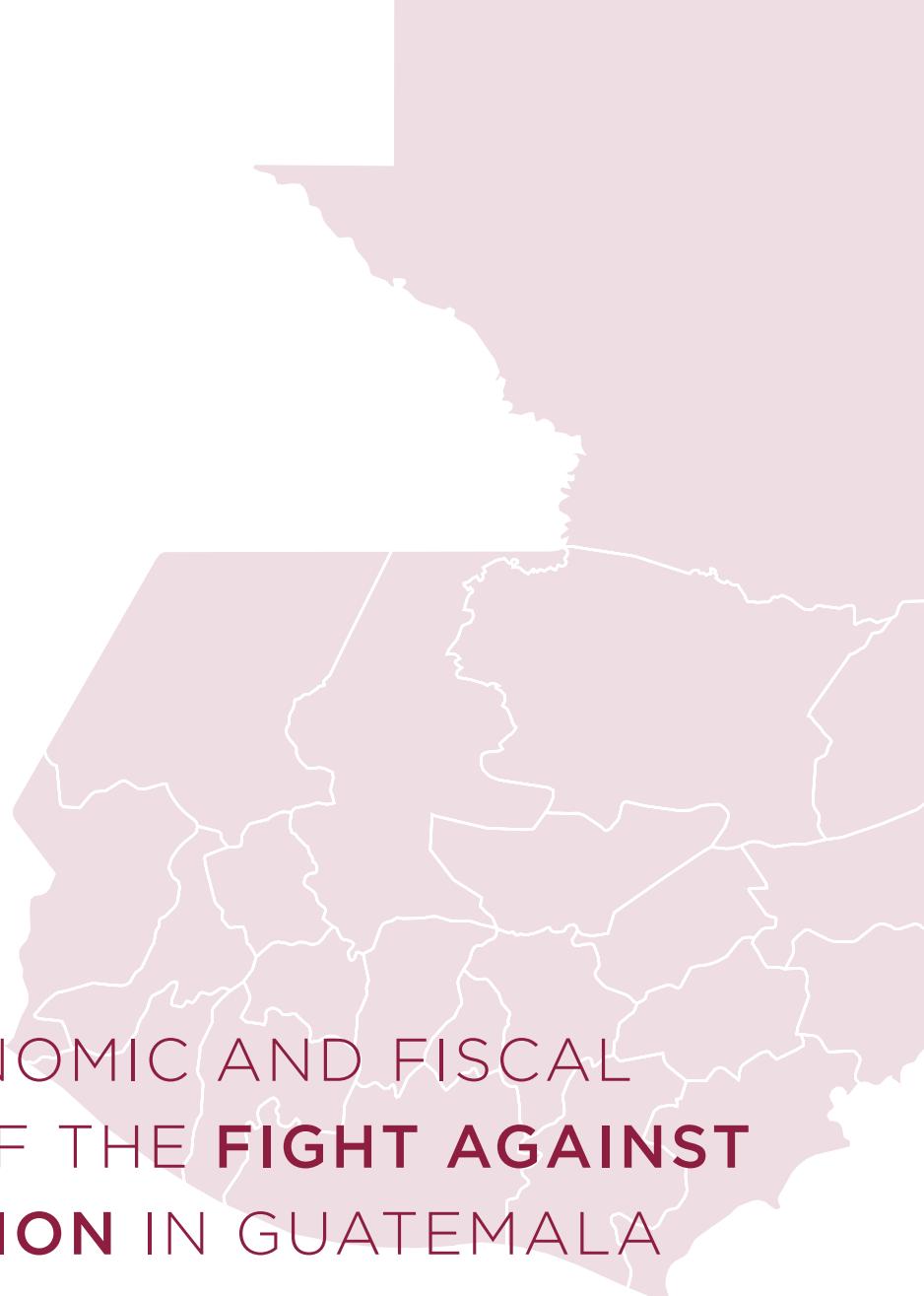




THE ECONOMIC AND FISCAL  
IMPACT OF THE **FIGHT AGAINST**  
**CORRUPTION** IN GUATEMALA

An Empirical and Documentary Analysis





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In Icefi we believe that knowledge is always under construction, so any comments or observations are welcome in the email [info@icefi.org](mailto:info@icefi.org).

# CONTENT

<b>Acronyms</b> .....	<b>6</b>
<b>Executive Summary</b> .....	<b>7</b>
<b>Introduction</b> .....	<b>9</b>
<b>Chapter 1: Economic and Fiscal Evolution</b> .....	<b>13</b>
1.1 Aggregate Demand.....	15
1.1.1 Private Consumption.....	16
1.1.2 Investment.....	18
1.1.3 Fiscal Accounts.....	24
1.1.4 External Demand.....	28
1.2 Domestic Output.....	31
1.3 Economic Outlook.....	32
1.4 Additional Analysis.....	34
<b>Chapter 2: The economic effect of corruption: A Literature Review</b> .....	<b>37</b>
2.1 Subjective Approach.....	39
2.2 Objective Approach.....	41
<b>Chapter 3: The economic effect of corruption in Guatemala: A Central American     Analysis</b> .....	<b>43</b>
<b>Conclusions</b> .....	<b>46</b>
<b>References</b> .....	<b>48</b>



## ACRONYMS

BANGUAT	Central Bank of Guatemala
WB	World Bank
CIA	U.S. Central Intelligence Agency
CICIG	International Commission against Impunity in Guatemala
CIV	Ministry of Communications, Infrastructure and Housing
FCN-Nación	National Convergence Front
IMF	International Monetary Fund
ICAE	Economic Activity Confidence Index
FDI	Foreign Direct Investment
IGSS	Guatemalan Social Security Institute
IMAE	Monthly Economic Activity Index
CPI	Corruption Perceptions Index
IPI	Industrial Production Index
ISO	Solidarity Tax
ITAX	Income Tax
VAT	Value-Added Tax
LIDER	Renewed Democratic Liberty
MINFIN	Ministry of Public Finance
MP	Attorney General's Office
GDP	Gross Domestic Product
SAT	Superintendency of Tax Administration
SIB	Superintendency of Banks
UNE	National Unity of Hope
WEF	World Economic Forum



## EXECUTIVE SUMMARY

This document reviews and analyzes the recent behavior of Guatemala's economic activity to determine the potential impact on the Guatemalan economy of the fight against corruption.

Economic growth in 2017 was slower than in the previous year and down from the initial BANGUAT estimate. Some people argues that this was due to the implementation of joint MP-CICIG anticorruption measures. Official data, however, indicated that the factors affecting the economic slowdown included, on the aggregate demand side, the following: a higher inflation rate; slower growth of private sector bank credit; the government's austerity spending policy; budget execution roadblocks in most state agencies; the government's inability to increase tax revenue; and a nominal appreciation of the quetzal-dollar exchange rate. On the production side, the contraction of mining and quarrying – a consequence of the temporary suspension of the San Rafael mine and closing of the Marlin Mine operations – had a limited economic effect due to their relatively small share of total production and reduced number of productive linkages.

From a regional standpoint, the economy of Central American countries as a whole has been slower in recent years. The data reveal that the behavior of the Guatemalan economy is closely linked to that of the U.S., though with somewhat of a time lag. This would suggest that the recent rebound of the U.S. economy will be reflected in the Guatemalan economy in the near future, in line with BANGUAT and IMF projections.

Given the impossibility of a controlled experiment to accurately measure the direct effect of anticorruption policies on an economy, economic literature has attempted to estimate it indirectly using corruption perception measurements. ICEFI thus conducted an econometric analysis of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic that suggested that countries with less corruption tend to have a higher rate of economic growth. Furthermore, the results indicate that for Guatemala a three-point uptick on Transparency International's Corruption Perceptions Index is associated with an increase of just over 0.9% of per capita GDP.



ICEFI draws the following three conclusions from this analysis: the slower growth of the Guatemalan economy comes in response to its own dynamics; the recent economic slowdown is a regional Central American characteristic as a whole, not exclusive to Guatemala; and corruption has a negative impact on economic activity in the Central American region, whose main transmission channel is investment. Contrary to what some may argue, then, anticorruption measures such as those launched by the MP and CICIG help create a favorable environment for increasing economic growth in Guatemala because they reduce the avenues for corruption and strengthen the government's effectiveness as a provider of wellbeing.



*“...what is important [referring to the current context] is that citizens are tolerating corruption much less than in the past.”*

*Eduardo Engel<sup>1</sup>*

## INTRODUCTION

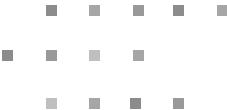
Three years after the Attorney General’s Office (MP) and the International Commission against Impunity in Guatemala (CICIG) began to reveal the shortcomings of the Guatemalan state apparatus – as evidenced by the results of their studies showing public servants and officials as well as businesspeople involved in corruption – a public debate has started, with insufficient technical substantiation, regarding the potential adverse effect on the Guatemalan economy of anticorruption measures. The debate was sparked, in particular, by the preliminary estimate of 2.8% released by the Central Bank of Guatemala (BANGUAT) for the interannual economic growth rate for 2017, which was lower than the previous year’s figure and below the initially projected lower limit (3.1% and 3.0%, respectively), as well as what is considered Guatemala’s long-term (or trend) growth rate (3.5% according to BANGUAT).

Those arguing the negative impact of the fight against corruption claim it has led to greater political uncertainty, putting a damper on consumption and private investment and consequently reducing domestic demand and therefore economic activity and taxes. This would largely explain the moderate pace of growth of domestic demand, estimated at 2.9% in 2017 (a half percentage point lower than the 2016 figure), according to BANGUAT’s calculations.

The counterargument to this is that the political instability (reflected in greater economic uncertainty and a consequently lower aggregate demand) is the result of the corruption being sought out jointly by MP and CICIG, so prosecution would positively impact the economy by generating greater legal certainty for economic agents. This, in turn, would transfer positively to domestic economic activity.

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<sup>1</sup> *President of the Presidential Advisory Council against Conflicts of Interest, Influence Peddling and Corruption in Chile, 2015.*



## Main Cases of Corruption Discovered and Referred to the Justice System, Based on MP and CICIG Investigations in 2015

- 1.** April, La Línea case:<sup>2</sup> A criminal network was discovered, led by the Guatemalan President and Vice President at that time; the network defrauded the treasury of millions at the country's customs offices.
- 2.** April, Money Laundering and Politics case: The vice-presidential candidate and former BANGUAT president, together with his brother and a legislator, were accused of forming a criminal organization for laundering money and other assets for financing political parties.
- 3.** May, IGSS-PISA case: Irregularities were found in the contract signed by the Board of Directors of the Guatemalan Social Security Institute (IGSS) with the pharmaceutical company, PISA, whereby medicine prices were overvalued. The deficient quality of service led to the death of several patients with kidney diseases.
- 4.** July, Redes case:<sup>3</sup> The case involved the energy companies, Jaguar Energy and Zeta Gas, as well as former government officials, who were charged with fraud and influence peddling.

There is extensive theoretical and empirical literature indicating a negative relationship between degree of uncertainty prevailing in the economy and private investment and consumption, as well as a positive correlation between consumer (investor) confidence indexes and private consumption (private investment). Within the framework of these relationships, however, one of the biggest hurdles lies in determining the causes of this uncertainty (or confidence) of private agents. We therefore need to analyze the current Guatemalan situation to see if the economic slowdown in 2017 was a result of anticorruption measures undertaken by the MP and CICIG or if it resulted from other causes.

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*2 The name of the case « La Línea », which in English means «Telephone line» refers to the telephone line through which contacts were made between members of the criminal structure.*

*3 The name of the case «Redes», which in English means «Networks» refers to the different ways detected in in which public officials were influenced to favor actions in exchange for money.*



## Main Cases of Corruption Discovered and Referred to the Justice System, based on MP and CICIG Investigations in 2016

1. February – Aceros de Guatemala case: Several top officers and auditors of the Superintendency of Tax Administration (SAT) were arrested and accused of tax fraud in favor of the company, Aceros de Guatemala.
2. February – Lake Amatitlán case: Individuals involved in the fraudulent cleanup of this body of water were arrested.
3. April – TCQ case: Authorities identified a criminal group, headed by the Patriotic Party’s presidential ticket candidates, that was working together to obtain economic benefits from a contract in favor of TCQ, S.A. The contract was intended to assign to TCQ part of the land owned by the Empresa Portuaria Quetzal [an autonomous state agency] for the construction, development and operation of a private container terminal.
4. April – Genesis case: Authorities caught a criminal structure dedicated to the dispossession of real estate properties through threats, deception and violence in the department of Petén.
5. June – La Cooperacha case<sup>4</sup>: The news broke of a network whose members abused of their public offices during the Patriotic Party administration, looting state institutions for funds (the amounts of which did not match the asset statements submitted by those involved) to be used as gifts for the Guatemalan president and vice-president at that time.
6. June – Cooptation of the State case: Investigations deriving from the La Línea case concluded that members of the Patriotic Party administration had not been committing isolated acts of corruption but were rather part of a criminal network that had coopted electoral power and several state institutions for the unlawful enrichment of its members. The network was led by the Guatemalan president and vice president at that time.

This document, then, presents a study of the impact generated by anticorruption measures on the Guatemalan economy. The study analyzes recent economic behavior and concludes that the economic dynamics are primarily a result of the country’s particular economic structure. Specifically, the economic slowdown is mainly explained by the behavior of domestic inflation, the performance of bank credit to the private sector, and the government’s inability to collect tax

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<sup>4</sup> *La Cooperacha* is an expression that means cooperation or voluntary contribution. It is usually used among friends, family or co-workers to request a monetary contribution in order to buy something together (typically food or drink).

revenue in order to increase spending, in addition to its weak execution capacity and controlled public debt policy. Economic growth is largely a result of the strong inflow of family remittances from abroad.

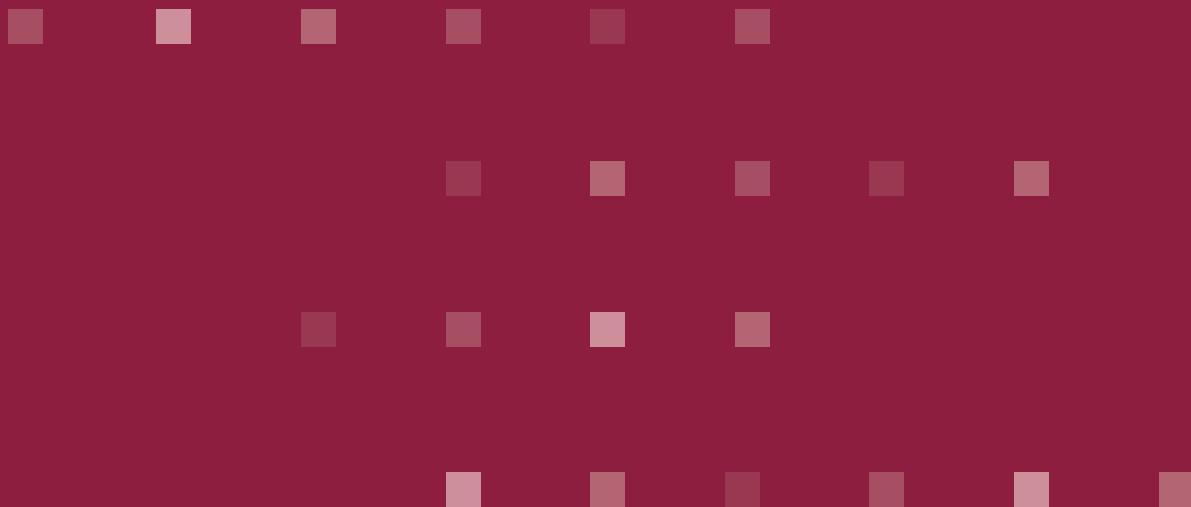
### **Main Cases of Corruption Discovered and Referred to the Justice System, based on MP and CICIG Investigations in 2017**

- 1.** July – Construction and Corruption case: A criminal network was discovered within the Ministry of Communications, Infrastructure and Housing (CIV) during the Patriotic Party administration that interfered in state infrastructure contracts through the systematic practice of collecting kickbacks in favor of contractors who made the respective payments.
- 2.** August – Illegal Electoral Financing case: Authorities found irregularities aimed at hiding the source of funds used to finance the 2015 election campaigns of the National Unity of Hope (UNE) and Renewed Democratic Liberty (LIDER) parties as well as that of the current ruling party, the National Convergence Front (FCN-Nación).
- 3.** October – Pandora’s Box case: Based on a previous investigation, authorities discovered several illicit businesses carried out by a criminal network led from the Pavoncito maximum security prison, which included the transfer of prisoners between detention centers and purchases made by the Guatemalan Municipal Government paid for with public funds for financing the electoral campaigns of the Unionist Party and the Alliance political group (comprised by several political parties).

The study also analyzes the effect of corruption on economic activity using a dynamic linear panel data econometric model. The modeling results suggest a negative relationship between corruption and economic activity (through its effect on investment) for the case of Guatemala, reinforcing the conclusion that the domestic economic performance is a result of its own dynamics and that corruption (rather than the fight against corruption) is the cause of the negative impact on the economy. The document then reviews international cases of the effects generated by anticorruption measures on economies and, finally, gives the general conclusions.

CHAPTER

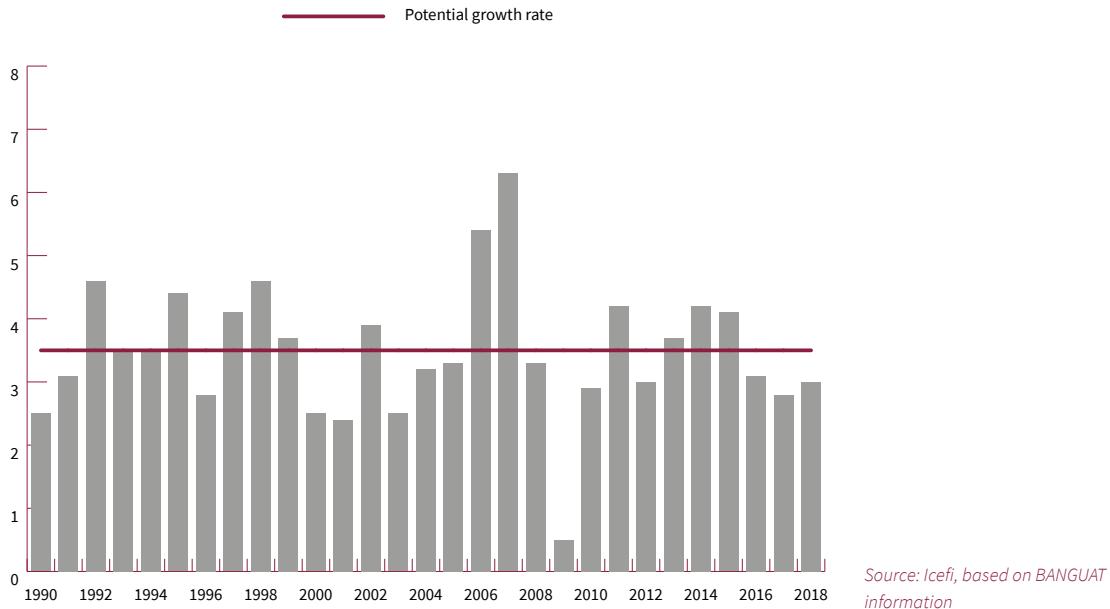
# 01



ECONOMIC AND  
FISCAL EVOLUTION

In matters of economic growth, BANGUAT has lowered its estimate of the interannual economic growth rate during 2017 from 3.0% to 2.8%, 0.3% below the previous year's rate and less than the estimated potential gross domestic product (GDP) of 3.5%. BANGUAT explained that its estimate is mainly supported by a contained pace of growth of domestic demand, which it estimates to have grown interannually at a rate of 2.9% during 2017 – well under the 2016 figure (3.4%). On the other hand, the monetary authority calculates that external demand would grow interannually during 2017 at a rate of 2.3%, some 0.6% higher than the 2016 figure (Guatemala, BANGUAT, 2017).

**Graph 1. Interannual Growth Rate of Real GDP (Base Year 2001, in Percentages)**

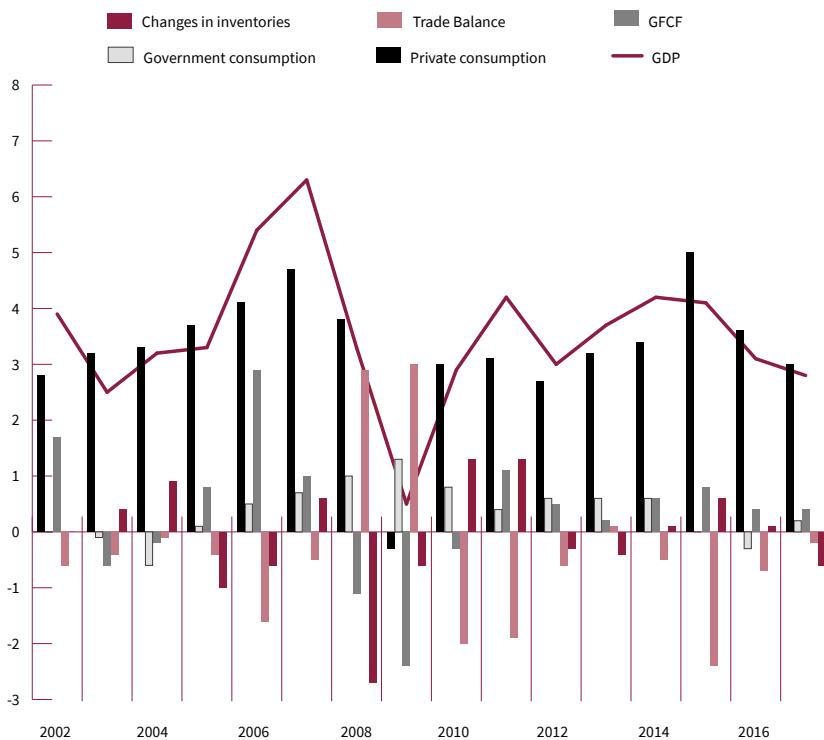


As we see in Graph 1, BANGUAT estimates that economic growth in Guatemala was moderate in 2017 compared to the previous year, but the downward trend of the growth rate actually began in 2014. We can also see that the behavior of economic growth in 2017 is consistent with the economy's structural dynamics for the 1990-2017 period.

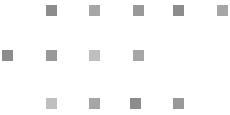
## 1.1 AGGREGATE DEMAND

As we've already mentioned, the economic behavior observed in Guatemala during 2017 is associated with a slowing of domestic demand growth. Additionally, the balance of trade (that is, the difference between exports and imports of goods and services) registered a negative contribution to the economic activity (-0.2%) though better than in the preceding year (-0.7%), as can be seen in Graph 2.

**Graph 2. Contribution to the Growth of Real GDP Components on the Expenditure Side (in Percentages)**



Source: Icefi, based on BANGUAT information



Graph 2 shows that the contribution of domestic demand components (private consumption, government consumption and private investment) to the rate of economic growth has declined, though it is relatively similar to pre-global financial crisis levels (2007-2009). This has been a steady trend throughout the period under study (2002-2017), with the exception of 2008, 2009 and 2013.

The evidence therefore suggests that Guatemala's economic growth rates are consistent with the domestic economy's historical behavior, going beyond short-term factors and, especially, actions undertaken by the MP and the CICIG to halt the country's rampant corruption. Given this context, we now look at the aggregate demand components to determine the factors affecting their behavior.

### 1.1.1 Private Consumption

According to BANGUAT, the interannual growth rate of private consumption has slowed, falling from 4.2% in 2016 to 3.8% in 2017. This slowdown can be largely attributed to two causes:

- a.** An interannual increase in inflation, placing it at 5.68% in 2017, which is 1.45 percentage points higher than the previous year and above the ceiling of the target inflation range set by BANGUAT (4.0% +/- 1 percentage point). Rising prices impact the cost of living of households, causing their demand for goods and services to fall, with a consequent reduction of aggregate demand. It is worth noting that this inflationary increase is a consequence of the rising prices of some agricultural food items as a result of supply shocks associated mainly with the surging price of oil and the effects of adverse weather conditions.

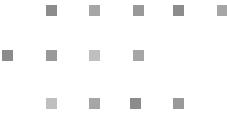


- b.** Reduced growth of bank credit to the private sector, a variable considered a determining factor for private investment and consumption since it results from the liquidity effect (that is, the effect of money supply fluctuations seen as the consequence of interest rate changes) of the Guatemalan economy, as indicated by Castillo (2012). At the end of 2017, the interannual growth rate was 3.8%, a drop from the 5.9% recorded at the end of 2016. In terms of composition, according to official figures the slowdown of bank credit to the private sector reflects a reduced interannual growth of lending in domestic currency, which fell from 7.8% at the end of 2016 to 4.4% at the end of 2017. It also reflects a slight slowdown (by 0.1 percentage point) of lending in foreign currency from the 2.7% recorded at the end of 2016.<sup>5</sup> The slowdown of the domestic currency component is largely explained by a restricted supply of bank credit for consumption, since the interest rate for consumption lending rose by 0.4 percentage points to 23.47% at the end of 2017. This led to a reduction in the growth rate of bank credit for consumption, which fell from 12.5% (end of 2016) to 4.5% (end of 2017). It should be noted that this item accounts for around 46.0% of bank credit to the private sector in terms of domestic currency.

Taking all this into account, the downturn in the growth rate of private consumption is due to the price dynamics of the Guatemalan economy as well as a falloff in bank credit to the private sector (as a consequence of the slowing growth of bank credit for consumption, primarily).

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<sup>5</sup> The analysis in foreign currency references the lending in U.S. dollars.



### 1.1.2 Investment

The interannual growth rate of private investment for 2017 is estimated by BANGUAT at 2.1%, a slight drop from 2016 (2.3%). This slowdown is mostly explained by the reduced growth of bank credit to the private sector.

According to data from the Superintendency of Banks (SIB), the group of large and small business credits and microcredits (relevant for the purpose of private investment analysis, since as a group they account for 64.8% of total private sector bank credit) showed an interannual growth rate of 2.7%, well below the 2016 rate of 4.0%. Individually, the interannual growth rate of large business loans in domestic currency was 6.8% at the end of 2017 – one percentage point up from the preceding year, a result of the banking systems' more relaxed credit conditions. For large business loans in foreign currency, the growth rate was 2.1%, a downtick of 1.7% from the previous year - the result of a hardening of credit conditions. In effect, the interest rate for domestic currency lending fell from 7.44% in 2016 to 7.32% in 2017, while that of foreign currency lending rose from 5.78% to 5.88%.

Additionally, in 2017 the interannual growth rate of microcredits in domestic currency dipped to 4.4% from the 4.5% figure seen for 2016. This changing behavior is explained by the higher cost of financing for this type of activity in domestic currency, since the associated interest rate at the end of 2017 had risen to 21.53% from the previous year's 21.08%.

Finally, small business lending experienced an interannual contraction of 2.8% in 2017, in contrast to the 1.0% growth on record for the preceding year. In terms of domestic currency, this type of lending contracted by 1.7% during 2017 as opposed to the 1.2% growth for 2016; for foreign currency these figures were 7.3% in 2017 and 0.1% in 2016. It should be noted that small business lending accounted for 8.8% of total bank credit to the private sector. The aforementioned growth rates occurred under relaxed credit



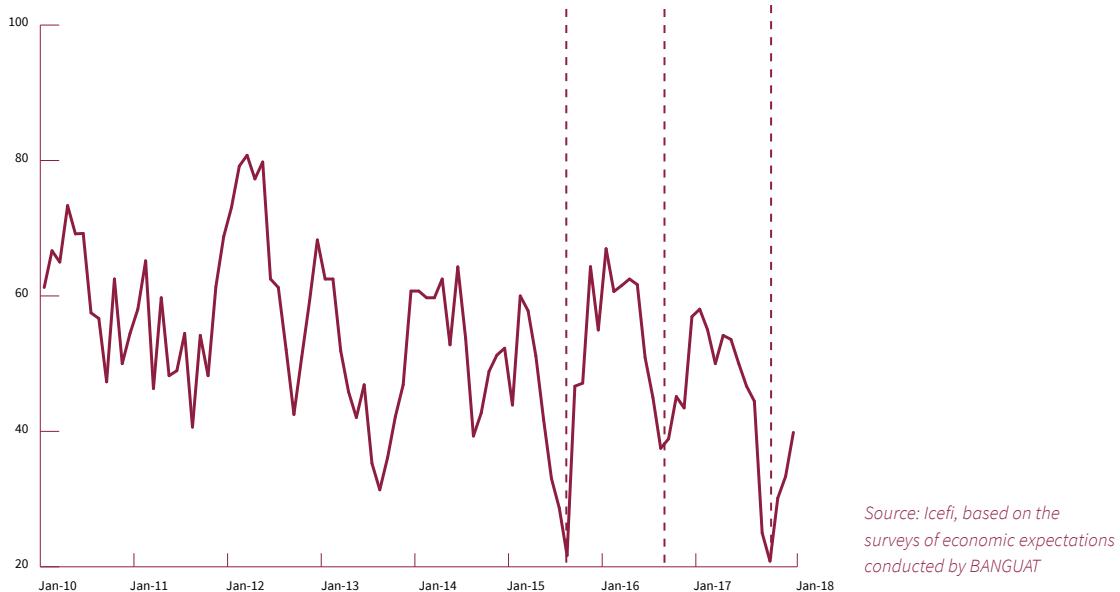
conditions implemented by the Guatemalan banking sector, which cut interest rates for small business loans in both domestic and foreign currencies.

Deriving from this, the decision of potential small business borrowers to reduce their borrowing was a result of demand-side factors. Nevertheless, as stated by the SIB (2017), the downward trend of the credit portfolio – particularly in foreign currency – is associated with private bond issues by several corporations in international markets, the effect being to drive up the exchange rate in 2017 with a resulting substitution of foreign currency by domestic currency, among other effects (Guatemala, Superintendency of Banks (SIB), 2017).

In line with the SIB's statement, when analyzing the banking system's general balance sheets for 2016 and 2017 we find a restructuring of the banks' financial assets, especially between their credit portfolio and their investments. On the one hand, the interannual growth rate of the banking system's credit portfolio slowed from 5.9% in 2016 to 3.2% in 2017 (while its share of financial assets rose from 54.7% to 57.2% for those same years). On the other hand, the interannual growth rate of investments made by Guatemalan banks was 5.5% in 2016 and 18.1% in 2017 (while the share of these investments relative to the banking system's total assets rose from 22.9% to 25.0%).

The funds that could have gone into credit to the private sector were primarily allocated to: a) investments in available-for-sale securities, which grew interannually by 9.4% in 2017 (compared to 3.3% in 2016), driven by their component in foreign currency; and b) investments in held-to-maturity securities, which grew interannually by 32.9% in 2017, 30.3 percentage points up from their growth in 2016 (2.3%), supported by their component in domestic currency. By contrast, the growth rate of investments in repos was 7.6% in 2017, far below that of the previous year (54.9%).

**Graph 3. Economic Activity Confidence Index (ICAE)**



Graph 3 shows the evolution from January 2010 to January 2018 of the Economic Activity Confidence Index (ICAE), which is obtained from the economic expectations survey published every month by BANGUAT. This survey is answered in the second and third week of each month by a panel of private analysts who give their expectations for the next six months on the business climate for productive activities, the country's economic evolution, and the role of circumstances in investment decisions. The index is standardized so that a score of one hundred indicates the strong confidence of business people in the Guatemalan economic climate and a score near zero reflects their pessimism as to economic performance over the next six months.

The red vertical lines mark months in which three ICAE scores are associated with periods of high levels of political uncertainty:



- a.** August 2015 (ICAE = 21.67): The above resulted in a higher level of confidence in the Guatemalan legal system, which was reflected in the most significant improvement of the ICAE since its creation, recorded in September 2015 when the index shot up 25 points (115.4%) over its previous monthly value and around 4 points over the value recorded for the same month in the previous year.
  
- b.** August 2016 (ICAE = 37.5): Although the index had improved starting in September 2015, from April to August 2016 it fell again as new cases of corruption came to light.<sup>6</sup> Nevertheless, in September the ICAE once again rebounded as several of those implicated in influence peddling, illicit enrichment and money laundering (primarily) were found guilty and sentenced. At the beginning of July 2016 the risk rater, Moody's Investors Service, reported an improvement in Guatemala's credit risk rating from negative to stable (maintaining its rating at B<sub>s</sub>1), due to the country's resistance to the "...2015 political crisis, with robust growth, a lower fiscal deficit and stable debt indicators [and because] the government's battle against corruption and its efforts to improve transparency and accountability will continue to strengthen the country's weak institutions, especially in tax administration and the rule of law" (Moody's Investors Service, 2016). We can interpret this to mean that the fight against corruption improved investor confidence by generating a stable legal and economic environment for investment.
  
- c.** October 2017 (ICAE = 20.84): Finally, this last ICAE score marked in Graph 3 shows where the ICAE bottomed out during the study period; this point is associated with Guatemalan President Jimmy Morales's decision to declare the CICIG commissioner, Iván Velásquez, a persona non grata. As a result of this, the credit risk rater, Standard

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<sup>6</sup> Corresponding to activity linked to the TCQ, Genesis and La Cooperacha cases.



& Poor's Global Ratings, lowered Guatemala's long-term foreign currency sovereign rating from BB to BB- and the long-term domestic currency sovereign rating from BB+ to BB, citing, among other reasons, "...the president's failed attempt to expel the CICIG commissioner from the country and ...[the fact that]...Congress passed amendments to the criminal code to eliminate these crimes," referring to the crime of illegal electoral financing (S&P, 2017). This increased the business community's uncertainty, showing the biggest decline in their expectations in the past seven years as measured by the ICAE.

**As opposed to the arguments that anticorruption measures have a negative impact on the economy, the evidence suggests that the cause of uncertainty is associated with the level of corruption perceived in the economic environment by private agents in general and the business community in particular. Added to this is the authorities' lack of willingness to support the joint actions undertaken by the MP and the CICIG by implementing policies to reinforce the justice system and provide an environment of greater certainty for investment.**

Indeed, according to the ranking on the Global Competitiveness Index published in 2017 by the World Economic Forum (WEF), Guatemala ranks 84th out of 137 countries after ranking 78th in 2016 (out of 138 countries). In the three main categories considered by this index, the country's position compared to the rest of the countries was: 93rd in "basic requirements", 79th in "efficiency enhancers", and 63rd in "innovation and sophistication factors" (Schwab, 2017).

Of the four pillars into which the requirements considered basic for competitiveness by WEF are divided, the one in which Guatemala does best compared to the rest of the 137 countries is "macroeconomic environment", where it ranks 54th. Where it ranks worst is in "institutions" (at 111). For the six pillars under "efficiency enhancers", the country's best ranking is 18th in the eighth pillar, "financial market development", while its worst ranking (102) is in the seventh pillar, which looks at characteristics measuring labor

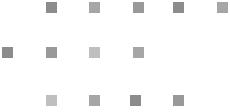


market efficiency. Finally, the category analyzing innovation and sophistication factors is divided into two pillars, “business sophistication” and “innovation”, where Guatemala ranks 53rd and 88th, respectively.

**Among the sixteen most problematic factors for doing business (and therefore generating investment), the country’s corruption occupies second place, surpassed only by crime and theft,** while inefficient government bureaucracy, inadequate supply of infrastructure and political instability round out the top five factors in order of importance for Guatemalan investors, discouraging them from deciding to do business. Other factors also considered problematic include inadequately educated workforce (7th out of 16), tax regulations (8th), tax rates (11th), poor public health (14th) and inflation (16th).

In line with this, the recent results of the Corruption Perceptions Index published by Transparency International for 2017 place Guatemala in 143rd place out of a total of 180 countries, with a score of 28 (out of a possible 100). The score hasn’t changed since 2016, but the country’s position relative to all 176 countries in the 2016 sample was 136th. In its regional chapter on the Americas, Transparency International highlighted the high impact investigations carried out by the MP and the CICIG against politicians and business people for corruption (it explicitly mentions the investigation into President Jimmy Morales). Finally, it calls on government authorities in Latin American and Caribbean countries to work for structural changes to facilitate anticorruption efforts and demonstrate a “sustained long-term commitment to anticorruption reforms” (Transparency International, 2018).

It should be noted that recent investment behavior is a reflection of its historical performance. Long-term studies show that investment has been historically low in Guatemala. Andrade Araujo et al. (2017) and Sosa et al. (2013) show that the contribution of capital to Guatemala’s annual growth in the period from 2001 to 2010 was 1.8%, while the contribution of wages and salaries was 3.2%. These studies help establish the fact



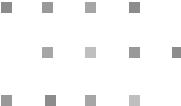
that capital investment is not having the expected dynamics for boosting economic growth. They also show that in some periods factor productivity tends to be negative, even, indicating little possibility of long-term progress.

The data unequivocally demonstrate that much of the productive problem is the economy's inability to generate domestic investment or attract foreign investment, thereby improving its percentage of GDP, or to open up fiscal spaces for encouraging public investment that could help improve the national infrastructure. These results are also consistent with the sources of growth study prepared by BANGUAT (2017: 77-79).

**The evidence suggests that corruption is one of the main factors limiting the investment decisions of private agents; the battle against corruption, then, would be welcomed by them.** The argument is therefore reaffirmed that anticorruption efforts undertaken to bring to light the corrupt actions of government officials are not the cause of the country's weak economic performance. On the contrary, it is the corrupt actions that have helped to halt investment in the country. We can also conclude that the performance of investment is in line with the behavior we have seen over the long run.

### 1.1.3 Fiscal Accounts

BANGUAT has estimated the interannual growth rate of government consumption expenditure – the last component of domestic demand – at 0.8% for 2017, after a 2.4% contraction in 2016. Despite the 2017 improvement over the 2016 figure, there are still numerous challenges implying pressures on public spending. On the one hand, this spending must be in line with available government funds and the relevant macroeconomic environment; on the other hand, it must fulfill its function as a fiscal policy component, contributing to economic development – especially by encouraging investment through the financing of better public infrastructure and increased social spending.



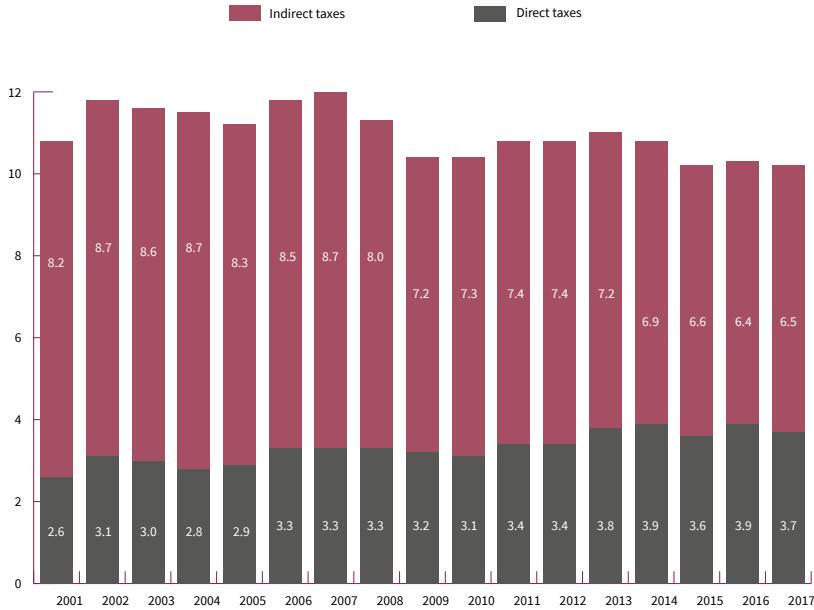
A key factor in the public spending analysis is the behavior of government revenues. According to Public Finance Ministry (MINFIN) figures, the tax burden in 2017 was at 10.2%, lower than that of 2016 (10.4%) and the lowest in the past twenty years. This is also the lowest tax revenue of the Central American countries, and if the tax revenue of the 192 countries in the database of the International Monetary Fund (IMF, 2018a) were ordered from higher to lower, Guatemala would rank 188th. It should also be noted that tax revenue in 2017 (GTQ 56,684.1 million) was short of the budgeted goal (GTQ 57,994.8 million), mainly due to the economic slowdown and the nominal exchange rate appreciation (2.4% up from 2016).

The 2017 tax structure in this scenario is regressive by nature: 63.4% of tax revenue (6.5% of GDP) came from indirect taxes that, under normal conditions, have a proportionately greater impact on lower income levels. This figure contrasts with the 36.6% of tax revenue corresponding to direct taxes (equivalent to 3.7% of GDP). Comparing these figures with those of 2016, we see a decrease in the relative weight of direct taxes in tax revenue, since direct taxes in 2016 accounted for 38.1% of revenue (3.9% of GDP).

In 2017, 72.8% of indirect taxes corresponded to the value-added tax (VAT), while 78.7% of direct taxes were collected as income tax (ITAX) and 21.0% as solidarity tax (ISO). In 2016, these figures were at 72.3%, 80.1% and 19.8%, respectively. VAT revenue grew interannually by 8.1% in 2017 (as compared to 4.1% in 2016), while the interannual growth of ITAX revenue shrank by 1.2% as opposed to the 21.1% interannual growth recorded in 2016. Finally, ISO revenue grew by 4.2% in 2016 and 6.9% in 2017.

The behavior of tax revenue (accounting for 94.5% of all revenue, the remaining 5.5% corresponding to non-tax income and transfers) was influenced by the tax amnesty approved by MINFIN by means of Government Agreement No. 82-2017, which stimulated the government's primary source of revenue by collecting revenue forgone due to evasion of tax obligations by taxpayers in default. Nevertheless, this did not enable it to cover the fiscal gap of GTQ 1,286 million, equivalent to a difference of 0.3% with respect to the tax collection goal set by the Superintendency of Tax Administration (SAT), demonstrating the tax collection agency's inability to generate sufficient tax revenue, which could be used to finance higher social spending.

**Graph 4. Guatemala: Tax Structure (Percentages of the GDP)**



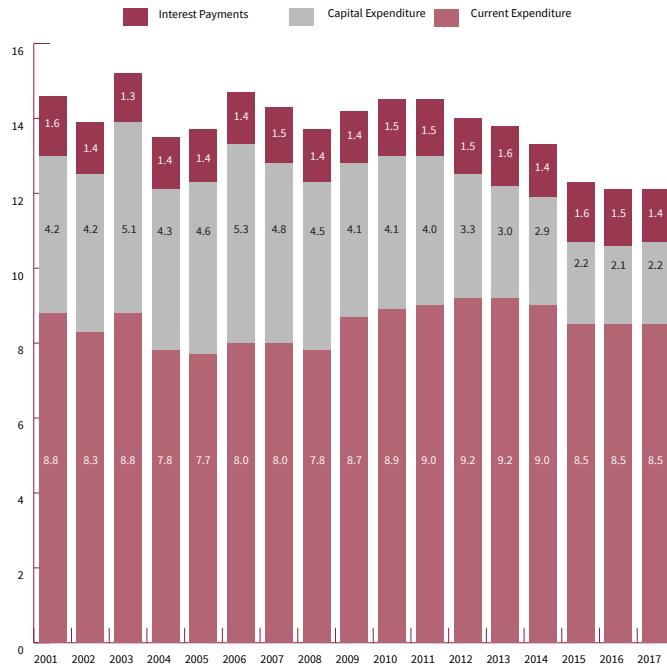
Source: Icefi, based on MINFIN information

As can be seen in Graph 4, the inability to bring in higher tax revenue constitutes a structural problem of the Guatemalan economy, since tax revenue has never surpassed 12.0% of GDP (2007 being the exception). The low tax burden on the Guatemalan economy contrasts with that of its regional neighbors (except for Panama) and is insufficient for addressing the basic needs of the population, approximately 60.0% of which lives in poverty.

Public spending in 2017, for its part, reached GTQ 67,274.7 million, equivalent to 12.1% of GDP, showing no change from 2016 when public spending was at GTQ 63,080.3 million (see Graph 5). The spending policy rigidity is a manifestation, on the one hand, of the austerity policy announced by the Finance Ministry, and on the other hand, of the

government's difficulty in executing the allocated budget, particularly for implementing the amendments to the government procurement law, approved in 2015 and 2016, that eliminated exceptions constituting abuse and corruption and imposed strict controls over public procurement. In 2017, public spending as a percentage of GDP represents the smallest central government in the region and, similar to the case of public revenue, if this were ordered from larger to smaller for the 192 countries in the IMP (2018) list, Guatemala would be in 188th place.

**Graph 5. Guatemala: Composition of Public Spending as a Percentage of GDP**



Source: Icefi, based on MINFIN information



In 2017, 70.1% of public spending was for current expenditure (8.5% of GDP); this has remained unchanged since 2015. Meanwhile, in 2016 and 2017, spending earmarked for investment in physical capital accounted for 18.0% (2.1% of GDP) and 17.4% (2.2% of GDP) of total public spending, respectively. As we can see in Graph 5, spending (as a percentage of GDP) has followed a downward trend starting in 2001. Capital investment spending, in particular, has shrunk from 4.2% of GDP in 2001 to 2.2% of GDP in 2017. As in the case of public revenue, the behavior of public spending is mainly the result of a structural tendency.

In consequence, with respect to keeping public spending in line with tax revenue, recent administration of taxes led to a deficit of 1.3% of GDP in 2017, up from the 1.1% of GDP recorded in 2016. Despite this, the central government's excessive fiscal rigidity has manifested in a stable public debt level, which at 24.0% of GDP was only 0.2 percentage points higher than the previous year's level and well below the level considered critical by the IMF (40.0%). Nevertheless, these fiscal cushions reflect a scenario where: a) the tax administration is incapable of generating more tax revenue; and b) the central government is incapable of executing public expenditure for investment in public infrastructure and social spending.

Graph 5, moreover, reflects the long-term dynamics of tax revenue, showing a downward trend for the entire 2001-2017 period. We can't associate this behavior, then, with the anticorruption activity of CICIG and MP, since their efforts only started to materialize in 2015. The same occurs with the behavior of public spending shown in Graph 5, which follows a declining trend starting in 2010 after a relatively stable run from 2001 to 2010.

#### 1.1.4 External Demand

A look at the performance of the external demand variables shows, on the one hand, a 2.3% interannual growth rate of exports of goods and services in 2017, up from 1.7% in



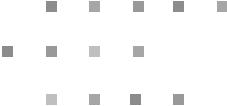
2016. On the other hand, imports of goods and services grew interannually by 2.9% in 2017, down from 3.3% in 2016.

The stronger export dynamism is explained primarily by a growing export volume of mechanical devices and machines, natural rubber, coffee and paper and cardboard products, which grew interannually in 2017 (and 2016) by 21.1% (0.9%), 18.2% (12.0%), 17.9% (-5.4%), 11.9% (-0.8%) and 11.1% (0.3%).

Despite a slowing pace of growth in export volume (from 6.6% in 2016 down to 0.2% in 2017), cardamom's average price shot up by 60% in 2017 (compared to an 11.7% falloff in 2016) as a result of a cutback in total global production, which led to a 60.3% growth in Guatemala's total cardamom export value in 2017, far above its 6.6% growth in 2016. Similarly, the value of oil exports grew interannually by 41.3% in 2017, in contrast to the 2016 contraction (-33.4%), thanks to a higher average export price (42.1% in 2017, compared to the 26.9% reduction recorded in 2016). This was a consequence of rising international oil prices, reflected in a 3.0% shrinkage of export volume (equivalent to 70,100 barrels) in 2017.

The slackening pace of imports, on the other hand, was primarily due to a slowdown in the volume of consumer goods imports, which fell from an interannual growth rate of 8.0% in 2016 to 2.5% in 2017. In addition, the volume of fuel and lubricant imports decreased from a 6.6% growth in 2016 to a 3.2% contraction in 2017. Finally, the pace of growth of imports of construction materials, in terms of volume, fell from 16.7% in 2016 to 11.0% in 2017.

The greater dynamism of imports compared to that of exports is mainly a result of a nominal exchange rate appreciation, which at the end of 2017 reached 2.4%, in interannual terms – more than the nominal appreciation towards the end of the previous year (1.4%). Nevertheless, in real terms, the exchange rate has stayed close to its long-run equilibrium value, reflecting a dynamism in line with its fundamentals (BANGUAT, 2017: 37).



Because of the stronger dynamism seen in imports as compared to exports, the country's balance of trade in goods and services showed a deficit balance of USD 6,428.1 million at the end of 2017, higher by USD 1,000.2 million than the balance at the end of 2016. Despite the Guatemalan economy's trade deficit, the current account showed a surplus balance in 2017 for the second year in a row, reaching USD 1,133.7 million (1.4% of GDP) – higher than the 2016 balance of USD 1,023.4 million. These figures contrast with the current account's recent history of deficits, with the exception of 2009; since 2011 the Guatemalan economy had not recorded current account surpluses.<sup>7</sup>

With respect to the current account, the surpluses are exclusively due to the dynamic performance of net secondary income, particularly net current transfers that take into account the evolution of net family remittances, which were valued at USD 8,192.2 million (10.1% of GDP) at the end of 2017 – about 14.4% higher than those received in 2016. By contrast, primary income (consisting of employee wages, income from direct investments and portfolio investment, reserve assets, etc.) continued to record deficit behavior. The deficit resulting from Guatemala's foreign trade of goods and services is more than offset by income from family remittances.

From the above, we can deduct that family remittances are what support the domestic economy. In addition to being a determining factor of domestic demand (primarily through their effect on the private consumption of economic agents), they also influence external demand since they finance the purchases of imported goods. The current account's change of behavior from a deficit position to surpluses is thus exclusively due to the growing dynamism of family remittances from abroad. In this sense, family remittances are the pillar sustaining the country's economic growth.

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<sup>7</sup> Data available at the BANGUAT website for the current account covers the period from 2001 to 2018.



## 1.2 DOMESTIC OUTPUT

Of the sectors comprising the Guatemalan economy's total production, those of construction, transportation, storage and communications, private services, and supply of electricity and water had interannual growth rates of 2.7%, 3.5%, 3.6% and 5.6% in 2017 (higher than the rates for the previous year of 1.8%, 2.8%, 3.1% and 5.3%, respectively). The only sector with a decrease in its growth rate (-23.2%) in 2017 was that of mining and quarrying, at 12.5 percentage points below its 2016 growth rate. This reduction is due to the Constitutional Court-ruled temporary suspension of the gold and silver mining permit for the San Rafael mining company and the closing of the Marlin mine operations in May 2017. The other sectors, however, recorded interannual growth rates that were positive, though less dynamic than those of 2016.

Despite its contraction, mining and quarrying accounted for 1.2% of GDP (the smallest of all the productive activities), contributing to the economic slowdown (from 2016 to 2017) to the tune of -0.2% of GDP. The scant impact of this productive activity on domestic economic growth is explained by its limited productive chaining, so its growth rate variations are not transferred to other productive sectors in the national economy; this, together with its low share of GDP, results in an insignificant impact on the country's total production growth.

It should be mentioned that, in terms of origin of production, the Guatemalan economy has remained practically unchanged for the last seventeen years (BANGUAT, 2017: 83). The activities accounting for three-quarters of the country's economic activity are those of manufacturing; private services; agriculture, livestock, hunting, forestry and fishing; wholesale and retail trade; transportation, storage and communications; and financial intermediation, insurance and auxiliary activities.



### 1.3 ECONOMIC OUTLOOK

In its prospective analysis, BANGUAT has projected an interannual growth rate for 2018 ranging between 3.0% and 3.8% (see Graph 1). BANGUAT's projection is partially based on the IMF's October 2017 outlook for the world economy and particularly the U.S. economy. Additionally, the projected economic growth assumes a more dynamic domestic demand, which would grow interannually by 3.7% in 2018 – surpassing the 3.0% estimated for 2017.

The stronger dynamism expected by BANGUAT in 2018 is a result of more dynamic government consumption expenditure and gross fixed capital formation (investment). The official projections assume government expenditure would reach 2.3% (compared to the 0.8% for 2017); they also foresee private investment growing interannually by 3.3%, up from 2.1% in 2017, primarily due to stronger expected dynamism in capital goods imports and investment in construction. Finally, private consumption is projected to grow by 3.7%, a slight downturn from the 2017 figure of 3.8%, explained by increased consumer bank lending, general price stability, and expected dynamic inflows of family remittances.

As for external demand, BANGUAT has projected that exports and imports of goods and services would reach interannual growth rates of 4.1% and 5.1%, respectively. These figures are up from those of 2017 (2.3% and 2.9%, respectively) and are largely underpinned, in the case of exports, by a rising demand for domestic products by the country's trade partners and more favorable price expectations for most of the main products, and in the case of imports, by a higher import volume of consumer goods, raw materials and intermediate products, and capital goods.

As to origin of production, BANGUAT has projected positive interannual growth rates for all productive sectors. The three sectors predicted to grow the fastest in 2018 are financial intermediation, insurance and auxiliary activities (5.8%), supply of electricity and water (4.7%), and wholesale and retail trade (3.8%). Mining and quarrying will grow at an interannual rate of 3.6%, in contrast to its 2017 contraction of -23.2%, though its contribution to economic growth is projected at just 0.04%.



The IMF, like BANGUAT, has projected an interannual growth rate for the Guatemalan economy of 3.2% in 2018 and 3.6% in 2019 (IMF, 2018b). Both figures are still lower by two percentage points than the IMF's projections in its October 2017 report (IMF, 2017). The earlier outlook assumed the economy of the U.S. (Guatemala's main trade partner) would be growing at an interannual rate of 2.3% in 2017, a rate that remains the same in the updated outlook published in January 2018. Furthermore, according to the IMF (2018b: 14), the projected growth of the U.S. economy was 2.9% in 2018 and 2.7% in 2019, while the January projections placed it at 2.7% (2018) and 2.5% (2019). The biases associated with the IMF outlook thus appear to be offset.

The IMF and BANGUAT outlooks for Guatemala's domestic economic activity paint a favorable panorama for its economy in both 2018 and 2019, with economic activity reaching its growth potential (3.5%) in 2019. These projections contrast with the perception that Guatemala's anticorruption efforts have had a negative impact on the economy; if this were so, it would be reflected in their economic outlooks.

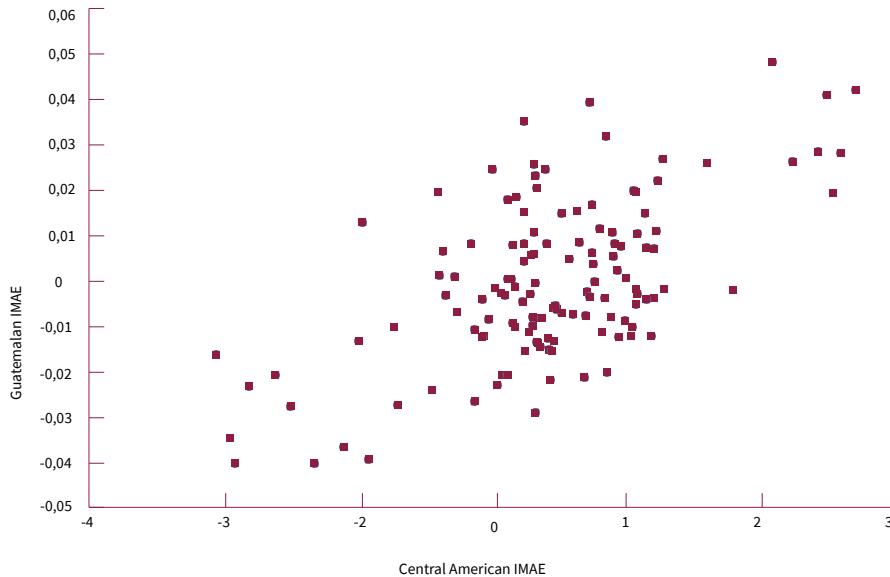
Of course, there are elements that could modify these projections. On the one hand, upward biased risks have to do with a stronger-than-projected dynamism from the influx of family remittances, which would lead to higher domestic demand due to their effect on household consumption. In addition, a lower inflation rate would enable the poorest households to increase their consumption, driving aggregate demand.

On the other hand, downward biased risks from BANGUAT's projected growth of economic activity have to do with the government's inability to increase public spending on infrastructure, which would negatively impact domestic demand. Another risk is the notable lack of commitment on the part of authorities to promote structural changes aimed at reducing government corruption, since, as Standard & Poor's states, failure to "...propose and implement an agenda of reforms for strengthening Guatemala's governance and public institutions" (S&P, 2017: 2) would lead to a lowering of the country risk rating, with the consequent adverse effect on the government's income and, consequently, expected economic growth.

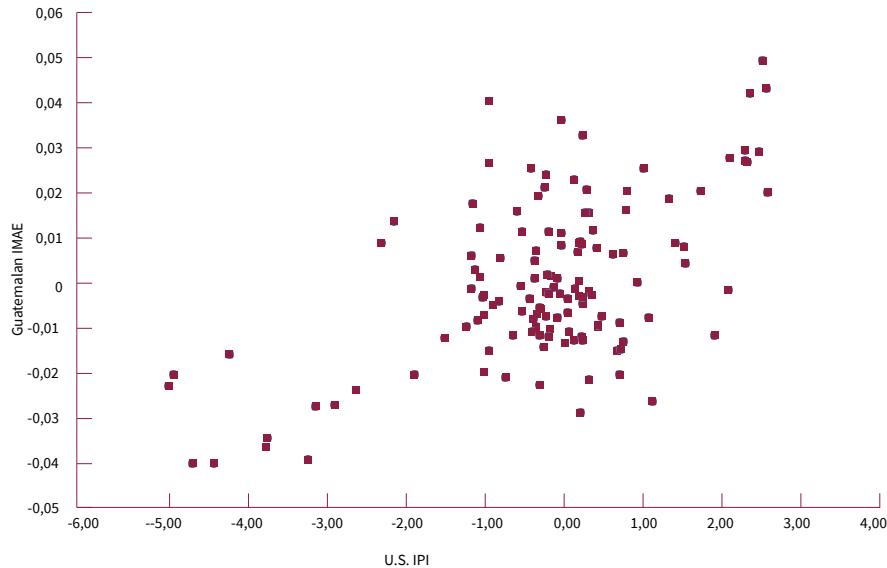
## 1.4 ADDITIONAL ANALYSIS

As shown earlier, the present-day behavior of the Guatemalan economy is due to its structural (or long-term) dynamics. Even so, we should note that there are other factors behind the aggregate demand slowdown, since they are not exclusive to Guatemala; the data actually shows that its dynamics are due to regional behavior. Graph 6 shows the behavior of the Monthly Economic Activity Index (IMAE) for Guatemala and the Central American region and the Industrial Production Index (IPI) for the U.S.

**Graph 6. Relationship between the Economic Activity of Guatemala and that of its Main Trade Partners**



*Source: Icefi, with information of the Federal Reserve Bank of St. Louis and the Central American Executive Secretariat of the Monetary Council.*



*Source: Icefi, with information of the Federal Reserve Bank of St. Louis and the Central American Executive Secretariat of the Monetary Council.*

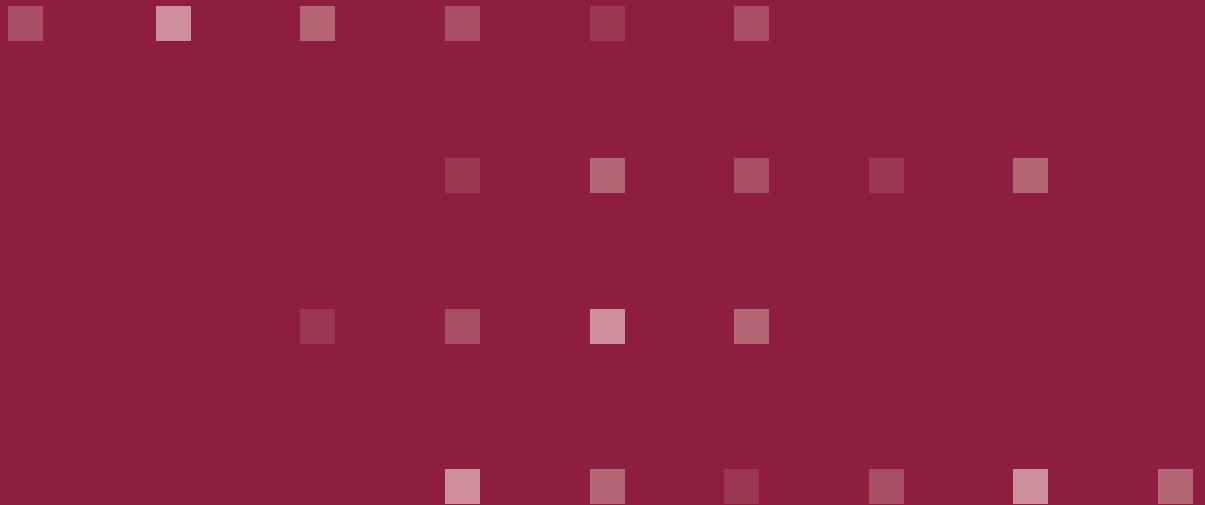
As we can see in Graph 6, there is a positive relationship among the three variables since both Central America and the U.S. are Guatemala's main trade partners. The variables' dynamics are similar, revealing that the economic slowdown is a regional trend. The econometric evidence also suggests that Guatemala's domestic economy (measured by the IMAE) has a highly significant positive relationship with the Central American IMAE and the U.S. IPI. Moreover, the data demonstrates how the behavior of U.S. industrial production transfers to domestic economic activity within a quarter of a year.

The relevance of this evidence lies in the fact that the Guatemalan economy's slowdown is primarily influenced by U.S. production and economic activity in the Central American region.



CHAPTER

# 02

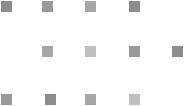


THE ECONOMIC EFFECT OF  
CORRUPTION: A LITERATURE REVIEW

There are currently two diverging hypotheses regarding the effect of corruption on economic growth. One suggests that corruption has a negative impact on economic growth; by undermining the rule of law, it distorts competition and leads to higher prices and more expensive public expenditure, both of which increase inefficiency and the cost of public goods and services, discouraging investment and economic growth. The economic literature defending this hypothesis includes authors such as Murphy et al. (1991), who found evidence that countries in which people are dedicated to rent extraction tend to grow more slowly than those in which people are dedicated to innovating and doing business. Rose-Ackerman (1997) also notes that generalized corruption is a symptom that a state is malfunctioning, implying a setback in its economic growth, so organizations providing financial aid to countries with high levels of corruption should be concerned about it. Additionally, Tanzi & Davoodi (1997) conclude that much of the effect of corruption on economic growth is channeled through reduced investment. Mauro (1998), for his part, gives statistically significant evidence that government spending on education as a percentage of GDP correlates negatively with corruption. Additionally, Alessina & Perotti (1992) state that corruption sows distrust of institutions and creates social and political discontent, generating an unstable environment that negatively affects economic growth.

The other hypothesis suggests that far from being “sand” in the gears of the economic system, corruption constitutes the “grease” that enables them to move smoothly. Corruption can therefore encourage efficiency, reducing the resources that have to be spent on extremely cumbersome red tape, for example, so it could have a positive effect on economic growth. Research along this line includes Huntington (1968) and Rock & Bonnet (2004), who argue that corruption aids the economic system by overcoming bureaucratic inefficiencies and excessive centralization. These authors allude to the Asian paradox, according to which corruption favored investment and therefore the economic growth of those Asian countries, since it provided facilities for investors in exchange for bribes to public officials.

Although the quantifying of corruption in a society is a complex task marked by subjectivity or uncertainty (due to the hidden, obscure and illegal nature of the phenomenon), in recent years, with the technological revolution and the new age of information, there has been a relative boom



in the creation and use of quantitative techniques for capturing the magnitude of corrupt activities. The ways to quantify it tend to follow either an objective or a subjective line. In the first case, measurements are based on verifiable data such as the number of cases of corruption reported during a specific period (generally one year) and the number of cases of corruption reported in the media. In the second case, the measurement approach is based on surveys that attempt to measure perceptions or experiences. These, however, present endogeneity problems and perceptions do not necessarily coincide with reality. Although experience-based measurements overcome some of the problems of perception-based measurements, they occasionally suffer from imprecise questions.<sup>8</sup>

## 2.1 SUBJECTIVE APPROACH

One of the pioneering works is that of Mauro (1995), who finds that corruption reduces investment and thereby economic growth. Using econometric techniques for a panel of 67 countries, along with subjective indices as proxy variables of corruption and the investment rate as a percentage of GDP, he shows that the relationship between investment and corruption is negative.<sup>9</sup> The author's results suggest that a standard deviation improvement (deterioration) on the corruption index would increase (reduce) investment as a percentage of GDP by 4.75 percentage points.

Along this same line, Wei (1996) examines the effect of corruption (seen by him as an extremely distortionary tax that takes place before the production process) on foreign direct investment (FDI). The author associates the FDI balance with the corruption index, the tax rate paid by foreign investment firms, GDP, political stability, a measure of the distance between the source

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<sup>8</sup> Asking about frequency, for example, could lead to an imprecise response, since there may be different concepts of frequency.

<sup>9</sup> The author estimated ordinary least squares and two-stage least square regressions; for the latter case he used the ethno-linguistic fractionalization index as instrumental variable. Additionally, he included nine subjective corruption indices: political change (institutional), political stability (social), probability of opposition groups taking control of the government, employment stability, relations with neighboring countries, terrorism, legal and judicial system, level of bureaucracy and corruption.

and host countries, a dichotomic variable reflecting their common language, and a variable exhibiting excessive bureaucracy.<sup>10</sup> The findings suggest that greater instability caused by an increase in corruption from a level like that of Singapore to a level like that of Colombia corresponds to a tax rate increase for investors of 42.0% on the investment, while going from a Singapore level to the Mexican level would correspond to a 32.0% tax rate increase for investors. That is, corruption is a disincentive for investing. As a result, in another study Wei (2000) shows that if we went from a corruption level like that of Singapore to one like that of Mexico, foreign direct investment inflows as a percentage of GDP would fall, since this would be the equivalent of adding 18 to 50 percentage points to their tax rate.

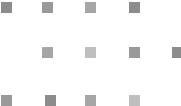
One of the most recent efforts to quantify corruption has been that of the IMF, which estimates that the cost of global corruption ranges from USD 1.5 to 2.0 billion, equivalent to approximately 2.0% of global GDP. This calculation comes from an extrapolation of the estimate made by Kaufmann in 2005. Based on the answers to questions on surveys conducted of companies and households on the estimated size of bribes, and by extrapolating this to the entire population, Kaufmann (2005) was able to estimate that the annual global cost of bribes was around USD 1.1 billion. In Mexico, the Center of Investigation for Development A. C. also made an extrapolation in 2014 of Kaufmann's estimate. In this case, the loss associated with 2.0% of Mexico's GDP corresponds to more than MXN 341,000 million at current value, according to the publication, Dinero en Imagen (2015).

Rahma (2017) carried out what is probably the first empirical work on corruption and economic growth for Latin America (the country sample for which includes Guatemala). The results of his study suggest that corruption has a negative impact on the region's economic growth. In particular, a 1.0% standard deviation increase of the Corruption Perceptions Index (CPI) would tend to reduce the region's economic growth rate by 0.37%.<sup>11</sup>

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*10 The author used three measurements to quantify corruption: the Business International Index; the Transparency International index, and one that he constructed himself on the basis of 2,831 responses to a question on corruption included in the survey conducted by World Economic Forum for the 1997 Global Competitiveness Report.*

*11 The sample compiled data from eighteen countries. The author used a fixed-effects panel data model on which he constructed four scenarios using as variable the Corruption Perceptions Index (CPI), economic growth, investment as percentage of GDP, population*



## 2.2 OBJECTIVE APPROACH

Studies using this type of quantification of the effect of corruption on economic growth include the work of Banerjee, Deaton & Duflo (2004), where the authors carried out an experiment in which they observed clinics in India that provide free healthcare and found that 90.0% of the establishments charge a sort of “fee”, which for users turns out to be more burdensome than the cost of informal medical services.

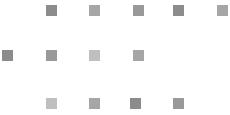
In addition, Barron & Olken (2009) did an experiment in which they personally accompanied tractor-trailer truck drivers. Their results show that, on average, there were approximately 19 illegal payments made for each trip, equivalent to an average of USD 40 per trip, or close to 13.0% of the cost of each trip. Olken (2007), for his part, conducted another experiment on corruption reduction in 600 road projects in Indonesia. He obtained evidence showing that a four- to one hundred-percent increase in government audits reduces lost costs (understood as the gap between the project’s official costs and the costs estimated by an expert engineer) by approximately 8.0%. According to the author, lost or unjustified costs are at around 24.0%.

Furthermore, unlike the previous case studies, McMillan & Zoido (2004) have estimated the magnitude of corruption at the system level, using data from the Vladimiro Montesinos case (payment receipts to which the authors had access through the Peruvian Congress’s subcommittee on investigation into constitutional complaints).<sup>12</sup> The results show that the cost of bribing lawmakers was approximately USD 300,000 per month, the cost of bribing judges was around USD 250,000, and the cost of bribing television channels was close to USD 3 million, implying a bribery cost of approximately USD 3.5 million per month. Based on this,

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*growth, trade openness, public expenditure, gross fixed capital formation, inflation and net secondary school enrollment.*

*12 Vladimiro Montesinos was a Peruvian military officer and politician, the right-hand man of Alberto Fujimori (president of Peru 1990-2000). When Fujimori took office as president in 1990, he chose Montesinos as his top security advisor, putting him in charge of the National Intelligence Service. With Fujimori’s approval, Montesinos controlled state institutions so that, taking advantage of his contacts in the U.S. Central Intelligence Agency (CIA), he was able to grab power to benefit himself economically through extortion, coopting and blackmail, among other means.*

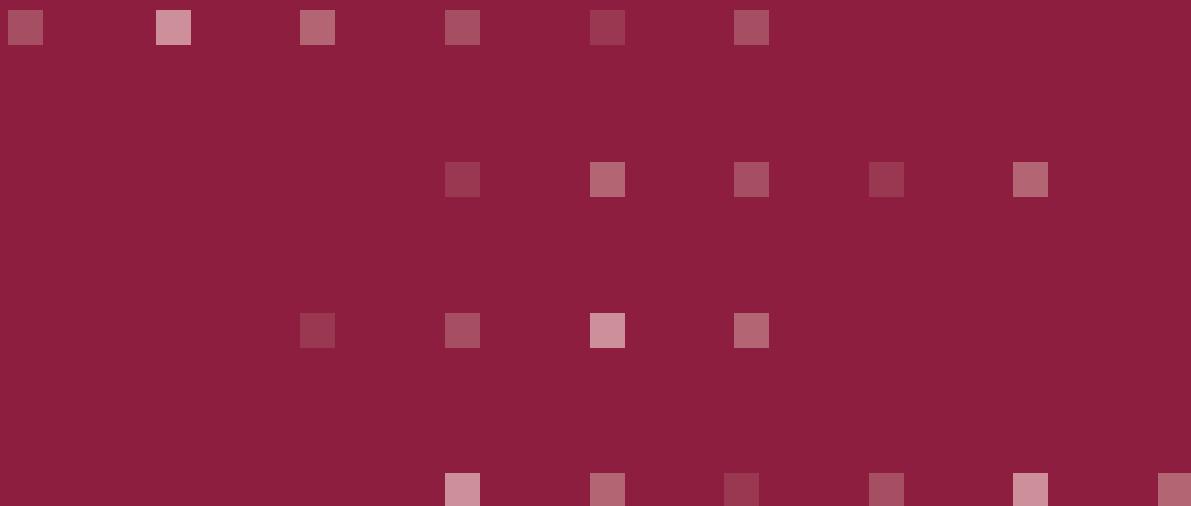


Cetina (2016) finds an extrapolation showing annual bribery amounts of more than USD 43 million (equivalent to 0.45% of Peru's public expenditure in 2001).

Along this same line, ICEFI (2017) analyzes the relationship between corruption and democracy, compiling emblematic cases of corruption in each of the three countries comprising the Central American Northern Triangle: El Salvador, Guatemala and Honduras. In this study, ICEFI proposes ways to measure the economic and social costs of the cases in terms of unspent public expenditure suffered by the region's citizenry. The results suggest that 20.0% of total allocated expenditure approved in Guatemala's revenue and expenditure budget for 2015 is vulnerable to corruption, such that the cost of corruption is up to approximately 6.0% of the total budget. Based on this, the study indicates the social losses in matters of education, social protection, security, health and nutrition, and culture and sports that are being sustained due to corruption and that are primarily affecting the country's lowest-income and most vulnerable population.

CHAPTER

# 03



THE ECONOMIC EFFECT OF  
CORRUPTION IN GUATEMALA:  
A CENTRAL AMERICAN ANALYSIS

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This section employs the subjective approach to examine the relationship between corruption and economic activity in Guatemala. To measure corruption, we use the CPI published annually by Transparency International, and to identify the relationship between this index and economic activity we consider two variables: investment as a percentage of GDP and per capita GDP. We base our analysis on the works of Mauro (1995) and Rahma (2017).

Following those authors, we constructed a dynamic panel that includes the available data of the region's countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic) for the 1998-2016 period, and then proposed investment (as a percentage of GDP) and per capita GDP as the estimate model's dependent variables and the CPI (our target variable) and additional control variables (public expenditure as a percentage of GDP, inflation, population growth and trade openness) as independent variables. The resulting estimates are summarized in Table 1.

The results suggest that a negative relationship between corruption and investment, such that the effect of corruption on economic activity is also negative (channeled through investment). The relationship between corruption and economic growth in per capita terms is also negative. It should be noted that the CPI is constructed on a scale of 0 to 100 points, so a country with a score of 100 is associated with an absence of corruption; this explains the positive sign of the coefficient linked to the CPI.

The results also show that an increase of one standard deviation in Guatemala's CPI (corresponding to an improved perceived corruption score) would be associated with a 0.94% increase in per capita GDP and a 0.8% increase in investment as a percentage of GDP. The statistical evidence from the econometric estimation suggests a refutation of the null hypothesis of a nonexistent relationship between corruption and investment. It consequently suggests that the primary channel transmitting corruption to economic activity is investment, since a significant portion of the effects of corruption on production comes through this channel. Likewise, **this evidence shows that corruption in Central American countries is not the “grease” enabling the gears of economic growth to move more smoothly (thereby**

driving this growth) but rather the “sand” that is binding them. In addition, the results provide evidence favoring the hypothesis that corruption has a negative impact on per capita GDP growth.

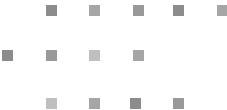
**Table 1. Relationship between (Perceptions of) Corruption and Economic Activity**

	Dependent Variable	
	Growth	Investment
Corruptions Perception Index	0.2752***(0.0685)	0.2457*** (0.0789)
Lagged Dependent Variable	-0.1007 (0.00721)	0.1544 (0.1085)
Inflation Rate	0.4581 (0.3172)	0.3674***(0.1393)
Trade openness	0.1351*** (0.0271)	-0.0293 (0.0318)
Population growth	-0.7376***(0.3021)	-0.0441 (0.2680)
Public expenditure / GDP	-0.8742** (0.3753)	-0.1517(0.3793)
Constant	4.2399(7.1403)	13.4159* (8.0102)
<b>Observations</b>	<b>71</b>	<b>71</b>
<b>Countries</b>	<b>7</b>	<b>7</b>

Standard errors in parentheses

Statistical significance: \*(10%), \*\*(5%), \*\*\*(1%)

*Source: ICEFI, based on data from Transparency International, World Bank (WB), International Monetary Fund (FMI) and the Executive Secretariat of the Central American Monetary Council*



## CONCLUSIONS

Guatemala's economic activity has slowed its pace of growth compared to BANGUAT and IMF projections and the long-term (or potential) outlook. The cause of this has been the structural dynamics of the Guatemalan economy, characterized by a low level of private investment and low public expenditure as a result of the government's inability to generate public revenue and execute its spending budget.

Some, however, associate the domestic economy's stagnation with the anticorruption measures taken by the MP and the CICIG. Defenders of this view claim the measures lead to political instability and restrict investment by private agents. Numerous studies show, however, that dissemination of information on cases of corruption corrects the imbalances of existing information and nurtures the political responsibility of citizens to exercise their role as overseers of the State, thus forcing the government to make structural proposals for fighting corruption.

The analysis in this document backs the thesis that the reduced pace of economic growth in 2017 has been caused by short-term and structural factors. There is also econometric evidence pointing to the negative effect of corruption on the Central American economy in general and the Guatemalan economy in particular. We can thus discard a negative impact of the anticorruption measures on economic activity, since this impact would be channeled through the expectations of economic agents. To this respect, BANGUAT's Economic Activity Confidence Index (ICAE) records reductions (representing less confidence in the economy) in the face of the threat of a congressional, legislative or judicial decision favoring impunity, while it records rebounds (greater confidence in the domestic economy) when the fight against corruption has scored victories.

Consequently, responsibility for the negative effect on the confidence of economic agents (associated with lower levels of private investment and therefore a slower pace of economic growth) when uncertainty levels rise due to the country's political instability falls on two parties:



those involved in the cases of corruption; and the executive and legislative branches for lacking the will to make the structural changes needed to support and complement the anticorruption efforts made to date, thereby generating a stable and favorable environment for investment.



## REFERENCES

Alesina, A. y Perotti, R. (1992). «Income Distribution, Political Instability, and Investment», *Institute for Policy Reform, Working Paper*, Washington, D.C.

Andrade, J., Gaspar, D., Bittencourt, A. (2014). «América Latina: Productividad total de los factores y su descomposición», en *Revista Cepal*, núm. 114, pp. 53-69. Santiago de Chile: Cepal.

Barron, P. y Olken, B. (2009). «The Simple Economics of Extortion: Evidence from Trucking in Aceh», en *Journal of Political Economy*, vol. 117, núm. 3, pp. 417-452.

Banerjee, A., Deaton A., Duflo, E. (2004). «Wealth, Health, and Health Services in Rural Rajasthan», en *American Economic Review*, vol. 94, (núm. 2), pp. 326-330.

Castillo, Carlos (2012). «Un modelo macroeconómico para Guatemala usando métodos bayesianos», en *Banca Central*, Guatemala, Banco de Guatemala, núm. 63 [en línea, en formato PDF], disponible en: <http://www.banguat.gob.gt/Publica/Banca/BancaCentral63.pdf>.

Cetina, C. (2016). *Corrupción: Medición del problema y los problemas en su medición*. Perú: Secretaría de Transparencia, Presidencia de la República.

Dinero en Imagen (26 de febrero, 2015). «La corrupción se come 2% del PIB» [en línea, en formato html, consultado el 04/04/2018], disponible en: <http://www.dineroenimagen.com/2015-02-26/51540>.

Fondo Monetario Internacional (FMI) (2017). *En busca del crecimiento sostenible. Recuperación a corto plazo, desafíos a largo plazo. Perspectivas de la economía mundial*: Octubre de 2017 [en línea, en formato PDF], Washington D.C. [consultado el 12/02/2018], disponible en: <http://www.imf.org/es/Publications/WEO/Issues/2017/09/19/world-economic-outlook-october-2017>.

Fondo Monetario Internacional (FMI) (2018a). *Perspectivas más halagüeñas, optimismo en los mercados, retos futuros. Perspectivas de la economía mundial: Actualización – enero de 2018* [en línea, en formato PDF], Washington, D.C. [consultado el 05/02/2018], disponible en: <http://www.imf.org/es/Publications/WEO/Issues/2018/01/11/world-economic-outlook-update-january-2018>.

Fondo Monetario Internacional (FMI) (2018b). *Repunte cíclico, cambio estructural. Perspectivas de la economía mundial: Abril de 2018* [en línea, en formato PDF], Washington D.C. [consultado el 25/04/2018], disponible en: <http://www.imf.org/en/Publications/WEO/Issues/2018/03/20/world-economic-outlook-april-2018>.

Guatemala, Banco de Guatemala (Banguat) (2017). *Evaluación de la política monetaria, cambiaria y crediticia, a noviembre de 2017, y perspectivas económicas para 2018* [en línea, en formato PDF]. Guatemala: Banguat [consultado el 05/02/2018], disponible en: [http://banguat.gob.gt/Publica/Comunica/eva\\_pol\\_mon\\_nov2017.pdf](http://banguat.gob.gt/Publica/Comunica/eva_pol_mon_nov2017.pdf).

Guatemala, Superintendencia de Bancos de Guatemala (SIB, 2017). *Informe del superintendente de bancos ante la Honorable Junta Monetaria al 30 de septiembre de 2017* [en línea, en formato PDF], 2017 [consultado el 20/02/2018], disponible en: [https://www.sib.gob.gt/c/document\\_library/get\\_file?folderId=3702222&name=DLFE-28208.pdf](https://www.sib.gob.gt/c/document_library/get_file?folderId=3702222&name=DLFE-28208.pdf).

Huntington, Samuel P. (1968). «Political order in changing societies», en *New Haven*, CT: Yale University Press.

Mauro, Paolo (1995). «Corruption and Growth», en *The Quarterly Journal of Economics*, vol. 110 (núm. 3), pp. 681-712.

Kauffman, Daniel (2005). «Myths and Realities of Governance and Corruption», en *Global Competitiveness Report 2005-2006*. Washington, D.C.

Mcmillan, J. y P. Zoido (2004). «How to Subvert Democracy: Montesinos in Peru», en *Journal of Economic Perspectives*, vol. 18 (núm. 4), pp. 69-92.

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Moody's Investors Service (30 de junio de 2016). *Rating Action: Moody's cambia la perspectiva de las calificaciones de Guatemala a estable de negativa, afirma las calificaciones Ba1* [en línea, en formato html, consultado el 15/03/2018], disponible en: [https://www.moodys.com/research/Moodys-cambia-la-perspectiva-de-las-calificaciones-de-Guatemala-a--PR\\_351514](https://www.moodys.com/research/Moodys-cambia-la-perspectiva-de-las-calificaciones-de-Guatemala-a--PR_351514).

Murphy, K., Shleifer, A., Vishny, R. (1991). «The Allocation of Talent: Implications for Growth», en *The Quarterly Journal of Economics*, vol. 106 (núm. 2), pp. 503-530.

Olken, B. (2007). «Monitoring Corruption: Evidence from a Field Experiment in Indonesia», en *Journal of Political Economy*, vol. 115 (núm. 2), pp. 200-249.

Rose-Ackerman, Susan (1997). «The Role of the World Bank in Controlling Corruption», en *Law and Policy in International Business*, vol. 29, pp. 93-114.

Rock, M.T. y H. Bonnet (2004). «The comparative politics of corruption: accounting for the East Asian Paradox in empirical studies of corruption, growth and investment», en *World Development*, vol. 32 (núm. 6), pp. 999-1017.

Rahma, T. (2017). «Corruption and Economic Growth: Latin American Countries», en *Erasmus University Thesis: Economics*. Recuperado de <http://hdl.handle.net/2105/39167>.

Schwab, K. (ed.) y Sala-i-Martin, K. (2017). *The Global Competitiveness Report 2017-2018* [en línea, en formato PDF]. Ginebra, World Economic Forum, 09/2017 [consultado el 09/03/2018], disponible en: <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>, ISBN-13 978-1-944835-11-8.

Standard&Poor's Global Ratings (18 de octubre, 2017). *S&P Global Ratings baja calificación soberana de largo plazo a 'BB-' de Guatemala por expectativas de crecimiento más débil e inestabilidad política*, [en línea, en formato PDF, consultado el 15/03/2018], disponible en: [https://www.standardandpoors.com/es\\_LA/delegate/getPDF?articleId=1935893&type=NEWS&subType=RATING\\_ACTION](https://www.standardandpoors.com/es_LA/delegate/getPDF?articleId=1935893&type=NEWS&subType=RATING_ACTION).

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Sosa, S., Tsounta, E., Kim, M.S. (2013). *Is the Growth Momentum in Latin America Sustainable?* [en línea, en formato PDF], Fondo Monetario Internacional, IMF Working Paper, Vol. 109 (núm. 13), disponible en: <https://www.imf.org/external/pubs/ft/wp/2013/wp13109.pdf>.

Tanzi, V., Davoodi, H. (1997). «Corruption, Public Investment, and Growth», en *Fondo Monetario Internacional*, Working Paper (núm. 139), pp. 1-23.

Transparencia Internacional (21 de febrero, 2018). Perceptions remain unchanged despite progress in the Americas [en línea, en formato html, consultado el 14/03/2018], disponible en: [https://www.transparency.org/news/feature/no\\_hay\\_cambios\\_en\\_las\\_percepciones\\_pese\\_a\\_los\\_avances\\_en\\_america](https://www.transparency.org/news/feature/no_hay_cambios_en_las_percepciones_pese_a_los_avances_en_america).

Wei, Shang-Jin (1996). «Why is Corruption So Much More Taxing Than Tax? Arbitrariness Kills», en *National Bureau of Economic Research*, Documento de Trabajo (núm. 6255).

Wei, Shang-Jin (2000). «How Taxing is Corruption On International Investors», en *The Review of Economics and Statistics*, vol. 82 (núm. 1), pp. 1-11.



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