A Work Project, presented as part of the requirements for the Award of a Masters Degree in Finance from the NOVA – School of Business and Economics.

MILLENNIUM BCP – THE ALMOND HILL CREDIT EXTENSION PROPOSAL

ANTÓNIO JOSÉ RAPOSO BORDALO RAMOS PRETO, MST 16000305

A Project carried out under the supervision of:

Professor Paulo Pinho

JANUARY 6, 2012

ABSTRACT

This Work Project is a case study on the credit lending process and loan pricing policy of Millennium bcp, one of the main Portuguese banks. The goal of the case study is to provide an opportunity to understand the above mentioned process and policy in a major bank and to explore the issues and interests at play when a relevant credit decision must be taken. I would like to thank Dr. José Miguel Pessanha without whom this project would not have been possible.

KEYWORDS: Basel II - Credit lending process – Loan pricing – Millennium bcp

ANTÓNIO PRETO

Millennium bcp – The Almond Hill Credit Extension Proposal

Octávio Torino, a Director at the Millennium bcp's Credit Department, glanced at the beautiful Sintra skyline as he walked through the skyway that connected the bank's Tagus Park offices. It was a warm summer morning on the 14th of July 2011, and the director was heading towards a meeting he had requested himself with two other peers, Marco António, another Director from the Credit Department and Emílio Lépido, a manager from the Commercial Department. He was concerned about a loan extension decision the bank had to take and he felt that a meeting would be fundamental.

Millennium bcp had been a success story in the Portuguese and European banking sector having become the largest privately held bank in Portugal, but in recent years it had faced some problems. Currently the main concerns stemmed from the European sovereign debt crisis, which was having an unprecedented impact on national banks. Portugal had requested financial support from the European Union and the future was nothing short of totally uncertain.

The deal to be discussed in the meeting was a loan that 5 years before had been given to Almond Hill Construction Lda., a real estate development company that had recently felt the impact of a fall in the Portuguese real estate market and was consequently requesting an extension on the loan. The maturity date was arriving and the company would not be able to repay the loan, for the second year in a row. Torino believed that the issue was not as simple as it might seem at first glance. He had been thinking about the different options the bank could take and felt that this decision would reflect deeper issues for the bank. As he walked to the meeting he raised some questions in his head:

> Should we really extend this loan given that the most likely scenario is for the Portuguese economy and the real estate market to continue to deteriorate? Maybe it would not be insensible to try to recover as much value as we can through a recovery process. But what are the implications? Maybe the impact of such a decision might be bigger than we expect. And what does this say about our credit risk assessment models?

António Preto prepared this case under the supervision of Professor Paulo Pinho as part of the requirements for the Award of a Masters Degree in Finance from the NOVA – School of Business and Economics. The identities of the companies and individuals concerned in this case have been disguised, except for the identity of the bank Millennium bcp. Only the three Millennium bcp directors, their thoughts and dialogues, are fictional.

Almond Hill Construction Lda.

In 2004, José Santos Águas, a real state entrepreneur who until then had developed his business individually, joined António Simões and Domiciano Cavém to create Almond Hill Construction Lda. The company focused on building and promoting residential and non-residential buildings in the Zona Oeste (a region north of Lisbon) and in the Algarve. The largest portion of the business though was residential housing in central Algarve, a highly touristic area. Águas started to progressively shift his individually developed real estate business to the company and had a 74% share in the company, while Simões had 25% and Cavém, 1%.

The company experienced success in its first two years, especially 2006, with €13,1 million in revenue and a €975 thousand EBIT (see **Exhibit 1** for company's Financials). Demand was very strong, mainly from the English and Spanish markets, due to the high quality of construction and superb real estate location.

There was, however, a different segment for which the ongoing central Algarve developments did not give answer. In 2006, Almond Hill Construction Lda. decided to invest in the development of smaller lower price range apartments for the English market, which would be marketed exclusively by the company and by a real estate promoting company with which Almond Hill Construction Ltd. worked. The development was to have 120 apartments in a private condominium – 16 **T1**, 86 **T2** and 18 **T3** – with ample gardens and both an adult and a children's pool, only 15 minutes from the beach, in central Algarve. A market survey revealed that this type of product had good acceptance both in the Portuguese and in the Northern Europe markets.

Managing partners José Águas and António Simões approached Millenium bcp's Albufeira branch for the financing of the 37.579 m^2 development that had been projected. They had high hopes for this enterprise. It had everything to be successful.

Millennium bcp

Before 1974, Portugal was under the rule of an authoritarian regime where free economic initiative was a mirage, especially in sectors such as banking where only a small number of families controlled existing private institutions. When the Carnation revolution overthrew the regime, socialist and communist groups took hold of the direction of the country and hence major sectors of the economy, including banking and insurance, were nationalized. Only in 1982 did the country start to formally distant itself from the socialist ideological and political options that followed the revolution. As a result of the on-going negotiations for Portugal to join the European Economic Community (EEC), the first constitutional revision took place, making the economic system more flexible[1]. These changes, allowed two years later for the adoption of legislation that made it possible for private investors, foreign or domestic, to create private banks in Portugal. In 1985 the country finally became a member of the EEC.

Immediately, a group of investor led by Mr. Américo Amorin and Mr. Jorge Jardim Gonçalves understood the opportunity that had presented itself to them and created in 1985 Banco Commercial Português, the bank that in 2003 adopted the single brand "Millennium bcp"

[1] http://www.parlamento.pt/RevisoesConstitucionais/Paginas/default.aspx, accessed in November, 2011.

for all its different commercial brands. The vision of its leaders and the strategy adopted soon became a cornerstone in the Portuguese banking system's evolution towards one of the most developed and innovative in Europe. The strategy for the new bank was very clear and for its future success three issues were fundamental. First, the bank's founders defined the segments the bank should initially focus on and gave the utter most importance to those clients' satisfaction. This was a vehicle to successfully enter the banking system and subsequently move into larger base client segments, which the bank did in an industry changing move with the creation of NovaRede. Second, but not least important, the bank realized it could gain significant present and future advantages through a proper information technology (IT) system, and it did. Finally, the implementation of a cross-selling strategy in 1987 helped put Millenium bcp in the path of unforeseen success.

The bank continued to grow throughout the years both organically and through acquisitions, at the national level and internationally, becoming a well know success story and, not without some bumps along the way, the largest private bank in Portugal. On the 13th of March 2006 Millennium bcp, now led by Mr. Paulo Teixeira Pinto, made a tender offer to acquire Banco Português de Investimento (BPI) at a share price of €5,70. The offer was immediately rejected by BPI's board of directors and the stage was set both for a "war" between the two banks and a conflict within Millenium bcp from which it never fully recovered. When the dust settled both banks had maintained their independence, but more was to come.

First the bust of the U.S. housing market bubble hit the financial sector globally, Portugal included, and its subsequent effects on the global economy did not allow for a fast recovery. As the world thought it was starting to overcome the Great Recession a deeper crisis followed for European peripheral countries, the sovereign debt crisis. Greece, Ireland and finally Portugal were forced to ask the European Union and the International Monetary Fund for rescue plans and the impact on those countries' financial institutions was tremendous[2] (see **Exhibit 3** for Millenium bcp senior debt CDSs[3]). The 2011 European Banking Authority (EBA) stress tests had revealed Millennium bcp's €5,8 billion net exposure to Portuguese sovereign debt, €726,82 million net exposure to Greek sovereign debt, and a €212,6 million net exposure to Irish sovereign debt. The bank passed the stress tests, but funding costs were soaring and additional pressure came from expectations that the EBA would soon make recommendations for European banks to increase their core tier one capital to a higher threshold. The future was uncertain.

The credit lending process at Millennium bcp

Basel II and its impact on the credit lending process

Millennium bcp's credit lending process had changed significantly in recent years, in light of the changes in the regulatory framework. The "International Convergence of Capital Measurement Standards – A revised framework", which had been agreed upon, had the goal of guaranteeing the international convergence of legal frameworks concerning capital adequacy, the amount of capital that banks had to hold in relation to the assets they held, weighted by their risk.

[2] **Committee on the Global Financial System**. 2011. *The impact of sovereign credit risk on bank funding conditions*. CGFS Papers, No 43. Basel: Bank for International Settlements.

[3] CDS stands for Credit Default Swap, a bilateral contract for the coverage of credit default risk.

Inexorably the accord and its further revisions and updates led banks to develop and improve their credit risk management. At Millennium bcp this need to implement better practices also became inevitable because of the banks growing credit business. The new practices introduced and the improvement of the rating systems allowed the institution to more rigorously and transparently evaluate the credit risk of its counterparties, to better collateralize credit operations, to develop a more efficient credit recovery process, and to have a more disciplined loan pricing policy.

One of Basel II's innovations was that it allowed banks to choose between two different broad methodologies for calculating their capital requirements for credit risk[4]. Banks could either continue using the Standardised approach (**Exhibit 4**) or they could, if authorized by the national regulator, make use of the Internal Ratings-Based approach (IRB). If they opted for the latter, the capital requirements for a given exposure would be determined by the banks own internal estimates of risk components – the probability of default (PD), the loss given default (LGD), the exposure at default (EAD) and effective maturity (M). Under IRB *Foundation* banks developed their own estimates of PD while for the remaining risk components they relied on the regulator's estimates. On the other hand, under IRB *Advanced* banks could provide their own estimates of PD, LGD, EAD and their own calculation of M. In 2010, the Portuguese regulator, Banco de Portugal (BdP), after a long period of analyzing the request finally authorized Millennium bcp's use of the IRB approach[5] (see **Exhibit 5** for Millennium's approved capital requirements calculation methods and scope). However, for the real estate development segment, the bank was not authorized to use the IRB method.

The lending process and loan pricing

The starting point for Millennium's credit lending process was the segmentation of the clients into distinct risk segments. This allowed the bank to use different measurement and credit control instruments for each macro segment or group of macro segments, including distinct formulas to calculate the capital needs for each operation (see **Exhibit 6**). The results of the different rating models and methodologies for each risk segment could then be converted into a single common rating scale, through specific calibration methodologies. This common scale, the Master Rating Scale, allowed for a simple understanding and comparison of the credit risk of the clients belonging to the different risk segments (see **Exhibit 7**).

Naturally the rating of a client could not be the only measure of credit risk. Each deal had its own characteristics and a loan could have elements and instruments of credit mitigation that other loans did not have, or that at least were different. Almost all of those instruments were either collateral or guarantees. For example, a loan that was collateralized by some type of real estate had obviously, *ceteris paribus*, less credit risk than a loan with no collateral or even than one also collateralized by real estate but with the collateral having substantial less value, since the former's Loan-to-Value (LTV)[6] would be lower. These credit risk mitigation instruments had an impact on the Loss Given Default (LGD) (see **Exhibit 8** for collateral coverage table).

The analysis allowed the bank to calculate the Basel II imposed capital requirements and therefore to determine the cost of capital (necessary for covering unexpected losses) for any

[4] **Basel Committee on Banking Supervision**. 2006. *International Convergence of Capital Measurement Standards – A revised framework. Comprehensive version.* pp 12-119. Basel: Bank for International Settlements.
[5] In Portugal this option had been established by Article 18 of Decree-Law No 104/2007 of April 3rd.
[6] Loan-to-value is the ratio between the value of the loan and the value of the collateral.

given loan operation. This was done by multiplying the Weighted Average Cost of Capital (WACC) of the bank by the capital requirements (a function of PD, LGD and EAD). Also, the bank's assessment of a client's credit risk and loan protection level were fundamental for the bank to determine the expected cost of the credit risk (which covered expected losses), given by the product of the PD, LGD and EAD. With these costs computed, the Commercial Departments could more accurately price the loans. The bank recognized that this link between the risks and the price of the loans allowed it to be more competitive when considering better risks and to be more accurate when pricing risks of poorer quality. It was fundamental for the Commercial Departments to understand that in a competitive environment they could never lose site of the cost of covering the risks of each credit loan. The bank gave the following example:

> A Corporate client given a rating grade of 5 in the Master Rating Scale, with revenue above € 50 million, wishes to obtain a 5 year loan of €100 million, with no collateral, at a fixed rate. We have the following data:
>
> - Degree of risk: 5;
> - Protection level: 9;
> - 5 year Transfer Rate: 4,45%
> - 5 year liquidity cost: 120 basis points
> - WACC: 9,25%
> - Administrative costs: 40 basis points
>
> With this information the Commercial Area Information Management Department (DIGAC) can determine:
>
> - The cost of credit risk: 0,16%;
> - The capital requirements: 6,82%;
> - The cost of capital: 0,358% = 6,82% x (9,25% - 4,45%)
> - Minimum spread: 2,12% = 0,16% + 0,358% + 1,2% + 0,4%
> - Interest rate: 2,12% + 4,45% = 6,57%

Four years in the life of a loan

Approving a loan in 2006

When the Albufeira branch of Millenium bcp's Real Estate Investment bank[7] (Banco de Investimento Imobiliário) was approached by Almond Hill for the financing of the new development, its managers were very pleased. It was yet another opportunity to reinforce the important relationship with these increasingly profitable clients, Almond Hill and Águas.

The branch proposed internally the approval of a €10 million loan with a 1,125% spread over 3m EURIBOR (see **Exhibit 9** for EURIBOR rates), a 4 year maturity and an initial available amount of €1 million. Following availability of the full €10 million would depend on the evolution of the development, with inspections from the bank. Also, principal

[7] Banco de Investimento Imobiliário was a wholly owned subsidiary of Millennium bcp, created in 1992 through a partnership with an Italian savings bank that focused on real estate investment loans.

repayment would be made with each deed signed by the promissory purchaser and the loan was guaranteed by first mortgage on the real estate and improvements, free of covenants and and encumbrances (see **Exhibit 11** for further data on the development).

After the proposal was analyzed by the South Construction Credit Division (Crédito à Construção Sul), with positive feedback, the division sent it to the Credit Commission (Comissão de Crédito do BII) for approval[8]. All of the relevant information was given (see **Exhibits 10** and **11**). According to the branch, a competing bank had recently entered the business with competitive prices, and for the proposal under analysis it had already presented its conditions, with a 1,25% spread and a potential reduction to 1%. Moreover, the branch expressed its concern with the competition of yet another bank, which had been trying to enter Almond's business. They were also worried with the displeasure the company had shown regarding up-front commissions.

Regarding Almond Hill's partners, the division emphasized that all of them were good clients of the group, Águas in particular. The main partner had at the time two real estate loans with the group, one of €1.300.00 and the other €400.000, both with a 2% spread and the first already being repaid. A third loan of €1.469.394 had already been fully repaid. Moreover, the division recognized both in Almond Hill and Águas high skills as real estate promoters, as well as top quality developments.

The loan was approved with the spread set at 1,375%, in line with the Construction Credit's Management suggestion. In fact at the time, in Portugal as well as in other countries (Ireland being the most obvious) these types of loans were very easily approved. Credit was cheap, housing prices kept rising and competition was fierce between banks.

A credit tsunami and the world in shock

In 2007, after a long period of low interest rates, the world saw the bust of the U.S. housing market bubble and its contagion of financial markets through derivatives such as MBSs and CDOs[9]. In the same year the Irish housing market collapsed, but it was in 2008 that we saw a severe drop in housing prices across the globe (See **Exhibit 12** for global real house prices data) as well as the infamous fall of mighty Lehman Brothers. Following this global shock, home prices started to rebound in 2009. "On average, prices fell about 17 per cent across the world in 2007 and 2008, but have since bounced back by about 10 per cent."[10] However, it was soon clear that the strong increase in global housing prices might not last. Dan Thomas, property correspondent for the Financial Times, explained the problem:

> It's difficult to see there being quite as much growth as there has been over the last year, you know, in very broad terms across the world. Low interest rates clearly have been a massive factor in that recovery and now, although that might not change overnight or might not change this year, eventually that will have to see some sort of movement. At the same time you're seeing in countries like the U.K., government tax increases, and spending cuts, likely to have an impact on unemployment and that means

[8] Information is limited regarding the bank's credit lending process in 2006. The case focuses mainly on the same process in 2010 and 2011, which evolved from and is more sophisticated than the one in 2006. Therefore, the South Construction Credit Division and the Credit Commission do not appear further in the case.
[9] MBS stands for Mortgage Backed Security and CDO stands for Collateralized Debt Obligation.
[10] **Knight Frank**, as cited by **Thomas, Daniel**. "House prices face rollercoaster ride". August 15, 2010. *Financial Times*.

that there will be fewer people to buy homes or as expensive homes, at least, which is bound to have an impact on house prices. More broadly there are countries which are still suffering some fairly large problems in oversupply, the U.S. has a big oversupply problem, but also, countries like Spain, Dubai, Ireland and other places around the world where overbuilding got a bit too exuberant in the boom are now just having to fundamentally reprice, I suppose[11].

Portugal and the Algarve

For Portugal the story had been slightly different. Contrary to the rest of the world's extraordinary increase in housing prices, fuelled by cheap credit, Portuguese residential housing real price growth in the last decade had been shy (see **Exhibit 13** for data on the Portuguese residential housing market).

In 2003 strong growth was observed, however, in the following year residential housing prices saw almost no growth and from then on started to decline (in real terms) until in 2008 they fell by 8,61%. The following year, a year of deflation, real prices bounced back by 3,19%, but immediately in 2010, amidst a tough period of structural changes in Portugal, real residential housing prices fell again, by 5,55%. The sovereign debt crisis kicked in and the country was doing everything to avoid the same faith as that of Greece and Ireland. Along with this decline in prices, the number of new completed residential houses started to decline every year, from a peak of 46.579 in 2002 to a 15 year low of 20.082.

One of the country's regions with the highest residential housing value per m^2 alongside Lisbon, the capital, is the Algarve. It is the southernmost region of the continental part of the country, kwon for its good weather and unparalleled coastline, the reason why Portuguese and foreigners flock to its beaches, mainly in the summertime, but also in leisure periods throughout the year. These particular characteristics have shaped its housing market into one mostly of second homes, turning it into one of the most expensive regions per m^2.

Algarve nominal housing prices stalled in 2007, one year after the country's housing prices did, translating into a real decline of 2,51%. From 2008 to 2010, Algarve real housing prices continued to fall, decreasing in 2008 by 6,35%, again decreasing in 2009 by merely 0,5% and following the trend the following year, with a 3,77% drop in real prices.

A canary in a coal mine

As July 26, 2010 approached and with it the maturity of the loan, Almond Hill, aware of its likely inability to fully repay its debt, considering the developments in the Algarve housing market, requested a one year extension of the maturity.

The development had been fully completed that year and the company was now focusing on the sale of the apartments. In spite of having already sold 58 out of the 120 apartments, 20 in 2010, the number was below expectations, for Almond Hill planned by then to have made enough sales so to fully repay the loan. The real estate development company predicted that during the summer, when demand was higher, it would be able to overcome this adverse

[11] Daniel Thomas, "Outlook for global property unclear" *Financial Times*, video, August 16, 2010.

scenario by selling a large number of the remaining available apartments. In light of this a request for a one year extension of maturity was made.

At Millennium bcp this type of credit decisions had to pass through 2 or 3 levels of decision, decision, depending on the importance of the deal, and at each level it was common to have more than one opinion. The branch analyzed the request and sent it to the South Real Estate Promotion Department (Direcção de Promoção Imobiliária Sul) with the favorable opinion of extending the maturity of the loan until July 26, 2011. According to the new credit lending rules Almond Hill was given a risk note of 11 under the recently adopted Master Rating Scale. The outstanding amount of the loan was now €4.658.060 and the PVT[12] was €10.994.500, which meant a LTV of 42,37%.

Following the branch's assessment and positive feedback, the Credit Department intervened. It produced a Credit Report where the location of the development and the eventual favorable marketing conditions in the summer were underlined. The report also reinforced the recommendation of closely following the company's fiscal situation, as had been practice, and emphasized the fact that until then all credit obligations had been dully met. Overall, the report concluded that in lack of a better alternative the extension should be approved, as long as all due interest continued to be paid. The recommendation of the Credit Report was followed and the extension was authorized by the Credit Department. At this point, the South Real Estate Promotion Department of the Commercial Department set the spread at 3,75%.

The second big wave

Temperatures had been high that day in Portugal and a glimpse of the sun could still be seen in the horizon, an early announcement of the summer that was only a couple of months away. But as the warm evening of the 6th of April 2011 gradually set in, the weight of the news that the Prime-Minister was addressing the country at 8 p.m. increased. People across the country knew what the head of government was announcing. Almost three minutes into the speech expectations became reality.

> The government decided today to ask the European Union for financial help.

For the last months, the Portuguese had been anticipating a bailout and most did not believe that the country would overcome the sovereign debt crisis without one. Yields on government short and long-term debt had been soaring for quite some time now and, to combat this, government had introduced a series of austerity measures that were bound to turn the country's sluggish growth into yet another recession and that bolstered public discontent and protest, although not remotely comparable to recent events in Greece (see **Exhibit 14** for Generic Portuguese government bond rates).

Some called the previous decade a lost one for the Portuguese economy and the near future shed a gloomy shade over the country. A deep recession was expected in 2011, unemployment was rising and the economic climate and confidence indicators were falling (see **Exhibits 15** for data on the Portuguese economy). When the Portuguese government reached and agreement with the European Union and the International Monetary Fund for a €78 billion rescue plan on the 3rd of May 2011, the goal was to reduce the public deficit from 9,1% in 2010 to 5,9% that year.

[12] PVT is the Assumed Transaction Value (Presumível Valor de Transacção). It is the assessed value of the real estate after the development has been completed.

With the July 5th elections a majority arose from the poles and the conditions were set to implement the structural changes that Portugal needed to finally develop a sustainable path for future growth. Only two months after the public scrutiny, Moody's, a credit rating agency, decided to reduce the Portuguese rating by four notches to Ba2. As the recently elected Prime-Minister prepared to enter a meeting, news cameras caught the head of government commenting on the credit agency's decision, "It's a stomach punch, isn't it?"

The problem

A full year had almost passed as Águas set in front of his computer reading once more the letter he so carefully wrote before pressing "print" with a sigh. Almond Hill had underperformed again and a formal request had to be sent to the Millenium bcp branch for the second extension of the loan . Forty eight months had been the initially agreed duration of the loan that had now been outstanding for sixty months and had a spread of 3,25%. Only 9 apartments had been sold that year, less than half the sales in 2010, and only two more deed signings had been scheduled, leaving an outstanding loan of € 3.821.040 and a LTV of 40,79%.

Analyzing the request from Águas, the branch believed that the extension should be granted given that the development and loan were of a significant size and again believing that the summer would bring a higher demand for this type of product. Moreover, the real estate development company was by far the most profitable client of the branch and had always paid due interests in time. Nevertheless, the branch recognized that sales were very much below expectations and in the opinion it sent to the South Real Estate Promotion Department it informed that pressure was being put on the client to reduce prices to more competitive levels, presumably allowing for a higher rate of sales in the summer.

Following the branches recommendation, again the first to analyze the proposal and to give an opinion was a credit analyst at the Credit Department. He produced a Credit Report were all loans, guarantees and collateral from Almond Hill and its partners were analyzed. The credit analyst concluded that in lack of a better option the loan should be extended for the second time, as long as all due interest in the amount of €40 thousand were paid and an overdraft of €22 thousand that existed on two deposit accounts was covered. This decision received approval both at decision level 1 and 2 of the Credit Department and was sent to Mr. Octávio Torino, a decision level 3 Director from the same department who carefully looked at the credit Report and all previous history of the deal. He was uneasy about the bank's situation, the Portuguese economy and real estate market condition but gave his approval and sent it to Mr. Marco António for a second intervention at decision level 3. Having the approval of both, the request was finally sent to the South Real Estate Promotion Department of the Commercial Department where Mr. Emílio Lépido gave his authorization, repricing the loan with a 5,5% spread.

Not 48 hours after the 11th of July 2011 decision to extend the loan, the branch informed the Credit Department that Águas, unable to meet the company's financial obligations because of the low rate of sales, was also requesting a 180 day extension of the interest that were due. The two scheduled deed signings had been delayed and hence Almond Hill could not pay the interest on time. The credit analyst was unfavorable to the request and instead proposed that firstly, the interest payment was deferred at a maximum by 90 days, secondly, that on the signing of the two deeds scheduled, on top of the agreed amortization of the loan the bank should receive, in each deed signed, an amount of 50% of the interest now extended, and finally that this should be conditioned by the definite cover of the overdraft.

The credit analyst's proposal received the consent of decision levels 1 and 2 at the Credit Department but when Mr. Torino received the recommendation his unrest regarding the situation of this particular client led him to believe that the problem should be discussed with his peers. He believed that the complexity and context of the matter required an open discussion. He picked up his telephone and called both Mr. António and Mr. Lépido for a meeting that morning.

The meeting

The three managers from Millenium bcp calmly sat down in the meeting room, but many were the concerns on Torino's mind regarding the loan under analysis. The real estate market condition in Portugal seemed to be deteriorating and the sovereign debt crisis was having an enormous impact in the country. "Gentleman, these are not common times" Torino said, "We know the bank is struggling because of the country's situation and all our decisions have to be carefully scrutinized. The Algarve house prices continue to fall and the situation is not likely to get better for some time. Almond Hill, that already has a rating grade of 11 in our internal scale, is going through a bumpy road that only seems to be getting worse. Is it really the best option to extend the loan and push the problem one year further? Should we not take action and try to immediately recover as much value as we can before things get any worse?"

Lépido listened quietly and with interest, but he could not help to feel differently and see the problem from another perspective. "Look, Octávio, if it is eventually true that we are facing a rapid deterioration of the real estate market, it is also true that the best people to push these products at the best conditions possible for us are the promoters. They did a fabulous job until the shockwaves of the global crisis started hitting and we have already started to put pressure on them to make prices more competitive so that this summer we can see an increase in sales."

The Commercial Department manager was also concerned with the Portuguese justice system's well known inefficiency, "What would be the alternative? How much value would we actually be able to recover if we initiated a recovery process? Let us not forget that according to recent numbers the average executive law suit duration has been increasing and is now at about 43 months. More than 50% of the suits last 4 or more years and 6% of them last more than 8 years. These are worrying numbers. Also, the development is focused primarily on foreign demand, mainly from the Spanish and English markets, which presumably have not been suffering as much as domestic demand."

Most points seemed to be valid, but Torino was not yet convinced, he did not believe that a decrease in foreign demand would not be an issue. "Spain was these last years an important growing market for the tourism in Algarve and they are also struggling with a sovereign debt crisis. Moreover, Ireland is another important market, as well as the United Kingdom and both countries are facing problems, albeit in different dimensions. The Tourism of Portugal (Turismo de Portugal) has recently used data from a 17% drop in Spain of English tourists that opt to stay in their own apartments to suggest that a similar sharp drop in Portugal may also be seen. It is not obvious that Almond Hill will be able to swim against this tide." There was another concern, "And we all know that the more a company starts to get into a distress area the more likely it is for its management to take on more risks, which may be very harmful for us. Is it sensible to allow that to happen?"

António had been standing in the sideline of the discussion and he knew that both his coworkers were making valid points, but other issues had to be put on the table, "This is unquestionably a sensitive matter. If we are to not extend the loan and instead initiate a recovery process and in that scenario Emílio is right, are the true risks higher than what is reflected in the LGD we have attributed to this loan? As you know, the LGD is computed based on realized LGD's, which reflect historical values. It is true that ultimately we carefully try to determine long-run forward-looking recovery rates, but are the conservative estimates we are using giving us an actual "downturn LGD"?

This had not escaped Torino's mind. What impact could this adverse scenario have on the bank? If our models are generating LGD estimates on real estate loans that do not reflect an actual downturn scenario, given the recent political and economic situation of the country, what will the impact on the bank be?

The three men looked at each other as they tried to reach a solution that was not clear. Although it did not have the weight of the complicated loans with relatively large amounts, the decision they had to take felt like it reflected deeper issues for Millennium bcp. Should the bank grant another extension, knowing that there is little hope that Almond Hill's sales will improve in the next couple of years or should they deny such extension, repossess the collateral, find out how little these assets are worth on a distressed sale, and recognize a loss on the bank's accounts?

Exhibit 1 Almond Hill Construction Ltd. Financials

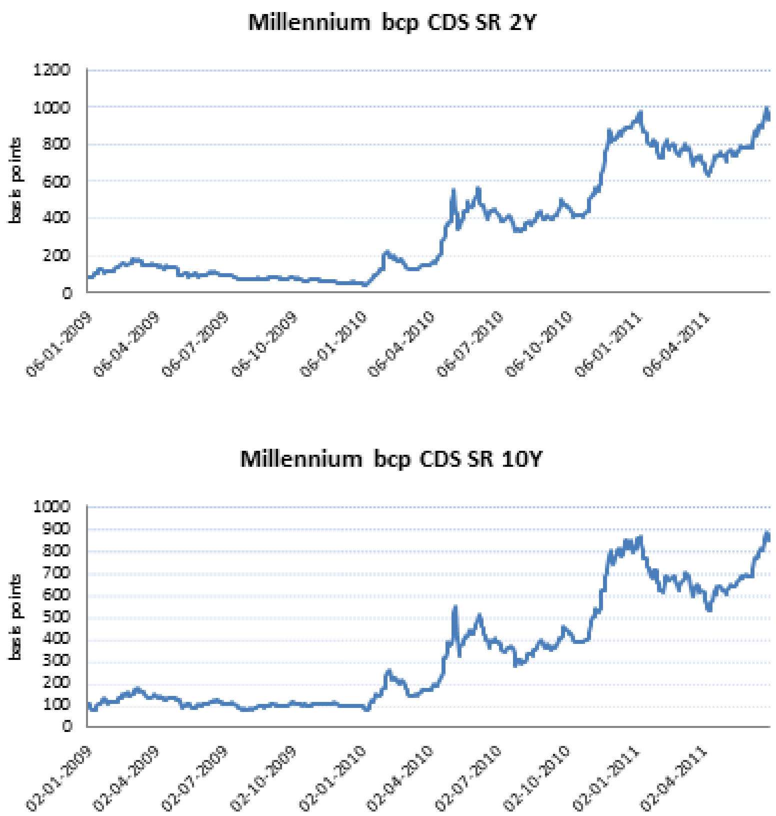
	2006	2007	2008	2009	2010
Income Statment					
Revenue	13.094.750,00	2.134.500,00	6.529.500,00	3.662.500,00	12.003.100,00
Changes in inventories	-570.504,07	10.881.369,83	5.833.485,53	2.462.561,26	-7.923.398,90
Cost of Goods Sold	7.009.407,00	7.289.361,39	4.655.576,68	1.795.682,34	1.213.977,53
Supplies and services	2.755.325,36	4.170.481,26	3.960.103,24	2.270.701,96	2.041.519,78
Personnel costs	381.893,02	693.914,15	629.760,75	449.110,88	422.726,46
Other operating income	35.040,06	41.798,97	14.807,11	324.988,37	442.624,24
Other operating costs	1.278.390,36	162.295,34	1.251.086,42	193.209,95	191.372,96
EBITDA	1.134.270,25	741.616,66	1.881.265,55	1.741.344,50	652.728,61
D&A	159.611,56	139.426,98	144.133,29	144.610,68	63.936,88
EBIT	974.658,69	602.189,68	1.737.132,26	1.596.733,82	588.791,73
Interest expenses	147.146,82	296.635,17	947.142,22	810.305,78	529.393,10
EBT	827.511,87	305.554,51	789.990,04	786.428,04	59.398,63
Taxes	499.645,52	111.591,28	499.680,76	251.188,79	48.198,21
Net income	327.866,35	193.963,23	290.309,28	535.239,25	11.200,42
Balance Sheet					
Cash and equivalents	162.059,81	N/A	14.112,34	63.255,81	64.049,45
Fixed Assets	442.754,24	344.113,71	230.217,92	116.518,84	53.026,96
Total Assets	10.708.008,49	25.335.701,04	33.822.745,30	35.355.102,59	26.724.778,19
Short-term debt	3.174.978,89	5.747.877,99	9181949,26	6.971.549,11	7.675.948,68
Long-term debt	6.632.664,98	15.701.807,64	20.648.736,41	22.464.120,35	12.679.325,96
Gross debt	9.807.643,87	21.449.685,63	29.830.685,67	29.435.669,46	20.355.274,64
Net debt/(cash)	9.645.584,06	N/A	29.816.573,33	29.372.413,65	20.291.225,19
Retained earnings	-27.501,73	3.075.658,86	N/A	1.392.134,25	1.831.004,25
Shareholder's equity	900.364,62	3.886.015,41	3.992.059,63	5.919.433,13	6.369.503,55
Profitability					
EBITDA Margin	8,7%	34,7%	28,8%	47,5%	5,4%
EBIT Margin	7,4%	28,2%	26,6%	43,6%	4,9%
Net Margin	2,5%	9,1%	4,4%	14,6%	0,1%
Return on Equity	36,4%	5,0%	7,3%	9,0%	0,2%
Capital Structure					
Total debt to common equity	10,9	5,5	7,5	4,97	3,20
Net debt to common equity	10,7	N/A	7,5	4,96	3,19
Total debt to EBITDA	8,65	28,92	15,86	16,90	31,18
Net debt to EBITDA	8,50	N/A	15,85	16,87	31,09
Debt Protection					
EBIT to interest expense	6,62	2,03	1,83	1,97	1,11
EBITDA to interest expense	7,71	2,50	1,99	2,15	1,23

Source: Company documents, www.portaldaempresa.pt

Exhibit 2 Millennium bcp share price from 1993 to 2011

Source: Bloomberg

Exhibit 3 Millennium bcp CDS SR EUR 2Y and 10Y



Source: Bloomberg

Exhibit 4 The Basel II Standardised approach

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ BB-	B+ to B-	Below B-	Unrated
Sovereigns	0%	20%	50%	100%		150%	100%
Banks	20%	50%	50%	100%		150%	50%
Corporates	20%	50%	100%		150%		100%
Retail	75%						
Claims secured by residential property	35%						
Cliams secured by commercia real estate	50% - 100%						
Past due loans	100% - 150%						

Source: International Convergence of Capital Measurement Standards – A revised framework.

Exhibit 5 Millennium Capital Requirements: Calculation methods and scope of application (1)

	IRB as of 31/12/2010
CREDIT RISK AND COUTERPARTY CREDIT RISK	
Retail	
Loans secured by residential or commercial real estate	IRB Advanced
Small companies	IRB Advanced
Other loans	Standardised
Companies	IRB Foundation (2)
Other loans and advances	Standardised
MARKET RISKS	
Debt instruments	Internal Models
Equity securities	Internal Models
Foreign exchange risks	Internal Models
Commodities risks	Standardised
OPERATIONAL RISK	Standard

(1) The scope of the IRB approach and Internal Models is limited to the exposures is the perimeter managed centrally from Portugal, excluding the Standard method of operational risk, which adoption was authorised in 2009 for application on a consolidated basis.

(2) Exposures derived from the real estate promotion segment and simplified rating system, while belonging to the company risk category, are weighted by the Standardized.

Source: Millenium bcp 2010 Annual Report

Exhibit 6 Millennium's risk segments and rating models

Segment	Macro Segment	Rating system
Sovereign	Sovereigns and Supra National Entities	Rating based on External Rating Agencies
Supra-National Entities		
Banks	Banks	
Public Administration Entities	Public Sector Entties	Rating based in internal regulation (Credit Regulation)
Public Companies		
Project Finance	Projects	Specialized Credit Model (assesment scoring)
Real Estate Promotion Projects and Real Estate Investment Funds		
Start-up companies		
SPV, ACE, churches, sports clubs, other non-profit organisations, small businesses w/ less than 2 years activity, microcredit clients, Holding companies (not included in other segments)	Other entities	
Large Coporate	Corporate and SME Corporate	Corporat Model
Mid Corporate		
Small Corporate		
Real Estate Promotion companies		
Holding companies		
Operational subsidiary companies (ACE)		
Small Businesses	Smal Businesses	TRIAD for Small-businesess and/or specific acceptance
Private Customers	Private Costumers	TRIAD for private and/or specific product scoring models

Source: Millennium bcp documents

Exhibit 7 Rating Master Scale

Rating Master Scale				
Rating grade	**PD**			**Description**
	Minimum	Midpoint	Maximum	
1	0,01%	0,03%	0,05%	Maximum safety (only sovereign)
2	0,05%	0,05%	0,07%	Superior quality
3	0,07%	0,10%	0,14%	Very high quality
4	0,14%	0,20%	0,28%	High quality
5	0,28%	0,40%	0,53%	Very good quality
6	0,53%	0,70%	0,95%	Good quality
7	0,95%	1,30%	1,73%	Average high quality
8	1,73%	2,30%	2,92%	Average quality
9	2,92%	3,70%	4,67%	Average Low quality
10	4,67%	5,90%	7,00%	Low quality
11	7,00%	8,30%	9,77%	Very low quality
12	9,77%	11,50%	13,61%	Restricted credit
13	13,61%	16,10%	27,21%	Soft signs of impariment
14	27,21%	46,00%	100,00%	Strong signs of impairment
15	100,00%	100,00%	100,00%	Default

13, 14 and 15 are procedural risk grades

Source: Millennium bcp documents

Exhibit 8 Collateral coverage and LGD table

Protection level	Colateral coverage (colateral / exposure)					
	Financial colateral (1)	**Real Estate Colateral**			**Other colateral**	**Implicit LGD**
		Residential	Commercial	Non productive / non residential		
1	≥ 100%					2,5%
2	≥ 70%, < 100%	≥ 150%				10,0%
3	≥ 60%, < 70%	≥ 130%, < 150%				15,0%
4	≥ 50%, < 600%	≥ 110%, < 130%	≥ 145%			20,0%
5	≥ 40%, < 50%	≥ 100%, < 110%	≥ 120%, < 145%	≥ 120%		24,0%
6	≥ 30%, < 40%	≥ 80%, < 100%	≥ 100%, < 120%	≥ 100%, < 120%	≥ 120%	28,0%
7	≥ 20%, < 30%	≥ 60%, < 80%	≥ 75%, < 100%	≥ 80% ,< 100%	≥ 90%, < 120%	32,0%
8	≥ 10%, < 20%	≥ 40%, < 60%	≥ 50%, < 75%	≥ 60%, < 80%	≥ 60% < 90%	36,0%
9	< 10%	< 40%	< 50%	< 60%	< 60%	40,0%

(1) Adjusted collateral value

Note: Colateral coverage is the inverso of LTV

Source: Millennium bcp documents

Exhibit 9 EURIBOR rates

EURIBOR 12m

Date	Rate
01-02-2005	2,288%
01-03-2005	2,344%
01-04-2005	2,335%
02-05-2005	2,202%
01-06-2005	2,140%
01-07-2005	2,091%
01-08-2005	2,221%
01-09-2005	2,197%
03-10-2005	2,334%
01-11-2005	2,551%
01-12-2005	2,756%
02-01-2006	2,855%
01-02-2006	2,900%

EURIBOR 6m

Date	Rate
01-02-2005	2,18%
01-03-2005	2,20%
01-04-2005	2,20%
02-05-2005	2,15%
01-06-2005	2,13%
01-07-2005	2,10%
01-08-2005	2,16%
01-09-2005	2,16%
03-10-2005	2,22%
01-11-2005	2,38%
01-12-2005	2,60%
02-01-2006	2,64%
01-02-2006	2,70%

EURIBOR 3m

Date	Rate
01-02-2005	2,142%
01-03-2005	2,136%
01-04-2005	2,147%
02-05-2005	2,126%
01-06-2005	2,124%
01-07-2005	2,107%
01-08-2005	2,126%
01-09-2005	2,133%
03-10-2005	2,178%
01-11-2005	2,264%
01-12-2005	2,474%
02-01-2006	2,488%
01-02-2006	2,554%

Source: http://www.euribor-rates.eu/, accessed in November 2011

Exhibit 10 Almond Hill Construction Lda. outstanding credit (in €)

Outstanding credit (€)

Real Estate Investment Bank	w/ mortgage	Available limit	Current balance
Approved	5.200.000	4.162.340	2.154.340
Under analysis	2.000.000	2.000.000	0
Proposed	10.000.000	10.000.000	0
Total		16.162.340	2.154.340
Commercial		44.000	44.000
BCP Group Total		16.206.340	2.198.340
Banking industry (including BCP Group) as of November 2005			4.636.119

Exhibit 11 Almond Hill Construction Lda. Financing proposal

Almond Hill Construction Lda.
Algarve

	Construction Area	Construction costs	
	m2	**€/m2**	**€**
Bellow ground:			
Basement	6.377	300	1.913.100
Above gorund:			
Housing	12.203	600	7.321.800
Terrace and balconies	3.684	250	921.000
Pools	152	450	68.400
Above ground total	16.039		8.311.200
Infrastructure + demolition	1		1.000.700
TOTAL			**11.225.000**

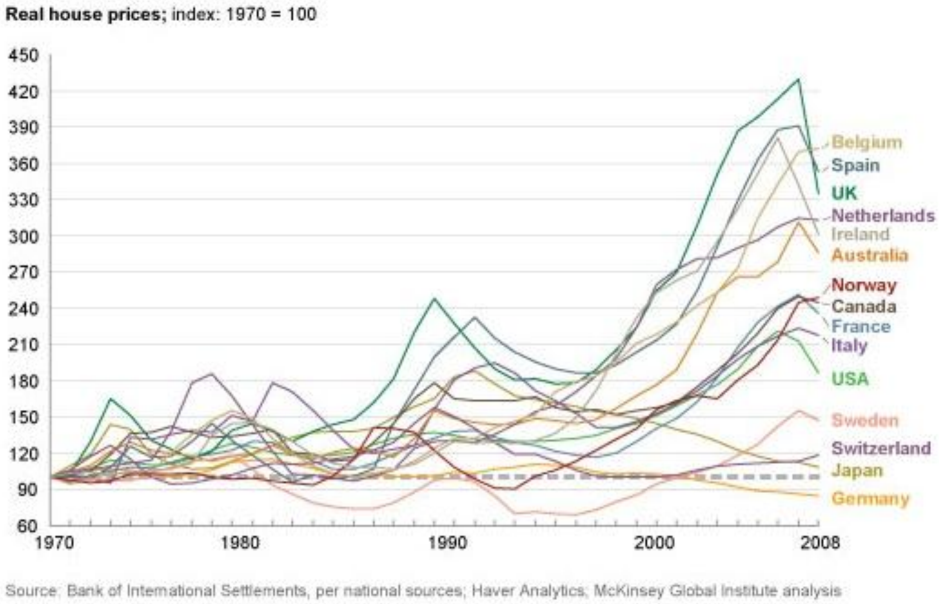
Sale Values				
		€/unit	**No.**	**€**
Simple parking		18.500	120	2.220.000
Total parking				2.220.000
	Type	**€/m2**	**No.**	
	T1	105.000	16	1.680.000
Housing	T2	165.000	86	14.190.000
	T3	182.500	18	3.285.000
Total Housing			120	19.155.000
TOTAL				**21.375.000**

Cost structure		
	€	
Real estate	3.330.000	16%
Construction	11.225.000	53%
Planning	1.753.000	8%
Gross margin	5.067.000	24%
PVT	21.375.000	
Current PVT	**3.330.000**	
Maximum eventual risk	**13.975.000**	

Proposed financing			
	INITIAL	**FINAL**	**MER**
Ammount	1.000.000	10.000.000	13.975.000
LTV	**30%**	**47%**	**65%**

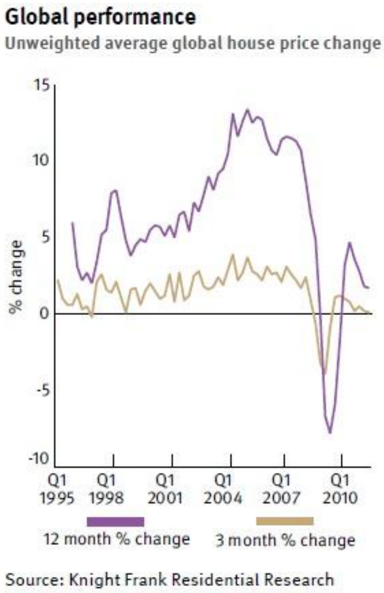
Exhibit 12 Global real house price index and unweighted global average house price change

12.1 Global real house price index



Source: Mckinsey Quarterly, October 2009

12.2 Unweighted global average house price change



Source: Global House Price Index Q2 2011, *Knight Frank*.

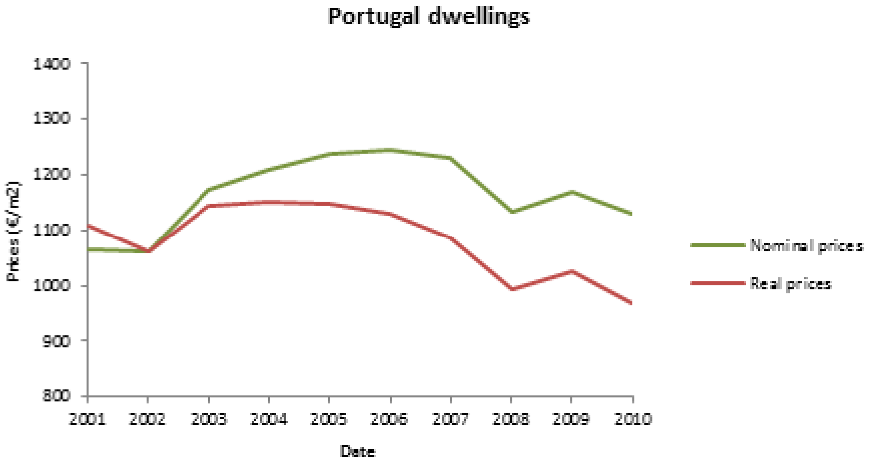
Exhibit 13 Portuguese residential Housing Market, 1995 through 2011

Panel A: Portuguese residential housing market prices, 2001 through 2011 (€/m²)

Portugal

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Portugal housing	1065	1063	1172	1209	1237	1245	1230	1133	1168	1131
Houses	890	920	1012	1076	1135	1161	1153	1026	1034	1022
Flats	1159	1137	1269	1288	1299	1287	1263	1203	1240	1198

	Dec-2010	Jan-2011	Feb-2011	Mar-2011	Apr-2011	May-2011	Jun-2011
Portugal housing	1131	1133	1139	1151	1154	1149	1128
Houses	1022	1026	1034	1052	1063	1067	1053
Flats	1198	1199	1203	1210	1208	1198	1177



Housing nominal change (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Portugal dwellings	-0,19%	10,29%	3,08%	2,34%	0,64%	-1,17%	-7,90%	3,09%	-3,17%	-2,39%
Houses	3,37%	9,96%	6,34%	5,53%	2,25%	-0,66%	-11,01%	0,78%	-1,16%	1,37%
Flats	-1,90%	11,58%	1,50%	0,91%	-0,93%	-1,89%	-4,75%	3,08%	-3,39%	-4,01%

Housing real nominal change (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Portugal dwellings	-4,04%	7,76%	0,58%	-0,27%	-1,78%	-3,73%	-8,61%	3,19%	-5,55%
Houses	-0,62%	7,43%	3,75%	2,84%	-0,21%	-3,24%	-11,70%	0,88%	-3,59%
Flats	-5,68%	9,01%	-0,96%	-1,66%	-3,31%	-4,44%	-5,48%	3,18%	-5,76%

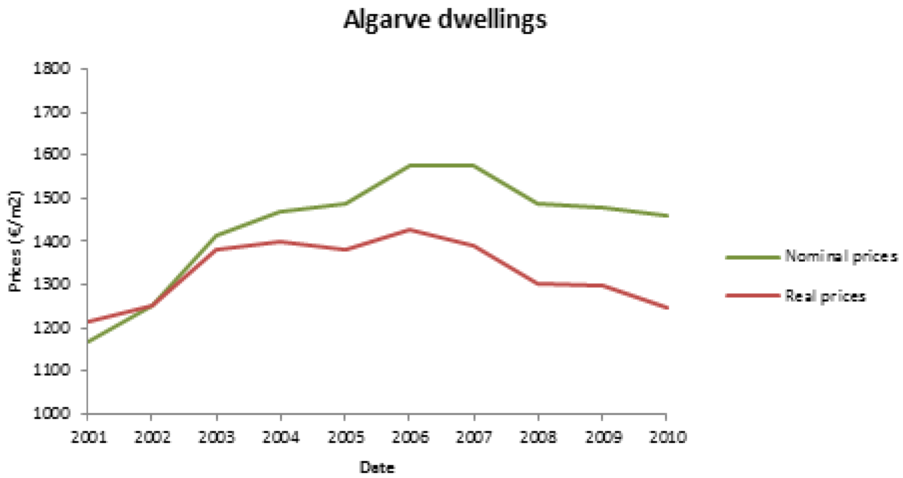
Source: Instituto Nacional de Estatística

Panel B: Algarve residential housing market prices, 2001 through 2011 (€/m²)

Algarve

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Algarve housing	1167	1251	1414	1467	1487	1575	1577	1488	1479	1459
Houses	1091	1194	1397	1429	1474	1647	1653	1505	1485	1502
Flats	1199	1264	1419	1478	1491	1552	1557	1481	1476	1440

	Dec-2010	Jan-2011	Feb-2011	Mar-2011	Apr-2011	May-2011	Jun-2011
Algarve housing	1459	1450	1430	1440	1441	1456	1429
Houses	1502	1492	1438	1460	1480	1492	1456
Flats	1440	1431	1427	1432	1425	1441	1417



Housing nominal price change (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Algarve housing	7,20%	13,05%	3,74%	1,33%	5,95%	0,09%	-5,62%	-0,60%	-1,35%
Houses	9,44%	17,00%	2,29%	3,16%	11,69%	0,41%	-8,98%	-1,33%	1,14%
Flats	5,42%	12,27%	4,17%	0,86%	4,10%	0,32%	-4,90%	-0,34%	-2,44%

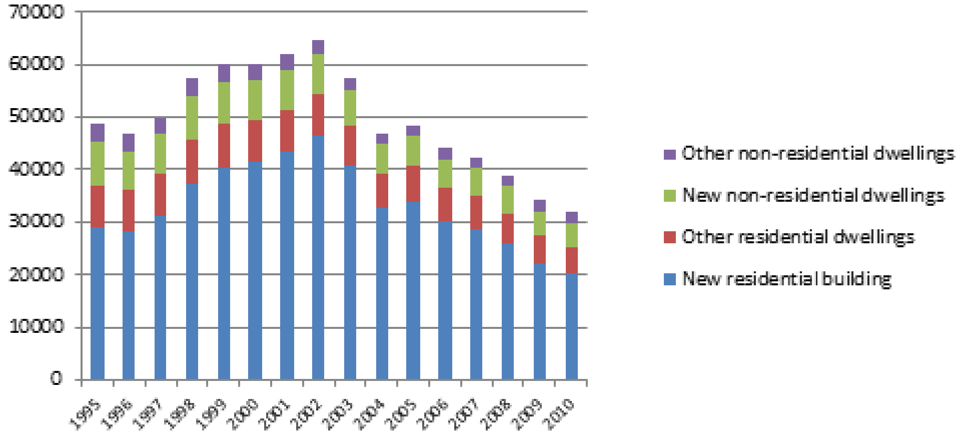
Housing real price change (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Algarve housing	3,06%	10,46%	1,22%	-1,25%	3,41%	-2,51%	-6,35%	-0,50%	-3,77%
Houses	5,22%	14,31%	-0,19%	0,53%	9,01%	-2,20%	-9,68%	-1,23%	-1,34%
Flats	1,35%	9,69%	1,64%	-1,71%	1,60%	-2,28%	-5,63%	-0,24%	-4,83%

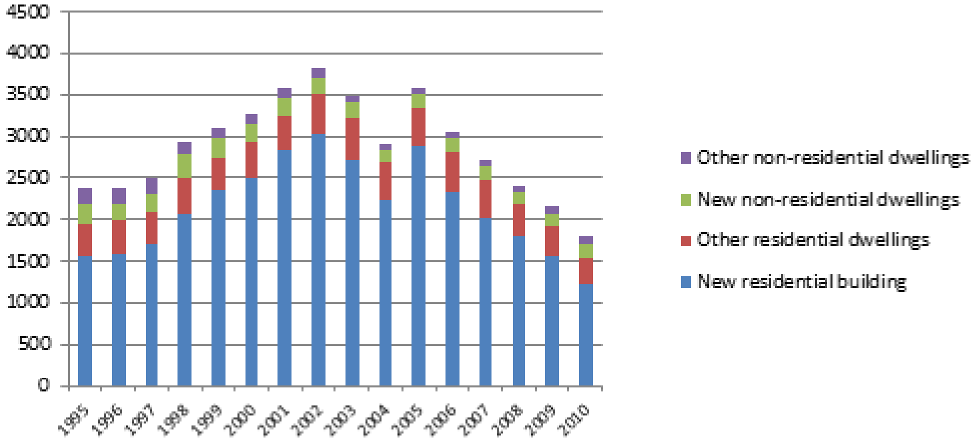
Source: Instituto Nacional de Estatística

Panel C: New completed houses, 1995 through 2010

Portugal

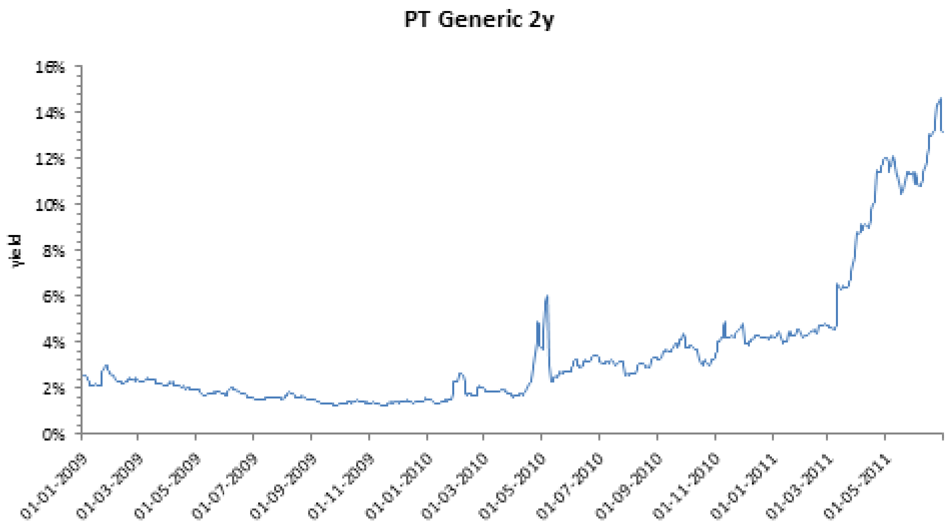


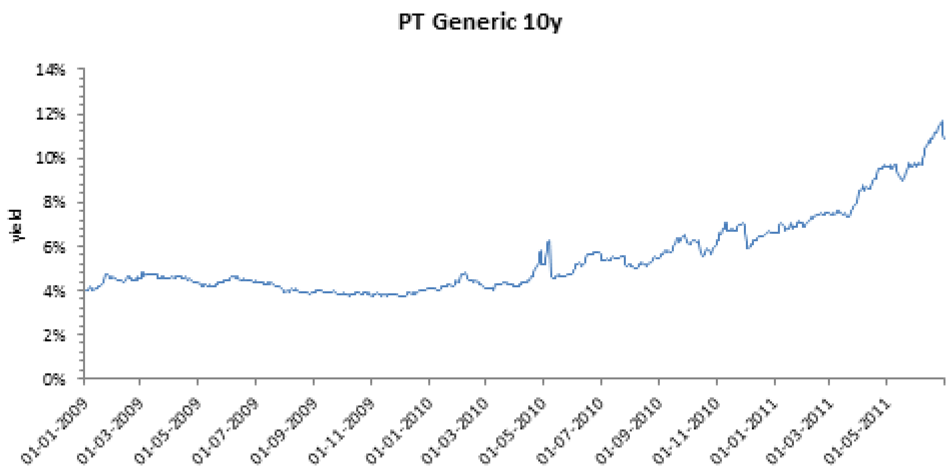
Algarve



Source: Instituto Nacional de Estatística

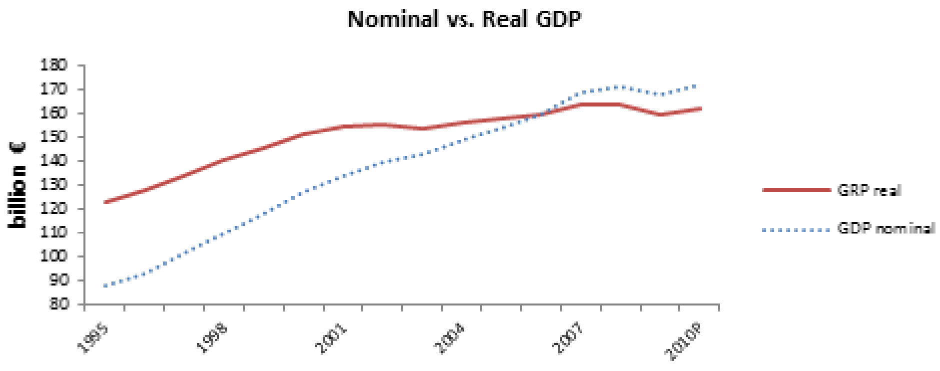
Exhibit 14 Portuguese 2y and 10y generic yields

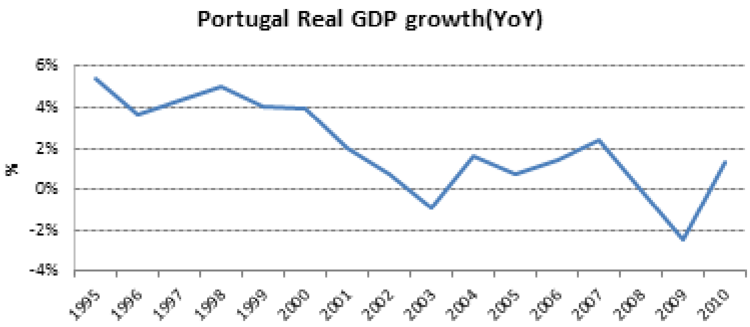


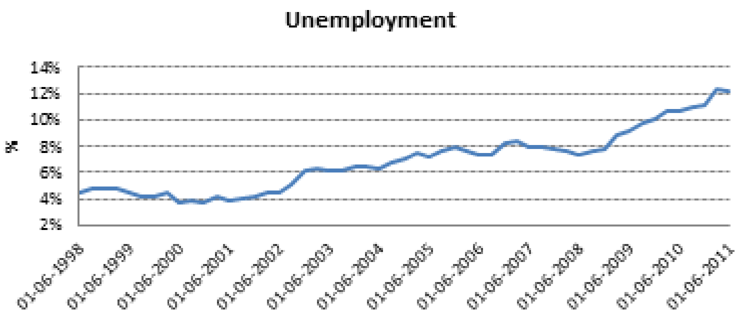


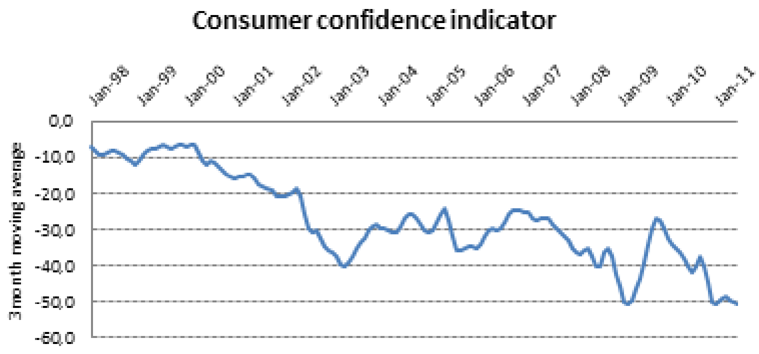
Source: Bloomberg

Exhibit 15 Portuguese economic data









Source: Instituto Nacional de Estatística and Bloomberg

Teaching Note

Millennium bcp – The Almond Hill Credit Extension Proposal

By António Preto

Overview

CASE SYNOPSIS

In July 2011, Octávio Torino, a Millenium bcp Director from the Credit Department requested a meeting with two of his peers, one from the same department and the other from the Commercial Department, to discuss a credit extension to Almond Hill Construction Lda., a real estate development company. The company had been given a €10 million loan in 2006, with a 4 year maturity, for a development in a highly touristic Portuguese region. Since then, the real estate developer had felt the impact of the 2007/2008 financial crisis and subsequently of the European sovereign debt crisis. Its performance deteriorated and it was forced to request two extensions of the loan, one in 2010 and again in 2011. In the middle of the uncertainty European banks were facing, Torino had to decide on whether to approve the second extension of the loan or to initiate a credit recovery process.

TEACHING OBJECTIVES

The case provides an opportunity to understand the credit lending process and loan pricing policy in a major bank and to explore the issues and interests at play when a relevant credit decision must be taken. Readers will be confronted with a problem that cannot be addressed simply from a purely technical perspective and where different viewpoints, such as the client relationship and the risk-management ones, may clash. Also, the case underscores the constraints banks may face when opting for a recovery process and shows the importance of the economic context in this type of decision.

António Preto prepared this case under the supervision of Professor Paulo Pinho as part of the requirements for the Award of a Masters Degree in Finance from the NOVA – School of Business and Economics. The identities of the companies and individuals concerned in this case have been disguised, except for the identity of the bank Millennium bcp. Only the three Millennium bcp directors, their thoughts and dialogues, are fictional.

Case Analysis

SUGGESTED ASSIGNMENT QUESTIONS

1. **Loan pricing at Millennium bcp**
   a. How did the DIGAC compute the cost of risk and the capital requirements in the example given on page 5 of the case? (See Notice No. 5/2007 from the Banco de Portugal (BdP) - Aviso do BdP nº 5/2007)

2. **The Almond Hill real estate loan**
   a. Analyze the loan. Are a bank's Basel II models sufficient for that analysis?

3. **Extending the maturity of the loan vs. initiating the recovery process**
   a. Should the bank initiate a credit recovery process? Why or why not?
   b. What might be the consequences of initiating this process?
   c. Which factors do you think are having an impact on this decision?

ANALYSIS

1. Loan pricing at Millennium bcp

Computing the cost of risk and capital requirements for loan pricing

The cost of risk is calculated simply by multiplying the PD and the LGD.

$$Cost\ of\ credit\ risk = \mathrm{PD} \times LGD \qquad (1)$$

We know that the corporate client's degree of risk is 5, so we can check the Rating Master Scale on **Exhibit 7** of the case and find that the midpoint PD for that rating grade is 0,40%. Also, we know that the protection level is 9, which allows us to find the implicit LGD on the table in **Exhibit 8** of the case; 40%. With this information we can arrive at the cost of credit risk.

$$Cost\ of\ credit\ risk = 0{,}4\% \times 40\%$$

$$Cost\ of\ credit\ risk = 0{,}16\%$$

As for the capital requirements, we need to check the Basel Committee on Banking Supervision's *International Convergence of Capital Measurement and Capital Standards* document as well as the Portuguese regulator's Notice No. 5/2007. With these, we find that in order to find the capital requirements (2), Millennium bcp must compute the risk weight (3) for this operation.

$$\text{Capital requirements} = \text{RW} \times 8\% \qquad (2)$$

$$Risk\ Weight\ (RW) = \frac{LGD \times N\left[\frac{G(PD)}{\sqrt{1-R}} + \sqrt{\frac{R}{1-R}} \times G(0{,}999)\right] - PD \times LGD}{1 - 1{,}5 \times b} \times (1 + (M - 2{,}5) \times b) \times 12{,}5 \times 1{,}06 \qquad (3)$$

Where:

N(x) denotes the cumulative distribution function for a standard normal random variable (i.e. the probability that a normal random variable with mean zero and variance of one is less than or equal to x)[13].

G(z) denotes the inverse cumulative distribution function for a standard normal random variable (i.e. the value of x such that N(x) = z).

And:

$$Correlation\ (R) = 0{,}12 \times \left[\frac{1 - exp(-50 \times PD)}{1 - \exp(-50)}\right] + 0{,}24 \times \left[1 - \frac{(1 - \exp\{-50 \times PD\})}{1 - \exp(-50)}\right] \qquad (4)$$

$$Maturity\ adjustment\ (b) = (0{,}11852 - 0{,}05478 \times \ln(PD))^2 \qquad (5)$$

With the above formulas and the data given in the case we can compute the correlation, the maturity adjustment, the risk weight and finally the capital requirements.

$$Correlation\ (R) = 0{,}218248$$

$$Maturity\ adjustment\ (b) = 0{,}177229$$

$$Risk\ Weight\ (RW) = 0{,}852769$$

$$Capital\ requirements = 6{,}82\%$$

2. The Almond Hill real estate loan

Five C's + One

<u>Character</u>

With the available information we should start by analyzing the loan initially made to Almond Hill through the 5 C's + 1; Character, Capital, Capacity, Conditions, Collateral and Cycle. This allows us to understand more thoroughly the problem faced by the Millennium bcp directors in July, 2011.

[13] The normal cumulative distribution function and the inverse of the normal cumulative distribution function are, for example, available in Excel as the functions NORM.S.DIST and NORM.S.INV.

José Águas, the company's main and most active partner, had a lot of experience in the real estate development industry. He had been successful as an individual real estate entrepreneur and, at the time the loan was requested, was shifting his business to the company. This may show that Águas is probably very committed to the success of Almond Hill. Moreover, the remaining partners were also reliable clients of Millennium bcp. Finally, they all had very good skills, especially Águas, as real estate promoters, having been successful in building and selling top quality developments in the past.

It is important to understand why the above strengths and the weaknesses that may be found are so relevant for the credit decision. This type of information gives the bank important signals about the borrower's creditworthiness. In fact, it is core information that is used by banks in their models for determining PD's. Also, given the nature of the deal, a real estate loan with the collateral we will further analyze, the skill and reliability of management is of the utmost importance.

<u>Capacity and Capital</u>

We face three problems in the capacity and capital analysis. Firstly, if we wish to analyze the merits of the decision in 2006, our information about the company's financials prior to 2006 is limited. Secondly, in 2006 Almond Hill had only been incorporated for 2 years. Finally, because the company is not submitted to strict disclosure rules, we do not have any information about cash-flow. Nevertheless, as we will see further, these problem are mitigated by the conditions of the loan and collateral. However, we can assume, but never forgetting that it is an assumption, that because by the end of 2006 the debt protection ratios were very high, 7,71 EBITDA/interest expense and 6,62 EBIT/interest expense, when the loan was being approved, those same ratios were also high and therefore there was still room for more debt service.

According to the bank's information, in 2005 Almond Hill had loans amounting to € 4.636.119, of witch € 2.198.340 where from the Millennium bcp group, and equity of € 600.000. Capital is another important signal when a loan is being analyzed. It shows the financial commitment of management and gives the bank the assurance that the borrower also has something at stake and is not in a riskless position.

<u>Conditions</u>

In this real estate development loan, where historical information on the company and future performance projections are limited, the conditions of the loan have core importance and have to be carefully drawn, in order for the loan to be approved.

The €10 million loan with a 4 year maturity had an initial availability of only € 1 million. The following availability would depend on the bank's inspection of the evolution of the development. The more the development was completed, the more of the loan would be available. This ensured that the outstanding amount was always covered by the value of the collateral (analyzed further). Regarding the payment of principal, this would have to be done with the signing of each deed signed by the promissory purchaser, making the repayment of the loan dependent on the success of the company. That is, if the company experienced more success than it expected the loan would be fully repaid sooner. We can see that the conditions of the loan were designed so as to guarantee the banks position. It did not allow availability of the loan if the company did not show progression in the development.

<u>Collateral</u>

The collateral of the loan in this case is deeply related to the conditions of the loan and to the problems we have mentioned above. Initially, the loan had an availability of €1 million, collateralized, free of covenants and encumbrances, by the real estate worth €3,3 million. The initial LVT was hence 30% and final LVT was projected to be 47%, for the €10 million loan and collateral worth €21 million.

It is easy to see that the bank seems to be reducing the risk significantly with the above. There are however two interrelated issued that must be taken into account. The value of the collateral, being the value of the apartments built, is subject to a cyclical downturn in the economy and in the real estate market. Moreover, the assets are highly correlated since they all belong to the same development and have exactly the same characteristics; hence, their value is likely to move in the same direction. When banks assess LGD's they try to determine, the downturn scenario, but even this values might not capture the real worst case scenario. The risk-management analysis must not depend only on the models, even if they are very sophisticated.

<u>Cycle</u>

We should recognize that at the time the loan was approved economic and business conditions were very favorable. Algarve real housing prices rose 3,14%, Portuguese real GDP grew by 14,4%, and interest rates were low. The market for this type of development was growing, not only because of Portuguese demand but also because of increasing demand from Spain and from Northern European countries. The smaller vacation home segment in Algarve was flourishing and there was still not much supply for this type of apartments, which meant that there was still a lot of growth opportunity. With hindsight we can see that a global financial crisis in 2007/2008 followed by a sovereign debt crisis in Europe suggest that this type of business was not as promising as it seemed and was being fueled by economic growth that would end very soon and in a very hard way. However, we must not forget that at the time this was not foreseeable by most and the tourist real estate market in the Algarve seemed to have a bright future.

Finally, it is very important to mention other factors that might be influencing this decision and that are also important to take into account in any credit lending decision. Although the risk-management function focuses on the bank's risk exposure and on managing that risk, not allowing the bank to enter into deals which are riskier than desirable, there is always pressure coming from the commercial functions. The commercial side will tend to insist on the client relationship importance of any deal. In this case, for instances, it seems that Almond Hill and Águas are key in the Albufeira branch's performance. Additionally, at the time of the loan is being analyzed, we can see considerable pressure from two of Millennium bcp's competitors, which may increase the bias towards the approval of a deal with clients of this importance.

3. Extending the maturity of the loan vs. initiating the recovery process

The credit recovery process

Torino and his peers are facing a problem with two alternative solutions, the extension of the loan or a recovery process. These seem to be the only options available, so we should analyze what the advantages or disadvantages of initiating the recovery process are, as opposed to approving the extension.

If the Millennium bcp directors decided not to approve the extension and consequently to go ahead with the recovery process that would lead to legal proceedings, the value of the collateral seems to exceed by far the outstanding amount of the loan. The LVT is 40,79%, for a € 3.821.040 loan, which means that if they are able to sell the collateral they will easily cover the amount owed. The value of the collateral could even be reduced as much as 59,2% from € 9.368.000 to € 3.821.040 and the outstanding amount would still be covered (not considering unpaid interests).

Nevertheless, the problem and key factor in the credit recovery process is the Portuguese legal framework and legal system, for two reasons. Firstly, the collateral is the first mortgage on the apartments not yet sold, free of covenants and encumbrances, and this means that if the bank wishes to execute the collateral because of Almond Hills default, it does not gain automatic ownership of the apartments. Millennium bcp will have to initiate legal proceeding in a civil executive court so that the collateral may be sold and, with the proceedings of this sale, the debt be paid. It seems clear that in this case the problem is the same as before; the difficulty in selling the assets. Moreover, Almond Hill's managers are more likely to be able to better sell the apartments since they are highly skilled in real estate promotion and very familiar with the market. The second reason is that, even if Millennium bcp decided that it was still a better option to file legal proceedings, it would have to go through the sluggish Portuguese legal system. Recent studies from the Ministry of Justice[14] show that the average executive law suit takes on average 43 months, a number that has been increasing since 2005. There are even 6% of law suits that take 8 or more years to be finish. These numbers show that, although the average life time of an executive law suit varies from region to region, it cannot be seen as a viable solution and may turn out to be a last resort.

This type of decision, as in this case, can be seriously influenced by other issues, such as the economic and political context the bank is in. At the time the loan is being analyzed, Millennium bcp is struggling against the severe shockwaves of the European sovereign debt crisis. On top of seeing its borrowing costs skyrocket and its share price plummet, it is under pressure to provision against big losses from sovereign bonds in its balance sheet and, consequently, to inject more equity in order to have a bigger buffer against those hypothetical losses. This may deter the bank from recognizing losses from other assets, such as those related to the real estate market. For instances, if the bank were to start a recovery process on the Almond Hill loan and with it recover less than it expected, it may just be that it would have to assume that its credit assessment models, although very sophisticated, are not actually capturing the risk the bank is facing and the value the assets are worth in an actual downturn scenario. Also, if the recovery process was initiated, the losses incurred would have to be recognized. This would have an adverse impact on the banks equity, precisely at a time when regulators are raising pressure for the increase of the equity buffer and when raising capital in capital markets is revealing to be more complicated every day, due to the Portuguese economic situation and to the evolution of the bank's share price.

Finally, it is never too much to recall the importance of client relationship in these cases. Almond Hill and its main partner are very important and profitable (until now) clients with whom the bank will try to maintain a long-term relationship. Extending the loan and avoiding a recovery process will probably have the support and pressure of the commercial side of any bank and will only be seen as a last resort measure.

---

[14] Estatíticas sobre acções executivas cíveis (2005-2010), Boletim de informação estatística 3, Maio 2011, *Direcção-Geral da Politica de Justiça, Ministério da Justiça*.

What to gain from extending the loan

We have concluded that with the Almond Hill loan, initiating a recovery process is not an option given the circumstances. However, in spite of the strong position that the real estate developer is in because of the fact that the bank does not have alternatives, the latter cannot extend the loan without any demands. This is an opportunity for the bank to negotiate the terms and conditions of the loan. Millennium bcp can for example demand other collateral that the company might have and that is less correlated with the assets that already serve as collateral. We saw in the case that Almond Hill also has some developments in the Portuguese Zona Oeste. Also, the banks can demand, if they do not already exist, personal guarantees from the managers, which is a good way of avoiding excessive risk taking from the company, the increase of the spread , which given the circumstances will likely happen, the conditions under which interest and principal are paid, or any other terms that may be relevant.

WHAT HAPPENED

After considerable discussion, the Committee chose to approve the credit extension. The spread was raised to 5,5% and the conditions set out by the credit analyst were imposed by the bank. Firstly, the interests that were due had to be paid within 90 days, secondly, when the two deeds in standby were signed, Almond Hill would have to pay in each of the signings, on top of the amortization, 50% of the interest due at the time, and thirdly, the extension of the loan was conditioned to the full coverage of the overdraft the company had.

Between July and December the country’s economy continued to deteriorate and by the end of the year a deep recession was expected. Prospects for 2012 were also very gloomy. Residential housing prices continued to fall both in the country in general and in the Algarve in particular. Europe did not find a solution for its sovereign debt crisis and in fact things continued to get worse, with significant events, like changes in government and the increase of the cost of funding, taking place in core countries such as Spain and Italy.

REFERENCES

Banco Comercial Português, S.A. 2007. Annual Report 2006.

Banco Comercial Português, S.A. 2008. Annual Report 2007.

Banco Comercial Português, S.A. 2009. Annual Report 2008.

Banco Comercial Português, S.A. 2010. Annual Report 2009.

Banco Comercial Português, S.A. 2011. Annual Report 2010.

Banco de Portugal. Julho, 2010. *Exercício de stress test da União Europeia: Principais resultados para os bancos portugueses*.

Banco de Portugal. Julho, 2011. *Exercício de stress test da União Europeia: Principais resultados para os bancos portugueses*.

Basel Committee on Banking Supervision. June, 2006. *International Convergence of Capital Measurement Standards – A revised framework. Comprehensive version.* Basel: Bank for International Settlements.

Basel Committee on Banking Supervision. July, 2005. *An explanatory note on the Basel II IRB Risk Weight functions.* Basel: Bank for International Settlements.

Basel Committee on Banking Supervision. December, 2010. *Basel III: A global regulatory framework for more resilient banks and banking systems*. Basel: Bank for International Settlements.

Committee on the Global Financial System. July, 2011. *The impact of sovereign credit risk on bank funding conditions*. CGFS Papers, No 43. Basel: Bank for International Settlements.

Direcção-Geral da Política de Justiça. May, 2011. *Estatísticas sobre acções executivas cíveis (2005-2010).* Boletim de informação estatística, No 3. Lisboa: Ministério da Justiça.

European Banking Authority. July, 2010. *Aggregate outcome of the 2010 EU wide stress test exercise coordinated by CEBS in cooperation with the ECB.*

European Banking Authority. July, 2011. *European Banking Authority 2011 EU-Wide Stress Test Aggregate Report*.

Howe, James, et al. 2005. *Banco Comercial Português in 2000 (A): New frontiers for a local champion.* Fontainebleau: INSEAD.

Knight Frank LLP. 2011. *Global House Price Index*. Residential research.

Milne, Richard; Oakley, David and Wise, Peter. "Borrowing costs hold the key for Portugal". January 12, 2011. *Financial Times*.

Saunders, Anthony and Cornett, Marcia Millon. 2011. *Financial Institutions Management: A risk-management approach*, 7th ed. New York: McGraw-Hill.

Thomas, Daniel. "House prices face rollercoaster ride". August 15, 2010. *Financial Times*.

Turismo de Portugal. 2011. *Análise dos mercados emissores: Síntese informativa de 28 de Abril de 2011.*

Turismo de Portugal. 2011. *Barómetro de conjuntura: Empreendimentos turísticos Verão de 2011*.

Wise, Peter. "BCP says BPI merger proposal 'unacceptable'". October 30, 2007. *Financial Times*.

Wise, Peter. "Portuguese begin to see bail-out as inevitable". January 14, 2011. *Financial Times*.

Wise, Peter. "Portugal reaches deal on €78bn bail-out". May 3, 2011. *Financial Times*.

Wise, Peter and Spiegel, Peter. "Sócrates calls for Portuguese bail-out". April 6, 2011. *Financial Times*.

Legislation

Aviso do Banco de Portugal nº 5/2007

Aviso do Banco de Portugal nº 9/2007

Decreto-Lei nº 103/2007, de 3 de Abril

Decreto-Lei nº 104/2007, de 3 de Abril

Websites

www.bis.org, Bank for International Settlements

www.bportugal.pt, Banco de Portugal

www.eba.europa.eu, European Banking Authority

www.ft.com, Financial Times

www.millenniumbcp.pt, Millennium bcp

www.parlamento.pt, Assembleia da República