Pre-Foreign Investment Negotiations Simulation (FINS) Report
Paradiso B

BA 610

April 17, 2002

Authorization

The Ministry of Trade and Industry has authorized the following Undersecretaries of Trade and Industry to act as full representatives of the Government of Paradiso B, regarding the Microanalyzer Industry, to represent the Government of Paradiso:

Manny (Undersecretary, Trade Relations and Negotiations)
Moe (Undersecretary, Trade Relations and Contracts)
Jack (Undersecretary, Trade Relations and Negotiations and Financial Analysis)

We, the Undersecretaries are assigned to conduct operations, in joint cooperation or in single-person capacity, for the Government of Paradiso including: (1) Initiate contact with foreign agencies, companies, and businesses; (2) Conduct analysis activities and devise the governmental strategy; (3) Approve and negotiate agreements with foreign bodies; (4) Change Paradiso laws or submit proposals for law and policy changes as agents for the Ministry of Trade and Industry to the World Trade Organization. The Undersecretaries and their efforts shall, henceforth, be referred to as Paradiso B.

Goals of the Paradiso B Government

As the government of Paradiso, we wish to improve the quality of life in our country through obtaining three fundamental goals for our country. Based on a partial Strength or Weaknesses and/or Opportunity and Threats (SWOT) analysis by Undersecretary Chai (Appendix A), we have determined these goals will achieve the economic growth and improve our country's ability to "move toward the future," while anticipating the general strategies that the major organizations within the Microanalyzer Industry may pursue. We would ideally like to obtain the goals on the following list.

Goals of the Paradiso B Government

1. Encourage research & development investment and facilities and/or technology transfer to advance manufacturing capabilities, technological progress, create a highly scientific/technology-advanced labor force, and improve our long-term economic outlook.
2. Stimulate exports and foreign direct investment (FDI) to help reduce unemployment and increase the country's economic wealth.
3. Assist local companies to work with multi-national companies/corporations (MNCs) to develop distribution and/or manufacturing capabilities ensuring the survivability of local companies.

General Policy Considerations of Paradiso B

In order to both increase our national technology base and reduce unemployment, Paradiso B will consider the following actions, unilaterally, to stimulate further interest in Paradiso B. While Paradiso represents a small portion of the world market, Undersecretary Reichenbach believes the emerging market for Exotica and the countries of Paradiso and Tropicalia represent a significant, growing market for the Microanalyzer Industry over the next 6 years (Appendix B).

1. Allow foreign organizations to own state companies becoming privatized for the industry.
2. Provision of local financing sources and governmental guarantees to banks within the country in regard to "default" on loans /government loan guarantees and development of banks could be established to lend up to periods of 3 to 30 years for FDI.
3. Import and duty exemption or reduction for licensing and/or components or sub-assemblies used to produce products for export or for sale within Paradiso. Target would be to maintain import tariff of 10-15%, which would remain competitive with the world market average unit

General Policy Considerations of Paradiso B

cost (Appendix C). Reduction of import tariffs would decrease the cost of a microanalyzer close to or below the world average (Appendix D). Example 1: $3775 for a mini-plant – 10% import tariff or $50 equals $3725/unit versus world average of $3700/unit. Example 2: $3775 for a mini-plant less $100 (no import tax) equals $3675 versus world average of $3700/unit.

4. Reduction of tariffs on exports for manufacturing joint ventures or new FDI plants for producing subassembly or finished goods of microanalyzers.
5. Corporate tax reduction or tax credits for manufacturing FDI within the country particularly if intent is to export.
6. Corporate tax reduction or tax credits for distribution or licensing agreements within the country although this may not be as generous as for joint ventures or investment for manufacturing.
7. Increase of import tax rates on microanalyzers to 40%. As a last desperate measure, import quotas of 4,000 microanalyzers per manufacturer per annum may be established.
8. Technology Transfer Policy will remain generally the same, including: (a) Application for a licensing agreement describing the technology being sold, and (b) Submission of estimate of royalty fees (3% of sales range or normal market range). Patent protection will be provided up to 10 years or longer pending approval by Paradiso B and/or the WTO.
9. Government funded schools for advanced manufacturing education may be established to provide properly trained labor force. Local hiring requirements will be established whenever possible.

General Policy Considerations of Paradiso B

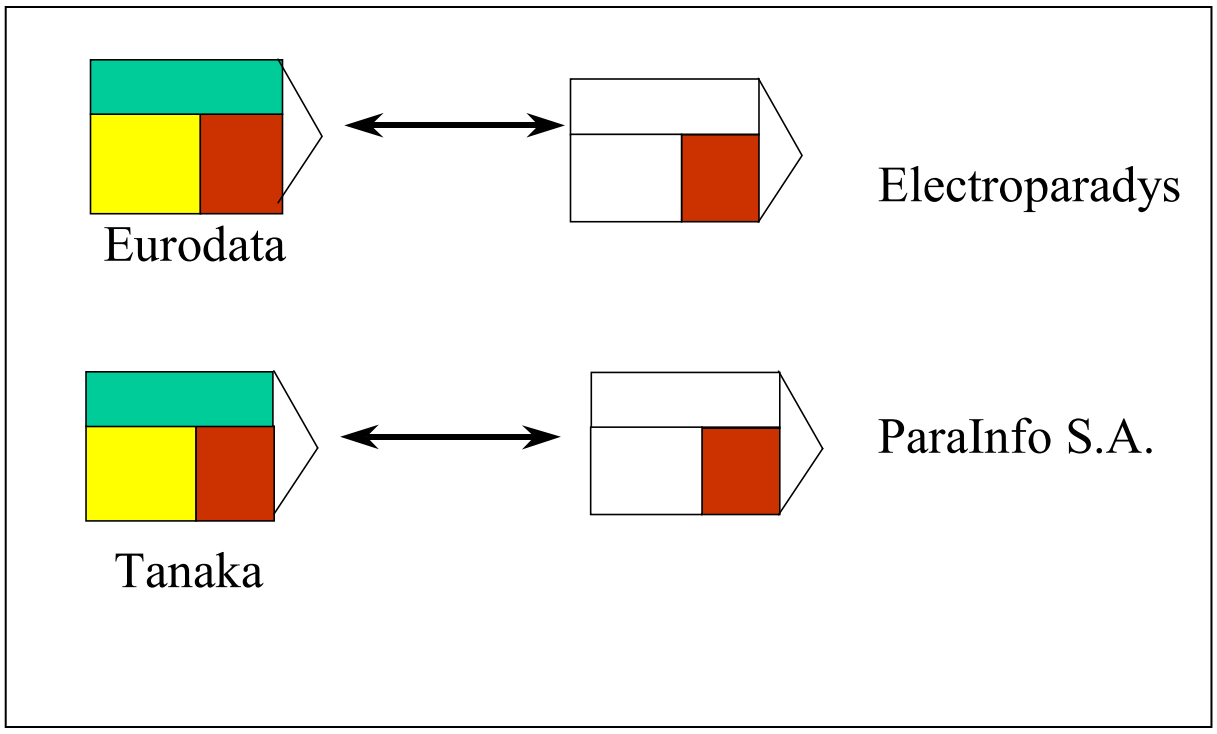
10. Roads, emergency services, improved communications, and other necessary requirements to assist foreign investment will be provided to foreign organizations to encourage FDI.
11. Paradiso B welcomes foreign ownership but local content requirements may be phased in to achieve our goals to increase employment and economic wealth.

Current Structure for the Microanalyzer Industry in Paradiso B

Figure 1 portrays the current structure of the Microanalyzer Industry value chain in Paradiso B, which consists mainly of distribution and service when, related to the industry as a whole. Paradiso B considers this as the "before picture" and will align its policies and negotiations to expand the industry structure within the country to assist in meeting its three main goals.

Figure 1

Current Structure for the Microanalyzer Industry in Paradiso B

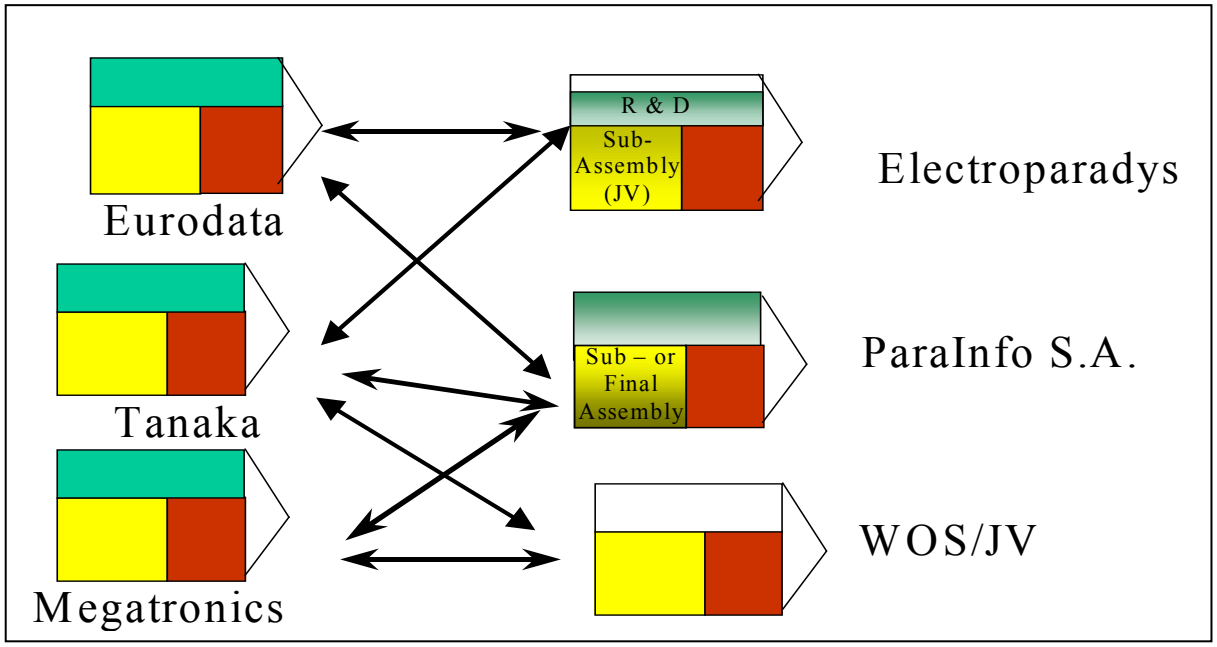


Outlook for the Microanalyzer Industry in Paradiso B

Paradiso B desires development of licensing agreements and joint ventures to expand its economic capability. Even wholly own subsidiaries help meet the goals of the government. Paradiso B envisions one possible scenario of the future of this industry in Paradiso to look something like the value chain structure shown in Figure 2. Paradiso B recognizes that the stand-alone attractiveness of the country is inconsequential to the world market. However, the strategic importance of the country to the growing Exotica region (Appendix B), the low economic/government risk factors associated with Paradiso, a highly educated labor force (human resource availability), and a large amount of control by foreign companies/corporation allowed by governmental policy makes Paradiso an attractive environment for FDI. Given these factors, we believe such an outcome as shown or other variations are achievable.

Figure 2

Desired Future Structure for the Microanalyzer Industry in Paradiso B



Specific Objectives for the Microanalyzer Industry in Paradiso B

In order to accomplish our goals, Paradiso B will attempt to obtain specific objectives or agreements with the following organizations as described in the following paragraphs.

1. Government of Tropicalia: Undersecretary Morgan encourages the formation of a Customs Union or a Common Market with Tropicalia regarding the Microanalyzer Industry with common tariffs policy of no lower than 5-10% for components and sub-assemblies. This allows free trade among Paradiso and Tropicalia, allows import tariffs and non-tariff barriers of non-members to remain the same or to be reduced, and still generates income for both countries while remaining competitive in the world market regarding costs. This accomplishes a control of a tariff "bidding" war, which could reduce economic wealth for both countries, which is extremely undesirable (Appendix G). A Customs Union or a Common Market also promotes trade within the two countries without prohibitive tariff rates between the two countries, in which Paradiso is more lenient and could lose wealth. Transportation between the two countries is cheaper than out of continent transportation costs (Appendix F) providing additional cost benefit to foreign investment.
2. Tanaka Company/ParaInfo S.A.: Paradiso B is particularly interested in establishing our local company, ParaInfo, to form a joint venture in manufacturing for Logic Units (Appendix H) increasing employment and expansion of ParaInfo. Additionally we would like to develop a joint venture or licensing agreements for research and development (R&D) in order to gain technology transfer with the Tanaka Company and ParaInfo as well as establish a sole distributor relationship.

Specific Objectives for the Microanalyzer Industry in Paradiso B

3. Eurodata/Electro Paradys: Paradiso_B would encourage Eurodata to establish a Final Assembly or input/output sub-assembly plants in a joint venture methodology with Electro Paradys in order to increase employment and the current manufacturing and distribution capability of the company. We are concerned with Eurodata establishing WOS due to their low cash flow and high debt. Electro Paradys could also act as the sole distributor for Eurodata in Paradiso/Exotica.
4. Megatronics, Inc: Paradiso B would allow a variety of licensing, joint ventures, or establishment of WOS (greenfield) under certain *ideal* conditions that would help develop jobs, support industries, increased business for local organizations and economic wealth.
   A. Manufacturing plants established through joint ventures or WOS (greenfield) will have local hiring policy of 80% or higher of required labor force in order to boost employment. A variety of plants from sub-assembly to final assembly would increase employment from 150-300 people per plant (Appendix E).
   B. Local content requirements may be "phased in" for WOS's over a period of up to 10 years. Generically, we would like to establish a development of local content levels of 50% or more over a 10 year period.
   C. Mini-plant can be justified with local growth and export but Paradiso B prefers to acquire a larger plant size for increased employment and market presence that would influence economic wealth.
   D. R&D, technology licensing, and market/distribution ventures will be encouraged by Paradiso B specifically with the help of Electro Paradys or ParaInfo S.A in mind.

Conclusion for the Microanalyzer Industry

While Paradiso_B recognizes it does not necessarily contain the manufacturing capability that may be sought by foreign investors in the Microanalyzer Industry, the country does offer some very attractive characteristics. With a highly education labor force, a very flexible and established government, relatively stable economy, and centralization within a significant, emerging industry, Paradiso can entice foreign investment. Even with Tropicalia's notable manufacturing capability, the increase of inflation, a somewhat unstable government, and a labor force that is not as educated as Paradiso's work against foreign investment for Tropicalia. Despite this, Paradiso_B is willing to form an economic agreement with Tropicalia in order to improve our economic conditions as well as that of our neighbor.

A key strategy for this government is to involve local companies whose existence within this industry and the country depend on successful negotiations in order to survive. This may require licensing agreements, R&D agreements, joint ventures, and other agreements to establish manufacturing plants of sub-assemblies, finished goods assembly, and supporting development of local suppliers to meet the needs of foreign investment. Paradiso B will push for current distribution/marketing activities to be more formalized and expanded if possible.

While Paradiso B highly encourages involvement of our local businesses in new business for the industry, we will not overlook the importance of stand-alone investment in the form of wholly-own subsidiaries (WOS) or majority owned acquisition of newly privatized industries within our country. While technology transfer ranks the highest in development, foreign owned businesses may influence improvements in technology by supplier development and will increase employment.

Appendix A
Strategy Predictions Based on Strength and Weaknesses/ Opportunities and Threat

Entity Names	Strength	Weakness	Possible Strategy
Paradiso Government	Political and economic stability Free-market economic policies Privatizing state enterprises Reduce import duties Encourage foreign investment Highly educated labor force	Recent economic slowdown Large foreign debt Negative current account Overvalued currency and high inflation	Stimulate export so that reduce foreign debt Encourage foreign direct investment (e.g. Megatronics) Encourage technology transfer by joint venture or licensing (Electro Paradys join with Megatronics or Eurodata, ParaInfo join with Tanaka) Cooperate with Tropicalia government to set up same tariff rate, promote EXCOM's regional trade for the microanalyzer Increase demand by 50% by reducing the price Reduce tariff on microanalyzer to be globally competitive More flexible to foreigner investors
Electro Paradys	Long-established company that engaged in the manufacture, distribution and servicing computer Usually in the form of joint ventures or licensing Sales: $100 million, Employee: 3000 Had close relations with the government ministries and insure government protection. Currently distributed the Eurodata line of microanalyzers in Paradiso Played a leadership role in industry associations	Facing tough competition due to Government's enthusiasm for free competition, including the opening of the economy to imports	Form joint venture with Eurodata Form join venture with Megatronics or Tanaka which is less likely Merge with ParaInfo which is unlikely Petition for government protection on microanalyzer

Appendix A
Strategy Predictions Based on Strength and Weaknesses/ Opportunities and Threat

ParaInfo	Founded by a group of best educated engineers Gained a reputation as an efficient distributor of imported electronics (the distributor for the Tanaka line of microanalyzers in Paradiso) Grown rapidly and quickly expanded its operations from service and distribution into the assembling Had already exported its products to countries Annual sales: $30 million, employees: 500 Seldom asked for government protection	Relative newcomer to the IT industry	Form joint venture with Tanaka in manufacturing Export more microanalyzers
Megatronics	World's leading microanalyzer firm Had a significant technological edge Annual microanalyzer sales of $2 billion, Employees: 20,000, had half the world market No debt, strong balance sheet Extensive international sales and manufacturing Fully integrated plants in Japan and Europe Building a new plant in Mexico for assembly, output units and input units Policy of localizing the management of its foreign subsidiaries Offer exports, local content, training, R&D facilities	Insisted on maintaining full ownership and control of its international manufacturing operations It sold through its own sales offices rather than distributors These policies cause tensions with foreign governments	Increasing its investments in emerging markets Joint venture with one of the four companies of two countries Wholly owned subsidiary (greenfield) a possibility

Appendix A
Strategy Predictions Based on Strength and Weaknesses/ Opportunities and Threat

Eurodata	Dominant European microanalyzer Better opportunities with Euro introduction Had significant footholds in North America and developing countries Maxi-sized manufacturing plant in the US J.V. in emerging markets for other products International sales were through local distributors Microanalyzer sales: $900 million with market share of 20%. Employees:25,000	Limited financial resources No microanalyzer manufacturing in emerging market Unsuccessful in entering the Japanese market.	Joint venture with Electro Paradys in manufacturing microanalyzer Joint venture with other three companies Licensing to one of the four companies
Tanaka	Low price and good quality Penetrated export markets based on low prices Substantial exports to world markets, sold through its offices and independent distributors Some joint ventures and licensing agreements in emerging markets for other product lines. Microanalyzer Sales: $800 million with market share of 20% Employees:40,000	A technology follower Lags behind Megatronics in introducing new product features Long term debt of 4 billion No plants in Europe and the emerging markets	In response the increased value of the yen, it had recently begun to develop foreign manufacturing, and had invested in a standard-sized microanalyzer assembly plant in the US Due to the political and economic risks of international market, it may not consider investment in Tropicalia Consider licensing or joint venture to one of the four companies especially ParaInfo

Appendix A
Strategy Predictions Based on Strength and Weaknesses/ Opportunities and Threat

Tropicalia Government	Largest recipients of foreign manufacturing investment among the emerging markets Rich natural resources with a relatively advanced industrial sector Palma had maintained its strength	Suffered from chronic hyperinflation and a relatively stagnant economy Suffered turbulent politics Restrictive policies on multinational corporations: force them to share ownership, transfer technology and export High tariffs	Lower tariff to stimulate import Encourage FDI, Encourage joint venture and licensing Increase demand by 100% by reducing the price to the world prices Restructure economies such as reduce tariff to become more globally competitive More flexible to foreigner investors
Tropimatics	Became the distributor and servicing agent for the Eurodata Assembled, sold and serviced computer and related systems Good relations with the government and seeking government contracts Annual sales: $75 million, employees: 1000	No export sales Seeking protection from foreign competition	Joint ventures with Eurodata (e.g. licensing agreement) Increase export
SysTrop	Grown to a prominent position in several fields of industrial electronics One of the most dynamic young firms Sold its products under the SysTrop name Involved in a few small J.V. with foreign firms Distributed Tanaka microanalyzers in Tropicalia and had been assembling another Tanaka product under a licensing agreement. Sales: $50 million, employees: 1000	Young company Its products were based on foreign designs, which were either licensed or reverse-engineered	Joint ventures with Tanaka (e.g. licensing agreement) Increase export

Appendix B
Project World Demand for Microanalyzers (Interpolated)

Table 1

World Microanalyzer Market and Market Shares in Year 0 (thousands of units)

	Total	Megatronics	Eurodata	Tanaka	Other
N. America	400	200	70	80	50
Europe	200	80	90	10	20
Japan	150	60	0	70	20
Tropicalia	25	13	6	6	0
Paradiso	15	8	4	3	0
Other Exotica	20	10	5	5	0
Other	190	104	50	26	10
Total	1000	475	225	200	100

World Market-Interpolated through Year 6

	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
N. America	400	433	467	500	533	567	600
Europe	200	233	267	300	333	367	400
Japan	150	175	200	225	250	275	300
Tropicalia	25	33	40	48	55	63	70
Paradiso	15	20	24	29	33	38	42
Other Exotica	20	26	32	38	44	50	56
Other	190	247	304	361	418	475	532
Total	1000	1167	1333	1500	1667	1833	2000

Appendix C
Manufacturing Costs for Microanalyzers (Non-Exotica)

Table 4				
Manufacturing Costs per Unit for Microanalyzers in the U.S., Europe and Japan				
		Mini Plant	***Standard Plant***	***Maxi Plant***
Logic Unit				
	Components	200	200	200
	Manufacturing Cost	1200	900	600
	Total	1400	1100	800
Input Unit				
	Components	200	200	200
	Manufacturing Cost	800	600	400
	Total	1000	800	600
Output Unit				
	Components	100	100	100
	Manufacturing Cost	400	300	300
	Total	500	400	400
Final Assembly		800	600	600
	Total Cost	**3700**	**2900**	**2400**
Capacity (units/year)		20000	50000	100000
Percent capacity		100%	100%	100%
Cost @ 100% Capacity		$ 74,000,000	$ 145,000,000	$ 240,000,000

Appendix D
Manufacturing Costs for Microanalyzers (Exotica)

Estimated Manufacturing Costs Per Unit for Microanalyzers in Paradiso				
Logic Unit		Mini Plant	Standard Plant	Maxi Plant
	Components	200	200	200
	+ transportation	10	10	10
	+ tariff	40	40	40
	manufacturing cost	1600	1200	800
	Total	1850	1450	1050
Input Unit				
	Components	200	200	200
	+ transportation	10	10	10
	+ tariff	40	40	40
	manufacturing cost	800	600	400
	Total	1050	850	650
Output Unit				
	Components	100	100	100
	+ transportation	5	5	5
	+ tariff	20	20	20
	manufacturing cost	250	200	200
	Total	375	325	325
Final Assembly		500	400	400
Total Cost		**3775**	**3025**	**2425**
Tariff Rate	20%			

Estimated Manufacturing Costs Per Unit for Microanalyzers in Tropicalia				
Logic Unit		Mini Plant	Standard Plant	Maxi Plant
	Components	200	200	200
	+ transportation	10	10	10
	+ tariff	80	80	80
	manufacturing cost	1600	1200	800
	Total	1890	1490	1090
Input Unit				
	Components	200	200	200
	+ transportation	10	10	10
	+ tariff	80	80	80
	manufacturing cost	800	600	400
	Total	1090	890	690
Output Unit				
	Components	100	100	100
	+ transportation	5	5	5
	+ tariff	40	40	40
	manufacturing cost	250	200	200
	Total	395	345	345
Final Assembly		500	400	400
Total Cost		**3875**	**3125**	**2525**
Tariff Rate	40%			

Appendix E
Investment and Employment in Microanalyzer Plants (Exotica Potential)

Table 6			
Investment and Employment in Microanalyzer Plants			
	Mini Plant	Standard Plant	Maxi Plant
Investment ($ millions)			
Logic unit subassembly	20	30	50
Input unit subassembly	15	25	40
Output unit subassembly	10	15	30
Final assembly	12	20	40
Total	**$57**	**$90**	**$160**
Employment (# of people)			
Logic unit subassembly	200	300	400
Input unit subassembly	200	300	400
Output unit subassembly	150	200	400
Final assembly	300	400	800
Total	**850**	**1200**	**2000**

Appendix F
Transport and Tariff Costs in Exotica

Table 7				
Microanalyzer Transport Costs and Tariffs: percent of Invoiced Value				
	Transport within Regions	Transport between Regions		
Complete Microanalyzers	6%	10%		
Subassemblies	3%	5%		
Components	3%	5%		
	Tariff in Tropicalia	Tariff in Paradiso	Tariff in US, Europe, Japan	Tariff in Rest of Exotica
Complete Microanalyzers	40%	20%	10%	30%
Subassemblies	40%	20%	10%	30%
Components	40%	20%	10%	30%

Appendix G
Economic Comparison Table for Paradiso and Tropicalia

Economic Data for Paradiso					
Year	-4	-3	-2	-1	0
GDP (US$ bn)	$258	$282	$280	$298	$322
Inflation (consumer price %)	10.6%	4.2%	3.4%	0.2%	0.7%
Exchange Rate (Ps/$)	1.00	1.00	1.00	1.00	1.00
Current Account (US$ bn)	-$7.5	-$10.0	-$2.4	-$4.1	-$10.2
External Debt (US$ bn)	$71	$77	$90	$102	$113
Unemployment	9.1%	11.7%	14.6%	16.5%	14.9%
Economic Data for Tropicalia					
Year	-4	-3	-2	-1	0
GDP (US$ bn)	$622	$655	$717	$724	$767
Inflation (consumer price %)	235%	740%	2505%	74%	6%
Exchange Rate (Ps/$)	0.40	0.08	0.01	1.01	1.08
Current Account (US$ bn)	-$4.5	-$1.2	-$8.1	-$14.3	-$30.8
External Debt (US$ bn)	$144	$150	$159	$174	$193
Unemployment	8.4%	9.2%	8.8%	8.9%	9.2%

Appendix H
Schematic of Microanalyzer Manufacturing Process