	4	16%	1	4%
No sector	0	0%	1	100%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%
Germany	4	18%	8	36%	4	18%	6	27%	6	29%	10	48%	5	24%	0	0%
Europe	2	15%	4	31%	2	15%	5	38%	4	33%	5	42%	2	17%	1	0%
USA	1	50%	1	50%	0	0%	0	0%	1	50%	0	0%	1	50%	0	0%
Asia	0	0%	2	50%	1	25%	1	25%	0	0%	1	25%	3	75%	0	0%
global	2	16.5%	2	16.5%	3	25%	5	42%	2	17%	8	67%	2	17%	0	0%
No region	4	50%	0	0%	0	0%	4	50%	2	25%	4	50%	2	25%	0	0%

	will be cancelled?							
	>25%		25-50%		50-75%		>75%	
Total	41	72%	15	26%	1	2%	0	0%
Multilateral/ Bilateral Institutions	7	78%	2	22%	0	0%	0	0%
Infrastructure providers	16	67%	8	33%	0	0%	0	0%
Private Banks/ Investors	18	72%	6	24%	1	4%	0	0%
No sector	2	100%	0	0%	0	0%	0	0%
Germany	15	79%	4	21%	0	0%	0	0%
Europe	9	75%	2	17%	1	8%	0	0%
USA	0	0%	2	100%	0	0%	0	0%
Asia	2	50%	2	50%	0	0%	0	0%
global	11	92%	1	8%	0	0%	0	0%
No region	5	56%	4	44%	0	0%	0	0%

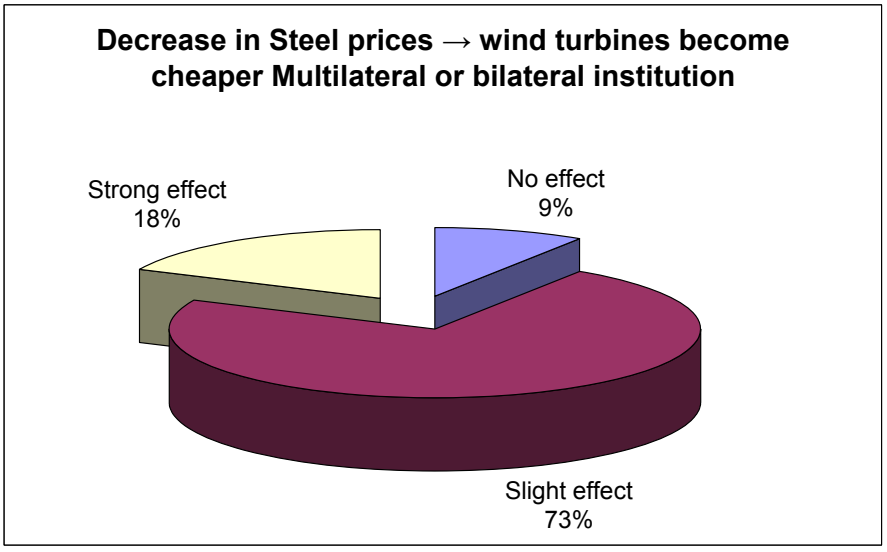




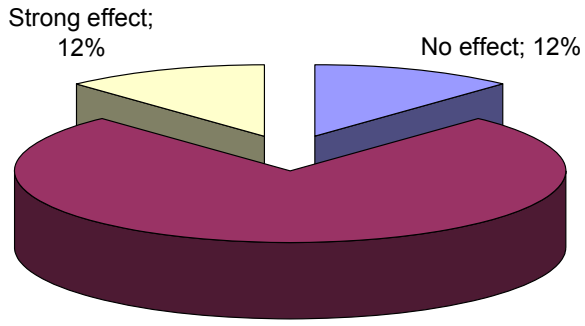
1.i Effect of commodity prices

1.i.i Decrease in Steel prices → wind turbines become cheaper

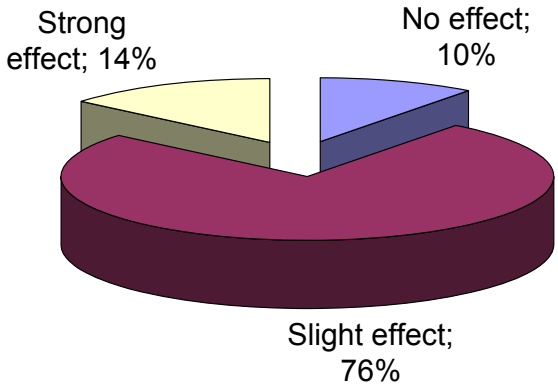
	Strong effect		Slight effect		No effect	
Total	**10**	**16%**	**49**	**74%**	**7**	**10%**
Multilateral/ Bilateral Institutions	2	18%	8	73%	1	9%
Infrastructure providers	3	12%	19	76%	3	12%
Private Banks/ Investors	4	14%	22	76%	3	10%
No sector	2	67%	1	33%	0	0%
Germany	1	5%	15	71%	5	24%
Europe	4	27%	10	67%	1	7%
USA	0	0%	2	100%	0	0%
Asia	1	20%	4	80%	0	0%
global	1	7%	13	93%	0	0%
No region	3	33%	5	56%	1	11%



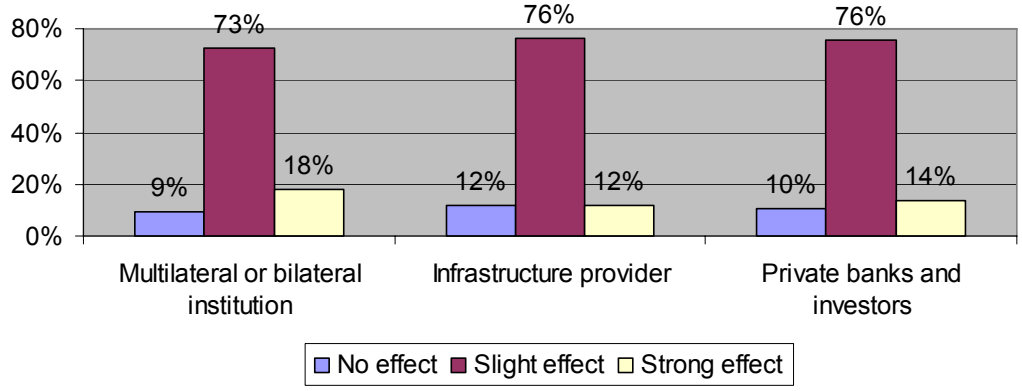
Decrease in Steel prices → wind turbines become cheaper Infrastructure Providers



Decrease in Steel prices → wind turbines become cheaper Private Banks and Investors

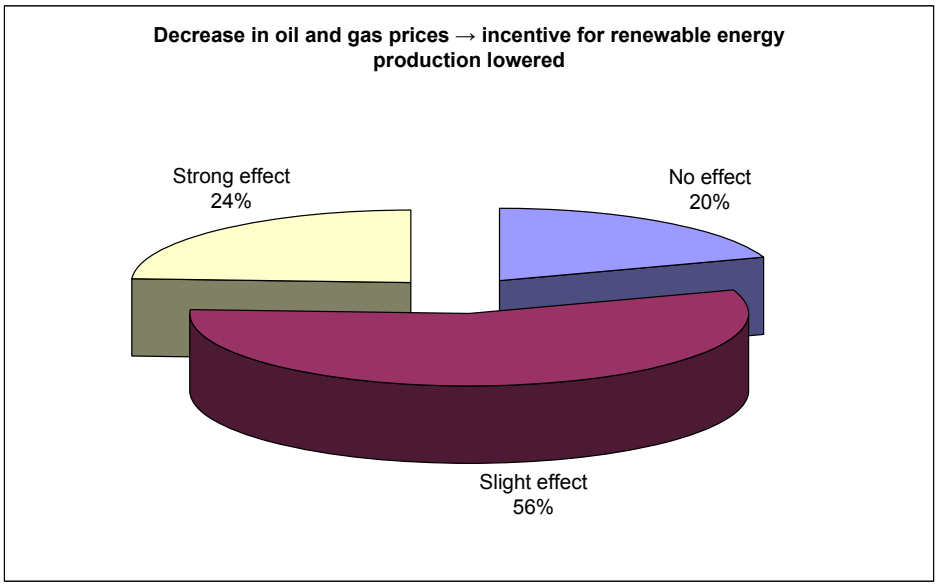


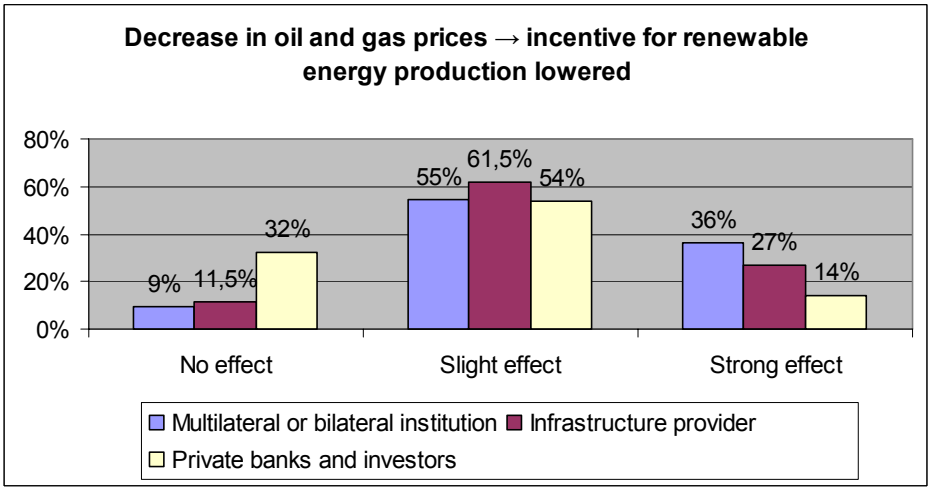
Decrease in Steel prices → wind turbines become cheaper



1.i.ii Decrease in oil and gas prices → incentive for renewable energy production lowered

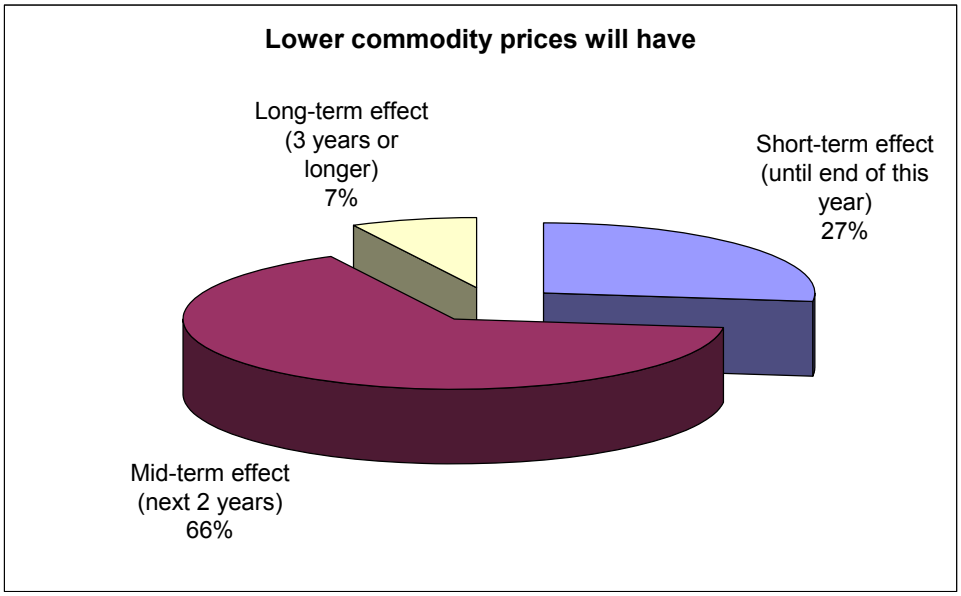
	No effect		Slight effect		Strong effect	
Total	**13**	**20%**	**37**	**56%**	**16**	**24%**
Multilateral/ Bilateral Institutions	1	9%	6	55%	4	36%
Infrastructure providers	3	11.5%	16	61.5%	7	27%
Private Banks/ Investors	9	32%	15	54%	4	14%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	5	24%	14	67%	2	10%
Europe	3	20%	6	40%	6	40%
USA	1	50%	1	50%	0	0%
Asia	0	0%	3	60%	2	40%
global	1	7%	9	64%	4	29%
No region	3	%	4	%	2	%

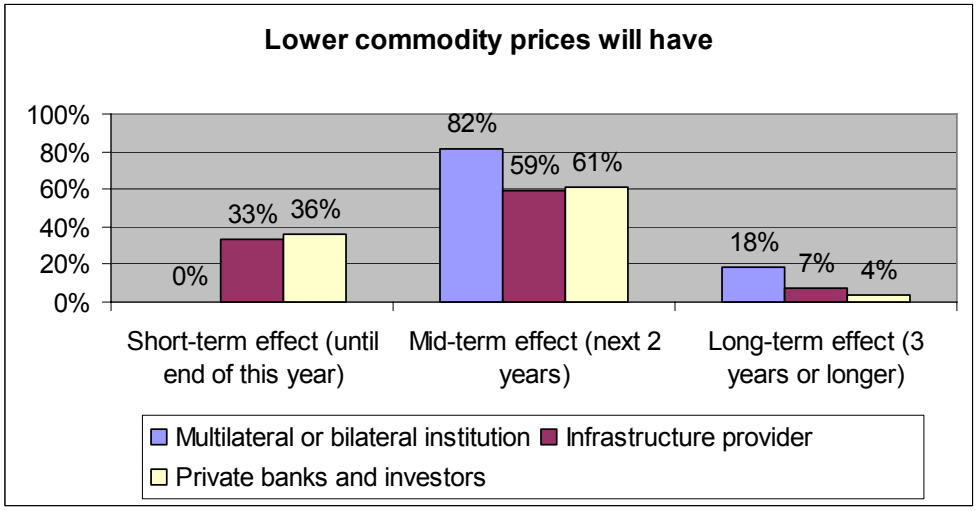


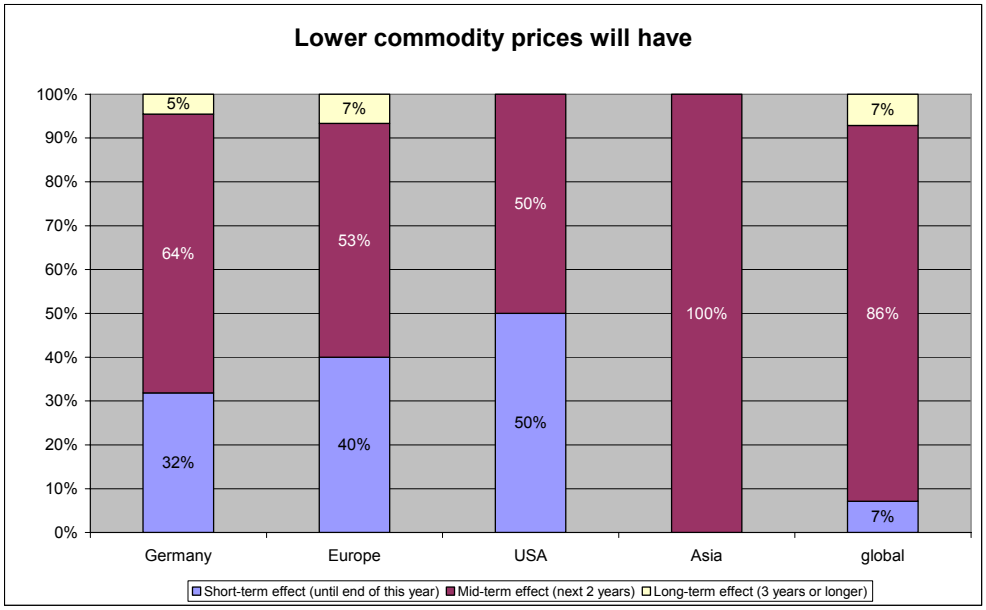


1.i.iii Lower commodity prices will have

	Short-term effect (until end of this year)		Mid-term effect (next 2 years)		Long-term effect (3 years or longer)	
Total	**18**	**27%**	**44**	**66%**	**5**	**7%**
Multilateral/ Bilateral Institutions	0	0%	9	82%	2	18%
Infrastructure providers	9	33%	16	59%	2	7%
Private Banks/ Investors	10	36%	17	61%	1	4%
No sector	0	0%	3	100%	0	0%
Germany	7	32%	14	64%	1	5%
Europe	6	40%	8	53%	1	7%
USA	1	50%	1	50%	0	0%
Asia	0	0%	5	100%	0	0%
global	1	7%	12	86%	1	7%
No region	3	33%	4	45%	2	22%

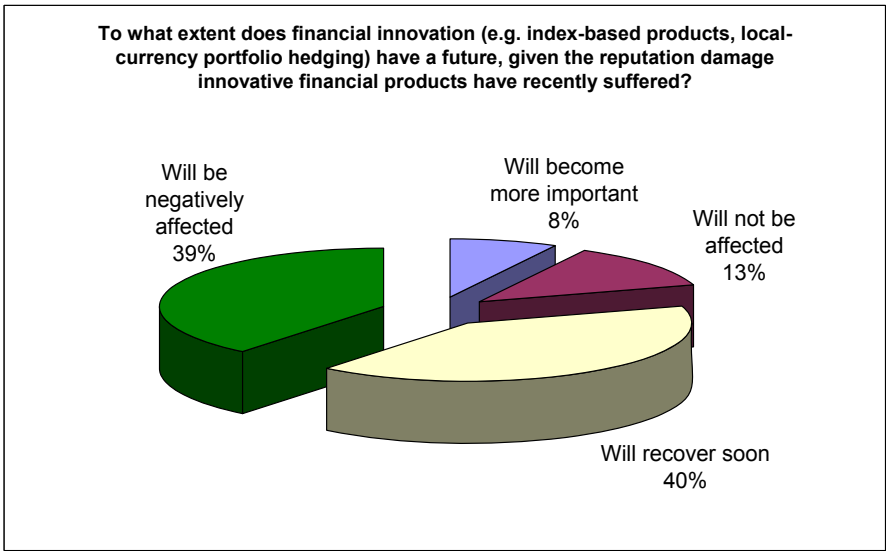


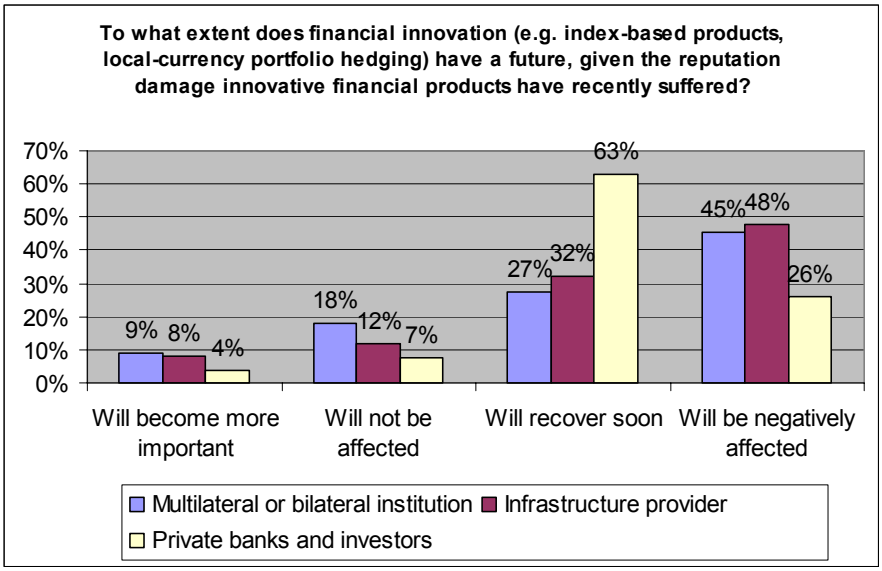


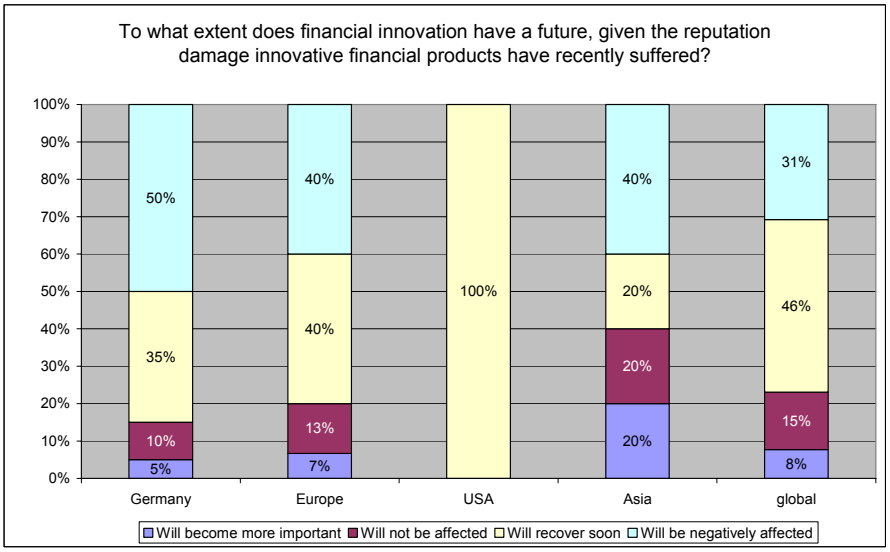


1.j To what extent does financial innovation (e.g. index-based products, local-currency portfolio hedging) have a future, given the reputation damage innovative financial products have recently suffered?

	Will become more important		Will not be affected		Will recover soon		Will be negatively affected	
Total	**5**	**8%**	**8**	**12.5%**	**26**	**40.5%**	**25**	**39%**
Multilateral/ Bilateral Institutions	1	9%	2	18%	3	27%	5	45%
Infrastructure providers	2	8%	3	12%	8	32%	12	48%
Private Banks/ Investors	1	4%	2	7%	17	63%	7	26%
No sector	1	33.3%	1	33.3%	0	0%	1	33.3%
Germany	1	5%	2	10%	7	35%	10	50%
Europe	1	7%	2	13%	6	40%	6	40%
USA	0	0%	0	0%	2	100%	0	0%
Asia	1	20%	1	20%	1	20%	2	40%
global	1	8%	2	15%	6	46%	4	31%
No region	1	11%	1	11%	4	45%	3	33%

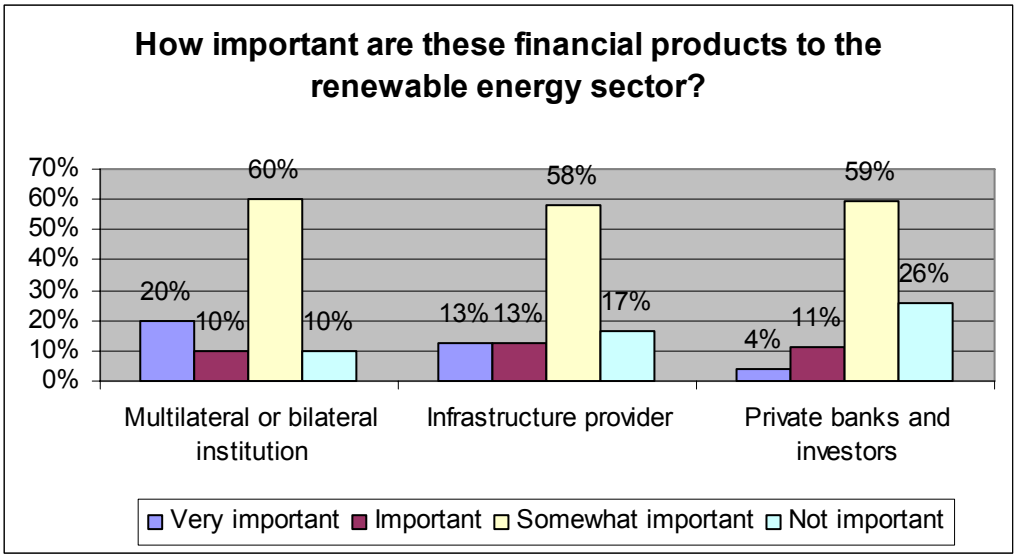






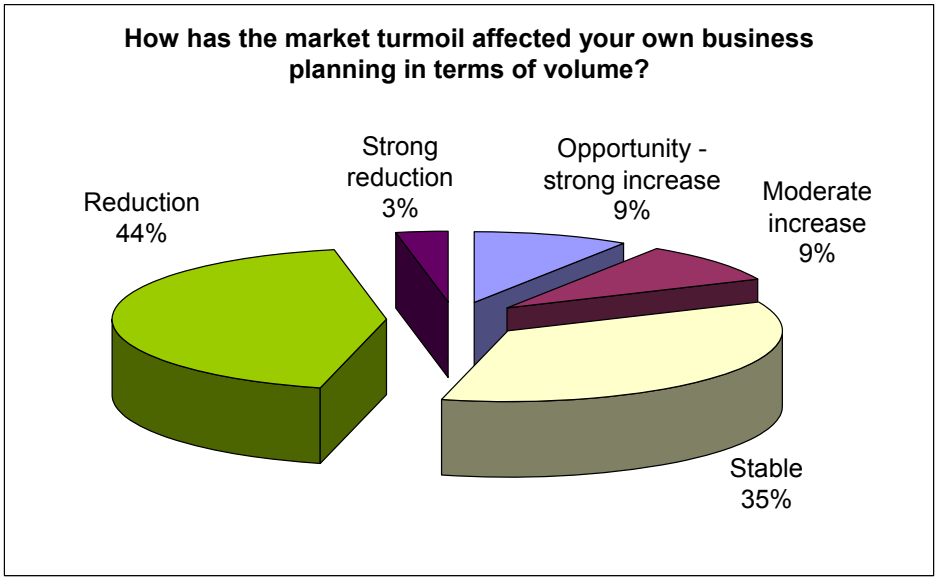
1.k How important are these financial products to the renewable energy sector?

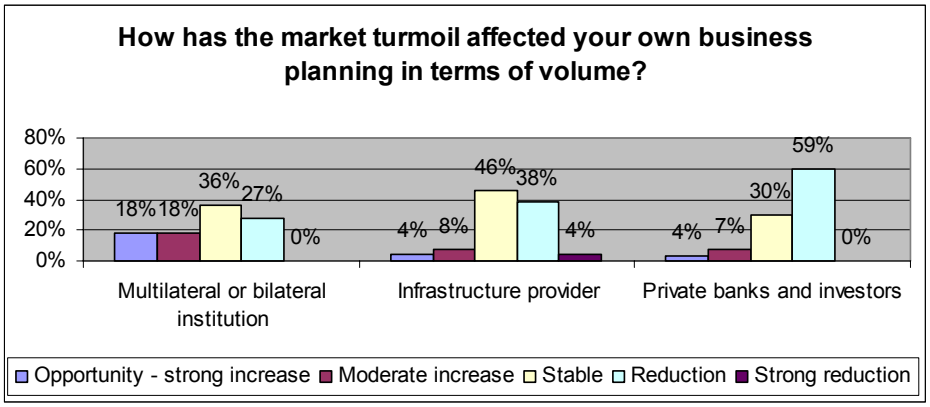
	Very important		Important		Somewhat important		Not important	
Total	**6**	**9.7%**	**6**	**9.7%**	**37**	**59.6%**	**13**	**21%**
Multilateral/ Bilateral Institutions	2	20%	1	10%	6	60%	1	10%
Infrastructure providers	3	13%	3	13%	14	58%	4	17%
Private Banks/ Investors	1	4%	3	11%	16	59%	7	26%
No sector	0	0%	0	0%	1	33%	2	67%
Germany	2	10%	0	0%	15	75%	3	15%
Europe	1	7%	2	14%	7	50%	4	29%
USA	0	0%	1	50%	1	50%	0	0%
Asia	2	50%	0	0%	2	50%	0	0%
global	0	0%	2	15%	11	85%	0	0%
No region	1	11%	1	11%	1	11%	6	67%

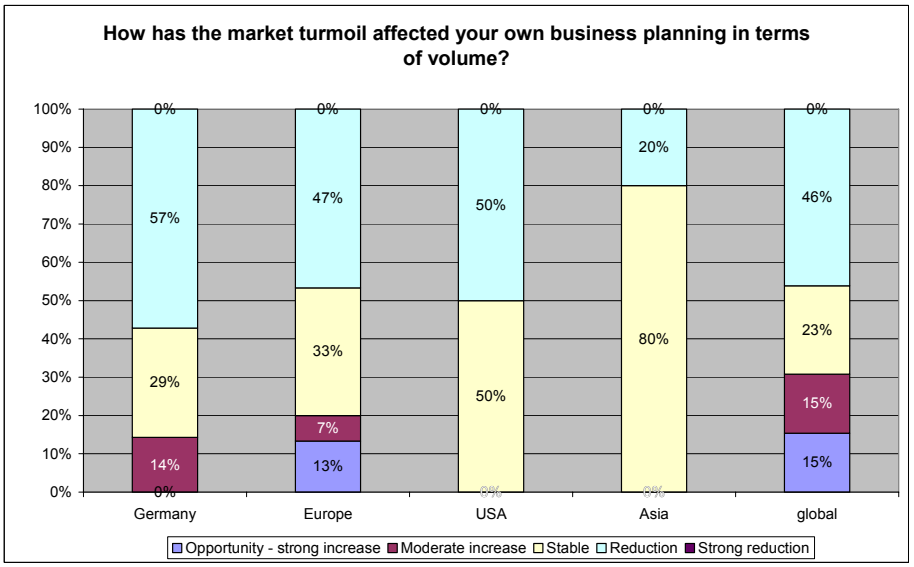


1.l How has the market turmoil affected your own business planning in terms of volume?

	Strong increase		Moderate increase		Stable		Reduction		Strong reduction	
Total	6	9%	6	9%	23	36%	28	43%	2	3%
Multilateral/ Bilateral Institutions	2	18%	2	18%	4	36%	3	27%	0	0%
Infrastructure providers	1	4%	2	8%	12	46%	10	38%	1	4%
Private Banks/ Investors	1	4%	2	7%	8	30%	15	55%	1	4%
No sector	2	67%	0	0%	0	0%	1	33%	0	0%
Germany	0	0%	3	14%	6	29%	12	57%	0	0%
Europe	2	13%	1	7%	5	33%	6	40%	1	7%
USA	0	0%	0	0%	1	50%	1	50%	0	0%
Asia	0	0%	0	0%	4	80%	1	20%	0	0%
global	2	15%	2	15%	3	23%	6	46%	0	0%
No region	2	22%	0	0%	4	45%	2	22%	1	11%

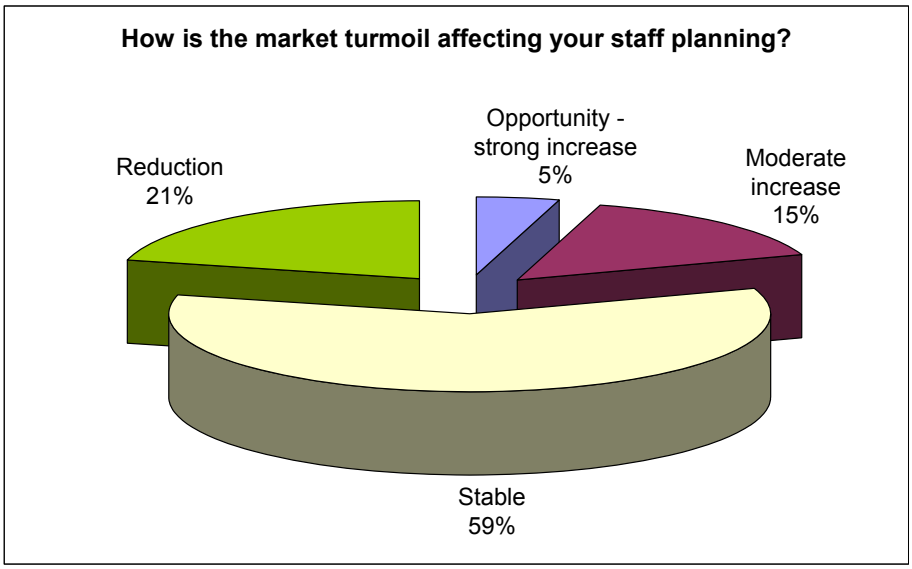


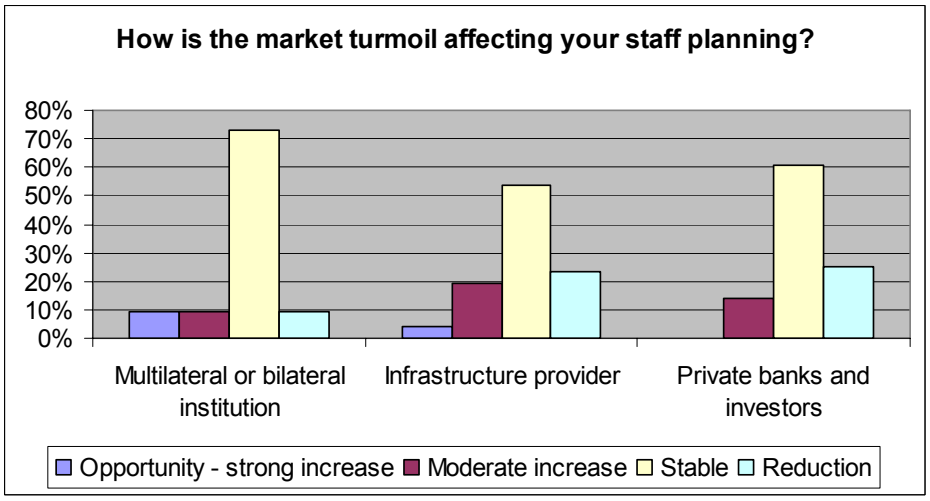


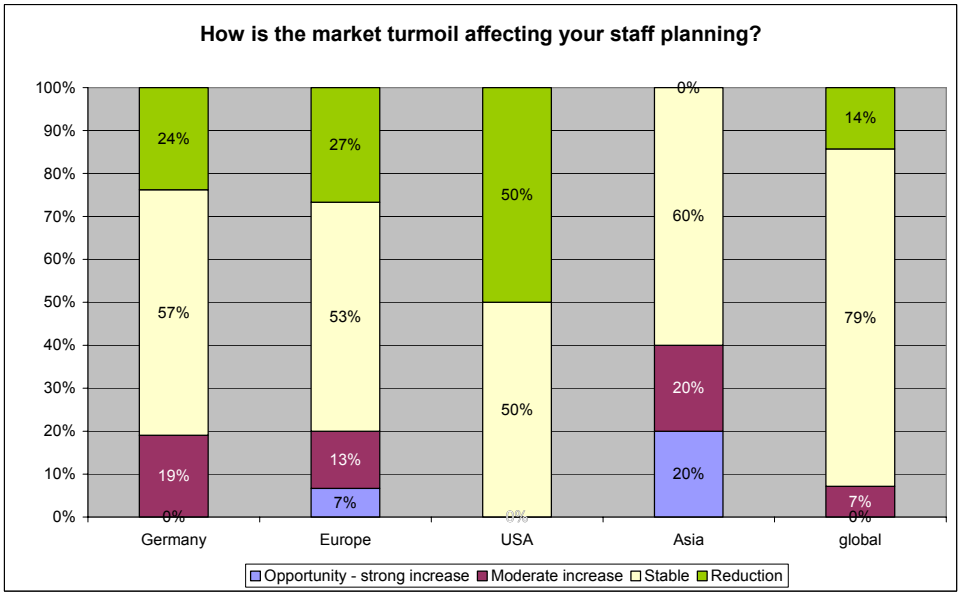


1.m How is the market turmoil affecting your staff planning?

	Strong increase		Moderate increase		Stable		Reduction		Strong reduction	
	#	%	#	%	#	%	#	%	#	%
Total	3	5%	10	15%	39	59%	14	21%	0	0%
Multilateral/ Bilateral Institutions	1	9%	1	9%	8	73%	1	9%	0	0%
Infrastructure providers	1	4%	5	19%	14	54%	6	23%	0	0%
Private Banks/ Investors	0	0%	4	14%	17	61%	7	25%	0	0%
No sector	1	33.3%	0	0%	1	33.3%	1	33.3%	0	0%
Germany	0	0%	4	19%	12	57%	5	24%	0	0%
Europe	1	7%	2	13%	8	53%	4	27%	0	0%
USA	0	0%	0	0%	1	50%	1	50%	0	0%
Asia	1	20%	1	20%	3	60%	0	0%	0	0%
global	0	0%	1	7%	11	79%	2	14%	0	0%
No region	1	11%	2	22%	4	45%	2	22%	0	0%


How is the market turmoil affecting your staff planning?
Opportunity - strong increase 5%
Moderate increase 15%
Reduction 21%
Stable 59%

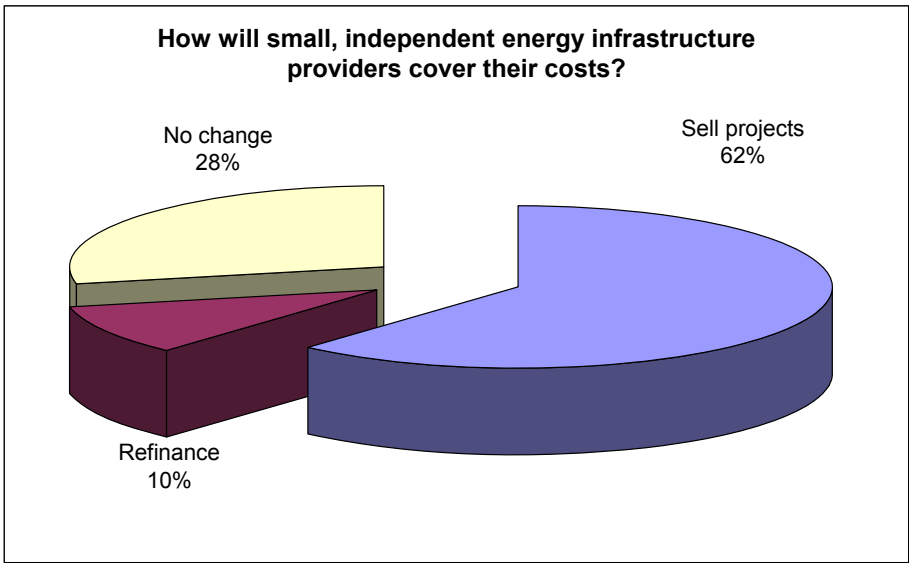

How is the market turmoil affecting your staff planning?
80%
70%
60%
50%
40%
30%
20%
10%
0%
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors
Opportunity - strong increase
Moderate increase
Stable
Reduction

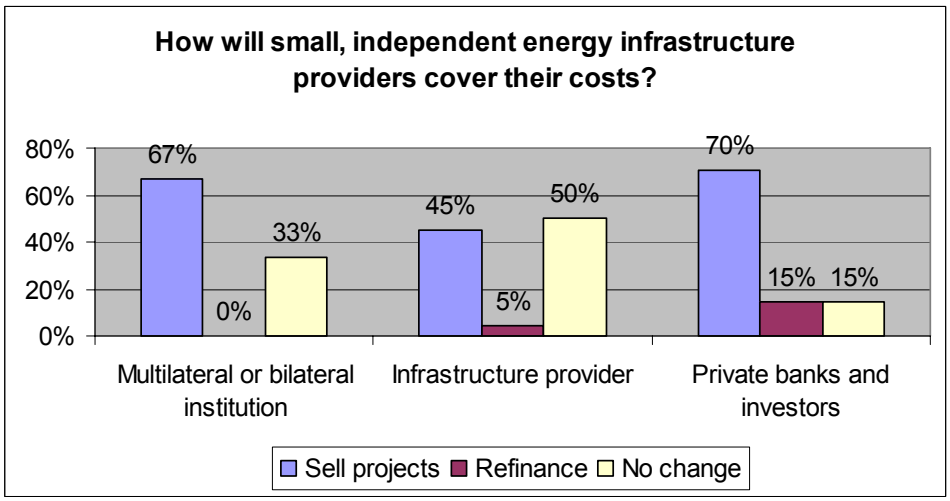

How is the market turmoil affecting your staff planning?
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
24%
57%
19%
0%
27%
53%
13%
7%
50%
50%
0%
0%
60%
20%
20%
14%
79%
7%
0%
Germany
Europe
USA
Asia
global
Opportunity - strong increase
Moderate increase
Stable
Reduction

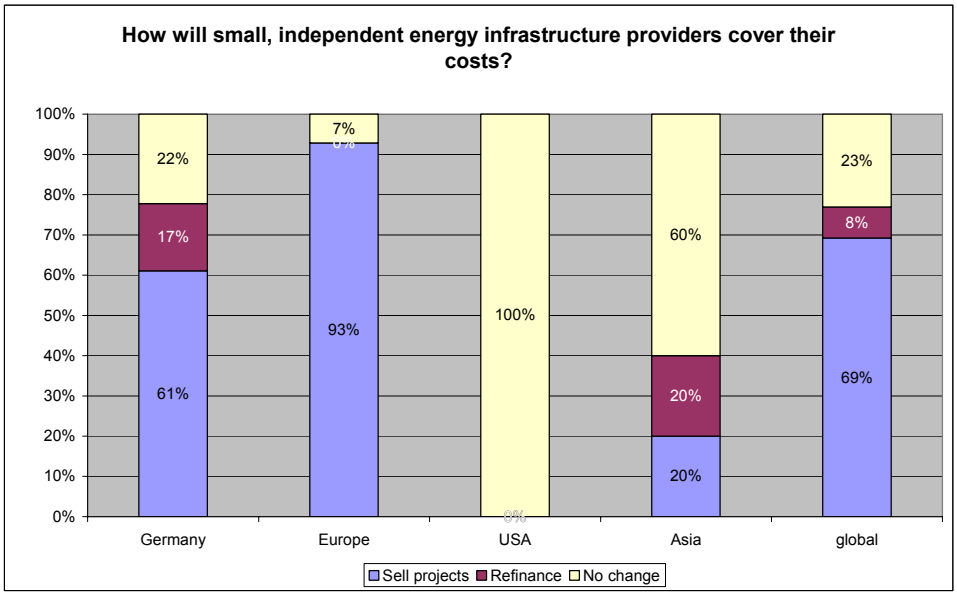
2 Losers and winners:

2.a How will small, independent energy infrastructure providers cover their costs?

	Sell projects		Refinance		No change	
Total	**37**	**62%**	**6**	**10%**	**17**	**28%**
Multilateral/ Bilateral Institutions	6	67%	0	0%	3	33%
Infrastructure providers	10	45%	1	5%	11	50%
Private Banks/ Investors	19	70%	4	15%	4	15%
No sector	2	67%	1	33%	0	0%
Germany	11	61%	3	17%	4	22%
Europe	13	93%	0	0%	1	7%
USA	0	0%	0	0%	2	100%
Asia	1	20%	1	20%	3	60%
global	9	69%	1	8%	3	23%
No region	3	37.5%	1	12.5%	4	50%







2.b Who will take advantage of the crisis? Is a switch from seller to buyer market already observed and if so, how?

Large infrastructure providers

	Will benefit		Not affected		Will lose	
Total	**31**	**49%**	**11**	**18%**	**21**	**33%**
Multilateral/ Bilateral Institutions	5	50%	2	20%	3	30%
Infrastructure providers	10	40%	6	24%	9	36%
Private Banks/ Investors	16	59%	4	15%	7	26%
No sector	1	33%	0	0%	2	67%
Germany	11	55%	3	15%	6	30%
Europe	6	43%	5	36%	3	21%
USA	0	0%	2	100%	0	0%
Asia	3	60%	0	0%	2	40%
global	8	62%	0	0%	5	38%
No region	3	33%	1	11%	5	56%

Innovative technology companies

	Will benefit		Not affected		Will lose	
Total	**28**	**46.5%**	**4**	**7%**	**28**	**46.5%**
Multilateral/ Bilateral Institutions	4	36%	0	0%	7	64%
Infrastructure providers	15	65%	1	4%	7	30%
Private Banks/ Investors	8	32%	3	12%	14	56%
No sector	2	67%	0	0%	1	33%
Germany	10	48%	1	5%	10	48%
Europe	4	33%	2	17%	6	50%
USA	1	50%	0	0%	1	50%
Asia	3	75%	0	0%	1	25%
global	4	30.5%	1	8%	8	61.5%
No region	6	75%	0	0%	2	25%

Specialised finance providers

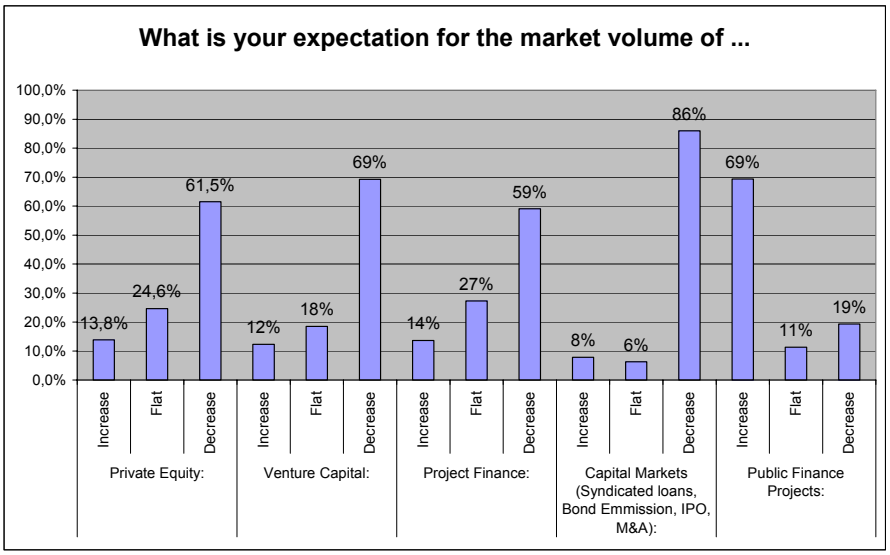
	Will benefit		Not affected		Will lose	
Total	**23**	**38%**	**10**	**17%**	**27**	**45%**
Multilateral/ Bilateral Institutions	4	36%	2	25%	2	25%
Infrastructure providers	8	65%	4	17%	12	50%
Private Banks/ Investors	10	32%	5	19%	12	44%
No sector	1	33%	0	0%	2	67%
Germany	4	22%	3	17%	11	61%
Europe	8	62%	2	15%	3	23%
USA	0	0%	1	50%	1	50%
Asia	2	40%	0	0%	3	60%
global	5	38%	3	23%	5	38%
No region	4	44.5%	1	11%	4	44.5%

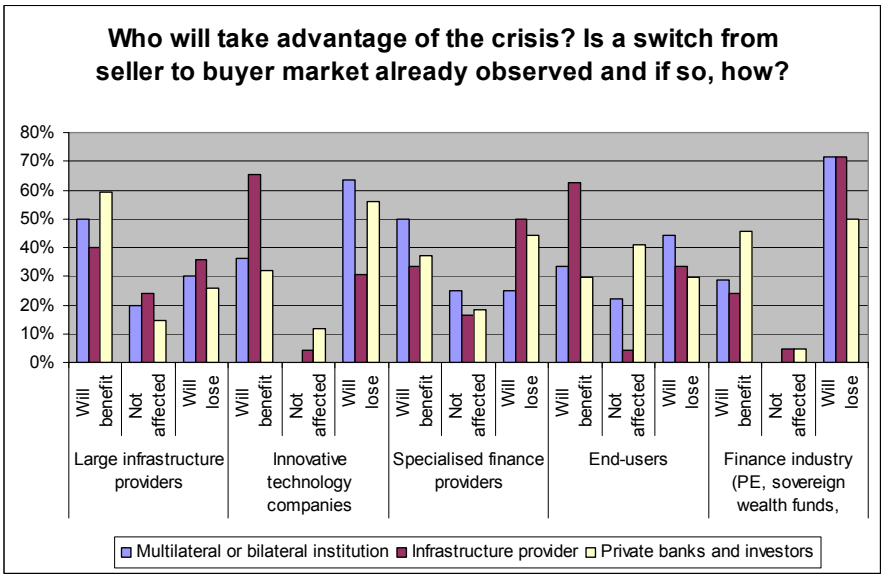
End-users

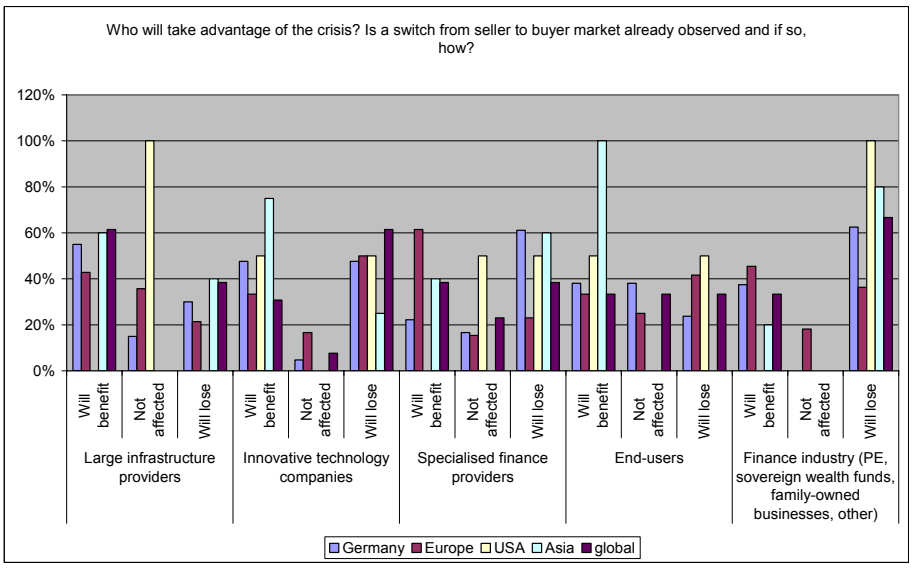
	Will benefit		Not affected		Will lose	
Total	**26**	**43%**	**15**	**25%**	**20**	**33%**
Multilateral/ Bilateral Institutions	3	33%	2	22%	4	44%
Infrastructure providers	15	63%	1	4%	8	33%
Private Banks/ Investors	8	30%	11	41%	8	30%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	8	38%	8	38%	5	24%
Europe	4	33%	3	25%	5	42%
USA	1	50%	0	0%	1	50%
Asia	5	100%	0	0%	0	0%
global	4	33.3%	4	33.3%	4	33.3%
No region	4	44.5%	0	0%	5	55.5%

Finance industry (PE, sovereign wealth funds, family-owned businesses, other)

	Will benefit		Not affected		Will lose	
Total	**18**	**35%**	**3**	**6%**	**31**	**60%**
Multilateral/ Bilateral Institutions	2	29%	0	0%	5	71%
Infrastructure providers	5	24%	1	5%	15	71%
Private Banks/ Investors	10	45%	1	5%	11	50%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	6	38%	0	0%	10	63%
Europe	5	45%	2	18%	4	36%
USA	0	0%	0	0%	1	100%
Asia	1	20%	0	0%	4	80%
global	4	33%	0	0%	8	67%
No region	2	29%	1	14%	4	57%


What is your expectation for the market volume of ...
100,0%
90,0%
80,0%
70,0%
60,0%
50,0%
40,0%
30,0%
20,0%
10,0%
0,0%
13,8%
24,6%
61,5%
12%
18%
69%
14%
27%
59%
8%
6%
86%
69%
11%
19%
Increase
Flat
Decrease
Private Equity:
Venture Capital:
Project Finance:
Capital Markets (Syndicated loans, Bond Emmission, IPO, M&A):
Public Finance Projects:


Who will take advantage of the crisis? Is a switch from seller to buyer market already observed and if so, how?
80%
70%
60%
50%
40%
30%
20%
10%
0%
Will benefit
Not affected
Will lose
Large infrastructure providers
Innovative technology companies
Specialised finance providers
End-users
Finance industry (PE, sovereign wealth funds,
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors


Who will take advantage of the crisis? Is a switch from seller to buyer market already observed and if so, how?
120%
100%
80%
60%
40%
20%
0%
Will benefit
Not affected
Will lose
Large infrastructure providers
Innovative technology companies
Specialised finance providers
End-users
Finance industry (PE, sovereign wealth funds, family-owned businesses, other)
Germany
Europe
USA
Asia
global

2.c What is your expectation for the market volume of ...?

Private Equity:

	Increase		Flat		Decrease	
Total	**9**	**14%**	**16**	**24.5%**	**40**	**61.5%**
Multilateral/ Bilateral Institutions	1	10%	0	0%	9	90%
Infrastructure providers	4	15%	8	31%	14	54%
Private Banks/ Investors	2	7%	9	32%	17	61%
No sector	2	67%	0	0%	1	33%
Germany	4	20%	4	20%	12	60%
Europe	2	13%	6	40%	7	47%
USA	0	0%	1	50%	1	50%
Asia	2	40%	0	0%	3	60%
global	1	7%	3	21%	10	71%
No region	0	0%	2	22%	7	78%

Venture Capital:

	Increase		Flat		Decrease	
Total	**8**	**12%**	**12**	**19%**	**45**	**69%**
Multilateral/ Bilateral Institutions	2	18%	1	9%	8	73%
Infrastructure providers	3	12%	5	19%	18	69%
Private Banks/ Investors	2	7%	5	19%	20	74%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	1	5%	4	20%	15	75%
Europe	2	13%	1	7%	12	80%
USA	1	50%	0	0%	1	50%
Asia	3	60%	1	20%	1	20%
global	1	7%	5	36%	8	57%
No region	0	0%	1	11%	8	89%

Project Finance

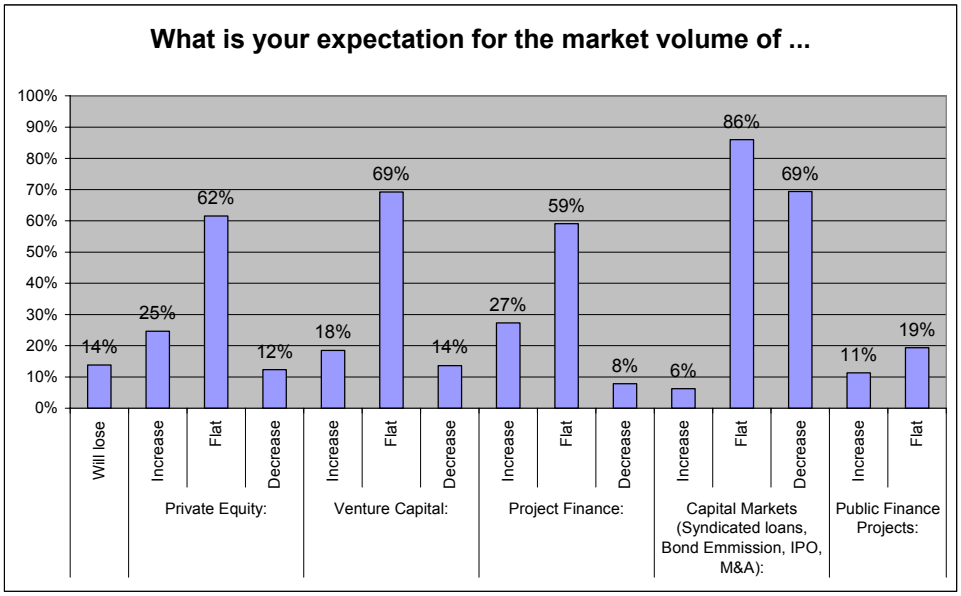
	Increase		Flat		Decrease	
Total	**9**	**14%**	**18**	**27%**	**39**	**59%**
Multilateral/ Bilateral Institutions	1	9%	1	9%	9	82%
Infrastructure providers	4	15%	8	31%	14	54%
Private Banks/ Investors	3	11%	8	29%	17	61%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	6	29%	5	24%	10	48%
Europe	1	7%	4	27%	10	67%
USA	0	0%	0	0%	2	100%
Asia	0	0%	4	80%	1	20%
global	1	7%	2	14%	11	79%
No region	1	11%	3	33%	5	56%

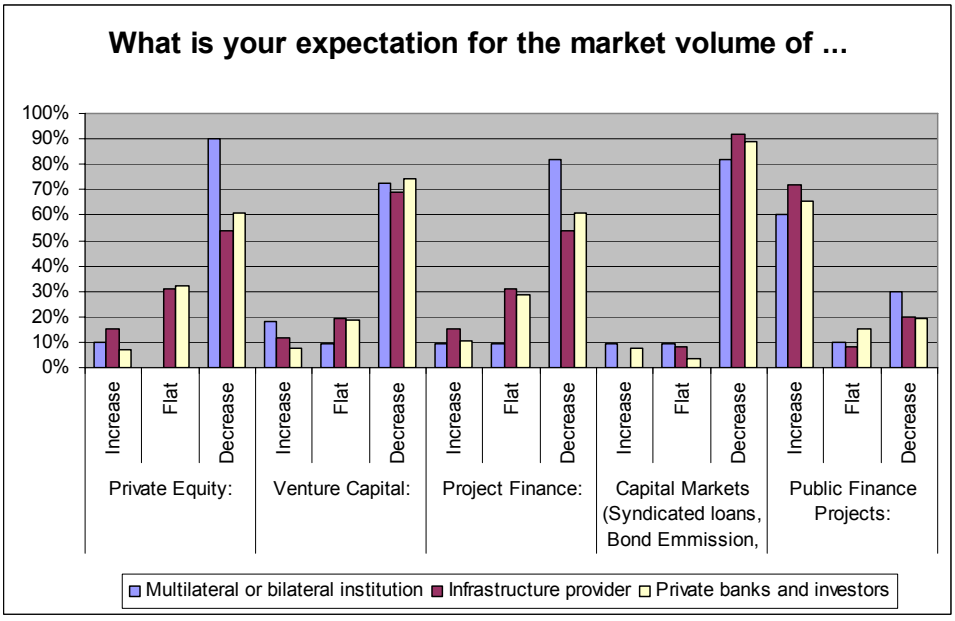
Capital Markets

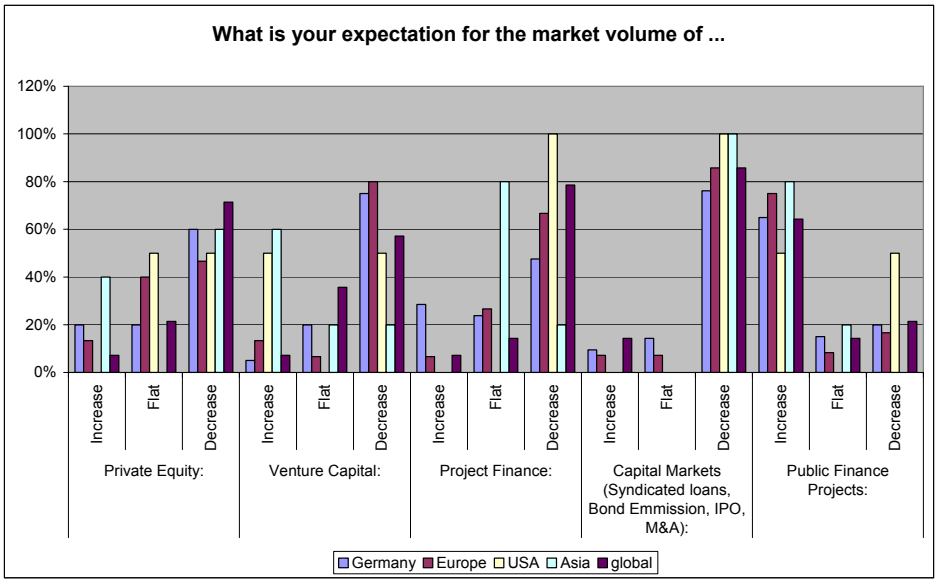
	Increase		Flat		Decrease	
Total	**5**	**8%**	**4**	**6%**	**55**	**86%**
Multilateral/ Bilateral Institutions	1	9%	1	9%	9	82%
Infrastructure providers	0	0%	2	8%	22	92%
Private Banks/ Investors	2	7%	1	4%	24	89%
No sector	2	67%	0	0%	1	33%
Germany	2	10%	3	14%	16	76%
Europe	1	7%	1	7%	12	86%
USA	0	0%	0	0%	1	100%
Asia	0	0%	0	0%	5	100%
global	2	14%	0	0%	12	86%
No region	0	0%	0	0%	9	100%

Public Finance Projects

	Increase		Flat		Decrease	
Total	**43**	**69.5%**	**7**	**11%**	**12**	**19.5%**
Multilateral/ Bilateral Institutions	6	60%	1	10%	3	30%
Infrastructure providers	18	72%	2	8%	5	20%
Private Banks/ Investors	17	65%	4	15%	5	19%
No sector	3	100%	0	0%	0	0%
Germany	13	65%	3	15%	4	20%
Europe	9	75%	1	8%	2	17%
USA	1	50%	0	0%	1	50%
Asia	4	80%	1	20%	0	0%
global	9	64%	2	14%	3	21%
No region	7	78%	0	0%	2	22%

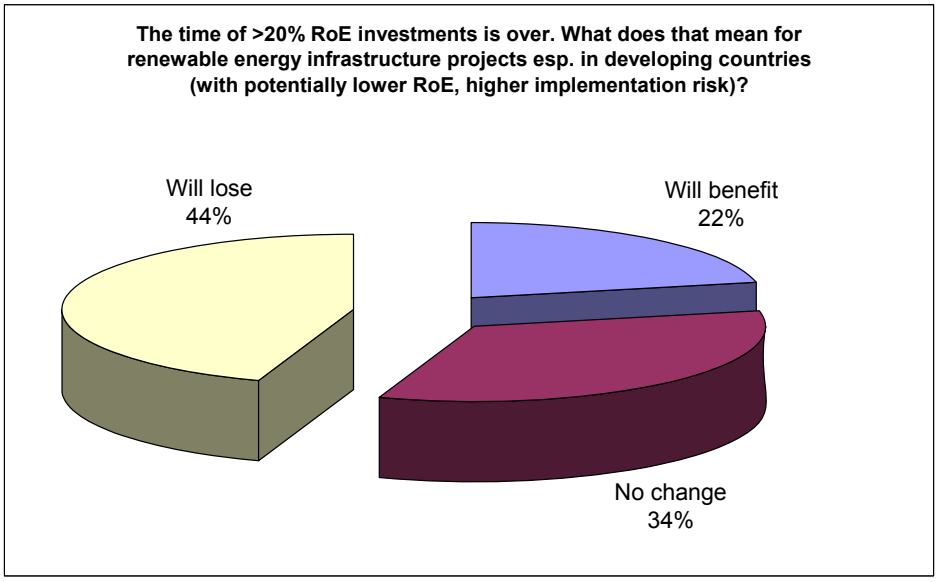


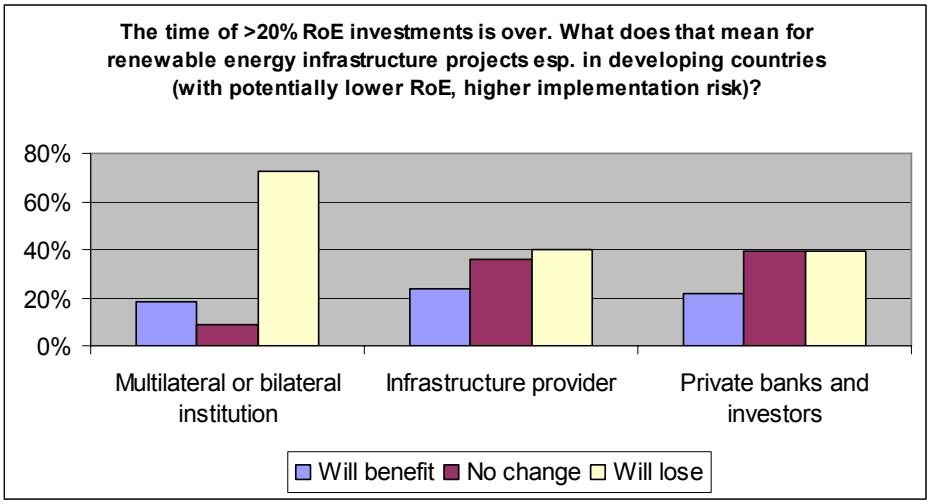


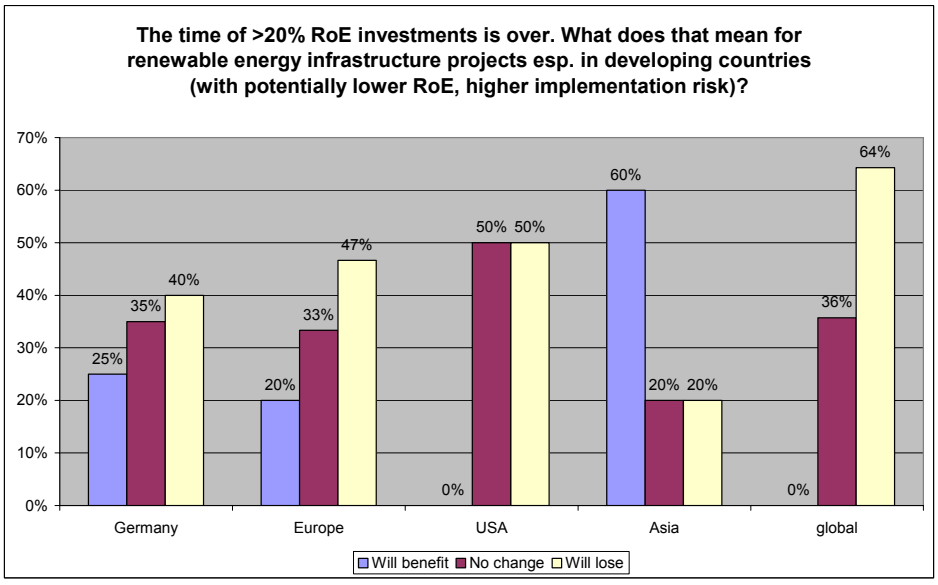


2.d The time of >20% RoE investments is over. What does that mean for renewable energy infrastructure projects esp. in developing countries (with potentially lower RoE, higher implementation risk)?

	Will benefit		No change		Will lose	
Total	**14**	**22%**	**22**	**34%**	**29**	**45%**
Multilateral/ Bilateral Institutions	2	18%	1	9%	8	73%
Infrastructure providers	6	24%	9	36%	10	40%
Private Banks/ Investors	6	21%	11	39%	11	39%
No sector	0	0%	2	67%	1	33%
Germany	5	25%	7	35%	8	40%
Europe	3	20%	5	33%	7	47%
USA	0	0%	1	50%	1	50%
Asia	3	60%	1	20%	1	20%
global	0	0%	5	36%	9	64%
No region	3	33.3%	3	33.3%	3	33.3%

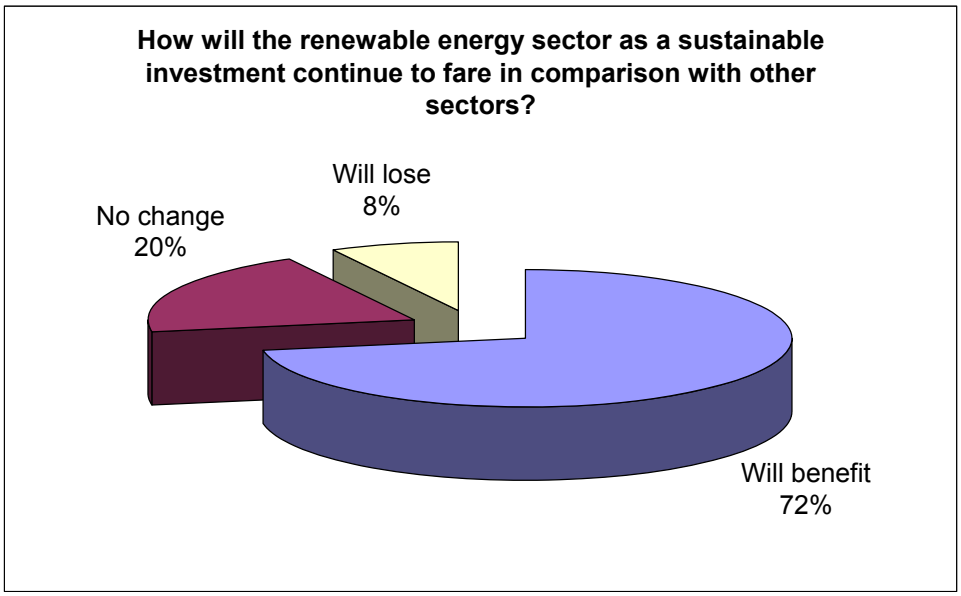


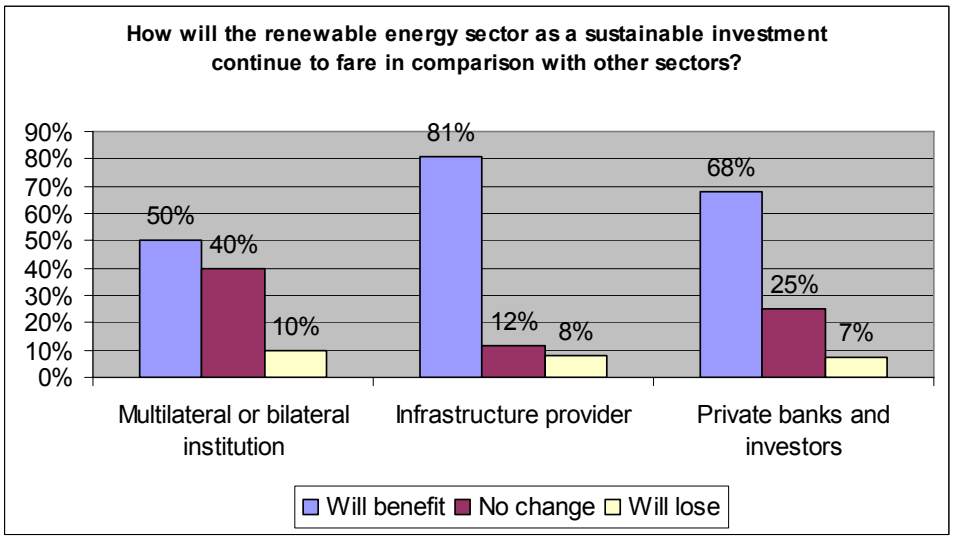


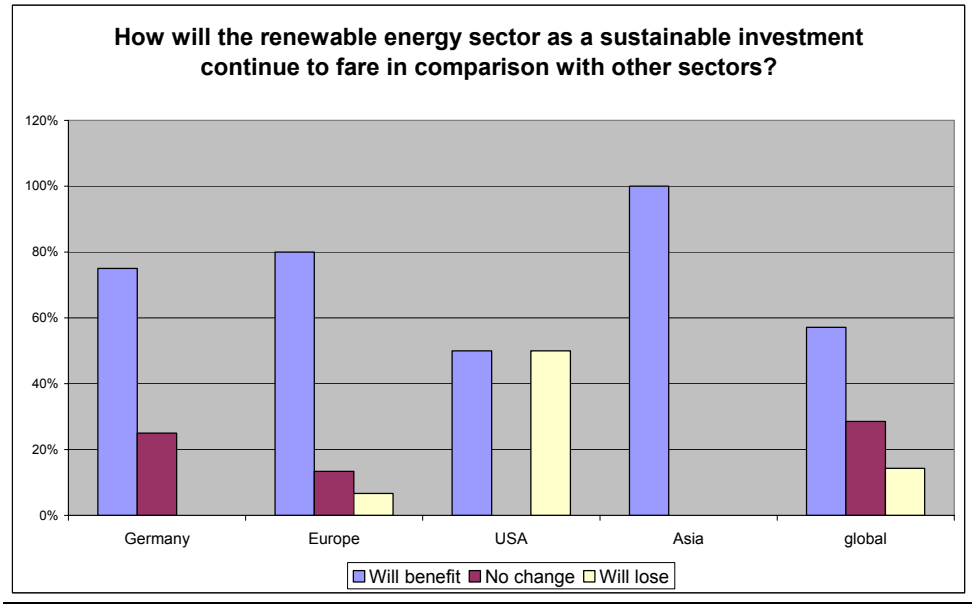


2.e How will the renewable energy sector as a sustainable investment continue to fare in comparison with other sectors?

	Will benefit		No change		Will lose	
Total	**47**	**72%**	**13**	**20%**	**5**	**8%**
Multilateral/ Bilateral Institutions	5	50%	4	40%	1	10%
Infrastructure providers	21	81%	3	12%	2	8%
Private Banks/ Investors	19	68%	7	25%	2	7%
No sector	3	100%	0	0%	0	0%
Germany	15	75%	5	25%	0	0%
Europe	12	80%	2	13%	1	7%
USA	1	50%	0	0%	1	50%
Asia	5	100%	0	0%	0	0%
global	8	57%	4	29%	2	14%
No region	6	67%	2	22%	1	11%


How will the renewable energy sector as a sustainable investment continue to fare in comparison with other sectors?
Will lose 8%
No change 20%
Will benefit 72%

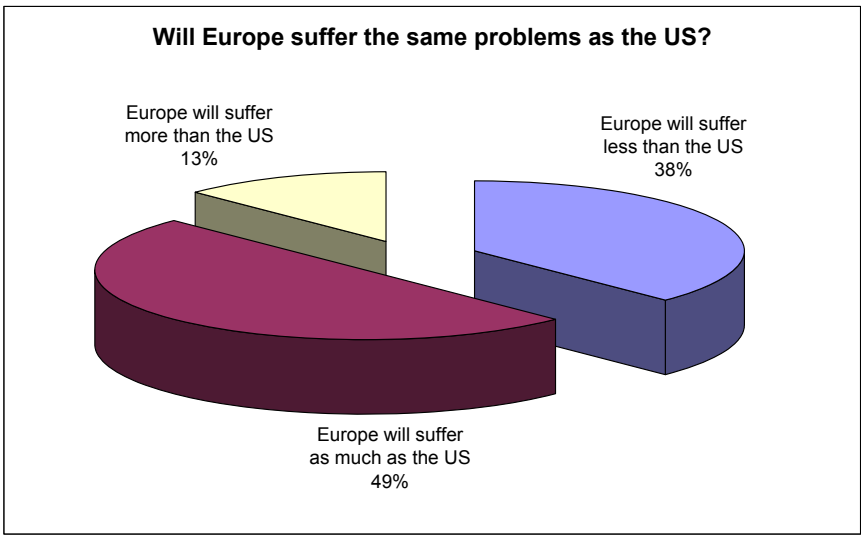

How will the renewable energy sector as a sustainable investment continue to fare in comparison with other sectors?
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
50%
40%
10%
81%
12%
8%
68%
25%
7%
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors
Will benefit
No change
Will lose

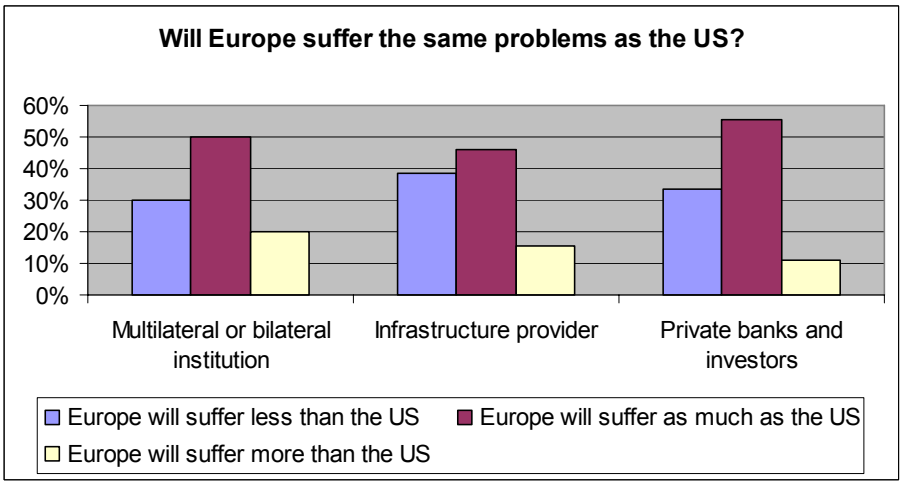

How will the renewable energy sector as a sustainable investment continue to fare in comparison with other sectors?
120%
100%
80%
60%
40%
20%
0%
Germany
Europe
USA
Asia
global
Will benefit
No change
Will lose

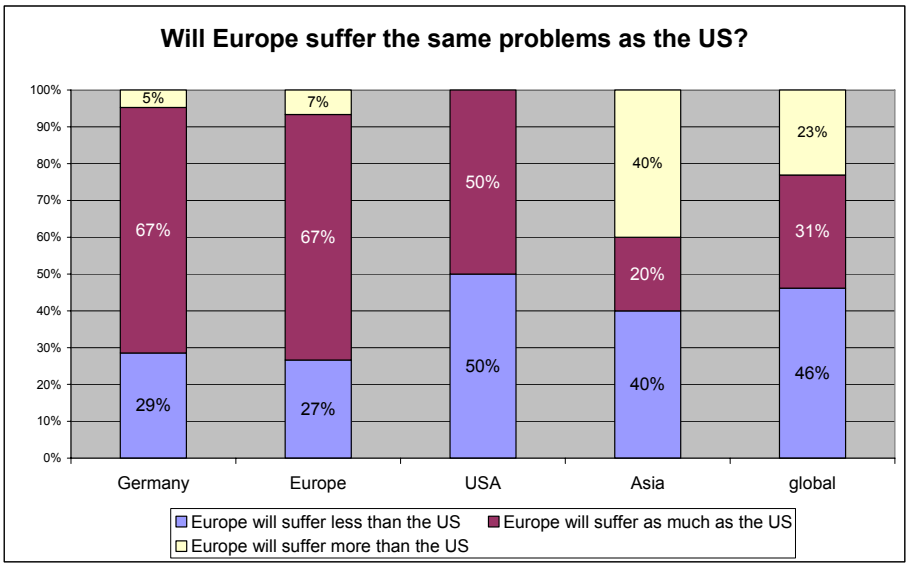
3 Regional impacts

3.a Will Europe suffer the same problems as the US?

	Europe will suffer less than the US		Europe will suffer as much as the US		Europe will suffer more than the US	
Total	**24**	**38%**	**32**	**50%**	**8**	**13%**
Multilateral/ Bilateral Institutions	3	30%	5	50%	2	20%
Infrastructure providers	10	38%	12	46%	4	15%
Private Banks/ Investors	9	33%	15	56%	3	11%
No sector	2	67%	1	33%	0	0%
Germany	6	29%	14	67%	1	5%
Europe	4	26.5%	10	67%	1	6.5%
USA	1	50%	1	50%	0	0%
Asia	2	40%	1	20%	2	40%
global	6	46%	4	31%	3	23%
No region	5	62.5%	2	25%	1	12.5%

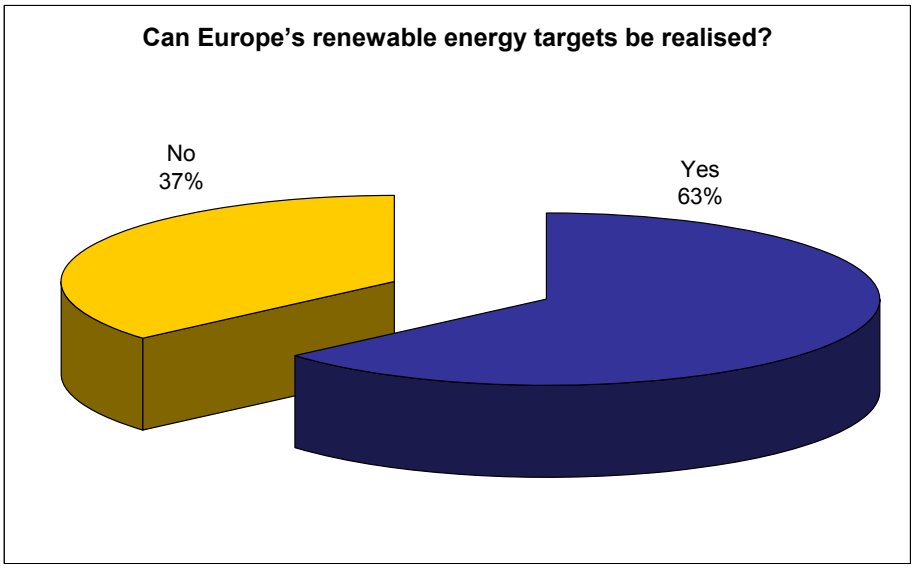


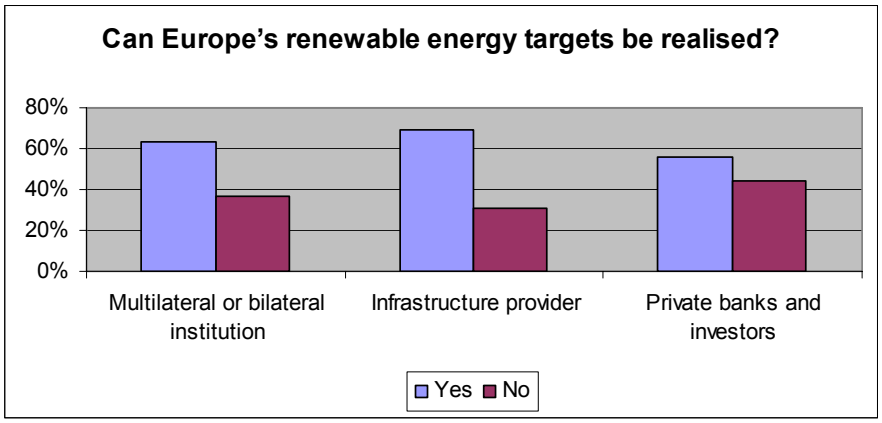


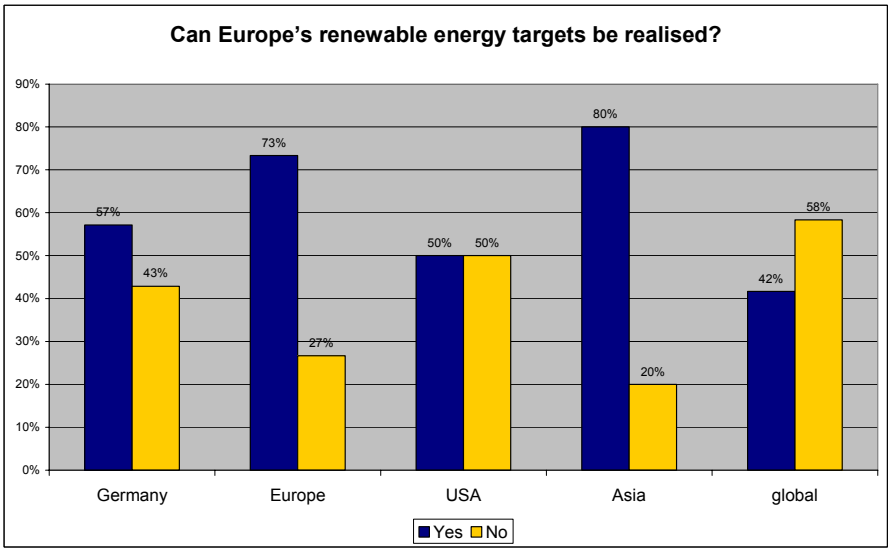


3.b Can Europe's RE targets be realized?

	Yes		No	
Total	**40**	**63%**	**23**	**37%**
Multilateral/ Bilateral Institutions	7	64%	4	36%
Infrastructure providers	18	69%	8	31%
Private Banks/ Investors	14	56%	11	44%
No sector	2	67%	1	33%
Germany	12	57%	9	43%
Europe	11	73%	4	4%
USA	1	50%	1	50%
Asia	4	80%	1	20%
global	5	42%	7	58%
No region	7	87.5%	1	12.5%

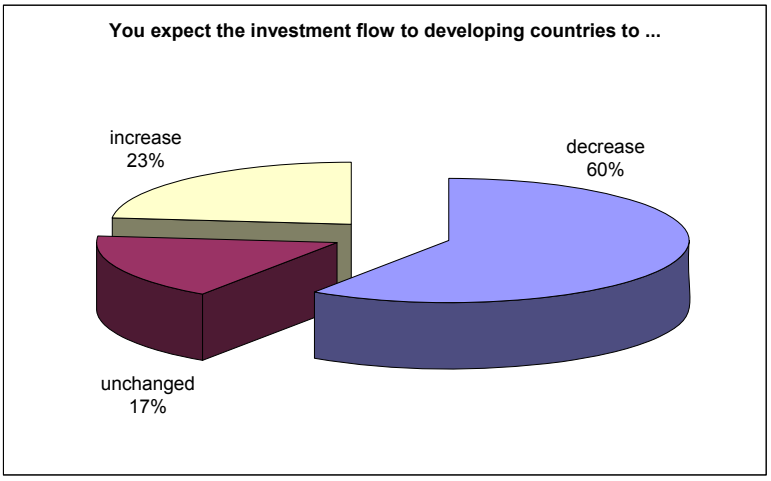


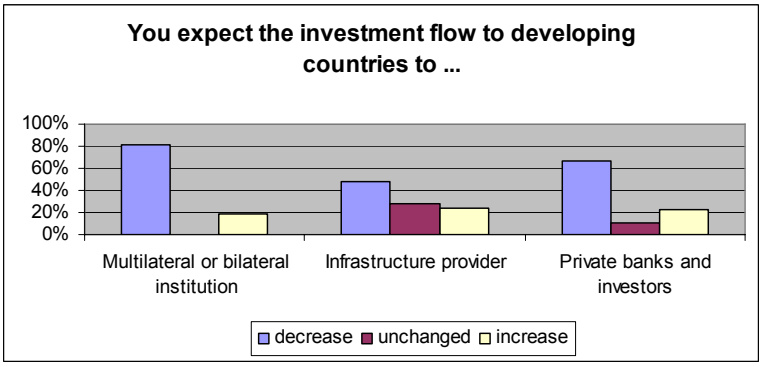


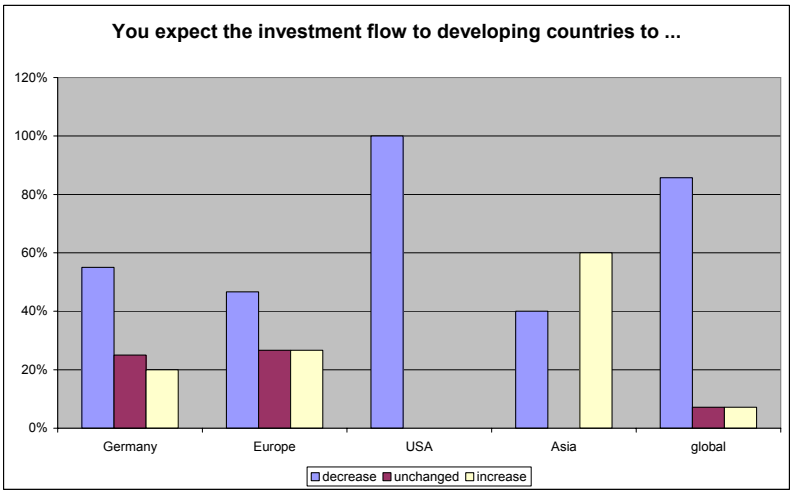


3.c You expect the investment flow to developing countries to ...

	decrease		unchanged		increase	
Total	**38**	**59%**	**11**	**17%**	**15**	**23%**
Multilateral/ Bilateral Institutions	9	82%	0	0%	2	18%
Infrastructure providers	12	48%	7	28%	6	24%
Private Banks/ Investors	18	67%	3	11%	6	22%
No sector	1	33.3%	1	33.3%	1	33.3%
Germany	11	55%	5	25%	4	20%
Europe	7	47%	4	27%	4	27%
USA	2	100%	0	0%	0	0%
Asia	2	40%	0	0%	3	60%
global	12	86%	1	7%	1	7%
No region	4	50%	1	12.5%	3	37.5%


You expect the investment flow to developing countries to ...
increase
23%
decrease
60%
unchanged
17%

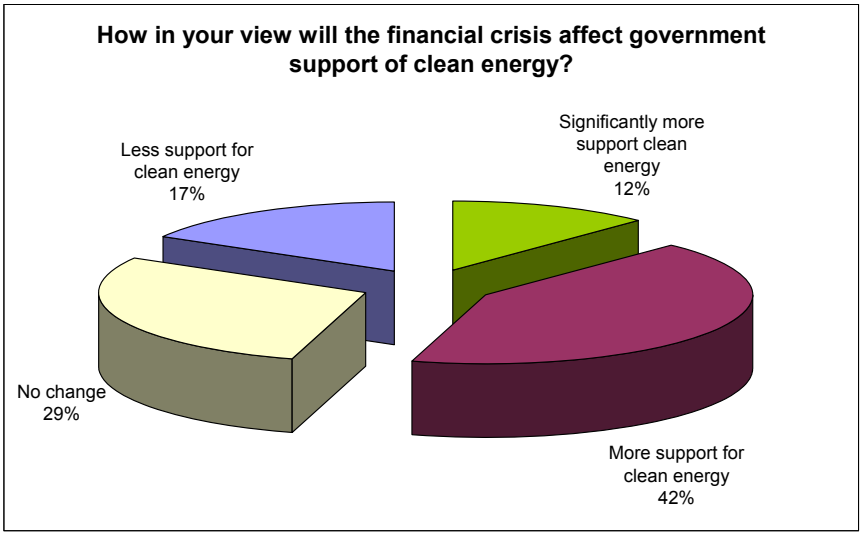

You expect the investment flow to developing countries to ...
100%
80%
60%
40%
20%
0%
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors
decrease
unchanged
increase

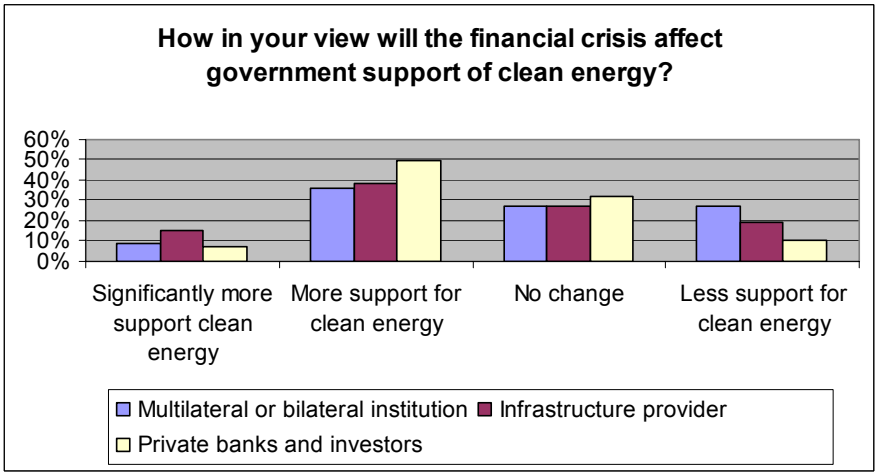

You expect the investment flow to developing countries to ...
120%
100%
80%
60%
40%
20%
0%
Germany
Europe
USA
Asia
global
decrease
unchanged
increase

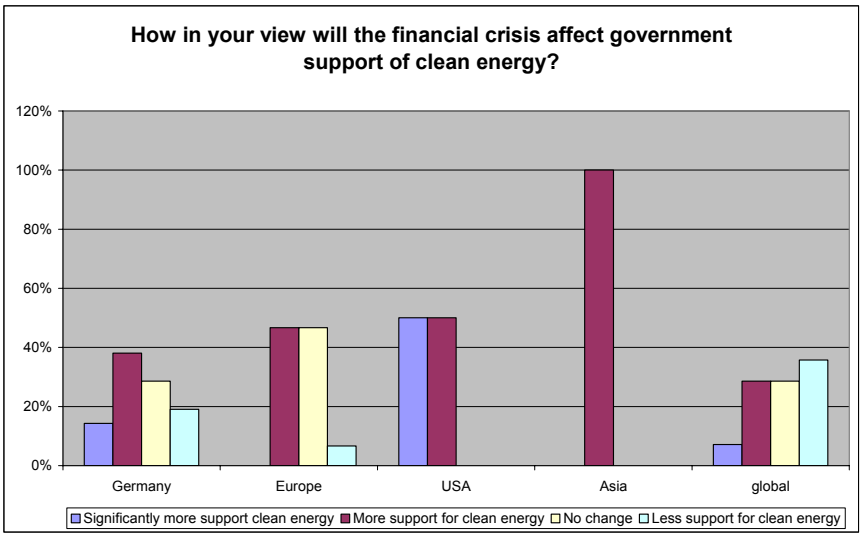
4 Policies and regulations:

4.a How in your view will the financial crisis affect government support of clean energy?

	Significantly more support for clean energy		More support for clean energy		No change		Less support for clean energy	
Total	**8**	**12%**	**28**	**42%**	**19**	**29%**	**11**	**17%**
Multilateral/ Bilateral Institutions	1	9%	4	36%	3	27%	3	27%
Infrastructure providers	4	15%	10	38%	7	27%	5	19%
Private Banks/ Investors	2	7%	14	50%	9	32%	3	11%
No sector	1	33.3%	1	33.3%	0	0%	1	33.3%
Germany	3	14%	8	38%	6	29%	4	19%
Europe	0	0%	7	47%	7	47%	1	7%
USA	1	50%	1	50%	0	0%	0	0%
Asia	0	0%	5	100%	0	0%	0	0%
global	1	7%	4	29%	4	29%	5	36%
No region	3	33.5%	3	33.5%	2	22%	1	11%

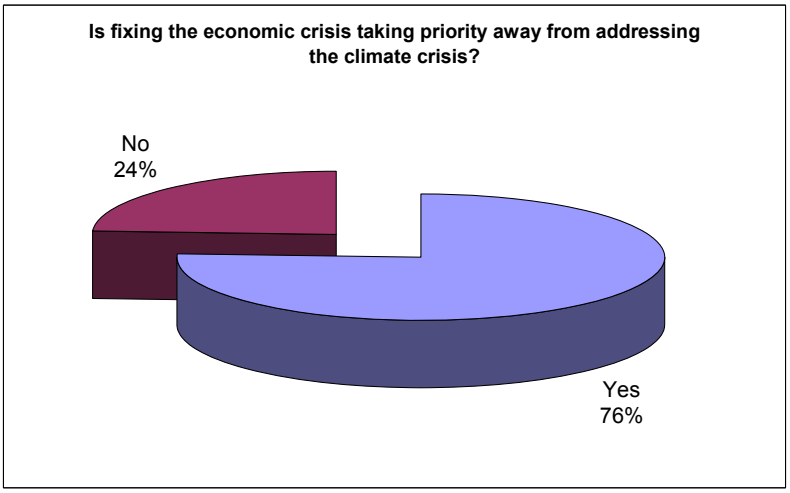


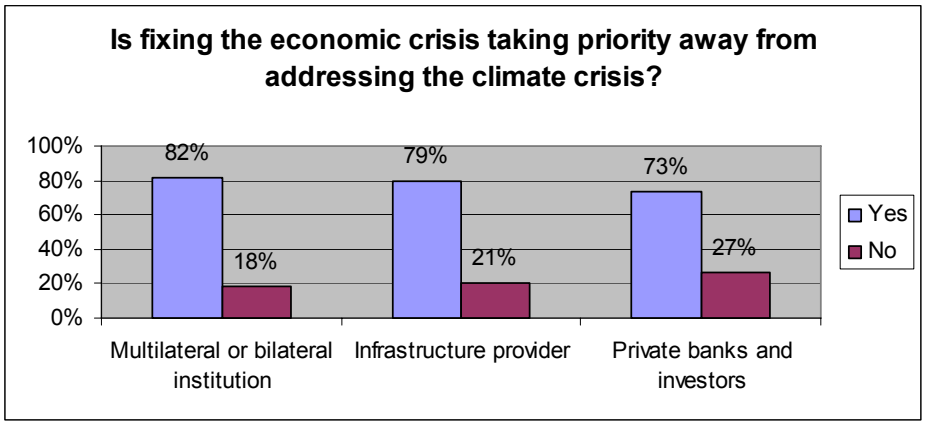


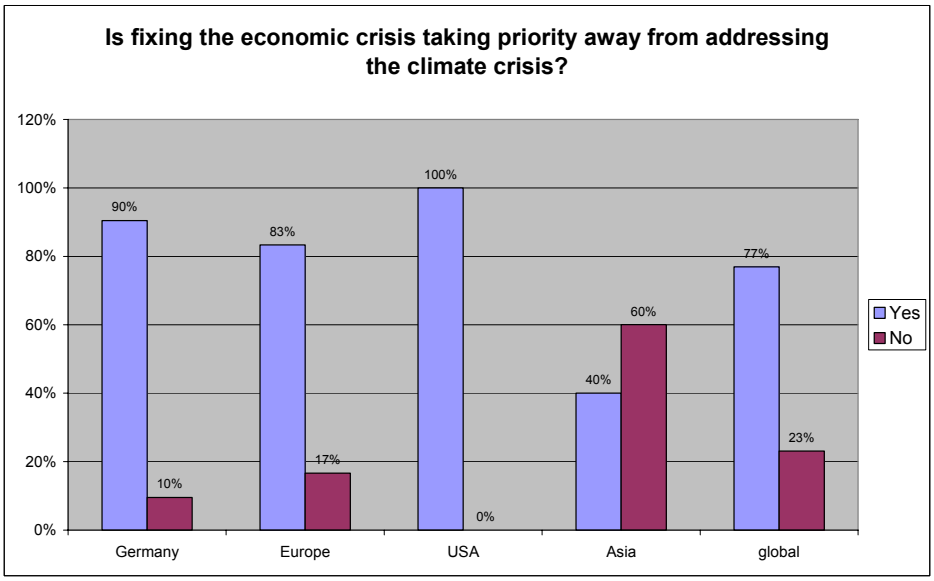


4.b Is fixing the economic crisis taking priority away from addressing the climate crisis?

	Yes		No	
Total	**47**	**76%**	**15**	**24%**
Multilateral/ Bilateral Institutions	9	82%	2	18%
Infrastructure providers	19	79%	5	21%
Private Banks/ Investors	19	73%	7	27%
No sector	2	67%	1	33%
Germany	19	90%	2	10%
Europe	10	83%	2	17%
USA	2	100%	0	0%
Asia	2	40%	3	60%
global	10	77%	3	23%
No region	4	44%	5	56%

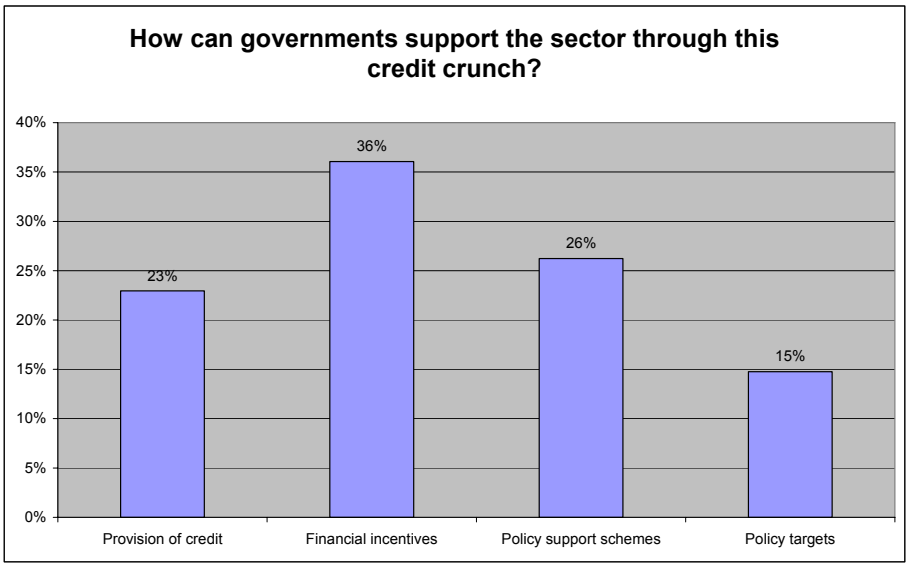


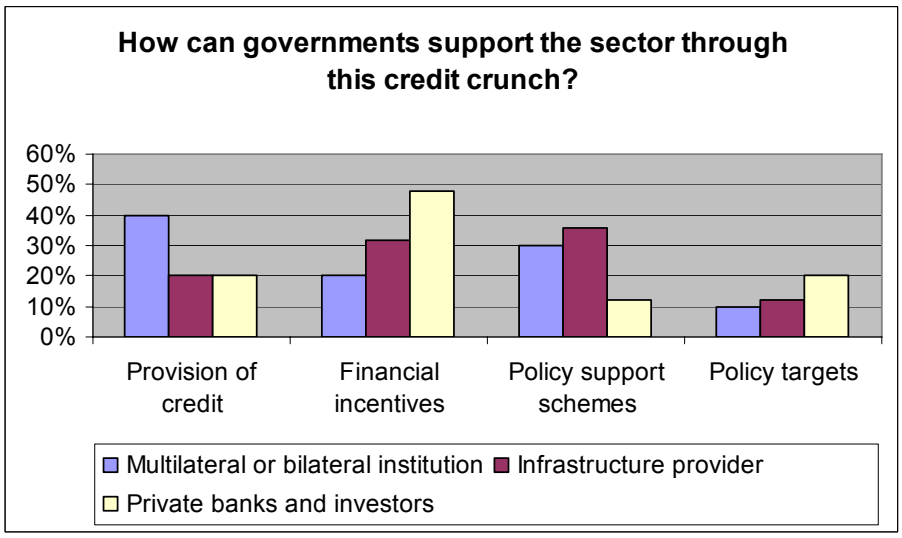


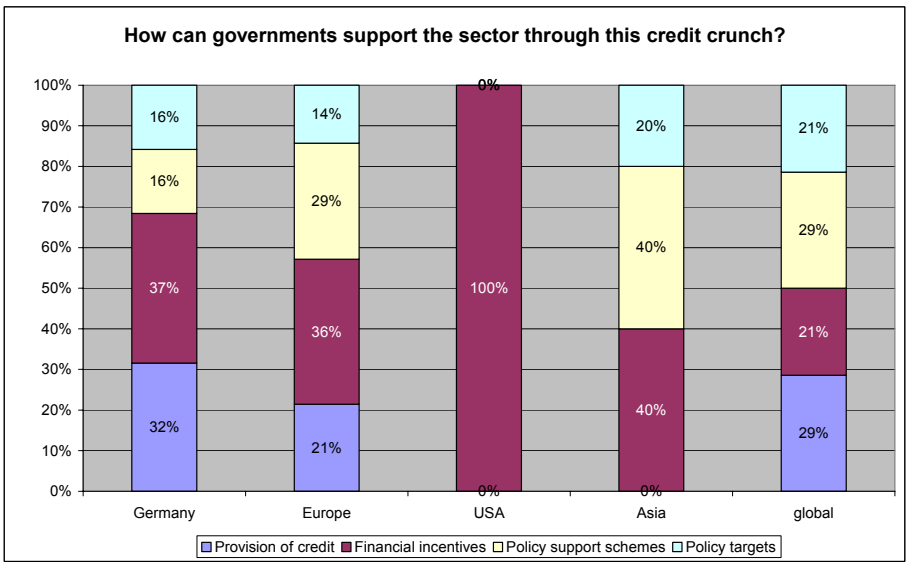


4.c How can governments support the sector through this credit crunch?

	Provision of credit		Financial incentives		Policy support schemes		Policy targets	
Total	**14**	**23%**	**22**	**36%**	**16**	**26%**	**9**	**15%**
Multilateral/ Bilateral Institutions	4	40%	2	20%	3	30%	1	10%
Infrastructure providers	5	20%	8	32%	9	36%	3	12%
Private Banks/ Investors	5	20%	12	48%	3	12%	5	20%
No sector	1	33.3%	1	33.3%	1	33.3%	0	0%
Germany	6	32%	7	37%	3	16%	3	16%
Europe	3	21%	5	36%	4	29%	2	14%
USA	0	0%	2	100%	0	0%	0	0%
Asia	0	0%	2	40%	2	40%	1	20%
global	4	29%	3	21%	4	29%	3	21%
No region	1	14%	3	43%	3	43%	0	0%


How can governments support the sector through this credit crunch?
40%
35%
30%
25%
20%
15%
10%
5%
0%
23%
36%
26%
15%
Provision of credit
Financial incentives
Policy support schemes
Policy targets


How can governments support the sector through this credit crunch?
60%
50%
40%
30%
20%
10%
0%
Provision of credit
Financial incentives
Policy support schemes
Policy targets
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors


How can governments support the sector through this credit crunch?
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
16%
16%
37%
32%
14%
29%
36%
21%
0%
100%
0%
20%
40%
40%
0%
21%
29%
21%
29%
Germany
Europe
USA
Asia
global
Provision of credit
Financial incentives
Policy support schemes
Policy targets

4.d How large is the role of the governments in promoting renewable energy in …

Europe

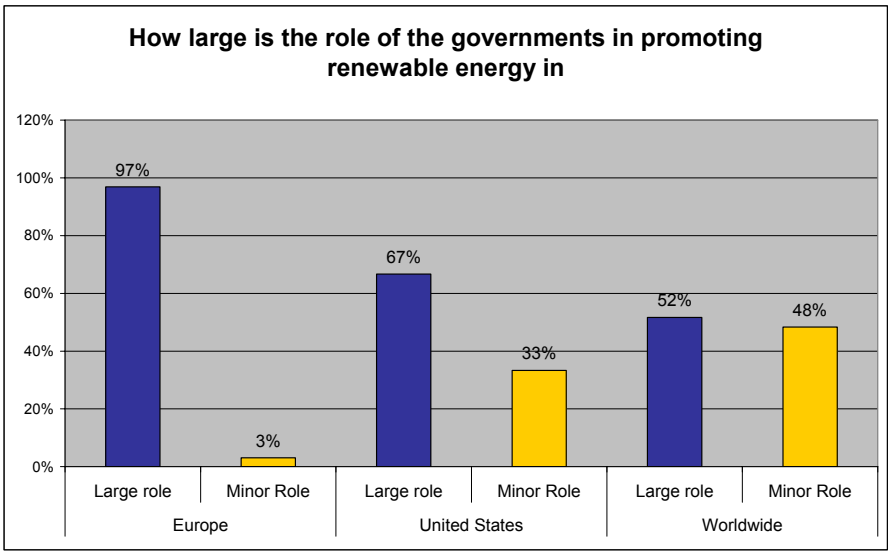
	Large Role		Minor Role	
Total	**63**	**97%**	**2**	**3%**
Multilateral/ Bilateral Institutions	10	91%	1	9%
Infrastructure providers	26	100%	0	0%
Private Banks/ Investors	26	96%	1	4%
No sector	3	100%	0	0%
Germany	20	95%	1	5%
Europe	14	93%	1	7%
USA	2	1005	0	0%
Asia	5	100%	0	0%
global	13	100%	0	0%
No region	9	100%	0	0%

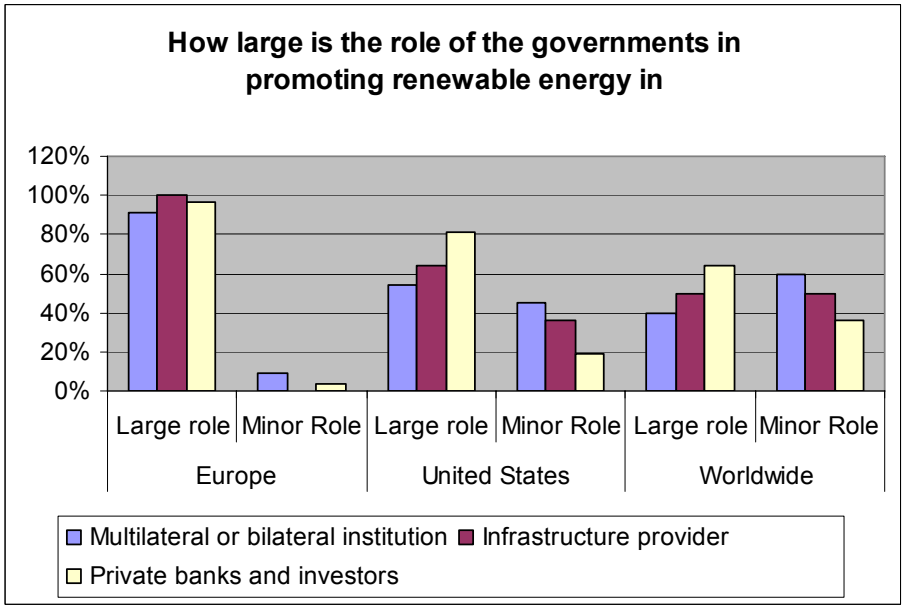
United States

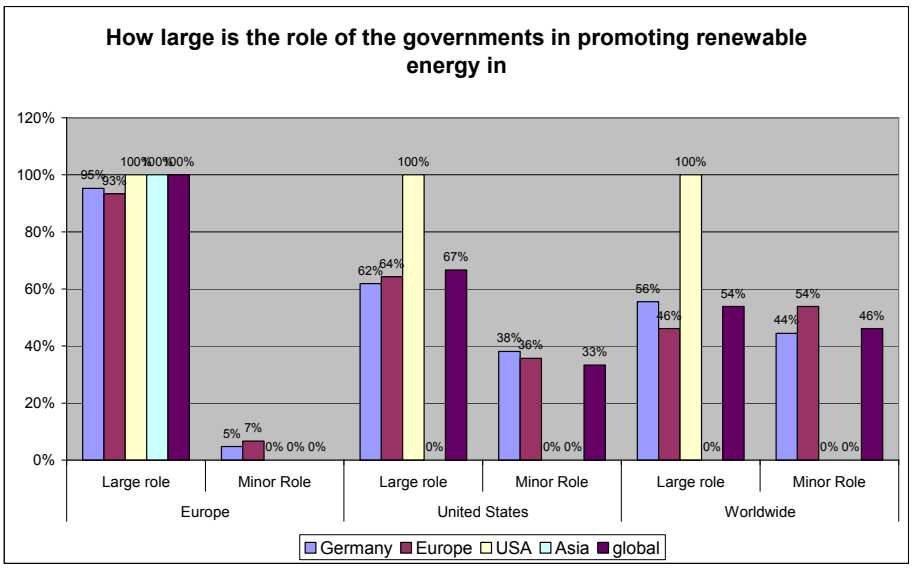
	Large Role		Minor Role	
Total	**42**	**67%**	**21**	**33%**
Multilateral/ Bilateral Institutions	6	55%	5	45%
Infrastructure providers	16	64%	9	36%
Private Banks/ Investors	21	81%	5	19%
No sector	1	33%	2	67%
Germany	13	62%	8	38%
Europe	9	64%	5	36%
USA	2	100%	0	0%
Asia	4	80%	1	20%
global	8	67%	4	33%
No region	6	67%	3	33%

Worldwide

	Large Role		Minor Role	
Total	**31**	**52%**	**29**	**48%**
Multilateral/ Bilateral Institutions	4	40%	6	60%
Infrastructure providers	12	50%	12	50%
Private Banks/ Investors	16	64%	9	36%
No sector	0	0%	3	100%
Germany	10	56%	8	44%
Europe	6	46%	7	54%
USA	2	100%	0	0%
Asia	3	60%	2	40%
global	7	54%	6	46%
No region	3	33%	6	67%

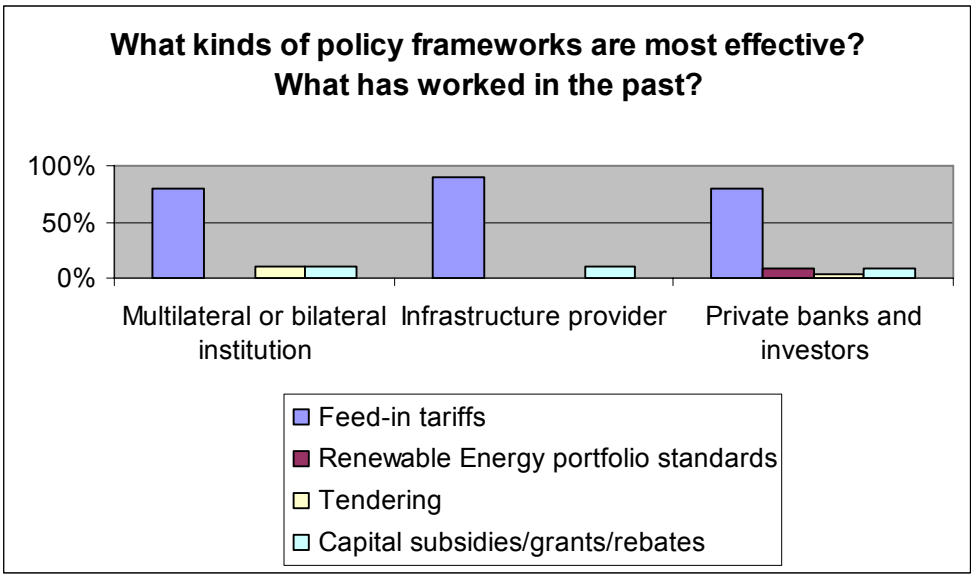

How large is the role of the governments in promoting renewable energy in
120%
100%
80%
60%
40%
20%
0%
97%
3%
67%
33%
52%
48%
Large role
Minor Role
Large role
Minor Role
Large role
Minor Role
Europe
United States
Worldwide

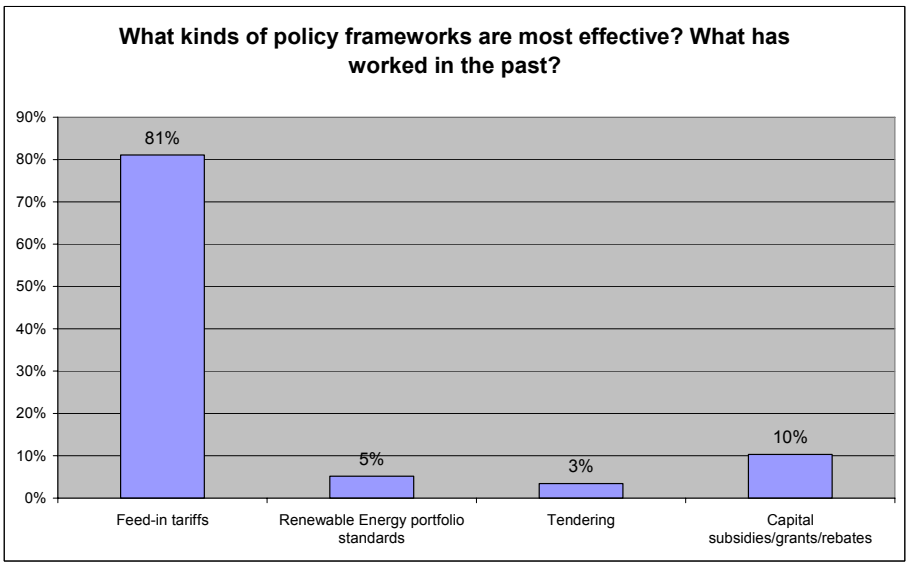

How large is the role of the governments in promoting renewable energy in
120%
100%
80%
60%
40%
20%
0%
Large role
Minor Role
Large role
Minor Role
Large role
Minor Role
Europe
United States
Worldwide
Multilateral or bilateral institution
Infrastructure provider
Private banks and investors


How large is the role of the governments in promoting renewable energy in
120%
100%
80%
60%
40%
20%
0%
95%
93%
100%
100%
100%
5%
7%
0%
0%
0%
62%
64%
100%
0%
67%
38%
36%
0%
0%
33%
56%
46%
100%
0%
54%
44%
54%
0%
0%
46%
Large role
Minor Role
Large role
Minor Role
Large role
Minor Role
Europe
United States
Worldwide
Germany
Europe
USA
Asia
global

4.e What kinds of policy frameworks are most effective? What has worked in the past?

	Feed-in tariffs		Renewable Energy portfolio standards		Tendering		Capital subsidies/grants/ rebates	
Total	**47**	**81%**	**3**	**5%**	**2**	**3%**	**6**	**10%**
Multilateral/ Bilateral Institutions	8	80%	0	0%	1	10%	1	10%
Infrastructure providers	19	90%	0	0%	0	0%	2	10%
Private Banks/ Investors	19	79%	2	8%	1	4%	2	8%
No sector	1	33.3%	1	33.3%	0	0%	1	33.3%
Germany	17	89%	0	0%	1	5%	1	5%
Europe	13	87%	0	0%	0	0%	2	13%
USA	1	100%	0	0%	0	0%	0	0%
Asia	4	80%	0	0%	0	0%	1	20%
global	10	71%	3	21%	1	7%	0	0%
No region	2	50%	0	0%	0	0%	2	50%



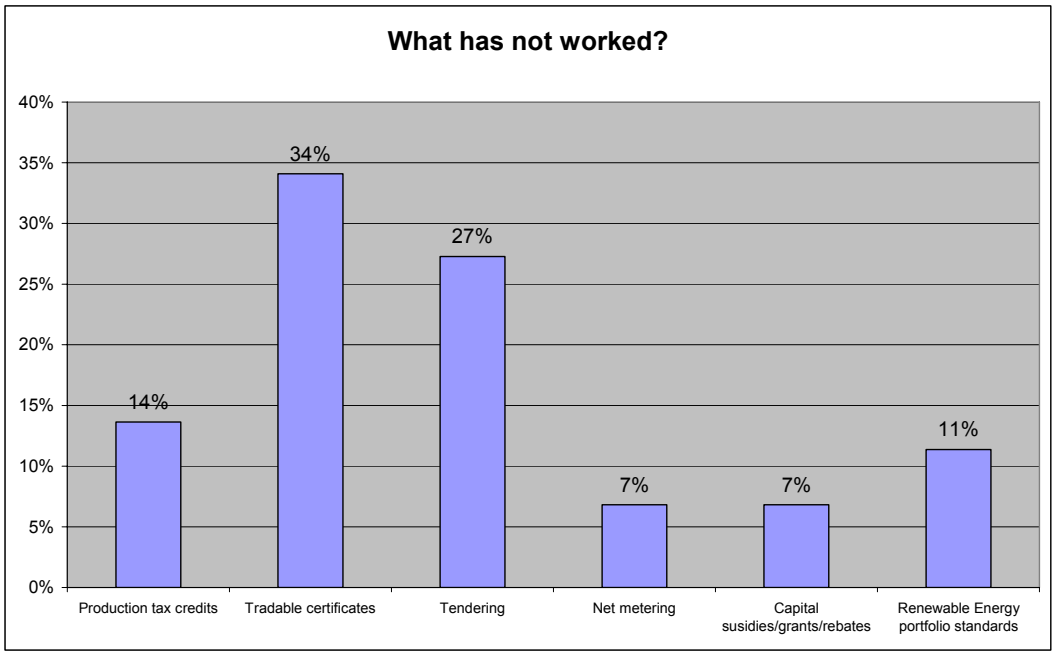


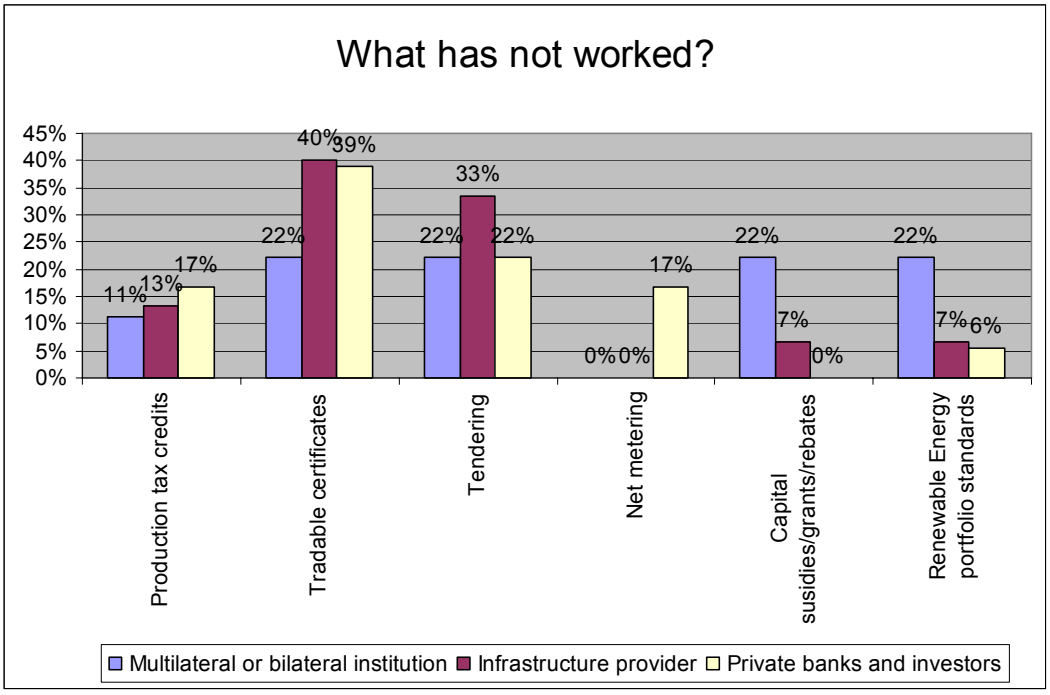
4.f Are there any alternative policy frameworks not mentioned in the previous question that you would like to draw attention to?

- Subsidy for R&D innovation
- building control and planning permission legislation that require micro renewables
- State and government guarantees as long as the financial market is not back to normal is absolutely required. It would be a low risk for governments and a good support for RE projects.
- Premiums are the best option. market approach to business and support only provided when necessary
- Targeted affordable financing for end users. This will have an positive impact in India - X% portfolio financing through government owned banks will lead to a surge in the diffusion of renewable energies in the rural areas.
- Credit support
- certain financial obligation of insurance companies, banks, Power utilities, etc. to spend money on funding the VC for innovative small companies
- Installation regulations, obligations
- Research grants. Incentives to share technology worldwide (also to places where there is sun), i.e. international planning and cooperation.
- Performance guarantees; financing and credit guarantees
- All the important ones are mentioned, but more than one is feasible and can help to reach the goal.
- Carbon tax should also be considered.
- In China, government policies are the main issue for strong implementation of Renewable Energy projects; and are the basis of the current explosion in Wind farm installations; however those policies must not be put into place in detriment to international companies established here, and in sole benefit of local companies
- Production based incentives
- Provision of caps/floors
- Not actually a framework, but the ideas of "peakoil", that means the end of *cheap* oil should be considered for long term investments
- More green bonds.

4.g What has not worked?

	Production tax credits	Tradable certificates	Tendering	Net metering	Capital subsidies/grants /rebates	Renewable Energy portfolio standards
Total	**6**	**15**	**12**	**3**	**3**	**5**
Total in %	**14%**	**34%**	**27%**	**7%**	**7%**	**11%**
Multilateral/ Bilateral Institutions	1	2	2	0	2	2
Infrastructure providers	2	6	5	0	1	1
Private Banks/ Investors	3	7	4	3	0	1
No sector	0	0	1	0	0	1
Multilateral/ Bilateral Institutions	11%	22%	22%	0%	22%	22%
Infrastructure providers	13%	40%	33%	0%	7%	7%
Private Banks/ Investors	17%	39%	22%	17%	0%	6%
No sector	0%	0%	50%	0%	0%	50%
Germany	4	9	4	0	0	1
Europe	0	3	5	1	1	3
USA	0	0	0	0	0	0
Asia	1	0	2	0	1	0
global	1	2	1	2	1	1
No region	0	1	0	0	0	0
Germany	22%	50%	22%	0%	0%	6
Europe	0%	23%	38%	8%	8%	23
USA	0%	0%	0%	0%	0%	0%
Asia	25%	0%	50%	0%	25%	0%
global	13%	25%	13%	25%	13%	13%
No region	0%	100%	0%	0%	0%	0%



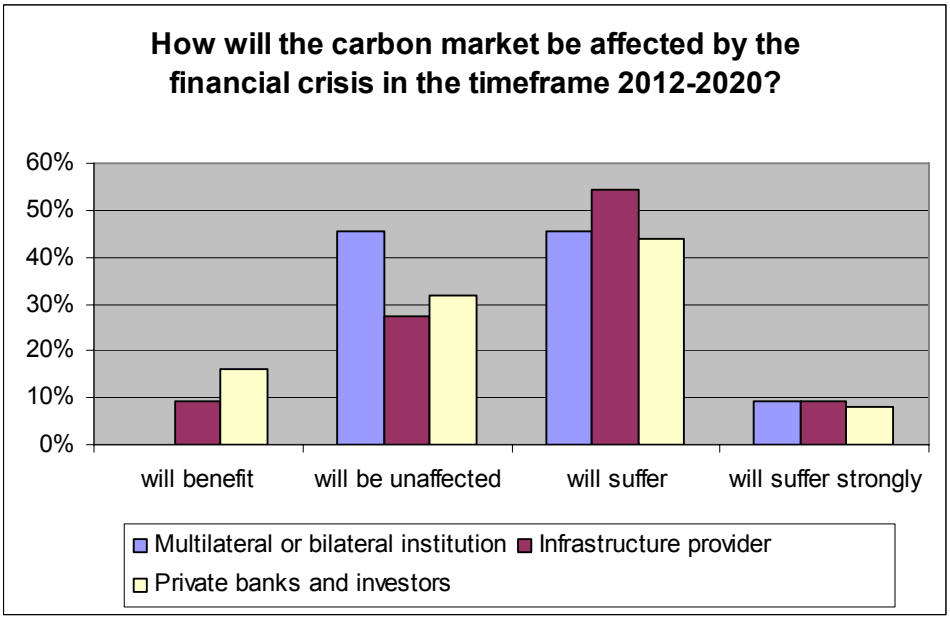


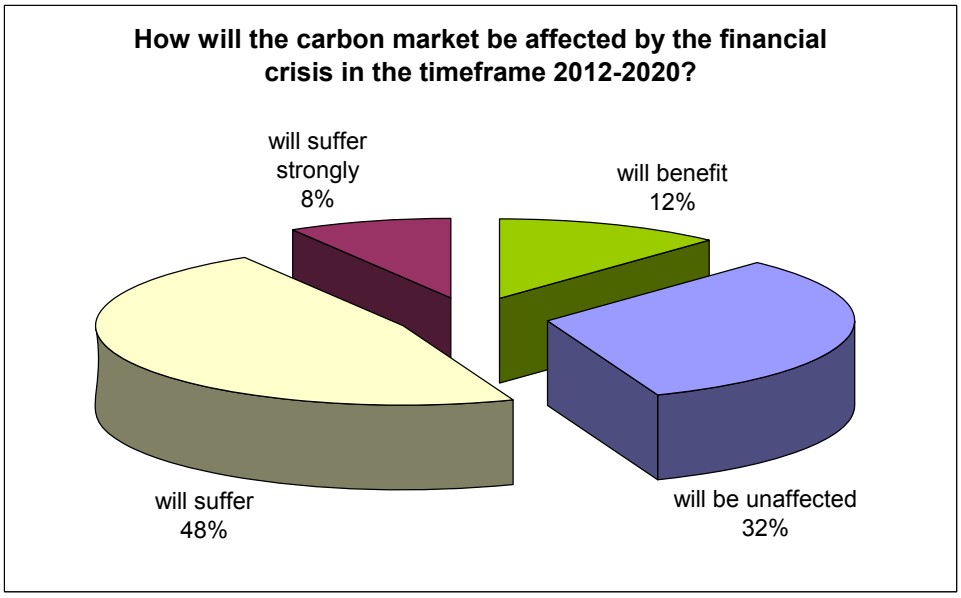
4.h If there are any other policy frameworks that have been used but have not been effective, please mention below.

- Subsidy for End users
- PTC scheme provides too high uncertainty over a long period of time, taking into account the extension or not of this fiscal benefit.
- Quotas (RES), especially in 'new markets' ....
- tax credits
- Government demonstration and procurement
- Again the answer to question 30 is actually not a single one, but some have worked better than others, also depending on the circumstances.
- a) installation targets on MW basis, without taking into account what it is really being connected to the grid; b) National level concession projects
- Tax depreciation: attracts the "wrong" investors
- Any kind of state supplied subsidies on energy prices turned out to be a bad idea in the long run.

4.i How will the carbon market be affected by the financial crisis in the timeframe 2012-2020?

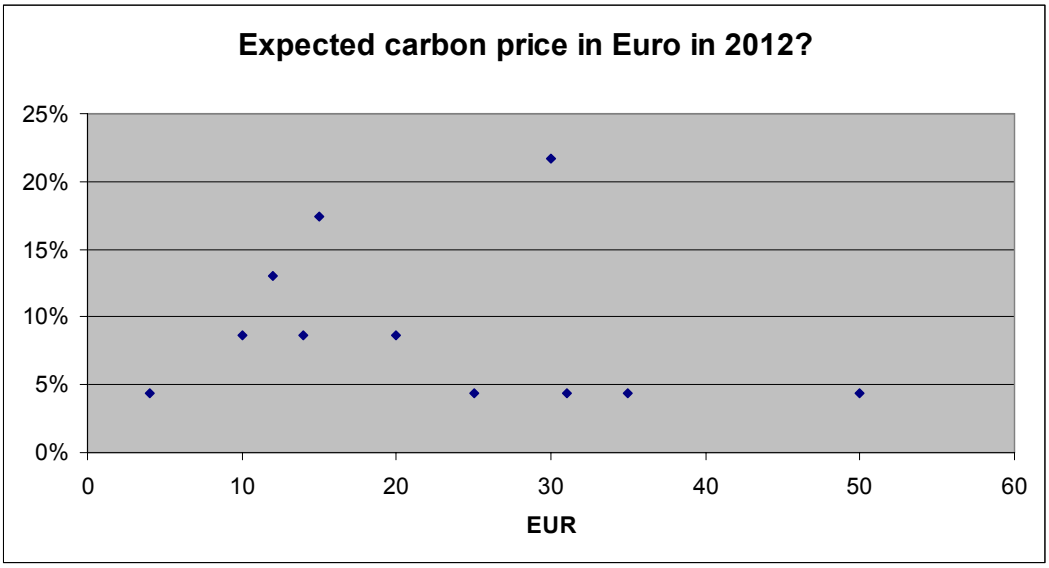
	Will benefit		Will be unaffected		Will suffer		Will suffer strongly	
Total	**7**	**12%**	**19**	**32%**	**28**	**47%**	**5**	**8%**
Multilateral/ Bilateral Institutions	0	0%	5	45%	5	45%	1	9%
Infrastructure providers	2	9%	6	27%	12	55%	2	9%
Private Banks/ Investors	4	16%	8	32%	11	44%	2	8%
No sector	1	33%	0	0%	2	67%	0	0%
Germany	3	18%	8	47%	4	24%	2	12%
Europe	1	8%	3	23%	8	62%	1	8%
USA	0	0%	0	0%	2	100%	0	0%
Asia	2	40%	1	20%	2	40%	0	0%
global	1	8%	5	38%	7	54%	0	0%
No region	0	0%	2	22%	5	56%	2	22%





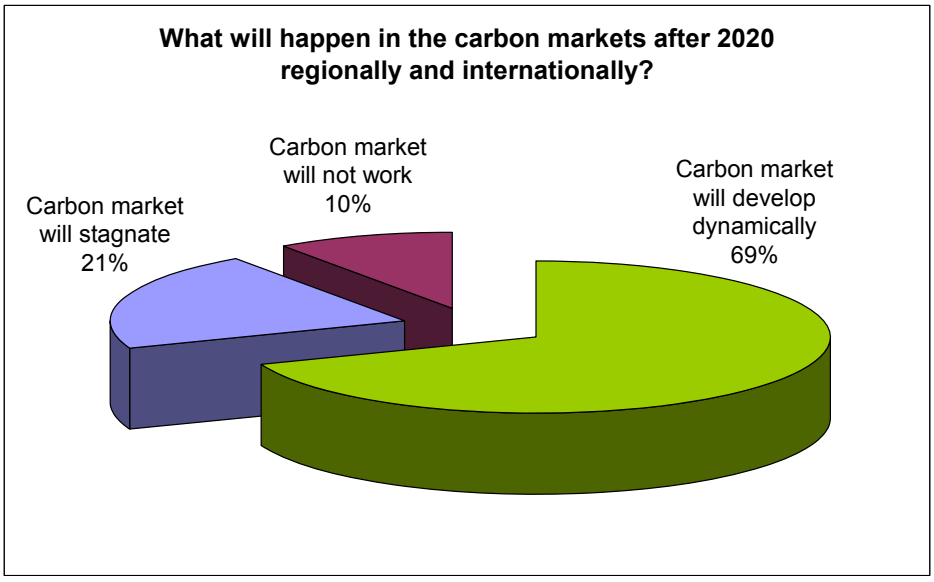
4.j Expected carbon price in Euros in 2012?

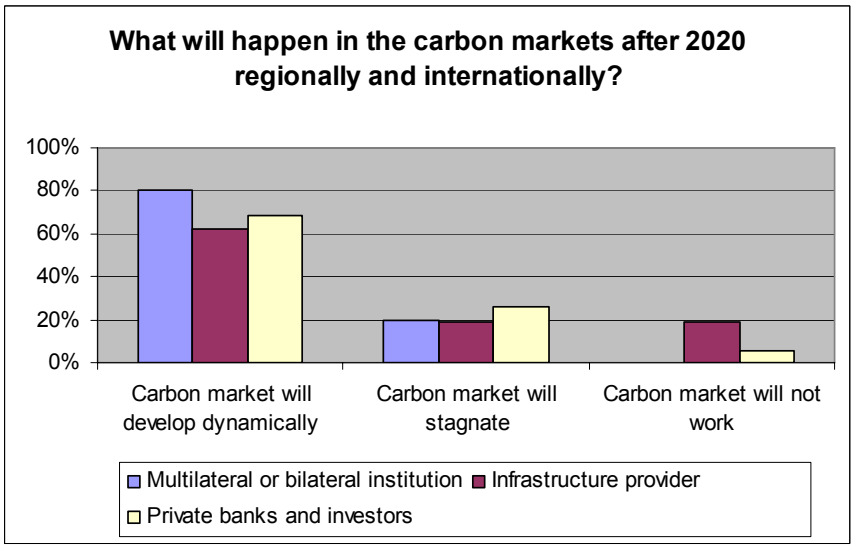
- no idea at the moment
- 20
- Not known
- 30
- About 30 Euros
- Please provide your detailed answer here.
  Euros 10-15
- no idea
- $6
- Please provide your detailed answer here.
  ? 0 €, Carbon price depends on strong political consensus .....
- 15 €
- no opinion
- no opinion
- no opinion
- Do not know
- Very dependent on decisions about the post-2012 regime and US policy. A wild guess: 15 Euros
- 40 USD
- Please provide your detailed answer here.
  not more than €10/t
- 30 Euro
- I have no idea
- Please provide your detailed answer here. No opinion
- About 14 EUR. That's a actual price of CER futures.
- 15
- 10
- 12



4.k What will happen in the carbon markets after 2020 regionally and internationally?

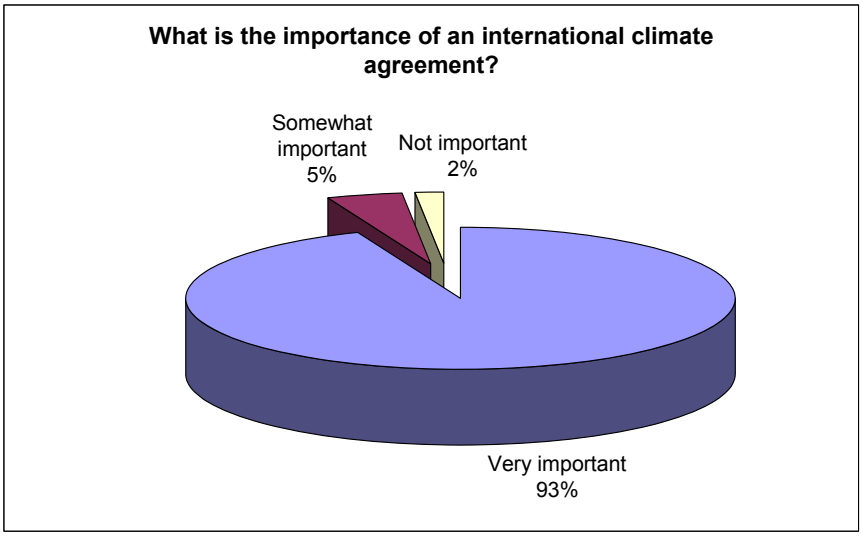
	Carbon market will develop dynamically		Carbon market will stagnate		Carbon market will not work	
Total	**36**	**69%**	**11**	**21%**	**5**	**10%**
Multilateral/ Bilateral Institutions	8	80%	2	20%	0	0%
Infrastructure providers	13	62%	4	19%	4	19%
Private Banks/ Investors	13	68%	5	26%	1	5%
No sector	2	67%	0	0%	1	33%
Germany	11	61%	6	33%	1	6%
Europe	6	75%	2	25%	0	0%
USA	1	50%	0	0%	1	50%
Asia	4	80%	1	20%	0	0%
global	9	82%	2	18%	0	0%
No region	5	62.5%	0	0%	3	37.5%

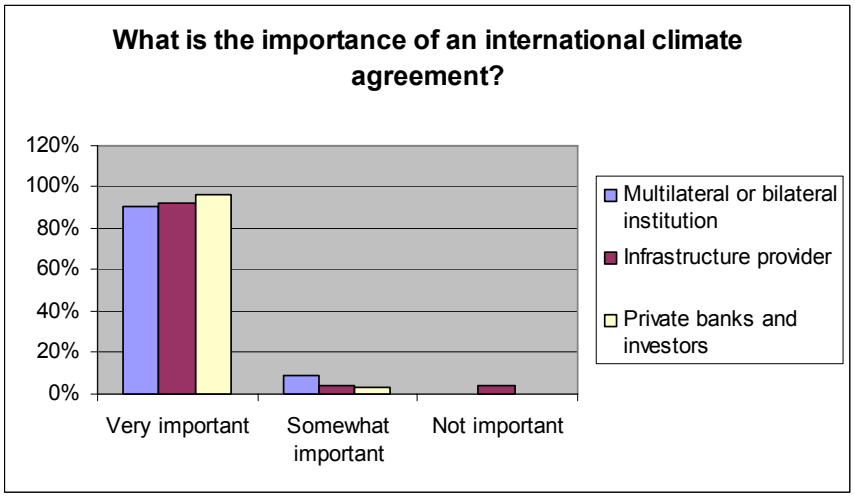




4.I What is the importance of an international climate agreement?

	Very important		Somewhat important		Not important	
Total	**61**	**94%**	**3**	**5%**	**1**	**2%**
Multilateral/ Bilateral Institutions	10	91%	1	9%	0	0%
Infrastructure providers	23	92%	1	4%	1	4%
Private Banks/ Investors	27	96%	1	4%	0	0%
No sector	3	100%	0	0%	0	0%
Germany	20	95%	1	5%	0	0%
Europe	13	93%	1	7%	0	0%
USA	2	100%	0	0%	0	0%
Asia	4	80%	0	0%	1	20%
global	13	93%	1	7%	0	0%
No region	9	100%	0	0%	0	0%





4.m What are the clean energy policy requirements of institutional investors?

Long term price

	Very important		Important		Less important		Not important	
Total	**25**	**41%**	**24**	**39%**	**9**	**15%**	**3**	**5%**
Multilateral/ Bilateral Institutions	5	13%	4	10%	1	3%	0	0%
Infrastructure providers	9	10%	9	10%	4	4%	2	2%
Private Banks/ Investors	11	10%	12	11%	2	2%	1	1%
No sector	1	33%	0	0%	2	67%	0	0%
Germany	6	33%	9	50%	2	11%	1	6%
Europe	5	38%	5	38%	3	23%	0	0%
USA	0	0%	2	100%	0	0%	0	0%
Asia	3	60%	0	0%	1	20%	1	20%
global	5	36%	7	50%	1	7%	1	7%
No region	6	67%	1	11%	2	22%	0	0%

Stable subsidies

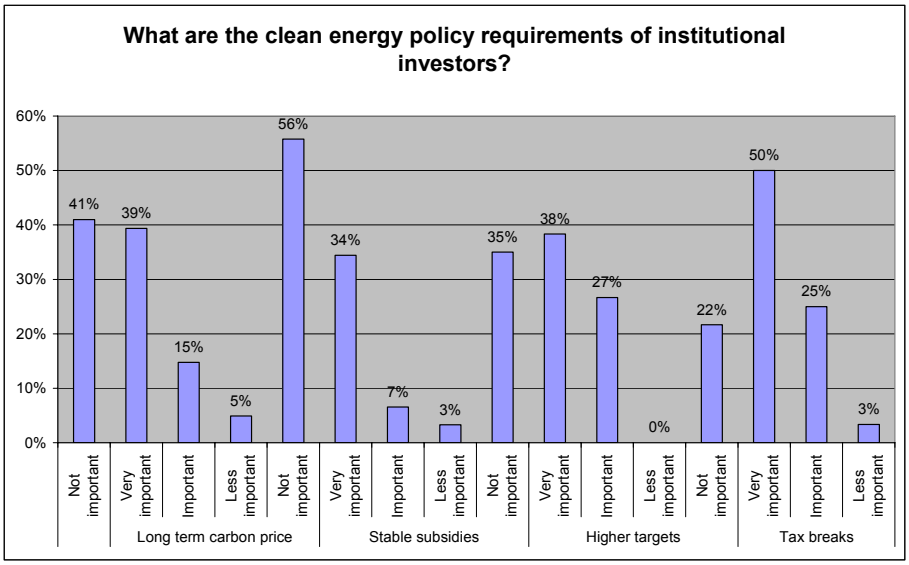
	Very important		Important		Less important		Not important	
Total	**34**	**56%**	**21**	**34%**	**4**	**7%**	**2**	**3%**
Multilateral/ Bilateral Institutions	2	5%	5	13%	2	5%	1	3%
Infrastructure providers	12	13%	10	11%	1	1%	0	0%
Private Banks/ Investors	19	18%	6	6%	1	1%	1	1%
No sector	2	67%	1	33%	0	0%	0	0%
Germany	10	53%	6	32%	2	11%	1	5%
Europe	7	58%	4	33%	0	0%	1	8%
USA	0	0%	2	100%	0	0%	0	0%
Asia	1	20%	3	60%	1	20%	0	0%
global	8	57%	5	36%	1	7%	0	0%
No region	8	89%	1	11%	0	0%	0	0%

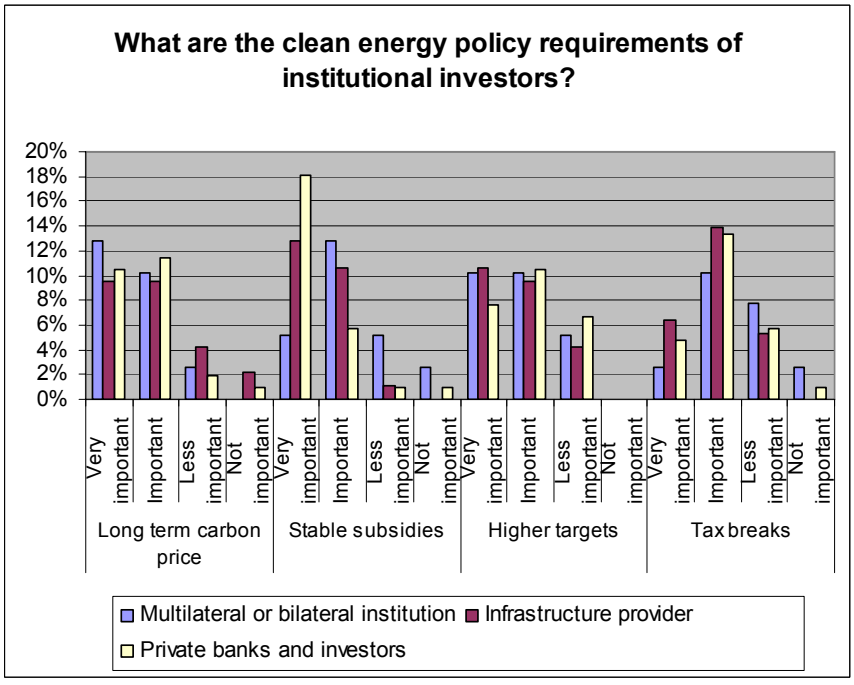
Higher targets

	Very important		Important		Less important		Not important	
Total	**21**	**35%**	**23**	**38%**	**16**	**27%**	**0**	**0%**
Multilateral/ Bilateral Institutions	4	10%	4	10%	2	5%	0	0%
Infrastructure providers	10	11%	9	10%	4	4%	0	0%
Private Banks/ Investors	8	8%	11	10%	7	7%	0	0%
No sector	0	0%	0	0%	3	100%	0	0%
Germany	7	39%	8	44%	3	17%	0	0%
Europe	4	33%	4	33%	4	33%	0	0%
USA	0	0%	2	100%	0	0%	0	0%
Asia	2	40%	2	40%	1	20%	0	0%
global	4	29%	5	36%	5	36%	0	0%
No region	4	45%	2	22%	3	33%	0	0%

Tax breaks

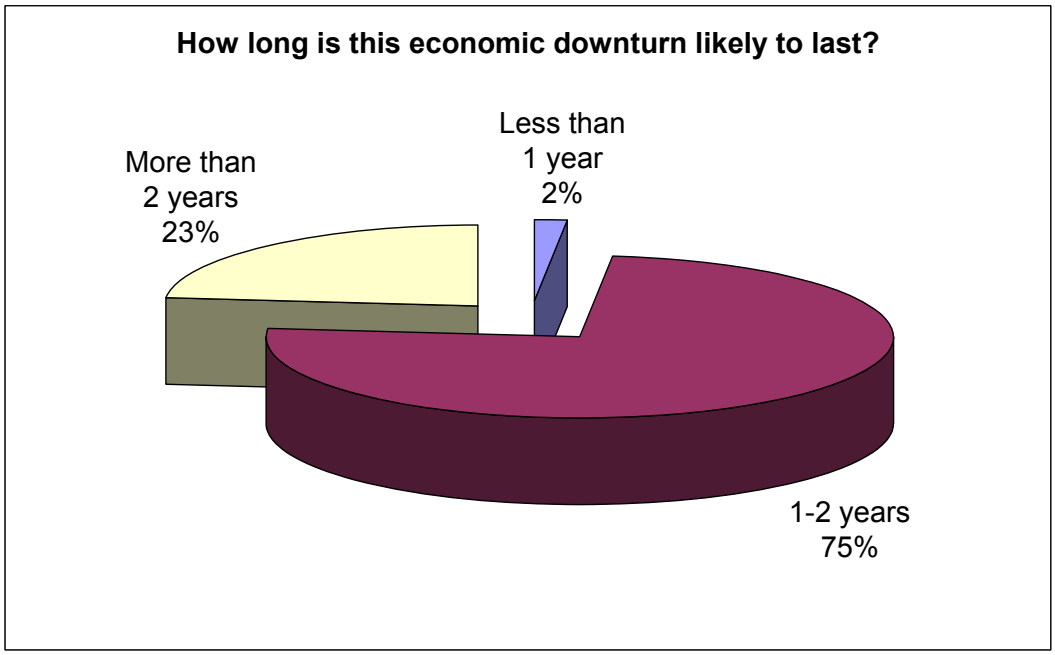
	Very important		Important		Less important		Not important	
Total	**13**	**22%**	**30**	**50%**	**15**	**25%**	**2**	**3%**
Multilateral/ Bilateral Institutions	1	3%	4	10%	3	8%	1	30%
Infrastructure providers	6	6%	13	14%	5	5%	0	0%
Private Banks/ Investors	5	4%	14	13%	6	6%	1	1%
No sector	2	67%	0	0%	1	33%	0	0%
Germany	2	11%	10	53%	5	26%	2	11%
Europe	3	25%	7	58%	2	17%	0	0%
USA	0	0%	2	100%	0	0%	0	0%
Asia	2	40%	1	20%	2	40%	0	0%
global	3	23%	5	38%	5	38%	0	0%
No region	3	33%	5	56%	1	11%	0	0%

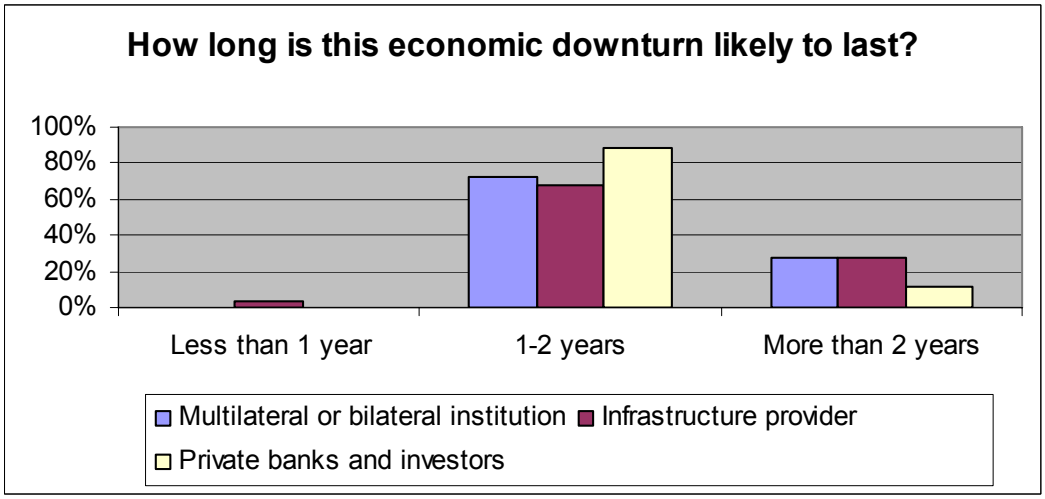




5 How long is this downturn likely to last?

	Less than 1 year		1-2 years		More than 2 years	
Total	**1**	**2%**	**48**	**75%**	**15**	**23%**
Multilateral/ Bilateral Institutions	0	0%	8	73%	3	27%
Infrastructure providers	1	4%	17	68%	7	28%
Private Banks/ Investors	0	0%	24	89%	3	11%
No sector	0	0%	0	0%	3	100%
Germany	0	0%	17	81%	4	19%
Europe	1	7%	8	57%	5	36%
USA	0	0%	1	50%	1	50%
Asia	0	0%	4	80%	1	20%
global	0	0%	11	85%	2	15%
No region	0	0%	7	77.8%	2	22.2%





Annex 3: Total results of the study

Participants	Q1a: Investment in			Q1b: What will happen to p				Q1c: How are co			Q1d: How are cor			Q1e: How is risk per		
	Agree	Somewhat agree	Disagree	Slight decrease	Strong decrease	No change	Increase	Higher	No change	Lower	Higher	No change	Lower	Spreads increase	Spreads differ according	Spreads decrease
1	1			1						1			1	1		
2		1		1						1				1		
3		1		1						1			1		1	
4		1			1			1			1			1		
5		1			1					1	1				1	
6		1		1					1		1				1	
7		1			1									1		
8	1			1					1			1			1	
9	1				1					1	1			1		
10			1	1				1				1			1	
11	1				1					1	1				1	
12			1	1						1	1				1	
13			1		1					1	1			1		
14			1	1						1	1			1		
15			1	1					1		1				1	
16	1			1						1			1		1	
17		1			1									1		
18	1															
19	1				1					1		1			1	
20	1			1					1		1				1	
21	1				1			1			1				1	
22			1													
23		1			1				1			1			1	
24	1				1					1	1			1		
25	1				1			1						1		
26	1			1				1			1				1	
27				1						1			1	1		
28	1				1										1	
29	1			1						1	1				1	
30		1		1				1			1			1		
31			1	1						1			1	1		
32	1			1						1	1				1	
33			1			1			1			1			1	
34			1		1			1				1			1	
35			1		1					1	1			1		
36	1				1			1			1			1		
37		1			1			1			1			1		
38		1		1				1				1			1	
39	1				1			1			1				1	
40	1			1					1		1			1		
41		1		1				1			1				1	
42	1						1			1	1			1		
43		1				1		1			1				1	
44			1				1		1				1			1
45	1				1					1		1				
46		1				1				1	1				1	
47	1			1						1		1		1		
48		1		1											1	
49	1			1						1	1			1		
50			1		1			1			1			1		
51	1					1				1	1				1	
52		1		1											1	
53		1		1					1			1				
54		1				1		1			1				1	
55	1						1									
56	1			1					1				1			
57		1			1					1			1	1		
58		1		1						1		1			1	
59	1				1			1			1				1	
60		1		1						1	1			1		
61		1			1					1	1			1		
62		1		1				1			1				1	
63		1				1										
64	1			1											1	
65	1				1					1	1			1		
66	1						1							1		
67		1		1					1		1			1		
68		1			1			1			1				1	
69		1			1					1	1			1		
70	1			1										1		
71	1				1			1			1				1	
72		1		1				1			1				1	
73	1				1									1		
74	1			1					1			1		1		
75	1			1						1	1				1	
76	1			1											1	
	35	28	12	36	28	6	4	20	12	30	40	12	8	31	37	1
	47%	37%	16%	49%	38%	8%	5%	32%	19%	48%	67%	20%	13%	45%	54%	1%
Total	75			74				62			60			69		

Participants	Q1f: How are conditions for project finance changing as far as guarantees are concerned?																	Q1g: What is the maximum tenor (in years) of a "bankable" renewable energy project?															
	Wind				Solar					Hydro				Bio Energy				Wind				Solar				Hydro				Bio Energy			
	10-15%	16-25%	26-50%	>50%	0-9%	10-15%	16-25%	26-50%	>50%	10-15%	16-25%	26-50%	>50%	10-15%	16-25%	26-50%	>50%	3	5	10	>10	3	5	10	>10	3	5	10	>10	3	5	10	>10
1						1																			1							
2																																
3			1			1						1		1										1								
4							1																		1							
5			1					1					1				1			1				1			1			1		
6			1				1									1			1					1							1	
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38							1																									
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72																			1					1				1			1		
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75		1					1				1					1					1				1				1		1		
76			1													1				1											1		
	8	22	15	1	1	9	26	14	2	7	15	8	3	3	8	19	4	1	4	10	29	1	3	14	32	0	2	9	27	2	13	7	12
	17%	48%	33%	2%	2%	17%	50%	27%	4%	21%	45%	24%	9%	9%	24%	56%	12%	2%	9%	23%	66%	2%	6%	28%	64%	0%	5%	24%	71%	6%	38%	21%	35%
Total	46				52					33				34				44				50				38				34			

Participants	Q1h: What percentage of the market do you expect ...											Q1i i: Decrease i			Q1i ii: Decrease in oi			Q1i iii: Lower comm		
	to change conditions (t				will be postponed?				will be cancelled?											
	<25%	25-50%	50-75%	>75%	<25%	25-50%	50-75%	>75%	<25%	25-50%	50-75%	No effect	Slight effect	Strong effect	No effect	Slight effect	Strong effect	Short-term effect (until er	Mid-term effect (next 2 y	Long-term effect (3 years
1				1		1				1			1			1			1	
2				1		1			1				1			1			1	
3			1				1			1				1		1			1	
4				1		1			1				1				1		1	
5			1				1		1			1			1				1	
6	1						1			1			1			1			1	
7				1		1			1				1				1	1		
8	1				1				1				1			1		1		
9				1			1			1			1				1	1		
10			1		1				1			1				1			1	
11														1		1			1	
12		1			1					1			1		1			1		
13				1		1			1				1			1			1	
14	1				1				1				1				1		1	
15	1					1			1					1	1			1		
16	1				1				1			1			1					1
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18																				
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21	1					1							1			1		1		
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23	1					1			1					1		1			1	
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26				1	1				1				1		1				1	
27				1		1				1			1			1		1		
28		1					1		1				1				1		1	
29				1		1			1				1			1		1		
30			1			1			1				1			1			1	
31				1		1				1			1		1			1		
32																				
33	1					1			1				1			1			1	
34		1					1			1			1				1		1	
35																				
36			1			1			1			1					1		1	
37				1		1			1				1			1			1	
38			1										1		1			1		
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40		1				1			1					1		1			1	
41																				
42		1				1			1			1			1					1
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45				1			1			1				1	1					1
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50				1										1			1			1
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54		1			1				1				1		1			1		
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58				1		1			1					1		1			1	
59			1				1		1				1			1			1	
60				1		1			1				1			1			1	
61		1					1			1			1			1			1	
62	1				1				1				1			1			1	
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71		1			1				1				1		1				1	
72		1			1				1			1				1			1	
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74				1		1			1				1				1		1	
75			1			1			1				1		1				1	
76													1				1		1	
	13	17	10	21	15	28	15	1	41	15	1	7	49	10	13	37	16	18	44	5
	21%	28%	16%	34%	25%	47%	25%	2%	72%	26%	2%	11%	74%	15%	20%	56%	24%	27%	66%	7%
Total	61				59				57			66			66			67		

Participants	Q1j: To what extent does fina				Q1k: How important are the				Q1l: How has the market turmoil a					Q1m: How is the marke				Q2a: How will small		
	Will become more import	Will not be affected	Will recover soon	Will be negatively affecte	Very important	Important	Somewhat important	Not important	Opportunity - strong incre	Moderate increase	Stable	Reduction	Strong reduction	Opportunity - strong incre	Moderate increase	Stable	Reduction	Sell projects	Refinance	No change
1		1					1					1				1				1
2				1							1					1				1
3		1			1						1					1				1
4			1				1					1				1		1		
5				1			1				1				1			1		
6			1				1				1					1				1
7				1		1					1					1		1		
8				1			1				1				1					
9	1				1								1				1	1		
10				1			1					1					1			1
11	1						1		1							1		1		
12			1			1						1					1			1
13			1				1				1					1		1		
14				1		1					1					1				1
15				1				1			1					1		1		
16				1			1					1				1				1
17				1			1					1				1		1		
18																				
19			1				1		1						1					1
20				1			1				1					1		1		
21				1			1				1					1		1		
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23			1					1			1					1				
24				1			1				1					1				
25			1				1						1				1	1		
26			1					1			1					1		1		
27			1					1				1				1				1
28		1				1						1				1			1	
29			1				1					1				1		1		
30			1				1				1					1				
31			1					1			1						1	1		
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34	1				1						1			1						1
35																				
36			1				1					1				1		1		
37				1				1				1				1		1		
38				1			1					1					1	1		
39			1				1					1				1		1		
40				1				1		1						1				1
41																				
42			1		1							1					1		1	
43			1				1			1					1			1		
44				1				1	1					1					1	
45		1						1	1						1					1
46			1				1					1				1		1		
47				1			1					1					1	1		
48												1					1		1	
49																	1	1		
50	1				1					1						1		1		
51				1			1					1					1			
52				1			1			1							1	1		
53			1					1			1				1					1
54	1						1					1				1			1	
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57				1			1					1				1		1		
58			1						1					1				1		
59				1			1			1					1					1
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61		1			1						1					1				
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68																				
69			1			1						1				1		1		
70			1				1		1						1			1		
71		1						1				1					1	1		
72				1			1				1					1				1
73			1				1					1				1				1
74		1						1				1				1		1		
75			1				1					1				1		1		
76			1				1				1				1				1	
	5	8	26	25	6	6	37	13	6	6	23	28	2	3	10	39	14	37	6	17
	7.8%	12.5%	40.6%	39.1%	9.7%	9.7%	59.7%	21.0%	9.2%	9.2%	35.4%	43.1%	3.1%	5%	15%	59%	21%	62%	10%	28%
Total	64				62				65					66				60		

Participants	Q2b: Who will take advantage of the crisis? Is a switch from seller to buyer market already observ														
	Large infrastructure pr			Innovative technology d			Specialised finan			End-users			Finance industry		
	Will benefit	Not affected	Will lose	Will benefit	Not affected	Will lose	Will benefit	Not affected	Will lose	Will benefit	Not affected	Will lose	Will benefit	Not affected	Will lose
1			1	1					1		1				1
2	1			1					1	1					1
3			1	1			1			1					1
4			1	1			1					1	1		
5	1			1				1			1		1		
6		1				1			1			1			1
7	1			1				1		1			1		
8	1			1					1	1					1
9			1						1			1			1
10		1		1			1			1				1	
11			1	1					1			1	1		
12		1		1				1		1					
13			1					1				1	1		
14	1			1			1					1			1
15		1			1		1				1		1		
16		1		1					1			1			1
17			1			1			1			1			1
18															
19	1			1					1	1			1		
20	1					1									
21		1				1			1			1			1
22															
23	1					1			1			1			1
24						1									
25			1	1					1	1			1		
26	1					1	1					1			1
27			1	1			1					1		1	
28			1			1			1			1			1
29	1					1			1		1				1
30		1			1				1						1
31			1	1			1					1	1		
32															
33			1	1			1			1			1		
34			1	1			1			1					1
35															
36			1			1			1			1			1
37		1				1			1		1		1		
38	1					1			1		1		1		
39		1		1					1		1				1
40	1					1	1			1					
41															
42	1					1			1		1				
43			1	1				1		1			1		
44			1	1					1	1					1
45	1			1			1			1					
46	1					1			1	1					1
47	1				1				1		1				1
48	1			1								1			
49	1					1	1			1					1
50		1		1			1					1			
51						1	1			1			1		
52	1					1	1			1					1
53	1					1		1		1					
54	1			1				1		1					1
55															
56															
57	1					1			1		1				1
58			1			1	1					1			1
59			1	1					1	1					1
60			1		1			1			1		1		
61	1					1				1					
62	1			1			1			1					1
63															
64															
65	1						1			1					1
66															
67	1								1	1					1
68															
69	1					1	1					1			
70	1						1				1		1		
71	1					1	1				1			1	
72			1	1							1				
73	1					1	1				1				
74		1				1		1				1	1		
75			1			1		1							1
76	1					1			1	1			1		
	31	11	21	28	4	28	23	10	27	26	15	20	18	3	31
	49%	17%	33%	46.7%	6.7%	46.7%	38%	17%	45%	43%	25%	33%	35%	6%	60%
Total	63			60			60			61			52		

Participants	Q2c: What is your expectation for the market volume of ...															Q2d: The time of			Q2e: How will th		
	Private Equity:			Venture Capital:			Project Finance:			Capital Market			Public Finance Proje								
	Increase	Flat	Decrease	Increase	Flat	Decrease	Increase	Flat	Decrease	Increase	Flat	Decrease	Increase	Flat	Decrease	Will benefit	No change	Will lose	Will benefit	No change	Will lose
1			1			1	1					1	1				1			1	
2			1		1			1				1	1			1			1		
3	1			1					1			1		1			1		1		
4	1				1		1					1	1			1			1		
5		1				1		1				1		1			1			1	
6			1	1					1			1			1			1			1
7			1			1			1			1	1					1	1		
8			1			1			1			1			1			1	1		
9			1			1			1			1	1					1			1
10		1				1		1			1		1				1		1		
11	1				1			1		1			1					1	1		
12		1				1			1			1					1		1		
13			1		1				1			1	1					1	1		
14			1	1			1					1	1					1	1		
15		1				1		1				1	1				1			1	
16		1			1				1			1			1		1			1	
17			1		1				1			1	1			1			1		
18																					
19			1			1			1	1			1					1		1	
20		1				1		1					1				1		1		
21		1			1		1					1	1			1			1		
22																					
23			1			1			1			1			1			1		1	
24			1			1			1			1			1			1		1	
25		1				1			1			1		1		1			1		
26			1			1			1			1	1					1	1		
27			1			1		1				1	1				1		1		
28			1			1			1			1			1		1				1
29		1				1		1				1	1				1		1		
30		1				1			1			1						1	1		
31			1			1		1				1	1			1			1		
32																					
33		1				1		1				1	1			1			1		
34			1	1				1				1	1			1			1		
35																					
36		1				1		1			1		1				1		1		
37			1			1			1			1	1				1		1		
38	1					1		1				1	1				1		1		
39			1		1				1			1			1			1		1	
40			1			1	1			1					1			1	1		
41																					
42		1		1					1		1		1			1			1		
43	1				1		1					1		1			1		1		
44			1			1	1					1	1				1		1		
45			1			1			1			1	1			1			1		
46			1			1		1				1						1		1	
47			1			1			1			1		1				1		1	
48			1			1			1			1	1				1		1		
49			1			1			1			1	1					1			1
50	1			1					1			1				1			1		
51			1			1			1			1			1				1		
52			1		1				1			1		1			1		1		
53			1			1			1			1	1					1	1		
54			1				1			1			1			1			1		
55																					
56																					
57			1			1			1			1	1					1		1	
58			1			1			1			1	1					1		1	
59	1					1			1			1	1					1	1		
60			1			1			1			1		1				1		1	
61			1			1			1			1	1					1			
62		1			1				1			1	1				1		1		
63																					
64																					
65			1			1		1				1	1					1	1		
66			1			1			1			1			1		1		1		
67			1			1		1				1	1					1	1		
68																					
69			1			1			1			1	1					1	1		
70		1				1	1					1						1	1		
71	1			1					1	1			1				1		1		
72						1		1			1		1			1			1		
73		1			1				1			1	1				1		1		
74			1			1			1			1			1			1			1
75			1			1			1			1			1			1	1		
76	1			1				1				1	1			1			1		
	9	16	40	8	12	45	9	18	39	5	4	55	43	7	12	14	22	29	47	13	5
	14%	24.5%	61.5%	12%	19%	69%	14%	27%	59%	8%	6%	86%	69%	11%	19%	22%	34%	45%	72%	20%	8%
Total	65			65			66			64			62			65			65		

Participants	Q3a: Will Europe			Q3b: Can E		Q3c: You expec			Q4a: How in your view				Q4b: Is fixir		Q4c: How can governm				Q4d: How large is the role of the g					
																			Europe		United Stat		Worldwide	
	Europe will suffer less th	Europe will suffer as muc	Europe will suffer more th	Yes	No	decrease	unchanged	increase	Significantly more suppo	More support for clean er	No change	Less support for clean er	Yes	No	Provision of credit	Financial incentives	Policy support schemes	Policy targets	Large role	Minor Role	Large role	Minor Role	Large role	Minor Role
1	1			1			1			1			1				1		1		1		1	
2		1		1		1				1				1			1		1			1		1
3	1			1				1		1			1					1	1		1		1	
4		1			1	1						1	1		1				1			1		1
5		1		1			1			1			1			1			1		1			1
6	1			1		1			1				1			1			1		1		1	
7			1		1	1				1			1				1		1		1			1
8	1				1			1				1	1						1			1		1
9		1			1	1					1		1			1			1			1	1	
10		1		1			1				1					1			1			1		
11	1				1	1						1	1				1		1			1		1
12		1			1	1				1			1			1			1		1		1	
13	1					1					1							1	1		1		1	
14			1		1	1				1			1			1			1		1		1	
15	1			1				1			1		1					1		1		1		1
16		1		1				1		1				1			1		1		1		1	
17		1		1		1				1			1				1		1			1		1
18																								
19			1	1		1						1	1			1			1		1			1
20	1			1			1				1			1		1			1					
21		1		1			1			1			1				1		1		1		1	
22																								
23			1	1		1						1	1		1				1		1			1
24					1	1						1	1				1		1			1		1
25		1			1	1					1		1						1		1		1	
26	1			1		1			1				1			1			1		1		1	
27	1			1		1				1				1					1		1			1
28			1		1			1			1		1					1						
29		1			1	1				1			1		1				1		1		1	
30		1		1				1			1						1		1		1		1	
31										1				1					1		1			1
32																								
33	1			1				1	1				1				1		1		1		1	
34			1		1			1		1				1			1		1		1			1
35																								
36		1			1	1			1				1		1				1			1		1
37	1				1	1				1			1		1				1		1		1	
38		1		1			1				1			1		1			1			1		
39		1			1	1					1		1			1			1		1			1
40	1			1				1		1			1		1				1		1			1
41																								
42			1		1	1			1				1				1		1			1	1	
43	1			1			1				1		1		1				1		1			1
44	1			1				1	1					1		1			1			1		1
45	1			1		1					1		1			1			1			1		1
46		1		1		1				1			1			1			1		1		1	
47		1			1	1					1		1					1	1			1		
48		1		1		1				1			1					1	1		1		1	
49	1				1	1						1	1			1			1		1		1	
50		1		1				1		1			1				1		1		1		1	
51		1			1							1	1			1			1		1		1	
52	1			1		1			1					1	1				1		1		1	
53	1			1			1		1					1			1		1		1			1
54		1		1				1		1				1		1			1		1		1	
55																								
56																								
57		1		1		1						1	1				1		1			1		1
58		1		1		1				1			1		1				1			1		1
59		1		1		1						1	1		1				1			1		1
60		1			1	1				1			1		1				1		1		1	
61		1		1		1					1		1						1		1		1	
62		1		1			1			1				1			1		1		1			1
63																								
64																								
65	1			1			1				1		1					1	1			1		1
66		1		1				1		1						1			1		1		1	
67			1	1		1				1			1			1			1		1		1	
68																								
69		1			1	1						1	1			1			1		1		1	
70		1		1		1					1			1		1			1		1		1	
71		1		1			1			1			1		1				1		1			1
72		1			1			1			1		1					1		1		1		
73	1					1					1		1					1	1				1	
74	1				1	1				1			1		1				1		1			1
75	1			1		1					1			1	1				1			1		1
76	1			1				1		1				1		1			1		1		1	
	24	32	8	40	23	38	11	15	8	28	19	11	47	15	14	22	16	9	63	2	42	21	31	29
	38%	50%	13%	63%	37%	59%	17%	23%	12%	42%	29%	17%	76%	24%	23%	36%	26%	15%	97%	3%	67%	33%	52%	48%
Total	64			63		64			66				62		61				65		63		60	

	Feed-in tariffs	Renewable Energy portfo	Tendering	Capital subsidies/grants/		Production tax credits	Tradable certificates	Tendering	Net metering	Capital susidies/grants/re	Renewable Energy portfo		will benefit	will be unaffected	will suffer	will suffer strongly
1	1				Subsidy for R&D and innc			1				Subsidy for Endusers		1		
2	1													1		
3	1									1		Government funded projects w			1	
4	1					1									1	
5	1				no		1							1		
6	1														1	
7	1				building control and		1								1	
8																
9	1														1	
10	1				No		1							1		
11		1						1							1	
12															1	
13		1														
14	1														1	
15	1							1								
16					State and government guarantees as long as the financial market is not back										1	
17	1								1						1	
18																
19			1												1	
20	1							1						1		
21	1						1									1
22																
23															1	
24	1						1								1	
25	1														1	
26	1						1							1		
27																1
28		1				1							1			
29	1				mention -				1			None		1		
30	1				Premiums are the best op			1				PTC scheme provides too high			1	
31																1
32																
33	1						1							1		
34				1	Targeted affor	1							1			
35																
36	1				support		1					especially in 'new				1
37	1							1				tax credits	1			
38				1	certain financ	1									1	
39	1				no comment		1								1	
40	1				Installation regulations, obligations									1		
41																
42	1					1										
43	1										1		1			
44				1											1	
45															1	
46	1						1							1		
47	1				no		1					no		1		
48	1				Research grants. In		1									
49	1														1	
50				1	none						1	none			1	
51	1							1								
52	1				Performance guarantees; financing a					1		Government demonstration an			1	
53				1										1		
54			1				1						1			
55																
56																
57	1				All the important ones are mentioned, bu						1	Again the answer to que		1		
58	1				Carbon tax should also be considere					1				1		
59	1														1	
60	1														1	
61						1								1		
62	1								1					1		
63																
64																
65	1															
66	1						1								1	
67	1				In China, government poli			1				a) installation targets on MW			1	
68																
69				1	based						1	Tax depreciation: attracts the			1	
70	1							1							1	
71	1										1		1			
72	1				Not actually a framework,			1				Any kind of state suppli		1		
73	1													1		
74	1							1								1
75	1						1							1		
76	1				More green bonds			1					1			
	47	3	2	6	0	6	15	12	3	3	5	0	7	19	28	5
	81%	5%	3%	10%		14%	34%	27%	7%	7%	11%		12%	32%	47%	8%
Total	58					44							59			

Participants	Q4k: Expected carbon price in euros in 2012?											Q4l: What will hap			Q4l: What is the imp		
	4	10	12	14	15	20	25	30	31	35	50	Carbon market will develi	Carbon market will stagn	Carbon market will not wo	Very important	Somewhat important	Not important
1													1		1		
2												1			1		
3												1			1		
4													1		1		
5												1			1		
6												1			1		
7						1						1			1		
8			1									1			1		
9					1							1			1		
10												1				1	
11								1				1			1		
12		1												1	1		
13															1		
14													1		1		
15															1		
16														1	1		
17															1		
18																	
19												1			1		
20												1			1		
21								1				1			1		
22																	
23						1									1		
24								1				1				1	
25				1									1		1		
26													1		1		
27								1				1			1		
28												1			1		
29			1									1			1		
30															1		
31											1	1			1		
32																	
33							1							1	1		
34	1												1				1
35																	
36														1	1		
37													1		1		
38					1							1			1		
39												1			1		
40										1		1			1		
41																	
42															1		
43													1		1		
44														1	1		
45												1			1		
46												1			1		
47													1			1	
48															1		
49															1		
50															1		
51															1		
52					1							1			1		
53												1			1		
54												1			1		
55																	
56																	
57									1			1			1		
58												1			1		
59		1										1			1		
60															1		
61												1			1		
62								1				1			1		
63																	
64																	
65																	
66															1		
67												1			1		
68																	
69													1		1		
70															1		
71												1			1		
72				1								1			1		
73												1			1		
74												1			1		
75			1										1		1		
76					1							1			1		
	1	2	3	2	4	2	1	5	1	1	1	36	11	5	61	3	1
	4%	9%	13%	9%	17%	9%	4%	22%	4%	4%	4%	69%	21%	10%	94%	5%	2%
Total	23											52			65		

Participants	Q4m: What are the clean energy policy requirements of institutional investors?																Q5: How long is this e		
	Long term carbon price				Stable subsidies				Higher targets				Tax breaks						
	Very important	Important	Less important	Not important	Very important	Important	Less important	Not important	Very important	Important	Less important	Not important	Very important	Important	Less important	Not important	Less than 1 year	1-2 years	More than 2 years
1		1				1			1					1				1	
2	1					1					1			1					1
3	1						1			1					1			1	
4				1	1				1				1					1	
5		1			1					1				1				1	
6		1				1				1				1				1	
7	1				1					1			1					1	
8		1			1				1					1				1	
9	1				1						1		1					1	
10		1								1				1				1	
11	1					1					1		1						1
12		1				1				1				1					1
13				1	1					1				1					
14		1				1			1				1						1
15			1		1						1		1					1	
16		1				1				1				1				1	
17			1		1				1					1				1	
18																			
19		1			1						1							1	
20	1				1						1				1		1		
21		1				1			1					1				1	
22																			
23	1				1				1				1					1	
24	1					1					1			1				1	
25		1				1					1				1				1
26		1			1					1				1				1	
27	1				1					1				1				1	
28	1				1				1				1					1	
29		1			1				1						1			1	
30	1					1			1					1					1
31	1				1				1					1				1	
32																			
33	1				1				1				1					1	
34			1			1			1				1					1	
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39	1					1			1					1				1	
40	1						1			1						1		1	
41																			
42	1				1					1					1				1
43			1		1					1				1				1	
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46	1				1				1				1					1	
47					1						1			1				1	
48			1			1								1					1
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69		1			1					1				1				1	
70		1				1												1	
71			1		1						1		1						1
72		1					1		1							1		1	
73		1				1				1					1			1	
74																			1
75			1		1					1					1			1	
76	1				1					1			1					1	
	25	24	9	3	34	21	4	2	21	23	16	0	13	30	15	2	1	48	15
	41%	39%	15%	5%	56%	34%	7%	3%	35%	38%	27%	0%	22%	50%	25%	3%	2%	75%	23%
Total	61				61				60				60				64		