Explaining High Unemployment in ECCU Countries

by Ronald James, Jemma Lafeuillee, Mike Xin Li, Gonzalo Salinas, and Yevgeniya Savchenko

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Explaining High Unemployment in ECCU Countries

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July 2019

In recent years, unemployment rates in some ECCU countries have been among the highest globally. This paper evaluates several factors that could explain them, finding that high unit labor costs, in a context of strong unionization, are significantly associated with high structural unemployment, while the global crisis added a cyclical component. Our analysis also suggests that high-paid jobs in the public and tourism sectors, which have been growing considerably in recent decades, could have increased the reservation wage and lowered labor force participation. We find no indication that high structural unemployment is related to the phase out of EU preferences on bananas/sugar exports or to a skills mismatch. As expected, unemployment has been substantially, but only temporarily fueled by large natural disasters.

JEL Classification Numbers: J01, J08, J21, J31, J51, J60

Keywords: Caribbean, labor market factors, unemployment

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1 We thank Steve Brito for excellent research assistantship, as well as participants of our seminar at the IMF’s Western Hemisphere Department for their very valuable comments.
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I. INTRODUCTION

Unemployment rates in Grenada (GRD), St. Lucia (LCA), and St. Vincent and Grenadines (VCT) have been above 20 percent in recent years. Unemployment in Dominica (DMA) has also been high by international standards even before the natural disasters that recently hit the country. While it is likely that weak employment this decade was partly related to the impact of the global economic downturn, unemployment was already high prior to the global crisis in most of these countries, thus suggesting there are structural factors behind it.

This paper evaluates factors that could explain high unemployment in ECCU countries, cyclical and structural.\(^1\) Our analysis systemically reviews demand, supply, and institutional factors that could foster unemployment. Within this framework, we analyze the potential impact of the global financial crisis, the downfall of the banana/sugar industries, the hurricanes that frequently hit these countries, the relatively rigid wage setting process, as well as factors that could increase reservation wages. As is commonly found in empirical studies for other countries (for example, OECD, 2006; Orlandi, 2012), we encounter evidence that high unemployment in ECCU countries is a combination of exogenous shocks that have a long-lasting effect on labor demand (natural disasters and the global economic downturn), as well as of a rigid labor market institutional setting.

The paper is organized as follows. Section II takes stock of the unemployment situation in ECCU countries analyzing the relatively scarce unemployment data available. Section III looks at the evolution of labor demand in the ECCU, in short and long-term periods. Section IV analyzes factors that could affect labor supply by increasing the reservation wage, as well as the commonly suggested hypothesis of a skills mismatch. Section V explores the divergence between productivity and wage growth and analyzes possible contributing structural factors. Finally, Section VI concludes and discusses the policy implications of our findings.

\(^1\) ECCU countries include Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, and two British territories Anguilla and Montserrat. The paper will focus on the six autonomous countries.

(continued…)
II. STYLIZED FACTS

Any attempt to make a comprehensive analysis of unemployment in ECCU countries is forced to rely on compilations of statistics gathered through different type of sampling exercises (censuses, labor force surveys, and other surveys) based on different methodologies. In most countries, labor force surveys are only occasionally undertaken and although annual time series of social security data are available for all these countries, they do not fully cover the informal economy. On the positive side, the two countries with the highest unemployment rates, GRD and LCA, have the most comprehensive labor data among ECCU countries. LCA is the only ECCU country that provides consistent time series of labor market statistics since the mid-1990s, while GRD has undertaken several labor force surveys in recent years.

Several interesting patterns can be observed in the available data. Most significantly, we see that unemployment rates in most ECCU countries were much higher than the average in most world regions in 2015. In fact, at 17 percent, the average unemployment rate for ECCU countries was significantly above all regional groups including Arab countries, a group commonly associated with very unemployment. ECCU’s average unemployment rate was considerably above the average rate in Sub-Saharan Africa, the region with the lowest income per capita and educational attainment indicators in the world.

There is certainly significant heterogeneity in unemployment among ECCU countries. At low single digit, St. Kitts and Nevis (KNA) was the only ECCU country with an unemployment rate below the world average in 2015. At the other extreme, GRD, LCA, and VCT had unemployment rates above 20 percent, placing them in the highest decile in the world. Antigua

---

2 For Grenada, estimates for 2001, 2008 and 2015 are not exactly comparable as 2001 is based on census data, which typically yield lower unemployment rates than labor force surveys which were done in 2013-2015.

3 As we will see further ahead, there is no clear relation between very high unemployment and income.
and Barbuda (ATG) and DMA had much lower unemployment rates, though still considerably above the world average.

Unemployment rates have remained at double-digits for several decades in the ECCU region except in ATG and KNA. This has been the case at least since the early 1990s, before the decline of the banana and sugar industries started. There were only few major variations in unemployment rates until the global crisis, such as a major jump in unemployment in GRD following major tropical storms in 2004 and 2005. It is likely that part of the variation in unemployment rates observed prior to the global crisis is the result of using different types of sources across time.

Unemployment rates in several ECCU countries appear considerably higher under the “relaxed” definition of unemployment⁴. This definition considers an individual to be unemployed if she is not employed regardless of her search status if she is willing to accept a job offer. Under this definition, the unemployment rate is about 5 percentage points higher than under the “strict” definition in ATG, GRD and LCA, reaching almost 30 percent in GRD. Note that, following the International Labor Organization’s recommendation, several ECCU countries have adopted the “relaxed” definition as their official definition of unemployment.⁵

---

⁴ This definition stands in contrast to the more commonly used “strict” definition of unemployment, which considers an individual to be unemployed only if she is not employed and is actively searching for a job.

⁵ The argument behind the ILO recommendation is that these small island economies have limited job options, and therefore, individuals without jobs, who would be willing to work had the job become available, might not be actively seeking.
Several decades of high unemployment in most of these countries imply the existence of an important structural component. This is also evident when looking at LCA’s annual unemployment series. Unemployment in LCA stood at 15 percent in 1994, before the fallout of the banana industry, and it stood above 14 percent even at the peak of the tourism-fueled economic boom of the 2000s and vast construction works in preparation for the Cricket World Cup in 2007. Filtering annual unemployment as an approximation of structural unemployment suggests that the latter has remained around 20 percent for more than two decades, with a positive trend mainly reflecting the large and long-lasting increase in unemployment following the Great Recession.

The global crisis was followed by a substantial increase in unemployment in LCA, thus adding a significant cyclical component to its already high structural rate. LCA’s annual data indicates that unemployment peaked in 2015, several years after the start of the global crisis. It declined since then as output gradually approached its potential but remained above the level it had before the crisis for many years. As seen above, unemployment was much higher than before the crisis also in ATG and VCT.

Nonetheless, there is some evidence suggesting that not all the increase in unemployment in LCA between 2008 and 2014/15 is related to the world business cycle. In fact, the actual increase in unemployment from 2008 to 2014 is higher than what would be inferred from econometric estimates of the elasticity of unemployment to the output gap (Okun’s Law) in Kandil and others (2014). Using their estimated elasticity of -0.32 and considering that the output gap in LCA increased by 16 percent between 2008 and 2014 we infer that the slowdown

---

Although unemployment slightly decreased in GRD since 2008, this reduction was most likely a reversal from the major increase that followed two natural disasters and the global financial crisis actually slowed the expected reversal to pre-storms unemployment rates. KNA experienced a reduction in unemployment following the global crisis, but this is partly the result of a major public employment program, by far the largest among ECCU countries as a share of total employment. While there are no unemployment statistics immediately prior to the global financial crisis for DMA, we observe that the unemployment rate in 2009 (latest available) was higher than its 2001 level.
in economic activity should have contributed 5 percentage points to LCA’s unemployment rate, about two thirds of its actual increase between those years.

Some other aspects of unemployment in these countries also require attention. As is the case across the world, youth unemployment is considerably higher than the overall unemployment rate. A cross regional comparison of the ratio of youth-to-overall unemployment rates shows that in all ECCU countries except ATG, this ratio is below its average in most other regions, suggesting that there are no factors that foster youth unemployment besides those that boost overall unemployment. Even so, the actual rates of youth unemployment in many ECCU countries are alarmingly high, with almost half of the youth population unemployed in GRD, LCA, and VCT. This constitutes a major social problem that could partly explain the high crime rates in those countries.

Similarly concerning is the fact that the female-to-male ratios of unemployment in ECCU countries are considerably above the average level in the more gender egalitarian developing regions of East Asia and the Pacific and Eastern Europe and Central Asia, while closer to averages in other regions where gender discrimination is common. Given the high unemployment ratio in most ECCU countries this ratio translates into a large gap in absolute terms. For example, since 1994, St. Lucia’s female unemployment has been on average 6.6 percentage points higher than male unemployment. This gender gap narrowed significantly following the global crisis due to a faster run-up of male unemployment but widened soon afterwards. The gender gap in Grenada has been of a similar size in recent years.
III. LABOR DEMAND: GLOBAL CYCLES, STRUCTURAL SHOCKS, AND DISASTERS

A. The global financial crisis and ECCU unemployment

The impact of the global economic downturn on ECCU economies most likely affected their employment levels and thus added a cyclical component to the already high structural unemployment rates in many of these countries. In fact, Kandil and others (2014) found a significant relation between output fluctuations and employment in several Caribbean countries, including LCA (the only ECCU country included in their study).

A glance at the evolution of economic activity and employment in ECCU countries in recent years makes it evident that the global crisis did exacerbate unemployment. After a sizable expansion during the 2000s and up to 2008, real output either stagnated or contracted in all ECCU countries. By 2015, only in DMA, GRE, and KNA had real output recovered to pre-crisis levels while they remained considerably below pre-crisis levels in ATG and LCA, the countries that suffered the

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**Female to Male Unemployment, 2014**

*Sources: World Development Indicators database, WB; and national authorities.*

*Note: Female divided by Male Unemployment Rate. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and Caribbean; MENA = Middle East and North Africa; SA = South Asia; SSA = sub-Saharan Africa; USA = United States; ATG = Antigua and Barbuda; GRD = Grenada; KNA = St Kitts and Nevis; LCA = St Lucia; and VCT = St Vincent and the Grenadines.*

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**Unemployment by Gender in St. Lucia**

*Sources: National authorities and IMF staff calculations.*

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**GDP Growth and Unemployment**

*Percentage change in the corresponding years*

*Source: World Economic Outlook database, IMF; national authorities; and IMF staff calculations.*
largest increase in unemployment since 2008. This evident relation between output growth and change in unemployment is illustrated in a scatter plot of these indicators.

Employment statistics by economic sector provide a more detailed view of the dynamics of employment following the global financial crisis (see figure panels below). Overall formal employment remained sluggish or contracted in all ECCU countries since 2008 (a year after the Cricket World Cup). There was a particularly marked contraction in employment in the tourism-related sectors of Hotels and Restaurants and Construction in the countries that saw a substantial increase in unemployment following the global crisis (ATG and LCA). On the other hand, employment under the public administration category increased in ATG and VCT as their governments increased public employment (including temporary employment) in response to the crisis.

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7 It is important to notice that employment was temporarily boosted in preparation of the 2007 Cricket World Cup and therefore the impact of the global crisis can only be linked to the evolution of employment in 2008.

8 Note that under a broader definition including education and health sector workers, public sector employment also increased in LCA.
### Formal Employment by Sector in ECCU Countries

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<tr>
<td><strong>Dominica</strong></td>
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<tr>
<td><strong>Grenada</strong></td>
<td>5000</td>
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<td>5000</td>
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<tr>
<td><strong>St. Kitts and Nevis</strong></td>
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<tr>
<td><strong>St. Lucia</strong></td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
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<td>5000</td>
<td>5000</td>
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<td>5000</td>
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<td>5000</td>
</tr>
<tr>
<td><strong>St. Vincent and the Grenadines</strong></td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
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<td>5000</td>
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</tbody>
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**Source:** National Insurance Services and IMF Staff calculations.
Formal Employment in Selected Sectors in ECCU Countries

Source: National Insurance Services and IMF staff estimates.
B. Sectoral demand: the collapse of the banana industry and public sector employment

The significant decline in the banana and sugar industries in the 1990s is usually cited as a major shock on labor demand that likely fueled structural unemployment in some ECCU countries. Until the mid-1990s, exports of both products in African, Caribbean and Pacific (ACP) countries enjoyed preferential access to protected European markets, allowing them to sell these products at relatively high prices. Successive reforms to the European Union’s regime since then phased out these preferences, triggering a gradual collapse of ECCU’s banana/sugar exports.⁹

Despite the relevance of these exports to ECCU economies their decline occurred at a time of relative dynamism and this likely smoothed its potential impact on unemployment. After accounting for approximately 5 percent of GDP in 1979-1994, the banana industry in DMA, LCA, and VCT, and the sugar industry in KNA contracted to account for less than 2 percent of GDP in 2005. While this constitutes a non-negligible annual decline of 0.3 percentage points of GDP in average over a decade (1996-2005), the affected economies grew by an annual average of 2.7 percent over that same decade. Hence this factor is unlikely to explain the very high unemployment rates in the 2000s.

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⁹ Severe damages from hurricanes, as well as pest and disease, further dampened the banana and sugar industries in Caribbean countries. See Mlachila and others (2010) on the economic impact of the loss of preferential access on Caribbean countries.
In effect, available data do not show an increase in unemployment rate since the decline of bananas and sugar exports (mid-1990s) and before the global crisis (in 2008). The only significant change in unemployment during that period took place in DMA, where the unemployment rate fell from 23 percent in 1997 to 12 percent in 2001. The impressively high unemployment rate in 1997 was not related to the phase out of EU preferences since the decline in DMA banana production started after that year.

C. Natural Disasters

The impact of natural disasters on labor demand is far more evident, as a series of severe natural disasters have clearly taken a major toll on employment in ECCU countries. Hurricane Ivan, the first of two hurricanes that hit Grenada in 2004 and 2005, led to the most severe contraction in overall formal employment (of 12 percent) in the last two decades. It considerably affected the labor-intensive agricultural industry, being followed by a 40 percent contraction in agricultural output between 2003 and 2005 and a 20 percent contraction in formal agriculture employment. Because agriculture accounted for 5.3 percent of total formal employment prior to the storms (in 2003) the formal employment contraction in agriculture was directly responsible for a 2.3 percent reduction in total formal employment. All the largest natural disasters that have hit ECCU countries this century have had a particularly strong impact on agriculture employment.  

10 More recently, in 2017, a Category 5 hurricane hit Dominica with a major negative employment impact, especially in agriculture and tourism.
IV. LABOR SUPPLY: RESERVATION WAGES AND SKILLS MISMATCH

Supply related factors are also often mentioned as possibly restricting employment in ECCU countries. Reservation wages are thought to be high because of high remittances and high wages from the public sector. If indeed reservations wages are high and significantly delinked from the marginal productivity of labor, this could explain high structural unemployment. In addition, some surveys have noted a disconnect between demand and supply of labor skills, which some argue could be also fueling unemployment.

A. Do large remittances lower willingness to work?

By lowering financial needs in recipient households, a high level of remittances could increase reservation wages and thus contribute to higher unemployment. In fact, there is a large empirical literature that points to a reduction in the labor supply in the presence of large remittances in many developing countries, including Jamaica (Kim, 2007).

A priori, this effect may also be significant in ECCU countries as they also have a considerable diaspora (mainly in the US, Canada, and the UK)\textsuperscript{11}. However, a cross-country glance at remittances in ECCU countries shows that, as a share of GDP, remittances are only notably high in DMA. And in all ECCU countries, remittances as a share of GDP are much lower than in Jamaica (17 percent).

We analyze the relation between employment and remittances through probit analysis using GRD’s 2013, 2014 and 2015 labor force surveys. Our regression includes a dummy signaling participation in the labor force as the dependent variable against several factors that are commonly considered to affect labor force participation, such as age, gender, education, and wealth. To these variables we added dummies to represent whether an individual receives

\textsuperscript{11} The diaspora of Caribbean countries is particularly large. Kim (2007), highlighted that, at the time the study was finalized, at least one quarter of Jamaican citizens lived overseas.
remittances or not, and whether the individual belongs to a household in which a member is employed in the relatively well-paid tourism or public sector.

Besides corroborating the significance of factors commonly associated with labor force participation, probit results do not support the hypothesis that remittances are a significant factor explaining unemployment in GRD. And, contradicting our a priori, higher remittances are associated with higher likelihood of participating in the labor force among the youth population (see Table 1). One possible explanation for the latter relation is that remittances are often used as business capital, and therefore receiving household members are more likely to participate in the labor force as entrepreneurs.

Table 1: Probit Regressions: Labor Force Participation Determinants 1/

<table>
<thead>
<tr>
<th>Dependent Variable: Labor Force Participation</th>
<th>Overall Population</th>
<th>Youth Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>youth</td>
<td>-0.708***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0485)</td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>0.345***</td>
<td>0.269***</td>
</tr>
<tr>
<td></td>
<td>(0.0465)</td>
<td>(0.0733)</td>
</tr>
<tr>
<td>secondary and above</td>
<td>0.802***</td>
<td>0.916***</td>
</tr>
<tr>
<td></td>
<td>(0.0486)</td>
<td>(0.0787)</td>
</tr>
<tr>
<td># of hh members</td>
<td>0.0271***</td>
<td>0.0198</td>
</tr>
<tr>
<td></td>
<td>(0.00927)</td>
<td>(0.0151)</td>
</tr>
<tr>
<td>asset index</td>
<td>-0.0380***</td>
<td>-0.0682***</td>
</tr>
<tr>
<td></td>
<td>(0.0134)</td>
<td>(0.0211)</td>
</tr>
<tr>
<td>remittances dummy</td>
<td>0.0139</td>
<td>0.356**</td>
</tr>
<tr>
<td></td>
<td>(0.0779)</td>
<td>(0.140)</td>
</tr>
<tr>
<td>2014o.year</td>
<td>0.127**</td>
<td>0.0760</td>
</tr>
<tr>
<td></td>
<td>(0.0556)</td>
<td>(0.0894)</td>
</tr>
<tr>
<td>2015.year</td>
<td>0.102*</td>
<td>0.0413</td>
</tr>
<tr>
<td></td>
<td>(0.0552)</td>
<td>(0.0884)</td>
</tr>
<tr>
<td>HH head working in public/tourism, secondary education and above</td>
<td>-0.159*</td>
<td>-0.252*</td>
</tr>
<tr>
<td></td>
<td>(0.0813)</td>
<td>(0.130)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.114</td>
<td>-0.764***</td>
</tr>
<tr>
<td></td>
<td>(0.0754)</td>
<td>(0.136)</td>
</tr>
</tbody>
</table>

Observations 3,553 1,322

Standard errors in parentheses (*** p<0.01, ** p<0.05, * p<0.1)
1/ Includes district dummies
B. Does having a well-paid household member lower willingness to work?

In recent decades ECCU economies have moved away from traditional rural employment to better paid urban employment, mainly related to the tourism and public sectors. It is commonly suggested that higher paid jobs in these rapidly growing urban sectors have likely increased reservation wages of all working age household members. With higher reservation wages, these household members are less likely to undertake informal trade or harder jobs in agriculture than previous generations undertook\(^{12}\) \(^{13}\). Probit regressions presented in Table 1 do indicate that having a household head employed in tourism and public sectors is associated with lower labor force participation.

C. Is there a skills mismatch structurally fueling unemployment?

Anecdotal reports on a scarcity of labor supply for specific skills has often been cited as evidence of an educational attainment mismatch between labor supply and demand that could be a major contributor to high unemployment in these countries. In Grenada, a recent employers’ survey (De Koning and Jong, 2014) reported significant skill deficiencies in the labor market as employers were seeking workers with different or more advanced skills and qualifications. Similarly, as noted in IMF (2015),\(^{14}\) the 2012 national labor market needs survey in St. Lucia found that the percentage of job seekers with below secondary level education was 60 percent whereas 75 percent of job openings required secondary of higher level of education. Conversely, the share of tertiary-educated job seekers was only 7 percent against a share of 40 percent of job offers.

A deeper look at this evidence, however, reveals several caveats to this line of reasoning. First, the sampling of employers in the St. Lucia survey is biased against employers of low skilled workers, as it excludes all agricultural farm holdings/firms and predominantly includes formal private sector firms, quasi-government entities and non-profit institutions. Also, despite the proportional differences in education demand and supply indicated above, the number of

\(^{12}\) Per social security statistics, the average salary in 2014 in the tourism and public sector in GRD was 66 and 93 percent higher than in formal agriculture, and 50 percent and 63 percent higher in LCA in 2013.

\(^{13}\) Urban wages could be higher not only due to higher productivity, but also reflecting labor union activity which, as we will see in a following section, is particularly intense in most ECCU countries.

\(^{14}\) International Monetary Fund, 2015, LCA: 2015 Article IV Consultation Staff Report, Washington, DC.
openings requiring tertiary education (357) is much lower than the number of job seekers with tertiary education (1547). Even if all the job openings requiring tertiary education were to be filled, this would only reduce unemployment by 0.37 percentage points, and thus it is unlikely that this educational mismatch significantly explains the very high structural unemployment rates in St. Lucia.

V. STRUCTURAL RIGIDITIES AND THE ROLE OF GOVERNMENT

While the global financial crisis and natural disasters have temporarily and occasionally weakened employment in the ECCU, the fact that unemployment rates have been stubbornly high for decades in most of these countries suggests there are long-term factors that impede labor market clearing at low unemployment levels. Structural rigidities are therefore likely prevalent.

Labor market rigidities are a common and major source of unemployment across countries. As discussed in OECD (2006) and Orlandi (2012), a large part of structural unemployment in OECD countries (two-thirds according to Orlandi, 2012) is the result of labor market rigidities, including high union coverage in many of these countries. A similar conclusion can be implied from eyeballing a list of countries with unemployment rates above 15 percent, in which most of those countries are characterized by rigid labor market legislation (Arab, Southern and Eastern European, and Southern African countries). Note that these countries do not have particularly low incomes per capita or weak human capital, which is to be expected because such factors on their own lead to low wages not to a structural gap between labor supply and demand.

In the case of ECCU economies, there is evidence of high unit labor costs (ULCs) that could be a symptom of a rigid wage-setting environment and a cause of structural unemployment. In the absence of ULC data in these countries, we assess labor costs by comparing ECCU wages to

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<th>Countries with highest unemployment (2015)</th>
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<td>Solomon Islands</td>
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<td>Gambia, The</td>
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<td>Namibia</td>
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<td>Lesotho</td>
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<td>Bosnia and Herzegovina</td>
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<td>Macedonia, FYR</td>
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<td>West Bank and Gaza</td>
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<td>Swaziland</td>
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<td>South Africa</td>
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<td>Grenada</td>
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<td>Spain</td>
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<tr>
<td>LCA</td>
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<td>Comoros</td>
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Source: International Labor Organization (ILO Model Estimate) and Grenada's 2015 Labor Force Survey.
those in countries of similar income per capita\textsuperscript{15}. World Bank (2005) noted that wages were particularly high in ECCU countries in 2002 when compared to ‘other’ upper-middle income countries and other microstates. Wage averages for unskilled and semi-skilled labor were about 25 percent higher in ECCU than in other upper-middle income countries, and about 45 percent higher for professionals. This gap in wages and ULCs is unlikely to have narrowed in recent years as average wages in the ECCU continued to increase after the global crisis despite a substantial decline in productivity since then, leading to a significant increase in ULCs\textsuperscript{16}.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|}
\hline
\textbf{ECCU and Comparator Countries - Selected Wage Rates in 2002} & \textbf{ECCU Average} & \textbf{Upper-Middle Income Countries} & \textbf{Microstates} \\
\hline
\textbf{Unskilled (hourly in US$)} & 2.3 & 1.8 & 1.9 \\
Construction worker & 3.5 & 2.0 & 2.0 \\
Clerk in supermarket & 1.8 & 1.8 & 1.9 \\
Kitchen porter & 1.5 & 1.7 & 1.8 \\
\hline
\textbf{Semi-Skilled (annual wage in US$ thousand)} & 7.8 & 6.3 & 6.3 \\
Clerk in local bank & 7.8 & 6.2 & 5.7 \\
Clerk in foreign bank & 8.6 & 6.2 & 6.2 \\
Garage mechanic & 7.4 & 6.1 & 6.8 \\
Payroll clerk & 7.5 & 6.7 & 6.6 \\
\hline
\textbf{Professional (annual wage in US$ thousand)} & 22.3 & 15.5 & 19.0 \\
Teacher in public school & 9.8 & 6.9 & 7.2 \\
Manager in local bank & 12.0 & 21.3 & 26.3 \\
Manager in foreign bank & 37.1 & 26.4 & 34.3 \\
Nurse & 10.1 & 7.2 & 8.0 \\
\hline
\end{tabular}
\caption{ECCU and Comparator Countries - Selected Wage Rates in 2002}
\end{table}

\textsuperscript{15} Unit labor costs measure the average cost of labor per unit of output and are commonly calculated as the ratio of total labor costs to total output. In this section, we estimate ULCs by approximating the average cost of labor through the average nominal wage in the formal sector, and a unit of output by the nominal GDP per capita. Several factors can distort cross-country comparisons based on this approximation, including different informality rates. Comparisons among ECCU countries are less likely to be distorted given their very similar economic structure.

\textsuperscript{16} Although high ULCs for professionals could plausibly be the result of a shortage of supply of skilled workers, such shortage does not explain high ULCs across all skill categories, suggesting other factors, such as labor market rigidities, could be at play.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{private_wages_productivity_unit_labor_cost.png}
\caption{Private Wages, Productivity, Unit Labor Cost (3 yr. Moving Average Index, 2001=1001)}
\end{figure}

\textsuperscript{15} Sources: National Insurance Scheme, national authorities; and IMF staff calculations.
\textsuperscript{16} Note: Average for ECCU using data for Antigua and Barbuda, Grenada, St. Lucia, and St. Vincent and the Grenadines during 2002-13, Dominica 2009-13, and St. Kitts and Nevis 2003-12.
Cross-country data on wages in the vital tourism sector also point to high ULCs in ECCU countries. Using data in Chen (2018) on wages in the Hotels and Restaurants sector in 2016 we show that the ratio of the average wage in this sector divided by GDP per capita was considerably higher in the ECCU than in neighboring competitors (Bahamas, Dominican Republic, and Mexico). High ULCs in tourism can substantially hamper total investment and job creation in ECCU countries considering the economic relevance of this sector and the significant weight of personnel cost in the cost structure of hotels.

Relatively high minimum wages are yet another indication of high ULCs in the ECCU. The minimum wage-to-GDP per capita ratio is particularly elevated relative to “competitive middle-income” countries, those middle-income countries that rank in the top 50 of the World Bank’s Ease of Doing Business ranking. They also appear considerably high when compared to tourism-dependent countries that are also competitive in manufacturing, such as Dominican Republic, Mauritius, and Mexico. High minimum wages in ECCU countries relative to these manufacturing powerhouses can be an important factor in limiting exports diversification.

17 A high minimum wage particularly affects youth employment since entry level productivity, and in turn its corresponding market-determined wage, tends to be lower than the productivity of more experienced employees. Interestingly, St. Lucia does not have an official minimum wage as union representatives argue that imposing a minimum wage could lower current wages.
A. High Unit Labor Costs and Unemployment

The relatively high ULCs in ECCU countries are of particularly concern as we find evidence that they have normally been associated with high unemployment rates in this region. To assess the relation between ULCs and unemployment rates we first approximate ULCs by dividing the average wage in social security statistics by GDP per capita. We do this in periods in which the unemployment rate is apparently not affected by cyclical factors, so it more likely reflects structural unemployment. We thus calculate ULCs for the early 2000s, before the employment boom generated by construction for the Cricket World Cup, and for the mid-2010s, several years after the global financial crisis.

In both periods, we see a positive and significant relation between the approximated ULCs and unemployment. Those countries that have traditionally exhibited double digit unemployment rates, such as LCA and VCT, have maintained ULCs considerably above those in lower unemployment countries, such as ATG and KNA. Rough back-of-the-envelope calculations based on the slopes of the fitted lines of each chart suggest that 10 percent higher ULCs were associated with higher structural unemployment of 3.4 percent in the early 2000s and of 5.1 percent in the mid-2010s. Consequently, a country like VCT, with ULCs more than 30 percent above ATG and KNA is expected to have about 11 to 16 percentage points higher unemployment.

These estimates, for sure, are far from definitive given the very small size of the sample. Even in countries with abundant labor market data, such as the United States, empirical work is not conclusive on the effect of ULCs changes on unemployment, as is evident from the highly-contested debate on the impact of increases in the minimum wage on unemployment (see Jardim
and others, 2017). Nonetheless, the strong correlation between ULCs and unemployment within the ECCU suggests that moderating wage growth may be prudent and critical to reduce high unemployment. We therefore evaluate factors that could be exacerbating wage inflation: strong union activity and public sector demonstration effects.

B. Strong union activity in the wage setting process

A factor likely linked to high ULCs in ECCU economies is the strong labor union activity in many of these countries and its impact on wage setting. Broadly speaking, unions are more influential in high unemployment GRD and LCA while less influential in low unemployment KNA\textsuperscript{18}.

Several features leverage the strength of trade unions in this region, including their vast influence over labor agreements. This is not evident when looking at union membership as a share of the total workforce (trade union density), which in average is not significantly different in ECCU countries from the average in other regions\textsuperscript{19}. But while not high in membership, Collective Bargaining Agreements (CBAs) in ECCU countries in average affect more than 80 percent of their labor force, a share multiple times higher than in other regions. De jure and de facto, unions have a say in determining remunerations and benefits of almost the entire labor market.

Moreover, many unions in the region have historically been aligned with major political parties, thus further strengthening their influence and power. The main political parties in these

\textsuperscript{18} The main trade union, the St Kitts Nevis Trades and Labour Union, which is closely associated with the St Kitts Nevis Labour Party, remained relatively dormant during the Labour Party Administration, which lasted from 6 July 1995 – 18 February 2015. The other union, the St Kitts and Nevis Teachers’ Union was similarly inactive. A third union, The United Workers Union was registered on January 28, 2016 on the premise that workers are not being adequately served by the existing unions.

\textsuperscript{19} Trade union density is equal to union membership as a proportion of the workforce

(continued…)
countries are significantly rooted in labor movements and are thus very responsive to their agendas. Goolsarran (2005) describes how industrial politics, political unionism, and trade union-based political parties have been rooted in the history and tradition of Caribbean societies.

There is a long-standing perception that industrial relations in the Caribbean are particularly conflictive (Morris, 2002) although, more recently, there has been greater willingness from unions to engage in government-led social partnerships, especially in the post global economic crisis era. Increased willingness to dialogue with the government has resulted in wage freeze agreements (for example, in GRD and LCA) aimed at controlling growth in the public sector wage bill and preserving fiscal sustainability.

Unions’ negotiating powers are further enhanced by their focus on strategic economic sectors. Union memberships cover large and key sectors in the economy, including the public sector, ports, finance, manufacturing, tourism, and even privately-run utilities (Downes, Mamingi and Antoine; 2000). Unions are particularly strong in the most influential sector: the public sector. With government employment accounting for a relatively high portion of total employment in ECCU countries, its wage negotiations have a significant influence over the entire labor market.

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20 Social partnerships are multi-partite groupings including government, employers’ representatives, trade union representatives, non-governmental organizations and in some instances clergy, which engage in regular dialogue and cooperation on economic and social objectives of the country with an aim to arrive at optimal policy solutions for all concerned.

21 It is also noteworthy that despite strong union activity the labor regulatory framework is not particularly rigid regarding the hiring and firing process. All ECCU countries allow dismissal without the need of third-party approval, not requiring retraining or reassignment, nor imposing any priority rules for redundancy. There are no prohibitions to fixed term contracts for permanents tasks and probation periods are commonly allowed (up to 6 years in DMA and VCT).
C. Public sector wage demonstration effects

There is indeed quantitative evidence that identifies an significant impact of wage-setting in the public sector over private sector wages, thus multiplying the economy wide impact of collective bargaining agreements and other political pressures over public sector wages. For example, in both GRD and LCA, large increases in public sector wages in the aftermath of the global financial crisis were rapidly followed by sizable increases in the average wage in sectors that are mainly if not completely composed of private firms, such as manufacturing, construction, tourism, financial, and real estate. If this is systemically the case in ECCU countries, then their relatively large governments may constrain private sector development and job creation not only by directly hiring a large proportion of their scarce labor force, but by occasionally raising wages out of line with productivity growth, hence affecting private sector wages and profitability.

Based on social security data on wages for ATG, GRD, LCA, and VCT, a dynamic panel regression exercise finds that private sector wages are strongly related to the lagged public-sector wage, implying wage demonstration effects from the public to the private sector. Interestingly, their relation to the lagged CPI and lagged productivity growth is not robust and ambivalent in direction (see Table 2). VAR regression and Granger test on Grenada in IMF (2016) finds bi-directional causality between public and private wages, suggesting both “signaling” and “competition” effects between the two sectors.
VI. CONCLUSIONS AND POLICY RECOMMENDATIONS

High unemployment rates in most ECCU countries have commonly reflected both temporary and structural components. The frequent natural disasters that occur in these countries often have a major, though temporary impact on employment, mainly in the agricultural sector. The global financial crisis had a substantial and long-lasting impact on employment, as is most evidently seen in employment and unemployment statistics since 2009. The fact that unemployment rates have remained exceptionally high for decades in DMA, GRD, LCA, and VCT, implies the existence of structural factors that could keep unemployment at high levels long past the shock of the global crisis.

Our analysis further suggests that high ULCs may be an important factor behind high structural unemployment rates. This is likely related to strong union activity and significant demonstration effects from public sector wage increases. Our study also finds statistical evidence supporting anecdotal reports that well-paid jobs in the public sector and tourism, which have been growing rapidly in recent decades, may increase reservation wages and thus may affect unemployment. On the other hand, it does not validate other two commonly proposed hypotheses: that remittances boost reservation wages, and that unemployment is significantly fed by a skills mismatch\(^{22}\). And while available statistics confirm that agricultural employment in many ECCU

\(^{22}\) More specifically, we do not find support for claims of a mismatch between supply and demand at broad educational categories (primary, secondary, and tertiary). Given the small size of ECCU labor forces, however,
countries continuously declined after the collapse of the banana and sugar industry, unemployment rates remained stable amidst contracting agricultural employment, as fast-growing employment in tourism and public sector employment considerably offset the impact of the banana and sugar industries collapse.

Recognizing the importance of these cyclical and structural factors underscore the need to:

1. Increase wage-setting flexibility to avoid misalignments between wages and productivity that could lead to both cyclical and/or structural unemployment. ECCU countries should consider implementing “flexicure” labor market arrangements that combine flexible labor rules with unemployment safety nets that include training (see annex 1). If reducing collective bargaining coverage is not an option, wage flexibility could be promoted by establishing social partnership among governments, firms and workers, aiming to incorporate macroeconomic considerations into wage-setting discussions. Wage flexibility is particularly critical as an adjustment mechanism in a fixed nominal exchange rate context to adjust labor costs in case of external shocks.

2. Control public sector wage growth, which is also key to address wage/productivity disconnects. Linking public sector wages to productivity is a critical practice bearing in mind the dominant size of the public sector, and the demonstration effect that government wages have on the labor market. Involving unions more closely during the budget process and thus informing them about fiscal budget constraints could also help to control public sector wage inflation.

3. Improve the effectiveness of countercyclical policies to minimize cyclical unemployment. Without a flexible exchange rate, countries need to build needed fiscal space to undertake countercyclical fiscal policies. Unfortunately, most ECCU countries are in a weak fiscal situation with high public debt.

4. Build resilience to natural disasters to avoid unemployment spikes. This in turn requires adopting a fiscal framework that finances prevention, relief and reconstruction efforts.

there could be mismatches in specific technical skills for which there are no available local experts, and which could raise wages in those areas. However, this is unlikely to affect most of the labor market and explain the very high rates of unemployment.
Developing the capacity to design and implementing such a framework deserves priority attention.

5. Foster productivity and human capital growth to lower ULCs and thus promote structural employment. This requires increasing economies of scale in these small islands through measures to increase international and intraregional integration; improve economy-wide competitiveness; and continue to strengthen the educational system and training programs, including those that provide international certification.

6. Narrow the unemployment gender gap, through deeper analysis and decisive policy responses that reduce an apparent bias against female employment.
References


Annex 1

Recommended Reforms to Labor Market Arrangements

ECCU countries, particularly those with high unemployment levels, could aim for labor market arrangements that mix a more flexible labor market environment, with safety nets for the unemployed, including training and certification. The move towards a more flexible and secure (so-called Flexicure) labor market arrangement for sure requires substantial strengthening of the social security system for the unemployed (currently there are no unemployment benefits programs in these countries) and active labor-market policies aiming at training those out of work and giving them new qualifications. Introduction of safety nets for the unemployed should consider the limited fiscal space and therefore should be implemented as part of expenditure switching towards better targeted social programs. Unemployment benefits should be designed to strike a balance between providing support and encouraging labor participation. Barbados’ experience with its unemployment benefit scheme could provide useful lessons.

Equally important reforms are needed to the labor market arrangement to increase flexibility, particularly to the wage-setting process, especially considering the high coverage of collective bargaining agreements in most of these countries. Different approaches could be adopted to enhance wage-setting flexibility in ECCU’s labor market arrangements. Strong union activity is a major issue in this regard considering that, as shown in Bryson (2014), unions continue to generate significant wage premiums. Some European countries, similarly faced with high unionization and high ULCs have made introduced reforms to increase flexibility. Most notably, Spain, increased flexibility in wage bargaining by prioritizing firm-level (from sector-region level) agreements, eased opt-outs, reduced ultra-activity period. Other countries like Germany reduced barriers to part-time work. ECCU countries could consider similar reforms to make their labor market arrangements more internationally competitive and reduce ULCs.

An alternative or additional approach would be to strengthen social dialogue among governments, workers and employers, using Social Partnerships as the platform. Although not infallible and hard to preserve over time, social dialogue and social partnership has been a crucial governance tool to improve labor market negotiation and reform across the world, from the transitioning of former communist economies, to dealing with difficult macroeconomic circumstances in countries as diverse as Botswana and Ireland (Minto-Coy, 2011). Social dialogue and partnerships also provided the platform for the pursuit of a (new) balance between ‘flexibility’ and ‘security’ [which] is especially manifest within the European [Union]
Employment Strategy, (Wilthagen and Tros, 2004). According to Minto-Cay (2011), the key lesson to be drawn from social partnerships is that they can not only help countries through a crisis, but the gains secured through the partnership can help set a country on a path to sustained growth, while also allowing for self-renewal and the flexibility to respond to future challenges.

In the Caribbean, social dialogue has also been a part of the Caribbean industrial relations culture for decades with varied effectiveness. The region began the experiment of social partnerships and social dialoguing since the 1990s, and the role of social partnerships are enshrined in the CARICOM Charter. In Barbados, Government, Employers representatives and Trade Union representatives agreed in 1993 to the establishment of a Prices and Incomes Protocol which eventually evolved into the Social Partners. This was a successful case in which a social partnership helped to structurally reduce unemployment (from 20 percent in 1995 to 9 percent in 2000). In the Caribbean, the social partnership in Barbados, which had at its core a general wage freeze and making increases in wages and salaries only in terms of profit-sharing arrangements or productivity bonuses, helped with the attainment of relative economic stability after the initial tripartite protocol agreement convinced the partners of the critical role which social partnership can play in fostering sustained social and economic development (Charles-Soverall and Khan, 2004; Fashoyin, 2001).

A more recent and effective example of a social partnership leading to real wage adjustment took place recently in Grenada amidst its IMF-supported Home-Grown structural adjustment programs. Other national attempts at social partnerships with less that successful outcomes include the Bahamas and its tripartite forum (TRIFOR), the establishment of a Social and Economic Council in Suriname in 2009 as well as sectoral partnerships in Jamaica (ILO).

The road map for fostering and or strengthening social dialogue and social partnerships within the ECCU region should consider that:

- There needs to be a well-articulated legal framework to commit to a social partnership.
- Objectives should be clearly defined through consensus with all partners.
- Social partnership structure should be flexible and inclusive.
- Social dialogue should take place at all appropriate stages of the decision-making process.
- Engagement should be consultative and transparent.
- Social partners should be involved in the monitoring and evaluation of the policy outcomes.