# The Point of Corumbau: <br> A Case Study in Emerging Market (Brazil) Real Estate Development Feasibility Analysis 

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#### Abstract

In 2003, Renata Oliveira, a young Portuguese architect, has re-discovered the Point of Corumbau in Bahia, Brazil, and, like the Portuguese adventurers who had discovered Brazil 500 years earlier in the same location, found it to be an area that is wild, beautiful and undeveloped. It is also sitting right at the edge of perhaps the most promising resort and second home real estate market in the world: the Northeast coast of Brazil. The case challenges students to conduct market and project feasibility analysis in an emerging market environment, with data and contextual information supplied in the case. It considers the effectiveness of such analysis, and raises questions about the usefulness of time-series data in markets that are changing in fundamental ways, the importance of macro- and international economics in weighing real estate investments, the methods available for evaluating emerging market risk, the challenges of managing development and construction in a foreign environment, and the role, if any, for a developer's personal vision in the value creation system. Part II of the case allows students to re-consider these questions in the light of subsequent events. At the same time, the case examines two of the most exciting real estate markets in the world today: Southeastern Brazil's urban housing market, and the resort and vacation home market of the coastal Northeast.


Thesis Supervisor: Lester C. Thurow
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## Table Of Contents

## Part 1

1 Introduction ..... 11
1.01 Arbitrage ..... 11
1.02 Investors ..... 12
2 The Site ..... 12
2.01 Program ..... 13
2.02 Acquisition ..... 15
3 Brazil Real Estate Market ..... 15
3.01 Real Estate Market International and Macroeconomic Perspective ..... 16
3.02 Lodging Real Estate Market - International and Macro-economic Perspective ..... 21
3.03 Lodging Real Estate Market - Regional, State and Municipal Perspective ..... 25
3.04 Market Conclusions - 2003 ..... 30
4 Feasibility ..... 32
4.01 Room Revenue, Occupancy Rate, Room-Nights, RevPAR, and ADR ..... 32
4.02 Competitive Set Profile ..... 35
4.03 Data ..... 36
4.04 Average Occupancy Rate for the Competitive Set ..... 37
4.05 Occupancy Rate Forecast for Proposed Hotel ..... 39
4.06 ADR Forecast for Proposed Hotel ..... 55
4.07 Room Revenue Forecast ..... 57
4.08 Non-Room Revenue ..... 57
4.09 Expenses ..... 60
4.10 Tax Issues ..... 63
4.11 Construction Costs ..... 66
5 Risk ..... 70
5.01 Memo: Brazil Real Estate/Country Level Risk Analysis of Legal, Regulatory and Political Issues ..... 72
5.02 Appendix A to Memo: Risk Indices ..... 101
5.03 Sensitivity Analysis ..... 102
Part 2
6 The intervening Period 2003-2007 ..... 105
6.01 Entitlements ..... 105
6.02 Construction ..... 106
7 Conference ..... 111
7.01 Macro- and International Economic Recap ..... 112
7.02 The Real Estate Industry 2007 ..... 113
7.03 Lodging and Tourism Real Estate Sector ..... 115
8 Brazil Housing Market 2007 ..... 125
9 The Steel Valley ..... 131
10 Beginnings ..... 134
Endnotes ..... 135

## Figures

Figure 3-1: Foreign Exchange Rates, Brazil - USD, 2001-2003
Figure 3-2: Foreign Exchange Rates, USD - Euro, 2001-2003 17

Figure 3-3: Monetary Policy vs. Inflation, Nov 2001- Feb 200319
Figure 3-4: Brazil’s Trade Balance, 1980-2003 20
Figure 3-5: Foreign Tourists Entering Brazil - 1970/2002 22
Figure 3-6: Arrivals in Brazil by Main Countries of Origin 23
Figure 3-7: Map of Brazil 25
Figure 3-8: Map of Northeast Coast 26

Figure 3-9: Location of Bahia in Brazil 27
Figure 3-10: Map of Bahia Tourist Areas 29
Figure 4-1: Average Occupancy Rate 38
Figure 4-2: Competitive Index Table 42
Figure 4-3: Brazil Inflation Table 57
Figure 4-4: Table: Department Revenue as a Percent of Total Revenue 58
Figure 4-5: Undistributed Operational Expenses as a Percent of Total Revenue 59
Figure 4-6: Departmental Expense as a Percent of Departmental Revenue 59
Figure 4-7: Summary of Taxes at Entity Level 63
Figure 5-1: Sensitivity Analysis 101
Figure 6-1: Budgeted and Actual Construction Costs 105
Figure 8-1: Brazil’s Housing Demand 124
Figure 8-2: Affordability Sensitivity 127
Figure 8-3: Affordability Sensitivity - Potential Buyers 127

Figure 8-4: Offerings of Note on the Brazilian Securities Market 128

Figure 9-1: Summary of Housing Investment, Ipatinga, MG 130

## Exhibits

Exhibits 1-12: Occupancy Tables for Local Hotels, October 2001-September 2002 ..... 147-158
Exhibits 13-24: Occupancy Tables for Local Pousadas, October 2001-September 2002 ..... 159-171
Exhibit 25: Bungalow Plan ..... 171
Exhibit 26: Salon Plan ..... 172
Exhibit 27: Reception Plan ..... 173
Exhibit 28: Employee Housing Plan ..... 174
Exhibit 29: Luxury Resort Market: Occupancy Rate /ADR ..... 175
Exhibit 30: Partial Site Plan ..... 176
Exhibit 31: Pre-Construction Cash Flow Projection ..... 177
Exhibit 32: Pre-Construction Cash Flow Projection Inputs ..... 178
Exhibit 33: Post-Construction Cash Flow Projection w/ Year 1 Actual ..... 179
Exhibit 34: Post-Construction Cash Flow Projection Inputs ..... 180
Exhibit 35: Room Occupation Rates for 2006 ..... 181
Exhibit 36: Room Occupancy Rates for 2007, as of June ..... 182
Exhibit 37: 2006 Occupancy Data ..... 183
Exhibit 38: Photographs of the Resort ..... 184
Exhibit 39: Photographs of the Construction Process ..... 186
Exhibit 40: Average Room Rate vs. Occupancy Rate ..... 187
Exhibit 41: Competitive Resort Anticipated New Supply Estimate at 2007 - Bahia ..... 188

## Part One

## 1 Introduction

March 2003, Rio de Janeiro, Brazil. Renata Oliveira shifted uncomfortably in her seat aboard the Boeing 747 ready to leave Brazil. In weighing the proposed real estate deal she felt pulled in two directions: On the one hand, she loved the site, and believed it had great promise. But, on the other hand, the lack of transparency in Brazil's real estate markets left her unsure of the project economics.

How was she supposed to be sure? Data was hard to come by in Brazil. Unlike the country's welcoming personality, its business culture was surprisingly secretive. It treated all information as insider information. She must have made twenty phone calls to hotels, pousadas and resorts seeking occupancy information, without learning anything. Naturally, there were no firms like Torto-Wheaton or Reis offering econometric forecasting, and Smith Travel Research had comparatively little Brazilian hotel data because few hotels were willing to report their results.

She was, however, sure of one thing: over the next nine hours of flight time, she would figure out the economics of this investment. By her arrival back home in Lisbon, she would know whether to move forward, or return to the search. Until then, things would be up in the air...in more ways than one.

### 1.01 Arbitrage

There was an upside to Brazil's transparency problem. In fact, many of the players in the Brazilian real estate market embraced the unavailability of information. To their way of thinking, uncertainty discouraged potential competitors, which allowed those who did participate, returns of $30 \%$ or more at the project level. This, they argued, was arbitrage pure and simple. ${ }^{1}$

Renata was not so sure. It was only arbitrage, she thought, for those participants who could obtain the "insider information", and knew what to do with it. For those who could not, or did not, the risks were unquantifiable. Without information, there was no way to know whether these real estate investments provided excess returns, or merely returns that were adjusted for unknown risks that could sneak up and bite you from behind. Was it possible for anyone, particularly an outsider like herself, to obtain enough information in an emerging market like Brazil, to draw reasonable inferences about future cash flows? She was determined to show that it was possible, and that she could do it.

### 1.02 Investors

The process of working through the deal economics was known as market and project financial feasibility analysis, and Renata understood its value. Moreover, she knew that her group of Portuguese investors expected a rigorous and straightforward explanation of the investment, and a simple thumbs-up or down recommendation. The fact that she had invested two years of her time to reach this point was immaterial; if the numbers didn't work, it was back to square one.

## 2 The Site

As she pulled the documents from her carry-on, her attention returned to the site on the Northeast Coast of Brazil. It was located at the southern end of the state of Bahia, in an area called Corumbau, and had taken her two years to find. During that time she had shuttled between her architecture job in Lisbon, and her site search for the optimal ground on which to build a small exclusive resort in Brazil.

The land contained 23 hectares (or 56.8 acres), of which 250 linear meters were beach frontage along the "Whale Coast" of Bahia - a marketing identity that the State had recently assigned its south-most coast. The site had a dense patch of old-growth Atlantic rain forest that
was not developable for environmental reasons, but was a key site amenity for nature tourism. There was a white-sand beach, and the waterfront was protected by reefs offshore, providing calm waters for swimming. There was also a river that wound through the property and, where it met the ocean, formed natural pools of fresh/salt water. Sunshine and warmth were typical the entire year in Bahia, and there had never been a tornado, hurricane, tsunami, or earthquake. ${ }^{2}$

Surrounding uses were complementary. An idyllic fishing village was nearby. All around was the Mount Pascoal National Park, a large preserved bio-diverse jungle, which attracted hikers, bird-watchers, and eco-adventurers. Other interior lands belonged to the Pataxo Indians, who practiced native crafts, and were available for hire as forest guides or for transport across native lands to other nearby beach towns or to more developed areas such as the chic resort town of Trancoso. ${ }^{3}$

### 2.01 Program

Renata's idea was to acquire the 23 hectares of vacant land, and develop it as high-end lodging for a specific market niche that was largely neglected in Brazil, and completely absent on the Northeast Coast. The model was a small, very high quality inn, such as are found among the Relaix and Chateaux of Europe, spread out and placed on a large campus, in a tropical style. She proposed to build what might be thought of as an exclusive mini-resort to be called the Corumbau Lodge.

The guest accommodations would consist of nine private bungalows, each with direct views to the ocean. They would achieve the highest standard of elegance to be found in Brazil. To complement the unspoiled setting, they would be rustic as well as refined. Every aspect of the design and furnishings would harmonize the comfort of the guests with the beauty of the natural surroundings while acknowledging the rich local culture in a style faithful to indigenous influences of the area. The bungalows, with a total area of 130 square meters each, would be the amplest such accommodations in Brazil. The adobe walls would alternate with sections of thick
vertical wood slats or panels. These could be rotated closed to provide privacy, or when a guest preferred air conditioning to natural ventilation (See Bungalow Plan Exhibit 25).

The main lodge, a short walk from the bungalows, would house the principal common spaces for guests: the library, lounge and restaurant. Transparency would inspire the design so that on approach, one could look right through the building to the ocean, never seeing the curtain of glass that wrapped the front and back of the structure. The design inside called for high ceilings and an open plan. A deck along the ocean side of the building would extend toward the sea (See Salon Plan Exhibit 26). Another building would house the main reception area, the business office of the property, accommodations for Renata, and guest rooms for investors, when the bungalows were booked (See Reception Plan Exhibit 27). While each building in the resort would have its own style, a set of common principals would unify them: sustainability, integration with the natural environment, inspiration of locale, and the developer's own spare, elegant style.

Finally, out of sight of the rest of the campus, would be employee housing, of durable quality, since some of the employees would be hired from outside of the immediate area (See Employee Housing Plan Exhibit 28).

The built areas would occupy only a small fraction of the land (See Partial Site Plan Exhibit 30). The remainder would offer the principal amenities of the site: the river and the natural swimming pools it formed, the beachfront, the woods, the garden and most importantly, a reforestation project to which she was committed. The site could easily fit many times the number of buildings and stay well within all regulatory limits, but the goal of sustainability would be an important part of the overall guest experience. This was an area in which she would not compromise.

The charm of the site was due in part to its remote location. Access was not easy, but, she believed that travelers who wanted to enjoy nature tourism expect to travel to remote locations; getting there was part of the fun. The closest international airport was in Porto Seguro.

It would cost a traveler R\$ 1200 (about $\$ 350$ in 2003, and about $\$ 600$ in 2007) each way to hire a single engine plane to fly 15 minutes to Corumbau. Alternatively, an off-road adventure vehicle could transport a guest in $31 / 2$ hours from Porto Seguro, through forest and across Indian lands, to Corumbau at half the amount. ${ }^{4}$

She expected most guests would opt for the air transfer. The local landing strip was located on a large estate belonging to the same person who owned the parcel she was negotiating to buy. A native of Rio, the old gentlemen was widely known as an extremely wealthy and reputable business man. As a courtesy to all who lived nearby, he made the landing strip available to whoever wanted to use it at a small cost of $\mathrm{R} \$ 350$, which he donated to the community. ${ }^{5}$

### 2.02 Acquisition

The proposed land acquisition was uncomplicated. The seller may have been respected and charitable, but he was non-negotiable on the price of $\mathrm{R} \$ 940,000$. The price seemed fair enough - in Euros, really a pittance- but it would have made her feel better to negotiate a little. He was, however, willing to accept payment for the land in installments with no interest. She planned to propose four installment payments at six month intervals: the first two in the amount of $\mathrm{R} \$ 250,000$ each; the second two at $\mathrm{R} \$ 220,000$ each. Thus the purchase price would be paid over twenty-four months. They had got along very well, and he had even talked with her about selling his other site in Corumbau, the one with his vacation home and the landing strip. He explained that he didn't go there anymore, and his kids were not interested. Thus, he was thinking of putting it on the market.

## 3 Brazil Real Estate Market

Renata had focused on a Brazilian real estate investment because: 1) international and macro-economic indicators provided a strong buy signal for the asset class in Brazil; 2) the real
estate lodging sector was about to turn a corner; 3) substantial public funds had been earmarked to support development of the sector in the Northeast and in Bahia in particular; and 3) the municipality supported her proposal. She began to build her presentation to the investors.

### 3.01 Real Estate Market International and Macroeconomic Perspective

First, the rate of exchange in March of 2003 was extremely favorable to foreigners. The Real had fallen significantly against the Dollar. Figure 3-1 below shows that in 2001 the foreign exchange rate was less than R\$2 per US\$, but by March of 2003, the Brazilian currency had fallen to $\mathrm{R} \$ 3.40$ per US\$.

Figure 3-1: Foreign Exchange Rates, Brazil - US, 2001-2003 ${ }^{6}$


At the same time, the Dollar had fallen significantly against the Euro, as shown by Figure 3-2 below.

Figure 3-2: Foreign Exchange Rates, USD - Euro, 2001-2003 ${ }^{7}$


The combination of the Real fall against the Dollar, and the Dollar fall against the Euro, meant that Brazilian assets were extremely cheap for Europeans.

Importantly, the factors motivating the Real's decline were rapidly evaporating, which suggested that the window of opportunity for foreigners to buy Brazilian assets cheap could soon close. The factors motivating the Real's decline were mainly political, as follows:

In late 2002, the value of the Real fell in anticipation the Worker's Party candidate Lula’s presidential election victory. His impending triumph in the polls caused financial experts to predict disaster, eroding investor confidence and causing the Brazilian C-bond to fall by about $60 \%$. Figure 3-1 above also shows the risk premium suddenly attached to the C-bond at the time of the election in October 2002. In response to the adverse forecasts, foreign investment in Brazil contracted, and the Brazilian currency collapsed against the dollar prompting analysts to predict that Brazil would default on its foreign and domestic debt, much of which was indexed to the dollar. According to these theories, Brazil would follow Argentina into bankruptcy. Adding to the panic was the tone of pronouncements of Washington-based conservatives that Lula the Leftist was part of a new "axis of evil" with Castro in Cuba and Hugo Chavez in Venezuela, and had nuclear bombs and missile delivery systems that could reach Florida. ${ }^{8}$

Lula, the so-called "leftist", appointed such radicals as Henrique Meirelles, the former President of Global Banking at FleetBoston Financial, as President of the Central Bank. Lula, the "Marxist", who would certainly repudiate or default on the stringent IMF budget surplus requirements, instead exceeded them and increased the budget surplus from 3.5\% to 4.6\%. Lula, the inexperienced bumpkin who had never held office, demonstrated remarkable skill in building coalitions necessary to govern. ${ }^{9}$

By 2003, as the financial experts' complete misappraisal of political events became embarrassingly clear, and the Real began to look undervalued, investors remained cautious, and changed opinions only slowly. Renata recognized that during the slow shift back to currency equilibrium, there was an opportunity to take advantage of the exceptional currency relationship that made Brazilian real estate assets cheap to Europeans.

Second, historically, real estate values and activity in Brazil and elsewhere in Latin America were very closely tied to the level of foreign direct investment (FDI) ${ }^{10}$. In 2000 such investments were US $\$ 30.81$ billion. In 2002 they fell to US $\$ 16.57$ billion in connection with the political events mentioned above. ${ }^{11}$ Further, much of the 2002 number involved no new capital infusions, but rather the conversion of debt owed to foreign companies into equity. ${ }^{12}$ The outlook for FDI was equally pessimistic in $2003^{13}$. Again, Renata sensed the opportunity to invest before real estate activity and real estate values (in Brazilian currency) rose in connection with a resumption of FDI to pre-election levels.

Nowhere was this truer than in the real estate lodging sector. FDI in that sector had been stalled for over a year. In 2002, the large international hotel chains had sat on the sidelines while the Brazilian hotel industry experienced its lowest occupancy rates in a decade. By 2003, however, the international hotel chains were beginning to prospect for sites to buy. Portuguese companies such as Pestana, Vila Gale and Espirito Santo were especially active in the Northeast coastal region ${ }^{14}$. Activity among British hotel companies was also noted. Renata wanted to get her investors into the market before increased FDI in the sector exerted pressure on land prices.

Third, Renata thought that lower interest rates could soon become a reality, and began to consider what would happen to real estate values if interest rates fell in Brazil. She did not believe that the Brazilian real estate sector would follow exactly the pattern exhibited in the United States where lower interest rates helped fuel an explosion of real estate values. In the United States, financing was a key factor: investors were able to buy at ever lower cap rates, but leverage their equity returns with even lower mortgage interest rates. Brazil, where commercial real estate financing did not play a major role, would not follow the U.S. example perfectly. Nevertheless, a decline in interest rates would lower investor expectations of return in all asset classes, including that of real estate, and thereby raise their values ${ }^{15}$.

As to the likelihood of lower interest rates, there were some signs of stability already emerging, even though rates remained high. It was clear that the Central Bank's five consecutive increases in the Selic rate had won expectations of lower inflation as shown by the falling inflation ( IPCA) projections in Figure 3-3. The Central Bank decided to keep the Selic rate unchanged at $25 \%$ at its March meeting. Selic rate reductions in the near future were not out of the question ${ }^{16}$. Renata wanted her group to be in the market before expectations of a lower interest rate became widespread.

Figure 3-3: Monetary Policy vs. Inflation, Nov 2001- Feb $2003{ }^{17}$


Fourth, she began to consider how Brazilian economic growth might affect real estate. Here there were two separate but related issues to consider: first the effect on real estate value; second the effect on the operations of a lodging business. The latter would, of course, influence the former.

She thought the effect of economic growth on real estate value would be positive. The silver lining to a falling currency is cheaper exports. As shown by Figure 3-4 below, Brazil's trade balance already demonstrated a move into positive territory for the first time in approximately seven years.

Figure 3-4: Brazil's Trade Balance, 1980-2003 ${ }^{18}$


In a world where growth meant export-led growth, a positive balance of trade was very important. A positive balance of trade normally resulted in greater foreign reserves, which would be reassuring to currency markets, thereby helping to stabilize the exchange rate, and improve the Country's risk ratings, which would encourage greater FDI, and lower interest rates. All three, as noted previously would be positive for real estate value.

The effect of domestic growth on the operations of her proposed high-end resort was somewhat more difficult to foresee. One could argue that a stronger currency would discourage
foreigners from travel to Brazil, but if the currency merely returned to its pre-election equilibrium level, vacations in Brazil would still look like a good deal to Europeans and Americans, as they did in 2001. In a worst case scenario, she could, as the Brazilian currency strengthened, reduce room-night rates commensurately to provide a constant rate in Euros. Domestic growth would also affect the domestic tourist market. For example, the stronger currency could encourage more Brazilians to go abroad for vacation. On the other hand, growth, depending on how shared, could enlarge the number of Brazilians who could afford high-end lodging such as she proposed to build. In the overall, it did not appear as though currency strengthening, at least to pre-election levels of about R\$1.9 to US\$, would threaten the operating cash flow of the property.

In sum, international and macro-economic factors including the foreign exchange rate, the volume of FDI, interest rates, prospects for economic growth, and recent political events, were strongly positive for Brazilian real estate investment, especially on the part of European investors.

### 3.02 Lodging Real Estate Market - International and Macro-economic Perspective

Supply in the Brazilian lodging market is divided among six categories: Simple, Economical, Tourist, Superior, Luxury and Super Luxury ${ }^{19}$. It was evident from the Guia Quatro Rodas, the principal hotel guide of Brazil, that most of the lodging was of Tourist grade or below ${ }^{20}$. Qualification for the two Luxury categories depended on quantifying amenities, not on evaluating the atmosphere and experience delivered ${ }^{21}$. With a few notable exceptions, the luxury hotels in Brazil were operated by large chains that evidenced little interest in charm.

The Brazilian lodging market, however, was not dominated by hotel chains. In fact, of the 5,509 Hotels and Condo-Hotels in the country at that time, only 272 were operated by international chains, and 312 by national chains. The balance of 4,925 hotels, or $89.4 \%$ of the supply was independently operated. Of the 289,476 total rooms in Brazil, 202,600 of them, or $70 \%$, were independently owned and operated ${ }^{22}$.

Among the independently operated inns were a few offerings of exceptional quality and atmosphere such as Rosa dos Ventos in Teresopolis in Rio de Janeiro; or Solar N.S. do Rosario in Ouro Preto, Minas Gerais. Inns such as these were located in the Southeast of Brazil, in vacation areas accessible from Sao Paulo or Rio, or in the historic colonial towns of Minas Gerais ${ }^{23}$. No such offerings were located along the Northeast coast of Brazil, which was quickly becoming the principal resort market and leisure destination of the country. Accordingly, the Corumbau Lodge was anticipated to fill a market vacancy.

In fact, Renata had searched, without luck, for inns of comfort and quality to overnight during her extensive searches of the whole Brazilian Northeast coast. She was sure others would be as inclined as she to stay in such places, though she had no statistical evidence to show this. What she had was evidence that foreign tourism was on the rise, and expected to grow rapidly.

The table below shows an overall pattern of growth. From 1990 to 2000, the number of foreign tourists multiplied by a factor of nearly five.

Figure 3-5: Foreign Tourists Entering Brazil - 1970/2002 ${ }^{24}$

| Year | Tourists | Year | Tourists | Year | Tourists | Year | Tourists | Year | Tourists |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1970 | 249.900 | 1977 | 634.595 | 1984 | 1.595 .726 | 1991 | 1.228 .178 | 1998 | 4.818 .084 |
| 1971 | 287.926 | 1978 | 784.316 | 1985 | 1.735 .982 | 1992 | 1.692 .078 | 1999 | 5.107 .169 |
| 1972 | 342.961 | 1979 | 1.081 .799 | 1986 | 1.934 .091 | 1993 | 1.641 .138 | 2000 | 5.313 .463 |
| 1973 | 399.127 | 1980 | 1.625 .422 | 1987 | 1.929 .053 | 1994 | 1.853 .301 | 2001 | 4.772 .575 |
| 1974 | 480.267 | 1981 | 1.357 .879 | 1988 | 1.742 .939 | 1995 | 1.991 .416 | 2002 | $3,800,000$ |
| 1975 | 517.967 | 1982 | 1.146 .681 | 1989 | 1.402 .897 | 1996 | 2.665 .508 |  |  |
| 1976 | 555.967 | 1983 | 1.420 .481 | 1990 | 1.091 .067 | 1997 | 2.849 .750 |  |  |

The table also shows a decline in the number of foreign tourists entering Brazil from 2000 to 2002. It was generally understood that the pull back was temporary, and due to a significant drop in the number of Argentine tourists in response to their own economic woes that began in $2000^{25}$. As indicated below in Figure 3-6, Brazil received more than 1,700,000 tourists from Argentina in 2000, the largest group among foreigners that year ${ }^{26}$. By 2002, the number had dropped to a little over 700,000.

Figure 3-6: Arrivals in Brazil by Main Countries of Origin


The fall in Argentine tourism had a greater impact on tourism markets in the South of Brazil than in those in the Northeast ${ }^{27}$. By 2003, Argentine tourism was rising slowly. Tourism from the United States retracted in response to the events of September 11, 2001, but returned to 2000 volume by 2003 .

Renata was confident that foreign tourist demand would resume its climb in the shortterm. In particular, the excellent exchange rate, the proximity of Europe to the Northeast coast of Brazil, and an historic growth trend among European visitors, suggested to her that Europeans would have an increasing presence in Brazilian travel. Certainly there would be demand among Europeans for a tropical model that could provide the grace and comfort for which Europe was known.

It was encouraging as well that exit surveys showed that visitors to Brazil enjoyed themselves. In fact many voted with their feet. In 2002, $65 \%$ of the foreign visitors to Brazil were repeat visitors ${ }^{28}$.

International tourist demand was also expected to rise over time responding to a new government initiative. In 2003, the government of Brazil created the Ministry of Tourism and National Plan of Tourism (PNT) which was expected to animate the hotel sector. EMBRATUR, the special agency connected to the Ministry, was charged with promotion of sustainable tourism development in municipalities with visible tourism potential, by increasing foreign tourist flows. In creating the Ministry, the government recognized the importance of the sector to the Brazilian economy ${ }^{29}$.

Foreign visitors to Brazil, while an important component of hotel demand, were a relatively small fraction of all hotel guests. In 2003, $24 \%$ of hotel guests were foreigners, and $76 \%$ were Brazilians. In resorts, the results were further skewed with Brazilians composing more than $82 \%$ of the demand ${ }^{30}$. She suspected that these figures varied significantly with room rate, but did not have statistics to support this.

However, she did have a breakdown of foreign and Brazilian guests in city hotels by rate. In hotels charging $\mathrm{R} \$ 90$ daily or less, Brazilians were $90.1 \%$ of the market. In those charging between $\mathrm{R} \$ 190$ and $\mathrm{R} \$ 90$, Brazilians represented $73.9 \%$ of the market. In hotels with rates over R\$ 190, Brazilians comprised only $44 \%$ of the market ${ }^{31}$.

Renata wondered how she could better predict the percentage of international and domestic demand for her resort. She knew from the above data that higher price tended to concentrate the foreign component of demand. She also knew that her mini-resort would appeal mainly to leisure guests (market segmentation is further discussed in section 4.05 herein), and that in 2002, $55.21 \%$ of foreign tourists came for leisure, $28.28 \%$ came for business, and the remainder for a variety of reasons ${ }^{32}$. She felt that there should be some way of getting a handle on the profile of her customers.

### 3.03 Lodging Real Estate Market - Regional, State and Municipal Perspective

The coastline of Brazil is divided into four regions: 1) The North or Amazonian Coast is comprised of the coastlines of two states: Amapa (AP) and Para (PA); 2)The Northeast Coast, which encompasses the coastlines of nine states: Maranhao (MA), Piaui (PI), Ceara (CE), Rio Grande do Norte (RN), Paraiba (PB), Pernambuco (PE), Alagoas (AL), Sergipe (SE), and the relatively long coast of Bahia (BA); 3) The Southeastern Coast includes the coastlines of three states: Espirito Santo (ES), Rio de Janeiro (RJ) and Sao Paulo (SP); 4) The Southern coast is the
 coastlines of three states: Parana (PR), Santa Catarina (SC), and Rio Grande do Sul (RS). The map to the side shows all regions of the country in different tones ${ }^{33}$. Only the coastal states are listed above.

Figure 3-7: Map of Brazil
The Northeast coast has particularly beautiful and varied beaches (See Figure 3-10). The air and water temperature are warm all year, especially so during the European and American winter. In the more northerly of the states in this region, rainfall tends to concentrate during the European and American spring. Moving south in the region, the rainfall differences between seasons are less pronounced.


Figure 3-8: Map of Northeast Coast.

Within the region landscapes are very different. The contrast, for example between the desert-like landscapes of giant dunes in Ceara and Rio Grande do Norte, and the lush tropical landscapes of Bahia, are striking ${ }^{34}$. Aside from the major cities of the Northeast coast, there were some areas already in development for tourism, especially in Bahia and Pernambuco. Much of the coast was undeveloped, attractive, and inexpensive. Prices tended to be greater with faster and easier access to major airports ${ }^{35}$. Average income was lower in the Northeastern states than in those of the Southeast ${ }^{36}$.

In the early 1990's, the Northeast coast of Brazil had begun to establish itself as a tourist destination ${ }^{37}$. Its size alone presented an opportunity far greater than most tourist destinations around the world. The target domestic markets for the Northeast were the middle and upper classes, which were mainly located in the Southeast region, predominantly in Sao Paulo and Rio de Janeiro ${ }^{38}$. The Southeast already had several well established tourist destinations such as Buzios and Angra dos Reis. Accordingly, in 2003, the major impediments to developing the Northeast for tourism, both domestic and foreign, were accessibility and infra-structure ${ }^{39}$. A close third was the need for trained hotel personnel. The state of Bahia took the lead in facing these obstacles ${ }^{40}$.


Figure 3-9: Location of Bahia in Brazil

Bahia had many advantages for a prime tourist market, including a perfect climate, sections of rainforest along its 1000 kilometers of coast, beautiful beaches, rivers, waterfalls, mountains, an improving transportation infrastructure and a variety of accessible leisure options. Furthermore, it had a rich colonial history dating back to the discovery of Brazil by a caravan of Portuguese mariners in 1500 off the coast of Bahia. In fact, it was Mount Pascoal, located in Corumbau, which captured the discoverers' attention, and resulted in their claiming the land for the throne of Portugal. The Portuguese colonists made Salvador the capital of the colony ${ }^{41}$. Evidence of the early colonization of this area is found in its enduring, rich architectural heritage dating to the early 1500 's.

Bahia also had stronger African roots than did any other location in the Americas ${ }^{42}$. African cultures and religions were preserved over hundreds of years by incorporating, and being incorporated by, European and Native American influences. The exotic Afro-Brazilian mixture of races, religions, language, music, folklore, dance, clothing, art and sculpture is the hallmark of Bahian culture. Most distinctive of all is the cuisine: savory mixtures of multi-cultural ingredients and techniques made Bahian food alone motivation to visit ${ }^{43}$.

Recognizing the potential of its natural resources and native culture, the government of Bahia implemented a program of planned development beginning with an investment to improve living conditions for its own people. Starting in 1991, Federal development funds for the Northeast, known as Produteur I and II, were used first to improve basic sanitation, public health, electric energy, environmental projects, and then for airports, historic renovation, highways, and education. Funds were also used to create schools of tourism and hotel training, establish tourism research institutes, create an Institute of Hospitality, establish the Forum on Advanced Studies in Tourism (FEAT), reform the famed Pelourinho district of Salvador - one of its big cultural attractions, build convention centers in Porto Seguro and Ilheus, expand the facility in Salvador, establish a cultural program and calendar, conduct marketing campaigns inside Brazil and at fairs
and workshops in foreign countries, and renovate and enlarge theaters and other cultural infrastructure. By 2000, Bahia had invested $\$ 1.5$ billion in such projects ${ }^{44}$.

As a result, the government of Bahia attracted hotel groups such as Accor, Marriott, Sol Meliá, ClubMed, Pestana, SuperClubs, Kempinsky, Vila Galé, Iberostar, Reta Atlântico, Orissio, among others, to do business within the state. Between 1991 and 2001 it grew tourism in the State from 1.9 million annually to 4.3 million, an increase of $117.5 \%{ }^{45}$.

The government intended to invest an additional $\$ 805$ million in Produteur funds between 2001 and 2005. Then, between 2005 and 2012, it planned to invest another $\$ 4.5$ billion towards a goal of becoming the best tropical destination in the world. In 2002, it won the award for best tourist destination in South America at the World Travel Awards ${ }^{46}$.

As part of its plan, Bahia established tourist zones along the coast of the state, each with a distinctive personality and its own set of ecological, sports and cultural attractions. By 2003, some of the Tourist areas such as Porto Seguro on the Discovery Coast, or Praia do Forte on the Coconut Coast, were well established tourist markets. Now in its second phase of Produteur, the Bahian government hoped to stimulate a surge in tourism by promoting less well-known locations, including, most significantly for Renata, the Whale Coast municipality of Prado in which Corumbau was located ${ }^{47}$.


Figure 3-10: Map of Bahia Tourist Areas

### 3.04 Market Conclusions - 2003

All this sounded pretty good to Renata Oliveira. At the national level, Brazilian real estate looked promising, especially to foreigners who could make a double play: first by real estate appreciation in Brazilian currency; second by Brazilian currency appreciation in Euros.

At the regional level, the Northeast of the Country provided an opportunity to enter a lodging and tourism real estate market with huge potential because of the Region's size and natural attributes, at the early stages of its growth. She speculated that with enough infrastructure
development and private investment, the Northeast could become for Europe, what the beaches of Mexico had become for the United States.

At the State level, Bahia would make a priority of developing her proposed Whale Coast location. It was committed to protecting the environment, raising hotel quality, promoting economic sustainability, providing for the local population, building a tourism culture, and training a hotel service workforce. She could not have written a more suitable policy herself. At the municipal level, she was also impressed. The municipal leaders had taken the time to become acquainted with her and her proposal. The Mayor and the Secretary of Tourism in the government of Prado were young, smart and ambitious. They would be fully supportive of her investment. The Secretary of Tourism also owned a travel agency, and was eager to book her customers!

Now all she had to do was the numbers.

## 4 Feasibility

The objective of the Financial Analysis would be to calculate the rate of return to her investors and ascertain whether it fairly compensates them for the risk. Initially that meant finding the ex ante internal rate of return for the investment using Discounted Cash Flow Analysis. Following that she would use Sensitivity Analysis to project the volatility in the ex ante return. The DCF analysis would have several simplifying assumptions:

First, it would assume an instantaneous cash outlay for land acquisition and construction at Time Zero, i.e., at the start of Year 1. She knew that this was an unrealistic assumption, but until she had more information about the timing of installment purchase payments and construction outlays, she wanted to keep it simple.

Second, it would assume a ten-year investment period with a sale at the end of Year 10. The sales price would be calculated by applying a $12 \%$ capitalization rate to the projected Year 11 NOI. Naturally she hoped that cap rates would come down in Brazil, but she wanted to be conservative for this projection.

Third, it would assume the buyer to be a Brazilian corporation. The cash flow projection would therefore have to recognize all taxes payable by the corporation incurred in operating, or upon the sale of, the property. From the perspective of the property owner, though not necessarily that of the investors, this was to be an After-Tax Discounted Cash Flow Analysis.

### 4.01 Room Revenue, Occupancy Rate, Room-Nights, RevPAR, and ADR

Hotel revenues, she had learned, were composed of Room Revenue and Non-room Revenue. Since the latter was a function of the former, she would work first on Room Revenue. The hotel industry used a term called RevPAR or Revenue per available room which was simply the hotel's average daily revenue divided by the total number of rooms in the hotel ${ }^{48}$.

RevPAR could also be defined as the hotel's Occupancy Rate multiplied by its ADR or Average Daily Rate. The Average Daily Rate was the average rate actually charged for an occupied room. It could be determined in several ways, one of which was to divide daily room revenue by the number of rooms occupied that day, and take the average for the period in question. Occupancy Rate was the rate of occupancy expressed as a percentage. Technically it was the number of Room-Nights the hotel was occupied by paying guests, divided by the product of total number of rooms multiplied by the number of nights in the period ${ }^{49}$.

She wrote down the following relationships to keep everything straight:
Total Number of Rooms
x
Number of Nights in Period
$=$
Number of Room-Nights
Total Number of Occupied Room-Nights in Period
$\div$
Total Number of Room-Nights in Period
$=$
Occupancy Rate
x
ADR
RevPAR
x
Number of Rooms
$=$
xaily Room Revenue
xays in Period
$=$

Clearly, the key to estimating Room Revenue for a proposed hotel was to correctly forecast its Occupancy rate and ADR. To find out how this was done in Brazil, she obtained several market and feasibility analyses prepared by some of the top hotel consultants in the Country.

### 4.02 Competitive Set Profile

The studies that she looked at began by identifying a set of hotels believed to be competitive with the proposed hotel. The Occupancy rate and ADR of each competitor was shown, and that information was used to calculate each hotel's Production Index and Market Penetration as shown in the following example of a 2-hotel competitive set:

|  | $\begin{aligned} & \stackrel{1}{O} \\ & \text { \# } \end{aligned}$ |  | FAIR MARKET SHARE | $\begin{aligned} & \text { y } \\ & 0 \\ & \text { U } \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  | $$ | $\frac{\sim}{1}$ |  |  | $\underset{\substack{\text { n }}}{\substack{4\\}}$ | $\begin{aligned} & x \\ & \text { ry } \\ & \hat{1} \\ & \vdots \\ & z \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 433 | 158,045 | . 70 | . 84 | 132,757 | . 71 | 1.014 | 250 | 33,189,250 | . 65 | 210 | . 9286 |
| B | 190 | 69,350 | . 30 | . 80 | 55,480 | . 29 | . 9667 | 330 | 18,308,400 | . 35 | 264 | 1.167 |
| TOTL | 623 | 227,395 | 1.0 | . 83 | 188,237 | 1.0 |  |  | 51,497,650 |  |  |  |

- Fair Market Share = Room Nights for Hotel/Total Rm-Nights for Hotels in Set
- Actual Market Share = Occupied Room Nights for Hotel/Total Occupied Rm-Nights for Hotels in set.
- Market Penetration = Actual Market Share/Fair Market Share
- Production Index $=$ Hotel $\%$ of Total Revenues/Fair Market Share If all hotels were equally competitive, then each hotel's Fair Market Share would on average equal its Actual Market Share. In reality, some hotels captured more or less of the market than implied by the simple relationship between their room stock and the total market room stock. The degree to which a hotel captured more or less than its Fair Market Share was
expressed in the Market Penetration. For example, if a hotel had a Market Penetration of 1.24, then it captured $24 \%$ more of the market than implied by the percentage its stock of rooms represented in the market as a whole ${ }^{50}$.

Market Penetration was one measure of a hotel's competitive position. It was incomplete, however, because it considered Occupancy alone, without considering the room rate. Understandably, a hotel with high Occupancy may have low room rates, and visa versa. A second measure of a hotel's competitive position, Production Index, takes both Occupancy and ADR into account. It compares the percentage of the total room revenues for the entire market that a particular hotel captures, with the percentage it should capture based on its share of the total rooms in the market ${ }^{51}$.

These two measures, Market Penetration and the Production Index, gave the experts an important feel for the competitive position of each hotel in the set. Renata was eager to make these calculations for a set of hotels competitive to the mini resort that she proposed. But first, she would need data.

### 4.03 Data

Clearly data was a critical element in the process. Without Occupancy Rate and ADR information for the competitive set of hotels, there was no way to begin the feasibility analysis. That, thought Renata, is where her persistence paid big dividends. Renata Oliveira did not stop at the twenty phone calls to resorts, hotels and pousadas. She plugged away until she struck gold in the middle of a lecture on Planning and Developing of Hotels, part of the curriculum for the Real Estate MBA program at the University of Sao Paulo College of Architecture and Urbanism.

The speaker was a guest lecturer named Carlos Abreu, an expert in Brazil's hotel industry. In response to a question, it became apparent that Carlos had assembled a great deal of data in his years of practice. One lunch later, and Renata held in her hand spreadsheets showing daily Occupancy Rates for nineteen resorts and seven pousadas during the period beginning

October 2001 through September 2002. The hotels and pousadas selected were not a perfect match for the specialty resort she envisioned in Corumbau. But, with a little trimming, it would be hard to find a significantly better competitive set.

As Carlos had explained to her, the competitors in a competitive set need not be located in the same local geographic area. Hotels are competitors if they compete for the same demand pool. Competitors may be identified by looking at the hotel image, class, i.e., number of stars, and facilities, and comparing these to the subject hotel ${ }^{52}$.

The Spreadsheets with daily occupancy data are attached as Exhibits 1-24. Renata added a new worksheet that summarized a full year of activity of the 19 resorts, showing their monthly and annual averages.

Renata took a critical look at the hotels in the competitive set. Based on information from each hotel's website, and information in her Brazil travel information guide, Guia Quatro Rodas 2002, she eliminated Carlton, Sofitel Quatro Rodas, Othon Place, Transamerica Salvador, Caesar Towers, Bahia Fiesta and Salvador Praia, which were urban vertical hotels, and didn't belong in the competitive set. Then, using the format shown for Market Penetration and Production Index (See Section 4.05 for current ADR), she made the preliminary calculations for the eleven remaining resorts, and copied them to Power Point slides for her investor presentation the next day. To be truthful, however, she was not sure how these calculations would help her forecast the Occupancy Rate for the proposed resort.

### 4.04 Average Occupancy Rate for the Competitive Set

The next step, according to the professional feasibility studies, was to calculate the Average Occupancy Rate for the competitive set, and to project that rate going forward. The studies that she examined reflected anticipated demand growth. Supply was increased too, but only by the stock of Room-Nights supplied by the hotel under study beginning in the year it was expected to open.

In the example below, there is a stock of 159,505 Room-Nights, and therefore 437 rooms in the competitive set which is unrelated to the competitive set identified above. The total occupied Room-Nights for the competitive set is 95,707 . Thus the Occupancy Rate for the set is, on average, $60 \%$. In the example, demand for rooms is expected to grow by $5 \%$ annually, thereby increasing the occupied Room-Nights in each year. In 2009, the 120 room hotel under study is expected to open, adding 43,800 Room-Nights to the total stock reducing average Occupancy Rate to 52\%.

Figure 4-1: Average Occupancy Rate ${ }^{53}$

| RATE OF GROWTH | 5\% |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | 2.007 | 2.008 | 2.009 | 2.010 | 2.011 | 2.012 | 2.013 | 2.014 | 2.015 |
| Previous supply | 159.505 | 159.505 | 159.505 | 203.305 | 203.305 | 203.305 | 203.305 | 203.305 | 203.305 |
| Additions |  |  | 43.800 |  |  |  |  |  |  |
| Current Supply | 159.505 | 159.505 | 203.305 | 203.305 | 203.305 | 203.305 | 203.305 | 203.305 | 203.305 |
| Projected Demand | 95.707 | 100.492 | 105.516 | 110.792 | 116.332 | 122.149 | 128.256 | 134.669 | 141.402 |
| Average Occupancy Rate | 60\% | 63\% | 52\% | 54\% | 57\% | 60\% | 63\% | 66\% | 70\% |

The problem with this approach, as Renata Oliveira saw it, was that it grew demand, but ignored growth in supply from sources other than the subject hotel. The rationale for ignoring supply growth was that the new supply volume was difficult to predict. While that was, no doubt, true, it did not seem to follow that the volume of new supply should be set at zero.

Even more troubling was the subsequent step forecasting Occupancy Rate. It relied completely on the experience and intuition of the analyst. The estimate took into account the average Occupancy Rate for the competitive set as calculated in the example above. It also considered the Market Penetration and Productive Index of the various hotels in the competitive set. These parameters for the competing hotels, and the analyst's impression of the relative appeal of the new hotel, together with numerous other factors, were used to estimate the Occupancy Rate for the proposed hotel. But, as far as Renata could tell, there was no method
exactly to the forecast. The approach, she thought, may work for analysts with considerable years of experience in the market under study, but it was not a technique that she as a newcomer and an outsider could apply. So, for the time being, she set this approach to the side and contemplated a different approach.

### 4.05 Occupancy Rate Forecast for Proposed Hotel

While she understood that there was no scientific way to forecast the Occupancy Rate, she sought a technique that would break the estimating process into smaller steps, perhaps letting her develop expectations for the proposed hotel's Occupancy, by measuring its projected drawing power in specific dimensions and comparing its dimension-specific drawing power with that of its competitors.

In fact, Renata had discovered an approach for doing just that. By fusing the methods used in the professional feasibility analyses of lodging real estate in Brazil, with concepts borrowed from a well-known hotel text from the United States, one that had been recommended by a hotel consultant in Sao Paulo, Renata had built a model for this part of the feasibility analysis. She pulled out her notes and began to work through each step of the calculation.

## Step 1: Calculate the Competitive Index for each Hotel in the Competitive Set

This method for forecasting occupancy in a proposed hotel assigned each property in the Competitive Set a Competitive Index. She made the following note:
$\square$

On a spreadsheet she calculated the Competitive Index for each resort.

## Step Two: Apportion Each Property's Competitive Index by Market Segment

Market segmentation in Brazil considered five sources of demand: Business, Events, Individual Tourism (leisure), Group Tourism (leisure) and Airlines ${ }^{55}$. The market segments were characterized as follows:

Business - This market selects hotels on the basis of proximity to local work. Customers tend to be loyal rather than experimental, if they are satisfied. But they are motivated by price. It is common practice to offer corporate discounts of approximately $20 \%$ of the counter rate. The clientele demands guaranteed reservations because they normally check in late. They spend in the hotel an average $30 \%$ to $35 \%$ of the daily rate in other services. Highest demand is during weekdays ${ }^{56}$.

Events - This market is similar to the business market. The main differences are that the flow is irregular, and the market is more sensitive to price. Discounts tend to run around $30 \%$. Customers spend in the range of up to $50 \%$ of the room rate on extra services. Events take place inside the hotel and the hotel must generally be built or adapted to the dimensional needs of common and service areas to accommodate the events. The strongest demand is again during weekdays ${ }^{57}$.

Airlines - This is the market for providing lay-over accommodations for airline companies. It generally depends on advance arrangements with the airline companies, which depends on distance from the airports. Discounts are between $25 \%$ and $30 \%{ }^{58}$.

Individual Tourism - The market tends to be less price-sensitive than either the business or events markets. It favors weekends, but occupancy has less of a distinct pattern than does the business market. Clients spend about $30 \%$ of room rate on extras. Customers make reservations themselves, or through a travel agency, which will reduce the effective rate ${ }^{59}$.

Group Tourism - This segment is extremely sensitive to price and spends little on extras. Discounts run about 50\%. Groups are drawn to locations with significant tourist attractions. Demand is concentrated over holiday periods and on weekends. This segment can conflict with the business segment ${ }^{60}$.

For simplicity she reduced the number of segments to three by moving Airlines into Business, and combining Individual and Group Tourism as Leisure. The Room-Night demand in each hotel of the competitive set had to be allocated among the different market segments. This could be done by carefully examining the occupancy patterns at each hotel on a daily basis for the entire year, by asking people familiar with the occupancy of the hotels in question, by studying the physical amenities of each hotel (for example if they did not have a seminar room, then they probably did not generate a lot of Event occupancy) and by a combination of the above techniques.

She had already spoken with a hotel consultant about the segmentation of demand at each hotel, and had looked-up the physical amenities for each hotel, which were listed in the Guia Quattro Rodas, and often on the hotel's website. She took a moment to review the daily Occupancy Rate at each hotel as given by Exhibits 1 - 12. In particular she looked for seasonal fluctuation and weekly fluctuation in the numbers. For example, a hotel that emptied out on weekends, but was full during the week, probably derived a substantial portion of its occupancy from business. Such an occupancy profile was typical, for example, of hotels in Sao Paulo. The months of June and August were typically the weakest months in the Northeast for leisure demand. A leisure hotel that could maintain an Occupancy Rate of $40 \%-50 \%$ of its December/January demand during these months, could probably generate guests from Business or Event segments. By contrast, December, January and February were the months of greatest demand from the leisure segments, with a particular spike for a ten-day period following Christmas ${ }^{61}$.

Once she had approximated the percentage of a hotel's demand by segment, it was easy to allocate its Competitive Index to each segment, by multiplying the Competitive Index by the percentage approximated. On the spreadsheet she had begun, she apportioned the Competitive Index for each resort as follows:

| HOTELS |  | $\begin{aligned} & \text { COMPETITIVE } \\ & \text { INDEX } \end{aligned}$ | \|PERCENTAGE OF HOTEL OCCUPCY DERIVED FROM SEGMENT |  |  | COMPETITIVE INDEX <br> DERIVED FROM SEGMENT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | COMMERCIAL | EVENTS | LIESURE |  |  | LIESURE |
| PRAIA DO FORTE | ECORESORT |  | 208 | 10 | 10 | 80 | 21 | 21 | 166 |
| TRANSAMÉRICA | COMANDATUBA | 177 | 15 | 25 | 60 | 27 | 44 | 106 |
| CABO DE SANTO | AGOSTINHO | 235 | 25 | 25 | 50 | 59 | 59 | 118 |
| CATUSSABA |  | 251 | 50 | 0 | 50 | 126 | 0 | 126 |
| SUPERCLUB'S | BREEZES | 209 | 10 | 25 | 65 | 21 | 52 | 136 |
| SOFITEL COSTA | SAUÍPE | 103 | 10 | 10 | 80 | 10 | 10 | 82 |
| SOFITEL SAUÍPE S | ITES | 108 | 10 | 10 | 80 | 11 | 11 | 86 |
| SUMMERVILLE | MURO ALTO | 277 | 25 | 25 | 50 | 69 | 69 | 138 |
| BLUE TREE ANGR |  | 180 | 15 | 25 | 60 | 27 | 45 | 108 |
| RENAISSANCE | SAUÍPE | 134 | 10 | 10 | 80 | 13 | 13 | 107 |
| MARRIOT SAUÍPE |  | 144 | 10 | 10 | 80 | 14 | 14 | 115 |

Figure 4-2: Competitive Index Table

## Step 3: Apportion Each Hotel's Room Night's Captured by Segment

This was just a matter of multiplying the percentage of a property's occupancy derived from a particular segment by the property's total occupied Room Nights ${ }^{62}$.

| Property | Commercial | Events | Leisure | Total |
| :---: | ---: | :--- | :--- | :--- |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| Total |  |  |  |  |

## Step 4: Decide how to distribute future demand by market segment.

She considered whether there was a reason to think future demand would be distributed differently among market segments than are current Room-Nights. Personally, she believed that leisure demand growth would outpace the other segments, but had no statistical support for the belief. She would apply the current Room-Night distribution to future demand. So, for the market as a whole, she calculated each segment's percentage of the total Occupied Room- Nights.

Step 5: Forecast the additional Room-Night demand between the present and opening the proposed property

The Starting Demand was easily calculated. Selecting a rate of demand growth required some thought. From 1990 to 2000 the Cumulative Annual Growth Rate (CAGR) of foreign tourism in the country was $16.68 \%{ }^{63}$. Embratur predicted that the number of foreign tourists to Brazil would grow to 9 million by $2010^{64}$. Based on that prediction, she calculated the CAGR between 2002 and 2010, which gave her a different number. These forecasts, however, did not include domestic tourists, who were most of the market. The analyst at the Bahiaturista offices had a more modest forecast for Bahia of about $8 \%$ per year through approximately 2010. That figure, however, was for all tourism to the State. She wondered if the hotels in the competitive
set, which were luxury hotels and therefore, she thought, more likely to attract foreigners, may do better than the State as a whole. After considerable thought she chose a CAGR for demand, but also noted a range within which demand was likely to grow. She applied the growth rate to calculate the additional Occupied Room-Nights each year through 2016. She expected the proposed hotel to be in operation not later than June 2006. From the chart she could easily calculate the additional demand in the market that was expected to arise by the opening.

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |
| Start <br> Demand |  |  |  |  |  |  |  |  |  |  |
| Additional <br> Demand |  |  |  |  |  |  |  |  |  |  |
| End <br> Demand |  |  |  |  |  |  |  |  |  |  |

## Step 6: Distribute the Additional Demand by Segment

Here she went back to the spreadsheet prepared in step 3, and added rows for the Additional Demand and the new total demand as of 2006. The Total Cell for Additional Demand was just the added demand between 2002 and 2006 calculated in Step 5. To distribute the Additional Demand by segment was just a matter of multiplying the percentages for each segment calculated in step 4 by the Total Added Demand.

| Property | Commercial | Events | Leisure | Total |
| :--- | :--- | :--- | :--- | :--- |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| Total |  |  |  |  |
| Added Demand |  |  |  |  |
| Total (2006) |  |  |  |  |

## Step 7: Assign a Competitive Index to each Segment of the Proposed Hotel ${ }^{65}$

Renata made an objective assessment of the proposed mini-resort's drawing power in each market segment by comparison with the drawing power of the other hotels. Would it be more like Hotel A with regard to Commercial and Hotel B with regard to Events?

She took the following into consideration: First, with only nine bungalows, she would not be hosting events. Second, based on her distance from any companies, it was very unlikely that the hotel would experience commercial demand.

That left only the Leisure Segment. The highest Competitive Index in this segment belonged to Praia do Forte Eco-resort (PDER). PDER was located one hour by car on paved highways from the Salvador International Airport. The town of Praia do Forte was a popular resort destination. PDER was the leader in Eco-tourism in the Country, and enjoyed an excellent reputation in Europe as well as in Brazil for its service and find cuisine ${ }^{66}$. Renata could compete on the basis of food, service, accommodations and ambience, but she knew that accessibility and
destination counted for a lot. Corumbau was not a known destination in or outside Brazil, and it was hard to get to ${ }^{67}$.

Summerville in Muro Alto was next on the list with a Competitive Index of 138. Muro Alto was part of the Porto de Galinhas resort area, a major tourist destination for both Europeans and South Americans ${ }^{68}$. It too was accessible by car from the Recife International Airport in Pernambuco ${ }^{69}$.

Next was Transamerica Commandatuba with its 362 rooms, multiple amenities including a spa and a golf course, and huge annual marketing budget. It too was more accessible than was Corumbau.

After carefully reviewing the entire list, she made a conservative assignment of competitive index for each segment of the Corumbau Lodge.

Step 8: Forecast the additional Supply of Room-Nights expected to enter the market by June 2006 (including the proposed property) and thereafter until 2016

Based on conversations with the Secretary of Tourism's office in Bahia, and with three private hotel consultants who knew the supply pipeline intimately, including which proposals had financing, Renata anticipated a supply CAGR in the Competitive Set of around $10 \%$. Using this forecast, she calculated the additions to stock and end stock each year through 2016. There were no Removals anticipated because the hotels in the Competitive Set were relatively new.

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |
| Start <br> Stock |  |  |  |  |  |  |  |  |  |  |
| Additions |  |  |  |  |  |  |  |  |  |  |
| Removals |  |  |  |  |  |  |  |  |  |  |
| End |  |  |  |  |  |  |  |  |  |  |
| Stock |  |  |  |  |  |  |  |  |  |  |

## Step 9: Assign a Competitive Index to each Segment of the other Hotels expected to enter the Market

Renata next made the conservative assumption that new hotels coming on line would try to match or exceed the hotel with the highest Competitive Index, the greatest Market Penetration in the Competitive Set. Thus she assigned to all other new supply that may enter the market over the period in question, the most competitive hotel's Competitive Index and its allocation across Market Segments.

Step 10: Calculate Each Property's Market Share Adjuster in each Market Segment for all Properties on line in $\mathbf{2 0 0 6}^{\mathbf{7 0}}$.

She set up a separate spreadsheet for each market segment. Note that the number of rooms in the Other Entries should be the total added supply calculated in step 8, less the added stock from the proposed hotel divided by 365 .

| COMMERCIAL | Number of | Commercial |  |  |
| :--- | :--- | :--- | :--- | :--- |
| SEGMENT | Rooms | Commercial <br> Index |  |  |
| Hotel A |  |  |  |  |
| Hotel B |  |  |  |  |
| Hotel C |  |  |  |  |
| Proposed Hotel |  |  | Total: |  |
| Other Entries |  |  |  |  |

For each property she calculated the adjuster.

Hotel's Commercial Competitive Index
X
Number of Rooms in Hotel
$=$
Commercial Segment Adjuster for the Hotel ${ }^{71}$

Then she repeated the process for each segment.

## Step 11: Find the Market Share for each property by segment.

She copied the three spreadsheets in Step 10. She labeled the empty right-most column 'Market Share', and completed the work sheets as follows:

## Commercial Segment Adjuster for the Hotel

$\div$
The Sum of the Commercial Segment Adjuster for all Hotels

$$
=
$$

Hotel's Commercial Market Share ${ }^{72}$

Step 12: Find the Room-Nights captured by each property in each segment (now including the additional Room-Night demand and additional stock)

Renata prepared a new spreadsheet of Room-Nights Captured. The Room-Nights captured in each cell will be the product of the total demand in each segment calculated in step 6 multiplied by the hotel's segment market share calculated in step 11. Total Room-Nights captured by each property is the sum of its three segments.

| Property | Commercial | Event | Leisure | Total |
| :--- | :--- | :--- | :--- | :--- |
| Property A |  |  |  |  |
| Property B |  |  |  |  |
| Property C |  |  |  |  |
| Proposed |  |  |  |  |
| Other Entries |  |  |  |  |

## Step 13: Find the Occupancy Rate of each property.

She added an Occupancy Rate column to the spreadsheet above and entered the forecasted occupancy rate for each property.

| Property | Commercial | Event | Leisure | Total | Occupancy <br> Rate |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Property A |  |  |  |  |  |
| Property B |  |  |  |  |  |
| Property C |  |  |  |  |  |
| Proposed |  |  |  |  |  |
| Other |  |  |  |  |  |
| Entries |  |  |  |  |  |

## Step 14: Project the Average Occupancy Rate for the Competitive Set for 10 years

Returning to the spreadsheets in steps 5 and 8, she determined the Average Occupancy Rate in each year.

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |
| Start <br> Demand |  |  |  |  |  |  |  |  |  |  |
| Additional <br> Demand |  |  |  |  |  |  |  |  |  |  |
| End <br> Demand |  |  |  |  |  |  |  |  |  |  |
| Average <br> Occupancy |  |  |  |  |  |  |  |  |  |  |


| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |
| Start <br> Stock |  |  |  |  |  |  |  |  |  |  |
| Additions |  |  |  |  |  |  |  |  |  |  |
| Removals |  |  |  |  |  |  |  |  |  |  |
| End |  |  |  |  |  |  |  |  |  |  |
| Stock |  |  |  |  |  |  |  |  |  |  |

## Step 15: Consider the projected Occupancy Rate for the proposed property.

She considered her forecasted Occupancy Rate for the proposed property, and wondered if it made sense given the average occupancy for the competitive set, and the features and characteristics of the proposed property. She noted that the forecasted Occupancy Rate is the stabilized rate. During the early years, she would reduce the rate to reflect the gradual increase to stabilized occupancy. At this point, she wanted to ensure that her forecast made sense given what she knew about the properties in the Competitive Set, and the property she planned to develop.

Step 16: Repeat the Process for the Pousadas.
This was easier because there was no market segmentation. The Pousadas drew only from the Leisure segment. She considered how these results affected her Occupancy projection.

## Step 17: Determine the Occupancy Rate during the Phase-in period

Renata noticed that in the Feasibility studies, proposed projects did not attain their stabilized Occupancy Rate in the first year of operation. It required time for the new hotel's image to become fixed in the consumer market. So the Occupancy Rate evolved, in these studies, over three to six years. She noted different build-up schedules from the reports.

Six Year Build-up Schedule ${ }^{73}$

| Year | \% of Stabilized Occupancy Rate |
| :--- | :--- |
| 1 | 58 |
| 2 | 67 |
| 3 | 75 |
| 4 | 83 |
| 5 | 92 |
| 6 | 100 |

Five-Year Build-up Schedule ${ }^{74}$

| Year | \% of Stabilized Occupancy Rate |
| :--- | :--- |
| 1 | 73 |
| 2 | 80 |
| 3 | 86 |
| 4 | 93 |
| 5 | 100 |

Renata knew that with only nine units she would have a very small marketing budget.
She also knew that the remote location offered little opportunity for visibility. On the other hand, by designing a product that was unique, eye-catching, responsive to the environment she felt that the resort would be written up in the better travel and life-style magazines in both Europe and Brazil. She weighed that information and wrote her own build-up schedule.

### 4.06 ADR Forecast for Proposed Hotel

| ADR January - October 2002 |  |  |
| :--- | :---: | :---: |
|  |  |  |
| Pra |  |  |
| Praia do Forte | 249 | 384,42 |
| Transamérica | 359 | 439,29 |
| Superclubs | 324 | 425,27 |
| Marriott | 256 | 262,52 |
| Renaissance | 237 | 261,82 |
| Sofitel Conv | 198 | 241,12 |
| Sofitel Suítes | 256 | 300,44 |
| Catussaba | 298 | 177,97 |
| Cabo Sto Ago | 203 | 328,10 |
| Salinas | 202 | 297,84 |
| Summerville | 319 | 419,43 |
| Blue Tree Angra | 3305 | 329,35 |
| Total |  |  |

Renata carefully reviewed the ADR for resorts in the competitive set. She noted significant differences between the Corombau accommodations that she planned to build, and those in the competitive set.

First, all nine of the Corombau accommodations would be individual chalets or bungalows, which were infinitely more desirable than the apartment-style accommodations in all the other resorts. Secondly, all nine of the Corombau accommodations were identical, so there would be no averaging down of the rate. In the other resorts had a range of prices, and the lesser quality rooms lowered the average rate.

For example, at the Praia do Forte Ecoresort, shown above at an ADR of R\$384, a superior room (far smaller and less desirable than the product she would build) double occupancy was R\$ 691 per night, and single occupancy was \$R 552 per night. Similarly, at the Mariott, shown above with an ADR of 262.52, a standard double occupancy with ocean view was R\$ 599 per night ${ }^{76}$.

All the Corombau accommodations would have ocean views. All would achieve a substantially higher quality in design, materials, spaciousness, privacy, than even the best accommodations elsewhere. There would be no averaging down because all accommodations were identical. The Corumbau guest profile suggested mainly double occupancy. The Corumbau Lodge would provide three meals each day as part of the ADR, whereas most of the others in the Competitive Set provided just breakfast and dinner ${ }^{77}$.

All her instincts told her to start with a base rate higher than R\$ 691, Praia do Forte Ecoresort's superior double occupancy rate. Nevertheless, in the interest of making a conservative forecast she began with the rate of $\$$ R691. To forecast the ADR as of a 2006 opening, she would need to increase this number for inflation by three years. She reviewed the inflation index for the recent past, and estimated future inflation at $8-10 \%$ per annum. She trended the base rate forward by $9 \%$ per annum, and rounded up to \$R900.

Figure 4-3: Brazil Inflation Table ${ }^{78}$

| Year | $\mathbf{1 9 6 9}$ | $\mathbf{1 9 7 0}$ | $\mathbf{1 9 9 0}$ | $\mathbf{1 9 9 5}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Inflation rate | Index: $\mathbf{1 9 9 0}=\mathbf{1 0 0}$ ) | 15.48 | 18.9 | 100 | 166 | 238 |

Then she remembered the surge in demand for about two months beginning late December through late February. During that period, she felt that the accommodations could command their true worth. She estimated $\$$ R1200 per night for the high season.

Finally, she wanted to think about the relationship between ADR and Occupancy Rate. She looked at the graph in Exhibit 29 which showed this relationship for the properties in the Competitive Set, and wondered to what extent her choice of room rate would affect her Occupancy Rate.

### 4.07 Room Revenue Forecast

The forecast for Occupancy Rate and ADR, provided all the information necessary to forecast annual Room Revenue.

### 4.08 Non-Room Revenue

She pulled more documents out of her carry-on, and was glad she had upgraded her seat to business class. The documents were starting to pile up. Hotel Investment Advisors distributed an annual Lodging Industry in Numbers report for Brazil that included a detailed analysis of resort income and expense. She reviewed the most recent reports, and found that, in accordance with the Uniform Systems of Accounts for Hotels published by the American Hotel and Motel Association, the major categories of Non-Room Revenue were Food, Beverage, Telephone and Other Income. Immediately she eliminated Food from the list, as she planned to include three meals each day with the Room Rate. Focusing on the remaining three items, she observed that
the average income from each of these items, as a percentage of Total Revenues, did not vary significantly from year to year. She noted the percentage for each item from the 2003 Resort Analysis.

Figure 4-4: Department Revenue as a Percent of Total Revenue Brazil Resorts $2003{ }^{79}$

| Beverage | $8.2 \%$ |
| :--- | :--- |
| Telephone | $.8 \%$ |
| Other (Laundry) | $1.8 \%$ |

Having already forecasted Room Revenues, she was able to use the above percentages to forecast Non-Room Revenue and Total Revenue.

Renata now had the information that she needed to build the income section of the Discounted Cash Flow Analysis.

### 4.09 Expenses

She returned to the HIA Lodging Industry in Numbers reports. Expenses were divided into two major sections: Departmental Expenses and Undistributed Operational Expenses. The former was composed of Room Expense, Food and Beverage Expense, Telecommunications Expense, and Other Expense. The latter contained Administrative and General Expense, Marketing and Sales Expense, Energy Expense and Property Operation and Maintenance Expense.

The undistributed general expenses could be expressed as a function of total revenue. Over a three-year period, she found the following:

Figure 4-5: Undistributed Operational Expenses as a Percent of Total Revenue ${ }^{80}$

| ADMINISTRATIVE AND GENERAL | $10-15 \%$ |
| :--- | :--- |
| MARKETING AND SALES | $6-8 \%$ |
| ENERGY | $5.5-6 \%$ |
| MAINTENANCE | $4.5-5.5 \%$ |
| TOTAL | $28-32 \%$ |

Renata felt that with a brand new facility, her maintenance expense would be below the average above. She also felt she could keep administrative and general expenses to a minimum, as she herself expected to have a significant presence at the property during the first years of operation. In sum, she thought that her undistributed expenses would fall at the low end of the range.

The distributed expenses were really dependent on the corresponding department revenue. In other words, for example, food and beverage expense were a function of food and beverage income. She noted the following over a three-year period.

Figure 4-6: Departmental Expense as a Percent of Departmental Revenue ${ }^{81}$

| ROOM EXPENSE | $27-31 \%$ |
| :--- | :--- |
| FOOD AND BEVERAGE EXPENSE | $70-75 \%$ |
| TELEPHONE EXPENSE | $99-120 \%$ |
| OTHER | $3.5-7 \%$ |

She was puzzled by the telephone revenue and expense relationship. Why did telephones at resorts operate at a loss, when the same item at urban hotels was very profitable? This would require further investigation. More importantly, she saw that the Food and Beverage expense was combined into a single line, but in revenues food and beverage were each accounted for in separate lines. This would create problems for her because, in her budget for Corumbau Lodge, the Food Revenue was part of the Room Revenue. Combining the two expense items would throw off both the Room Expense and Food and Beverage Expense calculations.

Further, how would her higher than average ADR, affect the percentage attributable to Room Expense? Would this be offset by the anticipated lower than average Occupancy Rate? Clearly, these Departmental Expenses were not best handled by the simple percentages listed above.

She remembered that her hotel text suggested an elaborate technique that involved dividing each expense into fixed and variable components. The variable component, the part that would vary with Occupancy Rate, Food consumed, etc., would be adjusted for expected conditions. The fixed component, the basic cost of providing the service, regardless of the volume of it provided, such as the employment of a head of housekeeping or a chef, would be added to the variable component ${ }^{82}$. This approach would require more time than she had right now.

Renata calculated the total departmental expenses as a function of total revenue. She found that over a three-year period, the percentage was within the range of $47-52 \%^{83}$. She adjusted the percentage in accordance with her expectations for operations.

With income and expense now under control, she had only to quantify the taxes to obtain an operating projection. This was a most unappealing thought, particularly with regard to Brazil, where taxes were known to be labyrinthine, not to mention very burdensome. She wished dinner would come soon, so she could take a break.

### 4.10 Tax Issues

A few days earlier, Renata had asked her attorneys in Brazil to explain the basic tax rules applicable to the investment she contemplated. She wanted to understand both the taxes payable at the entity level, and those payable in Brazil by individual investors on account of any cash distribution made to them from annual operations or from sale of the property, or as a result of any income recognized at the investor level. She also wanted to evaluate the types of entity most suitable from both a legal and tax perspective to hold and to operate the Lodge. In response, they sent her a memo setting forth the most basic elements. They advised her that tax law in Brazil was very complicated, and suggested that she not formalize any decisions about legal and tax issues until they had a chance to carefully and deliberately review the options together. Renata read the memo and tried to highlight the issues integral to her Cash Flow Analysis. She began with the taxes due at the entity level.

Income and Social Security Tax: Under Brazilian tax law, companies may elect to calculate Income Tax (IRPJ) and Social Security Tax (CSLL) liabilities using an Actual Profit Method or a Presumed Profit Method. The election is made annually. In both Methods, a Tax Rate of $25 \%$ in the case of IRPJ, and $9 \%$ in the case of CSLL, is multiplied by the company profits to determine the tax liability. The difference between the Actual and Presumed Profit Methods is that the former uses the actual profits of the company, whereas the later presumes that the profits are $32 \%$ of the gross revenues. Companies using the Actual Method follow Brazilian accounting rules, which include the right to reduce income by an allowable depreciation expense. In the case of buildings, this is normally straight-line depreciation computed based on cost at 4\% per year ${ }^{84}$.

Unemployment Insurance Tax and Welfare Tax: Companies that use the Presumed Method pay Unemployment Insurance Tax (PIS) at a rate of .65\% of gross revenues, and Social Security and Welfare Tax (CONFINS) at a rate of 3\% of gross revenues. Actual Method companies pay these taxes at $1.65 \%$, and $7.6 \%$, of gross revenues respectively, but are allowed to
reduce the amount paid with tax credits generated by a variety of transactions that arise in the ordinary course of business ${ }^{85}$.

Service Tax: Homebuilders and some other service companies pay Municipal Services Taxes (ISS) at a rate of, usually, $5 \%$ of gross revenues ${ }^{86}$.

Property Taxes: Entities that own real estate must pay real estate tax. In the case of urban properties, the real estate tax (IPTU) is paid to the municipality. The tax is a percentage of appraised value of the real estate, and varies by municipality. In some cases, there are extra charges for real estate used in economic activities and/or for trash removal. In the case of rural properties, the tax (ITR) is paid to the federal government. The tax is a percentage of appraised value of the real estate. The tax rate varies with size and productivity of the property ${ }^{87}$.

Property Transfer Taxes: Buyers of real estate pay transfer taxes (ITBI) to the municipality at a rate that varies, but is normally $2 \%$ of the sales price. Buyers are also responsible for paying a variety of registry fees which vary from one state to another.

Real Estate Sale: Taxes from the sale of real estate are normally $15 \%$ of the difference between the sales price and the depreciated cost basis of the real estate investment. The tax due on sale may vary according to the entity and elections involved. For example, real estate investment funds (FII) are exempt from taxes, and there are circumstances in which a real estate company under the Presumed Method may irrevocably elect a special tax regime in which the total of Income, PIS, Confins and CSLL is $7 \%$ of the gross income including sales revenue ${ }^{88}$.

Figure 4-7: Summary of Taxes at Entity Level ${ }^{89}$

|  | Tax | Presumed Profit Method |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Presumed Profit Margin | Tax Rate | Effective Rate |
| Operation / Maintenance | Income Tax | 32\% | 25\% | 8\% |
|  | CSLL | 32\% | 9\% | 2,88\% |
|  | PIS | - | 0,65\% | 0,65\% |
|  | COFINS | - | 3\% | 3\% |
|  | ISS | - | 5\% | 5\% |
|  | $\begin{aligned} & \text { IPTU } \\ & \text { or } \\ & \text { ITR } \end{aligned}$ | - | r/m | r/m |
|  |  | - | $\begin{gathered} 0.03 \% \text { to } \\ 20 \% \end{gathered}$ | 0.03\% to 20\% |
| Purchase | ITBI | - | 2\% | 2\% |
| Sale | IRRF | - | $\begin{aligned} & 15 \% \text { (or a } \\ & 25 \% \text { rate) } \end{aligned}$ | $\begin{aligned} & 15 \% \text { (or a } 25 \% \\ & \text { rate) } \end{aligned}$ |

At the investor level, taxes were somewhat more straightforward. Dividends paid from annual profits were not subject to tax in Brazil. There was however a tax on financial transfers leaving the country known as the Temporary Contribution on Financial Transfers (CPMF) tax, calculated as $.38 \%$ of the funds withdrawn from the bank ${ }^{90}$.

Capital Gain is taxed at the investor level to the extent that the funds remitted exceed those invested. The difference is taxed at $15 \%$. The amount invested is considered the amount shown on the foreign investment registration filed with the Central Bank at the time of the investment, which registration is required by law. There is some debate as to whether the comparison of the amount invested and the amount remitted would be made in Brazilian or foreign currency ${ }^{91}$.

At this point, Renata felt she had the tax information pertinent to her DCF Analysis. She did not want to further consider options for legal entity and their implied taxes until she knew whether the investors liked the project economics. If so, she would explore these matters in
greater detail, and also propose a deal structure, i.e., the relationship between her compensation and sharing of benefits and those of the investors. Right now, she felt that to do so would be premature.

### 4.11 Construction Costs

Renata had ten years of experience as an architect. Thus, she knew that an architect was neither seer nor scientist when it came to construction cost forecasting. Moreover, in a part of the world where the construction practices were unfamiliar, she had no illusions about her ability to estimate the costs by herself, never mind run a construction job.

With the help of friends, she entered into negotiations with an experienced and reputable construction manager in Porto Seguro. Geraldo Andrade was a charming and self-assured businessman who would be more than happy to serve as construction manager for this job if it went forward. His fee for the work would be a mark-up of $20 \%$ on the labor that went into the job, and a mark-up of $20 \%$ on materials and subcontracted services that he purchased for the job. The hope was that some of the major contracts, such as the contract for the sewer treatment plant, could be handled directly by Renata to save the mark-up. As part of his job, Geraldo would help to estimate the construction costs. Part of the deal with Geraldo, was that the cost of labor would not exceed $\mathrm{R} \$ 150$ per square meter.

Renata had prepared a set of plans (Exhibits A, B, and C) that could serve as a basis for estimating the job. The plan called for constructing the resort campus in a fairly small area of the site, allowing most of the site to remain in its natural state, or to be reforested. The buildings consisted of: 1) 9 bungalows (also called cabanas or chalets); 2) the main salon which also housed the restaurant; 3) the reception building including accommodations for Renata and for investors who may wish to stay at the resort during the busy season when the cabanas were booked, as well as the reception offices; 4) another building for staff accommodations; and 5) a laundry.

Geraldo had furnished a detailed estimate of the reception building. It showed a materials cost of $\mathrm{R} \$ 529$ per square meter including his mark-up. To this she added the agreedupon maximum cost of $\mathrm{R} \$ 150$ per square meter for labor, plus the mark-up thereon. To calculate the total for this building, she applied the estimated cost per square meter to the gross area of the reception building including outdoor built spaces.

Renata was concerned about whether this estimate accurately accounted for some of the unique aspects of the construction. For example, in Brazil, walls were normally built of brick with a cement skin. By contrast, this job specified long-forgotten indigenous practices, such as making the bricks of clay and sand. The mixture would be poured into wooden molds that the builders would also make. Similarly, the adobe walls of the cabanas would be built of wood strapping with clay and sand on the inside and the outside ${ }^{92}$.

These processes, because they were unknown in the industry, would at the outset involve a lot of testing. Different mixtures would have to be allowed to set for weeks to see how they hardened, so that the proper mixture could be identified. What the job would save on the cost of bricks, it would incur training, testing and novel procedures ${ }^{93}$. Would these costs offset?

At the same time, she could see that the estimate per square meter for the reception building was well above published indices, and that it was being multiplied across the entire area including the verandas.

She then repeated the process for the bungalows, starting with Geraldo's materials estimate for these buildings, including mark-up, of $\mathrm{R} \$ 833$. Again she used the gross floor area including outdoor spaces such as decks. She did not have a materials estimate for the salon. Based on the specifications, it seemed reasonable to apply the per square meter estimate for the reception building, including materials, labor and mark-up, to the salon.

She decided that, because the employee housing called for construction typical of the area, she would base her estimate on what she understood to be typical recent construction costs
of R\$ 300 per square meter including materials, labor and mark-up. She did the same for the 141 square meter laundry.

She began to build her construction budget. At the top she listed the "Administered Work" items, those that would be handled by Geraldo, and therefore were subject to a $20 \%$ charge. Below these, she listed the services and materials that she herself would buy or contract.

| Administered items | Sq. Meters | Budget/ Sq. Meter | Budget |
| :--- | :--- | :--- | :--- |
| EMPLOYEE HOUSING |  | 300 |  |
| LAUNDRY | 141 | 400 | 56,400 |
| RECEPTION |  |  |  |
| CABANAS |  |  |  |
| SALON |  |  |  |
| SUBTOTAL |  | NA |  |
| TELEPHONE |  | NA |  |
| SLASS |  |  |  |
|  |  | NA |  |
|  |  |  | 20,000 |
| SEWAGE TREATMENT | NA |  |  |
|  |  |  |  |


| PLANT MATERIALS | NA | NA | 100,000 |
| :--- | :--- | :--- | :--- |
| ELECTRIC | NA | NA | 100,000 |
| KITCHEN | NA | NA | 100,000 |
| EXCAVATION, | 2,955 | 100 | 295,500 |
| FURNISHINGS, SOFTAND |  |  |  |
| OTHER |  |  | 749,500 |
| SUBTOTAL |  |  | 940,000 |
| CONTINGENCY |  |  |  |
| TOTAL |  |  |  |
|  |  |  |  |
|  |  |  |  |

As she put the finishing touches on the construction budget, she had the feeling that she was forgetting a few things. Well, she would think of them eventually, and she did have a contingency.

She moved her papers off the tray to allow room for the dinner. The timing was great. All the pieces necessary for her Discounted Cash Flow Analysis were complete, and after dinner she would pull them together.

## 5 Risk

Having completed the DCF Analysis, she wanted to test the sensitivity of the IRR to potential variances in expected outcome. In other words, she wanted to see how the return would be affected by setting up scenarios that differed from her expected scenario. This type of Sensitivity Analysis depended first on identifying the sources of risks in the investment, i.e., the places where variances may occur.

The main sources of risk she felt were variances in the ADR, Occupancy Rate, timing and construction price. There were also potential variances in the cap rate used to calculate the sale of the property in year 10. But she was not sure that her investors would limit the risks to just these items.

Investors in foreign countries were often concerned about many other types of risk: sovereign risk, political risk, transparency risk, title risk, regulatory risk, exchange control risk, contract risk, and so forth. Her investors were no different. One of them, for example, had expressed concern that Lula would follow the path taken by the leftist presidents of Venezuela and Bolivia, who had confiscated private assets without compensation, publicly called for resistance to global economic practices, rallied opposition to the institutions supporting those practices such as the International Monetary Fund and the World Bank, and led a public relations campaign against the United States. According to her investor, since similar problems of misery and inequality existed in these countries as in Brazil, and since Lula was the head of the Workers Party, Brazil would solve its social problems in the same way. As another example, her investors, like everyone else, had heard the stories of the violent Landless Workers Movement invading properties to steal them from the owners. Weren't there even laws that gave squatters special rights? There would doubtless be other fears about dubious title, an unworkable legal system, not being able to remove money from Brazil, and so forth.

Renata had looked into all such "risks" to the proposed real estate investment, and found them to be as real as the monsters that lay waiting in the Sao Francisco River in Bahia. To
protect against these monsters, River boats, beginning in the late eighteenth century, sported carrancas, i.e., terrifying brightly painted sculptures of sharp-toothed, wide-eyed, humanoid faces, sometimes hybridized with animals, on their bows ${ }^{94}$. Perhaps, she mused, a carranca would be helpful in Lisbon.

To be fair, however, this genre of risk was not altogether fantasy, and Renata had concerns of her own. First, the property sale would be a sale of possession (posse), not a conveyance of a title deed. Possession would allow her use of the property, unless, within a statutory period, a title-holder appeared, and brought legal action to remove her. In that case, she and her investors would have no rights to the property, notwithstanding the payment of purchase money. In general, such a purchase was highly inadvisable. But there was no way around it. The Seller had just bought the posse himself. Moreover, she had learned that it was common in some areas of the extreme south of Bahia, such as in Corumbau, for buyers, under certain circumstances, to buy possession, and immediately move to "legitimize the possession", a process that would provide title within a few years. Her attorneys would have to confirm the details, but she had grown more comfortable with the concept ${ }^{95}$.

Second, she had heard rumors that the land may be subject to Indian claims. She spent a fair amount of time at the FUNAI (the federal department of Indian affairs) offices reading maps and discussing the issues with officials. She had also gone over the situation with the officials in the State Tourism Office. Everyone had assured her that there were no such valid claims. She was satisfied, but she would have to satisfy the investors.

The principal challenge in dealing with questions of perceived risk, was time. Investors liked simple, clear, well reasoned presentations that took no more than 20 minutes. Their concerns, however, could not be dismissed quickly. To evaluate these concerns, she herself had spent weeks researching the history and current state of land use and land rights in Brazil. She had spoken at length with real estate attorneys and with scholars about the political, regulatory and legal risks of real estate investments.

She decided that, rather than try to cover the risks comprehensively in a presentation, she would put her extensive notes into a memo form, and hand it out to investors. Whether they read it or not, they would at least know that the issues had been thoroughly investigated, and the risks weighed. She spent an hour or so writing the memo.

### 5.01 Memo: Brazil Real Estate/Country Level Risk Analysis of Legal, Regulatory and Political Issues

## Memorandum

Date: March, 2003 [Revised 2007]
To: Investors
Re: Brazil Real Estate/Country Level Risk Analysis of Legal, Regulatory and Political Issues

The intent of this Memo is to assess the risks that foreign investors face in Brazil's emerging real estate markets. A country-level analysis of real estate risk is a first stage analysis that, if encouraging, may motivate a second stage examination of the country's more specific geographic/product market risks, such as, for example, risks in the Sao Paulo retail space market. A further step, if warranted, would analyze a specific investment opportunity. This Memo deals with only the first stage analysis, that is, it seeks to understand Brazil's country-level real estate risk in order to better judge whether its ex ante unlevered real estate returns, which are relatively higher than returns available in more developed countries, merely reflect higher risks or signify actual arbitrage opportunities.

As to arbitrage, economic theory holds that well-developed markets are informationally efficient. If all participants have the same information, then prices are bid up competitively until investment returns and risks match. It is possible, however, that in less developed markets,
foreign investors do not have accurate and complete information, and therefore may exaggerate the risks, or believe the risks to be incalculable. In that case, some investors would be deterred from investing by the opacity of a market, leaving those who are able to penetrate the foreign business, political and legal environment to earn systematic excess returns, i.e., arbitrage.

Recently, there have been several attempts to capture country-specific real estate risk in the form of real estate risk indices. A risk index allows investors to compare risk ratings among countries, and should, in theory, be useful to narrow the field of potential targets for international investment ${ }^{96}$. However, risk indices at this point have significant shortcomings that render them suspect. These flaws in the way indices are constructed, which are discussed in the appendix to this Memo, beg for another approach to risk evaluation.

The approach taken here is relatively straightforward. Brazil's country-level real estate risk is composed of risks in its legal, regulatory and political systems. This Memo will look at those systems from a present day and an historical perspective, and analyze the risks or perceived risks arising from them ${ }^{1}$. The historical perspective is needed because the systems in question have evolved in response to a political history of conflict and compromise. This history must be considered in order to form a reasoned judgment about the systems and the risks, if any, that they pose. Moreover, a longitudinal analysis helps to reveal the long-term trends in these risk factors much the way a time series analysis reveals long-term trends in a variable under study, and allows econometric inference about its future direction. The analysis will draw conclusions about the

[^0]perception of country-level risk in Brazilian real estate, and the extent to which these perceived risks have a basis in fact.

## Longitudinal Analysis

The most striking feature of land ownership in Brazil today is its extreme inequality. Issues that concern some investors weighing options in Brazil, relate to popular conceptions, or misconceptions, of how the State responds or may respond to such pronounced inequality. The questions of land ownership concentration and the proper role of government, if any, in addressing land inequality, have roots in early Colonial Brazil. That is where this analysis begins.

There were two significant land rights decrees issued during the very early colonial period. The first was issued in 1532, shortly after the Portuguese, the first Europeans to arrive on the shores of Brazil, made their landfall in 1500. The Portuguese Court established a land rights policy based on a system that had successfully settled the Madeira Islands ${ }^{97}$. That policy, known as capitanias hereditarias, divided the Brazilian coast into fourteen provinces. The Crown granted the land to twelve proprietary captains (two captains got two provinces each) all of whom had court connections ${ }^{98}$. It did so with the expectation that the captains would establish settlements there. However, the income that the Court expected to derive by sharing in the provinces' Brazil wood profits fell short of expectations. By mid-century, two of the captaincies were abandoned altogether by their grantees, two provinces were successful, two were complete failures, three were failing quickly and the remaining five were nothing to write home about ${ }^{99}$.

Accordingly, the Court reclaimed the authority it had granted to the captains, repurchased some of the land, and established a governor for the whole colony in 1550. By that time, the principal crop in Brazil was cane sugar ${ }^{100}$.

In an effort to encourage sugar production, the Crown issued its second land rights decree in 1550. It offered large land grants, known as seismarias. These granted the holder complete property rights in the land, provided that the holder use the land productively. ${ }^{101}$ This productive or beneficial use condition of ownership is a feature that remains embedded in the Brazilian outlook on land rights. It periodically fades from view and resurfaces, most recently and explicitly in the current version of Brazil's constitution.
$1550-1822$

Silence is the most prominent feature of this nearly three-hundred-year history in land rights. During this period, the colony depended on land for its revenues, shifted its principal use of land three times, multiplied its population by more than ten, forced ranchers and subsistence farmers away from the coast to open land for the mono-cultural export crop of the moment, penetrated its frontiers in search of gold, generated large movements of population, battled the French, Dutch and Spanish to the death for control of land, and incurred a major scientific expedition to the interior to establish new international land borders. ${ }^{102}$ Yet, there is no evidence of any development in domestic land rights.

One might argue that the Seismaria system was so effective that there was no need for change. In fact, however, eligibility under the Seismaria system was widely inapplicable. In the context of the sugar economy, Brazil's principal economy for almost a century beginning in about 1550, the beneficial use condition allowed only those with the significant capital required to start
a sugar mill to apply for seismaria, and therefore to own land ${ }^{103}$. Thus, the many ranchers and small farmers who worked land to the interior of the sugar plantations along the coast, and provided food for the coastal towns, had no title to the land they worked. They were squatters. As such, they were forced off their lands to more interior locations as the sugar economy expanded inland. Indeed, the only reason we know about this population, which may well have been in the majority, is because of tension and conflict that erupted between them and the coastal towns ${ }^{104}$. The Seismaria system did not regulate land use for much of the population. Instead land use, but not ownership, was obtained by squatting (posse) and held by observed social norms ${ }^{105}$.

The Seismaria system was an equally ill-suited tool for land governance as the population resettled inland, drawn to Minas Gerais by the gold rush that began in about 1700. By 1750 the greatest concentration of Brazil's rapidly growing population was no longer in the coastal areas ${ }^{106}$. The Population began shifting again as the gold boom declined in 1760. But land rights for Brazil's population remained essentially non-existent.

In 1822 Brazil established its independence and abolished the seismaria system, but it established no new land policy at that time. Land use continued to be acquired by posse and held either by social norms or by the potential for force. The result was the formation of large estates or latifundia ${ }^{107}$. Thus, from the early colonial period through Brazilian independence, land ownership was concentrated by government grants of large parcels to either wealthy or well connected grantees, and by the lack of a land rights policy, which allowed those who could possess and defend large areas of land, de facto rights in those lands.

It is important to understand that Brazil did not establish its independence in a revolution against an overseas monarchy. In a series of remarkable events, Brazil ended up importing the

Portuguese Court to Rio and making Brazil the center of the empire. In other words, the Brazilian response to the problem of "taxation without representation" that rallied the colonies in North America to revolution, was to move the entire Portuguese government to the tropical colony of Brazil and (eventually) set up a constitutional monarchy there. Brazil was motivated to choose this route in part because its elite, a landed elite, feared that a revolution undertaken in the name of liberty would challenge the institution of slavery, on which the elite depended ${ }^{108}$. Thus, the Brazilian elite brought the monarchy into its own sphere, preserved royal power, continued the institution of slavery, and headed off any nonsense about liberty and equality for all, in a single gesture. The importance of these events for the development of land rights will soon be seen.

## 1822 through 1888

Brazil did finally pass a land law in 1850. There are two different stories as to how this came about. Brazil's coffee economy began in the 1820 's in the state of Rio de Janeiro, and spread subsequently to Sao Paolo and Minas Gerais . By 1835, Brazil was the largest coffee producer world wide. Coffee production, unlike sugar cultivation, was not so capital intensive, and therefore was available to small entrepreneurs. According to one version of the story, the absence of a land policy led to conflicts as increasing coffee prices drove up the value of the land. Politicians were asked to clarify land claims. The response was Land Law 601 of $1850^{109}$.

Another version of the story argues that the law was not the least interested in clarifying land rights or resolving conflicts between private land claimants. Its sole purpose was to document the lands free of private claims, and therefore property of the Empire. According to this version of the story, the government was intent on inventorying public lands so that it could offer parcels to possible immigrants as an enticement to move to Brazil. That, in turn, had been
motivated by the widespread recognition that slavery was in its final days and therefore the Brazilian elite needed another source of labor. ${ }^{110}$

The second version of the story is the more persuasive. ${ }^{2}$ Moreover, the Land Law of 1850 did not clarify land rights, provide governance or clear a path toward a more equal distribution. In fact, it worsened the inequality as described below.

The new law: 1) legalized existing posses; 2) validated all sesmarias previously granted; and 3) prohibited future posses for acquisition of land. The first two provisions, in effect, legitimized the unequal concentration of land ownership. The third provision prohibiting posse was, in practice, impossible to enforce on the frontier where it remained the principal means of settlement ${ }^{111}$. However, though posse continued as a means of using land on the frontier, the third provision made clear that the only path to ownership (rather than just use) was by purchasing land. That insight gave rise to the practice of landgrabbing (grilhagem) as a means to a acquire ownership of large tracts of land throughout Brazil ${ }^{112}$. It worked like this:
"The term grilagem de terras arose to describe a stratagem used at the end of the nineteenth century. Brazilian literature reveals how title counterfeiters placed their falsified deeds into drawers with crickets (grilo in Portuguese). The drawers were kept closed for several weeks. During this time, the insects decomposed on paper, emitting a tobacco-brown fluid which the falsifiers used to reproduce the characteristics of antique paper, making it appear as if it had been produced many years before (Lobato, 1948). The

[^1]
# terms grilagem (landgrabbing) and grileiro (landgrabber) are entries in leading Brazilian dictionaries." ${ }^{113}$. 

It is important to note that the practice of landgrabbing did not end in the nineteenth century. It has continued through the present in ever more sophisticated forms, i.e., without crickets.

1888-1920

In 1888 Brazil officially ended slavery. Even the Emperor had heartily endorsed abolition in a letter he signed with the pseudonym "the Philanthropist" ${ }^{114}$. The irony that Brazil's king failed to appreciate was that, from the perspective of the Brazilian elite, the main reason to preserve the monarchy was to preserve slavery, as indicated above. By endorsing abolition, the monarch was indeed acting philanthropically. He came another step closer to giving away his empire.

Indeed, in 1889, the Brazilian military provided him transportation to the harbor, and sent him packing ${ }^{115}$. Like virtually all transitions in Brazil's history, the transition from monarchy to republic was bloodless and seamless.

In connection with land rights, the important factor in the transition is that royal rights and power did not really disappear with the departure of the royal family. While the elites appeared to establish a Republic, they really sublimated the powers of the monarchy in an elite oligarchy. They did this by creating a federation of states with significant independent powers, maintaining control over the states by ensuring their own election as governors, and cooperating with one another to choose the president of the Republic. Since Brazil was still very much an
agricultural country, the elite controlled large land holdings, and ran the country with those interests in mind.

In that spirit, the newly formed republic of Brazil issued new land laws that did not change land distribution. The substance of the new laws was to: 1) legalize the right to claim public land by posse, and to obtain title to that land upon cultivation for one year; 2) legalize the right to use unproductive private land by posse, and, if not contested by the private ownership, the right to legal title after five years of use; 3) place public lands in the hands of state governments (except for country borders and, later, lands in the Amazon) ${ }^{116}$.

Placing public lands in the control of the states invited state governors to grant land in return for political favors. Legalizing posse as a means to obtain ownership of land, was useful to elite landowners with the power to take and protect land by force. Indeed these changes led to extensive squatting and violent evictions. Coupled with the problems of unequal land distribution, overlapping land grants, land grabbing and slow titling processes, the new laws planted the seeds of conflict.

1920-1945

Agrarian conflict, however, was manageable by the agrarian elite. All was well, provided the elite oligarchs cooperated. In the 1920's, however, conflict among the oligarchs grew. The reasons for this are complex and not germane to this analysis, except to mention that Sao Paulo had pulled ahead of the other states in modernizing and industrializing. The conflict among the elite families led to a coup that in 1930 installed the losing presidential candidate, Getulio Vargas to power, amid charges of voter fraud (which was actually standard procedure and very useful while the elites got along). Vargas, who was from the state of Rio Grande do Sul,
remained in power until 1945 at times establishing legitimacy and at times through a strong relationship with the military that supported a strong federal government. By installing his own overseers in each state, Vargas built a strong central government, in effect reclaiming much of the monarch's power to himself. The details of Vargas' fifteen year rule are fascinating, but what is important to note for this analysis is that Vargas primarily focused on national, urban and foreign policy issues. But Brazil was still an agrarian society. In 1940, 2/3 of the population still lived in rural areas ${ }^{117}$. The fact that no significant land reform legislation was passed under Vargas does not seem to have been inadvertent. Vargas himself was an elite landholder. Skidmore points out that after Vargas returned to private life, "Vargas had the sympathy of fellow landholders, who were grateful he had never threatened the existing system of land tenure." Vargas, who had been deposed by another bloodless coup, was able to win a popular election, in part because of his support from landholders ${ }^{118}$.

1946-1980
The Constitution of 1946 introduced the idea of expropriation of unproductive private farms ${ }^{119}$. Thus, the idea of productive use as a condition for land ownership, which first made its appearance in 1550 as a condition for seismaria, reappeared in the middle twentieth century.

The resurfacing of the beneficial use criterion reflects in part the growing visibility of land reform as an issue on the political agenda of the 1940's and 1950's. By the 1960's the need for land reform was widely acknowledged, and the debate focused on specific approaches. In 1964 a military coup took control of government. Military control was precipitated in part by concern among the elite about land reform proposals that would not provide full compensation for government expropriated land ${ }^{120}$. The military dictatorship itself saw the need for land reform, and passed the Land Statute in 1964 which allowed the federal government to expropriate land, with compensation, to achieve a social good. The idea of taking private land for fair value, and
redistributing the land into private hands, is the framework that has given direction to the agrarian reform policies of the civilian governments that followed ${ }^{121}$.

Military rule lasted twenty-one years. By 1970, the military government had shifted priorities away from land reform. It focused on modernizing agriculture through technology and tax breaks. It dealt with the demand for land reform by repressing workers rather than by settling them. Modernization of agriculture created unemployment among rural workers many of whom moved to the urban edges to become seasonal farm workers for agribusinesses. In this period, the public voice of rural workers was the Confederacao Nacional dos Trabalhadores na Agricultura (CONTAG), the farm workers union. The union role, however, was limited. More important was the Catholic Church, which formed the Pastoral Land Commission (CPT) in 1975. The CPT helped mobilize rural workers, train leaders, legitimize resistance, and encourage a more confrontational approach to rural activism ${ }^{122}$.

1980-1994

In the 1980's things got more complicated. Hydro-electric dam construction in many parts of the country dislocated small farms resulting in both demands for compensatory damages, and in protest against forced displacement. Tax and credit motivated expansion of the cattle industry destroyed native forests in the frontier states stimulating protests by rubber workers and environmentalists. Increasingly there was confrontation between small farmers and agribusinesses over a variety of matters. Rural workers suffered and sought to make their conditions more visible to the general public. Most importantly, the grassroots Movement of Landless Rural Workers (MST) was born in 1984, just as military rule was winding to a close ${ }^{123}$. MST took advantage of the re-democratization of the Country to implement its strategy of violent occupation of private unproductive farms. MST was to achieve worldwide recognition and media
attention, and to become the most important actor in the land reform movement. The objectives and strategies of the MST will be discussed at some length in the section on risk of expropriation.

In 1985, civilian government resumed. The Sarney administration appointed advocates of land reform to head the principal land reform agency INCRA and MIRAD. The result was the proposal for a National Agrarian Reform Plan (PNRA). The proposed PNRA was an intensified version of the Land Statute. It proposed to compensate land owners for expropriated land at the land's declared value for tax purposes, which was almost always well below market value. It proposed a progressive tax on underutilized land, and the reclamation of public lands that had been illegally titled as private holdings. The proposal's objective was to settle 7 million landless households of the then existing 10.5 million households over fifteen years. The proposal was endorsed by CONTAG, but met with resistance from both the left and the right. The MST in particular had no confidence that the government would expropriate and redistribute significant land. The MST was right. The landowners were able to negotiate changes to the Plan including an exemption from expropriation for any farm in production, regardless of its size. (In other words, as long as some part of the farm was productive, all associated landholdings were exempt). As a consequence, only 140,065 families were settled between 1985 and 1994, a lower order of magnitude than intended ${ }^{124}$.

Thus, in the re-democratization period following the end of military rule, the conditions of rural workers, their need for land, and the inequality of land ownership, became publicly visible issues. Brazil adopted a new Constitution in 1988, its current Constitution, which again weakened central power and distributed these rights to the states, where they were controlled in large part by elites. However, the Constitution also addressed the need for land reform very directly as will be discussed in both the section on Squatter Risks and Expropriation Risks below.

The Cardoso government took control in 1995 with agrarian reform high on its priority list, and a plan to settle 280,000 families in the administration's first term. The top priority, however, was stabilizing the economy and fighting inflation. Agrarian reform quickly fell by the wayside. The neo-liberal government was more interested in stimulating the growth of Agribusiness and therefore Agro-exports, to generate a positive balance of trade, than it was in developing family farming. In reaction, the MST accelerated the pace of occupations. That resulted in high profile massacres bringing domestic and international pressure on the Cardoso government. The MST then staged a massive three-month march on the capital from across the country, which brought front page news coverage to land reform and stimulated an antigovernment movement ${ }^{125}$.

In response, the Cardoso government sought to take the initiative for agrarian reforms from the MST. The administration passed a series of measures designed to reduce the cost and increase the pace of expropriation. It passed another set of laws to de-claw the MST. In particular, the administration passed laws prohibiting the expropriation of properties that had been invaded, prohibiting the distribution of public funds to anyone who participated in an invasion, and suspended negotiations on any issue in connection with the occupation of a public building. It also charged and imprisoned MST leaders for a variety of alleged misdeeds ${ }^{126}$.

More importantly, the government shifted the conversation about agrarian reform in the direction of market led agricultural reform (MLAR) based on the World Bank proposals that encouraged direct negotiations between landless workers and landowners, accompanied by financing and technical assistance to enable land acquisition and successful agriculture. This was a marked departure from the redistributive reform the MST encouraged. (It also created tension
within the ranks of the agrarian reform movement because CONTAG supported the government's principal program and MST did not). The program details are not terribly important here. Suffice it to say that the success of MLAR under Cardoso is still hotly debated ${ }^{127}$. Clearly, however, Cardoso did not have a significant impact on the concentration of land ownership. Looked at from the perspective of the Gini coefficient measuring land concentration in Brazil at .842 in 1960 , and .843 in 1998, these efforts were unsuccessful ${ }^{128}$.

The more important outcome of the debate over state-led v. market-led reform was the alignment of the neo-liberal government with the moral position of the landed elite in delegitimizing the MST struggle as undeserving, seeking a handout and avoiding hard work. For both the agrarian elites and the neo-liberal reformers, property rights are evidence of self-reliance and playing by market rules. However, the notion that ownership in property is the natural consequence of hard work and faith in markets is a distortion of the whole history of land grants to those with court connections, land grants to those with large capital, land grants for those with State political connection, taking land by force and landgrabbing by title deed forgeries and other techniques, and land handouts to immigrants to attract a labor force. Nevertheless, the alignment of the neo-liberal reform and the moral position of the landed elite caused an important shift to the right in the public attitude toward land redistribution and other government-led policies to redress inequality ${ }^{129}$.

2003 - Present

Lula, the Workers Party candidate whom the MST had strongly supported and who featured quick large-scale agrarian reform prominently in his platform, was inaugurated in January 2003. First on his agenda, however, was not agrarian reform, but rather a campaign to end hunger. Then he slashed the INCRA budget for land acquisition of land (as well as slashing
other social programs) in order to reach the budget surplus targeted by the IMF. He was slow to appoint the technical commission that would draft the new agrarian reform plan for the government (PNRA - II). Few families were settled in $2003^{130}$

The Lula government's reform objectives were very similar to those of the Cardoso administration in that both wanted to create sustainable settlements that would provide jobs and raise incomes for rural workers. The new plan contained the additional objectives of social inclusion and diversity. In that regard it required title deeds in the name of couples regardless of marital status, increased availability of credit for rural women, sought to identify the title and historic landholdings of Quilombo communities, prioritized the marking of Indian territories and the removal and resettlement of non-indian squatters from those territories, targeted assistance to populations displaced by large government infrastructure projects such as dam construction, and promoted environmental issues. The government abolished Cardoso's MLAR programs, but included new MLAR programs in cooperation with the World Bank. The emphasis, however, was on state-led reform through expropriation and resettlement rather than on MLAR. The Lula government planned to increase the package of loans and technical assistance that would accompany resettlement to assure an above-poverty living standard for the beneficiaries of resettlement. Thus it placed a higher priority on the quality of the result, than on the quantity of people resettled. It also wanted to focus resettlement efforts in state identified zones that were appropriate for agriculture. Above all, Lula maintained the Cardoso model focused on generating a trade surplus from Agro-exports. The Lula government has favored the agribusiness sector and is, at the same time, trying to pursue social policies ${ }^{131}$.

The Lula government has not been very successful in terms of numbers of families resettled. It does seem to have improved the living standards of those resettled under the Cardoso administration, and of those it itself resettled. In addition, it brought electricity to 17,000 rural
families on 220 settlements through a national electrification program. It has developed an understanding with the MST. While the legislation passed by the Cardoso administration precluding post-occupancy expropriation remains on the books, the government has recognized the agrarian social movement as a partner in defining policy for credit, technical assistance and adult education. The government does not persecute the MST, and in return, the MST agrees that it will occupy only public lands so as not to run afoul of the law. The reform movement appears to understand the constraints under which Lula is working. The government is a coalition government which the Workers Party does not control. To govern, Lula formed a broad-based alliance including those opposed to agrarian reform. His cabinet includes important positions filled by those who are opposed to change. Further, the neo-liberal reforms of the Cardoso administration shrunk the INCRA, demoralized its staff and eliminated or privatized programs important to the agrarian reform. So the ability of the government to implement even modest objectives was compromised by the dissembling of the machinery of government. Finally, the extremely important Agro-export sector which was traditionally silent on the issue of land reform, became strongly opposed to it for their own reasons: Agribusinesses are now competing with the social movement for the unproductive lands. Thus an industry that is extremely important to the economic health of the Country has joined the coalition opposed to land reform ${ }^{132}$.

There is little doubt about Lula's sincere commitment to land reform. What is noteworthy is his inability to pull it off, notwithstanding his control of INCRA's budget and appointments. The results demonstrate the limits of federal authority and the existence of a complex set of influences, constraints and political actors that ultimately shape the quality, size and pace of land reform ${ }^{133}$. Meanwhile, Lula seems to have struck compromises that allow Brazil to satisfy super-national institutional requirements, compete in international trade, accumulate foreign reserves, grow its Gross Domestic Product, and give appropriate recognition
to many different interest groups, while slowly addressing the problem of inequality. From a foreign investment perspective, this is an inviting state of affairs.

As to the overall message of this history, Adam Smith wrote of the invisible hand that optimizes economic results notwithstanding the motivations of the individual participants. If there is an invisible hand at work in Brazil, it belongs to the elite, has optimized outcomes for landowners for 500 years, and continues to do so. The elite have shown an uncanny ability to read and anticipate the pulse of the country, and to strategically abort virtually any policy contrary to its interests, often when the policy is an idea or philosophy in utero.

Some investors fear that the resulting inequality in Brazil will cause the country to follow in the footsteps of the self-proclaimed New Bolivarians, Chavez in Venezuela and Morales in Bolivia. In that regard one must remember that Brazil never had an old Bolivar.

Further, unlike Venezuela and Bolivia with powerful central governments and a population concentrated in their capital cities, Brazil is disbursed. Its population and its power centers are spread across a giant country larger than the continental U.S., and far more difficult to travel. In part, because of its size and political structure, Brazil was never able to implement the extreme measures prescribed by the IMF and economists such as former Harvard economist Jeffrey Sax. Not so with Venezuela and Bolivia. The New Bolivarian movements in those countries are, arguably, a reaction to the large doses of medicine they swallowed ${ }^{134}$. Further, Brazil is unlikely to repudiate globalization. That is more a worry for the United States. It is not Brazil that is losing vast numbers of jobs because globalization demands manufacturing where the factors of production are least expensive. Brazil is a beneficiary of globalization.

Consequently, any concern that Brazil may be ripe for a major revolution, confiscation of land or even a major policy shift, is without substance. Brazil is growing, albeit more slowly in the overall than is China. But, Brazil has been addressing its principal problem of inequality. According to The Economist, in Brazil, the poor are in fact "living Chinese growth rates" ${ }^{135}$. In sum, from the point of view of history, the interests of landowners have been well protected. Trends look favorable. Nevertheless, land reform, whether market- led or state- led, is an important feature of current law, and is likely to remain an important feature of the political agenda. Accordingly, the next section looks at the risks posed by the present day laws and regulations.

## Cross-Sectional Analysis

Land rights in Brazil today have a split personality. On the one hand Article 524 of the Civil Code provides title holders the right "to use, enjoy and dispose of the goods, and to receive them back from those who unjustly possess them". ${ }^{136}$ Under the Civil Law, and subject to paying taxes, land owners can buy, sell, borrow against, rent, develop (subject to land use regulations), etc. their real estate as they see fit, much the way they can in the United States. Constitutional Law, however, limits those rights in two ways.

## Squatter Rights Risks

First, Article 196 of the 1988 Constitution allows for squatters to occupy and claim up to 50 hectares of vacant private land. If the squatter occupies the land for five consecutive years without protest from the owners, the squatter may secure title to the land. If the owner opposes the squatter and has him evicted, the owner is required to pay the squatter compensation for improvements made by the squatter ${ }^{137}$.

In the United States, a provision for squatter rights, referred to as adverse possession, is a feature of land rights in most states. In Massachusetts, for example, Chapter 260 Section 21 provides that twenty years of continuous, exclusive, open, adverse and notorious possession is sufficient to obtain title. Though five years as required by Brazilian law is a short period in which to establish the right to ownership, the concept is not unfamiliar to U.S. real estate investors.

Moreover, Brazil's squatter rights do not pose any particular risk to real estate investors, foreign or domestic, except that absentee owners of real estate not under professional management, must undertake periodic inspections, and initiate appropriate court action if squatting is observed. Buyers must also make a physical inspection of the property before buying to ensure that no one, other than employees explicitly on payroll, is living on the property ${ }^{138}$.

## Special Rights of Adverse Possession

Special rights of adverse possession attach to Quilombolas or slave descendants able to demonstrate that their families have continuously occupied a land area since 1888. In the general case of adverse possession, landowners may preclude the squatters’ right to title by raising a protest before the five year period has matured. In the case of Quilombola adverse possession, the squatter has the right to title regardless of landowner objections ${ }^{139}$.

## Expropriation Risks

The second constitutional limitation to the land rights provided under civil law derives from the history of the beneficial use condition and of the land reform movement, explained in the preceding section. Articles 189 and 191 vaguely and generally describe the social function of
land and authorize the federal government to expropriate land that does not meet the beneficial use criterion. The intent is to allow the government to take private land, and compensate the owner in order to give the land to small farmers. It should be noted, however, that there is disagreement about whether the government pays just compensation for the land. (The arguments have been made both ways.) In any event, the government does not pay in cash, except for any land improvements that are expropriated, but rather issues Agrarian Debt Bonds or titulos de divida agraria (TDA) that pay over ten years with interest ${ }^{3}$. As explained below, none of this poses any risk for foreign real estate investors, but it does affect prudent investor behavior as set forth below.

The two Constitutional provisions described above, i.e. the provision related to squatting and the provision related to productive use, need to be discussed in the context of the activities of the MST, an organization world renown for its open and combative invasions of private lands, and for the violent confrontations that ensue when a landowner tries to remove them from the real estate. These activities are often misunderstood by foreigners. First, MST activities have nothing to do with Article 196 of the Constitution, i.e., their activities have nothing to do with the squatting provision per se. It is not the intent of the MST to invade private lands and hope that the landlord does nothing about it for five years. On the contrary, the intent of the MST is to trigger a government expropriation by inviting the opportunity for violence. Adverse media attention such as a violent MST invasion embarrasses a Brazilian president. Accordingly, the MST motivates the government to intervene before or during a violent eviction by demanding that the government begin the desapropriacao or expropriation process, which will normally end the violence. The government needs motivation to act quickly because INCRA, the federal agency that handles the mechanics of expropriation is constrained by a limited budget.

[^2]Expropriations follow carefully scripted processes and judicial procedures that are costly and time consuming. Normally the imissao de posse or distribution to squatters includes various subsidies, lines of credit and training programs to help the new entrepreneurs survive ${ }^{140}$.

How does the expropriation risk affect real estate investment?

First, it is important to remember that land reform is an agrarian issue. The risk of MSTprompted government expropriation of a small development parcel in the middle of Sao Paulo is small. Further, compensation for urban land taken by eminent domain has typically been excessive. ${ }^{141}$

Second, foreign real estate investors who buy agricultural lands for speculation, leaving them idle in the meanwhile, are willingly taking on the risk of expropriation.

Third, investors who intend to develop resorts or subdivisions that will leave large portions of the land forested must register the environmentally protected area with IBAMA, the federal environmental agency. This registration automatically exempts the area from expropriation ${ }^{142}$.

Fourth, investors in the Amazon region, particularly in the State of Para, should recognize that the MST is now active in this area. Investors in general should be aware if the MST is active in the area of their contemplated investment.

Fifth, it is important to record truthful information about the land price. It is typical for sellers to seek agreement with the buyer to a strategy that will allow the seller to underreport the sales price, thereby reducing taxes on sale. It is in the interests of the buyer to ensure that the
price is accurately recorded at the registry of deeds for several reasons. To begin with, providing understated price information to the registry is a recipe for problems in determining expropriation value because INCRA expropriations require pericias or official appraisals which include data from the registry. Further, the long-term interests of investors is served by transparency in real estate markets, and furnishing false information to the only public source of price information undercuts efforts for transparency. Further, it puts the buyer in a precarious tax situation upon resale, virtually guaranteeing that the problem is perpetuated. (Not to mention that it is illegal and dishonest).

Sixth, investors acquiring rural lands in areas where the MST is active should postpone closing until they are ready to commence productive use. If permits are required to develop the property, then permits must be obtained before closing so that productive use may begin immediately upon closing. Areas of environmental protection should be registered before closing. The investor should not allow any time for the land to be idle and eligible for expropriation under the beneficial use criteria in the Constitution.

Seventh, in the event of an MST invasion, a landowner who wants to prevent expropriation should proceed immediately to court ${ }^{143}$. The court may be expected to decide the case based on the Civil Code and issue a reintegracao de posse authorizing the police to evict the squatters. The courts are not responsible for land reform and will therefore issue the warrant independent of whether the claim of unproductive land use is valid. INCRA, however, is responsible for land reform, and it may expropriate land even if the court has ordered eviction. The objective of the landowner is to evict the squatters before they can involve INCRA ${ }^{144}$. Therefore, in this race against time, the land owner should act immediately. On the other hand, some investors have found it beneficial to have the land expropriated.

Eighth, if INCRA decides to expropriate, the land owner may challenge the taking in court by contesting the claim that the land is unproductive. However, the chances of the MST mistakenly invading land that is being used productively or has been registered as an environmental area with IBAMA is extremely small. The MST is a sophisticated organization and does not waste its time pursuing land that is ineligible for expropriation.

Ninth, the land owner may challenge the INCRA recommended value. This, however, should not be necessary if the purchase price was accurately registered. INCRA follows a well specified valuation method ${ }^{145}$.

In sum, the risk of MST invasion of urban land is immaterial. The risk of MST invasion of rural land is similarly remote if the land is productively used, or if unproductive environmental areas are registered. Investors who buy land in areas where the MST is active, and hold the land idle, are inviting the risk of expropriation. Accordingly, except for such cases, the issue of expropriation is not a risk to real estate investors.

Title Risk

Under the Civil Code described above, buyers of real estate may obtain good and marketable title to real estate. Title deeds are registered at the local Registro de Imoveis or Registry of Deeds, housed at the local Catoria or notary office. Registries, though administered by the local municipality, operate under federal regulations. In large cities there may be more than one cartoria. For example, in Sao Paulo, there are eighteen registry offices. Owners with title deeds that have not been registered may be viewed as having no legal claim to sell. Even registered title deeds must be carefully researched by buyer's counsel. There is no title insurance
available in Brazil, so due diligence typically performed by title insurance companies in the U.S., is the responsibility of the buyer in Brazi ${ }^{146}$.

Unfortunately the practice of grilhagem or land grabbing through falsified title did not end in the nineteenth century ${ }^{147}$. It is buyer's obligation to ensure that the title deed was a valid document in the first place, and that there is a clear and registered chain of title.

The buyer must also ensure that two different title deeds do not include the same land. In rural areas, the problem of overlapping land claims, and incorrect plot plans is common enough in rural regions that the Country has implemented a new system of rural real estate registration for property greater than 10,000 ha. Currently, buyers are required to have an approved engineer perform a certified GPS survey of the lot before buyer can complete the title deed registration. It is possible that the lot area will be less than or greater than the area shown on the previously registered plot plan. It is wise to make the purchase price a function of the undisputed lot area. Thus if the lot area is smaller than expected, the price would fall. If the area were larger, however, the buyer, to incorporate the additional area, would have to seek consent of adjacent properties to accept the surveyed boundaries. Such abutter consent may be difficult to secure. The requirement of an updated GPS survey is an excellent idea. The problem with the requirement is that it is administered by INCRA, which normally takes about one year to provide an approval. The title deed cannot be recorded without INCRA approval. Land use approvals can be processed simultaneously ${ }^{148}$.

Because the buyer may need as much as two years to secure both Land Use approvals and INCRA approval, there is a risk that by the end of the process, the buyer will no longer be able to obtain free and clear title to the property. The damages arising from that risk are greatest if the Buyer closes and pays the full purchase price before obtaining all approvals necessary to register
title deed. For example, it is possible that during the year or more necessary to obtain approvals, creditors of the seller could place a lien on real estate because it is registered in the name of the seller, even if it has been transferred to the buyer. As another example, the seller could sell the real estate more than once. Whichever buyer obtains the right to register title deed first would own the property. The buyer to arrive second to the registry would have a claim against the seller, but not against the real estate. The losses from these problems may be avoided by postponing payment and closing until all approvals, or at least those approvals necessary to register the title deed, are in hand. In that way, losses, if any, would be limited to the fees and costs of obtaining permit. It is also possible to register the Purchase and Sale Agreement thereby notifying the world of the impending sale. However, even that registration requires the INCRA approval ${ }^{149}$.

## Land Use Regulation Risk

Foreign real estate investment in Brazil is weighted toward investment in real estate development, not toward buying stabilized properties ${ }^{4}$. There are two reasons for this.

The first is that ownership of single buildings is often composed of separately owned units. To purchase such a building requires negotiations with multiple unrelated parties, which empowers the last seller to demand a windfall (Deal and Rossi). Second, is that development is attractive because there is a need for more buildings. For example, the Economist estimates that Brazil has "a shortage of 8 million houses and huge pent-up demand" ${ }^{150}$.

[^3]Development, whether in domestic or foreign markets, entails not only land ownership risk, but also entitlement risk, i.e., the risk of obtaining permits to build. ${ }^{5}$ Thus land use regulations as well as land ownership law must be scrutinized for risk, if any, posed to investors.

In general there are two kinds of land use regulations. First, there are municipal zoning regulations. Cities in general will have a plano diretor or master plan that defines allowable uses in each zone, and indicates the minimum lot size, lot coverage ratio, floor area ratio, setback requirements (though these are generally quite small and sometimes non-existent), and sometimes percentage of permeable surface area ${ }^{151}$.

Second there are environmental regulations issued at the Federal and State levels. Many areas of the Country, particularly areas along the coast are restricted as Area de Protecao Ambiental (APA) or Environmentally Protected Areas. These areas will have another layer of land use regulations. Developers working within an APA must prepare an environmental impact study for submission to multiple state and federal agencies. Securing approval for development plans from the various agencies involved may take two to three years. In general the APA regulations are intended to protect important, rare or at-risk ecosystems such as the patches of original Mata Atlantica or Atlantic Rainforest that remain along the coast, and Mangrove areas. There are also federal and state environmental regulations that prohibit construction in permanent preservation areas such as within thirty meters along rivers, lakes and streams, on certain kinds of dunes and cliffs, on tops of mountains, in flood plains, and so forth ${ }^{152}$. There are also environmental reserve requirements for rural lands that establish the percentage of any land area that must be kept undeveloped. The reserve requirements vary from region to region from

[^4] must be contracted. These risks, however, will not be examined in this memorandum.
approximately $20 \%$ to $80 \%$. The reserve requirements are in addition to the permanent preservation areas. Landowners file a declaration of the reserve area with IBAMA. A careful study of all environmental requirements is essential to understanding how a site can be developed ${ }^{153}$.

## Foreign Ownership Risk

Brazil's Constitution allows foreigners to own real estate in Brazil. Previously, foreigners were prohibited from owning rural lands, but that changed with the 1988 Constitution. On occasion, an ill-informed local registry of deeds official refuses to register title to a foreigner. In such a case, a foreigner may file suit and obtain a quick, favorable decision. Foreigners often elect to form, and hold title in the name of, a Brazilian company. Doing so avoids any possible problem since there is no prejudice attached to the national origin of the company's owners, or the source of the country's capitalization. Also, holding title in a Brazilian company is a good way to own coastal real estate. Private ownership of the beachfront is prohibited because it is considered strategically important to the Brazilian Navy. However, Brazilians, and Brazilian companies, even if $100 \%$ foreign owned, may obtain a use permit from the Navy for a small fee. As is the case with most bureaucratic processes in Brazil, securing this permit takes time ${ }^{154}$.

## Conclusion

This memorandum has provided a survey of legal, regulatory and political factors that may contribute to risk or the perception of risk in Brazil's real estate market. It has looked at the laws, rights, regulations and politics from an historical perspective, and from a present day perspective. Thus far, no additional risks, as compared with those of developed countries, have been identified that would explain the high risk premium paid by Brazilian real estate
investments. No risk premium could or should be paid for features, such as high fees, for example, that are just part of the investment landscape. These are not risks. They do not create variance from expectations. On the contrary, they are known conditions that must adjust the expected cash flows. Similarly, no risk premium could or should be paid for "risks", such as the "risk" of adverse possession, which management may eliminate through its protocols. Risk premium paid in consideration of known or manageable conditions, is arbitrage.

The survey, however, is incomplete. Country-level political risk must also consider the risks of inflation, sovereign debt default, currency stability and exchange control risk. On the surface, however, it is not clear that any of these risks are actually risks to real estate investments. Often in countries that have experienced economic turmoil, real estate is the safe asset to which investors gravitate, thereby driving up its price. In Brazil, at the onset of the Cardoso administration when inflation was reduced to single digits from what had been $2500 \%$ per year, the value of real estate in some areas was reported to have dropped by $60 \%{ }^{155}$. So, there should be no automatic assumption that financial turmoil, which may be adverse to stocks and bonds, should negatively impact real estate. More work, however, needs to be done in this area before conclusions can be reliably drawn.

### 5.02 Appendix A to Memo: Risk Indices

In general, risk ratings are built up from various components of risk such as country risk, transparency, and real estate specific risk. These components are themselves composed of several sub-components. For example, country risk may be composed of political risk, inflation risk, currency risk, balance of payments risk, exchange control risk, discriminatory tax regulations, limitations on foreign ownership, capital controls, lack of information, etc. Each subcomponent may be further subdivided. For example, political risk itself may have several
dimensions including frequency of government change, international conflicts, violence, armed revolts, default on international debt obligations, etc. ${ }^{156}$

There are several problems with the above approach. First, there is enormous potential for overlap. For example, "lack of information" may be double counted as both transparency risk and country risk. The double counting problem is exacerbated by the 'subcontracting' of the various components. That is, an index may be composed of country risk as calculated by the International Country Risk Guide, transparency risk as calculated by Jones Lang Lasalle Global Real Estate Transparency Index, and real estate risk calculated by a third party, none of whom are considering the subcomponents already factored into the work of the other. This may result in significantly overweighting a particular dimension.

Second, these indices tend to contain hidden assumptions that may not be true for the real estate of any particular country. For example, country risk includes inflation risk, which may make sense for investments in non-indexed bonds, but may not make sense for real estate. For example, when inflation was brought under control in Brazil in the second half of the 199o's, the value of real estate fell as much as $60 \%$ in some areas of the country ${ }^{157}$. Therefore, a negative correlation between real estate investment performance and inflation risk cannot be assumed. Similarly, the prospect of foreign debt default is not necessarily harmful to real estate because, in many countries, real estate is considered the preferred safe haven when there is trouble in financial markets ${ }^{158}$. In other words, real estate in some places may in fact benefit from economic turbulence, but the indices show the opposite.

Third, the indices tend to confuse risk, which necessarily involves variance from expectations, with unproductive features of a country's business environment that are absolutely predictable. Thus, high or discriminatory tax regulations, or high transaction fees, are not risks.

They are realities that must be factored into an investment decision, but do not deserve risk premium. The indices, however, tend to capture these features as part of a country's risk.

Fourth, related to the problem of including elements that are not risks, is the problem of including risk that may be managed away. For example, in Brazil, the risk of losing land to claims of adverse possession exists, but may be managed away. No risk premium could or should be expected for such risks because they may be eliminated. In fact, the existence of risk premium for such risks would constitute arbitrage for those with the skill to manage the risk.

Fifth, is the question of how the evaluator came to assign a particular number to a particular subcomponent. In this sense, the rating may not illuminate the question of risk, but rather may disguise it. For example, the Jones Lang LaSalle Global Real Estate Transparency Index explains that it assigns numbers based on answers its own managers give to standardized survey questions ${ }^{159}$. However, the managers' answers themselves involve a subjective evaluation process that is necessarily out of view. The nature of the risk is not clarified by saying that someone else made the evaluation.

Sixth, ratings are a relative measure. They apply based on how countries compare with other countries. Logically, this may happen in two basic ways. An evaluator may rank a component across all countries to ensure consistency of judgment, or an evaluator may rank only countries of his personal expertise, to ensure that judgments are reasonable. However, unless the rating companies employ evaluators whose expertise extends to all countries ranked (sometimes over 40 of them), the indices cannot be constructed from both reasoned and consistent judgment.
\#\#\# End Memo \#\#\#

### 5.03 Sensitivity Analysis

She reviewed the memo, and concluded that it objectively addressed her investors' likely concerns about risks that were not quantifiable. It would allow her to focus the presentation on the quantitative aspects of risk. She returned to the question of Sensitivity Analysis.

The risks she wanted to capture in the Sensitivity Analysis were those market risks that real estate investors typically face. The two primary risks, as she saw it, were those of 1 ) overbuilding; and 2) a decline in demand such as had happened in Brazil over the last two years. Either risk could impact Occupancy Rate or ADR, which would impact cash flows and the return. She also suspected that inaccuracy was necessarily embedded in the Competitive Index that she had assigned to the proposed property because the Lodge would be a new model. As such, its expected performance, derived by difficult comparison with that of other properties in the Competitive Set, was only roughly estimated.

For each risky input to the DCF model, such as, for example, Supply growth, Demand growth and Competitive Index, she would determine a probable interval over which the results would range. Using the high and the low of each range, she would re-calculate the IRR.

She considered the simple example of a hotel with an expected ADR of $\mathrm{R} \$ 530$, and a likely variance of $10 \%$ above or below the expected result ${ }^{160}$. Under those conditions, the "best case" ADR would be R\$583, and the worst case, R\$477. In sequence, the high and low figures for ADR could be substituted into the Discounted Cash Flow Analysis model for this particular example (not shown here), yielding, in each case, a different cash flow and IRR. Entering the highest ADR in the probable range resulted in an IRR of $22.4 \%$. The low of the range yielded an IRR of $17.8 \%$. The IRR of other points in the ADR interval could be checked as well. The table below provides a simple compilation of these results.

## Figure 5-1: Sensitivity Analysis

| Sensitivity Analysis <br> 161 <br> IRR of Hotel |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| IRR \% | Variation in the ADR of the Hotel |  |  |  |  |
|  | $-10 \%$ | $-5 \%$ | 0 | $+5 \%$ | $+10 \%$ |
|  | R\$ 477 | R\$ 504 | R\$ 530 | R\$ 557 | $\mathrm{R} \$ 583$ |
|  | $17.8 \%$ | $19.0 \%$ | $20.2 \%$ | $21.3 \%$ | $22.4 \%$ |

Renata thought carefully about the inputs to vary. Did it make sense, for example, to start by varying the Occupancy Rate, or rather to start at an earlier point in the Feasibility Analysis, and vary, for example, the CAGR for supply?

When she completed the analysis, she had several individual tables showing a range of returns, each obtained by isolating a single input and examining the effects of testing its reasonable limits. In reality, however, several of these individual effects could happen together. The combinations could exaggerate or mitigate the variance in the return. She considered whether she should, and how she might, capture combined effects of varying the inputs. She also wondered what these results meant in terms of the risk to her investors. How could she help them to weigh the expected return vs. the variance in the expected return, against that trade-off in other potential investments?

It bothered her that her analyses sought to ascertain information about the ex ante return yielded by the proposed investment, whereas DCF analysis normally aimed to discover the Net Present Value of the Investment. However, her attempts in that direction had failed for lack of a systematic approach to determining the appropriate opportunity cost of capital, i.e., the discount rate, for a development deal of this kind. In this regard, she was stymied.

Now having completed the DCF and Sensitivity Analysis for the investment, she examined the results, and pondered their meaning. How did the results obtained from the DCF and Sensitivity Analysis relate to her international and macro-economic analysis of the market?

Was there anything in the DCF analysis that captured the benefits that she anticipated from a stronger currency in Brazil, from increased FDI, from lower interest rates, or from growth in the domestic economy of Brazil? In sum, did her quantitative results fit the picture that had emerged at each level of the market analysis? If not, should she do anything about it?

When she felt satisfied with the answers to those questions, she prepared a complete report of analysis and conclusions. Using that as a guide, she assembled a fifteen minute powerpoint presentation for her investors. The presentation would consist of ten to fifteen slides that would most effectively communicate her recommendation and reasoning. Then, confident that she had considered every angle, she allowed herself to relax. She could feel the plane begin its descent.

## Part 2

## 6 The Intervening Period 2003-2007

The Lodge at Corumbau opened its doors in January 2006 to wide critical acclaim. Brazil's preeminent style magazine, Casa Vogue immediately grasped the import of this new addition to Bahian lodging, and celebrated it with a long article and enticing photographs in its September 2006 issue. Europe’s chic journal "Wallpaper" also featured it in the October 2006 issue, as did other world press. Reviews of the Lodge indicated that its design used an earthy and indigenous architectural vocabulary to create a composition that was sleek, charming, comfortable and respectful of the natural beauty around it. In a word, it was appropriate. Renata was rightfully proud of her accomplishment (See photographs in Exhibit 38).

### 6.01 Entitlements

Two permits were required to build on the site: a building permit, issued by the municipality; and an environmental permit, issued by the federal agency IBAMA. The former was handled efficiently by her consultant who submitted the plans to the mayor's office, which provided her a permit within thirty days. Environmental permitting took longer. She met with IBAMA at the outset to discuss details of the process and negotiate the waterline set-backs. Normally, the relationship with IBAMA is governed by whether the site is within an Environmentally Protected Area (APA) or not. If not, permitting is rapid; if so, the process is prolonged ${ }^{162}$. Renata found, however, this site had a different designation altogether. Because of its proximity to the National Park, it was given a Park Area designation, which required extensive environmental studies to be completed by licensed engineers, and submitted to IBAMA. The normal waterfront set-back requirement was thirty meters, however, Renata's site was set on a small cliff overlooking the beach, which mandated a 100 meter set back ${ }^{163}$. Renata pointed out the low density of her development, and the proposed sewer treatment plan and reforestation
project, and negotiated with IBAMA to reduce the set-back to sixty meters. She was given oral authority to proceed approximately six months after submission to IBAMA of the environmental reports, but it took several years to obtain the permit.

### 6.02 Construction

As planned, Renata hired Geraldo as the construction manager, and also found a builder named Alfonso to work under Geraldo’s supervision. Alfonso was a carpenter and had five employee carpenters on his payroll. He would supply the job with labor and some subcontractors such as the plumber. His charges for these services would be submitted to Geraldo, who added the cost of materials, and added his $20 \%$ fee. As time went on, Renata bought more of the materials herself to save the mark-up. Renata contracted with other "subs" directly, including the electrician, excavator, sewer treatment contractor, air conditioning contractor, water-heater installation, glass, fire retardant for the roof of the cabanas, telephone system, landscaper, reforestation contractor, and restaurant kitchen. In addition she had design professionals, such as the lighting consultant and the landscape architect working under her. Since the job was in a remote location, and the workers set up temporary housing to live on site, Renata incurred various overhead expenses that would not be typical of an urban job, such as, for example, providing food.

Renata was at the job every day supervising. This was particularly important in connection with the indigenous building practices described in section 4.11, and pictured in photographs in Exhibit 39. Geraldo, on the other hand, was located too far away to make site visits practical. During the early phase of construction all went well, however, during the months of June and July, Renata had to be away from the job. When she returned, she found that labor charges had been incurred for every day of the period, but there had been no progress whatsoever. Since Geraldo had promised her that the cost of labor would not exceed R\$ 150 per square meter as indicated in section 4.11, he agreed to postpone any further payment of his mark-up on either
labor or materials until the final labor costs were quantified. The budgeted and actual construction costs are shown in Figure 6-1.

Figure 6-1: Budgeted and Actual Construction Costs

| Administered items | Sq. Meters | Budget/ Sq. Meter | Budget | Actual |
| :--- | :--- | :--- | :--- | :--- |
| EMPLOYEE HOUSING | 277 | 300 | 83,100 | 96,130 |
| LAUNDRY | 141 | 300 | 42,300 | 62,470 |
| RECEPTION | 707 | 709 | 501,263 | 826,930 |
| CABANAS | 1170 | 1013 | $1,185,210$ | $1,281,260$ |
| SALON | 660 | 709 | 467,940 | 721,400 |
| SUBTOTAL |  |  | $2,279,813$ | $3,044,076$ |
| GLASS |  |  |  |  |
| FIRE RETARDANT |  | NA |  |  |
| WARECt items |  |  | 25,000 |  |


| TELEPHONE | NA | NA | 20,000 | 21,000 |
| :---: | :---: | :---: | :---: | :---: |
| GARDEN |  |  | 0 | 20,000 |
| PLANT MATERIALS | NA | NA | 100,000 | 100,000 |
| REFORRESTATION |  |  | 0 | 100,000 |
| ELECTRIC | NA | NA | 100,000 | 100,000 |
| I LLUMI NATION |  |  | 0 | 70,000 |
| KITCHEN | NA | NA | 100,000 | 100,000 |
| EXCAVATION, <br> OVERHEAD, <br> FURNISHINGS, SOFTAND <br> OTHER | 2,955 | 100 | 295,500 | 557,924 |
| SUBTOTAL |  |  | 749,500 | 1,015,924 |
| TOTAL |  |  | 3,029,313 | 4,060,000 |
| CONTINGENCY |  |  | 106,026 |  |
| PURCHASE |  |  | 940,000 | 940,000 |
| $\begin{aligned} & \text { TOTAL LAND AND } \\ & \text { CONSTR } \end{aligned}$ |  |  | 4,075,338 | 5,000,000 |

The construction statement reflected the initial cost for the reforestation, but there would also be an ongoing cost as the project continued over time. Despite the significant cost overruns, her commitment to the reforestation project was unwavering. Nor did she skimp on other aspects of the job. For example, she hired a first-rate illumination consultant, and a top-notch landscape designer. The results spoke for themselves.

As an operator, Renata was committed not only to environmental sustainability, but to the sustainability of the surrounding community, and so she hired and trained local people whenever possible. Her priority, however, was her guests for whom she personally ensured a rewarding experience. The Corumbau Lodge was exactly the kind of development that the State of Bahia was eager to develop: upscale, eco-friendly and community supportive ${ }^{164}$. From all angles, Renata seemed to be doing everything right.

Everything, that is, except for one thing. She was not making money. While the losses were not staggering on a cash basis, they were quite large if you factored Renata's two years without salary or days off, and her unpaid architectural and development fees. The returns to date, however, were a far cry from the strong performance she and her investors had envisioned. Not only did she receive no return on her labor and entrepreneurship, the investors received no return on their capital. This was not a tenable situation, and Renata knew that she needed to do something about it quickly.

She spoke frequently on the phone with her close Brazilian friend Roberto who she knew from childhood family vactions to Brazil. At about the same time, they had both left secure jobs to become entrepreneurs in real estate development. Roberto had built condominiums in the steel valley of Minas Gerais. These projects consistently turned internal rates of return of about $30 \%$, and did so with very little risk. Roberto felt that Renata should sell the resort and re-invest the proceeds in a housing development, but he lacked the training to advise her properly, so when he saw the advertisement for the Nordeste Invest conference to take place in June 2007 in Salvador, Bahia, he suggested that they go and talk with experts.

A few days before leaving for the conference, Renata received an unexpected, unsolicited offer for the property in the amount of 5 million Euro. Her investment in the property was 5 million Reais.

## 7 Conference

Salvador, Bahia. June 2007. Sitting at the back of the Nordeste Invest conference during a coffee break, she showed Roberto the offer she had received for Corumbau Lodge. Roberto was impressed, but knowing how she felt about the Lodge, not surprised to learn she had turned it down point blank without discussion or counter-offer.

Milling about during the coffee break were many of the players in Brazil's rapidly growing second-home and resort market. One of the many people they met was a Brazilian MBA student from U.C.L.A., who planned to research Brazil's resort markets as part of a team thesis. Sergio, though limited in experience, had a keen mind, and asked thought-provoking questions.

In response to Sergio's questions and interest in the state of the project, Renata gave him her pre-development DCF Analysis (Exhibit 31) and her first year operating statement and DCF Analysis (Exhibit 32). She also gave him charts showing her 2006 and year-to-date 2007 occupancy rates (Exhibits 35 and 36), and a copy of her budgeted and actual construction expenses (Figure 6-1). She also provided him with her most up-to-date Occupancy rate data for the competitive set (Exhibit 37).

He agreed to review these items and make his own cash flow analysis and forecasts. If the results turned out to be disappointing, he would also list the possible diagnoses, the corresponding remedies, and suggest tests to rule out options and isolate the correct diagnosis.

Sergio's initial interest was piqued through his curiosity about why the construction numbers had been significantly higher than estimated. He observed that the June issue of the industry journal Construcao Mercado had a detailed budget for a project much like the Lodge. Using the country's construction inflation index (INPC) he would be able to deflate the budget back to April 2004, and test the reasonableness of her numbers. While this would have no effect on her predicament, it would be good to know for future construction work.

With respect to her offer, Sergio recommended appraisers and brokers who could provide her comparables. Like all developers, Sergio was interested in value creation, and wondered what the offer implied about the value Renata had created by her entrepreneurial work. If the offer were accepted, he wondered, how much of the return would be attributable to movement of the foreign exchange market, and how much to other factors including Renata's work. Naturally, if the offer did not reflect the market value of the property, the exercise would be academic, but that did not dampen his curiosity.

### 7.01 Macro- and International Economic Recap

At the afternoon conference session, Renata was pleased to learn that her 2003 macroeconomic forecast for Brazil had been right on the money. Accordingly, like Sergio, she suspected that a significant part of the value increase was attributable to international and macroeconomic forces. In the four years since her investment group from Portugal decided to develop the property, Brazil's incipient economic recovery marched forward.

Its exchange rate had improved dramatically as Renata had predicted ${ }^{165}$. On paper, her investors had profited from the currency changes alone. Interest rates had indeed fallen, and real estate values risen with lower investor return expectations ${ }^{166}$. The Trade Surplus had grown, keeping the economy moving forward (though at a very slow pace by the standards of other BRICS countries) ${ }^{167}$. Inflation remained under control, leading to expectations that interest rates may fall further ${ }^{168}$. Such expectations gave new life to consumer finance markets, especially Brazil's long dormant mortgage market.Foreign exchange reserves had increased, and economic and monetary experts were predicting ever higher credit ratings. ${ }^{169}$

While this was welcome news, it had to be put into perspective. Brazil still had major challenges ahead, and the pride and confidence that she heard in the financial news may have leapt ahead of the reality. With real GDP growth of about 3\%, and population growth of about $2 \%$, the country's real GDP growth per capita was negligible ${ }^{170}$. Growth per capita was the
critical test of economic development, and Brazil was barely passing. While lower interest rates and more widely available financing could stimulate economic growth, the country had significant structural problems to deal with: It had the demographic profile of a young country, but the pension profile of a population of retirees ${ }^{171}$. It had a burdensome level of taxation with few services to show for it. It had invested so little in infrastructure that transport costs now consume "nearly $13 \%$ of Brazil's GDP". ${ }^{172}$

She reminded herself that the markets were correcting an overreaction to Lula's election, and that the hard work lay ahead. According to a famous economist from MIT, there were eight tests, all of which a country had to pass to sustain GDP per capita growth. These were: 1) A patient citizenry, necessary because it would take a hundred years to catch up to the global leader, even if you do everything right; 2) Low population growth, because population growth reduces the per capita GDP growth; 3)Education, because the world was being transformed by six critical technologies that effected a growing education premium; 4) Mobilization of scarce resources (for example the savings rate in China was $50 \%$, and that in Singapore was 70\%); 5) Investment in infra-structure; 6) A motivation system; 7) The ability to work together to acquire new skills; and 8) Personal safety and no corruption ${ }^{173}$. Brazil had a tremendously patient citizenry, as was shown by the popular understanding of the circumstances under which Lula had to work, but on every other measure, Brazil got low grades.

### 7.02 The Real Estate Industry 2007

According to the current conference speaker, the real estate industry seemed poised for significant growth. Changes in the legal framework and falling interest rates made debt financing look as though it could emerge as a major driver of real estate activity. Mortgage lending activity had grown from R\$ 6.7 billion in 2003 ( $32.8 \%$ banks and $67.2 \% \mathrm{CEF}^{174}$ ), to $\mathrm{R} \$ 9.0$ billion in 2004 (33.3\% banks, 66.6\% CEF), to R\$ 13.9 billion in 2005 (34.5\% banks, 65.4\% CEF).

Nevertheless, as the speaker had pointed out, the volume was a small share of GDP and had ample room for growth to continue ${ }^{175}$.

The Brazilian stock exchange was now a major element in capitalizing real estate companies. While the volume of all offerings had been growing quickly, real estate's share of those offerings had grown even more quickly. In 2005, real estate companies represented $7 \%$ of total equity offerings of $\$ 13.3$ billion. In 2006, they were $18 \%$ of total equity offerings of $\$ 30.1$ billion. In the first quarter of 2007, real estate companies represented $48 \%$ of total equity offerings of $\$ 12.9$ billion. Notwithstanding all that activity, Brazilian real estate stocks comprised only approximately $3 \%$ of stock market activity by trading volume, and less than $3.5 \%$ by market cap. By comparison, Mexican real estate companies comprised about $8.5 \%$ of that country's stock market activity by trading volume, and less than $5 \%$ by market cap. Thus, there was room for growth in equity offerings of real estate related companies. ${ }^{176}$

Renata thought about what she just heard: first, mortgage financing had doubled between 2003 and 2005, and was expected to grow much faster as interest rates fell; second, equity financing had increased nearly six-fold from 2005 to 2006, and it appeared that 2007 would break the records. The Brazilian real estate industry was awash in cash. In addition, the outlook for every segments of the industry was positive.

Retail: There were great opportunities to buy mall properties with income growing at faster than the rate of inflation, at $11-14 \%$ cap rates. There were consolidation opportunities in the retail sector because many properties were owned by single mall owners. The five largest participants in the Mall market, Multiplan (5.6\%), BR Malls (5.0\%), Sonae (4.9\%), ANCAR (2.1\%) and Iguatemi (4.3\%), have only $21.8 \%$ of the market based on $100 \%$ of Gross Leasable Area (GLA) and only $11.9 \%$ of the market based on GLA weighted for ownership. Thus, 80 $90 \%$ of the market is controlled by smaller owners ${ }^{177}$.

Office: The office sector also presented opportunities because of constrained building activity over the previous several years. There were differences, however, about the extent of the
office opportunity, as some believed that cap rates in this sector were already compressed, and that income would grow faster than inflation ${ }^{178}$.

Residential: The enormous pent-up demand for residential real estate, 8 million homes according to the speaker, was growing ${ }^{179}$. Brazilian demographics ensured significant demand for houses through 2020. This did not quite make sense to Renata, but Roberto had promised to explain the housing market to her tonight over dinner.

Lodging: The lodging and tourism real estate sectors were of greatest interest to her. She wanted to know what had gone on over the past four years, what she could do to raise her occupancy rates, and where the lodging market was moving, and there was probably no better place to consider these matters than there at the Nordeste Investe conference surrounded by the lodging industry experts.

### 7.03 Lodging and Tourism Real Estate Sector

Brazil had made a strong economic recovery since 2003, but it was clear that tourism remained a small part of the economy. The first speaker compared the tourism and lodging sector performance of 6 countries: the Dominican Republic, Brazil, Mexico, Argentina, Spain and the USA.

The Brazilian government had increased its spending on tourism, but it had not made tourism as high a priority as had other countries. Brazil's spending on tourism in 2007 was expected to be $2.8 \%$ of GDP. The equivalent figure in Mexico was $4.7 \%$. In the U.S. it was 5.1\%. In Spain it was 6.5\%, and in the Dominican Republic it is 21.1\%. Only in Argentina was the government spending on tourism, at 2.4\%, slightly less (in percentage terms) than that of Brazil ${ }^{180}$.

Brazil also had a small index of investment in tourism infrastructure. In 2007, the percentage of total capital investments estimated to be invested in tourism infrastructure was 7.7\%. In Mexico it was 13.4\%. In the U.S., 10.7\%. In Spain, 14.1\%. In Argentina, 8.8\%. In the

Dominican Republic, 20.7\%, meaning that Brazil had the lowest share of capital directed to the tourism sector. Similarly, the impact of tourism on the GDP of Brazil (2.6\%) was lower than that of Mexico (4.9\%), Argentina (2.8\%), Spain (6.8\%), United States (3.8\%) and Dominican Republic (6.3\%) ${ }^{181}$.

Except for Argentina, with 3.9 million foreign tourists estimated for 2007, Brazil, with 5.36 million had the lowest of the group. Mexico, for example, was expected to have 22 million tourists in 2007, over 4 times as many as Brazil. Brazil had 7,132 hotels compared with Mexico's 13,751 hotels. Further, Brazil, with a population per hotel ratio of 26,371 , as compared with Mexico $(7,814)$, Argentina $(9,799)$, Spain $(2,545)$, Dominican Republic $(13,466)$, and the United States $(6,271)$, has more people per hotel than does any other country in the group. In terms of economic activity generated by tourism, Brazil with $\$ 79$ million compared unfavorably with Mexico which generated $\$ 149$ million. Further, Brazil's .02 tourists per resident ratio, was one tenth Mexico's .2 tourists per resident ${ }^{182}$.

The speaker's point was that tourism was in a very early stage of development in Brazil, and the growth potential in the sector and the associated real estate sector was significant. Renata and others heard the speaker describe a child with the potential to grow, if only given food. The questions from the audience demonstrated significant disagreement about how to feed the child. Many felt the problem was the size and efficiency of Brazil's domestic air carriers, in their inability to keep pace with enough planes and planned flight routes ${ }^{183}$. In a moment of levity one audience member claimed that the shortest route between the City of Cuiaba and the City of Natal, was through Lisbon. From her own bookings, Renata knew that she had lost at least one customer coming from Sao Paulo because there were no seats available on flights to Porto Seguro.

Another theory was that there were not enough international air routes directly to cities of the Northeast. That, according to some was because there was no demand for seats. Others opined that both the domestic and international supply of seats fell significantly when, in 2006,

Varig airlines, a domestic and international carrier with $40 \%$ of Brazil's domestic market, was forced by financial problems to stop operating. A third theory held that the airports of the Northeast were inadequate, and would not allow substantial growth in the number of flights from Europe directly to the Northeast ${ }^{184}$. The fourth theory was the most interesting of all. According to some, the supply of resort options had to reach a critical mass before the tour operators would invest in this market ${ }^{185}$. The argument was, in effect, that supply caused demand. Renata would remember to ask Sergio about that one.

The speaker from the Ministry of Tourism made a very brief presentation. According to Embratur estimates, international tourist flow was expected to grow from 5 million tourists in 2006, to 9 million tourists in $2010^{186}$. Renata quickly calculated that this was a CAGR of $15.8 \%$ over four years. She wondered what the growth rate had been since 2003, and how a CAGR of $15.8 \%$ would directly impact on her business. The average spending per foreign tourist was also expected to grow as it had over several years, with average spending growth from 2005 to 2006 of $\$ 100$ per foreign visitor ${ }^{187}$. According to the speaker, Embratur, since 2004 had formed tourist offices in eight countries, the U.K., Italy, Germany, Portugal, U.S., France, Spain and Japan. The Ministry budget for 2006 was R\$ 1 billion ${ }^{188}$. The foreign offices were helping to increase foreign tourism demand despite limited flight availability, and limited tour operator interest because the size of the supply was so limited.

As speakers from the lodging industry appeared in succession, one common trait emerged: resorts were increasingly conceived of as mixed use projects in which lodging was but one component. Many resort proposals included a resort hotel, and a for-sale housing product of second homes or condominium apartments, or sometimes a combination. Large developments could be more complicated mixed use developments ${ }^{189}$. In later conversations, Sergio ventured that the gravitation toward a product mix was probably because the cash flow from the sale of housing would offset the hotel operating losses in the first few years, and the hotel services helped the sale of the houses. Indeed, a broker she met from the state of Alagoas confirmed that
she could sell out large apartment condominium developments in resorts from the plans in thirty days ${ }^{190}$.

The final speaker of the afternoon addressed the statistics and issues of her prime interest, i.e., the performance of resorts in the luxury sector.

The speaker's presentation told her that supply in the Competitive Set had grown 46\% in the period since $2003{ }^{191}$. That represented a Compound Annual Growth Rate (CAGR) of 9.85\%. This was somewhat faster than she had anticipated back in 2003.

In the same period, Demand in the Competitive Set had at a CAGR of $11 \%$, also faster than she had foreseen ${ }^{192}$. Therefore, Occupancy Rates in the competitive set had risen from around $50 \%$ to around $60 \%$ by 2006, with a slight decline from 2005 to 2006 related to, some believed, a large number of resort openings ${ }^{193}$.

Similarly, ADR for the competitive set had experienced a CAGR of $14.35 \%$, and RevPAR had risen at a compound rate of $19.1 \%{ }^{194}$. Clearly she was having a different experience from that of the other top flight lodging options in the area, the selective results of which were presented next.

Iberostar, Praia do Forte, BA


Iberostar had opened a large resort in Bahia on the Coconut Coast, and had quickly achieved occupancies above $65 \%{ }^{195}$. Iberostar was a vertically integrated company with its own tour operators on whom it relied heavily. The company also owned its own planes, which allowed it to create demand through charter flights ${ }^{196}$. The charter flights offered the flexibility to connect from Europe directly to Salvador, the capital of Bahia. From there, the resort was only
an hour's drive. Finally, Iberostar had also located itself in a recognized resort destination: Praia do Forte.

Iberostar, Praia do Forte, BA


Renata recognized the advantages of a mass tourism product that strongly appealed to tour operators. The charter flights were a big advantage. Most commercial international flights still went through Sao Paulo or Rio de Janeiro. Thus, for example, to reach her Lodge, foreign clients would have to fly to Sao Paulo, then to Porto Seguro, then by private plane to Corumbau. A direct flight to Bahia would save two legs of the trip, and was itself a significantly shorter flight than was the Europe to Sao Paulo trip. Further, having a well-known tourist destination, a huge marketing budget, and a name-brand company were major draws. But she had never intended to enter the mass tourism business. Wasn't there a role for a small resort of the kind she had created?

Txai Resorts, Itacare, BA


He turned to another success story. Txai Resorts in Itacare, Bahia, had entered the market shortly before her. It began with sixteen bungalows, each about $80-90$ square meters ${ }^{197}$. Yet, despite its unsuitable size for tour operators, its lack of access to charter flights, its nonbrand name operator, the absence of amenities such as a golf course, it had become the most chic
resort in Brazil, commanding daily rates of R\$1200, and at reasonably high occupancy levels ${ }^{198}$. In fact, Txai had become the principal example of an exceptional boutique resort in Brazil, and as such, was acquiring a brand name status. The owners intended to capitalize on the success. Not only had they increased the number of units to 40 , but on their 100 hectare site, they added a luxury resort home component ${ }^{199}$. It too was a success, and each component seemed to help the other. The developers were already planning to raise funds in the public equity markets through an IPO later in the summer. Doing so would provide the funds necessary to build Txai resorts throughout the country. She was eager to hear how this would be received in the Brazilian IPO market.

Txai Resorts, Itacare, BA


One reason for Txai's success was location. The developers had got to the Itacare area early in its growth. One of the most beautiful areas of the coast of Bahia, Itacare remained mostly unknown because it was inaccessible. After the road from Ilheus to Itacare was paved, Brazil, and then Europe, discovered Itacare. It became a tourist destination. Txai's fortunes developed with the destination.

Txai had also managed to penetrate the very thin market of extremely rich Paulistas. The resort became the prestige destination for that set, but how they did this was unclear. Media exposure helped of course, but she had also heard that the developers themselves were very well connected within Sao Paulo, which enabled them to penetrate this market. This meant that they were able to maintain occupancy rates without reliance on the tour operators that controlled
bookings of foreign tourists. They had managed to gain access to a domestic market that could afford the resort.

Renata asked the speaker, a well-known hotel consultant in Brazil, if she could speak with him privately for a few minutes. They went for coffee, while she told her story. He explained that the examples he gave contained important implications for Renata. He summed up the implications as follows:

Rule \#1: The resort does not make the destination. The destination makes the resort.
Rule \#2: Accessibility is critical, and that meant a successful resort could be located no more than a 60 minute car ride from a major airport.

Rule \# 3: A competitive advantage was critical.
Iberostar had located in Priai do Forte, after it was already a destination. Txai located in Itacare, having guessed correctly about its becoming a destination. Iberostar was an hour's drive from Salvador airport. Txai was an hour's drive from the airport in Ilheus. Iberostar's competitive advantage was its vertical integration. Txai had its deep Paulista connections. Renata, on the other hand, had not built in a destination, had not built in an accessible location, and had not defined her competitive advantage for marketing purposes. According to him, it was that simple.

Everything he said made sense, but she was troubled by the determinism in his analysis. The consultant spoke as if these were laws that extracted a price for their violation. So, she herself brought up a third example.


The Praia do Forte Eco-resort had set the standard for resort development and ecotourism in Brazil. It opened in the early 1990's before much serious thought had been given to tourism on the Northeast Coast of the country. Klaus Peters, an industrialist from Sao Paulo, sold his company and pursued his dream of combining environmentalism and tourism in the remote location of Praia do Forte. Today the location is an hour's drive from Salvador airport. But at the time, getting from Salvador to Praia do Forte was a trial. He built in a location that was not a destination. He built in a location that was inaccessible. After the location became accessible, he did not build a conference center, or seek to penetrate a business market, which he thought would detract from the atmosphere ${ }^{200}$.

He broke all the rules to pursue his dream. In addition to buying 292 hectares of lush beachfront land, and building 200 rooms at the outset, he revitalized the town of Praia do Forte for its inhabitants and for the tourists to his resort. He fought to preserve Atlantic rainforest and to preserve the turtle population. He sponsored a rediscovery of Bahian culture that resulted in music and dance troupes that provided the entertainment at his resort. He provided jobs, offered his guests an unprecedented eco-resort experience, and established the best cuisine in Bahia. The result was a spectacular success. The resort is still considered among the best in Brazil. It has maintained occupancy in the $61-73 \%$ range, which fell to $58 \%$ in 2006 because of expansion and transition activities ${ }^{201}$.

The hotel consultant agreed with her. But, he pointed out, it was a struggle at first. Renata may also succeed through perseverance and adherence to her dream, but it wouldn't be easy and would clearly take time. Further, he suggested, a nine room resort would never make Corumbau into a destination. Praia do Forte succeeded in part because it was bigger.

There was another issue as well: demand segmentation. Within the competitive set, he informed her, $55 \%$ of the demand was booked through tour operators, and $25 \%$ came from groups ${ }^{202}$. Only $20 \%$ of the demand arose from Individual travelers, and this demand, it appeared, was mainly domestic, which was a very price sensitive market. This meant that Renata started out by forfeiting $55 \%$ of the market because she was just too small and out of the way for tour operators to bother with. Then she lost another $25 \%$ of the market because she was not large enough to accommodate large groups. Then she had to compete for the remaining price-sensitive $20 \%$, a domestic market that mostly would not pay her rates, or the extra travel cost. All together, the math did not leave much for her. According to this expert, she had done everything wrong, and there was no way out. Renata was frustrated by this judgment. She had taken a keen personal vision and brought it to life. The Lodge at Corumbau offered an authentic experience of nature and people, and did so with great comfort and taste. Were there no independent travelers
who could articulate their interest in an adventure rather than go to a generic enclave resort for a week just because it was easy?

After the presentations were over, she was glad to see Roberto's smile. She was eager to change the subject. Roberto had promised to explain his investments in Ipatinga, MG, and to brief her on the housing sector of real estate over a Japanese dinner at a very chic Salvadoran restaurant overlooking the harbor. She was all ears.

## 8 Brazil Housing Market 2007

Roberto pointed out that there were many different residential property markets throughout the country with different characteristics. In some, there were specific drivers that brought about appreciation at a rate faster than the rate of inflation. However, that was not the generally the case. Markets in Brazil were not supply constrained in the way of markets on the U.S. coasts. There was plenty of land, and in general, regulatory authorities and community groups did not obstruct the process through abusive anti-growth land use regulation.

The prevailing motivation among housing real estate investors was to realize profits through building and selling homes in a high demand market, rather than to hold for future appreciation ${ }^{203}$. Brazil had a large housing deficit. It also had a large population of people between the ages of 25 and 50 , considered to be the prime age group for buying homes. Renata remembered the 7.9 million home deficit that the speaker earlier today had mentioned. That, however, was not exactly the deficit Roberto was talking about.

The 7.9 million home deficit had been calculated in a careful study by the Brazilian government and a not-for profit foundation, and Roberto was not questioning the result of the study ${ }^{204}$. Clearly, there were many households living in substandard housing, and many families who were trying to establish independent households, but were currently living within other households, such as married couples living with parents. This deficit was a very important number to know in quantifying the depth of a social issue. But it was not a commercial measure
of pent-up demand for homes, which is how the number was frequently misrepresented. The reason that the deficit did not equal the demand was that $88 \%$ of the households composing that deficit could not afford a home. More specifically, $88 \%$ of the households needing homes earned less than 5 times the minimum wage, which made them income ineligible to buy new homes.

Renata was skeptical that so many experts could be misrepresenting the size of the housing demand. Roberto explained the math. Households with income of less than 5 times the minimum wage earn less than $\mathrm{R} \$ 1750$ per month ( $\mathrm{MW}=\mathrm{R} \$ 350$ ). He asked whether a household income of that size could buy a home based on the mortgage that it could afford. A mortgage issued by Caixa Economica Federal (CEF) with a subsidized rate of interest at $11.5 \%$ (rather than a market rate of $14 \%$ ) and a 20-year term, were terms that in theory could be available to qualified households. If the household were to devote $40 \%$ of household income, or $\mathrm{R} \$ 700$ per month, it could service a mortgage of R\$65,640. Assuming for the sake of argument that the household has no significant savings, then the home price they can afford would be equivalent to the mortgage amount. The lowest commercially reasonable price at which a housing developer could sell a home and maintain a margin is in the $\mathrm{R} \$ 2000$ per square meter range. According to housing developer Gafisa, it can sell units for $\mathrm{R} \$ 1800$ - 2000 per square meter ${ }^{205}$. Using a maximum purchase price of $\mathrm{R} \$ 65,000$, and a minimum sale price of $\mathrm{R} \$ 1800$ per square meter, the household could afford to buy a maximum of 36 square meters. The rooms in Renata's resort were 130 square meters, so she could see the problem.

Recognizing these constraints, homebuilders such as Rodobens had introduced affordable housing units from 45 square meters to 90 square meters ${ }^{206}$. However, they also recognized that units of this size are still not within the means of a household earning less than 5 times the minimum wage. That is why Rodobens, in explaining its affordable "New Segment" product, uses R\$ 1750 per month (5 times the minimum wage) as the minimum income of their target buyer. Since $88 \%$ of the households needing homes earn below the minimum target, $88 \%$ of the households cannot afford to buy the most affordable and smallest available product, and
therefore, $88 \%$ of the 7.9 million unit deficit cannot be a reasonable estimate of commercial demand for housing.

To explain the actual pent-up demand for housing, Roberto drew a figure showing Brazil's 52 million households by household income (monthly) expressed in $\$ \mathrm{R}$ and in multiples of minimum wage. The figure was a pyramid to graphically convey the small number of households with income at the higher end of the range, and the large number at the bottom (see Figure 8-1). Approximately $8 \%$ of the 7.9 million home deficit, or 630,000 homes was experienced by those households earning between five and ten times the minimum wage. Another $4 \%$ of the deficit, or 316,000 homes corresponded to households with ten to twenty minimum wage incomes.

Figure 8-1: Brazil's Housing Demand ${ }^{207}$


These two groups together represented a present demand of $12 \%$ of 7.9 million or a total of 948,000 units. In addition, the pent-up demand was growing by annual new unmet demand.

The number of households grew by about 3.6\% per year between 1991 and 2000, faster than the population growth rate of $1.6 \%$ per year during the same period ${ }^{208}$. When multiplied by Brazils 51.6 million households, this growth rate meant an increase of over $1,800,000$ households per year. Assuming that $23.5 \%$ of these new households, as indicated by the pyramid (assuming that households grow with equal velocity at all income brackets) can afford and want homes, the annual additional demand would be 400,000 units. If there were no new construction at all, this 400,000 increase in households demanding houses (or really pent-up households as you technically cannot be a household without a house) would be identical to the number of units added annually to the housing demand. Fundacao Jao Pinheiro estimates that the actual increase in demand is $1,200,000$, which may be correct because the rate of household formation would perhaps be larger if there were more homes constructed ${ }^{209}$.

It is estimated that the house supply is 300,000 per year ${ }^{210}$. Therefore, if Fundacap Jao Pinheiro is right, the annual addition to pent-up demand would be 900,000 housing units per year, and if Roberto were right, the annual addition to demand would be 100,000 dwelling units. Whatever the correct number, it would add to the 948,000 units of pent-up demand. Thus, the pent-up demand among households who could pay for houses is growing each year.

It is important to remember that the 5 to 20 times minimum wage households is comprised of two segments. The question of whether the segment earning more than 5 times, but less than ten times the minimum wage has the ability to buy homes is complex. Clearly at the top of the range, the wherewithal is present. As one penetrates lower in the pyramid, the challenges to homeownership become greater.

That is where the second important driver (the first being the pent-up demand and the annual increases to that demand) of Brazil's residential real estate sector: changes to the mortgage industry. Real estate financing in Brazil is quickly emerging from the dark ages, prompted largely by changes to the law governing foreclosure, which has reduced the collection timeframe ${ }^{211}$. The result has been a rapidly evolving industry that is modernizing its underwriting
practices and loan terms. In other words, there is a tendency toward longer amortization periods, more flexible credit qualification, and so forth. These changes are taking place within the macroeconomic context of falling interest rates. The combination means that financing will be an increasingly important driver of the industry ${ }^{212}$.

Mexico's mortgage industry is in a similar situation, though a bit ahead of Brazil's. In 2006, Brazil's mortgages were 1.7\% of GDP, about the level of Mexico in 2004. Mexico in 2006 had mortgages of approximately $2 \%$ of GDP. All of this is in sharp contrast to the more developed nations. As of 2004, the United Kingdom had mortgage debt of 65\% of GDP, the United States of 61\% of GDP; Europe of, on average, $43 \%$ of GDP; France of $29 \%$ of GDP, and Chile of $16 \%$ of GDP. There was great room for expansion of mortgage lending in Brazil ${ }^{213}$.

Going back to the segment that earns between five and ten times the MW, as interest rates come down in Brazil, as amortization terms become longer, and as underwriting becomes more flexible, that segment may be more thoroughly served. The two tables below show how lengthening current amortization periods to medium terms of 276 months, and cutting current interest rates by 20 basis points, captures more homebuyers in major cities.

Figure 8-2: Affordability Sensitivity ${ }^{214}$

| Affordability Sensitivity |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Current Financing <br> provided by <br> Homebuilders | Example1 Mid-Term Mortgage <br> Scenario (banks) | Current SFH Mortgage <br> (banks) | Example 2 Mid-Term Mortgage <br> Scenario (banks) |
| Unit Price (RS) | 150,000 | 150,000 | 150,000 | 150,000 |
| Loan-to Value - LTV (\%) | $60 \%$ | $60 \%$ | $60 \%$ |  |

Figure 8-3: Affordability Sensitivity - Potential Buyers
Affordability Sensitivity - Potential New Buyers

|  | Additional Potential Buyers <br> Captured |
| :--- | :---: |
| São Paulo | 166,143 |
| Rio de Janeiro | 92,644 |
| Belo Horizonte | 35,293 |
| Porto Alegre | 36,707 |
| Curitiba | 27,331 |
| Total Potential Buyers | $\mathbf{3 5 8 , 1 1 8}$ |

Source: Itaú Corretora Equity Research.

In addition to the presence of a large and growing pent-up demand, and a mortgage industry that is evolving to convert more of the deficit into demand, demographics are also driving the home building industry. A large and growing component of the large and growing Brazilian population, is people in the home-buying ages between 20 and 50. The more rapid growth of this population segment, than of the population as a whole (which has grown at about $1.7 \%$ per year) is expected to continue until $2020^{215}$. In other words, the new demand indicated above is likely to be underestimated, and to grow more rapidly over time.

The presence of these drivers, and the fact that the home building industry was not keeping up with the demand for houses was not lost on the real estate industry, or on the securities industry. In the last few years, several of Sao Paulo's local homebuilders have transformed themselves into larger national companies through foreign or domestic equity
investments. Invested monies have been used in part to upgrade company operations to the best international standards, develop strategies and product models, and expand their reach into major markets throughout the country ${ }^{216}$. Since late 2005, the homebuilders have raised substantial capital in primary or secondary offerings in the Brazilian securities markets. The following are some of the offerings of note.

Figure 8-4: Offerings of Note by Homebuilders on the Brazilian Securities Market ${ }^{217}$

| Company | Year | Price |
| :--- | :--- | :--- |
| Cyrella | 2005 | $\$ 393$ million |
| Rossi | 2006 | $\$ 468$ million |
| Gafisa | 2006 | $\$ 438$ million |
| Company SA | 2006 | $\$ 132$ million |
| Cyrella | 2006 | $\$ 333$ million |
| Abyara | 2006 | $\$ 75$ million |
| Klabin Segal | 2006 | $\$ 244$ million |
| Rodobens | 2007 | $\$ 560$ million |
| Tecnisa | 2007 | $\$ 296$ million |
| Gafisa | 2007 | $\$ 190$ million |
| PDG | 2007 | $\$ 244$ million |
| Even | 2007 | Total |
| CCDI |  |  |

The above offerings which sum to almost 4 billion dollars is an indication of how well capitalized the home building industry has become in a short time. These companies are now competing with one another for market share. As of May 2007, the allocation of market share
was as follows: Cyrella 14\%; Tecnisa 9.7\%; CCDI 9.2\%; Even 8.6\%; Company S.A. 8.3\%; Gafisa 6.2\%; Rossi 5.3\%; Klabin-Segall 4.7\%; PDG 3.7\%. The three largest companies had $32.8 \%$ of the market. The six largest companies had $55.8 \%$ of the market. The nine largest companies had $69.5 \%$ of the market ${ }^{218}$.

## 9 The Steel Valley

Renata was impressed by her friend's industry knowledge, and wanted him to talk a little about his own work. Back in 2003, Roberto had sent her a cash flow projection for an investment he planned to make in a twelve apartment development in the Steel Valley of Minas Gerais. The City was called Ipatinga, and its major employer was Usiminas, a large steel manufacturer. Subsequently, he and eleven others made the investment together. Since the number of investors corresponded to the number of apartments, at the end of the construction, each partner would receive title to one of the condominium units. Some partner intended to sell at an anticipated profit, while others wanted to hold the unit for investment or as home buyers who intended to live in the unit upon its completion.

As predicted, the development took 36 months to build. It was financed entirely by installment payments from the twelve buyers. The construction cost was significantly more than anticipated initially, and the buyers were obligated for the actual construction cost, but the value of the completed units was also significantly more than expected providing a better than projected result. The ex post IRR was $39 \%$, much greater than the $28 \%$ IRR ex ante. Roberto reviewed the summary cash flow per investor with her.

Figure 9-1: Summary of Housing Investment, Ipatinga, MG


He did not have an After-tax summary for the investment as a whole, which Renata wanted to see, but promised to prepare one.

Roberto was very enthusiastic about a new 18 unit apartment building that he planned to start within ninety days. This was a development he intended to take on himself (unless he could convince Renata to join in.) Usiminas had recently announced its plans for a US\$2.6 billion expansion of its plant in Ipatinga. The additional work load in connection with the expansion was expected to bring 10,000 new employees into Ipatinga on a temporary basis, however, ultimately the expansion would result in 2000 additional permanent jobs ${ }^{219}$.

Roberto had noticed that neither the City nor the Company had signaled how they planned to house all these people. Upon investigation, he found that Ipatinga planned to
construct 300 homes for their employees. Two thousand new jobs against 300 new homes was exactly the type of market imbalance that made a developer like Roberto pay close attention. Renata came to realize that he wanted to build a lot more than eighteen units, and found that she too was beginning to pay close attention.

She asked him whether any of the cash-rich homebuilders he had described earlier had shown up in Ipatinga. To his knowledge, they had not, and he believed that a city the size of Ipatinga would not interest them. The absence of large competitors in Ipatinga and other similar locations allowed small developers strategic points of entry. He pointed out that the large homebuilders were primarily interested in Brazil's ten largest cities: Sao Paulo, Rio de Janeiro, Brasilia, etc, as was appropriate to the size of their platforms ${ }^{220}$.

## 10 Beginnings

The first day of the conference had been productive, and thought provoking. She came to get some ideas and help on rescuing the financial performance of her resort project and was now eagerly anticipating Sergio's Occupancy and ADR forecast and DCF Analysis. She clearly needed to understand her options to improve her cash flow. The expert hotel consultant, while unhelpful in suggesting solutions, had set forth the obstacles. According to him, between the tour operators, the group tourists, the small high-end domestic market and the unknown and inaccessible location, she was trapped, and that as a competitive advantage, right now it seemed that her vision, intelligence, taste and hard work were the enemies of market success. But she also had some new questions to think about. Roberto's invitation was pretty tempting, but she could not go back to her investors right now for additional capital without solving the problems of the Lodge. It seemed that the only short term solution was to sell it. She was pleased that she had gotten the macroeconomics right because if that analysis had failed, they would have no way out. But she kept wondering what she had done wrong in the initial feasibility analysis. Perhaps Sergio would be able to show her, and even better, help her reverse the trend.

Ultimately she realized that she had to make some major decisions pretty quickly: sell the Lodge and recoup her investment position in order to invest in housing development. Or use some better analysis and a creative turnaround to move Lodge operations toward a future pay out. There was even a third hybrid alternative she had been thinking about, but needed more information. She was optimistic that with Sergio's incisive and analytic mind, and Roberto's knowledge and perception of markets to augment her own creativity and problem-solving skills, she would quickly identify and implement the proper strategy.

## Endnotes

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#### Abstract

Exhibits


Exhibit 1: Occupancy Table for Local Hotels October 2001
Mapa de Ocupação - Hoteis
Mês: Outubro de 2001


Exhibit 2: Occupancy Table for Local Hotels November 2001


Exhibit 3：Occupancy Table for Local Hotels December 2001
Pojuca S／A－Praia do Forte EcoResort
Mapa de Ocupação－Hoteis
Mês：Dezembro de 2001

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|  |  | $8$ | + | $\therefore$ | $\begin{aligned} & \stackrel{0}{\infty} \\ & \hline \end{aligned}$ | $\not+$ | $\frac{g}{\infty}$ | $\infty$ | $\underset{\infty}{ \pm}$ | $\underset{\infty}{ }$ | $\infty$ | $\infty$ | $\stackrel{\infty}{\infty}$ | $\infty$ | $\underset{\infty}{ }$ | $\infty$ | $$ | $\frac{\infty}{\infty}$ | $\begin{array}{\|l\|} \hline \frac{\square}{\text { I }} \end{array}$ | I | $\infty$ | $\frac{\cong}{\infty}$ | $\dot{\infty}$ |  | $\stackrel{\tilde{\circ}}{\stackrel{\rightharpoonup}{\infty}}$ | n | $\begin{aligned} & \text { in } \\ & \underset{\sim}{2} \end{aligned}$ |  | $\begin{aligned} & \text { z } \\ & \underset{\sim}{2} \end{aligned}$ | $\underset{\sim}{E}$ | $\stackrel{\rightharpoonup}{¿}$ | $\bigcirc$ | $\stackrel{\sim}{\sim}$ |
|  |  | $\stackrel{\circ}{\Delta}$ | $8$ | $\begin{array}{\|c\|} \hline 8 \\ i \\ \hline \end{array}$ | $\infty$ | $\stackrel{\circ}{8}$ | $\begin{aligned} & \stackrel{8}{\mathrm{~B}} \\ & \hline \end{aligned}$ | $\infty$ | $\underset{\underset{\infty}{*}}{\underset{\sim}{x}}$ | $\stackrel{\circ}{\infty}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{i} \end{aligned}$ | $\stackrel{i}{\circ}$ | $\ddot{\circ}$ | $$ | $\underset{子}{\stackrel{\rightharpoonup}{*}}$ | B. | $\underset{F}{ }$ | $\stackrel{8}{8}$ | \&i | $\underset{\infty}{\infty}$ | $\infty$ | $\ddot{8}$ | 孚 | $\underset{于}{\mathscr{F}}$ | $\underset{\sim}{\underset{\sim}{*}}$ | G | $\underset{y}{8}$ | $\approx$ | $8$ | 8 | $\infty$ | － |  |
|  |  | © | $\begin{aligned} & \underset{\sim}{\infty} \\ & \vdots \end{aligned}$ | $\approx$ | $\stackrel{?}{\gtrless}$ | $\stackrel{\otimes}{\infty}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{\circ} \end{aligned}$ | $\infty$ | $\frac{\stackrel{9}{\infty}}{\infty}$ | sij | $\infty$ | іे | $\begin{aligned} & \stackrel{\rightharpoonup}{\infty} \\ & \stackrel{N}{\circ} \end{aligned}$ | F | 志 | $\underset{\sim}{\infty}$ | $\frac{?}{0}$ | $\begin{aligned} & 9 \\ & \hline 0 \\ & \hline 0 \end{aligned}$ | is | $\begin{aligned} & \text { bi } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { I } \\ & \underset{寸}{ } \end{aligned}$ | İ | $\begin{aligned} & \text { N} \\ & \underset{\sim}{n} \end{aligned}$ | $\begin{aligned} & \text { rin } \\ & \text { à } \end{aligned}$ | స్ష̆ | $\stackrel{\rightharpoonup}{\mathrm{N}}$ | $\begin{aligned} & \text { ⿳े𠃍} \\ & \text { In } \end{aligned}$ | $\stackrel{\infty}{\mathbb{I}}$ | $\stackrel{\infty}{\infty}$ | $\stackrel{3}{-}$ | $\check{\approx}$ | $\bigcirc$ | \％ |
|  |  | $\stackrel{\circ}{8}$ | $\stackrel{\sim}{n}$ | $\begin{aligned} & 8 \\ & 80 \end{aligned}$ | $\underset{\sim}{E}$ | B. | $\stackrel{\sim}{2}$ | $\otimes$ | $\stackrel{\circ}{0}$ | $\underset{\infty}{\infty}$ | $\infty$ | $\underset{\infty}{\infty}$ | $\frac{\cdots}{a}$ | $\begin{aligned} & 8 \\ & \text { O } \\ & \hline \end{aligned}$ | $\underbrace{\infty}_{\infty}$ | $\begin{aligned} & 8 \\ & \hline 0 \\ & \hline \end{aligned}$ | 守 | $\underset{\grave{\lambda}}{2}$ | Ni | $\begin{aligned} & 8 \\ & \dot{1} \end{aligned}$ | $\stackrel{\underset{\sim}{1}}{ }$ | $\underset{\sim}{\infty}$ | $\stackrel{\circ}{\circ}$ | $\underset{\substack{8 \\ \underset{\sim}{2} \\ \hline}}{ }$ | $\underset{\infty}{\infty}$ | $\underset{\substack{+\underset{\circ}{2} \\ \hline}}{ }$ | $\stackrel{尺}{\bullet}$ | ঞి | $\underset{\sim}{\infty}$ | $\underset{\substack{8 \\ \hline \\ \hline \\ \hline}}{8}$ | $\stackrel{0}{6}$ |  |  |
|  |  | $\ddot{\infty}$ | $6$ | $\begin{array}{\|l\|} \hline \infty \\ \stackrel{\circ}{2} \end{array}$ | n | $\begin{aligned} & \stackrel{\circ}{+} \\ & \stackrel{y}{w} \end{aligned}$ | $\stackrel{y}{n}$ | iㅣ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{n} \\ & \hline \end{aligned}$ | $\stackrel{9}{i}$ | $\stackrel{n}{2}$ | $\underset{i}{E}$ | $\cdots$ | $\begin{aligned} & \text { İ } \\ & \text { 荗 } \end{aligned}$ | $\begin{array}{\|l\|l} \hline \stackrel{\infty}{2} \\ \text { in } \end{array}$ | $\begin{array}{\|l} \hline \text { 守 } \\ \text { 保 } \end{array}$ | $\begin{array}{\|l} \hline \infty \\ \infty \\ \infty \end{array}$ | $\underset{\sim}{\pi}$ | $\underset{\sim}{i}$ | in | $\begin{aligned} & \text { i } \\ & \text { in } \end{aligned}$ | $\begin{aligned} & \mathrm{E}_{\mathrm{i}} \end{aligned}$ | $\begin{aligned} & \stackrel{\infty}{i} \\ & \stackrel{1}{4} \end{aligned}$ | $\begin{aligned} & \text { Ü. } \\ & \text { Bin } \end{aligned}$ | $\underset{\sim}{\circ}$ | $\underset{\sim}{\underset{\sim}{7}}$ | $\begin{array}{\|c\|} \hline \stackrel{\circ}{\sim} \\ \stackrel{y}{*} \end{array}$ |  | $\begin{aligned} & \text { Z } \\ & \text { 年 } \end{aligned}$ | $\begin{aligned} & \underset{\sim}{\bar{*}} \\ & \underset{子}{2} \end{aligned}$ | $\underset{\sim}{\underset{f}{*}}$ |  | 壱 |
|  |  | $\underset{\infty}{\infty}$ | q | $\stackrel{\underset{\sim}{\mathrm{f}}}{ }$ | $\stackrel{\rightharpoonup}{4}$ | $\underset{于}{F}$ | $8$ | $\stackrel{\leftrightarrow}{子}$ | $\stackrel{\rightharpoonup}{i n}$ | $\underset{\sim}{+}$ | $\stackrel{\theta_{i}}{n}$ | $\stackrel{\rightharpoonup}{n}$ | $\underset{\sigma}{7}$ | Zి | $\underset{3}{6}$ | $8$ | $\underset{\sim}{\dot{子}}$ | $\stackrel{0}{i}$ | 㣽 | $\stackrel{8}{i}$ | $\stackrel{B}{8}$ | $\underset{\sim}{\circ}$ | ヘิ่ | $\underset{i}{i}$ | $\propto$ | $\stackrel{\infty}{\mathrm{i}}$ | $\underset{\sim}{\mp}$ | ષ்ં | $\begin{aligned} & \text { ત̀ } \\ & \text { ה̂} \end{aligned}$ | $\underset{i}{i}$ | $\frac{9}{m}$ |  |  |
|  | $\begin{aligned} & \text { 흔 을 } \\ & \text { 들 } \\ & \text { 言 } \end{aligned}$ | $\begin{aligned} & 8 \\ & 5 \\ & \hline \end{aligned}$ | © | F | $\stackrel{\pi}{n}$ | $\stackrel{\sim}{\infty}$ | - | ® | નુ | $\underset{\sim}{2}$ | 포 | Ti | $\begin{aligned} & \circ \\ & \underset{\sim}{2} \end{aligned}$ | $\overline{\text { ju}}$ | స̈ | శี | $\begin{aligned} & \text { గ్ర } \\ & \underset{\sim}{n} \end{aligned}$ | ๗i | శె | તુ | से | $\underset{\sim}{i}$ | $\underset{\sim}{c}$ | $\therefore$ | $0$ | $\approx$ | $\underset{\sim}{\infty}$ | er | $\bar{\sim}$ | m | $\bar{\sim}$ | $8 .$ | － |
| \％ |  | ธ | 灾 | $\stackrel{8}{=}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{\otimes}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\sim} \end{aligned}$ | $\propto$ | $\stackrel{\sim}{1}$ | $\ddot{\sim}$ | $\stackrel{\rightharpoonup}{\mathrm{i}}$ | $\stackrel{\sim}{\sim}$ | Bi | $\underset{\sim}{i}$ | 』 | $\stackrel{\circ}{\leftrightharpoons}$ | $$ | $\underset{\sim}{\mathrm{A}}$ | İ | ヘิ | $\stackrel{\rightharpoonup}{\mathrm{i}}$ | $\underset{\sim}{\square}$ | 孚 | ¢. | 오 | 㤩 | $\underset{\sim}{8}$ | $\stackrel{\circ}{\sim}$ | $\underset{\sim}{\infty}$ | \％ | $\begin{aligned} & 8 . \\ & \hline 80 \end{aligned}$ |  |  |
|  |  | $\rightleftarrows$ | $\underset{~}{~}$ | E0 | $\begin{aligned} & \text { d } \\ & 0 \end{aligned}$ | $\dot{q}$ | $\underset{~}{\underset{子}{\leftrightarrows}}$ | $$ | ※ | $\begin{aligned} & \text { on } \\ & \text { 监 } \end{aligned}$ | अं |  | $\begin{aligned} & \circ \\ & q \\ & q \end{aligned}$ | $\begin{aligned} & \text { n} \\ & \text { n } \end{aligned}$ | $\begin{aligned} & \text { n } \\ & \text { 令 } \end{aligned}$ | $\underset{\sim}{\underset{\sim}{*}}$ | $\stackrel{\rightharpoonup}{7}$ | 흉 | $\underset{\sim}{\infty}$ | $\underset{\sim}{e}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \text { on } \end{aligned}$ | 㤂 | $\begin{aligned} & \pm \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3 \\ & 0 \\ & 0 \end{aligned}$ | ois | ®. | ®i | $\infty$ | $\begin{aligned} & 4 \\ & 8 \\ & \hline \end{aligned}$ | 亏े | अ̈ | O | － |
| 产 |  | $\underset{\sim}{\underset{\ddagger}{\ddagger}}$ | $5$ | $80$ | $\begin{gathered} \stackrel{\rightharpoonup}{n} \\ \end{gathered}$ | $\stackrel{8}{\mathrm{~B}}$ | તir | $\stackrel{\infty}{\infty}$ | $\stackrel{\infty}{\dot{q}}$ | $\underset{\sim}{\underset{m}{y}}$ | $\stackrel{\rightharpoonup}{\mathrm{A}}$ | $\stackrel{8}{\circ}$ | $\underset{0}{8}$ | $$ | $\stackrel{\infty}{\mathrm{a}}$ | $\stackrel{0}{0}$ | $\underset{\sim}{8}$ | $\underset{\Psi}{\mathcal{T}}$ | $\underset{\sim}{9}$ | $\underset{\sim}{\circ}$ | $\underset{\sim}{8}$ | $\begin{aligned} & 8 \\ & \underset{\sim}{2} \end{aligned}$ | $\stackrel{\leftrightarrow}{\dot{\sim}}$ | $\stackrel{8}{8}$ | $\stackrel{\substack{\text { B }}}{ }$ | $\underset{\sim}{y}$ | $\underset{\sim}{\varkappa}$ | $\underset{\sim}{n}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\sim} \end{aligned}$ | $\underset{\substack{\infty \\ \sim}}{ }$ | $\frac{2}{3}$ |  |  |
| $\left\|\right\|$ |  | $\infty$ | $\dot{\infty}$ | $\underset{\text { In }}{ }$ | $\stackrel{n}{n}$ | $\ddot{\sim}$ | 呇 | ®i | $\begin{aligned} & \text { 8. } \\ & \text { sis } \end{aligned}$ | $8$ | $\frac{?}{5}$ | $\overline{i n}$ | $\stackrel{\underset{y}{*}}{\stackrel{\rightharpoonup}{\gtrless}}$ | $\underset{\sim}{\ddagger}$ | $\bar{n}$ | $\begin{array}{\|l\|l} \hline \underset{~}{\text { I }} \end{array}$ | $\underset{\sim}{\underset{\sim}{7}}$ | $\underset{\sim}{n}$ | $$ | तె | $\stackrel{\text { 尔 }}{\stackrel{1}{2}}$ | $\stackrel{\infty}{\bullet}$ | $\underset{i}{\text { g }}$ | $\underset{\sim}{c}$ | $\underset{\text { It }}{\text { It }}$ | $\cdots$ | تٌ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \text { ö } \\ & \underset{z}{z} \end{aligned}$ | $\stackrel{\circ}{\sim}$ | $\begin{aligned} & 8 \\ & \stackrel{\circ}{\circ} \end{aligned}$ | $\bigcirc$ | 근 |
| $\left\|\begin{array}{c} 2 \\ \underset{y}{c} \\ \underset{y}{2} \end{array}\right\|$ |  | $\stackrel{\infty}{\infty}$ | $\underset{\sim}{*}$ | $i$ | $\stackrel{\text { B}}{\text { İ }}$ | $\stackrel{8}{\Xi}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{6} \\ & \hline \end{aligned}$ | $\stackrel{\otimes}{8}$ | $\dot{\alpha}$ | $\stackrel{\rightharpoonup}{\infty}$ | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{O}{O}$ | $\stackrel{\otimes}{\mathrm{O}}$ | $\stackrel{\otimes}{\circ}$ | た | $8$ | 犬i | Kio | $8 .$ | $\stackrel{i}{i}$ | $\therefore$ | $\ddot{\circ}$ | $\underset{O}{\circ}$ | $\stackrel{( }{\circ}$ | $\stackrel{\circ}{\circ}$ | $\underset{\circ}{\circ}$ | $\frac{2}{\alpha}$ | $\underset{\sim}{\text { q }}$ | $\begin{aligned} & 8 \\ & \stackrel{y}{2} \end{aligned}$ | $\stackrel{\infty}{\alpha}$ |  |  |
|  |  | İ | $\underset{\star}{\star}$ | $\frac{7}{6}$ | ®is | $\stackrel{\circ}{\circ}$ | $\stackrel{8}{8}$ | g | $0$ | $\stackrel{+}{\stackrel{\circ}{¿}}$ | $\ddot{\sim}$ | $\stackrel{\text { B }}{ }$ | $8$ | $\stackrel{m}{2}$ | ¿̀ | ¿̀ | $\begin{array}{\|l} \text { E} \\ \text { in } \end{array}$ | $\begin{aligned} & \text { \& } \\ & \text { ì } \end{aligned}$ | $\stackrel{\circ}{\underset{\sim}{\sim}}$ |  | $\stackrel{\text { 㞧 }}{\underset{\sim}{2}}$ | $\stackrel{\rightleftarrows}{\gtrless}$ | $\stackrel{\rightharpoonup}{\gtrless}$ | $\begin{aligned} & \text { 腬 } \\ & i \end{aligned}$ | $\stackrel{\sim}{c}$ | $\approx$ |  | $\underset{\sim}{n}$ | $\overline{\mathrm{n}}$ | ol | $\stackrel{\underset{\sim}{g}}{\underset{\sim}{*}}$ | $\odot 1$ | $\stackrel{\text { \％}}{\text { z }}$ |
| $\left\|\begin{array}{c} \dot{\sim} \\ \stackrel{\rightharpoonup}{\infty} \\ \stackrel{\infty}{\infty} \end{array}\right\|$ |  | $\underset{\Psi}{\Psi}$ | $\stackrel{\infty}{6}$ | $8$ | $\underset{\sim}{i}$ | Aે | $\stackrel{\text { ®. }}{\mathrm{O}}$ | $\stackrel{\otimes}{0}$ | $\stackrel{i}{\circ}$ | $\underset{\infty}{\mathfrak{m}}$ | $\stackrel{8}{\circ}$ | $\stackrel{\underset{\sim}{g}}{\underset{\sim}{i}}$ | in | $\underset{\substack{\underset{\infty}{\infty} \\ \multirow{2}{*}{\hline}\\ \hline}}{\text {. }}$ | $\stackrel{O}{8}$ | $\underset{\sim}{8}$ | $\begin{aligned} & 9 \\ & 80 \\ & 80 \end{aligned}$ | $\underset{\sim}{8}$ | $\stackrel{3}{2}$ | 0 | ஷi | $\stackrel{6}{6}$ | ${\underset{i}{i}}^{\circ}$ | $\underset{\infty}{\infty}$ | $\stackrel{\infty}{\infty}$ | $\infty$ | $\stackrel{\infty}{\infty}$ | Si | 8 | 8 | ষ |  |  |
|  |  | $0$ | $8$ | $\underset{\sim}{n}$ | E゙ | 응 | $\begin{aligned} & \ddot{\circ} \\ & \stackrel{\circ}{n} \end{aligned}$ | $\stackrel{q}{i}$ | $\begin{aligned} & \text { İ } \\ & \text { in } \end{aligned}$ | $\stackrel{5}{5}$ | $\stackrel{8}{n}$ | $$ |  | $$ | $\begin{aligned} & \text { B } \\ & \text { 肙 } \end{aligned}$ |  | $$ | 命 | $\stackrel{m}{8}$ | $\begin{array}{\|l\|l} \hline \stackrel{\rightharpoonup}{6} \\ \text { な. } \end{array}$ | $\begin{array}{\|c\|c} \substack{n \\ \text { 子 }} \end{array}$ | $\underset{\substack{\text { S. } \\ \underset{子}{\circ}}}{ }$ | 守 | $\begin{aligned} & \stackrel{\infty}{\infty} \\ & \text { 守 } \end{aligned}$ | $\stackrel{\rightharpoonup}{\mathcal{F}}$ | $\begin{aligned} & \mathscr{\circ} \\ & \stackrel{\circ}{\triangleleft} \end{aligned}$ |  | $\underset{\sim}{\Omega}$ | $\begin{aligned} & \hline \circ \\ & \stackrel{\circ}{G} \end{aligned}$ | $\frac{m}{8}$ | $8$ | $8$ | 守 |
| 永 |  | $0$ | $\stackrel{8}{2}$ | $\stackrel{8}{\stackrel{8}{i}}$ | $\stackrel{\circ}{\circ}$ | $\underset{\sim}{\underset{\sim}{x}}$ | $\begin{gathered} 8 \\ \stackrel{8}{i} \end{gathered}$ | $\stackrel{\sim}{n}$ | $\stackrel{\circ}{i}$ | $\stackrel{\dot{于}}{ }$ | $\underset{\sim}{\mathrm{m}}$ | $\underset{\sim}{e}$ | $\stackrel{\infty}{\infty}$ | $\underset{\underset{\sim}{8}}{\stackrel{8}{2}}$ | $\stackrel{\rightharpoonup}{\mathrm{m}}$ | $\begin{aligned} & \stackrel{8}{8} \\ & \stackrel{y}{4} \end{aligned}$ | $\underset{\dot{F}}{\stackrel{8}{4}}$ |  | $\stackrel{\infty}{\infty}$ | $\underset{\sim}{\infty}$ | $\underset{\sim}{\underset{\sim}{n}}$ | $\underset{\sim}{\infty}$ | $\stackrel{0}{4}$ | $\stackrel{\ddots}{i}$ | 犬i | $\stackrel{\rightharpoonup}{\circ}$ | $\stackrel{\stackrel{\rightharpoonup}{\ddagger}}{\ddagger}$ | $\stackrel{\infty}{\sim}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\sim}{\infty}$ |  |  |  |
|  |  | $\frac{8}{6}$ | $\sim$ | $\stackrel{m}{n}$ | $\begin{aligned} & \underset{\sim}{\infty} \\ & \underset{\sim}{2} \end{aligned}$ | $\infty$ | $\begin{aligned} & 80.0 \\ & \hline 0.0 \end{aligned}$ | on | oi | స్ | $\stackrel{\sim}{c}$ | $\underset{\sim}{\underset{\sim}{c}}$ | $\underset{\sim}{m}$ | $\frac{\bar{\sigma}}{\bar{m}}$ | $\frac{8}{\circ}$ | $\begin{array}{\|l\|l} \hline \text { 尔 } \end{array}$ | $\begin{aligned} & \text { O. } \\ & \text { à } \end{aligned}$ | $\underset{\sim}{\sim}$ | $\begin{gathered} \infty \\ \underset{\sim}{\infty} \end{gathered}$ | $\underset{\sim}{\infty}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\leftrightharpoons} \end{aligned}$ | $\stackrel{\rightharpoonup}{\ddot{I}}$ | $\stackrel{\sim}{0}$ | $\stackrel{\sim}{n}$ | $\begin{aligned} & \text { ò } \\ & \dot{\sim} \end{aligned}$ | $\stackrel{\rightharpoonup}{i}$ | $\underset{\text { 品 }}{\text { F }}$ | $\stackrel{-}{\infty}$ | $\begin{array}{\|c} \substack{\infty \\ \infty \\ \infty} \end{array}$ | $\begin{aligned} & 8 \\ & \hline \\ & \hline \end{aligned}$ | 8 | $8$ | $\stackrel{\sim}{2}$ |
| － |  | $\begin{aligned} & 8 \\ & 0 \end{aligned}$ | 氐 | $\stackrel{8}{8}$ | $\underset{\sim}{\circ}$ | $8$ | $\stackrel{\check{\sim}}{ }$ | $\underset{\sim}{\infty}$ | $\stackrel{8}{\mathrm{~m}}$ | $\stackrel{\sim}{\sim}$ | $8$ | $\stackrel{8}{\mathrm{~A}}$ | B8 | $8$ | $\stackrel{8}{9}$ | $\begin{aligned} & 8 \\ & \underset{\sim}{2} \end{aligned}$ | $8 .$ | $\underset{\text { di }}{8}$ | ヘิં | $\stackrel{8}{9}$ | $\stackrel{i}{\mathrm{~A}}$ | $\begin{aligned} & 8 \\ & \underset{\sim}{2} \end{aligned}$ | $\underset{\sim}{8}$ | $\underset{\sim}{8}$ | $\stackrel{\mathcal{G}}{ }$ | $\begin{aligned} & 8 \\ & \text { 8 } \\ & \hline 8 \end{aligned}$ | $8$ | Gi | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | 8 |  |  |  |
| 8 |  | ơ | 氏 | $\stackrel{\text { N⿵冂𠃍冂口心 }}{2}$ | $0$ | $\begin{aligned} & \underset{8}{*} \\ & \hline \end{aligned}$ | $\stackrel{\sim}{\mathrm{n}}$ | $\stackrel{\rightharpoonup}{0}$ | 発 | $\begin{aligned} & \underset{\sim}{2} \\ & \end{aligned}$ | İ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\infty} \end{aligned}$ | $$ | $\underset{\sim}{2}$ | $\begin{array}{\|l} \hline \text { n } \\ \text { n } \end{array}$ | $$ | $$ | $\underset{\approx}{\underset{\AA}{\rightleftharpoons}}$ | $\stackrel{\infty}{\approx}$ | $\stackrel{\circ}{3}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{E}}}{\mathrm{E}}$ | $\stackrel{\bar{n}}{\approx}$ | $\begin{array}{\|c} \overline{2} \\ \end{array}$ | $\begin{gathered} \substack{\infty \\ \infty \\ \sim} \end{gathered}$ | $\overline{2}$ | $\begin{gathered} \text { 己̈ } \\ \underset{\infty}{2} \end{gathered}$ | $\begin{aligned} & 8 . \\ & 8.8 \end{aligned}$ | $\frac{\vec{m}}{\infty}$ | $\frac{\check{\prime}}{\infty}$ | $\begin{aligned} & \bar{n} \\ & \infty \end{aligned}$ | $\odot$ | $\stackrel{8}{8}$ |
| 等 |  | $\begin{aligned} & 8 \\ & \therefore 8 \end{aligned}$ | $8$ | Bo | Eì | $\begin{gathered} 8 \\ \stackrel{\rightharpoonup}{n} \\ i \end{gathered}$ | $\stackrel{\leftrightarrow}{\infty}$ | $\stackrel{\infty}{\circ}$ | ふু | $\underset{\infty}{\stackrel{\rightharpoonup}{\infty}}$ | $8$ | $\frac{9}{80}$ | $\frac{9}{\infty}$ | $\underset{\sim}{\infty}$ | ơ | $\underset{\infty}{\underset{\infty}{i}}$ | $8$ | $\underset{\infty}{8}$ | $8$ | $\underset{\sim}{\infty}$ | $\underset{\sim}{8}$ | $8 .$ | $\underset{\infty}{8}$ | $\stackrel{\ominus}{\infty}$ | $\begin{aligned} & 8 \\ & 8 \\ & \hline \end{aligned}$ | $8$ | $\begin{aligned} & \stackrel{2}{6} \\ & \underset{\alpha}{2} \end{aligned}$ | $\begin{aligned} & 8 \\ & \infty \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & 8.8 \end{aligned}$ | © | $\underset{\circ}{\mathrm{E}}$ |  |  |
| 第 |  | $8 .$ | $\underset{\infty}{+}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{c} \end{aligned}$ | $\stackrel{n}{n}$ | $\underset{\sim}{7}$ | 会 | $\underset{\sim}{\infty}$ | $\underset{\infty}{\infty}$ | $\left\|\frac{8}{\infty}\right\|$ | $\frac{8}{\infty}$ | $\frac{\infty}{\infty}$ | $\stackrel{i}{2}$ | $\underset{\infty}{\infty}$ | $\frac{\circ}{\dot{F}}$ | $\stackrel{i}{\infty}$ | $\begin{array}{\|l\|} \hline \infty \\ \underset{\infty}{\circ} \end{array}$ | $\underset{\substack{\infty \\ \hline \\ \hline}}{ }$ | $\begin{array}{\|l\|l\|} \hline \text { oi } \\ \hline 8 \end{array}$ | 岂 | $\underset{\substack{\circ \\ \stackrel{\circ}{\circ} \\ \hline}}{ }$ | $\underset{\underset{\sim}{\circ}}{\stackrel{\circ}{8}}$ |  | $\begin{aligned} & \mathrm{B}_{6} \\ & 6 . \end{aligned}$ | $\underset{\sim}{\text { 子 }}$ | $\begin{aligned} & \text { స్ } \\ & \text { సै } \end{aligned}$ | $\stackrel{3}{2}$ | $\begin{aligned} & \text { co } \\ & \substack{0 \\ c} \end{aligned}$ | $\underset{\underset{\sim}{2}}{\underset{\sim}{2}}$ | $\underset{\underset{F}{\text { E. }}}{ }$ | $\begin{aligned} & 8 \\ & \hline 0 \\ & 0 \end{aligned}$ | 8． | $\cdots$ |
| 年 |  | $8 .$ | $\stackrel{\infty}{\infty}$ | $\underset{\odot}{8}$ | $\frac{\sqrt{6}}{0}$ | $8$ | $\infty$ | $\stackrel{\otimes}{\mathrm{E}}$ | $\begin{array}{\|c\|} \hline 8 \\ 8 \\ \hline \end{array}$ | $\frac{\underset{\infty}{\infty}}{2}$ | $\stackrel{8}{\infty}$ | $\underset{\sim}{\circ}$ | $\begin{aligned} & \text { ぶ } \\ & \stackrel{y}{2} \end{aligned}$ | $\begin{aligned} & 8 \\ & \infty 8 \\ & 0 \end{aligned}$ | な. な | $\begin{aligned} & 2 \\ & \vdots \end{aligned}$ | $\underset{N}{\text { G }}$ | $\frac{\infty}{0}$ | $0$ | $\frac{8}{i n}$ | $\begin{aligned} & 8 \\ & i n \end{aligned}$ | $\underset{\sim}{8}$ | $\stackrel{\pi}{\circ}$ | $8$ | $\underset{8}{8}$ | $\underset{i}{\bar{i}}$ | $\underset{\sim}{8}$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | $8$ | $\stackrel{\sim}{\infty}$ |  |  |
| \％\％ |  | $$ | $\underset{\infty}{\infty}$ | $\stackrel{\text { ®. }}{\underset{\sim}{2}}$ | \& | $\stackrel{8}{\infty}$ | $\begin{aligned} & 5 \\ & \therefore \end{aligned}$ | $\underset{\infty}{\substack{4 \\ \infty}}$ | $\stackrel{n}{2}$ | $$ | 8o | $\begin{aligned} & \text { n } \\ & \stackrel{y}{n} \end{aligned}$ | $\begin{aligned} & \text { 合 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \circ \\ & \stackrel{\circ}{c} \end{aligned}$ | $\begin{aligned} & \text { ñ } \\ & \hline \end{aligned}$ | হু | 突 | 公 | $\stackrel{\rightharpoonup}{\underset{\sim}{n}}$ | dicic | $\begin{aligned} & \mathbf{0} \\ & \gtrless \end{aligned}$ | $\stackrel{8}{8}$ | $\stackrel{\infty}{\odot}$ | $\stackrel{t}{\underset{\sim}{*}}$ | 处 | $\approx$ | $\underset{\mathbb{Z}}{\underset{\sim}{N}}$ | n | $\begin{aligned} & \text { ü } \\ & \text { en } \end{aligned}$ | $\stackrel{\text { ¢ }}{ }$ | $\stackrel{\stackrel{\rightharpoonup}{*}}{\stackrel{1}{*}}$ | O | 呂 |
| $\bar{\infty}$ |  | $\begin{aligned} & 8 \\ & \hline 8 \end{aligned}$ | $\underset{\ddagger}{8}$ | $\frac{8}{0}$ | $\stackrel{8}{\infty}$ | $\underset{\infty}{8}$ | $\underset{\sim}{\infty}$ | $\underset{\infty}{8}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline \end{aligned}$ | $\underset{\text { g }}{8}$ | $8$ | $\stackrel{e}{\infty}$ | $\stackrel{8}{\circ}$ | $\frac{8}{\infty}$ | $\begin{aligned} & 8 \\ & \dot{\infty} \end{aligned}$ | $\underset{\infty}{8}$ | $\stackrel{8}{8}$ | $\begin{aligned} & 8 \\ & \substack{8 \\ \text { d }} \end{aligned}$ | $\begin{aligned} & 8 \\ & \text { 8 } \\ & \hline 8 \end{aligned}$ | $\underset{\sim}{8}$ | $\begin{aligned} & 8 \\ & q \end{aligned}$ | $\stackrel{8}{i}$ | $\begin{aligned} & 8 \\ & \underset{\sim}{2} \end{aligned}$ | $\begin{aligned} & 8 \\ & 80 \\ & 80 \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{3} \end{aligned}$ | 区. | $\stackrel{8}{5}$ |  |  |
| $\approx$ |  | $\underset{\substack{8 \\ \hline 0 \\ \hline}}{ }$ | $\underset{\sim}{\infty}$ | $\frac{m}{m}$ | $\stackrel{\sim}{n}$ | $\underset{\sim}{\infty}$ | 芹 | $\stackrel{i}{i}$ | $\stackrel{i}{n}$ | Ein | $\stackrel{8}{8}$ | $\stackrel{\sim}{0}$ | $\stackrel{s}{6}$ | $\begin{gathered} 8 \\ i \\ i n \end{gathered}$ | $\underset{\sim}{\infty}$ | $\stackrel{m}{i n}$ | $\begin{gathered} 8 \\ 0.0 \\ \hline 0 \end{gathered}$ | $\stackrel{\infty}{\infty}$ | 咅 | 合 | $\underset{\sim}{n}$ | $\stackrel{\rightharpoonup}{\mathrm{i}}$ | $\stackrel{\infty}{\infty}$ | 莳 |  | $\stackrel{8}{2}$ | $\begin{gathered} \text { 符 } \end{gathered}$ | $\infty_{0}^{\infty}$ | İ | ก | $\begin{aligned} & 8 \\ & \hline 0 \end{aligned}$ | 8 | 3 |
| $\\|_{2}^{8}$ |  | $\begin{aligned} & 8 \\ & \hline \mathbf{e} \end{aligned}$ | $\underset{\sim}{\infty}$ | $\underset{\sim}{8}$ | $\begin{gathered} 8 \\ \stackrel{\circ}{4} \\ \hline \end{gathered}$ | $\begin{aligned} & 8 \\ & \stackrel{y}{4} \\ & \hline \end{aligned}$ | $\underset{\infty}{\stackrel{\infty}{\infty}}$ | $\underset{\infty}{\infty}$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \infty \\ & \stackrel{0}{0} \end{aligned}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{i} \end{aligned}$ | $\stackrel{8}{i n}$ | だ | $8$ | $8$ | $\begin{array}{\|c} 8 . \\ \text { \& } \end{array}$ | $\begin{array}{\|l\|l\|} \hline 8 \\ \text { 守 } \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \underset{\sim}{\circ} \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline 8 \end{aligned}$ | $\begin{gathered} 8 \\ \hline \infty \\ \infty \\ \hline \end{gathered}$ | $\begin{aligned} & 8 \\ & \dot{G} \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & 4 \\ & \hline \end{aligned}$ | $\underset{\underset{i}{\underset{\sim}{8}}}{ }$ | $\underset{\sim}{8}$ | $\begin{aligned} & 8 \\ & \mathbb{O} \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | $\underset{\underset{\alpha}{8}}{\stackrel{8}{2}}$ | ৪i | $\begin{aligned} & 8 \\ & \hline 心 ⿴ ⿱ 冂 一 ⿰ 丨 丨 丁 \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 . \end{aligned}$ | $\frac{8}{8}$ |  |  |
|  |  | $\stackrel{\infty}{\circ}$ | \| | $\begin{aligned} & \stackrel{\circ}{4} \\ & i n \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \text { in } \end{aligned}$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & 5 \\ & \stackrel{\rightharpoonup}{n} \end{aligned}$ | $\begin{aligned} & 8 \\ & i n \end{aligned}$ | $\underset{i n}{\stackrel{\rightharpoonup}{n}}$ | $\begin{aligned} & \text { 志 } \\ & \hline \end{aligned}$ | $\stackrel{8}{4}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{n} \end{aligned}$ | $\stackrel{n}{\sim}$ | $\begin{aligned} & 3 \\ & \stackrel{3}{6} \end{aligned}$ | స్టి | $\begin{aligned} & 0 \\ & 0 \\ & \infty \\ & i \end{aligned}$ | $\begin{aligned} & \circ \\ & i o \\ & i \end{aligned}$ | $$ | 응 | $\underset{8}{0}$ | $\begin{aligned} & \text { I } \\ & 0 \end{aligned}$ | $\stackrel{\sqrt{3}}{6}$ | た | $$ | $$ | $\stackrel{m}{\mathrm{~m}}$ | S | $\begin{aligned} & 6 \\ & 0 \end{aligned}$ | $8$ | $\underbrace{\infty}_{0}$ | $\begin{aligned} & 6 \\ & 50 \end{aligned}$ | 8 | \％ |
| 窓 |  | $\stackrel{\infty}{\circ}$ | $\begin{aligned} & \text { F } \\ & i \end{aligned}$ | $\begin{aligned} & \stackrel{\otimes}{6} \\ & \dot{子} \end{aligned}$ | $\begin{gathered} \underset{i}{3} \\ \stackrel{i}{n} \end{gathered}$ | $\begin{aligned} & g \\ & q \end{aligned}$ | $\stackrel{\infty}{\stackrel{\circ}{8}}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\alpha} \\ & \infty \end{aligned}$ | $\begin{aligned} & ⿱ 士 心 ⿴ ⿱ 冂 一 ⿰ 丨 丨 丁 \end{aligned}$ | $\begin{aligned} & 4 \\ & 8 \\ & \hline 8 \end{aligned}$ | $\stackrel{\text { en }}{\stackrel{n}{n}}$ | $\begin{aligned} & \text { © } \\ & \dot{\sim} \end{aligned}$ | $\begin{gathered} \underset{\sim}{2} \\ \dot{\sim} \end{gathered}$ | $\begin{gathered} \infty \\ \stackrel{\infty}{\sim} \end{gathered}$ | 귤 | $\begin{aligned} & \text { 寺 } \\ & \hline \end{aligned}$ | $\underset{\text { İ}}{ }$ | $\stackrel{\infty}{\underset{\sim}{\sim}}$ | $\begin{aligned} & \text { 夺 } \\ & \text { 保 } \end{aligned}$ | $\begin{gathered} \infty \\ 0 \\ \hline 8 \end{gathered}$ | $\begin{aligned} & 5 . \\ & 0 . \end{aligned}$ | 答 | $\stackrel{\sim}{2}$ | $\stackrel{\rightharpoonup}{\stackrel{n}{z}}$ | $\stackrel{\rightharpoonup}{\approx}$ | $\overline{\mathrm{c}}$ | $\underset{\infty}{\underset{\infty}{\infty}}$ | $\stackrel{\pi}{\infty}$ | $\frac{I}{2}$ | $\stackrel{\curvearrowleft}{\infty}$ | $\stackrel{\circ}{\infty}$ |  |  |
|  | ह | － | S | $\because$ | I | $\cdots$ | $\stackrel{\square}{-}$ | 5 | $\infty$ | 8 | － | 二 | O | $\cdots$ | コ | $\cdots$ | $\bigcirc$ | ＝ | $\infty$ | － | 가 | च | ন | 7 | $\pm$ | $\sim$ | $\sim$ | － | ） | 2 | e | m | 6 |

Exhibit 4: Occupancy Table for Local Hotels January 2002
Mapa de Ocupaçäo - Hoteis


Exhibit 5：Occupancy Table for Local Hotels February 2002
Mapa de Ocupação－Hoteis
Mês：Fevereiro de 2002

|  | $\begin{array}{\|l\|l\|l\|l\|l\|} \hline \stackrel{y}{3} \\ \hline \end{array}$ |  | NT | $\begin{aligned} & \text { तै } \\ & \text { ै } \end{aligned}$ | $\begin{aligned} & \bar{ल} \\ & \underset{\sim}{m} \\ & \hline \end{aligned}$ | $\stackrel{m}{m}$ | ém | $\stackrel{\stackrel{\infty}{m}}{\stackrel{\rightharpoonup}{m}}$ | c | $\stackrel{\rightharpoonup}{\infty}$ | ユ゙ | $\stackrel{\underset{y}{6}}{\substack{8 \\ \hline}}$ | $\stackrel{0}{9}$ | ${ }^{\circ}$ |  | $\begin{aligned} & \underset{y}{4} \\ & \dot{子} \\ & \hline \end{aligned}$ | 守 | * | $\begin{aligned} & \underset{\sim}{y} \\ & \underset{\sim}{2} \end{aligned}$ | $\underset{\sim}{*}$ | テ |  | $\stackrel{\circ}{q}$ | 아 | $\begin{aligned} & \text { M } \\ & \text { in } \end{aligned}$ | $\underset{\sim}{\circ}$ | \％ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ¢ | $\begin{aligned} & 8 \\ & \stackrel{8}{6} \end{aligned}$ | $\begin{aligned} & \text { L } \\ & \text { Nỉ } \\ & \hline \end{aligned}$ | $\stackrel{\underset{\sim}{\sim}}{\stackrel{\rightharpoonup}{2}}$ | $\begin{aligned} & \stackrel{i}{\sim} \\ & \stackrel{N}{2} \end{aligned}$ | ~ | $\stackrel{8}{\mathbf{H}}$ | $\stackrel{8}{\mathbf{o}}$ | $\begin{array}{\|c} \hline 8 \\ \stackrel{\circ}{q} \end{array}$ | $\begin{gathered} \text { ob } \\ \stackrel{\circ}{2} \end{gathered}$ | $\begin{array}{\|c\|c\|} \hline 8 \\ \infty \\ \hline \end{array}$ | $\stackrel{e}{6}$ | $\begin{aligned} & \mathrm{C} \\ & \hline 8 . \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline 8 \\ 0 \\ \hline \end{array}$ | $\stackrel{8}{i}$ | $\begin{gathered} \underset{\sim}{8} \\ \underset{子}{2} \end{gathered}$ | $\begin{aligned} & \text { + } \\ & \text { on } \end{aligned}$ | $\stackrel{Y}{\ddagger}$ | $\begin{aligned} & \stackrel{8}{6} \\ & \stackrel{+}{9} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{8} \\ & \underset{\sim}{n} \end{aligned}$ | $\underset{\substack{8 \\ \underset{子}{2} \\ \hline}}{ }$ | $\underset{\underset{\sim}{8}}{\substack{0 \\ \hline}}$ | $\begin{array}{\|c\|} \hline 8 \\ \hline \stackrel{\circ}{8} \end{array}$ | \％ | $\underset{\underset{\sim}{8}}{\stackrel{8}{2}}$ | \％ | $\stackrel{\text { en }}{\substack{6 \\ \hline}}$ | ${ }_{3}$ | ¢ |
|  |  | $\dot{\sigma}$ |  | $\begin{aligned} & \hline \stackrel{N}{2} \\ & \stackrel{\omega}{6} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \stackrel{\rightharpoonup}{\mathbf{o}} \\ & \mathbf{~} \end{aligned}$ | छे | $81$ | $\begin{aligned} & \hline \frac{1}{6} \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { 㟘 } \\ \hline \end{array}$ | $\hat{\circ}$ | $8$ | $\stackrel{\rightharpoonup}{i}$ |  | $\begin{aligned} & \text { m } \\ & \text { 等 } \\ & \hline \end{aligned}$ | 员 | $\begin{aligned} & 0.0 \\ & i \end{aligned}$ | প্ల্ | $\begin{aligned} & \text { No } \\ & \stackrel{0}{2} \\ & \hline \end{aligned}$ |  | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{N}}}{ }$ | $\begin{aligned} & \hline \stackrel{e}{i} \\ & \hline \end{aligned}$ | 픗 | $\begin{array}{\|c\|} \hline \stackrel{\infty}{\mathrm{N}} \\ \hline \end{array}$ | $\begin{aligned} & \circ \\ & \stackrel{\circ}{C} \\ & \hline \end{aligned}$ | $\stackrel{\infty}{\infty}$ | \％ |  | － |  |
|  |  | $\begin{array}{\|c\|} \hline 8 \\ \hline \mathbf{j} \\ \hline \end{array}$ |  | $\begin{aligned} & \hline 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{q}} \end{aligned}$ | $\begin{aligned} & \stackrel{8}{\mathrm{O}} \\ & \underset{\sim}{2} \end{aligned}$ | in | $\begin{aligned} & 8 \\ & \hline 6 \\ & \hline \end{aligned}$ | $\begin{array}{\|} \hline 8 \\ \hline \infty \end{array}$ | 8 | o | $\begin{aligned} & 8 \\ & \vdots \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 6 \\ & \hline 6 \end{aligned}$ | $\begin{gathered} 8 \\ \underset{\infty}{\circ} \\ \hline \end{gathered}$ | \％ | $$ | $\begin{aligned} & 8 \\ & \underset{~}{2} \end{aligned}$ | $\stackrel{8}{6}$ | $\begin{aligned} & \hline 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 6.8 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \stackrel{8}{\circ} \\ \hline \end{array}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \hline \end{aligned}$ | $\stackrel{8}{\underset{\sim}{~}}$ | $\begin{aligned} & 8 \\ & \hline \\ & \hline \end{aligned}$ | ¢ | $\stackrel{\square}{\square}$ | － |
|  | $0$ | 厄 | $\infty$ | $\dot{\infty}$ | $\begin{aligned} & 9 \\ & 9 \\ & 0 \end{aligned}$ | 品 | న | $\stackrel{\text { Li}}{\stackrel{1}{c}}$ | $\stackrel{\stackrel{6}{\sim}}{\stackrel{1}{2}}$ | $\stackrel{2}{2}$ | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{2} \\ & \stackrel{2}{2} \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline-\infty \\ & \hline \end{aligned}$ | o | $\stackrel{\circ}{2}$ | $\stackrel{\infty}{\sim}$ | $\begin{aligned} & 2 \\ & \infty \\ & \sim \\ & \hline \end{aligned}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\text { 尔 }}{\sim}$ |  | $\begin{aligned} & \bar{\circ} \\ & \stackrel{\circ}{\circ} \end{aligned}$ | $\begin{array}{\|c\|} \stackrel{\circ}{\stackrel{\circ}{夫}} \\ \hline \end{array}$ | $\begin{gathered} \tilde{\sim} \\ \end{gathered}$ | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & 5 \\ & \stackrel{\rightharpoonup}{6} \end{aligned}$ | $\begin{aligned} & \text { す } \\ & \stackrel{\text { d }}{ } \end{aligned}$ | 号 |  |
|  | 은 | $\dot{\sigma}$ | © | $\begin{aligned} & 8 . \\ & \hline 8 \\ & \hline 0 \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 0 \\ & \hline \end{aligned}$ | $\underset{\circledR}{\circ}$ | 8 | $\begin{aligned} & 8 \\ & 0 . \\ & \stackrel{0}{0} \end{aligned}$ | $\begin{aligned} & 8 \\ & \stackrel{\circ}{n} \\ & \hline \end{aligned}$ | 8 | $\stackrel{8}{8}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline 8 \end{aligned}$ | $\begin{aligned} & \stackrel{8}{6} \\ & \stackrel{0}{1} \end{aligned}$ | $\stackrel{8}{\infty}$ | 울 | $\begin{gathered} 8 \\ \hline 6 \\ \hline 6 \end{gathered}$ | $\stackrel{\Gamma}{\oplus}$ | $\begin{aligned} & 8 \\ & \stackrel{n}{2} \end{aligned}$ | $\begin{gathered} 8 \\ 20 \\ \hline \end{gathered}$ | $\stackrel{8}{2}$ | $\stackrel{\circ}{\therefore}$ | $\stackrel{\rightharpoonup}{\circ}$ | $\begin{array}{\|c\|} \hline 8 \\ \end{array}$ | $\begin{aligned} & 8 \\ & 6.8 \\ & \hline 6 \end{aligned}$ | © | ธ | 8 | － |  |
|  |  | $\begin{aligned} & 0 \\ & \dot{寸} \\ & \hline \end{aligned}$ | \％ | $\begin{aligned} & 4 \\ & \stackrel{H}{6} \end{aligned}$ | $\begin{aligned} & \text { +্ } \\ & \text { ¢ } \end{aligned}$ | in | 佶 | $\stackrel{0}{i n}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \end{aligned}$ | $8$ |  | $\stackrel{y}{8}$ | $\begin{array}{\|l\|l\|} \hline \stackrel{0}{0} \\ \stackrel{0}{\circ} \end{array}$ | $\stackrel{4}{6}$ | R | $$ | $\underset{\sim}{i}$ | in | $\begin{aligned} & \text { H } \\ & 0 \\ & 0 \end{aligned}$ | is | $\begin{aligned} & \ddot{8} \\ & \stackrel{\circ}{子} \end{aligned}$ | $\stackrel{m}{q}$ | $$ | $\begin{aligned} & \text { oem } \\ & \underset{\sim}{\circ} \end{aligned}$ | $\stackrel{\stackrel{\rightharpoonup}{i}}{\substack{n}}$ | $\begin{aligned} & \stackrel{\sim}{n} \\ & \stackrel{3}{\circ} \end{aligned}$ | 告 | \％ | \％ |
|  | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | 寸 | $\begin{aligned} & \infty \\ & \stackrel{\circ}{寸} \end{aligned}$ |  | $\begin{aligned} & 8 \\ & 0 . \\ & i n \end{aligned}$ | $\stackrel{i}{2}$ | $\begin{gathered} 8 \\ \hline-8 \\ \hline \end{gathered}$ | $\begin{aligned} & 8 \\ & \end{aligned}$ | $\underset{\substack{\mathrm{N}}}{ }$ | $\stackrel{6}{i}$ | $\infty$ | $\begin{aligned} & \stackrel{\infty}{\infty} \\ & \stackrel{\sim}{\sim} \end{aligned}$ | $\stackrel{\stackrel{\rightharpoonup}{c}}{\mathbf{c}}$ | ei | $\stackrel{m}{m}$ | 인 | $\dot{\sigma}$ | $\stackrel{\sim}{j}$ | $\stackrel{\mu}{\mathbf{j}}$ | $\dot{子}$ | $\stackrel{\rightharpoonup}{\dot{\gamma}}$ | $\underset{y}{\dot{y}}$ | $\frac{\infty}{\infty}$ | $\stackrel{\circ}{8}$ | $\stackrel{?}{i}$ | 8 | ल্লে | － | ¢ |
|  |  |  | $\circ$ |  | $\begin{aligned} & \text { M } \\ & \text { W } \\ & \hline \end{aligned}$ | $\stackrel{ே}{6}$ | $\begin{aligned} & \mathbf{o} \\ & \hline 0 \\ & \hline 0 \end{aligned}$ | $\stackrel{3}{8}$ | $\begin{array}{\|l\|} \hline \\ \hline 8 \\ 8 \end{array}$ | $8$ | ㄷ | ল্ল | $$ | 寽 | 过 | $\begin{aligned} & \underset{\sim}{\circ} \\ & \hline \end{aligned}$ | 厄̀ | $\underset{A}{\mathrm{I}}$ | $\begin{aligned} & u_{0} \\ & \stackrel{y}{幺} \end{aligned}$ | Oi | $\stackrel{0}{2}$ | $\stackrel{9}{i}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{2} \end{aligned}$ | $\mid$ | $\stackrel{\rightharpoonup}{\infty}$ | $\stackrel{\sim}{2}$ | ¢ |  |  |
|  | 8 | $81$ | $\stackrel{N}{\hat{i}}$ | 8 | $\begin{gathered} \stackrel{\sim}{\infty} \\ \stackrel{\sim}{0} \\ \hline \end{gathered}$ | 8 | $\dot{\circ}$ | $\begin{aligned} & 8 \\ & 0 . \\ & \hline 0 \end{aligned}$ | $\begin{array}{\|c} \circ \\ \\ \hline \end{array}$ | 厄゙ | $\dot{8}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\begin{array}{\|c} \stackrel{\circ}{\infty} \\ \stackrel{\circ}{\infty} \end{array}$ | $\begin{gathered} 8 \\ \infty \\ \infty \end{gathered}$ | ค | ธิ | む | $\infty$ | $\stackrel{8}{8}$ | oi | $\stackrel{\substack{0 \\ i}}{\substack{\|c\|}}$ | $\begin{gathered} \stackrel{\rightharpoonup}{0} \\ \stackrel{0}{n} \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline 8 \\ 0 \\ \hline \end{array}$ | $\underset{i n}{\text { Nㅜㅇ }}$ | $\begin{gathered} \mathbf{c}_{i} \end{gathered}$ | © | $\propto$ | ${ }_{3}$ | 下 |
|  | $\stackrel{8}{\mathrm{o}}$ | $\begin{aligned} & \text { 을 } \\ & \end{aligned}$ | 厄 | $\stackrel{4}{6}$ | $\begin{aligned} & \stackrel{8}{0} \\ & \hline 0 \end{aligned}$ | $\stackrel{4}{0}$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \text { en } \\ & \end{aligned}$ | 둔 | 合 | 比 | $\begin{aligned} & 6 \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{y} \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { m} \\ & \stackrel{y}{6} \\ & \hline \end{aligned}$ | ח | $\underset{\sim}{\bar{m}}$ | iㅜ | $\underset{\substack{\underset{G}{4} \\ \hline \\ \hline}}{ }$ | $\begin{aligned} & 9 \\ & \stackrel{9}{4} \\ & \stackrel{3}{2} \end{aligned}$ | $\begin{aligned} & \text { O} \\ & \text { O } \end{aligned}$ | $\begin{aligned} & \text { y } \\ & i \\ & i \end{aligned}$ | $\infty$ | $\left.\begin{array}{\|c\|} \hline 8 \\ 0 \\ 0 \end{array} \right\rvert\,$ | $\begin{array}{\|c\|c\|} \hline- \\ 8 \\ \hline \end{array}$ | $\begin{aligned} & \text { s. } \\ & \mathbf{8} \end{aligned}$ | $\begin{array}{\|c\|c\|c\|c\|c\|} \hline 0 \\ \hline 6 \end{array}$ | $\stackrel{\text { ¢ }}{\substack{\text { ¢ }}}$ | 8 | － |
|  | প্র | $\approx$ | $\stackrel{\infty}{\infty}$ | o | $\begin{aligned} & \stackrel{8}{4} \\ & \stackrel{\rightharpoonup}{4} \end{aligned}$ | is | $\begin{gathered} 8 \\ \hline i \\ \hline \end{gathered}$ | $\stackrel{\otimes}{\circ}$ | $\stackrel{\circ}{\circ}$ | $8$ | $\stackrel{8}{8}$ | $\stackrel{0}{i}$ | $\stackrel{0}{0}$ | is | F | $\dot{寸}$ | ※্寸্子 | $\infty$ | R | $\stackrel{c}{2}$ | : | $\stackrel{\circ}{\circ}$ | $\left\lvert\, \begin{array}{\|c\|} \hline 0 \\ \text { in } \end{array}\right.$ | $2$ | 足 | $\stackrel{1}{2}$ | $\infty$ | 寺 | 8 |
|  | \＆ | $\begin{aligned} & 8 \\ & i \\ & i \end{aligned}$ | 옹 | $\begin{aligned} & \stackrel{\rightharpoonup}{2} \\ & \text { of } \end{aligned}$ | $\begin{aligned} & \dot{o} \\ & \underset{\sim}{*} \\ & \hline \end{aligned}$ | 夺 | $\stackrel{\sim}{\circ}$ |  | $\begin{array}{r} \overline{6} \\ \hline \end{array}$ | $\hat{0}$ | $\stackrel{2}{2}$ | $\begin{aligned} & \dddot{O} \\ & \text { i } \\ & \hline \end{aligned}$ | $\begin{aligned} & 5 \\ & \stackrel{c}{2} \end{aligned}$ | $\begin{aligned} & 5 \\ & \vdots \\ & i \end{aligned}$ | 上。 | $\begin{aligned} & \text { No } \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{Z} \\ & \\ & \hline \end{aligned}$ | $\stackrel{2}{2}$ | 8 | $\%$ | $\begin{aligned} & \mathrm{e} \\ & \stackrel{\mathrm{c}}{0} \end{aligned}$ | $8$ | $\begin{aligned} & \stackrel{1}{6} \\ & \stackrel{3}{6} \end{aligned}$ | $\mathrm{O}$ | $\begin{aligned} & \text { p్ల } \\ & \text { ¢if } \\ & \hline \end{aligned}$ | \％ | \％ | ๔ |  |
|  | 8 | $\stackrel{\circ}{\circ}$ | ® | $\underset{\sim}{0}$ | $\underset{\sim}{\mathbb{T}}$ | $\infty$ | $\stackrel{\circ}{-}$ | $\begin{aligned} & \stackrel{\circ}{6} \\ & \stackrel{0}{2} \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline 8 \\ & \hline- \end{aligned}$ | $\stackrel{8}{\square}$ | $\stackrel{\circ}{6}$ | $\begin{aligned} & \stackrel{\circ}{6} \\ & \stackrel{0}{2} \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline 8 \\ & \hline- \end{aligned}$ | $\stackrel{\infty}{\infty}$ | $\stackrel{\circ}{2}$ | 인 | $\overleftarrow{\mathcal{F}_{1}}$ | $\underset{\mathcal{F}}{\underset{\sim}{2}}$ | 勫 | $\mathfrak{F}$ | 尃 | $\dot{寸}$ | $\stackrel{8}{5}$ | $\widetilde{\tilde{n}}$ | $\stackrel{+}{i}$ | $\underset{\sim}{8}$ | $\underset{\sim}{\tilde{y}}$ | 尔 | \％ |
|  | $$ | $\begin{aligned} & \mathrm{O} \\ & \hline 0 \end{aligned}$ | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & \dot{6} \\ & \\ & \stackrel{0}{3} \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\sim}{2} \\ & \stackrel{\sim}{6} \end{aligned}$ | $0$ | $\begin{aligned} & \bar{子} \\ & \dot{子} \\ & \hline \end{aligned}$ |  | $\begin{gathered} \tilde{\sim} \\ \end{gathered}$ | $\begin{aligned} & \stackrel{8}{2} \\ & \stackrel{\sim}{0} \end{aligned}$ | $\stackrel{3}{2}$ | $\begin{aligned} & \text { O} \\ & \text { on } \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{8}{7} \\ & \stackrel{0}{8} \end{aligned}$ | $\begin{aligned} & 1 \\ & \hline 0 \\ & 0 \\ & \hline \end{aligned}$ | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & \mathbf{m} \\ & \infty \\ & \infty \end{aligned}$ | $\begin{aligned} & \text { to } \\ & \stackrel{y}{\circ} \\ & \hline \end{aligned}$ | 道\| | $\begin{aligned} & 8 \\ & \stackrel{4}{6} \\ & \hline \end{aligned}$ | $\begin{aligned} & \underset{\sim}{\square} \\ & \hline \end{aligned}$ | $\underset{\sim}{n}$ | $\begin{aligned} & \text { mem } \\ & \stackrel{\sim}{\circ} \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { 岕 } \\ \hline \end{array}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\infty} \\ & \stackrel{0}{\circ} \\ & \hline \end{aligned}$ | $\begin{gathered} 5 \\ \stackrel{\rightharpoonup}{n} \\ \hline \end{gathered}$ | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & \text { m} \\ & \underset{n}{n} \end{aligned}$ | $\stackrel{\sim}{2}$ | ल |
|  | \&i | © | $\dot{于}$ | $\begin{aligned} & \stackrel{8}{4} \\ & \stackrel{y}{2} \end{aligned}$ | $\begin{aligned} & 8 . \\ & \text { in } \end{aligned}$ | $\begin{aligned} & \text { 울 } \\ & \stackrel{\sim}{0} \end{aligned}$ | 志\| | $\begin{array}{\|c} \hline 8 \\ \underset{\sim}{0} \end{array}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\sim} \\ & \hline \end{aligned}$ | © | $\infty$ | $\underset{\sim}{n}$ | $\stackrel{\circ}{i}$ | $\stackrel{\rightharpoonup}{0} \text { \| }$ | in | $\infty$ | $\stackrel{\sim}{\sim} \mid$ | $\stackrel{\sim}{\sim}$ | $\underset{子}{\mathfrak{J}}$ | $\stackrel{8}{8}$ | $\stackrel{6}{8}$ | 孚 | $\begin{array}{\|c} \stackrel{\circ}{\infty} \\ \stackrel{\infty}{\circ} \end{array}$ | $\infty$ | ゅi | $\varnothing$ | \％ | －8 | if |
|  | $8$ | $\begin{aligned} & \circ \\ & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\stackrel{8}{\infty}$ | $\stackrel{\infty}{\infty}$ | $\frac{m}{\infty}$ | চ | $\begin{aligned} & \frac{3}{\infty} \\ & \hline \end{aligned}$ | $\begin{aligned} & \underset{\sim}{8} \\ & \\ & \hline \end{aligned}$ | $\begin{array}{\|c} 9 \\ \underset{\infty}{9} \\ \hline \end{array}$ | $\infty$ | $8$ | \% | $\begin{aligned} & \text { cे } \\ & \stackrel{\rightharpoonup}{5} \\ & \hline \end{aligned}$ | ब | $8$ | $8$ | $\dot{\circ}$ | $\therefore$ | $\begin{array}{\|c\|} \hline \text { B } \\ \hline 8 \end{array}$ | இ் | $\infty$ | © | 8 | $8$ | \＆ | ¢ | － | $\stackrel{6}{8}$ | $\bigcirc$ |
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|  |  | $\stackrel{\overparen{C}}{\stackrel{\rightharpoonup}{c}}$ | ? | $\begin{aligned} & \text { M } \\ & 0 \\ & 0 \end{aligned}$ |  | 9 |  | $\begin{aligned} & \overline{\bar{G}} \\ & \dot{寸} \end{aligned}$ | $\begin{gathered} \bar{M} \\ \underset{子}{3} \end{gathered}$ | 守 | $\mathfrak{J}$ | 守 | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{子}{子} \end{aligned}$ | $\begin{array}{r} \stackrel{\text { H }}{\substack{3}} \end{array}$ | $\stackrel{\text { en }}{\substack{2}}$ | $\mathfrak{子}$ | $\stackrel{\Im}{\mathfrak{q}}$ | $\begin{aligned} & \stackrel{N}{N} \\ & \underset{\sim}{j} \end{aligned}$ | $\stackrel{\rightharpoonup}{子}$ | 志 | $\begin{gathered} \circ \\ \underset{子}{\circ} \\ \hline \end{gathered}$ | $\mathfrak{F}$ | $\dot{\gamma}$ | $\stackrel{\sim}{\square}$ | － | \％ | ¢ | － |  |
|  |  | $\underset{N}{N}$ | $\begin{aligned} & \stackrel{n}{6} \\ & \dot{\sigma} \end{aligned}$ | o | 뮹 | প্লা | $\begin{gathered} 8 \\ \hline \\ \hline \end{gathered}$ | $\stackrel{8}{\infty}$ | $\underset{\sim}{\circ}$ | $\stackrel{8}{子}$ | $\begin{aligned} & \stackrel{\infty}{\xi} \\ & \underset{寸}{2} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{*} \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline 8 \end{aligned}$ | $\begin{array}{\|c} \hline \mathbf{y} \\ \hline \end{array}$ | F | $\begin{aligned} & 0 \\ & \dot{q} \end{aligned}$ | 운 | $\infty$ | $\stackrel{8}{\circ}$ | ธ | $\stackrel{\widetilde{y}}{\mathbf{q}}$ | 山్లై | $\begin{array}{\|c\|} \hline 8 \\ \hline \mathbf{0} \end{array}$ | $\stackrel{e}{\mathbf{0}}$ | $\tilde{F}$ |  | 8 | － | \％ |
|  | $\begin{aligned} & \circ \\ & \infty \\ & -0 \\ & \hline \end{aligned}$ | $\stackrel{0}{2}$ | $0$ | $\stackrel{m}{\stackrel{\rightharpoonup}{r}}$ | $\underset{\sim}{~}$ | $\stackrel{\infty}{=}$ | $\begin{aligned} & \stackrel{m}{\mathrm{~m}} \\ & \stackrel{y}{c} \end{aligned}$ | $\dot{ \pm}$ | $\underset{\sim}{\circ}$ | $\stackrel{\circ}{\bullet}$ | $\approx$ | $\stackrel{\sim}{\rightleftharpoons}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\circ}{\circ} \\ & \hline \end{aligned}$ | $\begin{aligned} & \tilde{0} \\ & \stackrel{\circ}{\circ} \end{aligned}$ | 운 | $\stackrel{\rightharpoonup}{\circ}$ | $\stackrel{\stackrel{\rightharpoonup}{\circ}}{\stackrel{\rightharpoonup}{2}}$ | $\begin{aligned} & 8 \\ & \infty \\ & \infty \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\leftrightarrow}{3} \\ & \stackrel{\circ}{\circ} \end{aligned}$ | 운 | $\stackrel{\Delta}{1}$ | $\begin{aligned} & \stackrel{?}{d} \\ & \underset{a}{2} \\ & \hline \end{aligned}$ | $$ | $\underset{\sim}{j}$ | ~ | ๗゙ | $\sim$ | － | g |
|  | $\begin{aligned} & \hline 8 \\ & \stackrel{\circ}{\circ} \end{aligned}$ | $\stackrel{\rightharpoonup}{\mathrm{N}}$ | $\stackrel{\sim}{\sim}$ | $\stackrel{\sim}{c}$ | 응 | $\stackrel{\sim}{6}$ | 신 | $\stackrel{\stackrel{\rightharpoonup}{c}}{\underset{i}{\mid}}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{N}}}{ }$ | $\stackrel{0}{\sim}$ | $\stackrel{\rightharpoonup}{i}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{N}}}{ }$ | $\stackrel{\stackrel{\rightharpoonup}{0}}{ }$ | 를 | 인 | $\stackrel{\rightharpoonup}{\circ}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\infty}{\rightleftharpoons}$ | $\stackrel{\infty}{\infty}$ | $\stackrel{\rightharpoonup}{m}$ | $\stackrel{\stackrel{\rightharpoonup}{e}}{ }$ | $\stackrel{\rightharpoonup}{0}$ | $\begin{array}{\|c\|} \hline \stackrel{\circ}{6} \\ \text { ¢ } \end{array}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{m}}}{\mathbf{i}}$ | $\stackrel{\rightharpoonup}{\dot{q}}$ | 운 | バ่ | － | ¢ |
|  |  | ci | $8$ | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & 8 \\ & 6 \\ & \hline 6 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \underset{\sim}{2} \end{aligned}$ |  | $\begin{aligned} & \text { 莳 } \\ & \underset{\sim}{2} \end{aligned}$ | $$ | $\begin{aligned} & \stackrel{\ddot{6}}{\circ} \\ & \stackrel{y}{\circ} \end{aligned}$ | $\stackrel{\text { N}}{\underset{\sim}{2}}$ | $\stackrel{o}{\stackrel{~}{ }}$ | N | $\begin{gathered} \stackrel{4}{4} \\ \underset{\sim}{2} \end{gathered}$ | $\underset{\sim}{\underset{\sim}{*}}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{N}} \end{aligned}$ |  | $\begin{aligned} & \stackrel{\leftrightarrow}{\infty} \\ & \stackrel{\circ}{\circ} \\ & \hline \end{aligned}$ |  | $\stackrel{\circ}{\sim}$ | is | $\stackrel{+}{\square}$ | ． | － | \％ | $\stackrel{\sim}{\sim}$ | － |  | ¢ |
|  | $\begin{array}{\|} \hline- \\ \underset{\sim}{n} \end{array}$ | ఙ்\| | $8$ | oें | ¢ | $8$ | $\stackrel{\sim}{\sim}$ | $\begin{aligned} & 8 \\ & 6 \\ & 6 \end{aligned}$ | నi | $\begin{aligned} & 8 \\ & \hline 0 \\ & \hline \end{aligned}$ | N | $\begin{aligned} & 8 \\ & 6 \\ & \hline 6 \end{aligned}$ | $\stackrel{\infty}{\infty}$ | ㅁ | $\underset{\underset{\sim}{8}}{\stackrel{-1}{2}}$ | $\stackrel{\sim}{n}$ | $\underset{\sim}{\underset{\sim}{N}}$ | $\mathscr{F}$ | $\stackrel{\text { セn }}{ }$ | น | 룰 | க் | è | $\stackrel{8}{\underset{~}{8}}$ | ゃ. | ल | 2 | － | － |
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|  |  |  |  | $\stackrel{\rightharpoonup}{\mathrm{a}}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\infty$ |
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|  |  |  |  | $\stackrel{\circ}{\circ}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | N |
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|  | ob | $\stackrel{\circ}{\dot{7}}$ | $\stackrel{8}{\stackrel{ }{-}}$ | $\stackrel{8}{\underset{\sim}{8}}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\circ}{\circ} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0 \\ & \stackrel{0}{\circ} \\ & \stackrel{\circ}{2} \end{aligned}$ | $$ | $\begin{gathered} \stackrel{\rightharpoonup}{\mathrm{c}} \\ \hline \end{gathered}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{6} \\ & \stackrel{\rightharpoonup}{2} \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 . \end{aligned}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{N}}}{ }$ | $\stackrel{8}{0}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{6} \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0 . \\ & 0 \\ & 0 \end{aligned}$ | $\stackrel{8}{\underset{\mathrm{j}}{2}}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{6} \\ & \stackrel{6}{9} \end{aligned}$ | $\begin{aligned} & \dot{8} \\ & \stackrel{0}{9} \end{aligned}$ | $\begin{array}{\|l} \hline 8 \\ 0 \\ 0 \end{array}$ | $\begin{gathered} 8 \\ \hline 6 \\ \hline \end{gathered}$ | $\begin{aligned} & 8 \\ & \text { in } \end{aligned}$ | $$ | $\begin{aligned} & \circ \\ & \stackrel{\circ}{i} \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline \stackrel{\rightharpoonup}{子} \\ \hline \end{array}$ | $\stackrel{\circ}{\mathbf{o}}{ }_{\sim}^{1}$ | $\begin{gathered} \stackrel{\rightharpoonup}{i} \\ \stackrel{c}{1} \end{gathered}$ | ¢ | ¢ | － | 笑 |
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|  | হ | $\underset{\sim}{8}$ | $\begin{array}{\|c} \stackrel{8}{n} \\ \stackrel{n}{n} \\ \hline \end{array}$ | 导 | $\stackrel{\sim}{\sim}$ | ～ |  | in | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | ٌ | $\stackrel{\rightharpoonup}{8}$ | $\underset{\text { İ }}{\underset{\sim}{2}}$ | $8$ | $\begin{gathered} 8 \\ i 5 \\ \hline \end{gathered}$ | B | $\begin{aligned} & 8 \\ & 0 . \\ & 6 \\ & \hline \end{aligned}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\begin{gathered} 0 \\ \stackrel{0}{0} \\ \hline \end{gathered}$ | $\stackrel{R}{8}$ | $\stackrel{8}{\circ}$ | $\begin{aligned} & \stackrel{a}{0} \\ & \hline \end{aligned}$ | $\underset{\underset{\sim}{8}}{\substack{2 \\ \hline}}$ | $\stackrel{\infty}{\infty}$ | $\stackrel{\widehat{o}}{\infty}$ | $\stackrel{ভ}{\circ}$ | O－ | $\infty$ | 츳 | ¢ |
|  | 옹 | $\stackrel{\sim}{\mathrm{N}}$ | $\infty$ | 景 | $\begin{gathered} 8 \\ \hline 8 \end{gathered}$ | $\stackrel{7}{6}$ | $\stackrel{0}{8}$ | $\begin{array}{\|c\|c\|} \hline 8 \\ 8 \\ \hline \end{array}$ | $\begin{gathered} \infty \\ \dot{心} \\ \hline \end{gathered}$ | $\begin{aligned} & 9 \\ & 8 \\ & 8 \end{aligned}$ | $8$ | $\stackrel{\circ}{i}$ | $\underset{\sim}{n}$ | $$ | $\stackrel{\rightharpoonup}{1}$ | $\begin{aligned} & \dot{7} \\ & \stackrel{y}{c} \\ & \hline \end{aligned}$ | No | $$ | $\stackrel{8}{\stackrel{8}{夫}}$ | $\begin{aligned} & \text { oi } \\ & \hline 0 \\ & \hline \end{aligned}$ | $\begin{gathered} \stackrel{~}{\star} \\ \end{gathered}$ | $\begin{gathered} \text { 告 } \\ \hline \end{gathered}$ | $\begin{array}{\|l\|} \hline \stackrel{\text { 世 }}{\stackrel{1}{*}} \\ \hline \end{array}$ | $\begin{aligned} & \stackrel{\infty}{\circ} \mid \\ & \hline \end{aligned}$ | $\stackrel{\stackrel{\circ}{ \pm}}{\underset{\sim}{4}}$ | ～ | $\stackrel{\text { I }}{ }$ | － | F |
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|  | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & \dot{寸} \end{aligned}$ | $\begin{aligned} & \hline \stackrel{\rightharpoonup}{0} \\ & \stackrel{y}{2} \end{aligned}$ | $\begin{aligned} & \stackrel{N}{\stackrel{N}{\circ}} \\ & \underset{\sim}{n} \end{aligned}$ | $\begin{aligned} & \text { ơ } \\ & \text { 尔 } \end{aligned}$ | ল্লে | o্ল | $\stackrel{0}{2}$ | $\begin{gathered} \stackrel{e}{m} \\ \underset{寸}{2} \end{gathered}$ | $\begin{aligned} & \text { ơ } \\ & \text { 守 } \end{aligned}$ | $$ | $\begin{aligned} & 8 \\ & 8 \\ & i 8 \end{aligned}$ | $$ | $\begin{array}{\|c} 0.0 \\ \stackrel{0}{n} \end{array}$ | $\begin{aligned} & 4 \\ & i \end{aligned}$ | $\begin{aligned} & 0.8 \\ & \stackrel{0}{\circ} \\ & \hline \end{aligned}$ | $$ | $\bar{\sim}$ | $\stackrel{\infty}{\circ}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{O}} \\ & \stackrel{y}{\mathrm{q}} \end{aligned}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{y}{寸} \end{aligned}$ | $\begin{aligned} & \text { M} \\ & \substack{\text { co }} \end{aligned}$ | $\begin{aligned} & \stackrel{\infty}{6} \\ & \dot{寸} \end{aligned}$ | $\stackrel{\text { m }}{\text { ¢ }}$ | $\stackrel{\circ}{\square}$ | ¢ | $\stackrel{\sim}{0}$ | \％ | 8 |
|  | 合 | $\stackrel{\Im}{\mathfrak{j}}$ | 이씬 | $\stackrel{8}{\underset{\sim}{1}}$ | $\stackrel{\rightharpoonup}{i}$ | $\stackrel{8}{i}$ | $\stackrel{8}{\underset{\sim}{\mathrm{~N}}}$ | $\begin{gathered} 8 \\ \stackrel{\infty}{\infty} \\ \hline \end{gathered}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline \end{aligned}$ | $\begin{gathered} 8 \\ 0 \\ \hline \end{gathered}$ | $\begin{array}{\|c} 8 \\ \underset{\sim}{2} \end{array}$ | $\begin{aligned} & 8 \\ & \text { ob } \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \infty \\ & \\ & \hline \end{aligned}$ | $\begin{array}{\|c} 8 \\ \stackrel{0}{0} \end{array}$ | $\begin{aligned} & 8 \\ & \hline 6.8 \\ & \hline \end{aligned}$ | $\stackrel{\rightharpoonup}{\mathbf{e}}$ | Bi | $\begin{aligned} & 8 \\ & \underset{\sim}{2} \end{aligned}$ | $\stackrel{\circ}{\mathrm{N}}$ | $\begin{aligned} & 8 \\ & \text { ín } \end{aligned}$ | $\stackrel{\Delta}{\mathbf{N}}$ | $$ | $\stackrel{8}{\mp}$ | $\infty$ | $\stackrel{\square}{6}$ | － | $\stackrel{\text { ¢ }}{-}$ | $\stackrel{8}{\text { ¢ }}$ | \％ |
|  | $\begin{aligned} & \text { t } \\ & \stackrel{\circ}{\circ} \end{aligned}$ | N | $\begin{aligned} & 0 \\ & \hline 8 \\ & \hline 8 \end{aligned}$ | $\begin{aligned} & \text { 흥 } \end{aligned}$ | $$ | $\begin{aligned} & \text { d } \\ & \stackrel{y}{n} \end{aligned}$ | $\begin{gathered} \stackrel{\circ}{4} \\ \stackrel{子}{子} \end{gathered}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\circ}{\circ} \end{aligned}$ | $\stackrel{\circ}{\stackrel{0}{n}}$ | $\begin{aligned} & \stackrel{8}{6} \\ & \stackrel{3}{6} \end{aligned}$ | $\begin{aligned} & 8 \\ & \stackrel{8}{6} \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\ddot{H}}{\dot{O}} \\ & \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathbf{o}} \\ & \stackrel{\rightharpoonup}{6} \end{aligned}$ | $\begin{aligned} & \ddot{\circ} \\ & \stackrel{\circ}{\circ} \\ & \hline \end{aligned}$ | ¢ | $\begin{aligned} & 0 \\ & \vdots \\ & 6 \end{aligned}$ | $\begin{aligned} & \hat{H} \\ & \stackrel{y}{6} \end{aligned}$ | $\begin{aligned} & \stackrel{e}{6} \\ & \stackrel{0}{6} \end{aligned}$ | $\begin{aligned} & 9 \\ & 4 \\ & \hline 6 \end{aligned}$ | $\begin{aligned} & \text { oib } \\ & \stackrel{H}{\circ} \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{4} \\ & \stackrel{\rightharpoonup}{6} \end{aligned}$ | $\begin{gathered} \text { ざ } \\ \text { Con } \end{gathered}$ | 厄্ধ | $\begin{aligned} & \widetilde{్} ్ ర ీ \\ & \hline \end{aligned}$ | $\begin{aligned} & \overline{6} \\ & \stackrel{\rightharpoonup}{\dot{\circ}} \end{aligned}$ | $\stackrel{\circ}{4}$ | $\stackrel{\square}{\square}$ | $\bigcirc$ | ¢ |
|  | $\begin{gathered} \stackrel{\rightharpoonup}{6} \\ \infty \\ \hline \end{gathered}$ | $\dot{\sim}$ | $\stackrel{\underset{\sim}{y}}{\underset{\sim}{n}}$ | $\begin{aligned} & \stackrel{\sim}{m} \\ & \stackrel{\sim}{n} \end{aligned}$ | $\begin{aligned} & \stackrel{\leftrightarrow}{6} \\ & \stackrel{e}{\circ} \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\circ}{\circ} \\ & \hline \end{aligned}$ | 莨 | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\sim}{2} \end{aligned}$ | $\begin{array}{\|c} \stackrel{N}{2} \\ \stackrel{y}{2} \end{array}$ | $\begin{gathered} \infty \\ 808 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { প্\% } \\ & \hline 88 \end{aligned}$ | $\begin{aligned} & \circ \\ & \stackrel{\circ}{8} \\ & \hline \end{aligned}$ | $\stackrel{\underset{ふ ゙}{\infty}}{ }$ | $\stackrel{\underset{\Omega}{n}}{ }$ | $\begin{aligned} & \text { in } \\ & \end{aligned}$ | $\begin{aligned} & \stackrel{e}{0} \\ & \underset{f}{2} \end{aligned}$ | $\begin{aligned} & \stackrel{\circ}{\circ} \\ & \stackrel{\sim}{\circ} \end{aligned}$ | $\begin{gathered} 4 \\ \stackrel{4}{6} \\ \hline \end{gathered}$ | $\begin{aligned} & \stackrel{6}{6} \\ & \hline \end{aligned}$ | $\begin{aligned} & \ddot{\circ} \\ & \hline 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \stackrel{\rightharpoonup}{9} \end{aligned}$ | $\stackrel{\circ}{\mathbf{o}}$ | $\begin{aligned} & \text { 5 } \\ & \text { in } \end{aligned}$ | $\stackrel{\infty}{\dot{G}}$ | $\stackrel{\sim}{\dot{\sim}}$ | $\stackrel{\infty}{0}$ | 菖 | $\stackrel{0}{6}$ | \％ |
|  | $\bar{\square}$ | \％ | \％ | d | ¢ | 8 | $\stackrel{ }{\circ}$ | － | 용 | 은 | F | $\sim$ |  | $\pm$ | $\bigcirc$ | $\stackrel{\square}{+}$ | F | $\stackrel{\text { ¢ }}{ }$ |  | － |  | ～ | ～ | 二 | セ | $\stackrel{\sim}{\sim}$ |  |  | $\stackrel{\square}{6}$ |

[^5]Exhibit 6: Occupancy Table for Local Hotels March 2002
Mapa de Ocupação - Hoteis

| $\begin{array}{\|l\|} \hline \text { FONE } \\ \hline \text { HOTETR } \\ \hline \text { DATA } \\ \hline \end{array}$ |  |  |  |  | CABO DE SA AGOSTINHO 300 APTOS. |  | 3748000 CATUSSABA <br> 256 APTO. |  | 463-1000 <br> SUPERCLUS BREEZES 324 APTOS. |  |  |  |  |  |  |  |  |  |  |  |  |  | '330-2233TAASAMERICSALVADOR202 APTOS. |  |  |  |  |  | 374-9611SOFITEL UATRO RODAS 195 APTGS |  | $\begin{aligned} & \text { '4553.8000 } \\ & \hline \text { SARLTON } \\ & \hline \text { B3 APTOS. } \\ & \hline \end{aligned}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 47.79 | 47.7 | 20.42 | 20 | 48.00 | 48.00 | 65.00 | 65 | 70.00 | 70.00 | 78.00 | 78.00 | 71.02 | 71.02 | 65.73 | 5.73 | 25.00 | 25.1 | 12.00 | 12.00 | 49.38 | 49.38 | 33.50 | 33.50 | 47.84 | 47.84 | 49.00 | 49.00 | 61.1 | 61.17 | 26.76 | 26.7 | 87.00 | 87.00 | 96.00 |
| 2 | 48.59 | 48.19 | 25.00 | 22.7 | 59.00 | 53.5 | 53.09 | 59.05 | 35.00 |  | 76.07 | 77.0 | 67.02 | 69.0 | 17.84 | 41.79 | 19.66 | 2.33 | 12.70 | 12.35 | 45.70 | 47.54 | 28.00 | 30.75 | 50.72 | 49.28 | 60.00 | 54.5 | 52.91 |  | 20.03 | 23.40 | 4.00 | 0.5 | 7.00 |
| 3 | 40.96 | 45.78 | 57.00 | 34.14 | 43.00 | 50.00 | 45.31 | 54.47 | 40.00 | 48.3 | 36.00 | 63.36 | 35.0 | 57.6 | 12.24 | 31.94 | 17.27 | 20.64 | 20.90 | 15.20 | 54.32 | 49.80 | 5.50 | 29.0 | 2.37 | 43.6 | 65.00 | 58.0 | 68.45 | 60.8 | 1.48 | 22.7 | 56.00 | 65.67 | 766.0 |
| 4 | 35.74 | 43.27 | 70.00 | 43.11 | 32.00 | 45.50 | 57.03 | 55.11 | 17.00 | 40.5 | 35.00 | 56.27 | 37.00 | 52.5 | 42.0 | 34.45 | 21.29 | 20.8 | 23.00 | 17.1 | 56.70 | 51.53 | 34.50 | 30.38 | 35.25 | 41.5 | 68.03 | 60.5 | 91.75 | 68.5 | 26.80 | 23.77 | 56.00 | 63.2 |  |
| 5 | 36.14 | 41. | 70.00 | 48.48 | 32.00 | 42.8 | 58.0 | 55.6 | 18.00 |  | 34.10 |  | 36.1 | 49.2 | 43.7 | 36.3 | 20.8 | 20.8 | 23.00 | 18.3 | 58.00 | 52.8 | 35.00 | 31.3 | 37.00 | 40.6 | 68.70 |  | 2.00 | 73. | 27.80 | 24.5 | 57.00 |  | 75.00 |
| 6 | 41.37 | 41. | 70.10 | 52.09 | 35.00 | 41.50 | 66.02 | 57.4 | 18.00 |  | 38.70 |  | 60.00 |  | 39.00 | 36.7 | 27.46 | 21.9 | 74.59 | 27.7 | 91.00 | 59.1 | 47.50 | 34.0 | 38.13 | 40.2 | 47.00 |  | 87.10 | 75 | 52.90 | 29.3 | 70.0 |  | 69.70 |
| 7 | 49.00 | 42.80 | 71.8 | 54 | 36.70 | 40.8 | 66. | 58. | 19.00 |  | 5.10 |  | 4.0 | 50.3 | 36.00 | 36.6 | 27.70 | 2. | 75.80 | 34.57 | 90.80 | 63.7 | 48.00 | 36.0 | 37.60 | 39.84 | 46.0 |  | 85.00 | 76.9 | 53.7 | 32.78 | 71.00 |  | 70.00 |
| 8 | 55.82 | 44. | 47.00 | 53.92 | 60.00 | 43.21 | 84.00 | 61.9 | 93.50 | 38.8 | 35.00 | 46.00 | 53.00 | 50.6 | 85.3 | 42.73 | 100 | 32.40 | 29.09 | 33.89 | 51.32 | 62.15 | 32.50 | 35.56 | 30.22 | 38.6 | 34.0 | 54.7 | 83.5 | 77.7 | 61.20 | 36.33 | 100.00 | 68.8 | 55.00 |
| 9 | 61.04 | 46.2 | 50.00 | 53.48 | 62.70 | 45.3 | 85.70 | 64. | 94.00 | 44.9 | 70.00 | 48.66 | 55.00 | 51.13 | 88.70 | 47. | 100.00 | 39.91 | 31.7 | 33.6 | 53.4 | 61.18 | 33.70 | 35.36 | 31.70 | 37.87 | 35.7 | 52.60 | 84. | 78.4 | 12.7 | 33.71 | 100.0 | 72.3 | 57.80 |
| 10 | 42.97 | 45. | 22.00 | 50.33 | 60.00 | 46.84 | 50.78 | 63.17 | 93.00 | 49.7 | 98.00 | 53.6 | 48.00 | 50.8 | 21.20 | 44.97 | 100 | 45.92 | 36.0 | 33.89 | 49.3 | 60.00 | 48.00 | 36.62 | 27.34 | 36.82 | 35.0 | 50.84 | 53.45 | 75.9 | 40.0 | 34.34 | 65.00 | 71.6 | 66.14 |
| 11 | 41.37 | 45.53 | 24.00 | 47.94 | 48.00 | 46.95 | 79.69 | 64.67 | 98.00 |  | 95.00 | 57.36 | 93.00 | 54.6 | 29.96 | 43.61 | 32.00 | 44.65 | 36.88 | 34.16 | 65.4 | 80.4 | 60.50 | 38.79 | 30.94 | 36.28 | 48.00 | 50.5 | 74.85 | 75.8 | 36.0 | 34.49 | 66.00 |  | 9.00 |
| 12 | 41.37 | 45 | 22.00 | 45.78 | 50.00 | 47.2 | 62.90 | 64.53 | 98.00 |  | 90.00 |  | 85.00 | 57.18 | 5.74 | 41.29 | 30.00 | 3.4 | 37.70 | 34.45 | 66.88 | 61.0 | 61.70 | 40.7 | 32.40 | 35.9 | 49.0 | 50.4 | 75.80 | 75. | 30.00 | 34.11 | 67.10 | 70.7 |  |
| 13 | 41.37 | 44.89 | 23.0 | 44.02 | 51. | 47 | 63.40 | 64.44 | 95.00 |  | 87.10 |  | 84.00 | 59.2 | 16.00 | 39.3 | 31.00 | 42.48 | 38.40 | 34.7 | 67.10 | 61.4 | 61.90 | 42.33 | 33.10 | 35.7 | 59.00 | 51 | 76.10 |  | 37.00 | 34.34 | 68.90 | 0.02 |  |
| 14 | 41.77 | 44.66 | 24.30 | 42.62 | 53.00 | 47.94 | 64.60 |  | 89.00 |  | 85.00 | 63.7 | 7.00 | 60.44 | 18.00 | 37.82 | 30.00 | 41.58 | 41.3 | 35.22 | 68.9 | 62.2 | 71.30 | 44.40 | 44.70 | 36.3 | 51.80 | 51. | 77.8 | 6. | 41.8 | 34.87 | 70.0 | 70.5 | 71.90 |
| 15 | 47.79 | 44.87 | 25.00 | 41.44 | 67.00 | 49.21 | 68.10 | 64 | 100.00 | 65 | 51.00 |  | 49.00 |  | 20.00 | 36.63 | 32.00 | 0.9 | 57.10 | 36.6 | 69.70 | 62.53 | 75.80 | 46.49 | 68.40 | 38.51 | 67.80 | 52.2 | 80.10 | 6.2 | 50.00 | 35.88 | 80.00 | 17.2 |  |
| 16 | 65.46 | 46.16 | 20.90 | 40.16 | 42.00 | 48.7 | 42.7 | 63.32 | 44.00 |  | 52.00 | 62.25 | 24.70 | 57.4 | 32.00 | 36.34 | 77.73 | 43.24 | 17.2 | 35.47 | 48. | 61.64 | 25.50 | 45.18 | 33.8 | 38.22 | 49.00 | 52.06 | 50.0 | 74.6 | 31.90 | 35.63 | 66.00 | 70.88 | 8300 |
| 17 | 37.35 | 45.64 | 19.00 | 38. | 48.00 | 48.71 | 36.72 | 61.76 | 45.00 |  | 64.01 | 62.38 | 11.06 |  | 89.63 | 39.47 | 78.00 | 4529 | 31.96 | 35.26 | 56.79 | 61.35 | 38.00 | 44.76 | 28.78 | 37.66 | 51.0 | 52.00 | 59.70 |  | 33.0 | 35.48 | 65.0 |  |  |
| 18 | 36.55 | 45.14 | 23.70 | 38.07 | 45.00 | 48.51 | 39.70 | 60.53 | 49.00 |  | 62.10 |  | 11.06 |  | 84.90 | 42.00 | 74.22 | 46.9 | 32.80 | 35.12 | 57.60 |  | 39.00 | 44.44 | 31.29 | 37.31 | 50.00 |  | 59.10 | 72.94 | 35.10 | 35.46 | 67.00 |  |  |
| 19 | 34.94 | 44.60 | 25.00 | 37.38 | 42.00 |  | 40.80 |  | 46.10 |  | 50.00 |  | 12.60 |  | 85.00 | 44.26 | 70.40 |  | 34.70 | 35.10 | 58.1 | 60.98 | 41.50 | 44.28 | 34.00 | 37.14 | 55.00 |  | 60.4 | 2.2 | 48.50 | 36.14 | 68.10 |  |  |
| 20 | 59.84 | 45.36 | 81.00 | 39 | 30.00 | 47.2 | 50.38 |  | 60.00 |  | 0.00 | 61.1 | 3.6 | 48.41 | 7.1 | 45.75 | 64.00 | 8.95 | 9.0 | 38.30 | 80.0 | 71.92 | 42.7 | 44.21 | 36.0 | 37.08 | 58.10 | 22.3 | 63.40 | 71.8 | 50.00 | 36.84 | 69.70 | 0.1 |  |
| 21 | 63.8 | 46.24 | 82.0 | 41.58 | 31.80 | 46.5 | 51.40 | 58.67 | 61.20 |  | 50.00 | 60.5 | 14.50 | 46.7 | 75.10 | 47.15 | 65.10 | 997 | 99.00 | 41.15 | 61.70 | 60.97 | 43.80 | 44.19 | 37.10 | 37.08 | 59.40 | 2.6 | 64.70 | 1. | 50.70 | 37.50 | 69.90 | 0.1 |  |
| 22 | 74.70 | 47.54 | 92.00 | 43.87 | 35.00 | 46.00 | 78.52 | 59.57 | 93.00 |  | 1.20 | 60.61 | 25.00 | 45.80 | 5.53 | 48.44 | 17.9 | 48.25 | 5.00 | 42.7 | 44.10 | 61.5 | 41.00 | 44.04 | 7.54 | 38.83 | 67.80 | 53.3 | 65.00 | 71.2 | 27.5 | 37.04 | 100. | 71.5 |  |
| 23 | 61.8 | 48.16 | 40.00 | 43.71 | 40.00 |  | 77.07 |  | 6.00 |  | 20.00 |  | 5.00 | 44.46 | 13.27 | 46.91 | 9.01 | 46.5 | 47.13 | 42.91 | 33.33 | 60.34 | 31.50 | 43.50 | 64.03 | 39.92 | 48.0 |  | 76.50 |  | 45.5 | 37.41 | 56.0 |  |  |
| 24 | 59.44 | 48.63 | 44.07 |  | 30.00 |  | 53.52 | 60.05 | 40.00 |  | 5.00 |  | 12.00 | 43.1 | 16.40 | 45.64 | 12.00 | 45.1 | 38.52 | 42. | 50.62 | 59.93 | 34.50 | 43.12 | 47.12 | 40.22 | 39.00 | 52. | 76.70 | 71.6 | 34.06 | 37.27 | 59.00 | O. |  |
| 25 | 60.24 | 49 | 48.80 | 43.92 | 45.00 | 45.08 | 62.89 | 60.16 | 32.00 |  | 18.00 |  | 20.00 |  | 15.64 | 44.44 | 17.84 | 44.02 | 47.13 | 42. | 51.00 | 59.58 | 35.00 | 42.8 | 48.70 | 40.56 | 40.00 | 52.05 | 77.10 | 71.87 | 35.80 | J.2 | 60.0 | 6.95 |  |
| 26 | 60.64 | 49 | 60.00 | 44 | 50.00 | 45.27 | 59.7 | 60.15 | 40.00 |  | 30.00 |  | 21.02 | 41.37 | 30.0 | 43.89 | 33.97 | 43.63 | 35.00 | 42.60 | 71.60 | 60.04 | 45.70 | 42.91 | 88. | 42.39 | 50.0 | 51.98 | 53.40 | , | 28.04 | 36.86 | 70.00 | 69.9 |  |
| 27 | 92.37 | 51.12 | 63.00 | 45.2 | 50.00 | 45.44 | 60.70 | 60.1 | 41.20 |  | 34.10 | 53.72 | 22.70 | 40.68 | 32.80 | 43.47 | 34.80 |  | 36.00 | 42. | 72.80 | 60.5 | 46.70 | 43.05 | 89.10 | 44.1 | 51.20 |  | 54.80 |  | 29.40 | 30.5 | 71.20 | 70.0 |  |
| 28 | 93.57 | 52.64 | 96.00 | 47.04 | 95.00 | 47.2 | 90.23 | 61.24 | 65.00 |  | 61.70 | 54.01 | 62.10 | 41.45 | 64.62 | 44.23 | 67.46 | 44.1 | 18.4 | 41.5 | 38.27 | 59.7 | 39.50 | 42.92 | 58.00 | 44.6 | 51.00 | 51.9 | 42.7 | \% | 39.4 | 36. | 100. | 71.0 |  |
| 29 | 95.5 | 54.12 | 77.00 | 48.07 | 99.00 |  | 90.23 | 62.2 | 53.00 | 59.4 | 65.00 |  | 63.40 | 42.2 | 65.0 | 44.95 | 68.50 | 45.0 | 17.2 | 40.6 | 35.80 | 58.8 | 48.0 | 43. | 60.43 | 45.1 | 54.50 | 52.0 | 84.9 | 67. | 33.72 | 36. | 100.00 | 72. |  |
| 30 | 69.48 | 54 | 34.00 | 47 | 82.00 | 50.10 | 83.98 | 62. | 64.20 | 59.5 | 50.00 | 54.2 | 58.40 | 42.74 | 4.22 | 43. | 58.00 | 45.4 | 5.00 | 39.8 | 4.57 | 58.0 | 41.50 | 43.04 | 4.30 | 45.4 | 58.0 | 52.2 | 85.92 | 68.34 | 28.90 | 36.3 | 67.0 | 71.9 | 20.6 |
| 31 | 47.79 | 54.41 | 24.04 | 46.8 | 45.00 | 49.93 | 46.88 | 62.4 | 32.00 | 58. | 10.00 | 52.81 | 16.02 | 41.88 | 9.00 | 42.80 | 11.90 | 44.36 | 20.80 | 39.20 | 48.06 | 57.7 | 44.00 | 43.0 | 26.62 | 44. | 45.00 | 51.9 | 39.98 | 69.63 | 25.00 | 35.96 | 70.00 | 71. | 13.30 |
| TAI |  | . 41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Exhibit 7: Occupancy Table for Local Hotels April 2002
Mapa de Ocupação - Hoteis


Exhibit 8: Occupancy Table for Local Hotels May 2002
Hoteis
Mapa de Ocupação


Exhibit 9：Occupancy Table for Local Hotels June 2002
Mapa de Ocupação－Hoteis

|  | \％ | \％ | ${ }_{8}^{\circ}$ | $\stackrel{\otimes}{6}$ | 浐 | 鱼 | 鹵 | 항 | 尔 | 谷 | 荡 | 鹤 | \％ |  | 颜 |  |  | F | \％ | 훙 | $\stackrel{\square}{6}$ | \％ | 勆 | \％ | 倞 | 號 |  | 평 | \％ | 星 | 풍 | 9 |  | 咢 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 穴 | 둥 | \％ | \％ | 荌 | 鱼 | $\stackrel{9}{4}$ | 능 | $\stackrel{8}{6}$ | $\stackrel{0}{6}$ | $\stackrel{0}{6}$ | 管 | \％ | 웅 | \％ |  | \％ | \％ | 葴 | 8 | ～ | \％ | \％ | ส | d | ～ | \％ | $\stackrel{?}{0}$ | $\stackrel{0}{6}$ | \％ | $\stackrel{0}{0}$ | 눙 | 去 |  |
|  | 衰 | － | \％ | \％ | － | － | 등 | 商 | ～ | ． | 雨 | ¢ | ¢ | \％ | $\stackrel{\circ}{\circ}$ | \％ | \％ | \％ | \％ | \％ | 等 | 守 | 梁 | 年 | 等 | 年 |  | \％ | \％ | g | \％ | 产 | 尌 |  |
|  | \％ | \％ | \％ | O | $\stackrel{\circ}{i}$ | $\stackrel{\circ}{\mathrm{i}}$ | 웅 | ？ | 8 | \％ | $\stackrel{\stackrel{\leftrightarrow}{6}}{6}$ | 去 | \％ |  |  |  | $\stackrel{\rightharpoonup}{6}$ | $8$ | $\stackrel{o}{寸}$ | $\begin{array}{\|l\|} \hline \stackrel{O}{寸} \mid \\ \hline \end{array}$ | $\stackrel{8}{0}$ | \％ | \％ | \％ | ， |  |  | $\stackrel{\circ}{\circ}$ | 号\| | $\stackrel{\rightharpoonup}{0}$ | 彦 |  | $0$ |  |
|  | \％ | － | \％ | 喈 | \％ | \％ | \％ | 彦 | $\stackrel{0}{6}$ | \％ | \％ | 骨 | \％ | 寺 | \％ |  | ？ | ¢ | \％ | 寺 | 寺 | 尔 | 腬 | 年 | 尔 | \％ | 筞 | ¢ | \％ | \％ | \％ | ¢ | \％ | － |
|  | ¢ | \％ | \％ | 骨 | 垵 | B | ¢ | 웅 | $\stackrel{\square}{4}$ | $\stackrel{\square}{6}$ | 島 | ¢ | $\begin{gathered} e \\ \stackrel{6}{7} \end{gathered}$ | 守 | \％ |  | cim | $8$ | $\stackrel{.0}{6}$ | $\left.\begin{array}{\|c\|c\|c\|c\|} \hline 8 \end{array} \right\rvert\,$ | $\stackrel{8}{5}$ | \％ | \％ | － |  | Buci | o্mi | $\stackrel{\stackrel{\rightharpoonup}{m}}{\circ}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{w}}}{\mathbf{w}}$ | $\stackrel{\circ}{\tilde{\sim}}$ | \|eịic| | $\begin{array}{\|c\|c\|c\|c\|} \hline 8 \end{array}$ | \％ |  |
|  |  | \％ |  | 等 | 玺 | 縠筞 | 筞 | $\stackrel{\text { ¢ }}{\substack{\text { a }}}$ | \％ | \％ |  | \％ | \％ | \％ | \％ | ¢ |  | $\stackrel{\circ}{\circ}$ | \％ | $\begin{array}{\|l\|} \hline \stackrel{.}{\infty} \\ \hline \end{array}$ | \％ | 筞 | 監 |  | ¢ | \％ |  | $\stackrel{\square}{0}$ | $\stackrel{\square}{0}$ | 䀛 | 闞 | $\stackrel{\circ}{6}$ | \％ | 管 |
|  | $\bar{\square}$ | 2 | $\stackrel{\sim}{\sim}$ | en | 告 | 哭 | $\stackrel{\circ}{\square}$ | $\stackrel{\circ}{0}$ | $\stackrel{e}{6}$ | $\stackrel{\sim}{\sim}$ | $\stackrel{\otimes .0}{\bar{e}}$ | $$ | $\stackrel{\rightharpoonup}{\sim} \mid$ |  | P | שٌ | $\stackrel{\infty}{\approx}$ | $\stackrel{\rightharpoonup}{6}$ | $\stackrel{?}{9}$ | $\begin{array}{\|c\|} \hline 8 \\ \hline 0 \end{array}$ | is | $\stackrel{\oplus}{6}$ | $\sim$ | ת | ex | $\stackrel{y}{4}$ |  | $\stackrel{\otimes 9}{\mathbf{o}}$ | $\stackrel{\stackrel{\rightharpoonup}{i n}}{\stackrel{\circ}{0}}$ | 蓠 | $\stackrel{e}{i}$ | $\begin{array}{\|c\|c\|c\|} \hline \mathbf{e} \\ \hline \end{array}$ | $\stackrel{\otimes}{\circ}$ |  |
|  | $\stackrel{̣}{0}$ | \％ | \％ | 湂 | \％ | \％ | \％\％ | ल्ला | ？ | $\stackrel{\circ}{\circ}$ | \％ | 2 | 隊 | 商 |  |  | \％ | \％ | 亲 | $\stackrel{4}{\text { m }}$ | \％ | 产 | \％ | 求 |  |  |  | 筞 | $\stackrel{3}{6}$ | 㕆 | $\stackrel{\ddot{0}}{\substack{0}}$ | \％ |  | $\stackrel{8}{i}$ |
|  | $\stackrel{9}{0}$ | $\stackrel{\stackrel{\rightharpoonup}{c}}{\substack{\mid}}$ | $\stackrel{9}{i \prime \prime}$ |  | eir eim |  | $\stackrel{\rightharpoonup}{i}$ |  | $\stackrel{\stackrel{6}{z}}{\substack{2}}$ | $\stackrel{\text { a }}{\text { ¢ }}$ | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | $\stackrel{\stackrel{\rightharpoonup}{0}}{\circ}$ | bib | biel oip | \％ |  | o্ণ্ণী | $\stackrel{\rightharpoonup}{a}$ | $\stackrel{\stackrel{\rightharpoonup}{0}}{ }$ | $\begin{array}{\|c\|c} \hline \circ \\ \hline \end{array}$ | 熍 | oibl | 楌 | － | Bix | Brex |  | $\stackrel{\rightharpoonup}{9}$ | 商 | $\begin{array}{\|c\|c\|:\|c\|c} \stackrel{0}{q} \end{array}$ | $\stackrel{i}{6}$ | $\stackrel{\circ}{\square}$ | $\stackrel{0}{0}$ |  |
|  | 8 | \％ | \％ | $\stackrel{8}{6}$ | \％ | \％ | त ${ }^{\text {a }}$ | ¢ | \％ | \％ | 㖣 | $\stackrel{\circ}{6}$ | \％ | \％ | \％ |  |  | \％ | 二 | 二 | ～ | ： | 号 | ¢ |  | ¢ |  | ¢ | \％ | \％ | $\%^{\circ}$ | ¢ | \％ | \％ |
|  | $\stackrel{\square}{8}$ | $8$ | $8$ | ： |  |  |  | $\stackrel{\circ}{9}$ | $\begin{aligned} & \hline \stackrel{\leftrightarrow}{6} \\ & \hline \end{aligned}$ | 8 | B | $8$ | Bob | Boic | Bo |  | ${ }_{6}$ | $8$ | $\begin{gathered} 9 \\ \hline 10 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline 8 \\ \hline \end{array}$ | $\stackrel{\circ}{\circ}$ | $8$ | 8 | \％ |  | $\underset{\sim}{\text { Efe }}$ |  | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{o}}}{\stackrel{\rightharpoonup}{0}}$ | $\stackrel{9}{9}$ | $\begin{array}{\|l\|} \hline \ddot{\square} \\ \hline \end{array}$ | $\stackrel{9}{8}$ | $\begin{array}{\|c\|} \hline 0 . \\ \hline \end{array}$ | N |  |
|  | 骨 | \％ | 骨 | 令 | \％ | \％ | $\stackrel{1}{2}$ | \％ | 號 | 管 | \％ | 骨 | \％ | 筞 | 筞 |  |  | 㤵 | 罂 | F | 昌 | 等 | \％ |  |  |  |  | 荌 | 珨 | 京 | 䎡 | 旁 | 잉 | （ |
|  | $\stackrel{\text { a }}{\text { a }}$ | － | $\stackrel{\otimes}{\bar{m}}$ | Bue | $\stackrel{\rightharpoonup}{6}$ |  |  | $\stackrel{\circ}{\circ} \stackrel{\circ}{0}$ | \％ | 隠 | 8 | $\stackrel{9}{\circ}$ | $\begin{gathered} i \\ i \\ \hline \end{gathered}$ | ¢ | \％ |  | $\stackrel{\tilde{m}}{\tilde{\sim}}$ | $\stackrel{\otimes ্ ণ i}{ }$ | $\left.\begin{array}{\|c\|c\|c\|c\|c\|} \hline 0 \end{array} \right\rvert\,$ | $$ | 8 | $\stackrel{\circ}{9}$ | \％ | － |  |  |  | $\begin{gathered} \text { Pe } \\ \stackrel{0}{2} \end{gathered}$ | $\stackrel{P}{i}$ | $\begin{array}{\|c\|c\|} \hline 8 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 0 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \stackrel{\circ}{\circ} \\ \hline \end{array}$ | $\stackrel{\square}{\text { coib }}$ |  |
|  | \％ | \％ | \％ | O | － | $\stackrel{\circ}{\circ}$ | ¢ | － | ¢ | e\％ | $\stackrel{\square}{\text { a }}$ | $\stackrel{9}{4}$ | 管 | － | － |  |  | ※ | $\stackrel{\square}{\square}$ | $\stackrel{8}{\square}$ | 衅 | － | \％ |  |  |  |  | \＃ | \％ | $\stackrel{+}{\square}$ | $\pm$ | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | \％ | － |
|  |  | $b_{b}^{\circ}$ | $\stackrel{\stackrel{\rightharpoonup}{c}}{\underline{c}}$ | $\stackrel{\text { a }}{ }$ | \％ | $\stackrel{\circ}{\infty}$ | $\stackrel{\circ}{6}$ \％ | $\stackrel{\circ}{\circ}$ | \％ | $\stackrel{0}{6}$ | O－ | \％ | \％ | $\stackrel{\text { a }}{\square}$ | 훈 |  | 圭 | ¢ | ob | $\begin{array}{\|c\|} \hline 0 \\ \hline 0 \end{array}$ | 을 | $\stackrel{\sim}{0}$ | $\stackrel{\sim}{\text { en }}$ | \％ | ¢ | 聥 |  | $\stackrel{\stackrel{\rightharpoonup}{\underset{\sim}{*}}}{1}$ | $\stackrel{\square}{\square}$ | $\begin{gathered} \stackrel{\circ}{\circ} \\ \stackrel{\circ}{c} \\ \hline \end{gathered}$ | $\stackrel{o}{⿱ ㇒} \mid$ | $\begin{array}{\|c\|} \hline 0 \\ \hline i \\ \hline \end{array}$ | $\stackrel{\square}{\square}$ |  |
|  | － | $\stackrel{\square}{2}$ | ～ | 2 | $\stackrel{+}{\text { a }}$ | $\stackrel{0}{0}$ | ${ }^{\circ}$ | ＋ | \％ | $\pm$ | $\pm$ | ¢ | ¢ | $\approx$ | $\simeq$ |  |  | 莒 | $=$ | $=$ | \＃ | $\stackrel{\text { B }}{\text { B }}$ | ＝ |  |  |  |  | ะ | 읃 | $\stackrel{\text { 을 }}{ }$ | 읃 | 2 |  |  |
|  | $\stackrel{\rightharpoonup}{6}$ |  | ¢ | 앟 | 年 | $\stackrel{\square}{4}$ | $\stackrel{\square}{0}$ | $\stackrel{\circ}{\circ}$ | 흥 | $\stackrel{\sim}{c}$ | $\stackrel{\text { ® }}{\text { ¢ }}$ | $\stackrel{\square}{\circ}$ | is | $\stackrel{\sim}{\sim}$ | \％ |  |  | 8 | $\stackrel{\text { O }}{\circ}$ | $\stackrel{\otimes}{\circ}$ | $\stackrel{\circ}{0}$ | $\stackrel{\circ}{8}$ | $\stackrel{\text { a }}{\text { a }}$ | d | \％ | \％ |  | $\stackrel{\circ}{\circ}$ | 웅 | $\stackrel{\text { P }}{ }$ | $\stackrel{\rightharpoonup}{0}$ | $\stackrel{0}{0}$ | \％ |  |
|  | 8 | g | \％ | $\cdots$ | 8 | 8 | \％ | － | － | $\stackrel{\square}{\circ}$ | \％ | \％ |  |  |  |  |  |  |  | ® |  |  |  |  |  |  |  |  |  |  |  |  | ¢ |  |
|  | \％ | \％ | ＋ | 合 | \％ | \％${ }_{6}$ | \％ | ¢ ${ }^{\text {a }}$ | \％ | － | － | む | \％ | A | a | － | d | － | ¢ | $\sim$ | 2 | \％ | － | － | a | － |  | － | $\stackrel{\square}{\text { त }}$ | $\stackrel{\square}{\text { a }}$ | \％ | 二 |  |  |  |
|  | $\stackrel{\circ}{\text { ¢ }}$ | － | － | fic ie | \％ | $\stackrel{\rightharpoonup}{\underline{\circ}}$ | $\stackrel{\circ}{i}$ | $\stackrel{0}{\circ}$ ¢ | $\stackrel{\square}{\square}$ | \％ | $\stackrel{\text { ¢ }}{\substack{\text { ¢ }}}$ | \％ | \％ | $\stackrel{\circ}{\square}$ | ¢ |  | － | $\stackrel{\square}{6}$ | $0$ | 윳 | 율 | $\stackrel{\circ}{\circ}$ | \％ | \％ | ex ex eme | $\stackrel{e}{0} \mathrm{e}$ |  | $\stackrel{\sim}{\sim}$ | $\stackrel{6}{6}$ | $0$ | $\begin{array}{\|l\|l\|l\|l\|} \hline 0 \end{array}$ | $\stackrel{\circ}{\circ}$ |  |  |  |
|  | 产 | 筞 | \％ | \％ | \％ | d | \％ | ． |  | \％ | \％ | 号 | － | 先 | \％ |  |  | \％ | $\stackrel{8}{\circ}$ | \％ | 。 | \％ |  |  |  |  |  | $\stackrel{\square}{\sim}$ | ूㅡㄹ | $\stackrel{\text { \％}}{\substack{\text { ¢ }}}$ | 宮 |  | \％ | 哑 |
|  | 筞 | \％ | Boen | $\stackrel{\circ}{\circ}$ | \％ | 웅 | $\stackrel{\text { ¢ }}{0}$ ¢ | $\stackrel{\circ}{\circ}$ ¢ | $\stackrel{\text { coil }}{ }$ | $\stackrel{8}{6}$ | \％ | $\stackrel{\circ}{\circ}$ | $\stackrel{\circ}{\circ}$ | － | $\stackrel{\circ}{\text { ¢ }}$ | ¢ | ¢ | \％ | $\stackrel{8}{0}$ | $$ | ¢ | $\stackrel{0}{6}$ | $\stackrel{8}{\text { cin }}$ | em |  |  |  | $\stackrel{8}{\square}$ | 응 | $\stackrel{\circ}{0}$ | $\stackrel{\otimes}{\sim}$ | $\begin{array}{\|c\|} \hline \stackrel{\circ}{\Delta} \mid \end{array}$ |  |  |
|  | ： | 骨 |  | \％ | ले | －i | $\stackrel{0}{0}$ | 去 | ¢े | $\stackrel{\square}{\bar{\circ}}$ | $\stackrel{\square}{\bar{\circ}}$ | \％ |  |  | $\stackrel{\circ}{\circ}$ |  |  | \％ | \％ | 莒 | \％ | em | 営 | \％ |  |  |  | \％ | $\stackrel{\text { em }}{\text { ¢ }}$ | ¢ | \％ | \％ |  |  |
|  | $\stackrel{8}{0}$ | $\stackrel{\otimes}{\mathbf{o}}$ | qu | $\stackrel{\circ}{\mathrm{N}}$ | $\stackrel{y}{i}$ | ిơ్రి | Bocic is | O\|c|el | $\stackrel{\otimes}{0}$ | $\stackrel{\text { ¢ }}{0}$ | $\stackrel{0}{6}$ | $\stackrel{\leftrightarrow}{\infty}$ | 二 |  | 怎 |  |  | $\stackrel{8}{6}$ | 등 | 骨 | 寺 | $\stackrel{\rightharpoonup}{\mathrm{e}}$ | 骨 | $\stackrel{̣}{3}$ |  |  |  | $\stackrel{\rightharpoonup}{\mathbf{m}}$ | 苞 | $\begin{array}{\|c\|c\|c} \hline 0 \\ \hline \end{array}$ | $8$ | $\stackrel{8}{\circ}$ | 8 |  |
|  | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{o}}}{\mathbf{i}}$ | is |  | \％ | $\frac{9}{0}$ | 品部商 | $\stackrel{\pi}{0}$ | \％ | \％ | ¢ | \％ | \％ |  | 守 | \％ |  |  | ¢ | 等 | $\begin{array}{\|c\|} \hline \frac{0}{\square} \\ \hline \end{array}$ | 守 | 等 | 浐 |  |  |  |  | 等 | $\stackrel{+}{6}$ | 产 | 筞 | 埒 |  | 骨 |
|  | \％ | \％ | 永 | ex | \％ | ¢ | $\stackrel{\sim}{0}$ \％ | \％\％¢ | $\stackrel{0}{6}$ | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | $\stackrel{\text { epr }}{6}$ | \％ | ¢ | 㻤 | 菏 | ¢ | \％ | $\underset{\sim}{\tilde{m}}$ | $\stackrel{\circ}{\circ}$ | $\begin{array}{\|c\|} \hline 6.0 \\ \hline \end{array}$ | \％ | 商 | ： | 等 | 年 | \％ |  | ¢ | $0 .$ | $\begin{array}{\|l\|l} \hline \stackrel{\rightharpoonup}{0} \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 0 . \\ \hline \mathbf{t} \\ \hline \end{array}$ | $\stackrel{\rightharpoonup}{ }$ | 遃 |  |
|  |  |  | \％ |  |  | 尔 | $\ddagger$ | 尌 | \％ | $\stackrel{\text { \％}}{\sim}$ |  | 菏 | 尔 |  | f |  |  | 㥯 | 尔 | ま | 曼 | 㟯 | 热 |  |  |  |  | 帯 | － | ส | \％ | 尔 |  |  |
|  | © | ले | 皒 | $8$ | Bind |  | $\begin{array}{l\|l} \stackrel{0}{3} \\ \hline \end{array}$ | $\stackrel{9}{6} \stackrel{\stackrel{\rightharpoonup}{0}}{2}$ | $\stackrel{\stackrel{i}{6}}{\substack{1}}$ | \％ | $\stackrel{\otimes}{\mathrm{w}}$ | $\stackrel{\circ}{\dot{\circ}}$ | $\stackrel{y}{0}$ | 管 | fig ie | min | In in | $8$ | $\begin{aligned} & \mathbf{8} \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \dot{9} \mid \\ \hline \end{array}$ | $\stackrel{\square}{\circ}$ | $\stackrel{P}{\circ}$ | － | $\dot{\theta}$ |  |  |  | $\stackrel{\stackrel{\rightharpoonup}{\oplus}}{\dot{\sim}}$ | $\stackrel{\rightharpoonup}{\circ}$ | $\begin{array}{\|c\|c\|c\|c\|} \hline \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|} \hline \end{array}$ |  | $\stackrel{\text { a }}{\text { a }}$ |  |
|  | $\stackrel{\otimes}{\bullet}$ | \％ | \％ | － |  |  | $\stackrel{\rightharpoonup}{\sim}$ | 畍\| | \％ | $\stackrel{\square}{\sim}$ | $\stackrel{\square}{0}$ | $\stackrel{3}{9}$ | ะ | $\underset{\sim}{\sim}$ | \％ |  |  | $\stackrel{\text { \％}}{\text { ¢ }}$ | $\stackrel{+}{\square}$ | $\begin{array}{\|c\|} \hline \stackrel{\circ}{=} \\ \hline \end{array}$ | 等 | व | 気 |  |  |  |  | $\stackrel{\rightharpoonup}{\bar{a}}$ | $\cdots$ | $\stackrel{\sim}{\sim}$ | 染 | 势 | 骨 | $\stackrel{\square}{8}$ |
|  | $\stackrel{\square}{6}$ | $\stackrel{\circ}{\circ}$ | \％ | O | O | \％ | $\stackrel{0}{0}$ | ¢ | 呂 | \％ | 8 | \％ | $\stackrel{\circ}{+}$ | $\stackrel{8}{\sim}$ | \％ | ¢ |  | 8 | 8 | $\stackrel{8}{1}$ | P | $\stackrel{\text { a }}{\text { a }}$ | － | \％ | Bo | b |  | $\stackrel{\rightharpoonup}{0}$ | $\stackrel{\circ}{\circ}$ | $\begin{array}{\|c\|} \hline \stackrel{\rightharpoonup}{\mathrm{B}} \end{array}$ | $\stackrel{i}{i n}$ | 彦 | 8 |  |
|  |  | \％ | ¢ | $\begin{aligned} & \stackrel{4}{6} \\ & \check{\circ} \end{aligned}$ | $\frac{8}{6}$ |  | $\stackrel{\circ}{8}$ | 产 | $\stackrel{\square}{8}$ |  |  | ¢ | $\stackrel{8}{i}$ |  | 商 |  |  | $\stackrel{\sim}{\square}$ | $\frac{\stackrel{2}{5}}{\stackrel{0}{5}}$ | 比 | $\stackrel{\square}{8}$ | \％ |  | \％ |  |  |  | $\frac{\text { 甭 }}{}$ | \％ | 产 | \％ | 年 | \％ | \％ |
|  | 8 | $\stackrel{0}{0}$ | \％ | 8 | Bibliciog | థ్త్రి | Bice | B\| | 8 | ¢ | $\stackrel{\circ}{\text { ¢ }}$ | $\stackrel{\circ}{G_{4}^{\prime}}$ | 掌 | $8$ | \％ | $\circ$ |  | $\stackrel{\circ}{6}$ | $\stackrel{8}{6}$ | $\begin{array}{\|c\|} \hline 8 \\ \hline 80 \end{array}$ | $\stackrel{8}{\bar{\circ}}$ | $\stackrel{\otimes}{\infty}$ | \％ | ¢ | Boct |  |  | $\stackrel{.0}{6}$ | $8$ | $\stackrel{\circ}{6}$ | $\stackrel{o}{0}$ | $\stackrel{\otimes}{0}$ | ¢ |  |
|  | $\underset{\infty}{\infty}$ | － | 感鱼 | \％ | \％ | [if if | 骨 | 당 | 葖 |  |  | ${ }^{\circ}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\sim}{i}$ | \％ |  |  | \％ | \％ | $$ | $\stackrel{\circ}{\circ}$ | 항 | 叁 | \％ |  |  |  | 長 | 感 | 菏 | $\stackrel{\circ}{\circ}$ | \％ |  | 呂 |
| － | $\stackrel{\circ}{\infty}$ | $\stackrel{\circ}{0}$ | ${ }_{4}^{\circ}$ |  | 家 | 8 | \％ | \％¢ | $\stackrel{0}{6}$ | $\stackrel{\text { \％}}{6}$ | \％ | 令 | 帯 | 产 | 首 | ¢ |  | \％ | \％ | ¢ | 8 | \％ | \％ | \％ | ， | 砣 |  | \％ | $\stackrel{\circ}{\text { ¢ }}$ | $\begin{array}{\|l\|} \hline \stackrel{\circ}{6} \\ \hline \end{array}$ | 芯 | \％ | 8 |  |
|  |  |  | \％ | 䟢 | － | \％ |  | \％ | ¢ | $\stackrel{\text { ¢ }}{\text { ¢ }}$ | $\bar{\circ}$ | \％ | 的 | $\stackrel{\text { a }}{ }$ | \％ |  |  | \％ | ～ | $\stackrel{\square}{\text { ¢ }}$ | $\stackrel{\text { ® }}{\sim}$ | 啢 | 䊾 | 2 |  |  |  | F | ิ | ¢ | \％ | － |  | $\stackrel{0}{0}$ |
|  | ¢ | iे | 0 | $\stackrel{\circ}{\dot{于}}$ | ? | 영 윢 | Bicicis | $$ | $\begin{array}{\|l\|l} \stackrel{\circ}{i} \\ \hline \end{array}$ | $\stackrel{8}{\square}$ | $\stackrel{8}{ \pm}$ | $=1$ | $\stackrel{\text { ®in }}{ }$ | థ్. | \％ |  |  | $\stackrel{\circ}{\circ}$ | 気 | $\begin{array}{\|c\|} \hline 8 \\ \hline 9 \\ \hline \end{array}$ | 8 | $\stackrel{\square}{6}$ | \％ | － | \％ | \％ |  | $\stackrel{\substack{\text { che }}}{ }$ | $\left.\begin{array}{\|c} \hline 8 \\ \hline 0.0 \end{array} \right\rvert\,$ | $\begin{array}{\|l\|} \hline \stackrel{\circ}{6} \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 0 \\ \hline \end{array}$ | $\stackrel{8}{6}$ | 8 |  |
|  | \％ |  | ® | \％ | 픅 | ד্ণ |  | \％ | \％ |  | $\stackrel{\square}{\square}$ | E | 菏渃 | $\stackrel{\rightharpoonup}{\circ}$ | ¢ |  |  |  |  | 容 | $\stackrel{\text { \％}}{\text { ¢ }}$ |  | － | － |  |  |  | $\stackrel{\text { \％}}{\text { ¢ }}$ | \％ | व | \％ | $\stackrel{\stackrel{\circ}{\sim}}{\sim}$ | $\stackrel{\text { \％}}{\sim}$ | 等 |
|  | ※ | 管 | $\stackrel{8}{\circ}$ | $\stackrel{\text { ® }}{\sim}$ | Bo iex | $\stackrel{(0}{c}$ |  | \％ | $\stackrel{8}{0}$ | $\stackrel{8}{6}$ | \％ | T | － | \％ | \％ |  | E | ®o |  |  | ¢ | \％ | 尔 | \％ |  |  |  | ¢ | $\stackrel{\stackrel{\rightharpoonup}{\sim}}{\sim}$ | 高 | $\stackrel{\sim}{\sim}$ | E | $\stackrel{\circ}{4}$ |  |
|  | － | ～ | $\cdots$ | － | $\sim$ | $\cdots$ | － | $\infty$ | $\infty$ | － | － | $=$ | $\approx$ | $\stackrel{\sim}{\sim}$ | $\pm$ |  | $\bigcirc$ | $\because$ | － | $\stackrel{-}{\sim}$ | － | 2 | 二 | ส | ～ | － |  | $\sim$ | $\stackrel{1}{\circ}$ | ज | $\stackrel{\sim}{\sim}$ | \％ | \％ | 츨 |

Exhibit 10：Occupancy Table for Local Hotels July 2002

|  | 湤 | ¢ | \％ | \％ | \％ | 8 | ${ }_{6}$ \％ | 8 ¢ | ¢ | \％ | ＝ | ＝ | F | 18 | ¢ | ， | 2 | \％ | \％ | 亠 | ¢ | ® | $\infty$ | क | क | $\infty$ | \％ | $\infty$ | $\infty$ | $\infty$ | $\infty$ | ® |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\text { ¢ }}{0}$ | 능 | 谷 | $\stackrel{\text { gr }}{\stackrel{1}{2}}$ | 盛 | \％ | \％ |  | \％ | $\stackrel{\circ}{\circ}$ | $\stackrel{\infty}{\circ}$ | \％ |  |  |  |  | 8 | $8$ | $\begin{aligned} & 8 \\ & \hline \end{aligned}$ | o | $8$ | $\stackrel{\otimes}{\circ}$ | $\stackrel{\sim}{\circ}$ | $\stackrel{\sim}{\check{\circ}}$ | $8$ | $\stackrel{\infty}{\circ}$ | ※. |  | $8$ | $\stackrel{8}{\infty} \mid$ | － | \％ |  |
|  | 尔 | \％ | F | 年 | 等 | 星 | 年 | 先 | 㝑 | 永 | 产参 | 動 | 婁 | 等 | 尔 |  | \％ | 镸 | \％ | ： | \％ | 樒 | \％ | \％ | $\stackrel{\square}{\circ}$ | 影 | ¢ | ¢ | $\%$ |  | H |  |  |
|  |  |  |  |  |  |  |  |  | ． 8 | 8 |  |  | － |  | － |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \％ |  |
|  | \％ | － | 年 | \％ | \％ | \％ | \％ |  | 和 | ¢ |  |  |  | \％ | 2 |  | 同 | NR | \％ |  |  | \％ |  | is |  | © | \％ | \％ | \％ | if | \％ |  |  |
|  | $\stackrel{\square}{\square}$ | \％ | 尔 | 年 | \％ | 㗔 | E | 商 | ¢ | is | \％ | $\stackrel{\circ}{\circ}$ | \％ | is | is is |  | \％ | is | \％ | \％ | m | \％ | \％ | is | 5 | is | is | \％ | ¢ | is | © | \％ |  |
|  | $\stackrel{8}{\sim}$ | \％ | \％ | Bob |  | bibic ex | \％ | 于 | \％ | $\stackrel{\rightharpoonup}{m}$ | Belic ie | Bicicl | 8 |  | $\stackrel{c}{6}$ |  |  | \％ | $\underset{i}{8}$ | O. | $\stackrel{8}{4}$ | $8$ | $8$ | $\stackrel{\otimes}{0}$ | $8$ | © | © | $\begin{array}{\|c\|} \hline 8 \\ \vdots 6 \\ \hline \end{array}$ | $\stackrel{\bullet}{\tilde{F}}$ | $\stackrel{8}{\circ}$ | 子 | \％ |  |
| Boidio | 号 | \％ |  | \％ |  |  |  |  | 遍 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \％ |  |
|  | － |  |  | \％ | \％ | （ ${ }^{\text {a }}$ |  |  | ， | \％ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\stackrel{\circ}{\square}$ | Bis | fiem iem |  | ${ }_{0}^{e}$ | $\dot{f}$ |  | Biod |  | 年㐌 | Ficie |  |  | \％\％ | 管 |  |  | 然 | $\%$ |  | io | B | 骨 |  | $\dot{\infty}$ |  | $\stackrel{\overline{i g}}{6}$ | $\begin{array}{\|c\|} \hline \bar{i} \\ \hline \end{array}$ | 萬\| | 葶 | $\stackrel{\substack{\text { 尔 }}}{ }$ | ్ㅜㅇ |  |
|  | $\stackrel{\square}{8}$ | \％ | 裏 | 筞 | － | 感 |  | 孝 | 毞 | 筞等 | 等呮 | 砣 | 鲁 | 咢 | \％ |  |  | 厚 | 年 | 昆 | 尔 | 尃 | 京 | 筞 | 踠 | 产 | 等 | \％ | 尔 | － | 年 | 壬 | $\overline{0_{0}^{\prime}}$ |
|  | $$ | Be | Be | Bidir | Bobic el | Belicion |  | $\stackrel{\rightharpoonup}{\circ}$ | 守荷荷 |  | Boticie | Byyyy | OUCidem | b্ত্ల్ర |  |  |  | ले | 8. | $\begin{gathered} \stackrel{\circ}{\circ} \mathrm{B} \\ \hline \end{gathered}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{e m} \\ & \hline \end{aligned}$ | $\mathbf{m}_{\mathbf{m}}$ | $\stackrel{\text { Pen }}{0}$ | $\stackrel{m}{m}$ | © | $\stackrel{\otimes}{\dot{\sim}}$ | $\stackrel{\stackrel{\rightharpoonup}{0}}{0}$ | $\begin{array}{\|c\|} \hline \stackrel{0}{i} \\ \hline \end{array}$ | $\stackrel{9}{\circ}$ | $\begin{aligned} & \stackrel{9}{0.0} \\ & \hline 0 \end{aligned}$ | $\stackrel{8}{9}$ | $\begin{aligned} & \overline{0} 6 \\ & \hline \end{aligned}$ |  |
| $\begin{gathered} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{gathered}$ |  |  |  | 蕆 | 筞参 |  |  |  |  |  |  |  | 言 | \％ | － |  |  | 냉 | \％ | 亏 | \％ | 䨗 | E |  | $\stackrel{\square}{\square}$ | ¢ | ๔ | 产 | ¢ | $\stackrel{0}{6}$ | $\stackrel{\%}{6}$ |  |  |
|  | $\stackrel{\stackrel{\circ}{i}}{\dot{訁}}$ | $\stackrel{B}{8}$ | Bize | Bixi ib |  | $\stackrel{8}{6}$ | $\stackrel{0}{i}$ | 잉 | 爫 | By |  | Bl | 害 | \％ | 8 |  |  | \％ | $\stackrel{\circ}{\dot{\omega}}$ | $\stackrel{\ddot{\infty}}{\square}$ | $\stackrel{\circ}{2}$ | $\stackrel{8}{8}$ | 둔 | $\underset{\Phi}{\square}$ | $8$ | $\stackrel{\Im}{\infty}$ | $8$ | $\stackrel{\rightharpoonup}{\mathbf{o g}}$ | $\left.\begin{array}{\|c\|} \hline \mathbf{9} \\ \hline \end{array} \right\rvert\,$ | $\stackrel{\substack{\tilde{\circ} \\ \hline}}{ }$ | I్డ్ |  |  |
|  | $\stackrel{\text { 兴 }}{寸}$ | － | 梱 | 容 | \％ |  | \％ | \％\％\％ | 景 | \％ | ¢ | \％ | 骨 |  | \％ |  |  | 告 | 崞 | ¢ |  |  |  | － |  | 等 | $\begin{aligned} & \ddot{\circ} \\ & \text { 年 } \end{aligned}$ | 㫶 | 尔 | 年 | 等 | 筞 | \％ |
|  | $\stackrel{\text { 筞 }}{ }$ | \％ | $\stackrel{?}{i f}$ | ल | A |  | － | ， | ¢ | $8$ | Bix |  |  |  |  |  |  | \％ | 8 | 를 |  | $\stackrel{.0}{6}$ |  |  | $\stackrel{\text { N }}{ }$ | $\begin{gathered} \text { 巻 } \end{gathered}$ | $\stackrel{\leftrightarrow}{9}$ | \|ọ | $\begin{array}{\|c\|} \hline 0 \\ \hline 0 \\ \hline \end{array}$ | $\stackrel{\otimes}{0}$ | $\stackrel{?}{i}$ | \％ |  |
|  | － |  |  | \％ | \％ |  | 動 |  | 8 \％ |  |  |  | 哭 | 㗔 | \％ |  |  |  | ¢ | तี | ¢ | \％ |  |  | ， | ¢ | \％ | ${ }^{2}$ | \％ | $\propto$ | 夫 |  |  |
|  | $\begin{array}{\|c\|c\|c\|c\|} \hline \text { a } \end{array}$ | Bi cio |  | $\stackrel{C}{i}$ | $\stackrel{8}{6}$ | $\dot{6}$ | of | Bo |  |  |  |  |  |  |  |  |  | $\stackrel{\circ}{\circ}$ | $\propto$ | $\stackrel{8}{8}$ | $\stackrel{\circ}{0}$ | B. | $\stackrel{\circ}{0}$ | б |  | $\stackrel{8}{6}$ | $\mid \underset{\boxed{\infty}}{\|c\|}$ | \| | $$ | 鬲 | $\check{\%}$ | $8$ |  |
|  | $\begin{array}{\|c\|} \hline \mathbf{g} \\ \hline \end{array}$ | \％ | \％ | \％ | 新等 | 筞 | \％ | 䫆 | ¢ | \％ | \％ | \％ | \％ | 管 | ${ }^{\text {f }}$ |  |  | \％ | \％ | 长 | \％ | ～ | － | 过 | ， | $\because$ | \％ | $\stackrel{1}{2}$ | 㖇 | 尔 | \％ |  |  |
|  | $\stackrel{\otimes}{2}$ |  | B B B i | $\mathscr{凸}$ | Bix | $8$ | ¢ |  | $\begin{array}{l\|l\|} \hline 8 \\ \hline 8 \end{array}$ |  | Bio |  | $\begin{gathered} \infty \\ \hline \end{gathered}$ | \％ | \％ |  | o | $\stackrel{\circ}{0}$ | 亭 | $8$ | $\stackrel{\circ}{6}$ | $\stackrel{\rightharpoonup}{3}$ |  | $\stackrel{\hbar}{\circ}$ | $\stackrel{\circ}{6}$ | $\stackrel{\Im}{\circ}$ | 亳 | $8$ | $\stackrel{\leftrightarrow}{6} \mid$ | $\stackrel{8}{9}$ | 亭 | $\stackrel{8}{6}$ |  |
|  | 8 | \％ |  |  | － | 唇 |  | \％ | 完 | 筞 |  |  |  |  |  |  |  | 寺 | － |  |  |  |  |  |  | \％ | － |  | \％ | \％ | \％ | ¢ | － |
|  | \％ | \％ | \％ | \％ | \％ | 骨 | \％ | $\stackrel{0}{0}$ | \％ | 2 | － | \％ | \％ | ¢ |  |  |  | 尔 | 享 | ¢ | \％ | 求 | i | 중 | ¢ | 曾 | \％ | O | $\pm$ | 骨 | \％ | $\stackrel{0}{\mathbf{o}}$ |  |
|  | \％ | \％ |  |  |  | － | 号总 | 产 |  |  | － | $\stackrel{\text { d }}{0}$ | ${ }_{0}^{\circ}$ |  |  |  | 感 | \％ | \％ |  |  |  |  |  |  |  | a | \％ | － | ， |  |  |  |
|  | \％ | \％ | \％ | \％ | \％ | － | coid | com | O | O | \％ | \％ |  | \％ | O |  |  | $\stackrel{\sim}{\sim}$ | \％ | － | \％ | － |  |  | － | 鹤 | \％ | \％ | $\stackrel{\circ}{2}$ | c | － | 8 |  |
|  | $0$ | \％ |  | 管 |  | 骨 | 桲等 |  | \％ | 筞 | 筞 | 等等 |  | 兼 | \％ |  |  | \％ | 迺 | \％ | \％ | \％ | 亏． | ๘ | \％ |  | \％ | \％ | ¢ | ¢ | 둥 |  |  |
|  | $\stackrel{\circ}{\mathrm{o}}$ |  |  | $\stackrel{\sim}{\circ}$ | E\| | 招 | $\stackrel{.}{6}$ |  | s | Bibici | $\underset{y}{7}$ |  | $8$ | I | 융웅 |  |  |  | 令 | ․̈ㅇ | $\stackrel{8}{\infty}$ | \％ | \＆ | ळ | $\dot{\sigma}$ | $\begin{gathered} \infty \\ \stackrel{8}{8} \\ \hline \end{gathered}$ | $\begin{array}{r} \circ .0 \\ \hline 8 \\ \hline \end{array}$ | $\stackrel{\stackrel{\rightharpoonup}{\circ}}{\mathbf{\circ}}$ | $\stackrel{9}{6}$ | $\begin{array}{r} \stackrel{\ddots}{\circ} \\ \stackrel{y}{\circ} \\ \hline \end{array}$ | $\stackrel{\circ}{\circ}$ | ． |  |
|  | 产 | （ ${ }^{\text {¢ }}$ | ま | \％ | \％ | \％ | co is | ¢ | \％ | 二亏 | \％ | \％ | \％\％ | \％is | 58 |  |  | 㫛 | \％ | \％ | \％ | 4 | ¢ | \％ | 8 |  | － | ה | i | \％ |  |  |  |
|  | के | \％ | \％ | \％ | $\stackrel{\stackrel{\rightharpoonup}{0}}{\substack{0}}$ | $\begin{aligned} & 9.9 \\ & \stackrel{9}{\circ} \\ & \hline \end{aligned}$ | \％ | $8$ | － | $\stackrel{\otimes}{\circ}$ |  | $8$ | $8$ | הin | Co |  | 의 | $\stackrel{\mathscr{8}}{\substack{6}}$ | 중 | © | $\stackrel{8}{\circ}$ | 寅\| | $\begin{array}{\|c\|} \hline 7 \\ 9 \end{array}$ | $\stackrel{\otimes}{\circ}$ | $\stackrel{\text { ®ig }}{ }$ | -80. | $\stackrel{\text { em }}{8}$ | 氙 |  | $\begin{aligned} & \stackrel{7}{80} \\ & \hline \end{aligned}$ | $\begin{aligned} & 9.0 \\ & \stackrel{\circ}{2} \\ & \hline \end{aligned}$ |  |  |
|  |  | 蹄 | \％ | \％ | \％ | $\stackrel{\otimes}{6}$ |  |  | sid |  |  |  |  |  | 或謌 |  |  |  |  | 㞧 | \％ | 鲄 | 罒 | 萨 | 等 | 产 | $\begin{array}{\|c} \hline \stackrel{\circ}{寸} \\ \underset{\sim}{2} \end{array}$ | of | $\left.\begin{array}{\|l\|l\|l\|l\|l\|l\|l\|} \hline 8 \end{array} \right\rvert\,$ | 封 | 仵 | － |  |
|  |  | if | Bucu | İdicl | $\dot{子}$ |  | $\frac{8}{3}$ | ్ָ | is | $\frac{8}{6}$ | 守 | $\stackrel{8}{8}$ | $\ddot{\sim}$ | $\stackrel{\rightharpoonup}{2} \text { a }$ | $\bar{m}$ |  |  | 픙 | oi | 首 |  | 嶆 | f | $\frac{6}{7}$ | 5 | $\begin{gathered} \dot{6} \\ \hline \end{gathered}$ | $\stackrel{e r}{\circ}$ | $\begin{array}{\|c\|} \hline \tilde{y} \\ \hline \end{array}$ |  | $\begin{aligned} & \mathbf{9} \\ & \underset{子}{7} \end{aligned}$ | $\stackrel{6}{8}$ |  |  |
|  | 8 | \％ |  |  |  | 骨 |  |  | $\dot{a}$ | 先 | － | a | ${ }^{\circ}$ | － | $\stackrel{\text { 二 }}{ }$ |  |  |  | $\stackrel{\text { i }}{\sim}$ | ঞ | ～ |  | ～ | ส | $\stackrel{\sim}{2}$ | $\stackrel{\sim}{\sim}$ | $\stackrel{\square}{\sim}$ | 稣 | \％ | $\stackrel{\sim}{*}$ | d |  |  |
|  | $\stackrel{8}{7}$ | \％ | \％ | N | \％ | 唇 | \％ | in | ํ | $\simeq$ | $\stackrel{\sim}{\circ}$ | $\because$ | ～～ | $\stackrel{\circ}{6}$ | $\stackrel{\circ}{0}$ |  |  | $\stackrel{\circ}{\circ}$ | $\stackrel{8}{4}$ | 吹 | $\stackrel{\sim}{\circ}$ |  | $\mathfrak{\sim}$ | $\underset{\sim}{\sim}$ | $\stackrel{\circ}{\circ}$ | $\stackrel{\substack{0 \\ 0}}{ }$ | $\stackrel{\bar{i}}{寸}$ | 「 | $\stackrel{\text { an }}{\underset{\sim}{4}}$ | 80 | $\begin{aligned} & \stackrel{8}{巳 0} \\ & \end{aligned}$ | $\stackrel{\text { ¢ }}{\text { ci }}$ |  |
|  |  | Bix | 8 |  | Bixigig |  |  | $\frac{8}{\infty} \frac{0}{\infty}$ |  |  | $8$ |  | 2 | $8$ | \％ |  |  | 8 | \％ | \％ | \％ | \％ | 訔 | ${ }_{0}$ | H | $\stackrel{\circ}{\circ}$ | $\stackrel{\rightharpoonup}{\infty}$ | $\left.\begin{array}{\|c\|c} \hline .8 \\ \stackrel{\circ}{\circ} \end{array} \right\rvert\,$ | $\begin{aligned} & 9.9 \\ & \boxed{\circ} \end{aligned}$ | $\stackrel{\otimes}{\infty}$ | $\begin{aligned} & 9.9 \\ & 8 \end{aligned}$ | \％ |  |
|  | $\stackrel{\otimes}{0}$ | oi |  | ㄷ | \＆ | $\stackrel{80}{\circ}$ | B | 厄i | Oif | B |  | $\stackrel{8}{8}$ | $\stackrel{\circ}{\circ}$ | $\dot{\omega}$ | $\stackrel{.}{\circ}$ |  |  | 㪣 | $\stackrel{\stackrel{6}{6}}{\square}$ | $\stackrel{8}{6}$ | $\stackrel{0}{6}$ | $\stackrel{8}{\infty}$ | $\stackrel{\otimes}{0}$ | $\underset{\substack{\circ \\ \hline \\ \hline}}{ }$ | $\stackrel{\rightharpoonup}{\dot{\sigma}}$ | $\stackrel{\rightharpoonup}{\dot{\circ}}$ | $\stackrel{8}{6}$ | $$ | $\stackrel{\otimes}{\circ}$ | $\stackrel{\otimes}{\dot{a}}$ | $\stackrel{\otimes}{\circ}$ | 8 |  |
|  | $\stackrel{8}{6}$ | \％ | \％ | 旡 | \％ | 二 | \％ | \％ | \％ | ¢ | 部 | \％ | ¢ | \％ | 両 |  |  |  | \％ | \％ | 唯 | \％ | 8 |  | \％ | 志 | 谷 | \％ | \％ | 产 | O |  |  |
| － | \％ | \％ | \％ | \％ | \％ | B | \％ | \％ | \％ | 楌 | Oiol | \％ | － 8 | \％ 8 | \％ 8 |  |  | $\stackrel{8}{\infty}$ | $\underset{(0}{\|c\|}$ | 朝 | \％ | \％ |  |  |  | $\stackrel{\rightharpoonup}{0}$ | $8$ | $8$ | $\begin{array}{\|c\|} \hline 8 \\ \hline 6 \end{array}$ | $\stackrel{9}{4}$ | $8$ | 8 |  |
|  | \％ |  |  | Oixi in in in | \％ |  |  |  |  | 等 |  |  |  |  |  |  |  | 渖 | 骨 | \％ | 等 | 封 | 亳 | 等 | 皆 | 成 | 产 | 昌 | 等 | 罒 | 呂 | \％ | 为 |
|  | 밈 |  |  | \％ | \％ | \％ | \％ | 菏 | ¢ | \％ | 尔 | is | $\dot{5}$ | ©im | \％ |  |  |  | $\frac{8}{\dot{7}}$ | 学 | $\stackrel{8}{\circ}$ | 영 | $0$ | $\stackrel{6}{6}$ | \％ | $\stackrel{\boxed{\circ}}{6}$ | $\stackrel{\stackrel{8}{6}}{\substack{0}}$ | $\stackrel{8}{i}$ | $\stackrel{\stackrel{\rightharpoonup}{\mathrm{o}}}{\substack{6}}$ | $\stackrel{\otimes}{6}$ | \％ | \％ |  |
|  |  | 策 |  | ～ | － | ${ }^{\circ}$ |  |  | 镄 | 守 | 妾 | 等 | 圌 | 等 | \％ |  |  | $\stackrel{8}{\circ}$ | \％ | 생 |  |  | \％ | \％ | \％ | \％ | 突 | 唇 | 發 | \％ | \％ | $\frac{7}{5}$ | 容 |
|  | $\stackrel{9}{90}$ | \％ | ～ | \％ | N | 碖 | ： | \％ | \％ | ¢ | \％ | \％ | \％\％ | \％ | \％${ }^{\text {\％}}$ |  |  | \％ | $\stackrel{\vdots}{\circ}$ | 露 | $\bar{\sigma}$ | $$ | " | $8$ | ᄃ | $\stackrel{\stackrel{\circ}{\infty}}{\stackrel{\circ}{0}}$ | 员 | $\stackrel{\stackrel{\circ}{\mathrm{c}}}{ }$ | \％ | $\stackrel{8}{9}$ | $\stackrel{9}{8}$ | \％ |  |
|  | － | ～ | － | $\cdots$ | $\checkmark$ \％ | $\bigcirc$ | $\bigcirc$ |  | － 0 | － | ＝ | ＝ | $\cdots$ | $\cdots$ | $\pm$ |  | $\bigcirc$ | － | $\stackrel{\square}{\circ}$ | － | \％ | 二 | ส | ～ | a | $\sim$ | $\stackrel{1}{2}$ | 二 | \％ | \％ | \％ | is |  |

Exhibit 11: Occupancy Table for Local Hotels August 2002
Mapa de Ocupação - Hoteis Mês: Agosto de 2002
RESORTS


Exhibit 12：Occupancy Table for Local Hotels September 2002
Pojuca S／A－Praia do Forte EcoResort Mapa de Ocupação－Hoteis

| RESORTS |  |  |  |  |  |  |  |  |  |  | RESORTS SSA |  |  |  | SAUIPE |  |  |  |  |  |  |  |  |  | HOTEIS CIDADE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FONE | 676－4000 |  | 73－686－1122 |  | 815216000 |  | ＇81－3302－5555 |  | ＇24－3379－2800 |  | 374－9611 |  | 374－8000 |  | ＇463－1000 |  | ＇467－2000 |  | 468－2000 |  | 466－2000 |  | 465－3000 |  | 352－0000 |  | ＇331－8200 |  | ＇330－2233 |  | 203－2000 |  | 336－0102 |  | 453－8000 |  | 203－9000 |  |
| PRAIA DO FORTTRANSAMEERICAECORESORT COMANDATUB <br> 249 APTOS． 362 APTOS． |  |  |  |  | CABO DE SAN AGOSTINHO 300 APTOS |  | $\begin{gathered} \left\lvert\, \begin{array}{c} \text { SUMMERVILLE } \\ \text { MURO ALTO } \\ 202 \text { APTOS. } \\ \hline \end{array} ⿳ ⺈ ⿴ 囗 十 一 ~\right. \end{gathered}$ |  | BLUE TREE <br> ANGRA <br> 319 APTOS． |  | SOFITEL SALVADOR 195 APTOS． |  | CATUSSABA$256 \text { APTOS. }$ |  | $\begin{array}{\|c\|} \hline \text { SUPERCLUB'S } \\ \text { BREEZES } \\ 324 \text { APTOS. } \\ \hline \end{array}$ |  | SOFITEL COST <br> SAUIPE <br> 406 APTOS． |  | SOFITEL SAUUISUITES198 APTOS． |  | $\begin{array}{\|c\|} \hline \text { RENAISSANC: } \\ \text { SAUÍPE } \\ 217 \text { APTOS. } \\ \hline \end{array}$ |  | MARRIOT <br> SAUİPE <br> 256 APTOS． |  | BAHIA <br> FIESTA <br> 244 APTOS． |  | CAESAR <br> TOWERS <br> 88 APTOS． |  | TRANSAMÉRIC <br> SALVADOR <br> 202 APTOS． |  | $\begin{array}{\|c\|} \hline \text { OTHON } \\ \text { PALACE H } \\ 263 \text { APTOS. } \\ \hline \end{array}$ |  | TROPICAL HOTEL DABAHII 275 APTOS． |  | $\begin{aligned} & \text { CARLTON } \\ & 433 \text { APTOS. } \end{aligned}$ |  | SALVADOR <br> PRAAA <br> 164 APTOS． |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 43.37 | 43.37 | 17.90 | 17.90 | 40.00 | 40.00 | 15.00 | 15.00 | 7.52 | 7.52 | 30.50 | 30.50 | 42.20 | 42.20 | 30.62 | 30.62 | 11.00 | 11.00 | 15.00 | 15.00 | 15.19 | 15.19 | 30.89 | 30.89 | 60.00 | 60.00 | 41.46 | 41.46 | 58.00 | 58.00 | 55.40 | 55.40 | 58.00 | 58.00 | 37.00 | 37.00 | 87.00 | 87.00 |
| 2 | 38.55 | 40. | 17.00 | 17.45 | 73.00 | 56.50 | 98.10 | 56.55 | 10.80 | 9.16 | 30.00 | 30.25 | 49.70 | 45.95 | 26.00 | 28.31 | 10.00 | 10.50 | 9.80 | 12.40 | 16.80 | 16.00 | 30.00 | 30.45 | 48.70 | 35 | 40.00 | 40.73 | 53.70 | 55. | 55.00 | 55.20 | 53.80 | 55.9 | 36.80 | 36.90 | 80.00 | 50 |
| 3 | 41.77 | 41.23 | 17.90 | 17.60 | 74.00 | 62.33 | 100.00 | 71.03 | 11.60 | 9.97 | 31.07 | 30.52 | 50.78 | 47.56 | 27.00 | 27.87 | 10.80 | 10.60 | 10.00 | 11.60 | 17.40 | 16.46 | 30.74 | 30.54 | 50.00 | 52. | 40.80 | 40.75 | 56.00 | 55.90 | 55.04 | 55.15 | 56.10 | 55.97 | 38.00 | 37.27 | 85.10 | ． 3 |
| 4 | 44.58 | 42. | 29.20 | 20.50 | 80.00 | 66.7 | 100．00 | 78.2 | 12.54 | 10.62 | 55.82 | 36.85 | 55.90 | 49.65 | 526.85 | 27.62 | 10.00 | 10.45 | 9.60 | 11.10 | 29.50 | 19.72 | 33.60 | 31.31 | 80.33 | 59. | 80.49 | 50.69 | 92.00 | 64.93 | 53.96 | 54.85 | 77.00 | 61.2 | 47.30 | 39.78 | 93.25 | 34 |
| 5 | 46.18 | 42.89 | 32.00 | 22.80 | 75.00 | 68. | 100.00 | 82.62 | 16.30 | 11.75 | 49.51 | 39.38 | 57.50 | 51.22 | 36.80 | 29.45 | 11.10 | 10.58 | 12.80 | 11.44 | 30.00 | 21.78 | 35.00 | 32.05 | 81.20 | 64. | 82.30 | 57.01 | 90.00 | 69.94 | 55.00 | 54.88 | 75.80 | 64.14 | 50.00 | 41.82 | 95.00 | 88.07 |
| 6 | 49.40 | 43.98 | 27.40 | 23.57 | 79.10 | 70.18 | 60.10 | 78.87 | 26.00 | 14.13 | 55.80 | 42 | 50.70 | 51.13 | 48.70 | 32.66 | 12.80 | 10.95 | 15.00 | 12.03 | 35.80 | 24.12 | 38.70 | 33.16 | 78.60 | 66.47 | 80.00 | 60.84 | 85.80 | 72.58 | 58.10 | 55.42 | 70.70 | 65.23 | 57.10 | 44.37 | 80.10 | 86.74 |
| 7 | 56.63 | 45.78 | 21.20 | 23.23 | 80.00 | 71.59 | 46.20 | 74.20 | 30.72 | 16.50 | 66.69 | 45.63 | 56.64 | 51.92 | 50.80 | 35.25 | 14.60 | 11.47 | 16.70 | 12.70 | 43.70 | 26.91 | 41.80 | 34.39 | 75.00 | 67.69 | 75.70 | 62.96 | 80.90 | 73.77 | 63.67 | 56.60 | 64.30 | 65.10 | 60.00 | 46.60 | 78.58 | 8 |
| 8 | 34.94 | 44.43 | 23.40 | 23.25 | 63.00 | 70.51 | 55.00 | 71.80 | 8.78 | 15.53 | 49.06 | 46.06 | 39.06 | 50.31 | 54.47 | 37.66 | 15.00 | 11.91 | 17.00 | 13.24 | 46.84 | 29.40 | 44.92 | 35.71 | 70.00 | 67.98 | 70.00 | 63.84 | 81.70 | 74.76 | 65.00 | 57.65 | 61.20 | 64.61 | 58.20 | 48.05 | 75.00 | 84.25 |
| 9 | 35.74 | 43. | 17.00 | 22.56 | 49.00 | 68.1 | 60.00 | 70.49 | 5.02 | 14.36 | 48.10 | 46.28 | 42.97 | 49.49 | 48.45 | 38.85 | 50.00 | 16.14 | 15.00 | 13.43 | 54.01 | 32.14 | 41.41 | 36.34 | 72.00 | 68.43 | 89.59 | 66.70 | 26.50 | 69.40 | 62.95 | 58.24 | 67.00 | 64.88 | 57.03 | 49.05 | 77.00 | 45 |
| 10 | 38.96 | 43.01 | 20.60 | 22.36 | 42.00 | 65.51 | 60.00 | 69.44 | 13.79 | 14.31 | 52.91 | 46.95 | 50.00 | 49.55 | 48.83 | 39.85 | 50.00 | 19.53 | 16.00 | 13.69 | 56.54 | 34.58 | 43.75 | 37.08 | 69.10 | 68.4 | 89.00 | 68.93 | 27.00 | 65.16 | 69.06 | 59.32 | 65.00 | 64.89 | 58.10 | 49.95 | 78.10 | 82.91 |
| 11 | 42.17 | 42.94 | 34.90 | 23.50 | 73.00 | 66.19 | 64.00 | 68.9 | 12.85 | 14.17 | 59.71 | 48.11 | 47.66 | 49.37 | 60.56 | 41.73 | 55.70 | 22.82 | 30.00 | 15.17 | 83.33 | 39.01 | 92.11 | 42.08 | 58.10 | 67.55 | 80.10 | 69.95 | 26.00 | 61.60 | 65.11 | 59.84 | 59.00 | 64.35 | 59.00 | 50.78 | 75.10 | 82. |
| 12 | 44.58 | 43.07 | 35.20 | 24.48 | 92.00 | 68.34 | 87.00 | 70.4 | 16.93 | 14.40 | 46.12 | 47.94 | 50.00 | 49.43 | 58.02 | 43.09 | 57.10 | 25.6 | 40.40 | 17.28 | 98.00 | 43.93 | 98.05 | 46.75 | 26.00 | 64. | 80.00 | 70.79 | 25.80 | 62 | 62.59 | 60.07 | 60.00 | 63. | 54.00 | 51.04 | 45.00 | 79.10 |
| 13 | 47.39 | 43. | 37.10 | 25.45 | 94.00 | 70.32 | 100.00 | 72.7 | 27.27 | 15.3 | 35.92 | 47 | 54.69 | 49.83 | 99.38 | 47.42 | 85.90 | 30.31 | 100.00 | 23.64 | 86.32 | 47.19 | 95.70 | 50.51 | 27.10 | 61.2 | 65.85 | 70.41 | 26.10 | 56.12 | 50.00 | 59.30 | 58.70 | 63.58 | 55.10 | 51.36 | 46.70 | 76.6 |
| 14 | 54.09 |  | 23.60 | 25.31 | 90.00 | 71.72 | 76.00 | 72.96 | 30.41 | 16.47 | 44.20 | 46.82 | 75.39 | 51.66 | 100.00 | 51.18 | 90.00 | 34.57 | 98.00 | 28.95 | 91.56 | 50.36 | 64.06 | 51.48 | 30.00 | 59.0 | 67.00 | 70.16 | 27.00 | 54.04 | 54.68 | 58.97 | 60.00 | 63.33 | 56.00 | 51.69 | 47.00 | 74.5 |
| 15 | 53.01 | 44.76 | 20.90 | 25.02 | 52.00 | 70.41 | 65.00 | 72.43 | 6.00 | 15.77 | 53.88 | 47 | 75.00 | 53.21 | 42.90 | 50.63 | 80.00 | 37． | 85.00 | 32.69 | 83.70 | 52. | 60.10 | 52.06 | 31.80 | 57.20 | 84.15 | 71.10 | 30.80 | 52.49 | 77.70 | 60.22 | 61.10 | 63.18 | 57.10 | 52.05 | 50.00 | 72.86 |
| 16 | 54.62 | 45.37 | 24.00 | 24.96 | 45.83 | 68.87 | 73.00 | 72.46 | 5.64 | 15.1 | 54.80 | 47.76 | 77.34 | 54. | 35.80 | 49.70 | 19.70 | 36. | 20.00 | 31.89 | 12.66 | 50， | 34.38 | 50.95 | 75.85 | 58.36 | 84.00 | 71.90 | 50.50 | 52.36 | 77.70 | 61.31 | 77.00 | 64.04 | 73.80 | 53.41 | 82.21 | 73.45 |
| 17 | 57.43 | 46.08 | 26.40 | 25.04 | 45.00 | 67.47 | 80.00 | 72.9 | 6.90 | 14.65 | 86.41 | 50.03 | 91.02 | 56 | 40.43 | 49.15 | 15.00 | 35.22 | 19.00 | 31.14 | 16.88 | 48.13 | 40.23 | 50.32 | 89.90 | 60.22 | 97.56 | 73.41 | 70.00 | 40 | 80.94 | 62.46 | 70.00 | 64. | 75.00 | 54.68 | 80.00 | 73.83 |
| 18 | 54.62 | 46.56 | 33.60 | 25.5 | 49.00 | 66.44 | 79.00 | 73.2 | 12.85 | 14.55 | 79.13 |  | 87.89 | 58 | 56.00 | 49.53 | 16.30 | 34. | 18.00 | 30.41 | 65.38 | 49. | 44.88 | 50.02 | 90.00 | 61.87 | 98.10 | 74.78 | 71.40 | 54.40 | 81.80 | 63.54 | 68.70 | 64.63 | 74.10 | 55.76 | 80.80 | 74.22 |
| 19 | 53.82 | 46.94 | 31.60 | 25.84 | 73.00 | 66.7 | 85.00 | 73.8 | 73.04 | 17.6 | 62.62 | 52.22 | 70.70 | 59.22 | 55.00 | 49.82 | 15.00 | 33.16 | 16.80 | 29.69 | 64.10 | 49. | 42.70 | 49.63 | 83.61 | 63.02 | 95.00 | 75.85 | 54.00 | 54.38 | 82.01 | 64.51 | 65.80 | 64.69 | 70.00 | 56.51 | 75.10 | 74.27 |
| 20 | 55.82 | ． 38 | 31.80 | 26.14 | 96.00 | 68.25 | 93.00 | 74.82 | 84.33 | 20.96 | 33.00 | 51.26 | 63.28 | 59.42 | 73.00 | 50.98 | 25.00 | 32.75 | 27.30 | 29.57 | 45.73 | 49.67 | 55.51 | 49.93 | 42.23 | 61.98 | 82.93 | 76.20 | 30.50 | 53.19 | 78.78 | 65.22 | 73.00 | 65.11 | 48.00 | 56.08 | 95.71 | T， |
| 21 | 69.48 | 48.44 | 26.40 | 26.15 | 93.00 | 69.43 | 80.00 | 75.0 | 94.36 | 24.46 | 39.18 | 50.69 | 57.81 | 59.34 | 72.00 | 51.98 | 24.10 | 32.34 | 28.70 | 29.53 | 46.80 | 49.54 | 56.70 | 50.25 | 45.00 | 61.17 | 83.50 | 76.55 | 41.50 | 52.63 | 59.71 | 64.96 | 75.10 | 65.59 | 50.00 | 55.79 | 90.00 | 76.04 |
| 22 | 57.83 | 48.8 | 26.30 | 26.15 | 41.00 | 68.13 | 74.00 | 75.02 | 10.97 | 23.85 | 37.00 | 50.07 | 48.50 | 58.85 | 540.12 | 51.44 | 26.30 | 32.06 | 20.30 | 29.11 | 40.00 | 49.10 | 50.00 | 50.24 | 48.70 | 60.6 | 80.00 | 76.71 | 78.00 | 53 | 60.79 | 64.77 | 70.00 | 65.79 | 45.70 | 55.33 | 95.70 | 76.9 |
| 23 | 54.62 | 49.11 | 27.00 | 26.19 | 50.00 | 67.34 | 80.00 | 75.23 | 10.00 | 23.24 | 55.00 | 50.28 | 56.00 | 58.73 | 339.00 | 50.90 | 25.00 | 31.76 | 21.00 | 28.76 | 35.00 | 48.49 | 45.00 | 50.01 | 49.00 | 60. | 75.00 | 76.63 | 63.00 | 54.18 | 57.00 | 64.43 | 61.00 | 65.58 | 43.00 | 54.80 | 75.00 | 76.8 |
| 24 | 47.39 | 49.04 | 31.60 | 26.42 | 52.00 | 66.71 | 100.00 | 76.27 | 10.34 | 22.71 | 63.59 | 50.83 | 53.13 | 58.49 | 97.96 | 50.36 | 20.80 | 31.30 | 25.70 | 28.63 | 17.30 | 47.19 | 34.78 | 49.38 | 50.00 | 59. | 67.80 | 76.26 | 53.30 | 54.15 | 53.39 | 63.97 | 58.70 | 65.29 | 46.10 | 54.43 | 70.00 | 76.56 |
| 25 | 49.00 | 49.04 | 36.30 | 26.81 | 63.00 | 66.56 | 99.00 | 77.1 | 4.60 | 21.98 | 85.00 | 52.20 | 55.47 | 58.37 | 38.10 | 49.87 | 20.00 | 30.85 | 26.80 | 28.56 | 18.10 | 46. | 35.00 | 48.80 | 100.00 | 61.29 | 65.00 | 75.81 | 50.00 | 53. | 81.65 | 64.68 | 60.00 | 65. | 41.70 | 53.93 | 65.10 | 76.10 |
| 26 | 51.41 | 49.13 | 46.20 | 2.71 | 63.60 | 66.44 | 97.00 | 77.94 | 43.23 | 22.80 | 86.45 | 53.52 | 60.12 | 58.44 | 482.70 | 51.13 | 19.80 | 30.42 | 20.20 | 28.23 | 24.36 | 45.19 | 45.85 | 48.69 | 100.00 | 62.78 | 70.00 | 75.59 | 50.50 | 53.85 | 81.65 | 65.33 | 65.80 | 65.1 | 50.00 | 53.77 | 70.00 | 75.87 |
| 27 | 79.12 | 50.24 | 66.05 | 28.98 | 76.00 | 66.80 | 99.00 | 78.72 | 91.85 | 25.36 | 35.89 | 52.87 | 50.78 | 58.16 | 85.00 | 52.39 | 20.00 | 30.04 | 23.80 | 28.07 | 25.00 | 44．44 | 46.70 | 48.61 | 50.70 | 62.33 | 75.80 | 75.60 | 60.50 | 54.09 | 80.60 | 65.90 | 64.00 | 65.07 | 49.80 | 53.63 | 69.80 | 75.6 |
| 28 | 89.56 | 51.65 | 68.30 | 30.39 | 76.00 | 67.13 | 70.00 | 78.41 | 95.50 | 27.86 | 38.83 | 52.36 | 58.59 | 58.17 | 80.00 | 53.37 | 30.00 | 30.04 | 32.80 | 28.24 | 19.28 | 43.55 | 34.25 | 48.10 | 52.80 | 111.06 | 67.07 | 75.29 | 23.50 | 53.00 | 49.64 | 65.32 | 62.00 | 64.96 | 48.30 | 53.44 | 67.48 | 75.35 |
| 29 | 73.49 | 52.40 | 66.90 | 31.65 | 39.70 | 66.18 | 69.00 | 78.08 | 5.33 | 27.09 | 25.44 | 51.44 | 1445．90 | 57.75 | 536.72 | 52.80 | 25.90 | 29.89 | 30.00 | 28.30 | 20.00 | 42.73 | 35.70 | 47.67 | 54.10 | 61.72 | 68.70 | 75.07 | 25.00 | 52.03 | 48.56 | 64.74 | 65.00 | 64.96 | 50.00 | 53.32 | 68.70 | 75.12 |
| 30 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |
| rotal |  |  |  | ． 5 | 63. | ． 97 | 75. |  | 6. | ． 18 | 49. | 72 |  | 5．82 | 51. |  | 28.9 |  | 27.3 |  | 41. | 31 | 46. |  |  |  | 72.5 |  | 50 |  | 62. |  | 62. |  |  |  |  |  |

Exhibit 13: Occupancy Table for Bahia Pousadas October 2001
Mapa de Ocupacão - Pousadas
Mês: Outubro de 2001

| TEL: | $876-1116$ |  | $876-1446$ |  |  |  |  |  | 676-1165 |  |  |  |  |  | 6761362 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATAPRAIA Chaliómer |  |  | PORTO DA LUA |  | SOLARARCOS |  | $\frac{25 \text { ADto }}{\text { SOBRADO DA VILA }}$ |  | $\frac{21}{}$ Avto |  |  |  | $\begin{aligned} & 12 \text { Auto } \\ & \hline \text { PORO ZARPA } \end{aligned}$ |  | $\begin{array}{\|l\|} \hline 20 \text { A } 1 \text { ito } \\ \hline \text { C CASA PRALA } \\ \hline \end{array}$ |  | $\frac{15 \text { Anto }}{\text { SOLAR DO FORTE }}$ |  |
| 01 | 50.00 | 50.00 | 57.69 | 57.69 | 2.63 | 2.63 | 40.00 | 40.00 | 4.76 | 476 | 0.00 | 0.00 |  | 0.00 |  | 0.00 | 0.00 | 000 |
| 02 | 50.00 | 50.00 | 61.54 | 59.62 | 2.63 | 2.63 | 48.00 | 44.00 | 9.52 | 7.14 | 16.67 | 8.33 |  | 0.00 |  | 000 | 13.33 | 667 |
| 03 | 60.00 | 53.33 | 57.69 | 58.97 | 7.89 | 4.39 | 44.00 | 44.00 | 14.29 | 952 | 33.33 | 16.67 |  | 0.00 |  | 0.00 | 0.00 | 000 |
| 04 | 35.00 | 48.75 | 57.69 | 58.65 | 2.63 | 3.95 | 40.00 | 43.00 | 33.33 | 15.48 | 41.67 | 22.92 |  | 0.00 |  | 000 | 6.67 | 500 |
| 05 | 40.00 | 47.00 | 57.69 | 58.46 | 5.26 | 4.21 | 40.00 | 42.40 | 38.10 | 20.00 | 50.00 | 28.33 |  | 0.00 |  | 0.00 | 13.33 | 667 |
| 06 | 45.00 | 46.67 | 88.45 | 63.46 | 28.95 | 8.33 | 100.00 | 52.00 | 95.00 | 32.50 | 100.00 | 4028 |  | 0.00 |  | 0.00 | 80.00 | 18.89 |
| 07 | 50.00 | 47.14 | 75.92 | 6538 | 26.32 | 10.90 | 100.00 | 58.86 | 80.95 | 39.42 | 100.00 | 48.81 |  | 0.00 |  | 0.00 | 66.67 | 25.71 |
| 08 | 15.79 | 43.22 | 65.38 | 6538 | 2.63 | 9.87 | 40.00 | 56.50 | 47.62 | 40.45 | 75.00 | 52.08 |  | 000 |  | 0.00 | 13.33 | 24.17 |
| 9 | 21.05 | 40.76 | 57.69 | 6453 | 2.63 | 9.06 | 48.00 | 55.56 | 4762 | 41.24 | 65.67 | 53.70 |  | 0.00 |  | 0.00 | 13.33 | 22.96 |
| 10 | 26.32 | 39.32 | 69.23 | 6500 | 2.63 | 8.42 | 52.00 | 55.20 | 4286 | 41.40 | 16.67 | 50.00 |  | 0.00 |  | 0.00 | 0.00 | 000 |
| 11 | 52.63 | 40.53 | 92.31 | ${ }^{67} 48$ | 44.74 | 11.72 | 100.00 | 59.27 | 100.00 | 46.73 | ${ }^{83.33}$ | 53.03 |  | 0.00 |  | 0.00 | 100.00 | 27.88 |
| 12 | 100.00 | 45.48 | 96.15 | 6987 | 58.42 | 16.45 | 100.00 | 62.67 | 100.00 | 51.17 | 100.00 | 56.94 |  | 0.00 |  | 0.00 | 100.00 | 33.89 |
| 13 | 100.00 | 49.68 | 92.31 | 71.60 | 50.53 | 19.84 | 100.00 | 65.54 | 100.00 | 54.93 | 1000.00 | 129.49 |  | 0.00 |  | 0.00 | 100.00 | 38.97 |
| 14 | 52.63 | 49.89 | 57.69 | 7060 | 2.63 | 18.61 | 72.00 | 66.00 | 5238 | 54.74 | 66.67 | 125.00 |  | 0.00 |  | 0.00 | 20.00 | 37.62 |
| 15 | 47.37 | 49.72 | 69.23 | 7051 | 0.00 | 0.00 | 52.00 | 65.07 | 38.10 | 53.63 | 16.67 | 117.78 |  | 0.00 |  | 0.00 | 0.00 | 0.00 |
| 16 | 42.11 | 4924 | 69.23 | 7043 | 0.00 | 0.00 | 44.00 | 63.75 | 3333 | 52.37 | 25.00 | 111.98 |  | 0.00 |  | 0.00 | 6.67 | 33.33 |
| 17 | 36.84 | 48.51 | 57.69 | 69.68 | 0.00 | 0.00 | 40.00 | 6235 | 28.57 | 50.97 | 25.00 | 106.86 |  | 0.00 |  | 0.00 | 13.33 | 32.16 |
| 18 | 31.58 | 47.57 | 50.00 | 6859 | 0.00 | 0.00 | 32.00 | 60.67 | 28.57 | 49.72 | 33.33 | 10278 |  | 0.00 |  | 0.00 | 13.33 | 31.11 |
| 19 | 42.11 | 47.29 | 65.38 | 6842 | 18.42 | 14.68 | 48.00 | 60.00 | 42.86 | 49.36 | 66.67 | 100.88 |  | 0.00 |  | 0.00 | 13.33 | 30.18 |
| 20 | 52.63 | 47.55 | 88.45 | 6942 | 15.79 | 14.74 | 92.00 | ${ }^{61.60}$ | 95.24 | 51.65 | 83.33 | 100.00 |  | 0.00 |  | 0.00 | 86.67 | 33.00 |
| 21 | 15.79 | 46.04 | 92.31 | 70.51 | 21.05 | 15.04 | 68.00 | 61.90 | 85.71 | 53.28 | 66.67 | 98.41 |  | 0.00 |  | 0.00 | 100.00 | 36.19 |
| 22 | 31.58 | 45.38 | 75.92 | 70.80 | 15.79 | 15.07 | 48.00 | 61.27 | 66.67 | 53.89 | 75.00 | 97.35 |  | 0.00 |  | 0.00 | 66.67 | 37.58 |
| 23 | 15.79 | 44.10 | 73.03 | 70.90 | 0.00 | 0.00 | 40.00 | 60.35 | 61.90 | 54.23 | 58.33 | 95.65 |  | 0.00 |  | 0.00 | 0.00 | 0.00 |
| 24 | 15.79 | 42.92 | 58.62 | 7039 | 0.00 | 0.00 | 40.00 | 59.50 | 52.38 | 54.16 | 66.67 | 94.44 |  | 0.00 |  | 0.00 | 6.67 | 34.72 |
| 25 | 2632 | 42.25 | 90.48 | 71.19 | 5.26 | 13.47 | 60.00 | 59.52 | 76.19 | 55.04 | 75.00 | 93.67 |  | 0.00 |  | 0.00 | 33.33 | 34.67 |
| 26 | 3684 | 42.04 | 80.77 | 71.56 | 21.05 | 1377 | 88.00 | 60.62 | 85.71 | 56.22 | 91.67 | 93.59 |  | 0.00 |  | 0.00 | 46.67 | 35.13 |
| 27 | 63.16 | 42.83 | 57.69 | 71.05 | 10.53 | 13.65 | 84.00 | 61.48 | 100.00 | 57.84 | 50.00 | 91.98 |  | 0.00 |  | 0.00 | 6.67 | 34.07 |
| 28 | 52.63 | 43.18 | 57.14 | 7055 | 7.89 | 13.4 | 72.00 | 61.86 | 85.71 | 58.84 | 41.67 | 90.18 |  | 0.00 |  | 0.00 | 20.00 | 33.57 |
| 29 | 47.37 | 43.32 | 50.00 | 6984 | 2.63 | 13.07 | 80.00 | 62.48 | 71.43 | 59.27 | 58.33 | 89.08 |  | 0.00 |  | 0.00 | 20.00 | 33.10 |
| 30 | 21.05 | 42.58 | 23.08 | 68.28 | 0.00 | 0.00 | 0.00 | 0.00 | 19.05 | 57.93 | 25.00 | 86.94 |  | 0.00 |  | 0.00 | 13.33 | 32.44 |
| 31 | 21.05 | 41.88 | 19.23 | 66.70 | 0.00 | 0.00 | 8.00 | 58.71 | 14.29 | 56.52 | 16.67 | 84.68 |  | 0.00 |  | 0.00 | 6.67 | 31.61 |
| COTA | 37.30 |  | 61.88 |  | 11.88 |  | 53.55 |  | $50.38$ |  | 80.11 |  | 0.00 |  | 0.00 |  | 29. |  |

[^6]Exhibit 14: Occupancy Table for Bahia Pousadas November 2001
Mana de Ocunacão - Pousadas
Mês: Novembro de 2001

| TEL: | $876-1116$ |  | 876-1445 |  | 876-1066 |  | 876-1088 |  | 676-1165 |  | 676-1515 |  | 876-1043 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PRAIA DO FORTE |  |  |  |  |  |  | do |  |  |  |  |  |  |
| DATA |  |  | PORTO DA LUA |  | SOLAR ARCOS |  | SOBRADO DA VILA |  | OGUM MARINHO |  | FAROL TARTARUGAS |  | SOLAR DO FORTE |  |
| 01 | 78.95 | 78.95 | 84.62 | 84.62 | 47.37 | 47.37 | 60.00 | 60.00 | 85.71 | 85.71 | 100.00 | 100.00 |  | 0.00 |
| 02 | 94.74 | 86.84 | 96.15 | 90.38 | 52.63 | 50.00 | 72.00 | 66.00 | 55.24 | 90.48 | 100.00 | 100.00 |  | 0.00 |
| 03 | 100.00 | 91.23 | 100.00 | 93.59 | 65.79 | 55.26 | 100.00 | 77.33 | 100.00 | 9365 | 100.00 | 100.00 | 100.00 | 33.33 |
| 04 | 52.63 | 81.58 | 46.15 | 81.73 | 2.63 | 42.11 | 32.00 | 66.00 | 33.33 | 78.57 | 50.00 | 8750 | 6.67 | 26.67 |
| 05 | 15.79 | 68.42 | 30.77 | 71.54 | 0.00 | 0.00 | 16.00 | 56.00 | 23.81 | 67.62 | 33.33 | 7667 | 13.33 | 24.00 |
| 06 | 10.53 | 58.77 | 15.38 | 62.18 | 0.00 | 0.00 | 12.00 | 48.67 | 33.33 | 61.90 | 66.67 | 7500 |  | 0.00 |
| 07 | 15.79 | 52.63 | 15.38 | 55.49 | 0.00 | 0.00 | 20.00 | 44.57 | 28.57 | 57.14 | 58.33 | 7262 |  | 0.00 |
| 08 | 21.05 | 48.68 | 15.38 | 50.48 | 0.00 | 0.00 | 28.00 | 42.50 | 52.38 | 56.55 | 50.00 | 6979 |  | 0.00 |
| 9 | 52.63 | 49.12 | 19.23 | 47.01 | 7.89 | 19.59 | 28.00 | 40.89 | 90.48 | 60.32 | 50.00 | 6759 |  | 0.00 |
| 10 | 57.89 | 50.00 | 57.69 | 48.08 | 18.42 | 19.47 | 76.00 | 44.40 | 95.24 | 63.81 | 66.67 | 5750 |  | 0.00 |
| 11 | 31.58 | 48.33 | 23.08 | 45.80 | 0.00 | 0.00 | 24.00 | 42.55, | 76.19 | 64.94 | 58.33 | 6667 |  | 0.00 |
| 12 | 31.58 | 46.93 | 19.23 | 43.59 | 0.00 | 0.00 | 20.00 | 40.67 | 57.14 | 64.29 | 50.00 | 6528 | 6.67 | 10.56 |
| 13 | 10.53 | 44.13 | 26.92 | 42.31 | 0.00 | 0.00 | 20.00 | 39.08 | 47.62 | 63.00 | 66.67 | 65.38 | 0.00 | 0.00 |
| 14 | 57.89 | 45.11 | 57.69 | 43.41 . | 31.58 | 16.17 | 32.00 | 38.57 | 100.00 | 65.65 | 91.67 | 67.26 | 000 | 0.00 |
| 15 | 100.00 | 48.77 | 30.77 | 45.90 | 57.89 | 18.95 | 100.00 | 42.67 | 100.00 | 67.94 | 100.00 | 69.44 | 53.33 | 1200 |
| 16 | 100.00 | 51.97 | 96.15 | 49.04 | 94.74 | 23.68 | 100.00 | 46.25 | 100.00 | 69.94 | 100.00 | 71.35 | 100.00 | 17.50 |
| 17 | 100.00 | 54.80 | 100.00 | 52.04 | 52.63 | 25.39 | 100.00 | 49.41 | 100.00 | 71.71 | 100.00 | 73.04 | 100.00 | 2235 |
| 18 | 36.84 | 53.80 | 19.23 | 50.21 | 5.26 | 24.27 | 20.00 | 47.78 | 47.62 | 70.37 | 41.67 | 71.30 | 0.00 | 0.00 |
| 19 | 30.00 | 52.55 | 15.38 | 48.38 | 2.63 | 23.13 | 8.00 | 45.68 | 38.10 | 68.67 | 16.67 | 68.42 | 6.67 | 2035 |
| 20 | 42.11 | 52.03 | 19.23 | 46.92 | 5.26 | 22.24 | 1200 | - 44.00 | 33.33 | 66.90 | 25.00 | 66.25 | 13.33 | 20.00 |
| 21 | 36.84 | 51.30 | 23.08 | 45.79 | 0.00 | 000 | 1200 | 42.48 | 23.81 | 64.85 | 33.33 | 64.68 | 6.67 | 19.37 |
| 22 | 36.84 | 50.65 | 23.08 | 44.76 | 2.63 | 20.33 | 8.00 | 40.91 | 28.57 | 63.20 | 33.33 | 63.26 | 6.67 | 18.79 |
| 23 | 52.63 | 50.73 | 30.77 | 44.15 | 7.89 | 19.79 | 20.00 | 40.00 | 38.10 | 62.11 | 50.00 | 62.68 | 20.00 | 18.84 |
| 24 | 42.11 | 50.37 | 69.23 | 45.19 | 39.47 | 20.61 | 72.00 | 41.33 | 80.95 | 62.90 | 100.00 | 64.24 | 100.00 | 22.22 |
| 25 | 31.58 | 49.62 | 73.08 | 46.31 | 34.21 | 21.16 | 100.00 | 43.68 | 95.24 | 64.19 | 91.67 | 65.33 | 100.00 | 25.33 |
| 26 | 31.58 | 48.93 | 23.08 | 45.41 | 21.05 | 21.15 | 80.00 | 45.08 | 85.71 | 65.02 | 75.00 | 65.71 | 66.67 | 26.92 |
| 27 | 21.05 | 4789 | 30.77 | 44.87 | 5.26 | 20.57 | 8.00 | 43.70 | 47.62 | 64.37 | 25.00 | 64.20 | 26.67 | 26.91 |
| 28 | 21.05 | 46.94 | 23.08 | 44.09 | 7.89 | 20.11 | 15.00 | 42.71 | 38.10 | 63.44 | 41.67 | 63.39 | 20.00 | 26.67 |
| 29 | 26.32 | 46.23 | 26.92 | 43.50 | 10.53 | 19.78 | 20.00 | 41.93 | 38.10 | 62.56 | 50.00 | 62.93 | 20.00 | 26.44 |
| 30 | 26.32 | 45.56 | 34.62 | 43.21 | 13.16 | 19.56 | 12.00 | 40.93 | 76.19 | 63.02 | 58.33 | 62.78 | 20.00 | 26.22 |
| TOTA1 | 41.71 |  | 39.08 |  | 17.91 |  | 38.06 |  | 56.07 |  | 55.91 |  | 23.44 |  |

OBS: Pousada Solar do Forte dias $01 / 11$ e $02 / 11$ o telefone está programado para não receber ligações
OBS: Pousada Solar do Forte de $06 / 11$ á $11 / 11$ o telefone está programado para não receber ligações.

Exhibit 15：Occupancy Table for Bahia Pousadas December 2001
Mana de Ocunacão－Pousadas
Mês：Dezembro de 2001

| $9$ | $\left\lvert\, \begin{aligned} & \frac{a}{\alpha} \\ & \underset{\alpha}{\alpha} \end{aligned}\right.$ | ${\underset{\sim}{m}}_{\underset{\sim}{m}}^{2}$ | $\begin{aligned} & 0 \\ & 8 \\ & 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | $\left\lvert\, \begin{aligned} & 8 \\ & \ddagger \end{aligned}\right.$ | $8$ | $\begin{aligned} & \text { ì } \\ & \dot{y} \end{aligned}$ | $\begin{gathered} m \\ m \\ m \\ m \end{gathered}$ | $\stackrel{N}{\infty}$ | $\left\lvert\, \begin{gathered} 8 \\ \infty \\ \infty \\ i \end{gathered}\right.$ | $\begin{aligned} & 8 \\ & 0 \\ & 0 \\ & c \end{aligned}$ |  | $\begin{aligned} & \text { in } \\ & \text { in } \end{aligned}$ | $\begin{aligned} & \approx \\ & \stackrel{n}{8} \\ & \stackrel{y}{c} \end{aligned}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{\sim} \\ & \underset{\sim}{n} \end{aligned}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\left\lvert\, \begin{aligned} & \overrightarrow{0} \\ & \infty \\ & \infty \\ & \infty \end{aligned}\right.$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\left.\right\|_{i} ^{\infty}$ | $\underset{\sim}{\mathrm{m}}$ | 管 | $\begin{aligned} & \circ \\ & 0 \\ & 0 \end{aligned}$ | $\left\lvert\, \begin{aligned} & 11 \\ & 0 \\ & 4 \end{aligned}\right.$ | $\begin{aligned} & \mathbb{N} \\ & \ddagger \end{aligned}$ | $\frac{m}{8}$ | $\stackrel{\infty}{\infty}$ | $\begin{aligned} & \circ \\ & \underset{\sim}{2} \\ & \underset{y y}{l} \end{aligned}$ | in | $\left\lvert\, \begin{aligned} & n \\ & \vdots \\ & \hdashline \end{aligned}\right.$ | $\overline{=}$ | 8 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left.\right\|_{\substack{n \\ 3 \\ 0 \\ 0 \\ \hline}}$ | $\underset{\sim}{N}$ | $8$ | $\begin{aligned} & \mathbf{0} \\ & \mathbf{0} \\ & \mathbf{0} \end{aligned}$ | O- | O- | \|o | O- | $\begin{aligned} & \mathbf{b} \\ & \stackrel{0}{0} \\ & \mathbf{N} \end{aligned}$ | $\stackrel{6}{0}$ | $1$ | $\stackrel{\rightharpoonup}{6}$ | $\stackrel{\rightharpoonup}{0}$ | $\underset{\sim}{m}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline-0 \end{aligned}$ | $8$ | $\begin{aligned} & 6 \\ & \stackrel{6}{6} \end{aligned}$ | $\begin{aligned} & m \\ & n \\ & n \end{aligned}$ | $\underset{n}{n}$ | $\begin{aligned} & \text { Bे } \\ & \text { Bे } \end{aligned}$ | $$ | $\underset{\substack{\infty}}{\substack{\infty \\ \hline}}$ | $\begin{aligned} & 8 \\ & 8 \\ & 8 \\ & \hline 1 \end{aligned}$ | $\begin{aligned} & 8 \\ & 8 \\ & \hline 0 \\ & \hline 1 \end{aligned}$ | $\begin{aligned} & 10 \\ & \hline 0 \\ & \hline 1 \end{aligned}$ | O- | $\begin{gathered} \underset{m}{n} \\ \underset{\sim}{2} \end{gathered}$ | $\begin{gathered} \tilde{m} \\ \underset{\sim}{2} \end{gathered}$ | $\begin{aligned} & \circ \\ & \hline 0 . \\ & \hline 0 \end{aligned}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \infty \\ & \infty \end{aligned}$ | $\left\lvert\, \begin{aligned} & 6 \\ & \infty \\ & \infty \\ & \infty \end{aligned}\right.$ |  |  |
| $\begin{aligned} & 3 \\ & 3 \\ & 0 \\ & 0 \end{aligned}$ |  | $\frac{1-0}{\frac{1}{2}}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \circ \\ & \stackrel{\circ}{\circ} \\ & \stackrel{y}{*} \end{aligned}\right.$ | $\left.\right\|_{\infty} ^{\infty}$ | $\left\lvert\, \begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}\right.$ | $\stackrel{\rightharpoonup}{\stackrel{\rightharpoonup}{*}}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \infty \\ & \infty \\ & m \end{aligned}\right.$ | $\begin{aligned} & \bar{\sim} \\ & \stackrel{y}{2} \end{aligned}$ | $\begin{aligned} & = \\ & \overline{6} \end{aligned}$ | $\left.\right\|_{i} ^{\text {in }}$ | $8$ | $\begin{aligned} & 8 \\ & \text { in } \end{aligned}$ | $\begin{aligned} & N \\ & \infty \\ & \infty \end{aligned}$ | $\begin{aligned} & \circ \\ & \stackrel{\circ}{\square} \\ & \underset{7}{2} \end{aligned}$ | $\begin{aligned} & \infty \\ & i \\ & i \\ & i \end{aligned}$ | $\frac{\stackrel{\rightharpoonup}{f}}{\stackrel{y}{n}}$ | $\begin{aligned} & \infty \\ & \infty \\ & i n \\ & i n \end{aligned}$ | $\left\lvert\, \begin{aligned} & 1 \\ & 0 \\ & 0 \\ & 0 \end{aligned}\right.$ | $\begin{aligned} & \gtrless \\ & i n \end{aligned}$ | $\left\lvert\, \begin{aligned} & n \\ & \\ & \end{aligned}\right.$ | 苟 | is | $\frac{\pi}{6}$ | $\begin{gathered} \infty \\ \infty \\ i \\ i \end{gathered}$ | $\begin{aligned} & \mathrm{m} \\ & \mathrm{~m} \\ & \mathrm{f} \end{aligned}$ | $\underset{\sim}{\lambda}$ | $\begin{aligned} & \hat{0} \\ & 8 \end{aligned}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \end{aligned}$ | 合 | $\begin{aligned} & 8 \\ & 8 \\ & 8 \end{aligned}$ | $\begin{aligned} & 8 \\ & 0 \end{aligned}$ |  |
|  |  | $\begin{aligned} & \stackrel{0}{0} \\ & \stackrel{a}{2} \end{aligned}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\left\lvert\, \begin{aligned} & 6 \\ & 0 \\ & 0 \\ & 0 \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \underset{6}{\bullet} \\ & \stackrel{0}{2} \end{aligned}\right.$ | $\stackrel{5}{\square}$ |  | $\begin{aligned} & \infty \\ & \underset{\infty}{\infty} \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 0 \\ & \hline 0 \end{aligned}$ |  | $\begin{aligned} & \mathrm{O} \\ & \mathrm{~N} \end{aligned}$ | O | $\begin{aligned} & \mathrm{B} \\ & \underset{\sim}{2} \end{aligned}$ | $\begin{aligned} & {\underset{N}{2}}^{2} \\ & m_{n} \end{aligned}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}\right.$ | $\begin{aligned} & 8 \\ & 0 \\ & 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & \text { nin } \end{aligned}$ | $\left.\right\|_{\substack{\infty \\ \infty \\ \infty \\ \infty}}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \infty \\ & \infty \\ & n \end{aligned}\right.$ | $\begin{aligned} & 8 \\ & 8 \\ & 0 \\ & i n \end{aligned}$ | $\left\lvert\, \begin{aligned} & 6 \\ & 0 \\ & 8 \end{aligned}\right.$ | $\left.\right\|_{n} ^{\infty}$ | $\begin{aligned} & \hline 8 \\ & \hline-8 \\ & \hline-1 \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline-8 \\ & \hline-8 \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline 0 \\ & \hline 0 \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 0 \\ & \hline 0 \end{aligned}$ | $\begin{aligned} & \hline 8 \\ & \hline 0 \\ & \hline \end{aligned}$ | $\frac{\stackrel{\rightharpoonup}{0}}{\stackrel{a}{2}}$ | $0$ | $\begin{aligned} & \circ \\ & \hline 0 \\ & \hline 0 \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline 0 \\ & \hline 1 \end{aligned}$ |  |  |
|  |  |  | $\begin{aligned} & \infty \\ & \dot{q} \\ & 8 \end{aligned}$ | $\underset{\infty}{\stackrel{m}{\square}}$ | $\left\lvert\, \begin{aligned} & i n \\ & i n \\ & \infty \\ & \hline \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \bar{\infty} \\ & \infty \\ & \infty \\ & \infty \end{aligned}\right.$ |  | $\left\|\begin{array}{c} \circ \\ 2 \\ \infty \\ \infty \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & 1 \\ & 5 \\ & 5 \\ & \infty \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & 9 \\ & \stackrel{9}{+} \\ & \infty \end{aligned}\right.$ | $\begin{aligned} & \hat{0} \\ & \stackrel{0}{2} \end{aligned}$ | $\left\lvert\, \begin{aligned} & \hat{2} \\ & \stackrel{y}{+} \end{aligned}\right.$ | $\frac{\infty}{\infty}$ | $\begin{aligned} & n \\ & 2 \\ & 2 \end{aligned}$ | $\begin{aligned} & n \\ & \dot{8} \end{aligned}$ | $\stackrel{\overbrace{}}{-}$ | $\stackrel{7}{\sim}$ | $\begin{aligned} & i \\ & i \\ & i \end{aligned}$ | $\left\lvert\, \begin{aligned} & \dot{\gamma} \\ & i \end{aligned}\right.$ | $\frac{\infty}{\circ}$ | $\begin{array}{r} n \\ \infty \\ 8 \end{array}$ | $\stackrel{\circ}{\infty}$ | $\frac{\infty}{\infty}$ | $\mid \stackrel{\rightharpoonup}{\stackrel{\rightharpoonup}{\circ}}$ | $\begin{aligned} & n \\ & 8 \\ & 8 \end{aligned}$ | $\begin{aligned} & 10 \\ & 0 \\ & 0 \end{aligned}$ | 2 | $\stackrel{n}{\sim}$ | $\frac{=}{N}$ | $\begin{aligned} & \bar{\sigma} \\ & N \end{aligned}$ | $\left.\right\|_{n} ^{n}$ | $8$ |  |
|  |  |  | $\left\lvert\, \begin{aligned} & \stackrel{\rightharpoonup}{\lambda} \\ & \infty \\ & \infty \end{aligned}\right.$ | $\underset{\sim}{\sim}$ | $\left\lvert\, \begin{aligned} & \vec{a} \\ & \infty \\ & \infty \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \text { no } \\ & \stackrel{\alpha}{\infty} \\ & \infty \end{aligned}\right.$ | $\stackrel{\rightharpoonup}{\circ}$ | $\underset{\substack{\mathrm{N} \\ \infty \\ \infty}}{ }$ |  | $\left\lvert\, \begin{gathered} \text { O } \\ 0 \\ \text { 寺 } \end{gathered}\right.$ | $\begin{aligned} & \infty \\ & \infty \\ & \underset{y y}{\infty} \end{aligned}$ |  |  | $\begin{aligned} & \infty \\ & \underset{N}{n} \\ & \underset{\sim}{n} \end{aligned}$ | $\stackrel{\circ}{2}$ | $\begin{aligned} & \text { N } \\ & \text { Nín } \\ & \text { Non } \end{aligned}$ | $\underset{\sim}{\sim}$ | $\underset{\sim}{\stackrel{\rightharpoonup}{2}} \underset{\substack{2 \\ \infty \\ \infty}}{ }$ | $\frac{9}{2}$ | $\underset{\substack{i \\ \infty \\ \infty \\ \infty}}{ }$ | $\underset{\sim}{\infty}$ | $\begin{aligned} & \infty \\ & \underset{\sim}{n} \\ & \underset{n}{2} \end{aligned}$ | $\frac{9}{9}$ | $\frac{\circ}{\circ}$ | $\begin{aligned} & 8 \\ & \hline 0 \\ & \hline 8 \end{aligned}$ | $\frac{9}{0}$ |  | $\begin{aligned} & \text { Na } \\ & \text { Na } \end{aligned}$ | $\begin{aligned} & \text { N } \\ & \text { No } \end{aligned}$ | $\begin{array}{\|l\|l\|} \text { N } \\ \text { N } \end{array}$ | $\begin{aligned} & \text { Na } \\ & \text { No } \end{aligned}$ |  |  |
|  |  |  | $\begin{gathered} 8 \\ \infty \\ \infty \\ i \end{gathered}$ | $\left\lvert\, \begin{gathered} 8 \\ \infty \\ \infty \\ 1 \end{gathered}\right.$ | $\begin{aligned} & 8 \\ & +\underset{~+~}{4} \end{aligned}$ |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & i \end{aligned}$ | $\left\|\begin{array}{c} c \\ \hat{c} \\ d \\ d \end{array}\right\|$ | $\begin{aligned} & \text { ৪ } \\ & \text { ì } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \\ & 0 \\ & 8 \\ & \hdashline \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & i \\ & \text { ì } \\ & \hat{n} \end{aligned}\right.$ | $\left\lvert\, \begin{gathered} \stackrel{-}{2} \\ \hat{c} \\ \text { ले } \end{gathered}\right.$ | $\left\lvert\, \begin{aligned} & 8 \\ & \text { di } \end{aligned}\right.$ | $\begin{aligned} & \hat{a} \\ & \stackrel{y}{i} \end{aligned}$ | $\left\lvert\, \begin{gathered} n \\ n \\ \infty \\ i \end{gathered}\right.$ | $\left\|\begin{array}{c} \infty \\ \infty \\ -i \\ -i \end{array}\right\|$ | $\left.\begin{aligned} & 8 \\ & \mathrm{~m} \end{aligned} \right\rvert\,$ | $\begin{aligned} & \infty \\ & \infty \\ & \underset{m}{\infty} \end{aligned}$ | $\left\lvert\, \begin{aligned} & 1 \\ & n \\ & 1 \\ & 9 \end{aligned}\right.$ | $\begin{aligned} & \stackrel{\Delta}{2} \\ & \infty \\ & m \end{aligned}$ | $\begin{aligned} & 8 \\ & \text { in } \end{aligned}$ | $\left.\right\|_{i n} ^{\infty}$ | $\left\lvert\, \begin{aligned} & n \\ & \underset{\sim}{n} \\ & \hline \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \circ \\ & \text { i } \\ & \text { in } \end{aligned}\right.$ | $\begin{aligned} & 8 \\ & 0 \\ & 0 \end{aligned}$ | $\ddagger$ | io | $\text { ol } \begin{aligned} & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \infty \end{aligned}$ | $\left\lvert\, \begin{aligned} & \hat{+} \\ & \infty \\ & \infty \\ & \infty \end{aligned}\right.$ | $\begin{aligned} & \underset{\sim}{n} \\ & \stackrel{\rightharpoonup}{2} \end{aligned}$ | $8$ |  |
|  |  | O- | $\begin{aligned} & \mathrm{B} \\ & \dot{\sim} \end{aligned}$ | $\begin{gathered} 8 \\ \infty \\ \infty \\ \underset{\sim}{2} \end{gathered}$ | O | $$ | $\begin{aligned} & \mathrm{O} \\ & \text { í } \end{aligned}$ | $\underset{\sim}{\mathrm{O}}$ | $\underset{\sim}{8}$ | $\mid$ | $\begin{array}{\|l} \mathrm{O} \\ \underset{\sim}{\mathrm{j}} \end{array}$ | $\stackrel{\circ}{\circ}$ | $\underset{\infty}{\circ}$ | $\begin{aligned} & 8 \\ & \dot{j} \end{aligned}$ | B | B | $\begin{aligned} & \mathrm{B} \\ & \mathbf{e} \\ & \mathrm{~m} \end{aligned}$ | $\left\|\begin{array}{c} \circ \\ \infty \\ \dot{\infty} \end{array}\right\|$ | $\begin{aligned} & \circ \\ & \hline 0 \\ & \hline \end{aligned}$ | $\underset{-8}{\circ}$ | $\left\|\begin{array}{c} 8 \\ \infty \\ \underset{\sim}{\infty} \end{array}\right\|$ | O | O | $\begin{array}{\|c} \circ \\ \hline \\ \hline \end{array}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & \infty \end{aligned}$ | $\left\lvert\, \begin{aligned} & 8 \\ & \text { in } \end{aligned}\right.$ | $\begin{gathered} 8 \\ \infty \\ \infty \\ \infty \end{gathered}$ | ò | $\begin{aligned} & \mathrm{O} \\ & \hline \mathbf{0} \\ & \hline \end{aligned}$ | O | $\begin{aligned} & \hline 8 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |
|  |  |  | $\begin{aligned} & \mathrm{a} \\ & \pm \end{aligned}$ | $\begin{aligned} & \overrightarrow{9} \\ & \pm \end{aligned}$ | $\left\lvert\, \begin{aligned} & \stackrel{8}{n} \\ & \underline{1} \end{aligned}\right.$ | $\begin{aligned} & = \\ & \underline{\underline{I}} \end{aligned}$ | $\begin{aligned} & \mathrm{Q} \\ & \hline \end{aligned}$ | $\underset{=}{\infty}$ | $\underset{Z}{Z}$ | $\left.\right\|_{8} ^{8}$ | $\left.\right\|_{8} ^{8}$ | \|r | $\begin{aligned} & n \\ & 0 \\ & 0 \end{aligned}$ | $\left\lvert\, \begin{aligned} & n \\ & 0 \\ & 0 \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \ddagger \\ & = \\ & \hline \end{aligned}\right.$ | $\begin{aligned} & \infty \\ & \underset{\sim}{\infty} \\ & \end{aligned}$ | $\frac{0}{m}$ | $\underset{-}{-}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{\circ} \\ & \stackrel{\text { n }}{ } \end{aligned}$ | $\left\lvert\, \begin{aligned} & \infty \\ & \infty \\ & \underset{1}{\infty} \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & m \\ & \underset{c}{2} \\ & m \end{aligned}\right.$ | $\begin{aligned} & \bar{\tau} \\ & \stackrel{n}{n} \end{aligned}$ | $\begin{aligned} & \hat{0} \\ & \underline{n} \end{aligned}$ | $\left\|\begin{array}{l} \infty \\ \infty \\ - \end{array}\right\|$ | $\left.\right\|_{\bar{\infty}} ^{\bar{\infty}}$ | $\stackrel{\rightharpoonup}{\mathrm{a}}$ | $\left\lvert\, \begin{aligned} & \text { さ } \\ & \stackrel{2}{2} \end{aligned}\right.$ | $\begin{aligned} & \text { Q } \\ & \text { i } \\ & \text { i } \end{aligned}$ | $\begin{aligned} & \% \\ & a \\ & A \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \stackrel{y}{4} \end{aligned}$ | $\bar{\beth}$ | \& |  |
|  |  |  | $\frac{\stackrel{ }{m}}{\underline{m}}$ | $\stackrel{a}{a} \begin{aligned} & i \\ & \stackrel{n}{n} \end{aligned}$ | $\begin{aligned} & \text { M } \\ & \text { in } \end{aligned}$ | $\left\lvert\, \begin{aligned} & \underset{n}{n} \\ & \underset{\sim}{0} \end{aligned}\right.$ | $\begin{aligned} & \text { N } \\ & \stackrel{y}{n} \\ & \text { n } \end{aligned}$ | $\stackrel{\circ}{\underline{m}}$ | $\begin{aligned} & \overrightarrow{\mathrm{y}} \\ & \stackrel{y}{m} \end{aligned}$ | O- | $\stackrel{\circ}{\circ}$ | $\begin{aligned} & \stackrel{\sim}{n} \\ & \underset{\sim}{n} \end{aligned}$ | $\stackrel{\stackrel{n}{2}}{\stackrel{\sim}{\circ}}$ | $\begin{aligned} & \\ & \stackrel{0}{0} \\ & \stackrel{1}{2} \end{aligned}$ | $\begin{aligned} & \substack{0 \\ y_{0} \\ \underset{\sim}{2}} \end{aligned}$ | 俞 | $\begin{aligned} & \text { N } \\ & \text { Nu } \end{aligned}$ | $\underset{\sim}{\stackrel{0}{m}}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & n \\ & \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & a \\ & \underset{\sim}{n} \\ & \end{aligned}$ | $\frac{\mathrm{N}}{\mathrm{~N}}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & i n \end{aligned}$ | $\begin{aligned} & \text { n } \\ & \text { in } \\ & \text { in } \end{aligned}$ | $\begin{aligned} & n \\ & 0 \\ & \text { in } \end{aligned}$ | $\underset{\sim}{\stackrel{N}{n}}$ | $\underset{\sim}{N}$ | $\begin{aligned} & \text { M } \\ & \text { i } \\ & \text { in } \end{aligned}$ | $\begin{aligned} & \text { N} \\ & \underset{\sim}{2} \\ & \hline \end{aligned}$ | $\begin{aligned} & N \\ & \\ & \underset{\sim}{2} \end{aligned}$ | $\left\lvert\, \begin{aligned} & \underset{\sim}{N} \\ & \dot{Z} \end{aligned}\right.$ |  |  |
|  |  |  |  |  | $\begin{aligned} & \infty \\ & \infty \\ & \text { ति } \end{aligned}$ | $\left\lvert\, \begin{aligned} & \therefore \\ & \vdots \\ & 0 \\ & O \end{aligned}\right.$ | $\begin{aligned} & \hat{\imath} \\ & \underset{i}{n} \\ & \end{aligned}$ | $\begin{aligned} & 3 \\ & 3 \\ & 3 \end{aligned}$ | $\left.\begin{gathered} 2 \\ 2 \\ n \\ n \end{gathered} \right\rvert\,$ |  | $\left\lvert\, \begin{aligned} & 8 \\ & n \\ & n \end{aligned}\right.$ |  |  | $\begin{array}{l\|l} y \\ y & n \\ & \\ \end{array}$ |  | ति | $\begin{aligned} & \hat{n} \\ & \text { ì } \end{aligned}$ | $\begin{array}{l\|l} 3 & \begin{array}{c} n \\ m \end{array} \\ o \end{array}$ |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\frac{m}{m}$ | $\begin{array}{\|} 8 \\ 8 \\ \text { cin } \end{array}$ | $\begin{aligned} & \text { d } \\ & \text { + } \end{aligned}$ | $0$ | $\left\|\begin{array}{c} \ddagger \\ \infty \\ \infty \end{array}\right\|$ |  | $\stackrel{0}{\circ}$ | $\begin{array}{l\|l} \bar{\gamma} & 8 \\ \overrightarrow{7} & \underset{7}{2} \end{array}$ | $\left\lvert\, \begin{aligned} & \circ \\ & \underset{7}{2} \end{aligned}\right.$ | $\begin{gathered} \infty \\ \infty \\ \ln \end{gathered}$ | $\stackrel{\circ}{\stackrel{\circ}{8}}$ | $8$ |  |
|  |  |  | $\begin{array}{c\|c} \mathrm{E} & \infty \\ \dot{m} & \stackrel{y}{n} \\ \underset{N j}{ } \end{array}$ |  | $\begin{aligned} & \\ & \\ & \end{aligned}$ | $\begin{array}{l\|l} \infty & 0 \\ 0 & 0 \\ \text { Niv } & 0 \\ \hline \end{array}$ | \|oㅇ | $\begin{aligned} & \infty \\ & \underset{\sim}{\infty} \\ & \hline \end{aligned}$ |  | $\begin{array}{c\|c} \infty \\ \underset{\sim}{n} \\ \underset{\sim}{n} & \underset{\sim}{2} \\ \hline \end{array}$ |  | $\begin{aligned} & \underset{\sim}{n} \\ & \end{aligned}$ | $\begin{aligned} & \underset{\sim}{N} \\ & \underset{\sim}{c} \end{aligned}$ | $\begin{array}{c\|c} a \\ \stackrel{0}{n} & 0 \\ \text { in } \\ \hline \end{array}$ |  | $\begin{aligned} & 0 \\ & \hline 0 \\ & \hline 0 \\ & \hline \end{aligned}$ | $\begin{array}{c\|c} 0 & 0 \\ 0 & 0 \\ \dot{m} & \underset{\sim}{\infty} \\ \hline \end{array}$ |  |  |  |  | $\begin{aligned} & 20 \\ & \text { in } \end{aligned}$ |  | $\begin{aligned} & \mathbf{N} \\ & \mathbf{O} \\ & \dot{\infty} \end{aligned}$ | $\left\lvert\, \begin{gathered} \infty \\ \infty \\ \infty \end{gathered}\right.$ | $\begin{aligned} & \underset{\alpha}{2} \\ & \text { No } \end{aligned}$ | $\underset{\sim}{\infty}$ | $\begin{array}{l\|l} \stackrel{\rightharpoonup}{N} \\ \underset{\sim}{2} \end{array}$ | $\begin{array}{lll} \circ & 0 \\ \infty & 0 \\ \infty & 0 \\ \hline \end{array}$ |  | - |  |  |
| 030 |  |  |  |  | $=$ | $\begin{array}{l\|l} \curvearrowright & \bar{a} \\ & \dot{\sim} \end{array}$ | $\left\lvert\, \begin{aligned} & \bar{\alpha} \\ & \pm \end{aligned}\right.$ | $\begin{aligned} & n \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{array}{c\|c} 1 \\ i \\ i \\ i \end{array}$ |  |  |  | $\left\lvert\, \begin{aligned} & \infty \\ & -\infty \\ & -\infty \end{aligned}\right.$ | $\left.\begin{gathered} 8 \\ 8 \\ n \\ \hline \end{gathered} \right\rvert\,$ |  | $\begin{array}{c\|c} n \\ n \\ & 1 \\ \end{array}$ | $\left\lvert\, \begin{aligned} & \hat{1} \\ & 0 \\ & 0 \end{aligned}\right.$ | $\begin{array}{l\|l} 0 & 0 \\ 0 & 2 \\ 0 & 0 \\ 0 & 0 \end{array}$ | $\left\lvert\, \begin{aligned} & \dot{\rightharpoonup} \\ & \stackrel{y}{2} \\ & \stackrel{\rightharpoonup}{n} \end{aligned}\right.$ | $\begin{aligned} & \text { in } \\ & 0 \\ & i \end{aligned}$ | $\begin{aligned} & \vec{\infty} \\ & \infty \end{aligned}$ |  | $\begin{aligned} & \infty \\ & \ddagger \\ & \ddagger \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \stackrel{\rightharpoonup}{2} \\ & \underset{\sim}{2} \end{aligned}$ | $\begin{array}{c\|c} \infty & 8 \\ \infty & 8 \\ n & 0 \end{array}$ |  |  |
|  |  |  | $\frac{n}{\mathrm{o}}$ | $\begin{aligned} & \underset{n}{n} \\ & \underset{n}{2} \end{aligned}$ | $\begin{aligned} & n \\ & \hat{n} \\ & 0 \end{aligned}$ | ${ }_{0}^{n}$ | $\begin{aligned} & \hat{N} \\ & \stackrel{n}{0} \end{aligned}$ | $\stackrel{\stackrel{N}{n}}{\stackrel{\rightharpoonup}{2}}$ | $\underset{\sim}{\infty}$ | $\left\lvert\, \begin{aligned} & \underset{\infty}{\infty} \\ & \underset{\sim}{2} \end{aligned}\right.$ | $\frac{\infty}{n}$ | $\underset{\vec{j}}{\vec{N}}$ | $\underset{\vec{y}}{\overrightarrow{\mathrm{j}}}$ | $\underset{\text { g }}{\overrightarrow{\mathrm{j}}}$ |  | $\frac{0}{\substack{0}}$ |  | $\left\lvert\, \begin{aligned} & n \\ & \underset{m}{2} \\ & \underset{y}{2} \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \infty \\ & \infty \\ & \dot{c} \\ & \end{aligned}\right.$ | $\begin{aligned} & \pm \\ & \infty \\ & \dot{\infty} \\ & \stackrel{y}{n} \end{aligned}$ | $\begin{aligned} & 8 \\ & \text { di } \end{aligned}$ | $\begin{aligned} & 8 \\ & \underset{\sim}{2} \end{aligned}$ | O | $8$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline-1 \end{aligned}$ | $\begin{aligned} & \circ \\ & \hline-8 \\ & \hline-1 \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline-1 \end{aligned}$ | $\begin{aligned} & 8 \\ & \hline 8 \\ & \hline-1 \end{aligned}$ | $8$ | $8$ | $8$ |  |  |
| 葡 | $\begin{aligned} & \text { K } \\ & \stackrel{\rightharpoonup}{6} \\ & \hline \end{aligned}$ | $\checkmark$ | N | \％ | す | ¢ | 8 | 「 | $\stackrel{\infty}{\circ}$ | 8 | $\bigcirc$ | $\approx$ | N | $\stackrel{3}{2}$ | $\pm$ | $\cdots$ | $\stackrel{\square}{-}$ | $\stackrel{ }{-}$ | $\stackrel{\infty}{\sim}$ | 9 | $\stackrel{\sim}{N}$ | $\cdots$ | N | ${ }_{\sim}^{3}$ | （ | $\cdots$ | $\stackrel{\sim}{\sim}$ | $\stackrel{N}{N}$ | － | $\mathrm{N}^{2}$ | ¢ | m | \％ |

Exhibit 16: Occupancy Table for Bahia Pousadas January 2002

Mapa de Ocupação - Pousadas

Exhibit 18: Occupancy Table for Bahia Pousadas March 2002
Mapa de Ocupação - Pousadas Mês: Março de 2002

| FONE | 676 | 116 | 676 | 029 |  | 066 |  | 088 |  | 165 |  | 1515 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATA | PRAIA D | FORTE | PORTO | DA LUA | SOLAR 38 | OS AR | OBRA | DA VIL/ | OGUM | ARINH TOS. | $\begin{array}{\|c} \text { FAROL } \\ 12 \end{array}$ | AS TART/ TOS. | $\begin{gathered} \text { SOLAR } \\ 15 \end{gathered}$ | FORTE OS. |
| 01 | 100.00 | 50.00 | 73.08 | 36.54 | 15.79 | 7.89 | 88.00 | 44.00 | 76.19 | 38.10 | 100.00 | 50.00 | 6.67 | 3.33 |
| 02 | 89.47 | 63.16 | 92.31 | 55.13 | 26.32 | 14.04 | 100.00 | 62.67 | 95.24 | 57.14 | 100.00 | 66.67 | 100.00 | 35.56 |
| 03 | 89.47 | 69.74 | 26.92 | 48.08 | 5.26 | 11.84 | 20.00 | 52.00 | 33.33 | 51.19 | 33.33 | 58.33 | 0.00 | 0.00 |
| 04 | 78.95 | 71.58 | 34.62 | 45.38 | 0.00 | 0.00 | 28.00 | 47.20 | 23.81 | 45.71 | 33.33 | 53.33 | 0.00 | 0.00 |
| 05 | 73.68 | 71.93 | 30.77 | 42.95 | 0.00 | 0.00 | 24.00 | 43.33 | 19.05 | 41.27 | 41.67 | 51.39 | 13.33 | 20.00 |
| 06 | 26.32 | 65.41 | 23.08 | 40.11 | 5.26 | 7.52 | 24.00 | 40.57 | 66.67 | 44.90 | 66.67 | 53.57 | 13.33 | 19.05 |
| 07 | 31.58 | 61.18 | 23.08 | 37.98 | 5.26 | 7.24 | 20.00 | 38.00 | 47.62 | 45.24 | 66.67 | 55.21 | 20.00 | 19.17 |
| 08 | 31.58 | 57.89 | 30.77 | 37.18 | 21.05 | 8.77 | 24.00 | 36.44' | 90.48 | 50.26 | 100.00 | 60.19 | 26.67 | 20.00 |
| 09 | 36.84 | 55.79 | 57.69 | 39.23 | 26.32 | 10.53 | 72.00 | 40.00 | 95.24 | 54.76 | 100.00 | 64.17 | 20.00 | 20.00 |
| 10 | 26.32 | 53.11 | 15.38 | 37.06 | 0.00 | 0.00 | 40.00 | 40.00 | 38.10 | 53.25 | 33.33 | 61.36 | 0.00 | 0.00 |
| 11 | 31.58 | 51.32 | 15.38 | 35.26 | 0.00 | 0.00 | 40.00 | 40.00 | 42.86 | 52.38 | 33.33 | 59.03 | 0.00 | 0.00 |
| 12 | 31.58 | 49.80 | 19.23 | 34.02 | 5.26 | 8.50 | 44.00 | 40.31 | 42.86 | 51.65 | 16.67 | 55.77 | 0.00 | 0.00 |
| 13 | 36.84 | 48.87 | 23.08 | 33.24 | 7.89 | 8.46 | 44.00 | 40.57 | 47.62 | 51.36 | 50.00 | 55.36 | 0.00 | 0.00 |
| 14 | 42.11 | 48.42 | 15.38 | 32.05 | 10.53 | 8.60 | 12.00 | 38.67 | 42.86 | 50.79 | 33.33 | 53.89 | 0.00 | 0.00 |
| 15 | 47.37 | 48.36 | 92.31 | 35.82 | 15.79 | 9.05 | 52.00 | 39.50 | 71.43 | 52.08 | 100.00 | 56.77 | 13.33 | 13.33 |
| 16 | 100.00 | 51.39 | 92.31 | 39.14 | 26.32 | 10.06 | 100.00 | . 43.06 | 95.24 | 54.62 | 100.00 | 59.31 | 66.67 | 16.47 |
| 17 | 36.84 | 50.58 | 15.38 | 37.82 | 5.26 | 9.80 | 20.00 | 41.78 | 19.05 | 52.65 | 41.67 | 58.33 | 40.00 | 17.78 |
| 18 | 31.58 | 49.58 | 11.54 | 36.44 | 2.63 | 9.42 | 20.00 | 40.63 | 33.33 | 51.63 | 33.33 | 57.02 | 26.67 | 18.25 |
| 19 | 31.58 | 48.68 | 15.38 | 35.38 | 5.26 | 9.21 | 24.00 | 39.80 | 42.86 | 51.19 | 50.00 | 56.67 | 26.67 | 18.67 |
| 20 | 15.79 | 47.12 | 3.85 | 33.88 | 5.26 | 9.02 | 28.00 | 39.24 | 28.57 | 50.11 | 41.67 | 55.95 | 20.00 | 18.73 |
| 21 | 15.79 | 45.69 | 15.38 | 33.04 | 7.89 | 8.97 | 28.00 | 38.73 | 38.10 | 49.57 | 50.00 | 55.68 | 20.00 | 18.79 |
| 22 | 26.32 | 44.85 | 26.92 | 32.78 | 15.79 | 9.27 | 36.00 | 38.61 | 76.19 | 50.72 | 91.67 | 57.25 | 33.33 | 19.42 |
| 23 | 31.58 | 44.30 | 53.85 | 33.65 | 23.68 | 9.87 | 72.00 | 40.00 | 95.24 | 52.58 | 100.00 | 59.03 | 46.67 | 20.56 |
| 24 | 47.37 | 44.42 | 7.69 | 32.62 | 5.26 | 9.68 | 28.00 | 39.52 | 47.62 | 52.38 | 0.00 | 0.00 | 6.67 | 20.00 |
| 25 | 42.11 | 44.33 | 3.85 | 31.51 | 5.26 | 9.51 | 16.00 | 38.62 | 38.10 | 51.83 | 0.00 | 0.00 | 6.67 | 19.49 |
| 26 | 73.68 | 45.42 | 15.38 | 30.91 | 2.63 | 9.26 | 32.00 | 38.37 | 61.90 | 52.20 | 9.52 | 52.82 | 0.00 | 0.00 |
| 27 | 100.00 | 47.37 | 57.69 | 31.87 | 10.53 | 9.30 | 40.00 | 38.43 | 57.14 | 52.38 | 100.00 | 54.51 | 20.00 | 18.81 |
| 28 | 100.00 | 49.18 | 96.15 | 34.08 | 52.63 | 10.80 | 100.00 | 40.55 | 95.24 | 53.86 | 100.00 | 56.08 | 20.00 | 18.85 |
| 29 | 100.00 | 50.88 | 100.00 | 36.28 | 89.47 | 13.42 | 100.00 | 42.53 | 100.00 | 55.40 | 100.00 | 57.54 | 80.00 | 20.89 |
| 30 | 100.00 | 54.21 | 88.46 | 39.23 | 92.11 | 16.49 | 100.00 | 45.87 | 95.24 | 58.57 | 100.00 | 60.87 | 93.33 | 24.00 |
| 31 | 15.79 | 52.97 | 26.92 | 38.83 | 7.89 | 16.21 | 16.00 | 44.90 | 66.67 | 58.83 | 8.33 | 59.18 | 6.67 | 23.44 |
| TOTAL | 52.97 |  | 38.83 |  | 16.21 |  | 44.90 |  | 58.83 |  | 59.18 |  | 23.44 |  |

Mapa de Ocupação - Pousadas

| FONE | 676-1116 |  | 676-1029 |  | 676-1066 |  | 676-1088 |  | 676-1165 |  | 676-1515 |  | 676-1043 |  | 676-1362 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P | PRAIA DO FORT: |  | PORTO DA LUA26 APTOS |  | SOLAR DOS ARGOBRADO DA VIL 38 APTOS. 25 APTOS. |  |  |  | OGUM MARINHC <br> 21 APTOS. |  | FAROL TARTAR 12 APTOS. |  | SOLAR DO FOR 15 APTOS. |  | CASA DA PRAIA 20 APTOS. |  |
| 01 | 10.53 | 10.53 | 38.46 | 38.46 | 7.89 | 7.89 | 11.54 | 11.54 | 52.38 | 52.38 | 8.33 | 8.33 | 13.33 | 13.33 | 10.00 | 10.00 |
| 02 | 15.79 | 13.16 | 19.23 | 28.85 | 0.00 | 0.00 | 16.00 | 13.77 | 42.86 | 47.62 | 25.00 | 16.67 | 13.33 | 13.33 | 15.00 | 12.50 |
| 03 | 26.32 | 17.54 | 26.92 | 28.21 | 5.26 | 4.39 | 12.00 | 13.18 | 52.38 | 49.21 | 33.33 | 22.22 | 6.67 | 11.11 | 15.00 | 13.33 |
| 04 | 21.05 | 18.42 | 23.08 | 26.92 | 5.26 | 4.61 | 12.00 | 12.88 | 47.62 | 48.81 | 41.67 | 27.08 | 6.67 | 10.00 | 25.00 | 16.25 |
| 05 | 52.63 | 25.26 | 30.77 | 27.69 | 10.53 | 5.79 | 56.00 | 21.51 | 90.48 | 57.14 | 58.33 | 33.33 | 13.33 | 10.67 | 20.00 | 17.00 |
| 06 | 63.16 | 31.58 | 30.77 | 28.21 | 15.79 | 7.46 | 80.00 | 31.26 | 95.24 | 63.49 | 58.33 | 37.50 | 53.33 | 17.78 | 100.00 | 30.83 |
| 07 | 42.11 | 33.08 | 7.69 | 25.27 | 0.00 | 0.00 | 24.00 | 30.22 | 61.90 | 63.27 | 41.67 | 38.10 | 6.67 | 16.19 | 60.00 | 35.00 |
| 08 | 5.26 | 29.61 | 11.54 | 23.56 | 0.00 | 0.00 | 8.00 | 27.44 | 66.67 | 63.69 | 50.00 | 39.58 | 6.67 | 15.00 | 40.00 | 35.63 |
| 09 | 26.32 | 29.24 | 7.69 | 21.79 | 0.00 | 0.00 | 20.00 | 26.62 | 42.86 | 61.38 | 33.33 | 38.89 | 6.67 | 14.07 | 50.00 | 37.22 |
| 10 | 31.58 | 29.47 | 7.69 | 20.38 | 0.00 | 0.00 | 8.00 | 24.75 | 33.33 | 58.57 | 58.33 | 40.83 | 6.67 | 13.33 | 15.00 | 35.00 |
| 11 | 26.32 | 29.19 | 11.54 | 19.58 | 0.00 | 0.00 | 8.00 | 23.23 | 28.57 | 55.84 | 50.00 | 41.67 | 6.67 | 12.73 | 15.00 | 33.18 |
| 12 | 47.37 | 30.70 | 53.85 | 22.44 | 15.79 | 5.04 | 32.00 | 23.96 | 71.43 | 57.14 | 41.67 | 41.67 | 40.00 | 15.00 | 50.00 | 34.58 |
| 13 | 63.16 | 33.20 | 57.69 | 25.15 | 21.05 | 6.28 | 40.00 | 25.20 | 85.71 | 59.34 | 58.33 | 42.95 | 53.33 | 17.95 | 65.00 | 36.92 |
| 14 | 0.00 | 0.00 | 11.54 | 24.18 | 0.00 | 0.00 | 28.00 | 25.40 | 33.33 | 57.48 | 8.33 | 40.48 | 6.67 | 17.14 | 30.00 | 36.43 |
| 15 | 10.53 | 29.47 | 11.54 | 23.33 | 0.00 | 0.00 | 20.00 | 25.04 | 9.52 | 54.29 | 8.33 | 38.33 | 6.67 | 16.44 | 25.00 | 35.67 |
| 16 | 21.05 | 28.95 | 11.54 | 22.60 | 0.00 | 0.00 | 12.00 | 24.22 | 9.52 | 51.49 | 16.67 | 36.98 | 6.67 | 15.83 | 25.00 | 35.00 |
| 17 | 26.32 | 28.79 | 15.38 | 22.17 | 0.00 | 0.00 | 12.00 | 23.50 | 23.81 | 49.86 | 25.00 | 36.27 | 13.33 | 15.69 | 25.00 | 34.41 |
| 18 | 31.58 | 28.95 | 19.23 | 22.01 | 5.26 | 4.82 | 16.00 | 23.09 | 28.57 | 48.68 | 33.33 | 36.11 | 13.33 | 15.56 | 55.00 | 35.56 |
| 19 | 63.16 | 30.75 | 23.08 | 22.06 | 23.68 | 5.82 | 36.00 | 23.77 | 61.90 | 49.37 | 50.00 | 36.84 | 20.00 | 15.79 | 90.00 | 38.42 |
| 20 | 100.00 | 34.21 | 88.46 | 25.38 | 36.84 | 7.37 | 100.00 | 27.58 | 95.24 | 51.67 | 91.67 | 39.58 | 100.00 | 20.00 | 100.00 | 41.50 |
| 21 | 42.11 | 34.59 | 19.23 | 25.09 | 0.00 | 0.00 | 32.00 | 27.79 | 9.52 | 49.66 | 25.00 | 38.89 | 0.00 | 0.00 | 30.00 | 40.95 |
| 22 | 26.32 | 34.21 | 3.85 | 24.13 | 0.00 | 0.00 | 12.00 | 27.07 | 19.05 | 48.27 | 16.67 | 37.88 | 0.00 | 0.00 | 20.00 | 40.00 |
| 23 | 15.79 | 33.41 | 100.00 | 27.42 | 0.00 | 0.00 | 12.00 | 26.41 | 28.57 | 47.41 | 16.67 | 36.96 | 0.00 | 0.00 | 25.00 | 39.35 |
| 24 | 0.00 | 0.00 | 100.00 | 30.45 | 0.00 | 0.00 | 16.00 | 25.98 | 38.10 | 47.02 | 16.67 | 36.11 | 0.00 | 0.00 | 25.00 | 38.75 |
| 25 | 10.53 | 31.16 | 100.00 | 33.23 | 0.00 | 0.00 | 12.00 | 25.42 | 52.38 | 47.24 | 33.33 | 36.00 | 0.00 | 0.00 | 50.00 | 39.20 |
| 26 | 31.58 | 31.17 | 26.92 | 32.99 | 0.00 | 0.00 | 36.00 | 25.83 | 76.19 | 48.35 | 91.67 | 38.14 | 6.67 | 15.64 | 45.00 | 39.42 |
| 27 | 36.84 | 31.38 | 69.23 | 34.33 | 26.32 | 6.43 | 100.00 | 28.58 | 95.24 | 50.09 | 100.00 | 40.43 | 53.33 | 17.04 | 100.00 | 41.67 |
| 28 | 10.53 | 30.64 | 23.08 | 33.93 | 2.63 | 6.30 | 24.00 | 28.41 | 19.05 | 48.98 | 41.67 | 40.48 | 0.00 | 0.00 | 20.00 | 40.89 |
| 29 | 15.79 | 30.13 | 23.08 | 33.55 | 2.63 | 6.17 | 16.00 | 27.98 | 14.29 | 47.78 | 75.00 | 41.67 | 0.00 | 0.00 | 25.00 | 40.34 |
| 30 | 42.11 | 30.53 | 42.31 | 33.85 | 10.53 | 6.32 | 24.00 | 27.85 | 52.38 | 47.94 | 58.33 | 42.22 | 20.00 | 16.00 | 35.00 | 40.17 |
| TOTAL |  | . 53 |  | . 85 |  |  |  | . 85 |  | 94 |  | 22 |  | 00 |  | 17 |

Mapa de Ocupação - Pousadas | Mês: Maio de 2002 |
| :--- |
| FONE |

| FONE | 676-1116 |  | 676-1029 |  | 676-1066 |  | 676-1088 |  | 676-1165 |  | '676-1515 |  | 676-1043 |  | 676-1362 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATA | PRAIA DO FORTR |  | PORTO DA LUA 26 APTOS |  | SOLAR DOS AREOBRADO DA VIL 38 APTOS. $\quad 25$ APTOS. |  |  |  | OGUM MARINHC 21 APTOS. |  | FAROL TARTAR12 APTOS. |  | SOLAR DO FOR 15 APTOS. |  | CASA DA PRAIA 20 APTOS. |  |
| 01 | 0.00 | 0.00 | 7.69 | 7.69 | 0.00 | 0.00 | 28.00 | 28.00 | 47.62 | 47.62 | 50.00 | 50.00 | 0.00 | 0.00 | 40.00 | TOS. |
| 02 | 15.79 | 7.89 | 15.38 | 11.54 | 7.89 | 3.95 | 40.00 | 34.00 | 85.71 | 66.67 | 83.33 | 66.67 | 6.67 | 3.33 | 75.00 | 57.50 |
| 03 | 21.05 | 12.28 | 23.08 | 15.38 | 15.79 | 7.89 | 52.00 | 40.00 | 95.24 | 76.19 | 100.00 | 77.78 | 13.33 | 6.67 | 85.00 | 66.67 |
| 04 | 50.00 | 21.71 | 73.08 | 29.81 | 26.32 | 12.50 | 100.00 | 55.00 | 100.00 | 82.14 | 100.00 | 83.33 | 13.33 | 8.33 | 85.00 | 71.25 |
| 05 | 47.37 | 26.84 | 7.69 | 25.38 | 2.63 | 10.53 | 12.00 | 46.40 | 61.90 | 78.10 | 8.33 | 68.33 | 6.67 | 8.00 | 20.00 | 61.00 |
| 06 | 10.00 | 24.04 | 7.69 | 22.44 | 0.00 | 0.00 | 12.00 | 40.67 | 42.86 | 72.22 | 16.67 | 59.72 | 6.67 | 7.78 | 30.00 | 55.83 |
| 07 | 10.00 | 22.03 | 11.54 | 20.88 | 0.00 | 0.00 | 12.00 | 36.57 | 33.33 | 66.67 | 25.00 | 54.76 | 6.67 | 7.62 | 25.00 | 51.43 |
| 08 | 21.05 | 21.91 | 7.69 | 19.23 | 10.53 | 7.89 | 16.00 | 34.00 | 61.90 | 66.07 | 16.67 | 50.00 | 6.67 | 7.50 | 25.00 | 48.13 |
| 09 | 21.05 | 21.81 | 7.69 | 17.95 | 13.16 | 8.48 | 16.00 | 32.00 | 47.62 | 64.02 | 25.00 | 47.22 | 6.67 | 7.41 | 25.00 | 45.56 |
| 10 | 15.79 | 21.21 | 23.08 | 18.46 | 15.79 | 9.21 | 20.00 | 30.80 | 47.62 | 62.38 | 50.00 | 47.50 | 6.67 | 7.33 | 30.00 | 44.00 |
| 11 | 26.32 | 21.67 | 26.92 | 19.23 | 21.05 | 10.29 | 24.00 | 30.18 | 57.14 | 61.90 | 66.67 | 49.24 | 26.67 | 9.09 | 50.00 | 44.55 |
| 12 | 0.00 | 0.00 | 26.92 | 19.87 | 0.00 | 0.00 | 20.00 | 29.33 | 9.52 | 57.54 | 41.67 | 48.61 | 6.67 | 8.89 | 25.00 | 42.92 |
| 13 | 5.26 | 18.74 | 19.23 | 19.82 | 0.00 | 0.00 | 8.00 | 27.69 | 9.52 | 53.85 | 33.33 | 47.44 | 6.67 | 8.72 | 15.00 | 40.77 |
| 14 | 10.53 | 18.16 | 23.08 | 20.05 | 2.63 | 8.27 | 12.00 | 26.57 | 9.52 | 50.68 | 41.67 | 47.02 | 6.67 | 8.57 | 15.00 | 38.93 |
| 15 | 15.79 | 18.00 | 11.54 | 19.49 | 0.00 | 0.00 | 8.00 | 25.33 | 14.29 | 48.25 | 16.67 | 45.00 | 13.33 | 8.89 | 30.00 | 38.33 |
| 16 | 21.05 | 18.19 | 15.38 | 19.23 | 0.00 | 0.00 | 12.00 | 24.50 | 23.81 | 46.73 | 25.00 | 43.75 | 13.33 | 9.17 | 30.00 | 37.81 |
| 17 | 36.84 | 19.29 | 42.31 | 20.59 | 13.16 | 7.59 | 12.00 | 23.76 | 66.67 | 47.90 | 58.33 | 44.61 | 20.00 | 9.80 | 80.00 | 40.29 |
| 18 | 15.79 | 19.09 | 23.08 | 20.73 | 10.53 | 7.75 | 16.00 | 23.33 | 38.10 | 47.35 | 41.67 | 44.44 | 20.00 | 10.37 | 45.00 | 40.56 |
| 19 | 10.53 | 18.64 | 19.23 | 20.65 | 2.63 | 7.48 | 8.00 | 22.53 | 28.57 | 46.37 | 28.57 | 43.61 | 25.00 | 11.14 | 33.33 | 40.18 |
| 20 | 10.53 | 18.24 | 15.38 | 20.38 | 2.63 | 7.24 | 4.00 | 21.60 | 33.33 | 45.71 | 50.00 | 43.93 | 26.67 | 11.92 | 25.00 | 39.42 |
| 21 | 15.79 | 18.12 | 19.23 | 20.33 | 0.00 | 0.00 | 8.00 | 20.95 | 28.57 | 44.90 | 58.33 | 44.61 | 26.67 | 12.62 | 40.00 | 39.44 |
| 22 | 5.26 | 17.54 | 46.15 | 21.50 | 0.00 | 0.00 | 12.00 | 20.55 | 42.86 | 44.81 | 50.00 | 44.86 | 20.00 | 12.95 | 25.00 | 38.79 |
| 23 | 100.00 | 21.12 | 23.08 | 21.57 | 0.00 | 0.00 | 8.00 | 20.00 | 38.10 | 44.51 | 41.67 | 44.72 | 20.00 | 13.26 | 45.00 | 39.06 |
| 24 | 100.00 | 24.41 | 34.62 | 22.12 | 7.89 | 6.36 | 100.00 | 23.33 | 33.33 | 44.05 | 91.67 | 46.68 | 13.33 | 13.26 | 20.00 | 38.26 |
| 25 | 15.79 | 24.06 | 61.54 | 23.69 | 10.53 | 6.53 | 100.00 | 26.40 | 66.67 | 44.95 | 100.00 | 48.81 | 33.33 | 14.07 | 60.00 | 39.13 |
| 26 | 15.79 | 23.74 | 23.08 | 23.67 | 0.00 | 0.00 | 12.00 | 25.85 | 47.62 | 45.05 | 50.00 | 48.86 | 0.00 | 0.00 | 25.00 | 38.59 |
| 27 | 15.79 | 23.45 | 11.54 | 23.22 | 0.00 | 0.00 | 28.00 | 25.93 | 33.33 | 44.62 | 33.33 | 48.28 | 6.67 | 13.27 | 25.00 | 38.09 |
| 28 | 21.05 | 23.36 | 19.23 | 23.08 | 0.00 | 0.00 | 32.00 | 26.14 | 38.10 | 44.39 | 41.67 | 48.04 | 13.33 | 13.27 | 25.00 | 37.62 |
| 29 | 47.37 | 24.19 | 38.46 | 23.61 | 7.89 | 5.90 | 40.00 | 26.62 | 47.62 | 44.50 | 66.67 | 48.69 | 33.33 | 13.97 | 80.00 | 39.08 |
| 30 | 68.42 | 25.67 | 69.23 | 25.13 | 13.16 | 6.14 | 80.00 | 28.40 | 95.24 | 46.19 | 100.00 | 50.40 | 66.67 | 15.72 | 100.00 | 41.11 |
| 31 | 100.00 | 28.06 | 80.77 | 26.92 | 26.32 | 6.79 | 80.00 | 30.06 | 100.00 | 47.93 | 100.00 | 52.00 | 100.00 | 18.44 | 100.00 | 43.01 |
| TOTAL | 28.06 |  | 26.92 |  | 6.79 |  | 30.06 |  | 47.93 |  | 52.00 |  | 18.44 |  | 43.01 |  |

Exhibit 21: Occupancy Table for Bahia Pousadas June 2002
Mapa de Ocupação - Pousadas Mês: Junho de 2002

| FONE | 676-1116 |  | 676-1029 |  | 676-1066 |  | 676-1088 |  | 676-1165 |  | 676-1515 |  | 676-1043 |  | 676-1362 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATA | PRAIA DO FORTE <br> 19 CHALÉS |  | PORTO DA LUA26 APTOS |  | SOLAR DOS ARCSOBRADO DA VIL  <br> 38 APTOS. 25 APTOS. |  |  |  | OGUM MARINHO 21 APTOS. |  | FAROL TARTARUG12 APTOS. |  | SOLAR DO FORTE 15 APTOS. |  | CASA DA PRAIA 20 APTOS. |  |
| 01 | 100.00 | 100.00 | 100.00 | 100.00 | 31.58 | 31.58 | 80.00 | 80.00 | 100.00 | 100.00 | 100.00 | 100.00 | 66.67 | 66.67 | 100.00 | 100.00 |
| 02 | 15.79 | 57.89 | 3.85 | 51.92 | 5.26 | 18.42 | 12.00 | 46.00 | 14.29 | 57.14 | 16.67 | 58.33 | 6.67 | 36.67 | 10.00 | 55.00 |
| 03 | 15.79 | 43.86 | 0.00 | 0.00 | 0.00 | 0.00 | 12.00 | 34.67 | 4.76 | 39.68 | 8.33 | 41.67 | 6.67 | 26.67 | 30.00 | 46.67 |
| 04 | 21.05 | 38.16 | 7.69 | 27.88 | 0.00 | 0.00 | 8.00 | 28.00 | 9.52 | 32.14 | 16.67 | 35.42 | 6.67 | 21.67 | 25.00 | 41.25 |
| 05 | 21.05 | 34.74 | 0.00 | 0.00 | 2.63 | 7.89 | 8.00 | 24.00 | 23.81 | 30.48 | 0.00 | 0.00 | 6.67 | 18.67 | 25.00 | 38.00 |
| 06 | 26.32 | 33.33 | 0.00 | 0.00 | 2.63 | 7.02 | 12.00 | 22.00 | 23.81 | 29.37 | 16.67 | 26.39 | 13.33 | 17.78 | 20.00 | 35.00 |
| 07 | 36.84 | 33.83 | 19.23 | 18.68 | 5.26 | 6.77 | 20.00 | 21.71 | 57.14 | 33.33 | 66.67 | 32.14 | 13.33 | 17.14 | 50.00 | 37.14 |
| 08 | 57.89 | 36.84 | 38.46 | 21.15 | 7.89 | 6.91 | 32.00 | 23.00 | 85.71 | 39.88 | 83.33 | 38.54 | 13.33 | 16.67 | 90.00 | 43.75 |
| 09 | 21.05 | 35.09 | 15.38 | 20.51 | 0.00 | 0.00 | 8.00 | 21.33 | 33.33 | 39.15 | 25.00 | 37.04 | 6.67 | 15.56 | 30.00 | 42.22 |
| 10 | 15.79 | 33.16 | 15.38 | 20.00 | 0.00 | 0.00 | 8.00 | 20.00 | 28.57 | 38.10 | 25.00 | 35.83 | 6.67 | 14.67 | 15.00 | 39.50 |
| 11 | 21.05 | 32.06 | 7.69 | 18.88 | 0.00 | 0.00 | 4.00 | 18.55 | 42.86 | 38.53 | 8.33 | 33.33 | 0.00 | 0.00 | 25.00 | 38.18 |
| 12 | 21.05 | 31.14 | 7.69 | 17.95 | 0.00 | 0.00 | 8.00 | 17.67 | 33.33 | 38.10 | 25.00 | 32.64 | 0.00 | 0.00 | 20.00 | 36.67 |
| 13 | 26.32 | 30.77 | 15.38 | 17.75 | 0.00 | 0.00 | 12.00 | 17.23 | 33.33 | 37.73 | 33.33 | 32.69 | 0.00 | 0.00 | 25.00 | 35.77 |
| 14 | 52.63 | 32.33 | 46.15 | 19.78 | 21.05 | 5.45 | 16.00 | 17.14 | 85.71 | 41.16 | 16.67 | 31.55 | 0.00 | 0.00 | 75.00 | 38.57 |
| 15 | 57.89 | 34.04 | 34.62 | 20.77 | 13.16 | 5.96 | 64.00 | 20.27 | 95.24 | 44.76 | 50.00 | 32.78 | 53.33 | 13.33 | 80.00 | 41.33 |
| 16 | 57.89 | 35.53 | 34.62 | 21.63 | 10.53 | 6.25 | 52.00 | 22.25 | 85.71 | 47.32 | 58.33 | 34.38 | 40.00 | 15.00 | 70.00 | 43.13 |
| 17 | 26.32 | 34.98 | 11.54 | 21.04 | 0.00 | 0.00 | 8.00 | 21.41 | 14.29 | 45.38 | 25.00 | 33.82 | 20.00 | 15.29 | 40.00 | 42.94 |
| 18 | 31.58 | 34.80 | 19.23 | 20.94 | 0.00 | 0.00 | 8.00 | 20.67 | 14.29 | 43.65 | 16.67 | 32.87 | 20.00 | 15.56 | 25.00 | 41.94 |
| 19 | 10.53 | 33.52 | 30.77 | 21.46 | 5.26 | 5.54 | 12.00 | 20.21 | 4.76 | 41.60 | 16.67 | 32.02 | 6.67 | 15.09 | 25.00 | 41.05 |
| 20 | 21.05 | 32.89 | 34.62 | 22.12 | 7.89 | 5.66 | 20.00 | 20.20 | 33.33 | 41.19 | 33.33 | 32.08 | 13.33 | 15.00 | 45.00 | 41.25 |
| 21 | 78.95 | 35.09 | 96.15 | 25.64 | 34.21 | 7.02 | 36.00 | 20.95 | 76.19 | 42.86 | 100.00 | 35.32 | 26.67 | 15.56 | 60.00 | 42.14 |
| 22 | 80.00 | 37.13 | 100.00 | 29.02 | 23.00 | 7.74 | 100.00 | 24.55 | 100.00 | 45.45 | 100.00 | 38.26 | 80.00 | 18.48 | 100.00 | 44.77 |
| 23 | 78.95 | 38.95 | 100.00 | 32.11 | 52.63 | 9.70 | 100.00 | 27.83 | 100.00 | 47.83 | 100.00 | 40.94 | 66.67 | 20.58 | 100.00 | 47.17 |
| 24 | 5.26 | 37.54 | 26.92 | 31.89 | 5.26 | 9.51 | 12.00 | 27.17 | 4.76 | 46.03 | 25.00 | 40.28 | 13.33 | 20.28 | 30.00 | 46.46 |
| 25 | 10.53 | 36.46 | 30.77 | 31.85 | 5.26 | 9.34 | 16.00 | 26.72 | 23.81 | 45.14 | 16.67 | 39.33 | 6.67 | 19.73 | 30.00 | 45.80 |
| 26 | 15.79 | 35.67 | 15.38 | 31.21 | 0.00 | 0.00 | 12.00 | 26.15 | 33.33 | 44.69 | 25.00 | 38.78 | 6.67 | 19.23 | 25.00 | 45.00 |
| 27 | 5.26 | 34.54 | 23.08 | 30.91 | 0.00 | 0.00 | 28.57 | 26.24 | 25.00 | 43.96 | 8.33 | 37.65 | 6.67 | 18.77 | 20.00 | 44.07 |
| 28 | 5.26 | 33.50 | 34.62 | 31.04 | 7.89 | 8.62 | 40.00 | 26.73 | 38.10 | 43.75 | 16.67 | 36.90 | 20.00 | 18.81 | 55.00 | 44.46 |
| 29 | 21.05 | 33.07 | 38.46 | 31.30 | 15.79 | 8.87 | 32.00 | 26.92 | 52.38 | 44.05 | 41.67 | 37.07 | 26.67 | 19.08 | 65.00 | 45.17 |
| 30 | 5.26 | 32.14 | 42.31 | 31.67 | 10.53 | 8.92 | 16.00 | 26.55 | 52.38 | 44.33 | 33.33 | 36.94 | 13.33 | 18.89 | 50.00 | 45.33 |
| TOTAL | 32.14 |  | 31.67 |  | 8.92 |  | 26.55 |  | 44.33 |  | 36.94 |  | 18.89 |  | 45.33 |  |

Exhibit 22: Occupancy Table for Bahia Pousadas July 2002
Mapa de Ocupação - Pousadas
Mês: Julho de 2002


Exhibit 23: Occupancy Table for Bahia Pousadas August 2002

Mapa de Ocupação - Pousadas | Mês: Agosto de 2002 |
| :--- |
| FONE |



Exhibit 24: Occupancy Table for Bahia Pousadas September 2002
Mapa de Ocupação - Pousadas Mês: Setembro de 2002

| FONE | 676-1116 |  | 676-1029 |  | 676-1066 |  | 676-1088 |  | 676-1165 |  | '676-1515 |  | 676-1043 |  | 676-1362 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DATA | $\begin{gathered} \text { PRAIA DO FORTE } \\ 19 \text { CHALÉS } \end{gathered}$ |  | PORTO DA LUA 26 APTOS |  | $\begin{array}{\|c\|} \hline \text { SOLAR DOS ARCO } \\ 38 \text { APTOS. } \end{array}$ |  | $\begin{array}{\|r\|} \hline \text { SOBRADO DA VILA } \\ 25 \text { APTOS. } \\ \hline \end{array}$ |  | $\begin{aligned} & \text { OGUM MARINHO } \\ & 21 \text { APTOS. } \end{aligned}$ |  | FAROL TARTARUG12 APTOS. |  | SOLAR DO FORTE 15 APTOS. |  | CASA DA PRAIA 20 APTOS. |  |
| 01 | 15.79 | 15.79 | 23.08 | 23.08 | 7.89 | 7.89 | 20.00 | 20.00 | 33.33 | 33.33 | 33.33 | 33.33 | 20.00 | 20.00 | 20.00 | 20.00 |
| 02 | 31.58 | 23.68 | 19.23 | 21.15 | 0.00 | 0.00 | 16.00 | 18.00 | 19.05 | 26.19 | 25.00 | 29.17 | 6.67 | 13.33 | 25.00 | 22.50 |
| 03 | 31.58 | 26.32 | 19.23 | 20.51 | 0.00 | 0.00 | 16.00 | 17.33 | 23.81 | 25.40 | 25.00 | 27.78 | 13.33 | 13.33 | 20.00 | 21.67 |
| 04 | 26.32 | 26.32 | 11.54 | 18.27 | 0.00 | 0.00 | 12.00 | 16.00 | 33.33 | 27.38 | 25.00 | 27.08 | 20.00 | 15.00 | 20.00 | 21.25 |
| 05 | 52.63 | 31.58 | 19.23 | 18.46 | 2.63 | 2.11 | 20.00 | 16.80 | 38.10 | 29.52 | 41.67 | 30.00 | 26.67 | 17.33 | 25.00 | 22.00 |
| 06 | 100.00 | 42.98 | 100.00 | 32.05 | 47.37 | 9.65 | 92.00 | 29.33 | 95.24 | 40.48 | 100.00 | 41.67 | 100.00 | 31.11 | 100.00 | 35.00 |
| 07 | 100.00 | 51.13 | 100.00 | 41.76 | 52.63 | 15.79 | 92.00 | 38.29 | 95.24 | 48.30 | 100.00 | 50.00 | 100.00 | 40.95 | 100.00 | 44.29 |
| 08 | 10.53 | 46.05 | 19.23 | 38.94 | 7.89 | 14.80 | 40.00 | 38.50 | 42.86 | 47.62 | 33.33 | 47.92 | 20.00 | 38.33 | 25.00 | 41.88 |
| 09 | 5.26 | 41.52 | 15.38 | 36.32 | 7.89 | 14.04 | 28.00 | 37.33 | 33.33 | 46.03 | 58.33 | 49.07 | 20.00 | 36.30 | 20.00 | 39.44 |
| 10 | 10.53 | 38.42 | 19.23 | 34.62 | 0.00 | 0.00 | 28.00 | 36.40 | 38.10 | 45.24 | 66.67 | 50.83 | 6.67 | 33.33 | 25.00 | 38.00 |
| 11 | 15.79 | 36.36 | 23.08 | 33.57 | 0.00 | 0.00 | 48.00 | 37.45 | 19.05 | 42.86 | 41.67 | 50.00 | 13.33 | 31.52 | 20.00 | 36.36 |
| 12 | 15.79 | +34.65 | 19.23 | 32.37 | 0.00 | 0.00 | 32.00 | 37.00 | 100.00 | 47.62 | 50.00 | 50.00 | 13.33 | 30.00 | 25.00 | 35.42 |
| 13 | 42.11 | 35.22 | 96.15 | 37.28 | 28.95 | 11.94 | 100.00 | 41.85 | 100.00 | 51.65 | 100.00 | 53.85 | 40.00 | 30.77 | 100.00 | 40.38 |
| 14 | 5.26 | 33.08 | 100.00 | 41.76 | 31.58 | 50.00 | 100.00 | 46.00 | 100.00 | 55.10 | 100.00 | 57.14 | 100.00 | 35.71 | 100.00 | 44.64 |
| 15 | 5.26 | 31.23 | 30.77 | 41.03 | 0.00 | 0.00 | 48.00 | 46.13 | 38.10 | 53.97 | 16.67 | 54.44 | 13.33 | 34.22 | 25.00 | 43.33 |
| 16 | 10.53 | 29.93 | 26.92 | 40.14 | 0.00 | 0.00 | 40.00 | 45.75 | 33.33 | 52.68 | 41.67 | 53.65 | 13.33 | 32.92 | 25.00 | 42.19 |
| 17 | 5.26 | 28.48 | 11.54 | 38.46 | 0.00 | 0.00 | 12.00 | 43.76 | 57.14 | 52.94 | 50.00 | 53.43 | 6.67 | 31.37 | 50.00 | 42.65 |
| 18 | 5.26 | 27.19 | 15.38 | 37.18 | 0.00 | 0.00 | 16.00 | 42.22 | 57.14 | 53.17 | 50.00 | 53.24 | 6.67 | 30.00 | 50.00 | 43.06 |
| 19 | 5.26 | 26.04 | 11.54 | 35.83 | 2.63 | 9.97 | 28.00 | 41.47 | 71.43 | 54.14 | 25.00 | 51.75 | 13.33 | 29.12 | 30.00 | 42.37 |
| 20 | 15.79 | 25.53 | 57.69 | 36.92 | 15.79 | 10.26 | 52.00 | 42.00 | 100.00 | 56.43 | 50.00 | 51.67 | 20.00 | 28.67 | 80.00 | 44.25 |
| 21 | 52.63 | 26.82 | 96.15 | 39.74 | 31.58 | 11.28 | 100.00 | 44.76 | 95.24 | 58.28 | 100.00 | 53.97 | 100.00 | 32.06 | 100.00 | 46.90 |
| 22 | 47.37 | 27.75 | 19.23 | 38.81 | 2.63 | 10.89 | 12.00 | 43.27 | 47.62 | 57.79 | 66.67 | 54.55 | 20.00 | 31.52 | 40.00 | 46.59 |
| 23 | 36.84 | 28.15 | 23.08 | 38.13 | 0.00 | 0.00 | 8.00 | 41.74 | 38.10 | 56.94 | 50.00 | 54.35 | 13.33 | 30.72 | 35.00 | 46.09 |
| 24 | 26.32 | 28.07 | 26.92 | 37.66 | 0.00 | 0.00 | 8.00 | 40.33 | 42.86 | 56.35 | 41.67 | 53.82 | 0.00 | 0.00 | 30.00 | 45.42 |
| 25 | 26.32 | 28.00 | 7.69 | 36.46 | 2.63 | 9.68 | 20.00 | 39.52 | 33.33 | 55.43 | 41.67 | 53.33 | 0.00 | 0.00 | 25.00 | 44.60 |
| 26 | 31.58 | 28.14 | 11.54 | 35.50 | 2.63 | 9.41 | 20.00 | 38.77 | 42.86 | 54.95 | 41.67 | 52.88 | 6.67 | 27.44 | 30.00 | 44.04 |
| 27 | 10.53 | 27.49 | 7.69 | 34.47 | 13.16 | 9.55 | 32.00 | 38.52 | 66.67 | 55.38 | 41.67 | 52.47 | 20.00 | 27.16 | 35.00 | 43.70 |
| 28 | 26.32 | 27.44 | 26.92 | 34.20 | 10.53 | 9.59 | 60.00 | 39.29 | 80.95 | 56.29 | 91.67 | 53.87 | 26.67 | 27.14 | 100.00 | 45.71 |
| 29 | 26.32 | 27.40 | 23.08 | 33.82 | 7.89 | 9.53 | 40.00 | 39.31 | 47.62 | 55.99 | 75.00 | 54.60 | 13.33 | 26.67 | 50.00 | 45.86 |
| 30 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.00 |
| TOTAL | 26.49 |  | 32.69 |  | 9.21 |  | 38.00 |  | 54.13 |  | 52.78 |  | 25.78 |  | 44.33 |  |

Exhibit 25: Bungalow Plan


Exhibit 26: Salon Plan


Exhibit 27: Reception Plan


Exhibit 28: Employee Housing Plan


Exhibit 29: Luxury Resort Market: Occupancy Rate /ADR


Exhibit 30: Partial Site Plan


Exhibit 31: Pre-Construction Cash Flow Projection



| Resultado Operacional Liquido | 206.561 | 512.623 | 784.404 | 1.026.471 | 1.026.471 | 1.026.471 | 1.026.471 | 1.026.471 | 1.026.471 | 1.026.471 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Depreciação <br> - Resullado Antes IRPJ / CSL | $400.000$ | $400.000$ | $400.000$ | $400.000$ | $400.000$ | $400.000$ | $400.000$ | $400.000$ | $400.000$ | $400.000$ |  |
| IRPJ / CSL | . | . | 106.697 | 189.000 | 189.000 | 189.000 | 189.000 | 189.000 | 189.000 | 189.000 |  |
| Resultado Líquido | 206.561 | 512.623 | 677.706 | 837.471 | 837.471 | 837.471 | 837.471 | 837.471 | 837.471 | 837.471 |  |

[^7]Exhibit 32: Pre-Construction Cash Flow Projection Inputs

| USADA BUNGALOW - Premissas |  |  |  | Valores em R\$ |
| :---: | :---: | :---: | :---: | :---: |
| $\mathrm{N}^{\circ}$ Bangalôs 9 |  |  |  |  |
| Custo do Terreno R\$ |  |  |  |  |
| Custo das Instalações R\$ | 4.000.000 |  |  |  |
| Preço das Diárias |  |  |  |  |
| Alta Estação | R\$ 1.200,00 | 120 | dias |  |
| Baixa Estação | R\$ 900,00 | 244 | dias |  |
| Taxa de Ocupação | $1^{\circ}$ ano | $2^{\circ}$ ano | $3^{\circ}$ ano | $4^{\circ}$ ano em diante |
|  | 15\% | 30\% | 40\% | 50\% |
| Receitas de Hospedagem |  | $1^{\circ}$ ano | R\$ | 490.860,00 |
|  |  | $2^{\circ}$ ano | R\$ | 981.720,00 |
|  |  | $3^{\circ}$ ano | R\$ | 1.308.960,00 |
|  |  | $4^{\circ}$ ano em diante | R\$ | 1.636.200,00 |
| Receitas de Consumos |  |  |  |  |
| Bebidas 12\% |  | Receita Hospeda | gem |  |
| Outros (telefonia, lavanderia, etc) $3 \%$ |  | Receita Hospeda | gem |  |
| Dimensionamento do Pessoal |  |  |  |  |
| Função | Quant. | Salário Mensal | Total Mensal | Total Anual $(14,33 x)$ |
| Gerente Geral | 1 | 1.500,00 | 1.500,00 | 21.495,00 |
| governanta | 1 | 700,00 | 700,00 | 10.031,00 |
| Arrumadeira | 4 | 400,00 | 1.600,00 | 22.928,00 |
| Cozinheira | 1 | 550,00 | 550,00 | 7.881,50 |
| Ajudante Cozinha | 1 | 500,00 | 500,00 | 7.165,00 |
| Ajudante Cozinha | 1 | 450,00 | 450,00 | 6.448,50 |
| Garçom | 1 | 600,00 | 600,00 | 8.598,00 |
| Garçom | 1 | 400,00 | 400,00 | 5.732,00 |
| Garçom | 1 | 400,00 | 400,00 | 5.732,00 |
| Segurança | 2 | 400,00 | 800,00 | 11.464,00 |
| Resp. fazenda e manutenção | 1 | 800,00 | 800,00 | 11.464,00 |
| Serviços gerais | 1 | 380,00 | 380,00 | 5.445,40 |
| Serviços gerais | 1 | 380,00 | 380,00 | 5.445,40 |
| Total de Salários | 17 |  | 9.060,00 | 129.829,80 |
| Encargos Trabalhistas | 37\% |  | 3.352,20 | 48.037,03 |
| Contador |  |  | 500,00 | 6.000,00 |
| Total de Gastos com Pessoa |  |  | 12.912,20 | 183.866,83 |
| Premissas das Despesas Operacionais |  |  |  |  |
| Tributos: |  |  |  |  |
| Cofins |  | \% / Rec. Operaci | nal Bruta | 3,00\% |
| PIS |  | \% / Rec. Operaci | nal Bruta | 0,65\% |
| ISS |  | \% / Rec. Operac. | Hosp. + Outros | 3,00\% |
| ICMS |  | \% / Rec. Operac. | Bebidas | 7,00\% |
| Custos dos Serviços / Produtos Vendidos |  |  |  |  |
| Alimentação |  | \% / Rec. Operac. | Hospedagem | 10,00\% |
| Bebidas |  | \% / Rec. Operac. | Bebidas | 30,00\% |
| Outros (telefonia, lavanderia, etc) |  | \%/Rec. Operac. | Outros | 30,00\% |
| Despesas Gerais |  |  |  |  |
| Vendas/Reservas/Marketing |  | \% / Rec. Operacio | nal Bruta | 2,00\% |
| Água/Luz/Telefone/Internet |  | \% / Rec. Operaci | nal Bruta | 10,00\% |
| Manutenção |  | \% / Rec. Operaci | nal Bruta | 2,00\% |
| Diversos |  | \%/Rec. Operaci | nal Bruta | 2,00\% |

Exhibit 33: Post-Construction Cash Flow Projection w/ Year 1 Actual



| Resultado Operacional Líquido | $(16,355)$ | 166,646 | 528,210 | 985,875 | 985,875 | 985,875 | 985,875 | 985,875 | 985,875 | 985,875 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Depreciação | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 |  |
| - Resultado Antes IRPJ / CSL | $(516,355)$ | $(333,354)$ | 28,210 | 485,875 | 485,875 | 485,875 | 485,875 | 485,875 | 485,875 | 485,875 |  |
| IRPJ / CSL | - | - | 6,770 | 141,197 | 141,197 | 141,197 | 141,197 | 141,197 | 141,197 | 141,197 |  |
| Resultado Líquido | $(16,355)$ | 166,646 | 521,439 | 844,677 | 844,677 | 844,677 | 844,677 | 844,677 | 844,677 | 844,677 |  |

[^8]Exhibit 34: Post-Construction Cash Flow Projection Inputs


Exhibit 35: Room Occupation Rates for 2006


Exhibit 36: Room Occupancy Rates for 2007, as of June


Exhibit 37： 2006 Occupancy Data

| 爱 | \％88 | 을 | 응 | 훈 | 른 | \％ | 룬 | 染 | 令 | E | 3 | E | B7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 등 部 | \％ో | 38 | 30 | \％ | 30 | \％80 | 8 | 훙 | \％ิ | 亭 | 盛 | 鸰 | \％ |
|  | 只 | \％88 | 3 | 른 | 23 | 웅 | 를 | 흘 | 릉 | 令 | $\stackrel{3}{3}$ | $\stackrel{0}{3}$ | 令 |
|  | 릉 | 등 | 3 | \％ | 른 | 훙 | 릉 | 골 | 끈 | 领 | 喾 | 令 | ®ٌ |
|  | 웅 | 끄 | Bo | 륜 | 흥 | 30\％ | 3 | $\approx$ | 를 | B. | 号 | 鸰 | $\stackrel{\text { Br }}{ }$ |
| 哑 亳 | 끄 | \％ | हై | 훙 | 를 | 3 | 릉 | \％ | 를 | 苞 | 号 | 号 | 륵 |
|  | 룰 | 88 | 횽 | 禁 | 흔 | 은 | 흥 | \％ | $\begin{aligned} & \frac{20}{7} \\ & \hline \end{aligned}$ | 苞 | $\stackrel{3}{3}$ | 号 | \％ |
|  | 릉 | 풀 | 웆 | 冎 | 30－8 | 름 | 른 | 룰 | 20 | 苞 | ${ }_{0}^{0}$ | $\stackrel{0}{3}$ | 를 |
| 愛 | \％ | 흥 | b | 꾼 | \％ై | \％ | 웅 | 르ํ | 20 | 苞 | 号 | $\stackrel{0}{3}$ | 疋 |
|  | 릉 | \％ | \％ | 읃 | \％ | 플 | 풍 | 중 | $\frac{0}{\infty}$ | 苞 | 号 | 号 | 骨 |
| 啕 | 릉 | 픙 | 릉 | 릉 | 를 | 욱 | \％ | 8 | 릉 | 䓪 | 令 | B | 른 |
|  | 근 | 38 | S8 | 흘 | 을 | B | 令 | 苍 | 苍 | 苍 | 令 | 苞 | 홍 |
| －읖 | 릉 | 음 | \％ | 은 | 률 | 응 | हim | B | 各 | 苍 | 令 | 令 | 를 |
|  | 午 | 50 | 3 | 88 | 를 | 웅 | 운 | 킁 | $30$ | 菅 | 令 | 令 | \％ |
|  | 号 | 눈 | \％ | 를 | 景 | 号 | 昡 | 울 | 룽 | ¢ | 은 | 晜 | 产 |

Exhibit 38: Photographs of the Resort


Exhibit 38, continued: Photographs of the Resort


Exhibit 39: Photographs of the Construction Process


## Average Room Rate vs Occupancy Rate

(US\$, 2006)

Market Positioning


Exhibit 41: Competitive Resort Anticipated New Supply Estimate at 2007 - Bahia

| Project | Locat lon | TYpe | size | Chaln Atfillantion | Status |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Juerosear piala do Forge | Pialado Forme | Comake | $\begin{gathered} 1.20012^{\prime \prime} \\ \text { ansse) } \end{gathered}$ | Juenosear | Second resore under concriuchon |
| Piala do Forme | Pralado Forme | Resor | 1.500 | RIJ, HIO, Sement plays | Protecc |
| Sol Melld Gubrsiuna | Guarajuas | Resort | 1.000 | Sol Melld | Protec |
| Orksio | Jmosssal | Comalex | 1.220 | Hoc derined | Protecc |
| Wustanuru | Jescare | Bo uxila ue Resor | $\Delta \square$ | Inderendent | Under consiukelon |
| Hadidd Lkos | Hangue Seco | Comake | Noc derlned | Hoc derined | Protece |
| Txal Trancoso | Trancoso | Bo uxig ue Resor | 50 | T×al | Protecc |
| Leonolido Tiancoso | Trancoso | Bourlaue Resor | $\Delta$ | J ndenendene | Protecc |
| Project | Loratio | TYpe | 5 tre | Chvin Affillantion | Stat us |
| Odeniecte piala do patus | S PE | Com alex | $\Delta 00$ | Hoc derined | Project |
| Tebevers Dusme Roroo de Gallmnss | PE | Com alex | 1.000 | Teloclia Duaroe | Profect |
| Resort pisla do Cune | PE | Resort | 120 | Peseans | Under conscruccion |
| Aqulisz | CE | Com alex | 2.000 | Hoc der'Ined | P roject |
| VIa Gak Cumauco | CE | Resort | $\Delta 18$ | VIL Gak | Protecs |
| Beact Park | CE | Resort | 225 | Bescn Park | Under conscrucclon |
| Nows Actincids | CE | Com alex | 6.000 | Noc Defined | Project |
| Odst Areks Colorides | CE | Resort | 620 | Obsta Aclitroo | Profect |
| Ondazul Resorr | AL | Com alex | 750 | Horderined | P roject |
| Scontin Semata | SE | Resort | 290 | Sunercluns | Under cosncruccion |
| Raradse Restn and Gor Resore | R.W | Com alex | $40 \mathrm{~g} \mid 1 \mathrm{sc}$ noce 1) | Hoc der'Ined | P Moject |
| Com akewo Prangul | RW | Com alex | 2.400 | Whor derined | Project |


[^0]:    ${ }^{1}$ The analysis will focus on land and land rights, in part because, for reasons discussed in the section on land use regulations, real estate investment in Brazil is primarily investment in real estate development projects involving acquisition and permitting of land, and new construction thereon.

[^1]:    ${ }^{2}$ Nugent and Saddi point out that the Law was passed two weeks after the Eusebio de Queiroz law that stopped slave importation, and its supporters argued explicitly that quick passage of the Law was required due to the end of slavery.

[^2]:    ${ }^{3}$ There is conflicting information about whether the term is ten years or twenty years.

[^3]:    ${ }^{4}$ The major exceptions to this are retail and industrial properties and corporate real estate.

[^4]:    ${ }^{5}$ It also entails contract risk as surveyors, engineers, environmental consultants, contractors, etc.

[^5]:    OBS： 0 Sofitel Sauipe recusa－se a fornecer ocupação diariamente

[^6]:    Obs: Pousada Porto Zarna e Casa da Praia não node informar ocunacão

[^7]:    
     a $\$ 1.200 .000,00$. Portanto, os calculos sáo feitos pelas regras do simples Federal apenas

    Não pode optar pelo Simples a pessoa juridica que tenha sócio estrangeiro residente no exterior. | VPL(12\% a.a.) | R\$1.032.329,52 |  |
    | ---: | :---: | :---: |
    | PAYBACK | 73 meses | 6,1 anos |

[^8]:    | Saldo no Ano | $(5,000,000)$ | $(16,355)$ | 166,646 | 521,439 | 844,677 | 844,677 | 844,677 | 844,677 | 844,677 | 844,677 | 844,677 | $4,772,615$ |
    | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
    | Saldo Acumulado | $(5,000,000)$ | $(5,016,355)$ | $(4,849,709)$ | $(4,328,270)$ | $(3,483,592)$ | $(2,638,915)$ | $(1,794,238)$ | $(949,560)$ | $(104,883)$ | 739,795 | $\mathbf{1 , 5 8 4 , 4 7 2}$ | $\mathbf{6 , 3 5 7 , 0 8 7}$ | RESULTADO DO INVESTIMENTO Obs.: Somente podem optar pelo Simples Federal, como empresa de pequeno porte (EPP), as pessoas jurídicas com receita bruta anual não superior a $\mathrm{R} \$ 1.200 .000,00$. Portanto, os cáculos são feitos pelas regras do Simples Federal ape

    Não pode optar pelo Simples a pessoa jurídica que tenha sócio estrangeiro residente no exterior.

    | TIR | $0.9 \%$ a.m. | $10.8 \%$ a.a. |
    | ---: | :---: | :---: |
    | VPL (12\% a.a.) | $(\mathrm{R} \$ 352,453.05)$ |  |
    | PAYBACK | 97 meses | 8.1 anos |

