

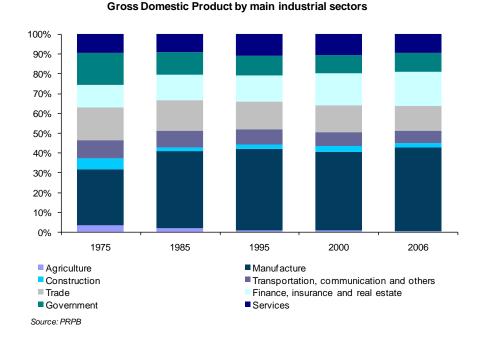
Appendix 2: Economic context of the coastal zone

ECONOMIC CONTEXT OF THE COASTAL ZONE

This section describes the historic and actual juncture of Puerto Rico's economy highlighting those sectors which are important to the coastal zone. In order to achieve this, the tendencies of Puerto Rico's principal economic indicators are examined as well as the transformation which has occurred in the main industrial sectors. An analysis of the principal economic sectors located in the coastal zone is also part of this section. This is followed by an analysis of the economic indicators available for 2007, as well as a projection of the main components of Puerto Rico's Gross National Product (GNP) until 2010.

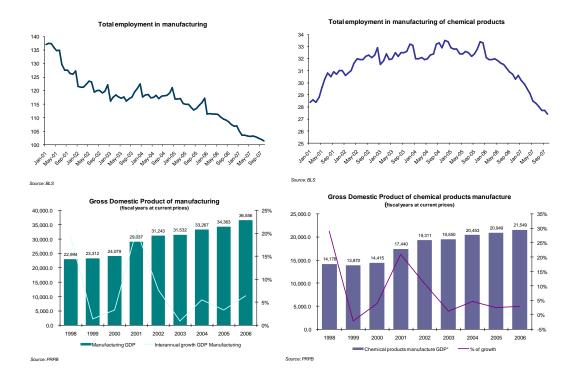
A. HISTORIC GROWTH

Economic activity in Puerto Rico has significantly changed in recent years. The economic policies established in Puerto Rico starting in the 1950s were able to shift the economy toward the manufacturing sector. In fiscal year 1975, manufacturing represented 28% of the Gross Domestic Product (GDP). By 2006, this proportion had risen to 43%.



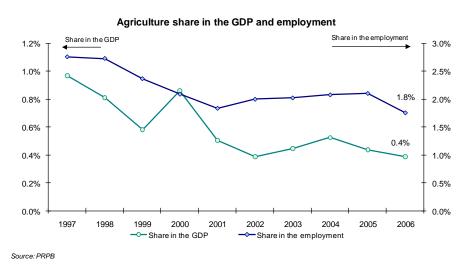
Graphic 1

Despite placing emphasis on the manufacturing sector, employment in this sector has fallen in recent years. In 2001, total manufacturing jobs reached 131,808 while in the first 11 months of 2001, the total amount of manufacturing jobs had fallen 4.04% to 101,881 (See Graphic 2). Of all the labor-intensive sectors in manufacturing, the production of chemicals also showed signs of contraction, although at a lesser pace since over the period to time mentioned, jobs in this sector fell 0.08%. The contribution from the chemical manufacturing sector to the GDP was close to \$21.6 billion in 2006 or 25% of the GDP.

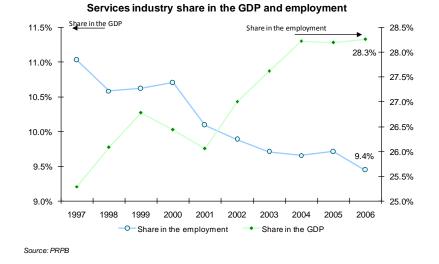


In the last 10 years, agriculture's participation has decreased until reaching 0.4% of the GDP for fiscal year 2006 (See Graphic 3). By comparison, agriculture contributed 3.2% of the GDP in 1975. As a result of the contraction of the agricultural industry, the local economy now imports almost the totality of its food with the exception of specialized goods such as coffee.

Graphic 3

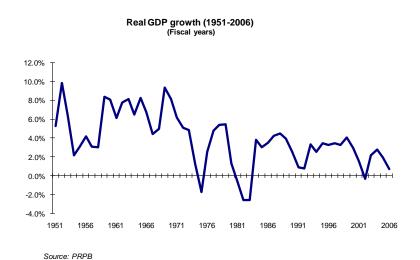


For its part, the growing demand for services has achieved an increase in levels related to this sector, which now represents 28.3% of total employment for fiscal year 2006. Despite this increment in employment, the service industry's contribution to the GDP registered a slight decrease in the last decade from 11% in 1997 to 9.4% for fiscal 2006 (See Graphic 4).



Despite the mentioned changes in Puerto Rico's economy, the rhythm of growth has been progressively slower starting in the 1970s (See Graphic 5). Between 1980 and 1990, the largest real growth recorded was 4.4% in fiscal year 1988. Since then, the economy has not been able to reach those levels of growth. During the first seven years of the current decade, the average economic growth rate has been 1.45%, reflecting a marked slowdown in economic activity.

Graphic 5



Several factors apply to Puerto Rico's poor economic growth of the last few years. Some of these factors are structural in nature such as the dependency on private consumption and investment in construction. Other factors are more circumstantial such as the increment in interest rates, the rise in oil prices and electricity as well as a decrease in private consumption.

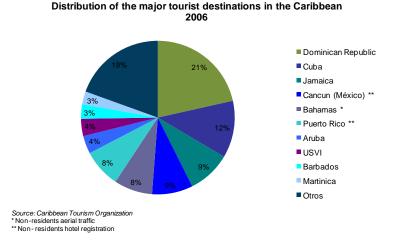
The recent fiscal situation (2006-2007) has contributed to the contraction of the economy due to the reduction in public spending. In fact, the capacity to generate economic activity through fiscal policy has been severely limited due to obligations in public debt and a fiscal deficit. The fiscal shortcomings for 2007, meanwhile, affected investment in public works adding to what are now clear signals of recession.

Important economic activities in the coastal zone

Following is a summary of the tendencies of the economic sectors located in the coastal zone or use it as part of its assets to contribute to the economy's growth. An analysis of the tourism, mining (extraction of aggregates for construction) and the production of electricity sectors are presented.

A. Tourism activity

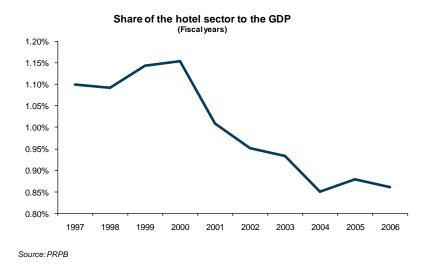
Tourism activity in Puerto Rico has experience a slight decrease in the last fiscal years in tune with the island's economic slowdown and the emergence of other competitive countries in the Caribbean region. Over the last three years, the number of tourists, according to data from the Caribbean Tourism Organization has increased by 1.47 million visitors¹. Of this increment, the Dominican Republic captured 696,873 tourists to elevate its number of tourists to 3.65 million in 2006.



Graphic 6

Due to the decrease in participation in the tourism market over the last 10 years, the hotel industry has registered a small decrease in its contribution to the GDP. This contribution decreased from 1.10% in 1997 to 0.86% in fiscal year 2006 (see Graphic 7).

¹ The values used for the comparison between countries differ from the definition of tourist used in Puerto Rico. However, these values provide a relative indicator for the Island in comparison to its competitors.



For its part, the level of employment in the industry² has remained stable over the last few years since this sector has averaged about 15,000 jobs since 2004 (See Graphic 8).

Graphic 8



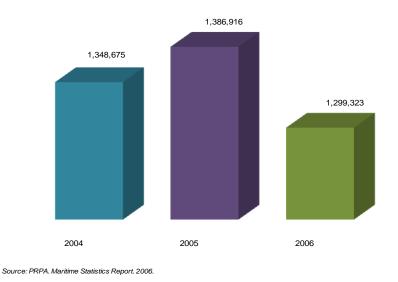
Source: Bureau of Labor Statistics

Despite that level of employment and as a consequence of increased competitiveness in the region, the number of visitors to Puerto Rico decreased by 1.0% in fiscal year 2006.

The reduction in the total number of visitors is related to the reduction of the number of tourists staying in hostels as well as those who arrive in cruise ships. The number of these type of tourists showed a significant decrease of 6.3% in fiscal year 2006 (See Graphic 9).

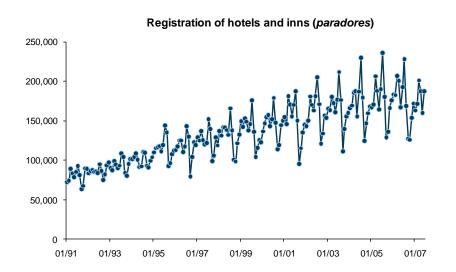
 $^{^2\,}$ Employment in the lodging sector is used to estimate total employment in the tourism industry.

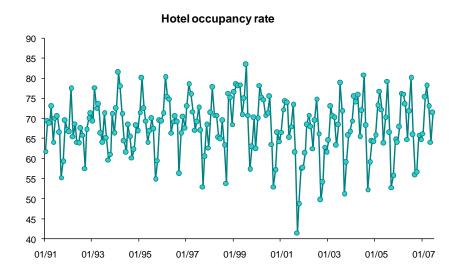
Movement of passengers on cruise



For its part, hotel stays have shown a decreasing pattern over the last fiscal years. As can be observed in Graphic 10, hotel registries did not continue the rising patter it manifested in 1991 where it averaged 80,981 stays until 2005 when it registered 176,090 stays. For 2006, registries stayed virtually the save at 176,063 in comparison to registries the year before.

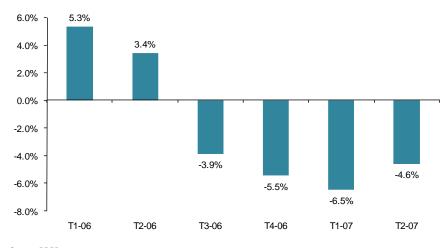






As a consequence, hotel occupancy rates have gone through a period of contraction since the second trimester of 2006, extending until the first trimester of 2007 (See Graphic 12).

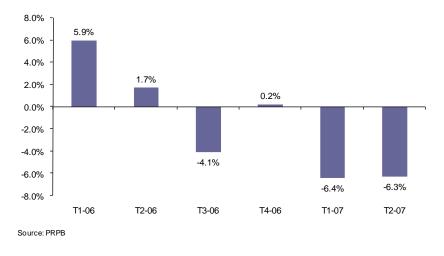
Graphic 12



Hotels and Inns (paradores) registration Quaterly interannual growth

Source: PRPB

The reduction was also seen in the registry of non-resident tourists, which also contracted in the first and second trimesters of 2007 at a 6.45% and 6.3% rate, respectively (See Graphic 13).



Hotels and inns (paradores) registration of no residents Quaterly interannual growth

Despite the decrease in numbers, the Puerto Rico Tourism Company is counting on efforts to make Puerto Rico a viable tourism destination for the European market and emerging economies in the Asian markets. The results of these efforts still remain to be seen.

Puerto Rico has launched efforts to complete the transformation of the Port of San Juan. The

project known as *San Juan Waterfront* includes the construction phase of the Convention Center District in lands contiguous to the former Miramar Naval Base in San Juan. The Convention Center District already counts with a 580,000square foot convention center facility. Planned for the district are a 400-room hotel, an aquarium and an office building.

The second phase of the project implies the development of a waterfront project on the islet of San Juan in front of the San Antonio Channel. The development of this waterfront represents an initial investment of \$1.5 billion on 100.7 *cuerdas* (0.40 km²) of land. Among the projects planned are the construction of a marina with capacity to harbor 100-foot yachts, the development of tourism and residential projects, a park and a boardwalk.



Centro de Convenciones Fuente: Autoridad del Distrito de Convenciones



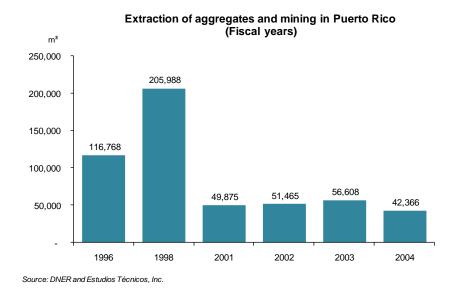
San Juan Waterfront Fuente: Departamento de Desarrollo Económico y Comercio

B. Extraction of aggregates

Historically, construction activity in Puerto Rico has depended on great quantities of sand. The accelerated increase in the construction of new residential complexes, the road network and in general, an ample infrastructure has increase sand consumption in Puerto Rico beyond the possibilities of extraction.

The construction industry depends on raw materials from the production of aggregates, especially in the areas related to cement, concrete products, asphalt and its derivatives. For example, in order to produce a cubic yard of concrete, between .50 and .55 m^3 of sand and between .43 and .46 m^3 of gravel are needed.

During the construction industry's period of expansion, which began in 1994 and lasted until 1999, the levels of permitted daily extraction reached 116,000 m³ or the equivalent to 130,700 cubic yards of aggregate materials for fiscal year 1996. By 1998, extraction increased to 205,988 m³ a day. This level of extraction was abruptly reduced by about 50% starting in 2000 when the island's economy began to contract. This pattern has remained constant since. During the first six months of fiscal year 2004, extraction of aggregates reached 42,366 m³ (See Graphic 14).



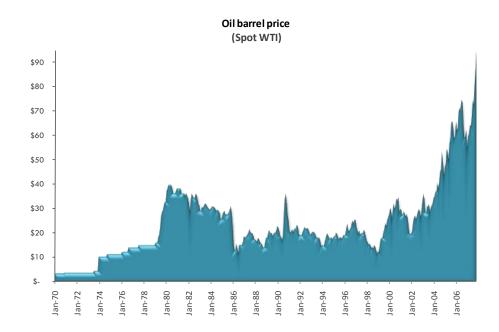
Graphic 14

C. Oil and electric consumption

The World energy problem is created by its dependency on limited energy sources to satisfy a demand which is continually growing, while other energy sources are not used proportionally. Oil and natural gas are "limited energy sources", while carbon and nuclear energy are other more abundant energy sources which for decades were underutilized. Starting in the 1960s, energy demand is monopolized by natural gas and oil. With the start of the new century, emphasis has been placed on the development of other alternate mechanisms to generate energy, in large part due to the increasing oil costs. Among these new efforts is the use of bio-diesel, solar energy and wind energy. Aside from these sources, the search for energy coming from the sea, such as oceanic energy and thermal-oceanic energy, is still an option for Puerto Rico which counts with 805 km of coasts.

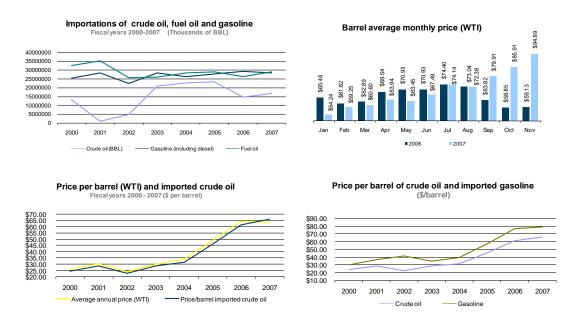
D. Oil consumption

Currently, Puerto Rico's economy is undergoing a period of recession, aggravated by significant rises in crude oil prices. Although fiscal year 2007 did not represent a serious problem to Puerto Rico's economy in terms of oil prices, according to West Texas Intermediate (WTI), since prices actually dropped in comparison to 2006 from \$64.22 to \$63.35, there have been some notable increases. However, the average price in 2007 represented a significant increase in comparison to fiscal year 2005 when the average price was \$48.72. Over the last two fiscal years, the average price per barrel has increased 31% or \$15.06 per barrel (See Graphics 15 and 16).



Graphic 15

Source: Federal Reserve Bank of St. Louis.



Oil is Puerto Rico's principal source of energy. Aside from oil, other energy products, such as natural gas and derivatives such as gasoline are used as fuel for the generation of electricity and for transportation. In the face of rising prices, it is feasible to ask if a reduction in the volume of consumption has been reported. The answer to this question is influenced by various factors, among which is better energy efficiency (intensity of use) as a response to rising gasoline prices and also a reflection of the current economic situation.

In monetary terms, imports of energy products have continues to increase, reaching \$5.45 billion in fiscal 2007 (see Table 1). The majority of the imports are for gasoline (41%) while crude represents 20% of the total.

As expected in the face of rising prices, billing for fuel imports and energy costs have risen at a higher rate that the physical volume. Absolute annual increases, however, have been decreasing in the last two years. The exception was the total expenditure for electricity, which increased dramatically between 2004 and 2006.

Imports of	of fuels plus expend	itures on electricity an	d aasoline				
2000 - 2007							
Fiscal year	Fuel imports*	Expenditures on electricity**	Gasoline sales***				
2002	\$1,819,162.00	\$2,162,171.00	\$1,420,402.00				
2003	\$2,613,159.00	\$2,508,758.00	\$1,495,761.00				
2004	\$2,800,415.00	\$2,600,268.00	\$1,816,984.00				
2005	\$4,139,217.00	\$3,038,110.00	\$2,225,942.00				
2006	\$5,055,564.00	\$3,708,938.00	\$2,608,878.00				
2007	\$5,448,947.00	Not available	\$2,796,286.00				
CAGR:	24.53%	14.44%	14.51%				
	Absolut	te changes					
2003	\$793,997.00	\$346,587.00	\$75,359.00				
2004	\$187,256.00	\$91,510.00	\$321,223.00				
2005	\$1,338,802.00	\$437,842.00	\$408,958.00				
2006	\$916,347.00	\$670,828.00	\$382,936.00				
2007	\$393,383.00		\$187,408.00				
	Quantity	(thousands)					
	BBL****	MkWh (Total consumption)	Gallons				
2000	85,240,948	18,145	980,755,673				
2001	80,459,808	18,723	993,977,341				
2002	57,841,296	19,130	1,025,787,989				
2003	81,667,664	19,887	986,486,858				
2004	80,247,690	20,260	1,103,766,659				
2005	85,044,945	20,508	1,144,968,353				
2006	74,232,505	20,621	1,053,548,188				
2007	78,372,137	20,672	1,097,599,191				
CAGR:	-1.19%	1.88%	1.62%				
Sources: PRPB, Bureau	of Economic Analysis; DCA	A; PREPA					
CAGR= Compound An							
•	• • •	gas and coal, utilize for gen	erating electricity and				
fuel. Does not include of							
**Represents the earni	ngs of PREPA from the sal	e of electricity.					

Table 1

Note: There is a production of gasoline in Puerto Rico that would be reflected in the sale of gasoline

*** (BBL's) Does not include aviation fuel or the armed forces. Sales were estimated by multiplying

the average monthly price of retail gasoline by monthly sales in gallons.

**** Does not include the amounts of gas and coal.

The physical volume of the fuels imports has been decreasing at a composite annual rate of 1.2% while electricity and gasoline consumption has increased, but at modest rates. In the case of gasoline, which represents the majority of fuel imports, consumption levels at the retail level, in terms of gallons, has increased at an annual composite rate of 1.6% over the last years, but not the actual expenditure which has increased by 14.5%.

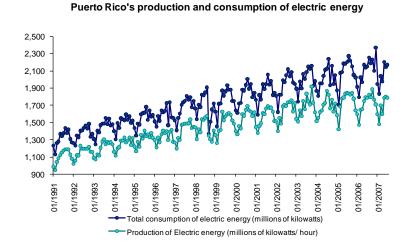
E. Consumption of energy

The PREPA is the main provider of electricity in Puerto Rico. The PREPA is a public corporation established in 1941 which produces, transmits and distributes practically all of the electricity consumed in Puerto Rico and is one of the largest public service corporations in all of the United States.

Electricity is generated by five main plants: Costa Sur, Complejo Aguirre, Palo Seco, San Juan and Arecibo. The installed capacity is 4,397 MW. The grid's distribution, however, is geographically unbalanced since 2,600 MW, or 62% of the generation capacity for all of

Puerto Rico of 4,231 MW, are located in the South coast - Guayanilla (Central Sur) and Salinas (Central Aguirre). These are considered distant areas from the largest energy demand, which creates a system vulnerable to weather events or earthquakes. The transmission system in consists of 3,512 km of transmission lines of 230 KV with 174 transmission centers. Distribution lines add up to about 44,800 km while 1,732 km of underground lines along with 308 sub-stations. As a result of the investment in infrastructure, consumption and production of electricity in Puerto Rico have been on the rise for the last 15 years (See Graphic 17).

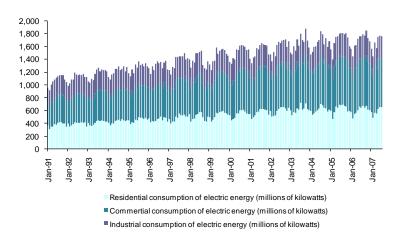
Graphic 17



The area in which electricity consumption has gained the most is residential, which represented 37% of total consumption in 1991 and increased to 43% by 2007. During this period, commercial consumption remained stable, averaging 37% of consumption while industrial consumption decreased from 24% to less than 20% (See Graphic 18).



Puerto Rico's distribution of electric energy



Recent macroeconomic evolution – behavior during 2006 and 2007

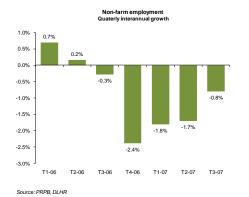
The recent economic evolution is presented for natural year 2006. Also presented are the most significant tendencies for 2007 including variables for tourism, employment, government expenditures and the consumer index.

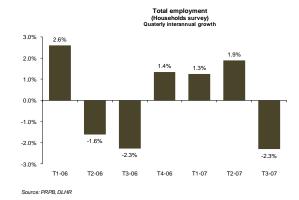
A. Labor market

Total employment growth, as defined by the household survey, showed a decreasing patter in the second and third trimester of 2006. For the second trimester of 2007, total employment presented an increase of 1.9%, to later be reduced by the third semester (-2.3%) (Graphic 19).

On the other hand, non-agricultural employment (Commercial survey) had been decreasing since the last two semesters of 2006 until the third trimester of 2007. The average reduction in employment was 0.8% - lower than the contraction of 1.7% registered for the second trimester of 2007 (Graphic 19). Manufacturing jobs was the cause of that decrease as that area reported a reduction in all of the trimesters of 2006 and 2007. Another area which contributed to the reduction was government employment, which has been consistently decreasing, particularly since the last trimester of 2006. This is consistent with Puerto Rico's budget limitations previously mentioned.

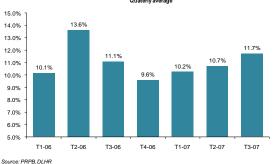
The unemployment rate registered fluctuations in 2006, presenting a rate of 13.6% in the second trimester reflecting the partial government closing in May. By the end of the year, the unemployment rate lowered to 9.6% only to increase to 11.7% by the third trimester (Graphic 19).





Quarterly Employment in Manufacturing and Gover 0.0% -1.09 -2.0% -3.0% -4.0% -5.0% 4.7% -6.0% -5.9% -7.0 -6.6% -7.1% -7 4% -8.0% T1-06 T3-06 T4-06 T3-07 T2-06 T1-07 T2-07 Manufacturing employment
Central government employment SOurce: DI HR

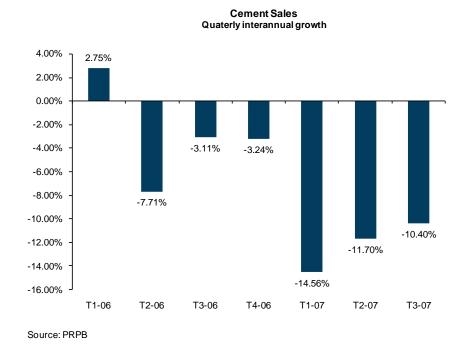




B. Construction

Construction activity began to show signs of contraction during the second trimester of 2006 and continued through the first trimester of 2007. Both the amount and value of construction permits, as did the sale of cement, showed reductions. This generalized contraction suggests a decreased level of activity in this sector since the end of fiscal year 2006 – a situation which continues.

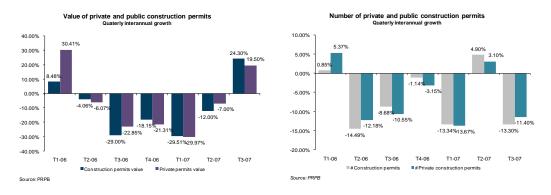
Sales of cement (Graphic 20), one of the indicators of construction activity, began contracting in the second semester of 2006 (-7.7% for that semester) culminating in a drop of -14.6% in the first trimester of 2007. This was the lowest level of sales for a trimester since 2001. For the second and third trimester of 2007, the contractions were of -11.7% and -10.4%, respectively.



Other construction indicators, such as construction permits, and the value of these permits, registered significant decreases in 2007. During the third trimester of 2007, the number of permits reflected another significant decrease, although the value of these permits showed positive numbers, reflecting the increase in prices for construction-related products.

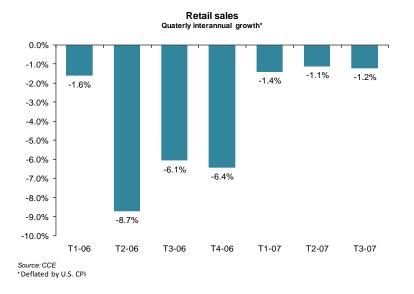
Table 2

Selected indicators of construction per quarter									
		2006 (a)				2007 (b)			
Indicator	TI	T2	Т3	T4	TI	T2	тз		
Cement sales (Thousand of bags)	2.75%	-7.71%	-3.11%	-3.24%	-14.56%	-11.70%	-10.40%		
# Construction permits	0.85%	-14.49%	-8.68%	-1.14%	-13.34%	4.90%	-13.30%		
# Private construction permits	5.37%	-12.18%	-10.55%	-3.15%	-13.67%	3.10%	-11.40%		
Construction permits value	8.48%	-4.06%	-29.00%	-18.15%	-29.51%	-12.00%	24.30%		
Private permits value	30.41%	-6.07%	-22.85%	-21.31%	-29.97%	-7.00%	19.50%		
# New housing units	-1.63%	-7.77%	-17.95%	-30.51%	-28.98%	-11.10%	-16.20%		
Value of permits for new housing units	27.32%	-2.21%	-16.73%	-24.80%	-30.23%	-2.40%	-18.80%		
Source: PRPB									



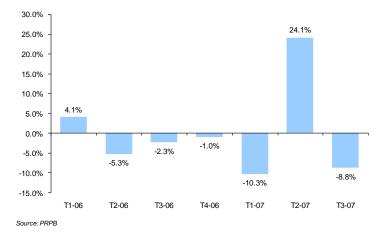
C. Private consumption behavior

Consumer spending indexes also contracted in the first trimester of 2006 (see Graphic 22). Retail sales decreased in all of 2006 in comparison to the same trimesters in 2005, particularly in the second trimester of 2006, when the reduction was -8.7%. Consumer behavior in that trimester reflected the effects of the government closing on May 2006 and the level of social, political and economic tension of that juncture. Indicators at the beginning of 2007 still reflect contractions of -1.1% and -1.2% in retail sales for the second and third trimesters of 2007, respectively.



Graphic 22

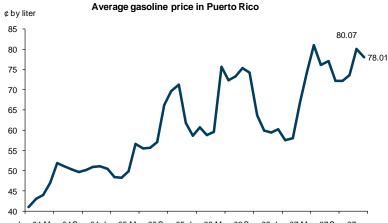
The contraction of the economy, in general, has also affected the growth in government revenues. Net revenues of the General Fund decreased by -10.3% in the first trimester of 2007 (Graphic 23). In the second trimester of 2007, revenues increased by 24.1% as a result of the temporary tax measures which were taken in order to close the year with a balanced budget. In the third trimester, however, revenues contracted again by -8.8%.



General Fund Net Revenues (Quaterly interannual growth)

Another factor in the decrease of consumption is the sustained increase in oil prices, which been consistently increasing since the beginning of 2002. This increase has translated into increased prices for consumers at the gas pump. For the month of November 2007, the average price for gasoline in Puerto Rico surpassed 80 cents a liter and decreased to 78.01 cents a littler in December 2007 (See Graphic 24). Inevitably, this creates general inflationary pressure by taking buying power away from personal income and negatively affecting consumer confidence.

Graphic 24



Jan-04 May-04 Sep-04 Jan-05 May-05 Sep-05 Jan-06 May-06 Sep-06 Jan-07 May-07 Sep-07

Source: DCA

ECONOMIC PERSPECTIVES FOR 2010

This section presents the projections for the principal components of the Gross Domestic Product (GDP) for 2010. The same were done in real terms. The estimated variables were: GDP, investment in public and private construction, government expenditure and personal consumer expenditure.

A. Economic growth

The behavior of Puerto Rico's economy will continue to contract until at least December 2007, reason for which a reduction of economic growth of -1.2% for fiscal year 2007 and - 0.9% for fiscal year 2008 is expected. For the following two fiscal years, it is estimated a moderate growth in tune with the economic cycle, with a constant growth of 1.2% in fiscal year 2009 and 1.9% in 2010 (See Graphic 25)



Graphic 25

Also, reductions in public investment in construction of -1.2% in 2007, -2.6% in 2008, -5.8% in 2009 and -5.6% in 2010 are expected. For its part, the growth of private investment in construction is estimated to be 1.5% for fiscal year 2007 (See Table 3). However, beginning in fiscal year 2008, additional contraction is expected in private investment in construction with expected growth rates of -4.7% in fiscal 2008, -3.2% and -0.9% for fiscal years 2009 and 2010, respectively.

Starting in fiscal year 2007, a contraction in public spending of -0.5% is expected followed by a slight recuperation of 0.1% in 2008, 1.3% in 2009 and 1.2% in 2010.

Table 3	la	b	le	3
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Growth of the Real GNP and its main components									
Fiscal years									
						Forecast			
	2002	2003	2004	2005	2006	2007	2008	2009	2010
GNP real	-0.3%	2.1%	2.7%	1.9%	0.7%	-1.2%	-0.9%	1.2%	1.9%
Private consumption	2.6%	3.7%	4.3%	3.4%	2.2%	1.6%	0.1%	0.8%	1.2%
Public consumption	5.5%	2.5%	0.6%	4.2%	0.1%	-0.5%	0.1%	1.3%	1.2%
Domestic investment	-7.0%	0.0%	7.7%	-4.0%	2.2%	1.5%	-2.9%	-1.3%	1.0%
Construction	-4.6%	-3.9%	1.0%	-7.0%	-5.8%	0.3%	-3.8%	-4.3%	-1.9%
Private	-4.5%	-8.3%	-1.4%	-11.5%	-5.9%	1.5%	-4.7%	-3.2%	0.9%
Public	-4.9%	3.4%	4.6%	-0.7%	-5.8%	-1.2%	-2.6%	-5.8%	-5.6%

Source: PRPB, Apéndice Estadístico 2006, Table 3; ETI

The estimates also present reduction in expenditures at the private level. An increase of 1.6% in consumer spending is expected for 2007. For 2008, a reduction of 0.1% is projected, reflecting a slowdown in consumption. However, it is expected by fiscal year 2009, consumer spending increases by 0.8% and maintains a similar level until 2010.

The description of the economic indicators selected is consistent with an economic recession which in all likelihood began in the third trimester of fiscal year 2006 (T3-06). This was most evident in areas such as employment, retail sales, auto sales and construction indicators.

The recent behavior of these indicators could generate some level of instability for real economic grown for the period of 2007-2010. In fact, it is expected that the recession will last until, at least, midway through the natural year of 2008. According to these projections, the recovery in subsequent fiscal years will be slow.