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Causes and Consequences of Financial Risks of Tropical Timber Investment Funds

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Abstract:

We assess the financial risks of tropical timber investment funds. The funds are a vehicle for investors to participate in plantations in predominantly developing countries. We show that investments in timber funds are very risky, due to e. g. their illiquidity, weak regulation, and the high degree of uncertainty involved in their project management. We argue that the funds do not contribute to promoting international capital flows for sustainable development.

Keywords: Socially Responsible Investments, Regulation, Investment Funds, Tropical Timber, Risk.

JEL: D210, F210, M140, Q560.

CAUSES AND CONSEQUENCES OF FINANCIAL RISKS OF TROPICAL TIMBER INVESTMENT FUNDS

1. Introduction

Since the early 1990s, there has been increased attention for investments that take account of social, environmental, and ethical issues. In particular, socially responsible investing (SRI) has gained importance and has become a niche in financial markets all over the globe (IFC, 2003). Probably the most developed market for SRI is in the US. The Social Investment Forum (2006) estimates that in the US every 1 in 8 dollars is in some way or another invested by using social, environmental or ethical screens. The academic literature has taken notice of socially responsible investing (see Angel and Rivoli, 1997; Kurtz, 1997; Cerin and Dobers, 2001; Heinkel et al., 2001; Bauer et al., 2005; Becchetti and Ciciretti, 2006). A niche within this niche is investing in tropical timber plantations. Tropical timber plantation investment funds offer the public the opportunity to invest in tropical timber.[1] An investor can buy the rights to the proceeds of a part of the plantation. At the start of this investment, seedlings are planted, which will grow into mature trees suitable for logging and processing in the timber industry after about 20 years time. The marketing of the funds points out that as such, the investor helps to fight the greenhouse effect, to set up local communities in developing countries, and above all has the opportunity to earn substantial financial returns.

The economic analysis of timber investments has hardly been given attention in the recent literature. Berck (1979) investigates optimal wood cutting and the long-term price trends of timber. Mills and Hoover (1982) and Redmond and Cubbage (1988) assess the (portfolio) risk and diversification attributes of timber. Wear (1994) assesses investment and productivity trends in timber production. Scholtens (1998) establishes that the risks of the

[1] The world's total forest area is approximately 4 billion ha, of which between 2.5 and 3 billion ha closed forest. Approximately 2 billion ha are potentially available for timber extraction. The Food and Agriculture Organization (1993a) estimated that the annual forest cutting in the tropics amounted to 15 million ha. This produces approximately 1 billion m^3 of timber (Food and Agriculture Organization, 1993b). In the last decade, there has been a significant shift away from the use of natural forests and expanding the role of plantation forests for commodity-type projects as native forests are depleted (Canby and Raditz, 2005).

specialized tropical timber investment funds are very high and that the claims of the funds about their financial, social, and environmental returns and risks and/are not well substantiated. We contribute to this literature by assessing the recent evidence of tropical forest funds.

We aim at assessing the risks of tropical timber investment funds. We discuss how these risks may affect the investor and the flow of funds to sustainable projects in developing countries. We focus on timber funds operating in the Netherlands. This country has a fifteen-year experience with tropical timber funds and has an open capital account. Furthermore, it is one of the major international investors and, as such, of substantial importance for the flow of funds to developing countries. Dutch timber funds have been subject to important developments during the past few years. Several funds went bankrupt and/or were surrounded by scandals and fraud. Partly in reaction to this, tighter regulation was developed and implemented as of early 2006. Early 2007 financial legislation changed again. In reaction to the regulatory changes, timber funds responded in several ways, for example by offering alternative investments and by leaving the Dutch market. The experience with timber funds makes the Dutch market an interesting object for a case study.

We show that investments in timber funds are very risky. This predominantly is due to their illiquidity, weak regulation, and the high degree of uncertainty involved in their project management. We highlight two reputation effects of the financial risks of the tropical timber funds. The first is the negative reputation effect on other types of socially responsible investment, where the second is the negative influence on the overall availability of finance for sustainable development. Elsewhere (Scholtens and Spierdijk, 2007) we specifically address the impact of regulation on the Dutch timber funds.

The structure of the remainder of our paper is as follows. Section 2 provides a description of the tropical timber funds. In Section 3, we discuss the history, regulation, and the attitude of investor's vis-à-vis timber funds. Section 4 goes into the risk profile of the timber funds and into the drivers of risk. Finally, Section 5 concludes.

2. Tropical timber investment funds

Timber funds can be regarded as a special branch of mutual funds, which are financial intermediaries that pool financial resources of a group of investors. Mutual funds invest money in portfolios of assets, which can be of a very different nature. As such, the mutual funds offer the public an opportunity to reduce transaction costs and to benefit from diversification by offering financial scale transformation (i.e. pooling relatively small amounts of money into larger investments which for reasons of indivisibility might not be achievable for the individual investor). Furthermore, investment funds pool the funds of a large number of individual investors and allocate them along a range of assets. The investment fund incurs scale and scope economies in this process that are not available to the relatively small individual investor. For the managers of the investment funds, who earn a fee for managing the funds, it is crucial to attract investors. As a result, a wide range of investment fund types has emerged, aiming at servicing the particular needs and interests of the public (Greenbaum and Thakor, 1997).

Tropical timber investment funds sell participations in commercial forestry enterprises; i.e. in forest plantations. Most of these produce teakwood, but other high-grade species, such as robinia and black walnut, are also cultivated. The individual investor buys a participation in the investment fund and earns the returns (minus costs and fees) from the plantation's revenues. The maturity of the investments is approximately 20 years. In contrast to many other investments, timber funds offer almost no opportunity – or only against a high penalty – for the investor to sell the investment before maturity. Thus, the investment is highly illiquid. Timber plantations are, among others, located in Brazil, Costa Rica, the Czech Republic, Ghana, Panama, Paraguay, Poland and Portugal.

By means of certification of the plantations the investment funds can convey the environmental quality of the plantations to the public. The Forest Stewardship Council (1996) has drawn up guidelines for prudent forest management.[2] Certification is still on a

[2] These deal with ten topics: compliance with laws and council principles, tenure and use rights and responsibilities, indigenous peoples' rights, community relations and worker's rights, benefits from the forest,

voluntary basis. The Rainforest Alliance is an example of a certifier. It uses various criteria to decide whether or not a plantation is to be certified, such as sustainable production, management quality and the social rights of workers. The Forest Stewardship Council certifies the certifiers. The certification process itself as well as the certification of certifiers is still in its infancy. The information about the financial prospects and results, as well as the intermediary itself, is subject to financial regulation. This is organized at the national level and differs widely among countries (Brownbridge and Kirkpatrick, 2000; Barth et al., 2003).

During the late 1990s, many tropical forest funds were conceived (Canby and Raditz, 2005). The forest sector was seen as a good steady growth investment. The market for certified wood products, carbon trading and other eco-service payments had a glowing forecast on which project promoters and investment funds based optimistic future sales and prices. It was a time of optimism, with many groups and individuals wanting to take advantage of emerging opportunities to show that environmentally sustainable forestry enterprises would render a sound investment. However, in the new millennium, actual performance was very poor. Underperformance was not related to the market for certified wood products, but with cost inefficiencies with projects and funds as well as increasing risks (Canby and Raditz, 2005).

3. Timber funds in the Netherlands

3.1 History

In 1992, Bosque Teca Verde introduced the first Dutch timber fund. Within one year, the insurance company Ohra introduced a teakwood investment which attracted a lot of interest.[3] Here, the initial investment was used to invest in teak trees, while the yearly premium to be paid resulted in a guaranteed amount of money in the future. Ohra's timber

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environmental impacts, management plans, monitoring and assessment and the maintenance of natural forests and plantations.

[3] The history of timber funds in the Netherlands and a list of bankrupt and operational funds can be found at http://teakopstand.nl.

investment was presented as extremely profitable, with returns up to 19% per year. This investment opportunity (facilitated by a well-respected financial institution) gained much attention in the press, as it provided the investor not only with a substantial financial return but also with the opportunity to contribute to the environment and to support local development in poor countries. However, after some negative publicity questioning the high return on the timber plantations and the benefits for the local population in developing countries, Ohra adjusted the return forecasts downwards and eventually withdrew the product from the market. Despite this negative experience, many new timber funds entered the market, collecting large amounts of money from Dutch investors. However, the funds turned out to be very risky. During the past decade several funds suffered from bad management and fraud. Investors lost huge amounts of money, which often disappeared in the pockets of fraudulent managers and directors. In the Netherlands at least seven funds went bankrupt and of one fund the bankruptcy proceedings are still running. The amount of money invested in these funds is more than 100 million euro; see Table 1. Other funds are still operational, but are surrounded by a scandalous past of financial uncertainty for investors, bad management and often also fraud. Nowadays, we count 35 Dutch timber funds in the Netherlands and 9 foreign ones. The money invested in these funds amounts to as much as 500 million euro according to the Dutch financial markets authority.[4]

[INSERT TABLE 1 ABOUT HERE]

Table 2 gives an overview of all timber funds in the Netherlands. The first column of this table provides a list of the funds that are currently – or were until recently – active. The second column gives the type of timber of the fund. The third column lists the status of the fund, either operational (in this case nothing is mentioned), bankrupt, or in bankruptcy proceedings. For each fund, we checked the online register of the Chamber of Commerce ("Kamer van Koophandel", KvK). If we cannot find a fund in the KvK register, we assume it is a foreign fund that holds a registration in another country.[5] Also, we tried to detect as

[4] The 500 million euro includes investments in other exotic objects such as tropical fruits and wine.
[5] We make the reservation that the names of the fund and the underlying company are sometimes different and not obvious to guess. Although we performed a thorough check of the register, we may have overseen some companies due this name problem.

many Dutch timber funds as possible.[6] Most of the participations can be traded on www.teaktrader.nl or www.robiniatrader.nl.

[INSERT TABLE 2 ABOUT HERE]

3.2 Supervision

In the Netherlands the financial authorities distinguish between “behavioral” and “prudential” supervision. The goal of the former type of supervision is to ensure that consumers are provided with adequate information by financial institutes, where the aim of the latter is to monitor and to safeguard financial solvency and solidity of the financial institutes. The Autoriteit Financiële Markten (“Financial Markets Authority”, AFM) is responsible for behavioral supervision, where the Dutch Central Bank (“De Nederlandsche Bank”, DNB) is the prudential supervisor.[7]

In the 1990s, financial supervision in the Netherlands went along the different types of intermediaries (i.e. banks, insurance companies, pension funds, investments funds). By then, the timber funds seemingly fell under the Law on Supervision of Investment Funds (“Wet Toezicht Beleggingsinstellingen”). However, this law applied only to collective investments and the timber funds positioned the investments in plantations as an investment in earmarked trees or hectares on plantations and could therefore avoid supervision.[8]

Although the first timber fund was introduced in 1992, it took until 2006 before such funds came under supervision of the AFM and fell under the Law on Financial Services (“Wet Financiële Dienstverlening”, WFD). Prior to that, DNB did not want to monitor the timber funds as the supervisor was afraid that consumers would erroneously interpret their supervision as an approval sign or proof of quality of such funds. In 2006, the new legislation (WFD) forced all timber funds to apply for a license with the AFM. The licensing process

[6] Also here we may have overseen some funds, although we did the best we could.
[7] For an exposure of the Dutch supervisory system, see http://www.minfin.nl/nl/onderwerpen,financiele_markten/financieel_toezicht/toezicht-financieel-stelsel.
[8] For an outline of the Dutch financial regulation, see http://www.minfin.nl/nl/onderwerpen,financiele_markten/financieel_toezicht/wet_op_het_financieel_toezicht.

was not finished yet when legislation changed again in January 2007. Also under the new legislation, the Law on Financial Supervision ("Wet Financieel Toezicht", WFT), funds are obliged to apply for a license, but the final decision about the licenses has been postponed several times. Up to now, only three out of the 35 Dutch timber funds have been given a license, while several applications have already been rejected. Various funds have voluntarily withdrawn their application following the advice of the AFM. The remaining funds will be notified before end of the year. All timber funds that were already operational prior to January 2006 are allowed to continue their activities until the final decision about the license has been made by the AFM.

The funds that have granted a license advertise with it (e.g. on their website), suggesting that the license is a quality sign. However, since timber funds are not supervised by DNB, having an AFM license in no way guarantees the financial solidity of the fund. The license criteria of the AFM are very limited and only relate to e.g. financial expertise, reliability and integrity of the board of the fund and its personnel, the way the fund informs its investors (transparency), and the administrative organization of the fund.[9]

An important element not taken into account in the licensing process is the cost involved with the investment. The funds' costs, such as land and labor costs and marketing and management fees are opaque and there is generally no transparent reporting about these costs and expenses. As a result, it is often a complete mystery what the *de facto* return on the investment will eventually be. The funds are obliged to specify the administrative, management, and sales costs in their prospectus. Recently, the AFM reported that for half of the population of timber funds 50-60% of the initial investment disappears due to such costs.[10] Our own inspections, based on the prospectus supplied by eight different timber funds, showed that only 32-70% of the initial investment is actually invested in trees. Sometimes the actual amount of money invested in trees is even lower, since some funds (e.g. Terra Vitalis) mention a lower percentage to be invested in trees (32%) than what

[9] The most important license criteria are described at http://www.afm.nl/marktpartijen/default.ashx?DocumentId=8437.

[10] See "Wijnvallei werd beleggersstrop. Toezichthouder AFM haalt bezem door beleggingsaanbiedingen in wijngaarden en teakplantages", NRC Handelsblad, September 13, 2007.

follows from their own cost specifications (43%).[11] In comparison to ordinary mutual funds the costs are very high. In the Netherlands, mutual funds have to publish their Total Expense Ratio (TER), which reflects the yearly costs made on behalf of the fund (e.g. (administration, management and sales costs) relative to the average yearly fund value. The TER does not include transaction costs and commissions. In 2002, the TER of some major Dutch mutual funds, ranged between 0.5 and 4.5%.[12]

The last column in Table 2 provides information about the AFM license application of the timber funds. If we cannot find a fund in the AFM register, we assume it did not apply for a license or that the license has already been rejected.[13] All timber funds, even the ones that do not any longer search for new investors, need a license. Any fund without a license is not allowed to operate on the Dutch markets.[14] Apart from the compulsory license, timber funds have to fulfill several other requirements. Since 2006, all funds are obliged to provide a "financiële bijsluiter", which is a short description of the investment product, highlighting e.g. risks of losing the initial investment and the costs involved with the investment. As decided by the AFM, investments in timber should always be placed in the highest of six risk categories ("very risky"). [15] Additionally, the funds should provide a more detailed investment brochure of their product on their website, called the "prospectus". This document should elaborate for instance on the maturity of the investment, risks, fees and costs, historical performance, and details of the contract. We emphasize that the existence of a prospectus does not guarantee the liquidity and solvency of the fund, as the latter would require prudential financial supervision. Also, the timber funds are obliged to do an annual valuation of their plantations by an independent party.

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[11] The funds we analyzed are Terra Vitalis, GoodWood, Tectona 1 (Site Class 1) Tectona 2 (Select), PG BV, Teakwood, RGISA, Eco Direct, Goed Investeren. These are funds that have either been granted a license or have an application running. For other funds we had difficulties in finding the prospectus.

[12] See http://www.morningstar.nl/news/print.asp?articleid=23622&categoryid=23&validfrom=2003-05-01%2012:12:00.

[13] Again we make the reservation that we may unintentionally have omitted some funds in our search.

[14] Several Dutch funds in Table 2 cannot be found in the AFM register but still offer their investments via their website. Such funds operate against the law.

[15] See "Nadere Regeling van de Autoriteit Financiële Markten van 7 februari 2006, houdende regels voor de informatieverstrekking bij complexe producten (Nadere Regeling financiële dienstverlening)", published on July 13, 2006.

3.3 Timber funds and the investor

Due to the bankruptcies and the scandals that surrounded various funds and that were given much attention in the press, timber funds suffer from a bad reputation in the Netherlands. Thousands of investors lost their money due to the bankruptcy of several funds, where the total amount of money lost is of the order of at least one hundred million euros (see Table 1). Nowadays many investors in operational funds are concerned about their money, the financial solidity of the fund they have invested in, and the pending license decision. Also, many people invested money in funds whose licenses have already been rejected, and it is unclear what will happen with these funds and the investments in the future. The large number of websites set up by worried investors in operational timber funds and by investors in bankrupt funds illustrates their substantial concern.

Since the reputation of timber funds has been severely damaged, there is a substantial risk that investors become less eager to invest in green funds in general, particularly in the ones associated with the protection of the rainforest. For socially responsible investors, it appears to be relatively difficult to find alternative investments that meet their non-financial goals (Benson and Humphrey, 2007). Hence, the reputation effect could severely damage the position of other green investments too.[16] The importance of reputation effects has been widely acknowledged in the economic and financial literature (see e.g. Mazzola et al., 2006). In the financial markets, reputation is a key attribute of the financial intermediaries. Reputation relates to the conduct of individual institutions as well as to the reliability and quality of the financial system as a whole.

4. Risk

As with all investments, risk and return of the timber funds are of predominant importance for investors. Regarding returns, it is very difficult to obtain accurate information. In part this relates to the structure of the investment, particularly its long

[16] See "Er is altijd wel iets aan de hand met teak" in Nederlands Dagblad, July 27, 2005.

maturity. As no plantations have fully grown teak yet, it is somewhat premature to arrive at a final assessment. Although the timber funds regularly ask independent organizations to value their investments, the resulting forecasts are subject to much uncertainty related to e.g. the development of the wood price, the final quality of the wood, the quality of project management, and the euro/dollar exchange rate. However, on secondary markets, scarce selling and buying of the investments does occur. From this, we calculate that the market value of a basket of twelve funds has lost almost 60% of its value in four years time.[17] In general, our calculations are in line with the estimations of the AFM. The timber funds themselves often argue that the performance of the timber investment can only be assessed properly after maturity has been reached, or they claim that it is strictly the intrinsic value that counts. The latter view has no grounds at all in modern finance theory and in the accounting literature and practice. For example, the International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS) are based on "fair value" assessment. Fair value refers to the market value of an asset or liability. The International Accounting Standard IAS 41 ('agriculture') applies fair value methods to 'biological assets' (see also Canby and Raditz, 2005). In the EU, as well as in most other industrialized and emerging economies, fair value is also a crucial aspect of bank supervision organized along the Basel Capital Adequacy Guidelines (Matthews and Thompson, 2005).

[INSERT FIGURE 1 ABOUT HERE]

We calculate the average value change of all funds for which we have secondary market information. Over the period under consideration, the average value change is -5.85% per quarter with a standard deviation of 11.01% per quarter. The highest value change in a quarter was +2.5% in 2005-III[18], whereas the largest drop in value occurred in the last quarter of 2006 (-21.0%). Figure 1 shows this quarterly average change as well as the 'risk boundaries', i.e. plus or minus two times the standard deviation. The latter can be regarded as the volatility or risk of the investment in timber funds. Figure 1 shows that the timber fund returns are quite volatile and, as such, very risky indeed.

[17] The data have been taken from http://www.sicirec.org/trade/price-indications/.
[18] Note that this also is the only quarter for which we found a positive return.

Various determinants affect the risk and return profile of the timber funds. Our assessment of risk and return is partly based on the financial and economic literature, such as that of Mills and Hoover (1982), Redmond and Cubbage (1988), Wear (1994) and Scholtens (1998).

a. Flexibility. As the size of the investment in the timber funds is very substantial, starting from on average € 5,000, the investment is quite inflexible. Furthermore, the maturity of the investment – usually between 15 and 20 years – is rather long from the perspective of the life cycle. In this period, personal affairs like unemployment, marriage, divorce, serious illness, etc. can affect the income and wealth of the investor, which may call for a change of her investments. With the timber funds, this is difficult as there is no liquid secondary market. There usually is a high penalty and the investor herself has to search for a counter party. This limited flexibility is a risk from the perspective of the investor.
b. Costs. The timber funds' costs, such as land and labor costs, management fees, etc. are rather opaque. There is no proper reporting about these costs and expenses. The – mandatory – prospectus provides some information about costs. However, the presentation of these costs is not very transparent. As a result, it is often a complete mystery what the returns will eventually be. In the investment contract, it is not clear which risks are accounted for and are deemed 'reasonable'. In fact, the initial investment is an open cheque. The Dutch supervisor does not take into account the cost structure in the licensing process.
c. Diversification. Most funds invest in one single plantation and/or in one single type of tree. As such, investments are very concentrated. This implies that there is very little risk diversification. Also the long maturity of generally 20 years and the payment only at the end of this maturity add additional risk.
d. Quality. There is a wide variation in the quality of teakwood and prices differ according to quality. During the growth process, various factors can impact on the quality of the teak, e.g. soil fertility, pests, diseases. This affects the earnings from the teak plantation and, therefore, the return earned by the investor.
e. Agency problems. There is no proper alignment between the interests of the various parties involved. For example, the plantation manager is likely to aim at selling his

harvest at the first price, whereas the investor probably will aim at the best price. Monitoring the manager is costly. In general, we find that the corporate governance of the organizational constructions used by the funds is very problematic.

f. Certification. Certification affects market access, especially to the best market segments. As certification of the plantation depends on several aspects (e.g. compliance with laws and council principles, tenure and use rights and responsibilities, indigenous peoples' rights, community relations and workers' rights, benefits from the forest, environmental impact, management plans, monitoring and assessment and the maintenance of natural forests and plantations), it is not sure whether the certification will be kept over the complete maturity once it has been granted.
g. Foreign exchange. Currency risk – unexpected changes in the exchange rate – is not accounted for. Basically, the costs of the funds are made in euro and in local currency, whereas the price of teak is in US dollars. This is an additional risk and – given the long maturity of the investment – it can not be hedged, or only at a very substantial cost.
h. Blocking of funds. There always is the risk of nationalization or seizure of the assets or of cash-flows to be transferred abroad. This so-called country risk is not accounted for. Also, the supervisor does not take into account the situation in the foreign country in the licensing process.
i. Project risk. This is the risk of mismanagement with the complete project. Given the complex organization, often cross-border, this risk is very high.
j. Regulatory risk. Supervision on this industry is limited. In the Netherlands, there is no prudential supervision but only a general code of conduct. It must be noted that most funds do not even comply this code. Furthermore, under Dutch law, funds that only offer investments above a certain amount (usually € 50,000) do not require supervision at all. Therefore, the investor will have to conduct her own research on the honesty and reliability of these funds. However, the funds are obliged by law to mention the lack of supervision in any advertisements.

To sum up, the risks are of a varied nature and there is a substantial chance that hitherto unforeseen risks materialize. Some risks mentioned relate to the asset type itself (flexibility, diversification, quality, certification, foreign exchange), where others are related to fund organization (supervision, costs, agency problem, project). Most of these risks are of a 'truncated' or skewed nature. This relates to the fact that matters can only go wrong. Only currency risk is of a two-sided nature as the exchange rate can move either in an advantageous or disadvantageous way for the investor. The aggregate of the risks results in an extremely risky investment. Moreover, the risks are positively correlated. The risk profile of timber fund investments differs substantially from investments in ordinary mutual funds. The latter type of investments are more liquid and flexible, are subject to both behavioral and prudential supervision, are generally much more diversified (e.g. different industry sectors and countries) and are usually issued by financial institutions with a solid reputation.

We observe a clear interaction between financial regulation and timber fund behavior. The rather lenient attitude of the supervisor has presumably contributed to the enormous growth in the number of funds. From virtually non-existent in 1990, their number rose to 35 in 2007. When regulation tightened early 2006, this led to a reaction of the timber fund industry. Several funds have broadened the investments opportunities they offer, which nowadays also include non-wood investment objects (e.g. exotic fruits) and assets other than participations (such as bonds, venture capital and real estate properties). Also, several funds even violate the law, as they continue their activities on the Dutch market despite their rejected license. Furthermore, the largest Dutch timber fund GoodWood, in which Dutch investors put about 200 million euro, recently announced to leave the Dutch market and to move to Brazil where its plantations are located.[19] We expect that other funds will also consider relocating abroad in order to circumvent the Dutch supervisory authorities. The relocation effect is known from other industries. In particular, the "Pollution Haven Hypothesis" states that due to stricter environmental regulation in developed countries, firms in polluting sectors migrate towards poor countries with weak environmental regulation (Antweiler et al., 2001).

[19] See "Teakgigant stopt met verkoop particulieren", Het Financieele Dagblad, September 12, 2007.

5. Conclusion

Our analysis identifies three main drivers of the extreme risks associated with tropical timber investment funds. The first risk is related to the product itself. Investing in a highly illiquid asset with a maturity of 20 years is in itself extremely risky. Prices of teakwood are highly volatile and the plantations have not yet established a decent track record by which to assess their capabilities in delivering high quality teakwood in the amounts promised. The second main risk is related to project organization. Due to the weak corporate governance of the project investors hardly have a say in the investment. In particular, the projects are organized in such a complex manner that it is hard to assess who actually directs the project. Third is the regulation of the funds. In contrast to other investment funds, there is no control at all with respect to the liquidity and solvency of the funds. Thus, there is no supervisor who verifies whether funds can fulfill their financial obligations and live up to their promises to the investors. There is some regulation in the Netherlands, e.g. a licensing system, but this system is limited and used as a marketing tool by the funds to attract investors.

The high risks have both direct and indirect consequences. A direct financial consequence is that investors will presumably lose a substantial part of their investment. The environmental consequence is that the positive impact of the timber plantation on local and global environmental quality will only be a fraction of what was initially suggested. The social effects will be limited as well, since most funds promised to use part of the proceeds for schools and healthcare of the workers and their families. With shrinking or even vanishing proceeds, little is left to help the workers. Furthermore, there are several indirect effects. The bad reputation of the timber funds may harm other types of green and socially responsible investing in the Netherlands. This can negatively impact on the amount of money available for investing in social and environmental projects in developing countries.

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Table 1

Bankrupt/fraudulent funds in the Netherlands and invested money

Bankrupt funds	***Invested money (million euro)***
Sintrex/CO2 Invest	unknown
Global Green	10.8
Eco Brazil	38
Eco-Sure	unknown
Green Capital	22
United Green	7
Robinia Gold	15
Total	*92.8*
Fraudulent funds	***Invested money (million euro)***
Ecobel	5.5
Euro Greenmix BV	3
Green Fund Nederland BV	unknown
Total	*8.5*

Sources: various Dutch newspaper articles. The amounts mentioned are estimates. For some funds we could not find any information on the amount of money invested in the fund ("unknown").

Table 2

Overview of tropical timber funds in the Netherlands (as of September 14, 2007; including bankrupt funds)

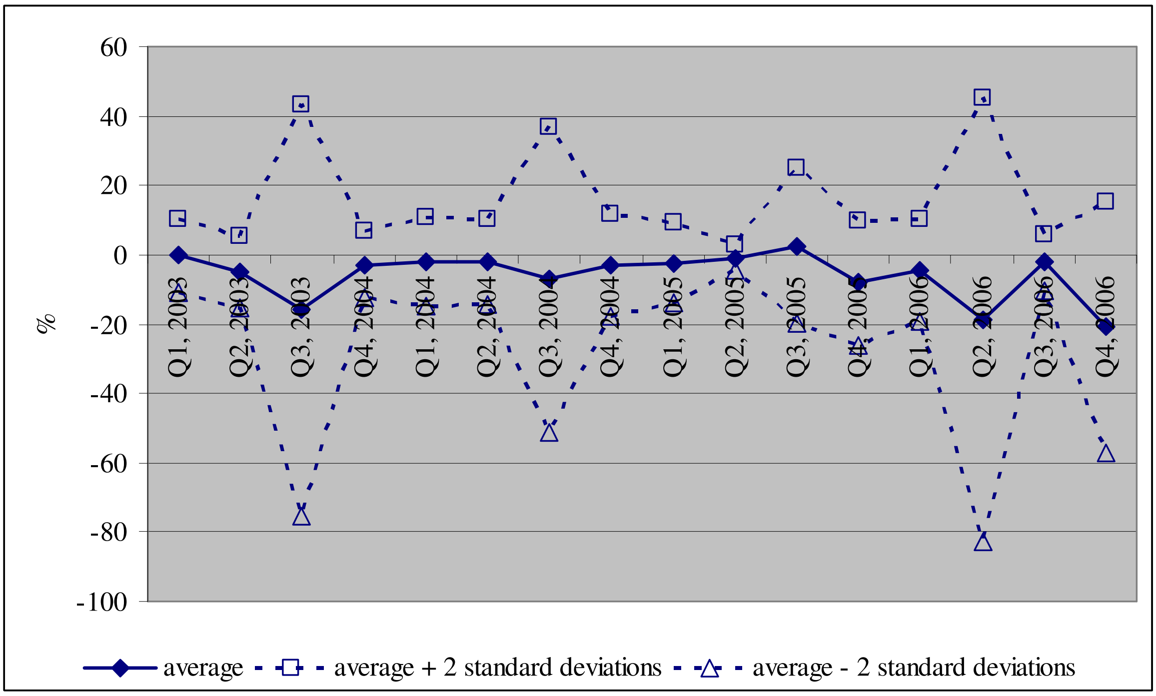
Name fund	*Type of wood*	*Dutch company?*	*Status of company*	*In AFM register?*
Amazon Teak Foundation (1)	teak	Yes		Yes
AWB Adviesgroep (2)	robinia	Yes		Yes
Bosque Teca Verde (3)	teak	Yes		No
CO2 Invest (4)	teak	Yes	Bankrupt (April 2007)	-
Cool Forestry	teak	No		No
Eco Brazil	teak	Yes	Bankrupt (October 2003)	-
Eco Capital BV	teak	Yes		No
Eco Direct NL BV	teak	Yes		Yes
Eco Garant BV	teak	Yes		No
Eco Select BV	teak	Yes		No
Eco Wood Investments BV	teak	Yes		No
Ecobel	teak	Yes		No
EcoBosques (EcoForests)	teak	Yes		No
EcoForest Bouwbouwprojecten BV (2)	teak	Yes		Yes
Eco-Sure	teak	Yes	Bankruptcy proceedings (started May 2006)	No
Euro Greenmix BV	teak	Yes		No
FIAM NV (6)	teak	Yes		No
Flor y Fauna	teak	Yes		No
Foreco (Forestales de Costa Rica)	teak	No		No
Forest Returns BV (6)	teak	Yes		No
Forestales International BV (7)	teak	Yes		Yes
Futuro Forestal	teak	No		No
Global Green	teak	Yes	Bankrupt (April 2006)	-
Global Green Ghana	teak	No		No
Goed Investeren BV	teak	Yes		Yes
GoodWood Investments BV (1)	teak	Yes		Yes
Green Capital BV (3)	teak	Yes	Bankrupt (July 2001)	-
Green Fund Nederland BV	teak	Yes		No
Green Horizon (5)	robinia	No		No
Green Invest	robinia	Yes		No
Green Ventures (International Forestry) BV	teak	Yes		No
Groen Invest NL BV	robinia	Yes		Yes
Groenewoud Bosbouwprojecten BV	teak	Yes		Yes
GTC (Ghana Teak Cooperation)	teak	Yes		No
Hollandia Vermogen BV (8)	teak	Yes		Yes
Hollandse Bosbouw Maatschappij NV (9)	teak	Yes		Granted
Hollandse Hardhout Maatschappijen (6)	robinia	Yes		No
More Trees Consultancy BV (6)	robinia	Yes		No
Multi Tree Fund	robinia	No		No

Natural Investment Fund BV	teak	Yes		No
Pacific Teak	teak	No		No
PG BV	teak	Yes		Yes
Polish Robinia Foundation	robinia	Yes		No
Prime Forestry	teak	No	Bankruptcy proceedings (started May 2006)	-
Reforestacion Grupo Internacional RGI S.A. (11)	teak	No		Yes
Robinia Europe Investment	robinia	Yes		No
Robinia Gold	robinia	Yes	Bankrupt (June 2005)	-
Seev Investments BV	teak	Yes		No
Sharewoods BV	teak	Yes		No
Sintrex MBG BV (4)	teak	Yes	Bankrupt (April 2007)	-
Stichting Terra Vitalis	teak	Yes		Granted
TeakWood International BV (11)	teak	Yes		Granted
Tecal Nuevo (10)	teak	No		No
Tectona Forestry (9)	teak	Yes		Granted
United Green	teak	Yes	Bankrupt (July 2006)	-
Woodcare Investments (6)	robinia	Yes		No
Woodwise NL BV (8)	teak	Yes		Yes

1) The Amazon Teak Foundation is part of the GoodWood group.
2) The fund only applied for a license for services related to financial intermediation.
3) Bosque Teca Verde was part of Green Capital BV.
4) Sintrex MBG and CO2 Invest have the same company address in the KvK register.
5) We can only find an association for investors' money management corresponding to this fund in the KvK register.
6) Forest Returns claims it has a license for "clienteleremisier", but this is not in the AFM register. Moreover, as of January 2007 this type of license does not exist anymore. As the website of Forest Returns suggests that they are involved in activities focusing on financial intermediation, they probably to need a license for that. However, they are not in the AFM register with such a license application. Also, Forest Returns is partly owner of More Trees Consultancy, Woodcare NL, Hollandse Hardhout Maatschappijen and FIAM NV (the precise ownership structure is rather opaque, but the funds have connections).
7) The fund applied only for a license for services related to financial advisory.
8) Woodwise NL and Hollandia Vermogen fall under the same license application in the AFM register.
9) The shares of Tectona Forestry are owned by Hollandse Bosbouw Maatschappij (HBM) NV. The license of HBM also applies to Tectona.
10) We can only find an investors' interest association corresponding to this fund in the KvK register.
11) Teakwood International BV intermediates for the investments in Reforestacion Grupo Internacional, RGI S.A., but the latter fund also applied for its own Dutch license.

Web sources: www.kvk.nl, www.curatoren.nl, www.afm.nl/registers, www.sicirec.org, www.teakopstand.nl, www.dft.nl, www.teaktrader.nl, www.robiniatrader.nl. Websites are subject to change and visited on 14 September, 2007

Figure 1
Value change of timber funds (average and standard deviations per quarter)



Source: www.sicirec.org.