Abstract

The main of this article is to analyse the evolution of Cape Verdean economy and find a binding constraint to economic growth, using the technique “growth diagnostic” proposed by Hausmann et al. (2005). The real GDP per capita in Cape Verde increased from US$ 806 in 1970 to US$ 2.830 in 2011, with average annual growth rate of 3.3%. The service sector was the main share in GDP production side. Cape Verdean economy presents great dependence of external capital and, despite the considerable growth, the unemployment rate remains high and public debt is high but sustainable.

We found some factors that constitute constraints to economic growth, as weak financial intermediation, poor infrastructure, high costs in the inter-island connections and strong deviation between the human capital needs and areas of formation of secondary and tertiary education. Thus, government policies should be aimed at overcoming these barriers.

JEL codes: O1, O4, O5.

Key words: Economic growth, Country analysis, Growth diagnostic, Countries competitiveness, Cape Verde.
1 – Introduction

Cape Verde with US$ 3,616 of GDP per capita (PPP, 2005) in 2011 was 116th richest economy in the world (172 countries with data available) and was 16th between African economies. The real GDP per capita (US$, 2005) in Cape Verde increased from US$ 806 in 1970 to US$ 2,830 in 2011, with annual average growth rate of 3.3%. Cape Verde in 2011 exceeded all small African1 countries that in 1970 had almost the same level of GDP per capita, with the exception of Equatorial Guinea (its explosive growth over the past two decades is due to the discovery and exploitation of oil). So, it is pertinent to make this question: in the future Cape Verde will maintain the same level of growth? Which is the main source of economic growth in Cape Verde? The growth diagnostics framework can help us with these questions.

With this article we intend to make an analysis of the main factors that have driven Cape Verde economic growth in the period 1970-2011, and identify a binding constraint to investment/economic growth in order to suggest policies for overcoming these barriers. For this, we use Growth Diagnostic model (HRV) developed by Hausmann, Rodrik and Velasco (2005).

We found that the evolution of the Cape Verdian economy is conditioned by the geographical feature of the country, shortage of natural resources and fluctuation of external resources. We identified several factors that have constraint investments, such as weak financial intermediation, poor infrastructure and high costs in the inter-island connections and inefficient power supply. Thus, government policies should be aimed at overcoming these barriers.

Follows the structure of the work: in the second chapter, we describe the evolution of the Cape Verdian economy in the period 1970-2011, in the third, we present and implement the HRV model, and in the fourth, we have the conclusion of the work, with some suggestions of policies to help overcome the barriers identified.

1 The world positions of GDP per capita (PPP, 2005) for small African countries used in this study to compare with Cape Verde are: E. Guinea 23rd (US$ 32,026), Seychelles 35th (US$ 23,172), Mauritius 63rd (US$ 12,737), Swaziland 97th (US$ 5,349), Djibouti 134th (US$ 2,087 value of 2009), Gambia 139th (US$ 1,873), ST Prince 140th (US$ 1,805), Lesotho 146th (US$ 1,504), G. Bissau 155th (US$ 1,097) and Comoros 159th (US$ 980). The average GDP per capita of some groups of countries used to compare with Cape Verde: Sub-Saharan Africa (US$ 2,073), Middle income countries1 (US$ 6,232), Small States1 (US$ 7,751) and World average (US$ 10,061).
2 – Economic Dynamic

2.1 – Evolution of GDP growth in Cape Verde - production side

Analysing the GDP by the production side\(^2\), namely the Gross Value Added (GVA) in the period 1971-2010, the tertiary sector had the highest contribution, with a real annual average growth rate of 5.4% and weigh of 65.5% of GVA.

In the decade 1971-1980, GVA grew at a real annual average rate of 1.2%. The sector with the highest real annual average rate of growth was agriculture (3.7%). The poor performance of economy sectors was associated with the fact that colonial administration had left Cape Verde with high illiteracy rate (about 50%), weak productivity and economic infrastructure non-existent. In the next period 1981-1990, GVA grew at a real annual average rate of 5.3%. The industrial sector has the highest annual average rate of growth (9.8%), which was explained with investments made, mainly, by the government, following the import-substitution strategy.

In the period 1991-2000 the GVA grew at a real annual average rate of 6.5%. The sector with the highest average annual rate of growth was transport and communications (12.8%). The increase in tourism and the services related to air traffic were the main drivers of this growth level. In the decade 2001-2010 GVA grew at a real annual average rate of 5.7%. The sector of trades, restaurants and hotels was the highest growth (8.4%), which was associated with great dynamism and development of tourism, followed by construction sector with growth of 7.5%, motivated by political infra-structure of the country followed by the Government and FDI related with tourism (construction of hotels).

Figure 1: Real GDP growth, production side

Source: UN

2.2 – External capital

The influx of foreign capital (FDI, remittances and aid and development assistance) in Cape Verde in the period 1986-2010, representing an annual average of 43.2% of GDP, with decrease trend in remittances and aid and increase trend in FDI. But this increase in FDI has not been sufficient to cover the reductions in others variable, and in the last two years FDI has also decreased due to unfavourable international economic environment.

**FDI – Foreign Direct Investment**

The annual average of FDI in the period 1986-2010 was 4.5% of GDP. The FDI start to have an impact on the Cape Verdean production in 1995 with the privatization of some public enterprises. In the period 2005-2010, about 63% of FDI had origin in Europe and Spain was the largest investor. The tourism sector was dominant, with 76% of total FDI, followed by financial services with 10%.

**Workers’ Remittances**

The annual average of remittances in the period 1986-2010 was 23.5% of GDP, but it has been decreasing. The reduction in the last decade may be associated with unfavourable economic situation of living in the main host countries of migrants, and also according to Ronci et al. (2008) the reduction in remittances can be justified by that migrants in some countries (as USA) are the fourth or fifth generation, thus reducing the identification and social link with Cape Verde and the increased opportunities in Cape Verde has relieved the pressure on emigration.

In the survey conducted in Cape Verde (Santiago Island), in 2006, by OMCV (Organização das Mulheres de Cabo Verde) and the Italian organization PCN (Pessoas Como Nós), they found that remittances received are distributed as follows: 76.4% on food, 9.4% in education, 6.3% on housing construction, 3.1% for bank savings, 2.1% for economic activities and 2.7% in other activities.

**Aid and official development assistance**

The total of aid and official development assistance received (15.2% of GDP) in the period 2000-2010, was in the form of donations 73%, budget support 16% and food aid 11%. The total of public investments (12.7% of GDP) in the period 2000-2010, 46% was financed by foreign capital aid. That mean the aid received was used more to finance consumption.

With this analysis we verified that foreign capital has played an important role in boosting GDP in Cape Verde. However, most of the capital has been directed to consumption expenditure.
2.3 – Public debt dynamics and sustainability of external debt

The public debt in Cape Verde decreased between 2001 and 2008, from 84.1% to 68.2% of GDP. The reforms introduced under the program PSI (Policy Support Instrument) signed with the IMF in 2006 (limit the public debt in 70% of GDP for 2009) had great contribution in reducing debt. But in the following years (2009, 2010 and 2011) the debt increase, reaching 87.5% of GDP in 2011. The strong growth debt, mainly external debt, is justified by the opportunity to avail the concessional loans that will reduce due to the graduation of Cape Verde to the middle developing country. About 82% of the stock of external debt corresponds to concessional loans, therefore, under conditions quite favourable (long amortization period, about 30 years and low interest rates, around 1%).

The solvency level measured by the ratio between the stock of external public debt to GDP in the period 2001-2011, was always higher than the limit of sustainability (44% of GDP), and by the ratio between debt stock and internal revenue it exceeds the limit (250% of government revenue internal) only in 2011. The ratio of debt stock to exports was below the threshold. Regarding liquidity, debt service was much lower than the limits established by the ratio of exports and domestic revenues. Thus, Cape Verde has sufficient liquidity to meet their commitments regarding foreign debts. And, when we consider remittances received we see that it has increased the solvency and liquidity of the country.

Table 1: Sustainability of external debt

<table>
<thead>
<tr>
<th>Variables</th>
<th>Limit (*)</th>
<th>2001-2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext. Debt./GDP (%)</td>
<td>44</td>
<td>54,7</td>
<td>48,7</td>
<td>46,3</td>
<td>46,4</td>
<td>50,9</td>
<td>60,0</td>
<td>67,2</td>
</tr>
<tr>
<td>Ext. Debt./GDP+Remittances (%)</td>
<td>58</td>
<td>48,4</td>
<td>43,5</td>
<td>42,1</td>
<td>42,3</td>
<td>46,8</td>
<td>55,4</td>
<td>61,0</td>
</tr>
<tr>
<td>Ext. Debt./Export (%)</td>
<td>226</td>
<td>169</td>
<td>113</td>
<td>108</td>
<td>100</td>
<td>130</td>
<td>141</td>
<td>142</td>
</tr>
<tr>
<td>Ext. Debt./Exp+Remett. (%)</td>
<td>216</td>
<td>121</td>
<td>89</td>
<td>88</td>
<td>83</td>
<td>106</td>
<td>118</td>
<td>117</td>
</tr>
<tr>
<td>Ext. Debt./Domestic revenue (%)</td>
<td>250</td>
<td>239</td>
<td>180</td>
<td>149</td>
<td>160</td>
<td>196</td>
<td>246</td>
<td>264</td>
</tr>
<tr>
<td>Debt. Serv./Export (%)</td>
<td>24</td>
<td>8,7</td>
<td>5,9</td>
<td>5,1</td>
<td>4,6</td>
<td>5,6</td>
<td>4,8</td>
<td>4,3</td>
</tr>
<tr>
<td>Debt. Serv./Exp+Remett. (%)</td>
<td>16</td>
<td>6,2</td>
<td>4,7</td>
<td>4,1</td>
<td>3,8</td>
<td>4,6</td>
<td>4,0</td>
<td>3,5</td>
</tr>
<tr>
<td>Debt. Serv./Domest. revenue (%)</td>
<td>22</td>
<td>12,3</td>
<td>9,5</td>
<td>7,0</td>
<td>7,3</td>
<td>8,4</td>
<td>8,4</td>
<td>7,9</td>
</tr>
</tbody>
</table>

Source: BCV (2012): Boletim de Estatisticas 20 anos

(*) It is considered the threshold for countries with CPIA strong⁵. These values are in the study conducted by International Monetary Fund and World Bank (2012) "Revisiting the Debt Sustainability Framework for Low-Income Countries"

2.4 – Labour market - Employment and Unemployment

The Cape Verdean population increased from 431,989 in 2000 to 491,575 inhabitants in 2010. During this period the population of working age (15 years or more) grew by 36% (an increase of 88,545 individuals), distributed 30.7% for active⁴ population and 69.3% to inactive⁵ population.

³ Despite the decrease in index rating CPIA (Country Policy and Institutional Assessment) from 4.5 in 2010 to 4.0 in 2011, the Cape Verdean score remains strong. If the CPIA index is less than 3.25 the quality is poor and if it exceeds 3.75 is strong.
In the period 1989-2009 were created about 143,500 jobs\(^6\), of which 54% in the last five years (2005-2009). Most of these jobs were on low skilled and activities with low added value. In Cape Verde around 60% of jobs are filled by unskilled or low-skilled. The service sector employs about 54% of workers.

Unemployment, recently, has affected mainly the population instructed. In 2011, the unemployment rate in the population with higher education was 16.8% and secondary school 19.4%, values above the national average which was 12.2%.

In the period 2000-2008 the average annual unemployment rate was around 20%. In 2009 there was a strong reduction in the unemployment rate, to 13.1%, explained by the new calculation approach used by INE. If we consider the old approach, in 2009 the unemployment continues to be around 20%.

In report of Banco Mundial (2010) they argue that in Cape Verde the high level of unemployment is explained, partly, by the high reservation wage resulting from the fact that household receiving high levels of remittances, which decreases the rate of the labour market and thus generates certain unemployment rigidity.

3 – Growth diagnostic

Hausmann, Rodrik and Velasco (2005) proposed a simple model (HRV) for the economic growth diagnostics of a country. This model based on assumption that in equilibrium the economy grows as a function of the difference between the expected return on accumulated assets and the cost of these assets. Thus the greater the difference between the expected return and the cost of financing, the greater is the effort for investment, Hausmana et al. (2008). The HRV model:

\[
g = \frac{c_t}{c_t} - \frac{k_t}{k_t} - \rho [r(1 - \tau) - \rho]
\]

Where:

\(\tau\) – Tax rate on capital (current or anticipated, formal or informal); \(\rho\) – Opportunity cost of funds; \(r\) – Expect social return to investment; \(\sigma\) – Intertemporal elasticity in consumption; \(g\) – Growth rate; \(c\) – Level of consume per capita; \(k\) – Level of capital per capita

\(^4\) Individuals aged 10 years and are available to produce goods and services that enter in economic circuit. Includes the employed and the unemployed, INE (ISE - 2005).

\(^5\) Individuals of any age who were neither employed or unemployed. Includes the following groups: Domestic, students, retired, disabled, and other situations, INE (ISE - 2005).

\(^6\) Includes the reclassification of workers and creation of new jobs.
The model has two hypotheses of growth restriction: low expected private return on accumulated assets, \( r(1 - \tau) \), or high cost of financing (\( \rho \)). The low return on accumulated assets can be associated with weak social return (\( r \)) or weak expected appropriability (\( 1 - \tau \)). The high cost of financing can be justified by a lack of aggregate savings (due to reduced domestic savings or difficult access to external savings) or poor financial intermediation.

Hausmann et al. (2008) proposed a decision tree for the exercise of "growth diagnostics", based on the presented model, and consists of identifying factors that may justify the weak economic growth, making a series of questions and presenting possible hypotheses as they advance through the tree branches. The main challenge is to find the binding constraint to economic growth, and once identified should be given great attention of policy makers.

**Figure 2: Tree of growth diagnostic**

Source: Hausmann et al. (2008)

**Decision Tree - HRV**

We start by basis question: *Private investment is low in Cape Verde?* To answer this question, we analyse the evolution of private investment.

Compared to other small countries in Africa, Cape Verde was the third highest annual private investment in the GDP from 1986 to 2010. The Cape Verdean average (22.8% of GDP) was higher than the average of small States (18.2% of GDP), LMIC (Low Middle Income Countries, 14.6% of GDP) and Sub-Saharan Africa region (12.5% of GDP).

Analyzing the structure of investment (public and private) in Cape Verde, in the period 1980-2007, most of the investments were in the construction sector, with an annual average of 63.9% of total investments, followed by the equipment sector (20.4%) and transport equipment (13.4%). The investments in housing construction represent annual average of 46.6% of investment in
construction sector, non-residential buildings (such as schools, hospitals, etc.) constitute 24.7% and others construction (such as roads, airports, etc.) 23.7%.

**Figure 3: Structure of Investment (public and private)**

The level of private investment in Cape Verde is satisfactory. But, about 63.9% of the investments were in construction. Thus, it is pertinent the question: why investment has been low in other sectors and not in the construction? The cost of financing is high or economic return is low?

3. 1 – Access / Cost of finance

*The cost of financing is high in Cape Verde?* This question can be answered by analysing the lending rates and the domestic credit to the private sector.

**Interest rate**

In Cape Verde the annual average real lending interest rates in the period 2000-2011, was 9.8%, with a decreasing trend. Between small African countries, Cape Verde was the fourth largest annual average interest rate over the period. The Cape Verdone average is less than Mauritius, but is about 7 percentage points higher than the Seychelles average, which has the lowest interest rate (2.58%).

**Domestic credit**

Domestic credit to the private sector in Cape Verde increased from 40.1% of GDP in 2000 to 61.1% of GDP in 2011, and the annual average was 46.6% of GDP and compared with other small African countries, Cape Verde was the second largest annual average. The Cape Verdone average is below the average of LMIC (58.7% of GDP), Sub-Saharan African countries (59.6% of GDP), and World level (131.4% of GDP) and over the group of Small States (36.5% of GDP).

The majority of credit to private sector is for individual’s activities, namely, purchases of houses. In the period 2001-2011 about 57% of the credit were to households (39.8% for purchases of houses...
Despite the positive evolution of private credit, the cost of financing remains high in Cape Verde. The access to finance is cited in Investment Climate Assessment - ICA\textsuperscript{7} (2009) as the second biggest obstacle to business in Cape Verde and in "Global Competitiveness Report 2011-2012" is the first.

Following the model of the decision tree (HRV), the high cost of financing can be associated with: low domestic savings, difficult access to foreign savings, low competition, high risk or high cost.

3.1.1 – Access to external financing
In the period 2000-2010 the annual average foreign capital (FDI, remittances and aid and development assistance) was 35% of GDP. The public investments made between 2000 and 2010, about 80% were financed by foreign capital (grants, food, aid and loans). Thus, access to external financing does not seem to be a binding constraint.

3.1.2 – Domestic savings
Domestic savings (public and private) in Cape Verde, between 1990 and 2003 was almost always negative and grew from 1.9% of GDP in 2004 to 13.2% of GDP in 2008, and decrease in 2011 to 6.2% of GDP. In the period 1990-2011 the annual average domestic savings in Cape Verde was 1.2% of GDP, which is low when compared with the annual average of LMICs (26.8% of GDP), small States (21.1% of GDP) and Sub-Saharan Africa region (15.8% of GDP).

Domestic savings in Cape Verde is low, but does not seem a constraints to financing access, because otherwise we would observe high interest rates of deposit to attract savings. Interest rates on deposits exhibit a downward trend from 1990 to 2010. And compared to other small countries in Africa, Cape Verde with an annual average of 4.2% is the third country with the lowest average interest rate of deposit. The low domestic savings seems to be compensated by the easy access to foreign capital, so the savings (internal and external) seems not to be a binding constraint.

3.1.3 – Domestic financial intermediation
Weak financial intermediation can lead to high financing costs. Weak domestic financial intermediation by the HRV model may be a result of low level of competition, high cost and high risk in the banking sector.

\textsuperscript{7} World Bank Investment Climate Assessments - in this survey participated 156 industrial and services companies, located on the islands of S. Vicente, Sal and Santiago, where 79 small companies (5-19 employees), 52 medium-sized companies (20-99 employees) and 25 large companies (over 100 employees). \url{http://www.enterprisesurveys.org}
Spread

High value of the interest rate spread is the first indicator of weak domestic financial intermediation, Hausmnan et al. (2008). The spread in Cape Verde has fluctuated from 5.4% in 2006 to 7.9% in 2010 with growing trend. Comparing the annual average spread in the period 2000-2010 in Cape Verde (7.8%) with other small African countries, we found that only Swaziland (6.6%) and Seychelles (6.8%) have lower value. The spread in Sub-Saharan Africa region (11.2%) is higher than in Cape Verde (7.8%) and in LMICs (7.9%) and small States (7.5%) are close.

Other factors that may explain weak domestic financial intermediation (measured by the high value of the spread) for RVH model is low level of competition in the banking sector or high risk.

Level of competition

Financial system with few banking institutions may have weak competition. In 2011 the financial system in Cape Verde on onshore market had: eight credit institutions and ten non-bank institutions, and on offshore market: eight institutions in banking system and one company of fund management.

Although there are considerable numbers of financial institutions by the size of the Cape Verdean market, we found that in 2011, about 42% of the credit market belonged to the largest bank and the two largest banks held 71% of the credit. Compared net income of banks in the period 2006-2011, the largest bank earned an annual average of 52% of total bank profits and the average of the two largest banks was 82%. The Herfindahl and Hirschman Index\(^8\) (HHI) used to assess the level of concentration in the banking sector, in 2011, was 2,942 (Relatório de Estabilidade Financeira - BCV, 2012), which means a high degree of concentration in the banking sector. By the values of these variables, we conclude that in Cape Verde the competition in banking sector is weak.

High risk

In Cape Verde the main risk identified in the banking sector by stress tests (June and December 2011) was credit risk, due the high concentration of loans in the construction sector. The weight of non-performing loans in total credit increased in recent years, from 2.5% in 2008 to 6.8% in 2011, thus representing a deterioration of credit risk. Another indicator of a high risk level and also limiting access to bank credit is the high ratio of required collateral to loan. In Cape Verde, according to ICA (2009), the ratio of required collateral to loan value was 176.4%, greater than World average (164.5%), and Sub-Saharan Africa (160%). Between small African countries, which we have information, Cape Verdean average is higher than Lesotho (66.9%) and Mauritius (59.9%).

\(^8\) The Herfindahl-Hirschman ranges from 0 to 10,000. Markets with values less than 1,000 are competitive, with values between 1,000 and 1,800 have some concentration in the market and values greater than 1,800 are very concentrated, Calkins (1983).
This analysis suggests that in Cape Verde the domestic financial intermediation is weak (high level of spread) justified by a domestic banking system very concentrated and a strong risk of credit concentration.

3.2 – Low return to economic activity
On the left side of the “decision tree” the weak private investment can be explained by low returns in economic activity, which is associated to low social returns or weak expect appropriation.

3.2.1 – Low social returns
Weak social returns can be explained by several factors, but the HRV model considers those additional factors to investment which are scarce and individual investor can’t provide. It is indicated: inadequate human capital or infrastructure deficient.

3.2.1.1 – Human capital
If human capital is not in quantity and quality desired by firms or is expensive to hire it leads to low social returns. If human capital is inadequate, workers with more skill and higher education will receive higher wages and face lower unemployment rate, Hausmnan et al. (2005).

In 2009 about 84.8% of the population was literate in Cape Verde, exceeding the average of Sub-Saharan Africa (62.6%) and among small African countries, Cape Verde was seventh with the highest rate. The expectation of education in Cape Verde increased from 7.8 years in 1980 to 11.6 years in 2011, and was the third largest between small African countries and exceeds the average of Sub-Saharan Africa (9.2 years) and Small Island Developing States – SIDS\(^9\) (10.8 years). Cape Verde is well positioned as enrolment in primary and secondary education in relation to other small African countries. For tertiary education, we see a greater difference between Cape Verde and Mauritius (the best positioned) in 2005.

The labour force inadequate was considered in the ICA (2009) survey the third biggest obstacle to business in Cape Verde (by 6.1% of small companies, 7.7% of medium companies and 23.7% of large companies) and in report "Global Competitiveness Report 2011-2012” was the second most problematic. The low ranking of Cape Verde is related, mainly, with weak quality of school management, poor availability of specialized training of high quality and low investment in education and training of workers.

\(^9\) Definition of small island countries followed by UNCTAD.
The unemployment (in 2011) is more pronounced in the population with secondary (19.4%) and tertiary education (16.8%), i.e., workers with higher level of education is more likely to be unemployed compared to those with lower levels.

From the data presented, the human capital in Cape Verde seems to be affected by the quality and also the gap between the areas of training (especially in tertiary education) and market needs. So, human capital does not seem to be a binding constraint to social returns in Cape Verde, but it is possible that some specific sectors suffering from shortage of skilled workers.

3.2.1.2 – Infra-structure

In recent years Cape Verdean government has invested heavily in infra-structure of the country, with the highest incidence in the roads and ports infrastructure.

**Roads**

In 2001, the density of the road (per 100 km² of land) in Cape Verde (33 km) was less than in Seychelles (100 km), Mauritius (99 km) and Comoros (39 km), but greater or equal the other small African countries. However, it should be noted that the government has made greats investments in roads in recent years, so the position of Cape Verde maybe has improved.

**Ports**

All nine islands in Cape Verde have ports, and only three (Porto da Praia, Porto Grande and Porto da Palmeira) receive international traffic.

In the survey conducted by United Nations Industrial Development Organization - UNIDO (2010) entrepreneurs consider maritime transport (due to high cost) between the islands as a major obstacle to business. In Cape Verde the cost (US$ 1000/container - import, US$ 1200/container - export) and time needed in imports and exports (18 days - import, 19 days - export), despite being less than the average of Sub-Saharan Africa is significantly higher than the two small African countries better positioned, Seychelles (cost: US$ 695/container - import, US$ 660/container - export; time: 13 days - import, 10 days - export) and Mauritius (cost: US$ 876/container - import and export; time: 17 days - import, 167 days - export). This high cost and time spent on imports and exports can be a disincentive for companies to locating in Cape Verde.

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10 Survey conducted in September 2010 by the United Nations Industrial Development Organization (UNIDO) in cooperation with the United Nations for Gender Equality and the Empowerment of Women (UN Women).
**Airports**
Cape Verde has 7 airports, including 4 international (São Vicente, Sal, Boa Vista and Santiago) and 3 for only domestic flights (S. Nicolau, Maio and Fogo). Among African countries, Cape Verde is one of the few and between the small African countries is the only certified by the Federal Aviation Administration/International Aviation Safety Association (FAA/IASA), both the airport of Santiago and Sal. However, according to Briceño-Garmendia and Benitez (2011) Cape Verde faces huge challenge associated with spending on air transportation, amounting to 11% of GDP (40% of total expenditure on infrastructure).

**Electricity**
In Cape Verde, in 2005 (World Bank data), about 70.7% of the population had electrical connection and the production cost was US$23.34 / kwh. In 2006 power outages, causes business loss of 8.8% of sales. Cape Verde is well positioned as the coverage of the electrical connection, but for the cost of energy production, number of cuts and losses for companies it needs to improve considerably. According to Briceño-Garmendia and Benitez (2011) the high cost of electricity in Cape Verde is due to inefficiency operational of ELECTRA\textsuperscript{11}, representing an average annual cost of 19 million U.S. dollars, which is very high compared to other middle income countries.

**Communication and Information Technology\textsuperscript{12}**
The mobile network coverage in Cape Verde in 2006 was 81% of the population, value close to the average of middle-income African countries (84%). In 2007, for every 100 inhabitants in Cape Verde about 8.3 were Internet users, which is higher than middle-income African countries (4.4) and compared to other small countries, Cape Verde is surpassed only by Seychelles (37.6) and Mauritius (15.9). For the landline, in 2007, in Cape Verde every 100 inhabitants about 14.6 had a telephone. This value is higher than the average of middle-income African countries (7.3), and only Seychelles (26.7) and Mauritius (28.7) exceeds Cape Verde, between small African countries.

In the report "Global Competitiveness Report 2011-2012" the quality of infrastructure, in general, in Cape Verde is considered low and is identified as the fifth biggest obstacle to doing business.

We can conclude that electricity supply and cost and time of maritime transport seem to be a constraint to social returns in Cape Verde.

\textsuperscript{11} Public enterprise production and supply of water and electricity
\textsuperscript{12} Data from WDI
3.2.2 – Low expected appropriation
The low appropriability of investment is explained in the HRV model by government and market failures.

3.2.2.1 – Government failures
The failures of the government are divided into microeconomic and macroeconomic risks.

Macroeconomic risks:

   External debt
In the period 1990-2011 the annual average external debt stock in Cape Verde (47.7% of GDP) was over the limit of 44%\(^{13}\) of GDP, but according to studies conducted by the IMF (2012, Report No. 12/29), the BCV (2011) and our analysis in previous chapter, the public debt servicing in Cape Verde is sustainable, considering the level of exports and domestic revenues. This is due to the following facts: a large proportion of the stock of external debt is concessional (about 82% of the external debt was concessional), the values of internal revenues cover current expenses and the international reserves are at satisfactory levels.

   Budget balance
The budget deficits excluding grants have been high in Cape Verde. In the period 2003-2011 the annual average was -11.2% of GDP, which was the third largest deficit between small African Countries. But, if we consider only current revenues, these have been sufficient to cover current expenses, generating positive current balance of 2.5% of GDP in the period 2001-2011.

   Inflation
Inflation in Cape Verde has fluctuated between 1990 and 2011 and the annual average was 4.1%. Cape Verde has the lowest annual average rate of inflation in consumer prices compared with other small African countries, LMICs, Sub-Saharan region and small States. So, the level of inflation in Cape Verde is unlike to be a binding constraint.

   Exchange rate
Cape Verde signed an agreement peg with Portugal since 1998, which was extended to the Eurozone with the accession of Portugal to Eurozone. The Eurozone countries constitute the main market trade for Cape Verde (in 2011 approximately 94.5% and 80.4% of exports and imports of

\(^{13}\) Is defined in the study conducted by the World Bank and International Monetary Fund (2012) "Revisiting the Debt Sustainability Framework for Low-Income Countries."
goods, respectively, had as destination/origin of the Eurozone countries), thus the evolution of the exchange rate does not seem to be a binding constraint in Cape Verde.

Macroeconomic risks, considered as a whole, are unlike to be a binding constraint this point in time, despite the high fiscal deficit and high external debt stock, the situation is sustainable. However, deteriorating in economic and financial conditions in Europe have strongly influenced economic variables in Cape Verde, and have conditioning/delayed funding of some public investment projects, which has passed the slowdown in private investment.

**Microeconomics risks:**

**Political stability and governance**

The "political instability" is ranked as the third factor that is lower constraint business in Cape Verde in the "Global Competitiveness Report 2011-2012". Comparing 2011 and 1998, we found that governance\(^{14}\) improved in Cape Verde in the variables "Control of Corruption", "Voice and Accountability" and "Regulatory Quality" and there was a slight deterioration in the "Government Effectiveness", "Rule of Law" and "Political Stability". Between small African countries in 2011, Cape Verde was ranked best country in the indicators "Control of corruption" and "Voice and Accountability" and the other variables was in second or third position. Cape Verde was well positioned in relation to the average of sub-Saharan Africa.

**Business climate**

Cape Verde in 2007 by the report “Doing Business" was in an intermediate position in relation to other small countries in Africa and was far from the two best ranked countries, Mauritius and Swaziland. But, in 2012 the classification of Cape Verde has improved and become the third best among the small African countries. This progress is due to the reforms introduced in 2009/2010 and 2010/2011 of paying taxes, registering property, getting credit, resolving insolvency and start businesses.

So, we can say that the political instability, governance and business environment are unlike constraints the appropriation of returns in Cape Verde.

3.2.2.2 – Market failures: information and coordination externalities

According to Rodrik (2003) even in situations where government policies encourage entrepreneurship, the economy can maintain a low level due to the nature of markets. For Hausmann and Klinger (2007) if a country facing weak economic growth due to the failure of new products exported, then the indicator of the sophistication of exported products must be low for the level of development of the country, but if the country has high value of products exported in relation to their income level is difficult to argue that the lack of discovery of new products have constrain economic growth.

Hausmann et al. (2007) proposed the indices EXPY to measure the level of performance/productivity for the pattern of a country's exports. The level of EXPY in Cape Verde fluctuated between US$ 8,500 and US$ 12,300 in the period 1995-2011. The EXPY in 2009, 2010 and 2011, reaching levels close to 1996 and 1997, which shows a lack of adjustment in exports as a result of changes in product prices.

Analysing the level of EXPY and GDP per capita between small African countries, we found that Cape Verde was the fifth largest country by the average GDP per capita (PPP, US$) in the period 1995-2011 and third for the level of EXPY. Therefore, the degree of sophistication of exports in Cape Verde is higher than expected given the level of development (measured by GDP per capita PPP) compared to small African countries. So, market failures not seem to be obstacles to growth.

Services represent about 80% of Cape Veredian exports, so it is easy to conclude that policies in Cape Verde are to intensify the export of services rather than goods, which may also justify the weak innovation products exported.

Figure 4: EXPY evolution

Source: UNCTAD e WDI
4 – Conclusion

Real GDP in Cape Verde grew at an annual average rate reasonable compared to the average of the other small African countries, despite some constraints related to the characteristics of Cape Verde (such as scarcity of natural resources and insularity).

The services sector represents the main determinant of GVA and within this sector the highest weight is the transport and communications, but currently the biggest impact has been travel. Foreign capitals (FDI, aid, remittances and loans) have been major impact in Cape Verdean economy, because they have funded much of the current account deficit (as a result of higher imports of goods) and budget balance. The sectors that employ a greater number of individuals are service and most workers are unskilled. Despite the high level of growth the unemployment rate remains high.

Cape Verde is a country in development and presents several factors that appear to be constraint to their economic growth. The factors that constraint investments/growth, regarding the HRV model:

a) Financial intermediation: is weak, which has led to high cost and difficulties in access to finance. This undermines the financial sustainability of many businesses, thus constituting a barrier to investment.

b) Access to finance: Cape Verde is open economies with large inflows of foreign capital which compensate the reduced domestic savings, so the availability of capital does not seem constitute obstacles to investment.

c) Human Capital: the literacy rate and expectation of school in Cape Verde is satisfactory. However on the ICA (2009) survey the workforce inadequate was considered by large companies as the biggest obstacle to business. So, we can say that human capital, in general, may not yet be a barrier to social returns, but the quality of human capital needs to be improved. We also verified, high employment rate in classes with secondary and tertiary education, which reveals that there is no correspondence between the market needs and areas of expertise of formation.

d) Infrastructure:

a. Roads, ports and airports not seem to be the major constraint to investment. However, the frequency of connections service between islands and the associated costs and time (export and import) have affected many companies and may represent a disincentive to investment in Cape Verde.

b. Electricity: the data point to high cost of production and successive cuts, which have negative influences on social returns and is a disincentive to investment.
e) Macroeconomic risks: the external debt stock is above the threshold level but is sustainable; the overall budget balance has been deficit, but the current revenues are sufficient to cover current expenditure; and, inflation has been low. So, macroeconomic risks do not appear to pose barriers to investment. However, Cape Verde need to increase control over stock of external debt and budget balance to avoid that in the future affect adversely the investments.

f) Microeconomic risks: Cape Verde has satisfactory levels of governance variables and already made significant progress in the business climate, so there not seems to represent constrain to investment. But, Cape Verde must improve the quality of regulation and government effectiveness, reduce the costs and time spent in open businesses, lower taxes and the time to prepare and pay taxes and reduce the cost per containers and the time spent in foreign trade. These improvements in the business environment can also reduce the number of informal production units, which was indicated in the ICA (2009) survey as the main obstacle to business.

g) Failure of the market: there not seem to constitute constraint to investment, because product sophistication (EXPY) is compatible with the level of GDP per capita. The diversification of export products is quite low, however the impact of this failure does not seem to affect deeply the economy, because the Government is main focus has been in the service sector.

Thus, in order to increase the competitiveness of the country, in addition to the measures outlined, we think it appropriate that the government create conditions for greater use by domestic entrepreneurs the opportunities arising from FDI and the tourism sector, encourages investments in other sectors of activities to reduce the concentration of loans in construction and increase the diversification of products exported (by promoting complementary public goods), and adopt measures that may lead to reduction in the cost of bank financing and thus increase the financial viability of many investments.

These findings were based on data presented here, so that possible changes in the future may alter the conclusions regarding the current obstacles to the growth of the Cape Verdean economy.
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