OXFORD ECONOMICS

An assessment of the macroeconomic implications of alternative strategies for deficit reduction in the Commonwealth of The Bahamas

A report prepared on behalf of the Bahamas Chamber of Commerce and Employers Confederation Coalition for Responsible Taxation

OXFORD ECONOMICS

Contents

Glossary **3**

1 Executive summary **4**

2 Introduction **7**

2.1 Study scope and objectives 7
2.2 Scenarios 8
2.2.1 Baseline 8
2.2.2 Scenario 1 (S1) 9
2.2.3 Scenario 2 (S2) 9
2.2.4 Scenario 3 (S3) 9
2.2.5 Scenario 4 (S4) 9
2.2.6 Scenario 5 (S5) 10
2.3 Report structure 11

3 Quantitative results **12**

3.1 Fiscal balance and government debt 12
3.2 Prices and wages 14
3.3 External balance 16
3.4 GDP and domestic demand 17
3.5 Labour market 19
3.6 Sectoral impact 19
3.6.1 Construction 19
3.6.2 Distribution 20
3.6.3 Hotels and restaurants 21

4 Model evaluation **22**

4.1 Distributional effects 22
4.2 Granularity 23
4.3 Uncertainty of long-term forecasting 24

5 Conclusion **25**

6 Technical appendix **26**

6.1 Model design 26
6.2 Relationship to the Oxford Global Economic Model 26
6.3 Variable coverage and equation structure 27
6.4 Calibrating shocks using the micro model 28

6.5 Transmission mechanisms from changes in fiscal policy 28
6.5.1 VAT 28
6.5.2 Employer payroll contributions 29
6.5.3 Employee payroll contributions 29
6.5.4 Property tax 29
6.5.5 Expenditure reduction 30
6.6 Results 31

Glossary

- **Consumer Price Index (CPI):** is the official measure used to track inflation in an economy. It is an index which captures changes in the price of a representative basket of goods and services which are weighted together according to estimates of the composition of household expenditure.
- **Consumption:** refers to total spending on goods and services by residents of an economy, irrespective of the location of such purchases, during a given time period.
- **Employment:** figures in this report are calculated on a headcount basis meaning that both part-time and full-time employees are treated on the same basis.
- **Gross Domestic Product (GDP):** the official measure used by statisticians to measure economic output during a given time period. It measures the market value of all goods and services produced using resources located within an economy during a given time period (often one year).
- **Gross Fixed Capital Formation:** an official measure of investment used in national accounting. Technically, it measures the value of new or existing fixed assets less disposals of fixed assets. Functionally, one of the most important differences between gross fixed capital formation and other measures of investment is purchases of land.
- **Gross Value Added (GVA):** is the contribution of an institution, company or industry makes to Gross Domestic Product (GDP). The sum of the gross value added of all Bahamian organisations is – with minor adjustments for taxes and subsidies – equal to Bahamian GDP. GVA is most simply understood as turnover (i.e. value of sales) minus the cost of goods and services used in the production process.
- **Output gap:** a term that refers to the estimated percentage difference between the current level of real GDP and the economy's potential output. The output gap is closely related to the stage of the business cycle with a "boom" period typically accompanied by a positive output gap and vice versa following a recession.
- **Payroll tax:** a tax directly levied on a company's payroll (or total wage bill). Payroll taxes considered here include contributions by both employer and employee.
- **Value Added Tax (VAT):** a special form of consumption tax which differs from a sales tax in the fact that the tax is collected and remitted to the Government at all stages of production, with firms able to claim back payments made on intermediate purchases, such that the ultimate burden of the tax falls ultimately on the final consumer of the good or service.

1 Executive summary

Report motivation:

The report was commissioned by the Bahamas Chamber of Commerce and Employers Confederation Coalition for Responsible Taxation. It was motivated by recent macroeconomic and policy developments in the Commonwealth of The Bahamas (The Bahamas), with the post-global economic crisis period being marked by an increasingly unsustainable deterioration in the country's fiscal position. This has prompted the Government of The Bahamas (the Government) to examine strategies to reduce the deficit, chiefly by introducing VAT on final consumption.

Key objectives:

In this context, the key objective of this project was to develop a macroeconomic model of The Bahamas to examine the implications of alternative strategies for deficit reduction over a 10-year forecast horizon. This paper summarises the key results from our modelling with a companion methodology paper providing additional detail about technical aspects of the project for interested readers.

Scenario definition:

In order to calibrate the model we needed to make a set of assumptions regarding the future path of fiscal policy (changes in tax rates, the introduction of new taxes, spending measures). These were agreed in conjunction with members of the working group of the Coalition and were informed by discussions with the Government. The key assumptions which differentiate the scenarios are summarised below in Table E.1.

Table E.1: Summary of key fiscal assumptions used across different scenarios

	VAT			Payroll Tax			Other Measures	
	Implemented	Headline Rate	Range of exemptions	Implemented	Headline Rate	Employer:Employee split	Nominal Government Consumption growth (%yr, 2014-24)	Average effective property tax rate (2014-24)
Baseline	Yes	15%	Broad	No	N/A	N/A	5.3	0.65%
Scenario 1 (S1)	Yes	10%	Broad	No	N/A	N/A	5.3	0.65%
Scenario 2 (S2)	Yes	10%	Narrow	No	N/A	N/A	5.3	0.65%
Scenario 3 (S3)	Yes	7.5%	Narrow	No	N/A	N/A	4.3	0.65%
Scenario 4 (S4)	No	N/A	N/A	Yes	6%	50:50	2.5	0.82%
Scenario 5 (S5)	No	N/A	N/A	Yes	12%	50:50	4.1	0.65%

Source: Oxford Economics assumptions

Results summary:

Most of the strategies achieve a substantial fiscal tightening…

- With the exception of S1, all reform strategies achieve a substantial fiscal tightening, with combined expenditure and revenue-raising measures generating a comparable improvement in The Bahamas' fiscal position.

…helping the Government to run a sustained primary surplus…

- In our baseline case, the introduction of VAT at 15% helps the Government to run a sustained primary surplus in the long-term, a feature which is broadly replicated across other scenarios.

….and therefore achieve a steady reduction in the burden of government debt

- Such a fiscal consolidation helps to steadily reduce the burden of debt interest payments over time ensuring a more efficient allocation of government resources. In the baseline case, debt interest payments fall to 8.0% of total spending in 2024 compared to 11.5% in 2013.

The introduction of VAT would slow the economy more significantly in the short-term…

- Our modelling indicates that short-term growth would be more materially affected by the introduction of VAT compared to a payroll tax. On average, real GDP growth is over ½ percentage point a year higher during 2015-16 in S4 and S5 compared to the baseline case.

…but the long-term differences in growth are much smaller

- However in the long-run, differences in growth are much smaller, reflecting the fact that all strategies for deficit reduction are estimated to have a broadly similar impact on the supply side capacity of the economy. S2 and S3 result in the highest long-run level of output – around 0.5% higher than in the baseline case.

However, the implications for inflation are more material…

- On the other hand, there are more material differences between the scenarios in terms of their impact on CPI inflation. The introduction of VAT causes an initial surge in inflation to over 6.5% in 2015 in both the baseline case and S2. Although, the level of the CPI broadly converges across scenarios involving VAT, it remains permanently lower in S4 and S5.

…as they are for the composition of growth…

- Moreover, whilst output in the long-run is broadly similar across the scenarios, its composition differs more materially. Scenarios involving the introduction of a payroll tax are characterised by slower private consumption growth but a stronger net trade position, with lower inflation helping to boost the long-term competitiveness of the tourism sector.

…which affects sectoral prospects

- These differences have implications for the strength of activity across different sectors in the various scenarios. S3-S5 generally display stronger private sector GVA growth reflecting the “crowding in” effect associated with expenditure retrenchment measures. Meanwhile, the hotels and restaurants sector grows notably faster (around ½ percentage point per year) in S4 compared to the baseline case.

Policy implications:

- Our results underline the importance of sufficiently decisive and swift action to cut the deficit which over time will help to reduce the burden of debt interest payments, therefore encouraging a more efficient allocation of government resources.
- Our analysis indicates that the choice of deficit reduction is likely to have a fairly small impact on long-term output with a range in the level of real GDP between scenarios of around 0.5% (which equates to around B$53 million at today's prices).
- However, although the broad macroeconomic effects may be similar, policy choices will inevitably create relative "winners and losers", with alternative implications for consumers and producers, small versus large corporations, poor and rich households, different sectors of the economy etc. The model is able to shed light on some of these issues. For example:
    - Private sector growth will be boosted by a strategy that includes expenditure as well as purely revenue-raising measures.
    - Tourism-facing industries, most notably hotels and restaurants, would fare better from the introduction of a payroll tax compared to VAT, other things being equal.
    - Households will be worse off under a payroll tax compared to VAT, with net take home pay affected directly by employee contributions, and indirectly by employer contributions, as firms seek to shift the incidence of the tax back on to workers over time.
- However, other issues which are beyond the scope of the macro model, such as the distributional impact of fiscal reform, are clearly worthy of full policy consideration. Our analyses suggest that the impact of introducing VAT with a narrower range of exemptions would increase the incidence of the tax on lower-income households, other things being equal. However, if a sufficiently accurately targeted compensation package could be designed, this would represent a more efficient means of offsetting the regressive impact of VAT than the use of exemptions.
- As such, we would emphasise the importance of a holistic approach which goes beyond the evidence base provided by our modelling. The Government should consult fully with key stakeholders before designing and implementing its strategy for deficit reduction.

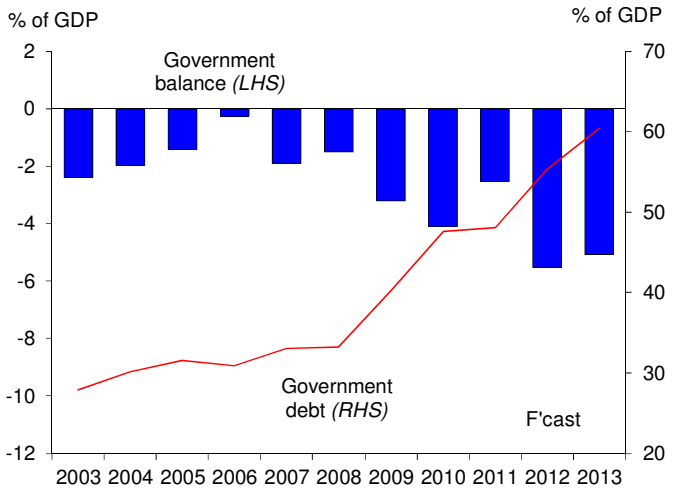
2 Introduction

This chapter discusses the study's primary objectives, sets out the key assumptions that underpin the alternative scenarios, and outlines the structure of the remainder of the report.

2.1 Study scope and objectives

The principle objective of this study is to assess quantitatively the implications of alternative strategies for deficit reduction in the Bahamas. The report is motivated by the recent macroeconomic context, with recent years having seen the Government's fiscal position become increasingly unsustainable. Indeed, government debt has risen from 33% of GDP in 2008 to 60% in 2013 (Chart 2.1)[1], with debt interest repayments now accounting for 11.5% of total expenditure compared to just 9.6% before the crisis.

Chart 2.1: Government debt and fiscal balance 2003-2013[2]



Source: Central Bank, Department of Statistics

Indeed, such developments prompted Moody's to downgrade the Bahamas soverign credit rating in December 2012 to 'Baa', highlighting moderate credit risk, with a negative outlook. At the time of the downgrade Moody's highlighted the "significant and rapid deterioration of the Government's balance sheet, exacerbated by a low revenue base", as well as its high and rising levels of debt relative to peers. Moreover, "revenue-side reforms" were highlighted as a factor

[1] It is important to note that fiscal figures presented in this report are based on a calendar-year basis and, therefore, will differ slightly from published Government figures that are calculated on a fiscal-year basis.

[2] LHS and RHS stand for "Left Hand Side" and "Right Hand Side" respectively and refer to the relevant axis used for each series.

that could lead to a ratings upgrade[3].

Given this, the need for fiscal reform is clear and widely appreciated and accepted among the Bahamian business and political communities. However, the optimal means of achieving deficit reduction is, of course, much more moot. This report aims to contribute to this debate by presenting results from different scenarios run on a bespoke macroeconomic model for The Bahamas. The scenarios were calibrated by altering assumptions regarding the future path of fiscal policy. The assumptions underlying these scenarios are defined more precisely in section 2.2.

2.2 Scenarios

As indicated, our analysis has considered six alternative paths for deficit reduction. Traditionally, in this type of work, a baseline case would be defined as a “do nothing” or “no change” outcome. However, it was felt that the model was inappropriate for assessing macroeconomic outcomes under such circumstances. This reflects the fact that a “do nothing” approach would likely result in further ratings downgrades and a debt crisis as the fiscal position became increasingly untenable. Modelling the effects of such events is highly complex given the probability of non-linear responses. Therefore, instead, we have defined the baseline case in order to simulate the effects of what, at the commencement of the project, we understood to be the Government’s preferred option for fiscal reform. Below, we document the key assumptions that underpin each scenario. Assumptions underpinning the baseline case are described in detail and subsequently, we note instances where the alternative scenarios depart from these assumptions.

2.2.1 Baseline

- VAT is introduced at a headline rate of 15% in 2015. It is assumed that compliance gradually increases from 60% in 2015 to 85% in 2017, its long-run rate.
- VAT is characterised by a range of exemptions for different goods and services including basic food, healthcare, education, household rents etc. The first B$200 of household utility consumption is also exempted. The turnover threshold for compulsory business registration is assumed to be B$100,000.
- Import tariffs and excise tax rates are adjusted downwards to take account of the new VAT and on-going negotiations with the World Trade Organization (WTO).
- Hotel room occupancy tax is abolished and replaced by VAT, with the rate on rooms specified at 10%.

[3] ‘Rating Action: Moody's Downgrades The Bahamas Government Rating to Baa1, Maintains Negative Outlook’, Moody’s Investor Services press release, December 2012

- New gaming measures are assumed to raise an additional B$60 million of revenue in 2015, a figure that grows based on nominal GDP growth in later years.
- For other modelled taxes (these include business licence fees, export duties, departure tax and property tax) effective tax rates are assumed to remain at the average level recorded during 2011-13.

2.2.2 Scenario 1 (S1)

- Adopts the same assumptions as in the baseline except that VAT is introduced at a headline rate of 10% rather than 15%. Assumptions regarding the associated reduction in import and excise duties are adjusted accordingly based on information provided by the Government.

2.2.3 Scenario 2 (S2)

- VAT is introduced at a headline rate of 10% but with a much narrower set of exemptions compared to the baseline case. Specifically, it is assumed that the only exempt industry is financial and insurance services.
- The reduction in import tariffs and excise tax rates is adjusted to reflect the narrower set of exemptions.

2.2.4 Scenario 3 (S3)

- VAT is introduced with a similar structure (narrow exemption range) as in S2 but at a headline rate of 7.5%.
- This results in VAT on hotel room occupancy at a rate of 7.5%, implying an effective reduction compared to the previous hotel room occupancy tax which was levied at 10%.
- The reduction in import tariffs and excise tax rates is adjusted to reflect the narrower set of exemptions and the new 7.5% headline rate.
- Government consumption is reduced permanently by 10% compared to baseline between 2015 and 2018. Reductions are split between procurement and wages and salaries in proportion to their current size. Government employment is reduced by half the rate of wages and salaries, effectively implying that 50% of the reduction in payroll occurs through headcount redundancies and 50% through slower wage growth. The overall impact is that government consumption grows at an average annual rate of 4.3% in nominal terms during the forecast horizon

2.2.5 Scenario 4 (S4)

- VAT is not introduced. Instead, a payroll tax of 6% split equally between employers and employees is implemented, although assumed imperfect compliance implies that effective rates on employers and employees are 2.5%.

- The reduction in import tariffs and excise tax rates is modified to reflect the absence of VAT.
- Hotel room occupancy tax remains at 10%.
- The effective property tax rate is gradually increased between 2015 and 2020 to reflect improved compliance. This results in the effective rate reaching 0.9% in 2020 compared to 0.68% in the baseline case.
- Government consumption is reduced permanently by 25% compared to baseline over the forecast horizon. It is assumed that the same composition of consumption cuts is applied as in S3. The overall impact is that government consumption grows at an average annual rate of 2.5% in nominal terms during the forecast horizon

2.2.6 Scenario 5 (S5)

- VAT is not introduced. Instead, a payroll tax of 12% split equally between employers and employees is implemented, although assumed imperfect compliance implies that effective rates on employers and employees are 4.5%.
- The reduction in import tariffs and excise tax rates is modified to reflect the absence of VAT.
- Hotel room occupancy tax remains at 10%.
- Government consumption is reduced permanently by 12% compared to baseline over the forecast horizon. It is assumed that the same composition of consumption cuts is applied as in S3. The overall impact is that government consumption grows at an average annual rate of 4.1% in nominal terms during the forecast horizon

Table 2.1: Summary of fiscal assumptions used across alternative scenarios

Fiscal assumptions across alternative scenarios						
	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
VAT Introduced	Yes	Yes	Yes	Yes	No	No
Headline rate	15%	10%	10%	7.5%	N/A	N/A
Business turnover exemption threshold	B$100,000	B$100,000	B$100,000	B$100,000	N/A	N/A
Industry exemptions	Healthcare, education, financial and insurance services	Healthcare, education, financial and insurance services	Financial and insurance services	Financial and insurance services	N/A	N/A
Product exemptions	Basic food; residential rent; first B$200 of monthly utility bill.	Basic food; residential rent; first B$200 of monthly utility bill.	None	None	N/A	N/A
Effective import duty rate	7.3%	7.3%	7.3%	8.1%	9.8%	9.8%
Effective excise duty rate	2.8%	3.3%	3.3%	3.6%	4.4%	4.4%
Hotel room occupancy tax	No	No	No	No	Yes	Yes
Average government consumption growth	5.3%	5.3%	5.3%	4.3%	2.5%	4.1%
Average effective property tax rate	0.65%	0.65%	0.65%	0.65%	0.82%	0.65%
Payroll tax introduced	No	No	No	No	Yes	Yes
Headline rate	N/A	N/A	N/A	N/A	6%	12%
Employer:Employee split	N/A	N/A	N/A	N/A	50:50	50:50

Source: Oxford Economics

2.3 Report structure

The rest of this report is structured as follows:

- **Chapter 3** summarises the key quantitative results of the study focusing thematically on the implications of each scenario for a range of core economic indicators;
- **Chapter 4** assesses the limitations of our approach and highlights areas where further research would be of particular use;
- **Chapter 5** concludes; and
- **Chapter 6** provides a brief overview of our methodology. Further detail can be found in the accompanying methodology paper.

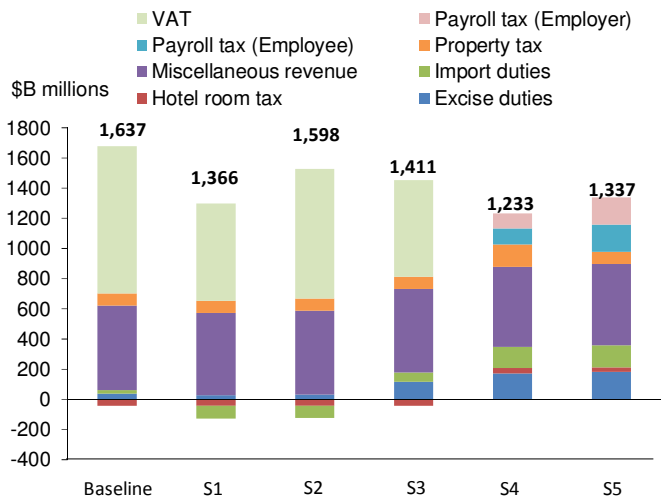
3 Quantitative results

This chapter details the key findings of our analysis. These are presented thematically with different groups of core macroeconomic indicators addressed in turn and key differences in outcomes between the various scenarios highlighted in the text.

3.1 Fiscal balance and government debt

The composition of government revenue varies markedly between the scenarios reflecting alternative assumptions about new taxes being introduced and changes in effective rates. These are summarised in Chart 3.1. In the baseline case, the introduction of VAT helps to offset the significant reduction in the proportionate contribution of import and excise duties and the elimination of hotel room occupancy tax, an outcome that is broadly replicated across S1-S3. On the other hand, in S4 and S5, payroll tax makes a smaller contribution to revenue than VAT but this is offset by the larger contributions from import and excise duties, the continued contribution of hotel room occupancy tax and, in the case of S4, a larger contribution from property tax due to improved compliance.

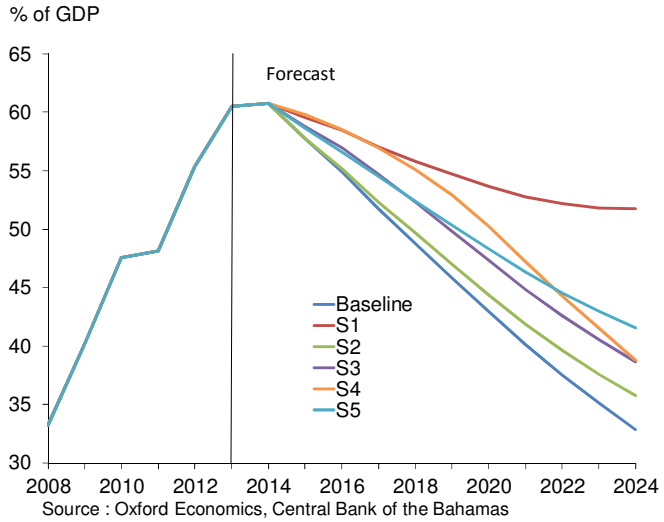
Chart 3.1: Contribution of different taxes to change in government revenue 2013-2024 across different fiscal scenarios



Source : Oxford Economics, Central Bank of the Bahamas

Broadly speaking, with the exception of S1, the various strategies for deficit reduction achieve a substantial degree of fiscal tightening. The largest tightening is achieved in the baseline case with government debt falling back to around pre-crisis levels (33% of GDP) by 2024. In other scenarios (except S1), debt falls to between 35% and 42% of GDP by the end of the forecast horizon (Chart 3.2). On the other hand, the reduction in S1 is less substantial with government debt falling to a still fairly elevated 50% of GDP by 2024.

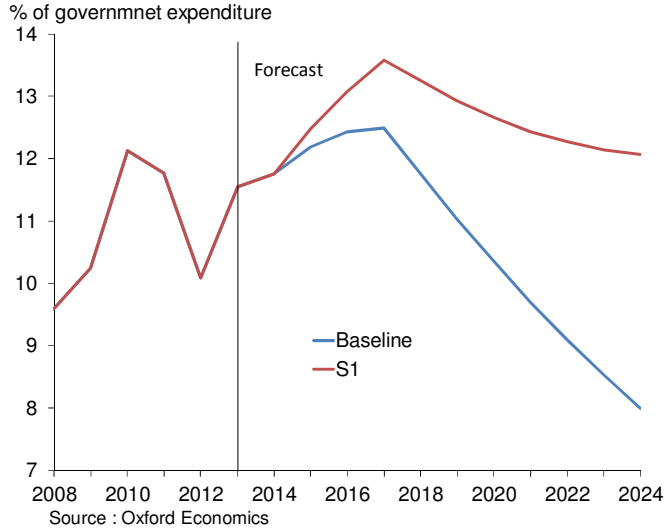
Chart 3.2: Government debt 2008-24 across different fiscal scenarios[4]



The other noteworthy aspect of the analysis is in highlighting the importance of generating sufficient fiscal savings to help to stabilise and gradually reduce the burden of debt interest repayments. Lower interest payments help to free up expenditure for other more socially constructive purposes or alternatively facilitate reductions in the tax burden on the private sector for a given level of non-interest expenditure. Chart 3.3 highlights this point by comparing debt interest payments as a share of total expenditure in the baseline case and scenario 1. By 2024, debt interest is forecast to account for 12.1% of total expenditure in S1 compared to just 8.0% in the baseline case

[4] Historic figures in this chart are calculated on a calendar-year basis and therefore will not precisely match fiscal year data supplied by the Ministry of Finance. The overall figures exclude contingent liabilities which at the end of 2013 amounted to B$601 million.

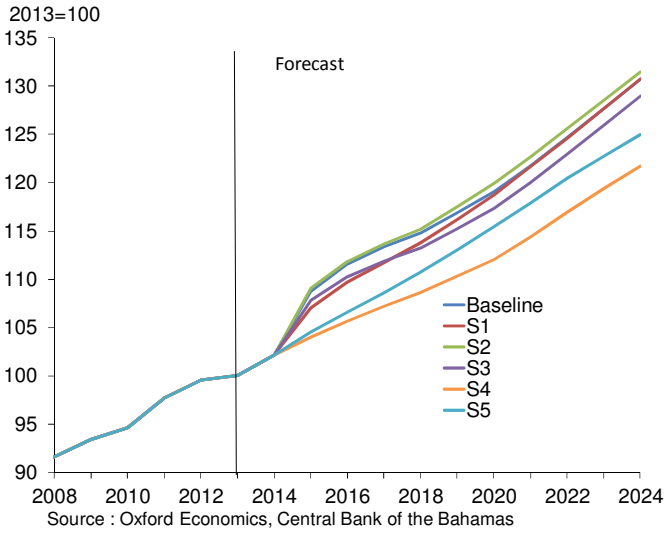
Chart 3.3: Debt interest spending as a share of total government expenditure, 2008-2024, baseline case versus S1



3.2 Prices and wages

However, there are more material differences between the scenarios in terms of their impact on inflation (Chart 3.4). In the baseline case and S1-S3, the introduction of VAT in 2015 causes a surge in inflation compared to S4 and S5. This effect continues to a lesser extent in 2016-17 reflecting the assumption of gradually increasing compliance. Our modelling suggests that in the baseline case and S2, the initial inflationary shock would be broadly similar with CPI inflation rising to over 6% in 2015. However, in the long-term the CPI in the baseline case returns to approximately the same level as S1, reflecting the disinflationary effect of a larger output gap. Meanwhile, the divergence between S4 and S5 reflects a persistently larger output gap in S4.

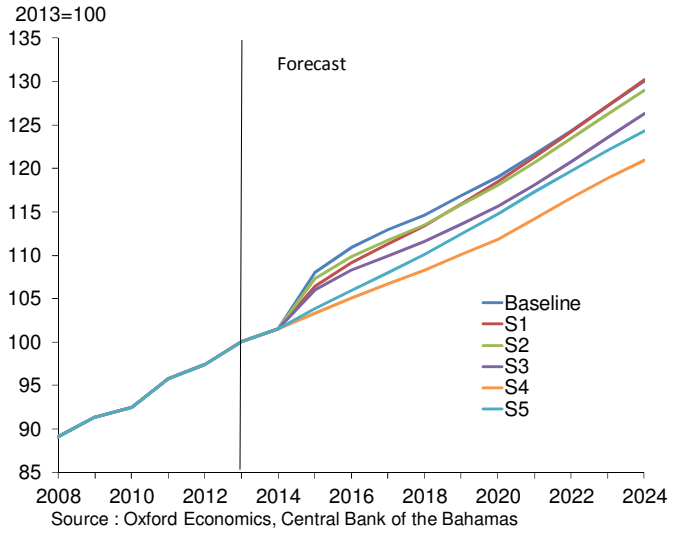
Chart 3.4: Resident CPI across different fiscal scenarios



The previous analysis referred to the impact in each scenario on the CPI as faced by domestic residents. In our modelling, we also constructed a tourist CPI with alternative weightings on the different sub-components depending on the different consumption patterns of tourists and residents. For example, the tourism CPI has a much higher weighting on hotels and restaruants. Movements in this variable are crucial to determining the competitiveness of the tourism sector and hence the level of overnight vistor arrivals.

Chart 3.5 illustrates the comparative path of the tourism CPI across the different fiscal scenarios. Although, in many respects this follows a similar pattern to the resident CPI, one key point is worth noting: the initial shock is now materially higher in the baseline case compared to S2. This is due to a larger impact on the price of recreational and cultural services and restaurant services, both of which are consumed relatively intensely by tourists. Therefore, one message from our analysis is that the planned exemption structure would disproportionately affect the competitiveness of the tourism sector, at least in the short-term.

Chart 3.5: Tourism CPI across different fiscal scenarios



Source : Oxford Economics, Central Bank of the Bahamas

Meanwhile, the model is derived so that in the long-term real wages will grow in line with labour productivity. However, this process is distorted in S4-S5 by the existence of the payroll tax which represents an additional cost of labour for businesses. Firms are modelled to gradually shift the incidence of the tax back towards employees over the forecast horizon represented by real wage growth lagging behind labour productivity growth. The higher payroll contribution in S5 exaggerates this effect as is documented in Table 3.1.

Table 3.1: Comparative performance of real wages and labour productivity across fiscal scenarios

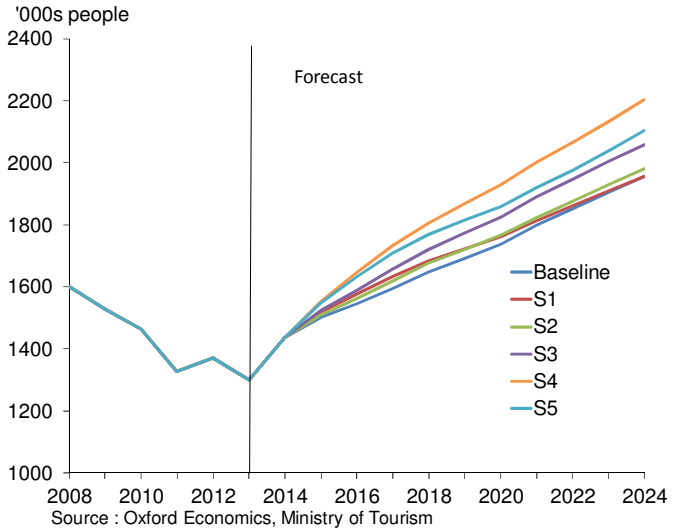
Cumulative growth of real wages and productivity (%)				
		Baseline	S4	S5
Short term (2014-16)	Real Wages	0.6	1.2	0.8
	Productivity	0.7	1.6	1.7
Medium term (2014-19)	Real Wages	4.5	4.3	3.5
	Productivity	4.5	5.4	5.4
Long term (2014-24)	Real Wages	11.4	11.3	9.8
	Productivity	11.4	12.4	12.9

Source: Oxford Economics

3.3 External balance

Since external demand remains constant across each scenario, the differences in tourism CPI inflation correlate directly with the growth in overnight visitors (Chart 3.6). The differences can be fairly substantial with a range in the level of overnight visitor arrivals in 2024 of close to 250,000 between S4 and S1.

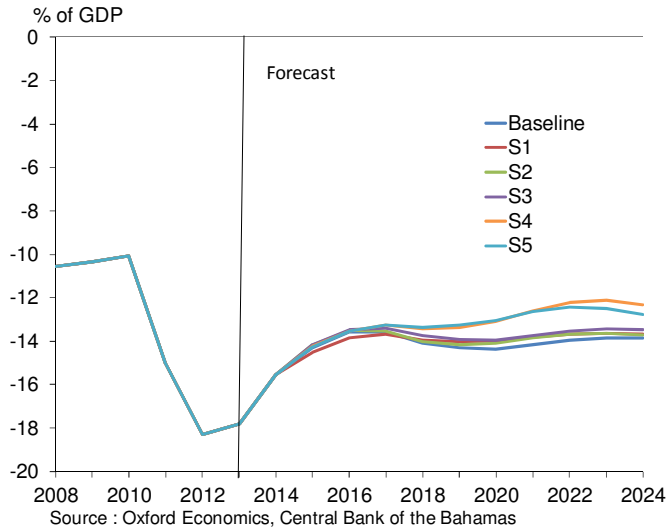
Chart 3.6: Overnight visitor arrivals across fiscal scenarios



Source : Oxford Economics, Ministry of Tourism

Stronger external demand in S4 helps to drive a more marked improvement in the current account balance over time. The current account deficit narrows to 12.3% of GDP by 2024 compared to 13.9% in the baseline case. There is a similar improvement (compared to baseline) in S5, which is driven by a combination of stronger export growth due to improved competitiveness but also slower import growth as a result of weaker absorption given the impact that the introduction of the payroll tax has on prviate consumption.

Chart 3.7: Current account balance across fiscal scenarios



Source : Oxford Economics, Central Bank of the Bahamas

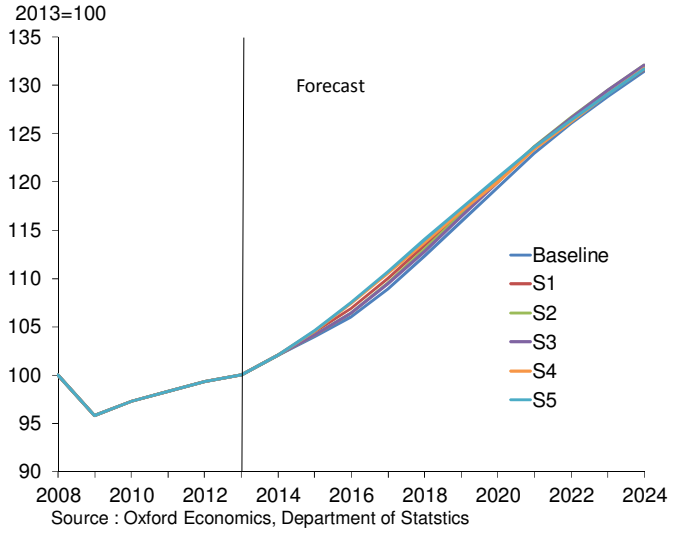
3.4 GDP and domestic demand

In the short-term, our modelling indicates that the introduction of VAT (compared to a payroll tax) would cause a more significant slowdown in real GDP growth. This stems from the initial shock to competitiveness which affects visitor arrivals. Meanwhile, earnings are modelled to respond to the inflation with a lag resulting in weaker real earnings and hence consumption growth in the near-term. Specifically, we estimate that real GDP growth would be around ½ a percentage point per year slower during 2015-16 in the baseline case compared to S4 and S5.

Overall, our results suggest that the implications of the alternative deficit reduction strategies for real GDP growth in the long-run are small. This stems from the fact that the impact of each strategy on the supply side capacity of the economy is fairly neutral (Chart 3.8). The best result is achieved in S2 and S3 where potential output is around 0.5% higher in 2024 compared to the baseline case. This reflects the positive impact that lower price distortions have on the participation rate and the effect that the lower administrative burden on firms from the less complex tax has on trend productivity. Meanwhile, S4 results in a higher long-term level of GDP compared to S5, reflecting the fact that workers' incentives to supply labour are less impacted by the introduction of the payroll tax because of the lower rate.

However, although the overall impact on growth is marginal, there are more significant differences in terms of the composition of output between different expenditure components of GDP, as demonstrated in Chart 3.9.

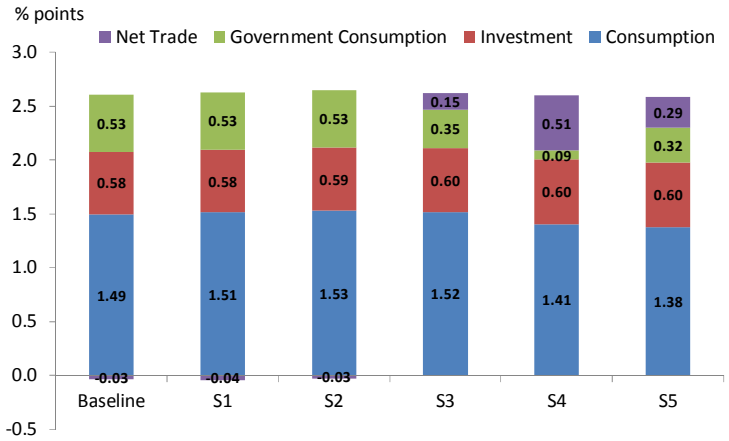
Chart 3.8: Path of level of real GDP across fiscal scenarios



Most straightforwardly, scenarios which involve expenditure-side measures (S3, S4 and S5) are characterised by slower growth in government consumption.

The contribution of private consumption is broadly similar aross all scenarios which involve the introduction of VAT but lower with the introduction of a payroll tax. This reflects the impact that payroll tax has on personal disposable income directly (via employee contributions) and indirectly, via employer contributions which result in slower real earnings growth than would otherwise occur.

Chart 3.9: Contribution to average annual growth 2014-24 across different fiscal scenarios[5]



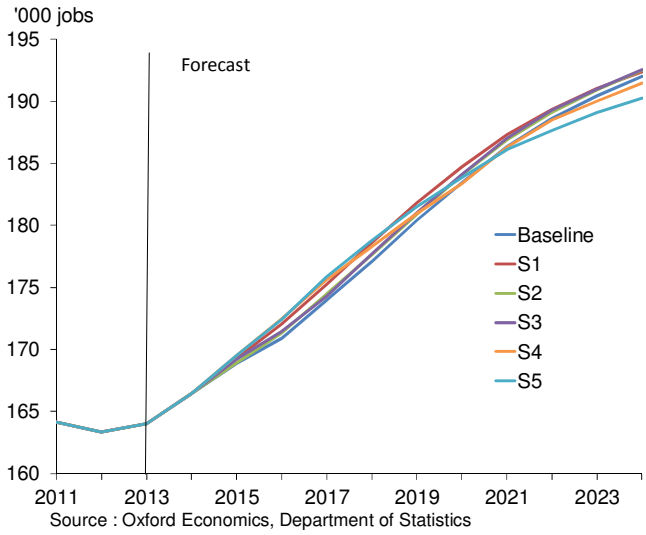
[5] Figures in these charts related to investment include the contribution of stockbuilding.

Finally, S3, S4 and S5 are characterised by a higher contribution from net trade. In part this reflects, lower domestic absorption, due to slower growth in domestic demand. However, in the case of S4, in particular, it is also driven by lower inflation, which improves the competitiveness of domestic producers and the tourism sector, resulting in faster export growth.

3.5 Labour market

Although there is relatively little difference in the level of long run real GDP between the scenarios, the impact on the level of employment is more significant. This relates to the introduction of a payroll tax in S4 and S5 which increases the relative cost of employees and therefore encourages firms to substitue capital for labour. This incentive is strongest in the short term and gradually recedes over the forecast horizon, as firms are able to move a greater proportion of the incidence of employer payroll contributions onto their employees. Overall, by 2024, despite the level of real GDP being slightly higher compared to baseline in both S4 and S5, the level of employment is 0.3% and 1% lower respectively (Chart 3.10).

Chart 3.10: Employment across fiscal scenarios



3.6 Sectoral impact

3.6.1 Construction

In the model, the key long-term driver of activity in the construction sector is investment. Given this, short-term GVA growth is strongest in S4 an S5 when stronger GDP growth via an accelerator effect helps to drive more robust investment. Over the forecast horizon, the difference between GVA growth across the scenarios gradually recedes, as discrepancies between the levels of investment erode. Meanwhile, slower employment growth (relative to GVA) in S4 and S5 is a reflection of the wider macro-trend given the impact that the introduction

of an employer payroll tax has on the price of labour.

Table 3.2: Economic performance of the construction sector over alternative time horizons across fiscal scenarios

		Baseline	S1	S2	S3	S4	S5
		Average Annual Growth	Average Growth Rate	Average Growth Rate	Average Growth Rate	Average Growth Rate	Average Growth Rate
Short term (2015-16)	GVA	1.22	1.56	1.34	1.46	1.94	1.98
	Employment	1.13	1.54	1.28	1.47	1.63	1.44
Medium term (2015-19)	GVA	2.11	2.27	2.22	2.30	2.46	2.52
	Employment	1.34	1.59	1.53	1.55	1.57	1.54
Long term (2015-24)	GVA	2.31	2.32	2.34	2.40	2.49	2.45
	Employment	1.23	1.23	1.25	1.27	1.31	1.19

Source: Oxford Economics

3.6.2 Distribution

The two key sources of demand for the distribution sector (which includes both wholesale and retail trade activity) are private and non-resident consumption. In the short-term, growth is significantly faster in S3 and S4 (over 3% per annum) compared to the baseline case (1.9% per year), largely due to stronger foreign visitor spending under these scenarios.

These differences, again, largely dissipate over the forecast horizon. In the long-run, the highest GVA growth rates are recorded in S3 and S4, reflecting the relative strength of consumption (both resident and non-resident) growth. In both cases, this partly reflects the beneficial "crowding in" effect of slower growth in government consumption which diverts resources to the private sector.

Table 3.3: Economic performance of the distribution sector over alternative time horizons across fiscal scenarios

		Baseline	S1	S2	S3	S4	S5
		Average Growth	Average Growth	Average Growth	Average Growth	Average Growth	Average Growth
Short term (2015-16)	GVA	1.86	2.41	2.15	2.51	3.30	3.03
	Employment	2.11	2.51	2.25	2.64	2.99	2.63
Medium term (2015-19)	GVA	2.62	2.87	2.84	3.02	3.26	3.01
	Employment	1.90	2.09	1.97	2.18	2.31	2.04
Long term (2015-24)	GVA	2.62	2.63	2.69	2.78	2.86	2.65
	Employment	1.48	1.51	1.51	1.61	1.62	1.35

Source: Oxford Economics

3.6.3 Hotels and restaurants

For the hotels and restaurants sector, the most important driver of activity is tourism spending. This is reflected in our results for GVA and employment growth, with S4 – which is characterised by the strongest visitor arrival growth – displaying the strongest performance over all time horizons (Table 3.4). Over the forecast horizon, we estimate that GVA would grow around 0.9 percentage points per year faster in S4 compared to the baseline case although the difference compared to S3 is much less pronounced partly due to "crowding in" effects.

Table 3.4: Economic performance of the hotels and restaurants sector over alternative time horizons across fiscal scenarios

		Baseline	S1	S2	S3	S4	S5
		Average Growth	Average Growth	Average Growth	Average Growth	Average Growth	Average Growth
Short term (2015-16)	GVA	1.72	2.55	2.15	2.84	4.35	3.96
	Employment	0.63	1.18	0.89	1.26	1.77	1.41
Medium term (2015-19)	GVA	2.36	2.65	2.61	3.09	3.89	3.41
	Employment	0.99	1.33	1.26	1.52	1.91	1.56
Long term (2015-24)	GVA	2.27	2.27	2.36	2.65	3.16	2.80
	Employment	0.99	1.02	1.07	1.28	1.62	1.23

Source: Oxford Economics

4 Model evaluation

We hope that our analysis will provide great assistance to policymakers in helping to understand and quantify the impact of different strategies for deficit reduction and how the implications for different stakeholders within society will vary depending upon the policy choice. However, our modelling approach does suffer from limitations in terms of the scope of questions that it can answer and the difficulty of calibrating accurate forecasts over such a long time horizon. Given this, we would advocate a holistic approach where policy decisions are taken on the basis of a variety of research, both quantitiative and qualitative, particularly as it relates to some of the areas discussed below.

4.1 Distributional effects

One of the typically cited drawbacks of VAT is that it is perceived as a regressive tax as poorer households are expected to spend a higher proportion of their net income in VAT than higher income groups. In response to this, VAT systems are often designed to exempt goods and services, which help to increase the progressivity of the tax.

In the case of The Bahamas, our modelling suggests that, in the near-term, the impact of limiting exemptions will disproportionately affect lower income households. Table 4.1 provides some illustrative guidance as to the scale of this effect. It compares the overall ex ante change in the CPI for different income quintiles by combining historical data on the distribution of consumption by quinitle[6] with our own estimates of the proportionate change in prices by sub-component of the CPI[7]. The results clearly show that one effect of the planned exemptions is to result in a wider dispersion of the change in prices faced by different income groups. For example, in the baseline case, the initial ex ante increase in the CPI ranges between 5.74% for the 1st quintile (the poorest 20% of households) to 6.57% for the 5th qunitile (the richest 20% of households). On the other hand, the equivalent range is a much narrower 6.80% - 6.84% in scenario 2 where the number of exemptions is significantly constrained.

Moreovoer, there is reason to believe that these figures understate the true effect. This is because the data on consumption by income quintile did not differentiate between basic and non-basic food items. The likelihood is that basic food items (which are exempted in the baseline case and scenario 1) form a higher proportion of the food consumption basket for poorer households, but lack of data means we are unable to account for this effect.

[6] This was taken from Inter-American Development Bank, "Bahamas: Impact Assessment of VAT Introduction", November 2013, p.152-154. These were then re-scaled to reflect changes in the composition of total household expenditure according to the 2013 survey conducted by the Department of Statistics.

[7] These results are premised on a compliance rate of 85%.

The implication of this analysis is that the VAT structure in the baseline case and S1 is more preferable from the perspective of equity. However, that is not necessarily to say that this represents the most efficient means to adddress such concerns. Diluting the impact on lower-income housheolds through exemptions can be regarded as a second-best solution because the benefits apply to everyone, irrespective of income. On the other hand, if the Government were able to compensate directly lower-income households through means-tested personal transfers implemented, this would represent a more efficient response to the distributional issues raised by the implementation of VAT.

Table 4.1: Impact on CPI for different income groups

% point increase in CPI due to implementation of VAT						
	1st quintile	2nd quintile	3rd quintile	4th quintile	5th quintile	Total
Baseline	5.74	6.14	6.28	6.41	6.57	**6.32**
Scenario 1	3.42	3.73	3.86	3.98	4.14	**3.90**
Scenario 2	6.82	6.80	6.84	6.82	6.81	**6.82**

Source: Oxford Economics estimate

4.2 Granularity

Although every attempt has been made to incorporate sectoral level detail as well as the granularity of the VAT micro model, inevitably the results of the analysis speak largely at a broad macro level. However, any far-reaching package of fiscal reform will have significant implications at the microeconomic level, creating various groups of relative “winners and losers”, in addition to the resulting social effects which cannot be adequately captured by a narrowly focused set of economic metrics.

For example, the following questions are worth addressing in seeking further insight in the case of an introduction of VAT:

- How large would the administrative burden be on small businesses and will this competitively disadvantage them versus larger firms which already have sophisticated accounting procedures in place?
- What are the implications for the growth of the informal economy?
- From businesses’ and a revenue raising perspective what is the most efficient format for reclaiming VAT paid on intermediate consumption?
- In the case that a very narrow set of exemptions are introduced, to what extent is it possible to deliver efficiently targeted transfers to poorer households, perhaps through means tested transfers?

Meanwhile, on the expenditure side we hope that our analysis will offer value in providing an insight into the scale of adjustment required with a given set of tax reforms. However, the model cannot offer much guidance about the appropriate means of expenditure reduction which would

need to be considered carefully by the Government taking into account implications for equity and efficiency. For example, one measure that has been proposed is the privatisation of the energy sector, a move that its proponents claim would yield significant fiscal savings over the long-term, lessening the need for the introduction of new taxes. This issue goes beyond the scope of this report but, in general, we would encourage further analysis and consideration of such structural reforms.

4.3 Uncertainty of long-term forecasting

Meanwhile, an inherent issue with any exercise of this type is that the forecast horizon is sufficiently long to generate considerable uncertainty with regards to the baseline path of the economy. The model's output depends on a range of assumptions related to external developments which will affect the necessary speed of fiscal reform.

For example, a materially weaker or stronger rebound in the US, compared to our baseline forecast, would affect the domestic economy's growth prospects and hence its fiscal position. Alternatively, were oil prices to deviate significantly from our baseline forecast, this would have ramifications for the economy's terms of trade with particular implications for the path of some of the key variables related to external balance.

Moreover, it is also important to recognise the limitations of forecasting in the long-term with regards to the dynamic path of economic adjustment. The future will likely be marked by stronger cyclical movements in global economic activity than implied by our baseline forecast, which will in turn affect the speed and timing at which the Bahamian economy is able to return to full capacity. Given this, we think the key functional value of the model is in illustrating the transmission mechanisms through which alternative strategies for deficit reduction will affect different parts of the economy and quantifying the potential scale of such differential impacts. Forecasting the exact timing and sequencing of change is more hazourdous – hence our focus in Chapter 3 on short, medium and long term effects rather than specific year-by-year results.

5 Conclusion

The results and analysis in this report can provide an aid to policymakers and interested stakeholders in understanding the implications of alternative strategies for fiscal reform. At a most basic level, the use of a forward-looking general equilibrium framework facilitates a more precise understanding of the extent of fiscal tightening that will be required in order to place government debt as a share of GDP on a sustained downward path. Therefore, one key policy conclusion from our analysis is that the introduction of VAT with a headline rate of 10% and the current planned set of exemptions would be inadequate in this regard. Equally, our modelling has highlighted instances where the introduction of a new tax e.g. a 7.5% VAT or a payroll tax (at either 6% or 12%) would need to be accompanied by additional measures in order to generate a sufficient fiscal tightening.

Beyond this, the messages implied by our results are more ambiguous. Based purely from a perspective of long-run GDP, VAT with a narrow range of exemptions would represent the best option but the impact relative to alternatives is fairly marginal. The implications for different stakeholders vary more significantly but making value judgements regarding the relative merits of alternative fiscal strategies on this basis is beyond the scope of this report.

An additional issue that has only been briefly explored in this report is that of compliance. The additional complexity that would have been generated by attempting to construct realistic transmission mechanisms for a range of other taxes precluded a wide-ranging analysis. However, it was shown in S4 that simply focusing on property tax alone had the potential to raise an additional B$70 million by 2024. And, while the macroeconomic impact of relying on improved compliance compared to measures which widen the existing tax base may not be substantial, there is an undeniable moral case for doing so.

6 Technical appendix

This chapter provides a brief overview of the methodology employed to develop the macroeconomic model as well as highlighting some of the key transmission mechanisms through which the various changes in fiscal policy implemented across the scenarios are modelled to affect the economy. This report is accompanied by a methodological paper which provides much greater detail regarding issues such as the model's theoretical structure, equation specification, data sources etc.

6.1 Model design

The quantitative results produced in this study are simulated using an Error Correction Model (ECM). This is a type of econometric model which estimates the speed at which a dependent variable returns to some pre-defined equilibrium path following a shock to one or more of its specified independent variables. Our view was that designing the model in this format would help to identify more accurately the difference in short-run effects on key variables of interest across the scenarios (which are likely to vary considerably) and the differences in the long-run effects (which are in most cases much less pronounced).

The model has been designed to exhibit "Keynsian" features in the short-run, meaning that output is determined by the level of aggregate demand. However, in the long-run, prices and wages are assumed to adjust so that the economy returns to "equilibrium" in the sense that output will be equal to its potential level, which is determined by supply side factors. This implies that differences in the long-run impact of alternative fiscal reform strategies occur through any impact they have on the economy's capital stock (a function of past investment flows), the labour supply (a function of the participation rate and hence any change in worker's incentives to supply labour) and Total Factor Productivity (TFP).

6.2 Relationship to the Oxford Global Economic Model

The Bahamian model has been developed within the software of Oxford Economics' Global Economic Model (GEM)[8]. The model's forecast is partly dependent upon forecasts for the global economic outlook contained within the GEM. For example, our forecast for visitor arrival growth is determined by growth in external demand (captured by a variable which tracks changes in the level of real service imports across partner economies weighted to reflect their importance as sources of inbound tourists) and competitiveness (captured by a variable tracking changes in the Bahamian CPI reweighted to reflect the different consumption patterns of tourists compared to residents against changes in CPI inflation (adjusted for exchange rate movements against the

[8] The GEM is the most widely-used commercial economic model in the world. Clients which subscribe to the model include an array of blue-chip and key public sector organisations.

US$) in key competitor economies). In this instance, forecasts in the GEM for service imports, CPI inflation and exchange rates help us to generate a forecast for visitor arrivals. However, as it is assumed that changes in domestic fiscal policy do not have external affects they do not drive any differences in the results across the dfiferent scenarios[9].

6.3 Variable coverage and equation structure

The model contains 268 variables, historical data for the vast majority of which were obtained from official Bahamian sources[10]. The majority of these variables are endogenous i.e. determined within the model by the specified equation but a few variables are exogenous, meaning that the path of the variable during a scenaraio is determined prior to the simulation and is fixed. Examples of variables that were exogenous in our model include: the various effective tax rates; certain parts of government expenditure (procurement, wages and salaries and investment); the working population (here we used projections developed by the UN); stockbuilding; and some minor components of the balance of payments such as net errors and omissions.

In terms of the endogenous variables these were specified according to two types of basic equation structure:

- **Identities**: these are simple accounting rules that will always hold true. For example, real GDP is equal to the sum of its expenditure components or the government balance is equal to government revenue less expenditure.
- **Behavioural equations**: these are estimated using statistical techniques and aim to simulate the change in the dependent variable according to changes in a number of specified "driver" variables. These equations differed between fairly simple behavioural rules e.g. real GVA was specified to grow in line with real GDP, and more complex specifications estimated in ECM format. For example, the average nominal wage, in the long-run, was modelled to grow in line with CPI inflation and real productivity (GDP per worker) growth with short-term departures generated by specifying a lagged response to changes in inflation and including an unemployment term to account for the impact of varying degrees of labour-market slack.

[9] However, it is worth noting that since visitor arrivals are affected by changes in Bahamian CPI inflation, the simulated values will vary across scenarios.

[10] In some isolated instances, the lack of available data forced us to estimate historical values. These are detailed in the accompanying methodology paper. For some other variables, values were calculated endogenously based on available data in The Bahamas or on the GEM. This includes variables such as total demand for an industry which was modelled as a function of changes in final expenditure components and GVA in other sectors, with coefficients determined by analysis of the available 2007 Bahamian supply and use table.

6.4 Calibrating shocks using the micro model

In order to understand better the impact that the introduction of VAT would initially have on prices we developed a micro-model, the outputs of which were used to shock the macro model. In order to capture the full impact on prices, we separately identified 22 sub-components of the CPI. For each of these, we traced economic activity through the value chain in order to simulate how the imposition of VAT (in its assumed form) would impact upon input costs and final prices. In doing so, we allow for four components which cause differences in the price effect on alternative parts of the CPI.

The first component of the model is the allowance for some goods and services to be rated differently to the headline value. This capability allows the user to change assumptions regarding the VAT rate that would be charged on the final good or service.

The second component of the model is the allowance for some firms and sectors to be exempt from the VAT system. In a VAT system, an exempt firm does not charge VAT on its outputs, but conversely cannot reclaim the VAT it pays on its inputs. These exemptions distort the pricing of output within the economy, creating embedded VAT that can result in prices rising by more than the imposed VAT rate.

The third component of the model is the incorporation of supply chain linkages. This component allows for different goods and services to be constructed from different inputs, and for the price impact of different VAT rates and exemptions to cascade through to the price of final goods and services in the economy. For example, if good A's intermediate inputs are 50% financial services and 50% normal goods, and good B's intermediate inputs are 25% financial services and 75% normal goods, a VAT regime where normal goods are taxed at 15% and financial services at 0% would increase A's intermediate goods cost by 7.5% and B's cost by 11.25%.

The fourth component is the allowance for the impact that associated changes in import tariffs and excise tax rates combined with VAT will have on import prices. Changes in the final effective tax rate on imports feed through to changes in input costs for producers and distributers.

6.5 Transmission mechanisms from changes in fiscal policy

The model has been calibrated to respond to changes in the key fiscal policy variables in a manner which corresponds to mainstream economic theory. Below, we detail some of the key transmission mechanisms in operation:

6.5.1 VAT

- Since earnings only respond to the associated rise in inflation with a lag, there is an initial reduction in household's purchasing power resulting in lower consumer spending.

- The competitiveness of the tourism sector is weakened by higher prices resulting in a fall in overnight visitor arrivals and hence service exports.
- Weaker aggregate demand feeds into lower investment via an accelerator effect. Lower investment affects the growth of the capital stock creating a long-run impact on the supply-side capacity of the economy.
- Depending on the nature of exemptions there was also assumed to be an effect on the incentive to supply labour and hence the participation ratio. This was premised on the fact that exempting a variety of goods and services, which those on lower incomes use a disproportionate share of their wages to purchase, would generate distortions in relative prices that would increase incentives for people to use their time for leisure rather than work.

6.5.2 Employer payroll contributions

- Firms are confronted by an increase in costs as a result of the requirement to provide employer payroll contributions. In order to adjust to this, they can either increase their prices, accept a reduction in profit margins or attempt to pass some of the burden back onto employees (for instance by squeezing earnings growth or attempting to produce the same output with fewer employees).
- In the short-run the model is calibrated to simulate a mixture of the three approaches, although prices effects are assumed to be modest. In the longer-run, firms are assumed to be able to pass an increasing share of the burden onto their employees. This results in real earnings growth lagging behind labour productivity growth throughout the forecast horizon, dampening real income and hence consumer spending growth.
- As the relative price of labour (versus capital) for businesses has increased, this encourages them to substitute capital for labour which manifests itself in higher investment and lower employment, other things being equal.

6.5.3 Employee payroll contributions

- The introduction causes an immediate reduction in disposable income as workers now receive a lower proportion of their gross take-home pay. This results in lower consumer spending.
- The resulting fall in aggregate demand triggers a fall in investment via an accelerator effect.
- The introduction of employee payroll contribution creates a wedge between the wage paid by producers and that received by workers. This reduces workers' incentive to supply labour resulting in a fall in the participation ratio and hence labour supply.

6.5.4 Property tax

- Higher property tax collections feed directly into household's disposable income leading to a fall in consumer spending.

- Changes in the effective property tax rate are assumed to have no direct supply-side effects.

6.5.5 Expenditure reduction

- Reductions in government consumption feed directly into GDP, as it forms part of the expenditure identity.
- Lower government consumption is not modelled to have any direct supply side effects. In the long-run, the reduction in government consumption creates space for higher private sector activity, other things being equal, via “crowding in” effects. Implicit within this, is that the marginal product of government spending is zero. This is clearly unrealistically simplistic but a more sophisticated approach in this regard would have significantly increased the complexity of the model. Moreover, in the cases of some of the more “wasteful” items of expenditure, which would likely be targeted first, the assumption is broadly reasonable.

6.6 Results

Table 6.1: Path of key economic variables in baseline case

Summary of main headline metrics - Baseline case																		
			Historical				Forecast											
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-yr average
GDP by Expenditure	GDP	% yr	1.5	1.1	1.0	0.7	2.0	1.9	2.0	2.8	3.1	3.1	3.1	3.0	2.5	2.3	2.0	2.6
	Consumption	% yr	1.1	-1.9	2.6	-0.3	1.8	1.8	2.1	2.7	3.0	2.7	2.8	2.9	2.4	2.3	2.0	2.5
	Government Consumption	% yr	-0.3	7.2	-3.9	3.7	-0.4	3.5	3.6	3.6	4.3	4.1	3.9	3.8	3.4	3.2	3.0	3.6
	Investment	% yr	0.6	6.4	8.2	-2.8	-3.6	1.5	1.2	1.6	3.0	3.0	2.9	2.5	2.4	2.2	2.2	2.3
	Exports	% yr	1.3	6.3	7.3	-4.2	5.9	3.1	2.1	3.4	3.7	3.0	2.8	3.0	2.6	2.6	2.5	2.9
	Imports	% yr	-0.4	7.5	9.9	-5.4	1.7	3.1	2.3	3.0	3.8	2.8	2.7	2.9	2.7	2.9	2.9	2.9
Output by Sector	GVA	% yr	3.4	1.9	1.2	-0.7	2.0	1.9	2.0	2.8	3.1	3.1	3.1	3.0	2.5	2.3	2.0	2.6
	Private Sector	% yr	3.5	1.8	1.2	-0.9	2.3	1.8	1.8	2.7	3.0	3.0	3.0	2.9	2.4	2.2	1.9	2.4
	Agriculture	% yr	3.7	-8.5	5.6	-17.2	0.3	1.1	1.9	2.8	3.1	3.1	3.2	3.1	2.6	2.3	2.0	2.5
	Extraction & Utilities	% yr	0.3	-1.3	-6.5	0.9	1.1	1.6	2.3	3.0	3.2	3.3	3.3	3.2	2.7	2.4	2.2	2.7
	Manufacturing	% yr	9.1	-0.2	-0.1	4.5	0.4	1.2	1.8	2.7	3.1	3.1	3.2	3.0	2.6	2.3	2.0	2.5
	Construction	% yr	24.6	10.1	13.3	-1.0	-2.9	1.1	1.4	1.9	3.0	3.2	3.1	2.8	2.4	2.2	2.0	2.3
	Distribution Services	% yr	-7.3	-5.1	-4.6	0.2	3.2	1.9	1.7	2.7	3.0	2.9	2.9	2.8	2.3	2.1	1.9	2.4
	Hotels & Restaurants	% yr	8.9	2.6	1.5	-1.9	5.1	2.1	1.3	2.6	3.0	2.7	2.5	2.7	2.1	1.9	1.7	2.3
	Transport and Communication	% yr	-8.9	8.2	-2.7	-1.0	2.6	1.9	2.0	2.8	3.0	3.0	3.0	2.9	2.4	2.1	1.8	2.5
	Financial and Business Services	% yr	3.2	2.3	1.1	-0.1	2.2	1.8	2.1	2.8	3.0	3.1	3.2	3.0	2.5	2.2	2.0	2.6
	Other Services	% yr	3.0	-0.4	0.6	-1.4	3.7	1.9	1.5	2.7	3.0	2.8	2.7	2.8	2.2	2.0	1.8	2.3
	Government Services	% yr	2.3	2.0	1.8	1.5	-0.4	3.5	3.6	3.6	4.3	4.1	3.9	3.8	3.4	3.2	3.0	3.6
Labour market	Employment	% yr	1.1	2.9	-0.5	0.4	1.5	1.9	1.3	1.7	1.7	1.8	1.7	1.6	1.2	1.0	0.9	1.5
	Public Sector	% yr	0.4	-0.4	1.1	-5.8	0.7	2.0	1.6	1.8	2.8	2.6	2.4	2.3	1.9	1.7	1.5	2.1
	Private Sector	% yr	1.3	3.8	-1.0	2.1	1.7	1.9	1.2	1.7	1.5	1.6	1.5	1.4	1.0	0.8	0.7	1.3
	Unemployment	Rate	16.0	13.6	14.9	14.5	14.3	13.2	13.0	13.4	13.1	12.4	11.7	11.2	10.9	10.9	10.7	12.3
	Unemployment	000s	30.5	25.8	28.7	27.8	27.8	25.7	25.8	27.0	26.8	25.6	24.5	23.6	23.1	23.4	23.1	25.1
	Participation rate	% labour force	74.8	73.1	72.5	71.8	71.7	71.5	71.8	72.3	72.8	73.2	73.7	74.1	74.4	74.7	74.9	73.2
	Nominal earnings growth	% yr	-1.2	-4.0	6.5	2.0	2.0	4.1	5.6	2.7	2.7	3.2	3.3	3.6	3.7	3.7	3.6	3.6
	CPI inflation	% yr	1.3	3.2	2.0	0.4	2.1	6.5	2.5	1.6	1.3	1.9	1.9	2.2	2.4	2.4	2.4	2.5
	Real earnings growth	% yr	-2.5	-7.2	4.5	1.6	-0.1	-2.5	3.1	1.1	1.4	1.3	1.4	1.3	1.3	1.3	1.2	1.1
	Real disposable income	% yr	-2.0	-3.0	1.9	1.3	1.9	0.3	3.5	2.8	3.0	3.0	3.1	3.0	2.5	2.3	2.0	2.5
Fiscal balance	Government balance	B$	-324	-201	-453	-428	-326	-120	-9	79	84	81	81	87	93	99	106	105.6
	Government balance	% GDP	-4.1	-2.5	-5.5	-5.1	-3.7	-1.3	-0.1	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	Primary government balance	B$	-132	8	-266	-221	-114	113	241	341	342	336	332	333	334	336	337	337.1
	Primary government balance	% GDP	-1.7	0.1	-3.2	-2.6	-1.3	1.2	2.4	3.3	3.2	3.0	2.8	2.7	2.5	2.4	2.3	2.3
	Government debt	% GDP	47.6	48.1	55.4	60.5	60.8	57.7	54.9	51.7	48.8	45.8	43.0	40.1	37.5	35.1	32.8	32.8
	Debt interest expenditure	% GDP	2.4	2.6	2.3	2.4	2.4	2.5	2.5	2.5	2.4	2.2	2.1	2.0	1.8	1.7	1.6	2.2
External balance	Travel services exports	% yr	2.7	4.9	7.2	-3.1	9.2	4.5	4.6	4.9	5.0	4.3	4.1	4.4	4.0	4.1	3.9	4.4
	Stopover visitor arrivals	000s	1463	1327	1370	1301	1437	1502	1545	1594	1647	1692	1738	1797	1851	1904	1955	3.1
	Current account balance	% GDP	-10.1	-15.0	-18.3	-17.8	-15.6	-14.3	-13.6	-13.6	-14.1	-14.3	-14.4	-14.1	-14.0	-13.8	-13.9	-13.9
	Reserve coverage	Months of imports	4.0	3.6	2.9	2.9	3.0	3.2	3.4	3.5	3.3	3.1	2.8	2.6	2.4	2.2	2.0	2.8

Source: Oxford Economics, Central Bank of the Bahamas, Department of National Statistics

Table 6.2: Path of key economic variables in S1

Summary of main headline metrics - S2																		
			Historical				Forecast											
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-yr average
GDP by Expenditure	GDP	% yr	1.5	1.1	1.0	0.7	2.0	2.4	2.3	2.9	3.1	3.0	2.9	2.8	2.3	2.1	1.9	2.6
	Consumption	% yr	1.1	-1.9	2.6	-0.3	1.8	2.0	2.3	2.8	3.0	2.7	2.8	2.8	2.3	2.2	1.9	2.5
	Government Consumption	% yr	-0.3	7.2	-3.9	3.7	-0.4	3.5	3.6	3.6	4.3	4.1	3.9	3.8	3.4	3.2	3.0	3.6
	Investment	% yr	0.6	6.4	8.2	-2.8	-3.6	1.8	1.6	1.9	3.0	2.9	2.8	2.4	2.2	2.1	1.9	2.3
	Exports	% yr	1.3	6.3	7.3	-4.2	5.9	4.0	2.9	3.6	3.5	2.7	2.4	2.6	2.3	2.5	2.4	2.9
	Imports	% yr	-0.4	7.5	9.9	-5.4	1.7	3.6	2.8	3.1	3.7	2.6	2.5	2.7	2.6	2.8	2.7	2.9
Output by Sector	GVA	% yr	3.4	1.9	1.2	-0.7	2.0	2.4	2.3	2.9	3.1	3.0	2.9	2.8	2.3	2.1	1.9	2.6
	Private Sector	% yr	3.5	1.8	1.2	-0.9	2.3	2.3	2.2	2.9	3.0	2.9	2.8	2.7	2.2	2.0	1.7	2.5
	Agriculture	% yr	3.7	-8.5	5.6	-17.2	0.3	1.4	2.2	2.9	3.1	3.1	3.1	2.9	2.4	2.2	1.9	2.5
	Extraction & Utilities	% yr	0.3	-1.3	-6.5	0.9	1.1	1.9	2.5	3.1	3.3	3.3	3.2	3.1	2.6	2.4	2.1	2.7
	Manufacturing	% yr	9.1	-0.2	-0.1	4.5	0.4	1.6	2.1	2.9	3.1	3.1	3.0	2.9	2.4	2.2	1.9	2.5
	Construction	% yr	24.6	10.1	13.3	-1.0	-2.9	1.5	1.7	2.2	2.9	3.2	3.1	2.6	2.3	2.0	1.8	2.3
	Distribution Services	% yr	-7.3	-5.1	-4.6	0.2	3.2	2.5	2.3	2.9	3.0	2.8	2.6	2.6	2.1	2.0	1.7	2.4
	Hotels & Restaurants	% yr	8.9	2.6	1.5	-1.9	5.1	3.0	2.1	2.9	2.8	2.4	2.2	2.3	1.8	1.7	1.5	2.3
	Transport and Communication	% yr	-8.9	8.2	-2.7	-1.0	2.6	2.4	2.4	3.0	3.0	2.9	2.8	2.7	2.2	2.0	1.7	2.5
	Financial and Business Services	% yr	3.2	2.3	1.1	-0.1	2.2	2.1	2.3	2.9	3.1	3.1	3.1	2.9	2.4	2.1	1.9	2.6
	Other Services	% yr	3.0	-0.4	0.6	-1.4	3.7	2.5	2.2	2.9	2.9	2.6	2.5	2.5	2.0	1.9	1.6	2.4
	Government Services	% yr	2.3	2.0	1.8	1.5	-0.4	3.5	3.6	3.6	4.3	4.1	3.9	3.8	3.4	3.2	3.0	3.6
Labour market	Employment	% yr	1.1	2.9	-0.5	0.4	1.5	2.2	1.8	1.9	1.8	1.9	1.6	1.4	1.0	0.7	0.5	1.5
	Public Sector	% yr	0.4	-0.4	1.1	-5.8	0.7	2.0	1.6	1.8	2.8	2.6	2.4	2.3	1.9	1.7	1.5	2.1
	Private Sector	% yr	1.3	3.8	-1.0	2.1	1.7	2.2	1.8	1.9	1.6	1.7	1.5	1.2	0.8	0.4	0.2	1.3
	Unemployment	Rate	16.0	13.6	14.9	14.5	14.3	12.9	12.3	12.5	12.2	11.4	10.8	10.4	10.2	10.5	10.6	11.7
	Unemployment	000s	30.5	25.8	28.7	27.8	27.8	25.2	24.4	25.3	25.0	23.6	22.5	21.9	21.6	22.5	22.9	23.9
	Participation rate	% labour force	74.8	73.1	72.5	71.8	71.7	71.5	71.8	72.3	72.8	73.2	73.7	74.1	74.4	74.7	74.9	73.2
	Nominal earnings growth	% yr	-1.2	-4.0	6.5	2.0	2.0	3.6	4.3	3.1	3.1	3.3	3.5	3.8	3.8	4.0	3.9	3.6
	CPI inflation	% yr	1.3	3.2	2.0	0.4	2.1	4.8	2.5	1.9	1.8	2.2	2.2	2.4	2.4	2.5	2.4	2.5
	Real earnings growth	% yr	-2.5	-7.2	4.5	1.6	-0.1	-1.2	1.8	1.2	1.3	1.2	1.3	1.4	1.3	1.5	1.4	1.1
	Real disposable income	% yr	-2.0	-3.0	1.9	1.3	1.9	1.4	3.2	3.0	3.0	2.9	2.9	2.8	2.4	2.2	1.9	2.6
Fiscal balance	Government balance	B$	-324	-201	-453	-428	-326	-247	-187	-143	-155	-179	-202	-225	-249	-274	-302	-301.9
	Government balance	% GDP	-4.1	-2.5	-5.5	-5.1	-3.7	-2.7	-1.9	-1.4	-1.4	-1.6	-1.7	-1.8	-1.9	-2.0	-2.1	-2.1
	Primary government balance	B$	-132	8	-266	-221	-114	-8	77	145	140	125	112	100	88	76	64	63.6
	Primary government balance	% GDP	-1.7	0.1	-3.2	-2.6	-1.3	-0.1	0.8	1.4	1.3	1.1	0.9	0.8	0.7	0.6	0.4	0.4
	Government debt	% GDP	47.6	48.1	55.4	60.5	60.8	59.6	58.4	57.0	55.8	54.7	53.7	52.8	52.2	51.8	51.7	51.7
	Debt interest expenditure	% GDP	2.4	2.6	2.3	2.4	2.4	2.6	2.7	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.5	2.6
External balance	Travel services exports	% yr	2.7	4.9	7.2	-3.1	9.2	5.6	5.2	5.1	4.8	4.0	3.6	4.0	3.7	3.9	3.7	4.4
	Stopover visitor arrivals	000s	1463	1327	1370	1301	1437	1519	1576	1632	1683	1723	1762	1814	1861	1910	1956	3.1
	Current account balance	% GDP	-10.1	-15.0	-18.3	-17.8	-15.6	-14.5	-13.8	-13.7	-14.0	-14.0	-14.0	-13.8	-13.7	-13.6	-13.7	-13.7
	Reserve coverage	Months of imports	4.0	3.6	2.9	2.9	3.0	3.2	3.3	3.4	3.2	3.1	2.9	2.8	2.7	2.5	2.3	2.9

Source: Oxford Economics, Central Bank of the Bahamas, Department of National Statistics

Table 6.3: Path of key economic variables in S2

Summary of main headline metrics - S2																		
			Historical				Forecast											
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-yr average
GDP by Expenditure	GDP	% yr	1.5	1.1	1.0	0.7	2.0	2.1	2.2	2.9	3.3	3.1	3.0	2.9	2.4	2.2	2.0	2.6
	Consumption	% yr	1.1	-1.9	2.6	-0.3	1.8	1.8	2.2	2.8	3.1	2.8	2.9	2.9	2.4	2.2	2.0	2.5
	Government Consumption	% yr	-0.3	7.2	-3.9	3.7	-0.4	3.5	3.6	3.6	4.3	4.1	3.9	3.8	3.4	3.2	3.0	3.6
	Investment	% yr	0.6	6.4	8.2	-2.8	-3.6	1.5	1.4	1.8	3.3	3.1	2.9	2.5	2.2	2.3	2.1	2.3
	Exports	% yr	1.3	6.3	7.3	-4.2	5.9	3.5	2.6	3.7	3.9	3.0	2.7	2.9	2.5	2.6	2.5	3.0
	Imports	% yr	-0.4	7.5	9.9	-5.4	1.7	3.2	2.7	3.2	3.9	2.8	2.6	2.8	2.7	2.9	2.9	3.0
Output by Sector	GVA	% yr	3.4	1.9	1.2	-0.7	2.0	2.1	2.2	2.9	3.3	3.1	3.0	2.9	2.4	2.2	2.0	2.6
	Private Sector	% yr	3.5	1.8	1.2	-0.9	2.3	1.9	2.0	2.8	3.1	3.0	2.9	2.8	2.3	2.1	1.9	2.5
	Agriculture	% yr	3.7	-8.5	5.6	-17.2	0.3	1.2	2.1	2.9	3.1	3.2	3.2	3.0	2.5	2.3	2.0	2.5
	Extraction & Utilities	% yr	0.3	-1.3	-6.5	0.9	1.1	1.7	2.4	3.1	3.3	3.4	3.3	3.2	2.7	2.4	2.2	2.8
	Manufacturing	% yr	9.1	-0.2	-0.1	4.5	0.4	1.3	2.0	2.9	3.2	3.2	3.1	3.0	2.5	2.3	2.0	2.5
	Construction	% yr	24.6	10.1	13.3	-1.0	-2.9	1.2	1.5	2.0	3.1	3.3	3.2	2.7	2.3	2.2	2.0	2.3
	Distribution Services	% yr	-7.3	-5.1	-4.6	0.2	3.2	2.1	2.1	2.9	3.2	2.9	2.8	2.8	2.3	2.1	1.8	2.5
	Hotels & Restaurants	% yr	8.9	2.6	1.5	-1.9	5.1	2.5	1.8	2.9	3.1	2.7	2.4	2.5	2.0	1.9	1.7	2.4
	Transport and Communication	% yr	-8.9	8.2	-2.7	-1.0	2.6	2.0	2.3	3.0	3.2	3.0	2.9	2.8	2.3	2.1	1.8	2.5
	Financial and Business Services	% yr	3.2	2.3	1.1	-0.1	2.2	1.8	2.3	2.9	3.1	3.2	3.2	3.0	2.5	2.2	1.9	2.6
	Other Services	% yr	3.0	-0.4	0.6	-1.4	3.7	2.1	1.9	2.9	3.1	2.8	2.7	2.7	2.2	2.0	1.8	2.4
	Government Services	% yr	2.3	2.0	1.8	1.5	-0.4	3.5	3.6	3.6	4.3	4.1	3.9	3.8	3.4	3.2	3.0	3.6
Labour market	Employment	% yr	1.1	2.9	-0.5	0.4	1.5	1.9	1.6	1.9	1.9	2.0	1.7	1.6	1.1	0.7	0.6	1.5
	Public Sector	% yr	0.4	-0.4	1.1	-5.8	0.7	2.0	1.6	1.8	2.8	2.6	2.4	2.3	1.9	1.7	1.5	2.1
	Private Sector	% yr	1.3	3.8	-1.0	2.1	1.7	1.9	1.6	1.9	1.7	1.8	1.5	1.4	1.0	0.5	0.3	1.4
	Unemployment	Rate	16.0	13.6	14.9	14.5	14.3	13.5	13.3	13.4	13.0	12.1	11.5	11.0	10.7	10.9	10.9	12.2
	Unemployment	000s	30.5	25.8	28.7	27.8	27.8	26.5	26.4	27.3	26.8	25.2	24.1	23.2	22.7	23.5	23.7	25.2
	Participation rate	% labour force	74.8	73.1	72.5	71.8	71.7	71.9	72.3	72.7	73.2	73.7	74.1	74.6	74.9	75.1	75.4	73.6
	Nominal earnings growth	% yr	-1.2	-4.0	6.5	2.0	2.0	4.4	5.6	2.7	2.7	3.2	3.4	3.7	3.7	3.8	3.7	3.7
	CPI inflation	% yr	1.3	3.2	2.0	0.4	2.1	6.8	2.5	1.6	1.3	2.0	2.0	2.3	2.4	2.3	2.3	2.6
	Real earnings growth	% yr	-2.5	-7.2	4.5	1.6	-0.1	-2.4	3.1	1.1	1.4	1.2	1.3	1.4	1.3	1.5	1.4	1.1
	Real disposable income	% yr	-2.0	-3.0	1.9	1.3	1.9	0.4	3.7	3.0	3.2	3.1	3.0	3.0	2.5	2.3	2.0	2.6
Fiscal balance	Government balance	B$	-324	-201	-453	-428	-326	-138	-40	36	41	37	34	35	36	37	36	35.8
	Government balance	% GDP	-4.1	-2.5	-5.5	-5.1	-3.7	-1.5	-0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	Primary government balance	B$	-132	8	-266	-221	-114	96	212	303	306	300	295	295	294	293	290	290.1
	Primary government balance	% GDP	-1.7	0.1	-3.2	-2.6	-1.3	1.0	2.1	2.9	2.8	2.6	2.5	2.3	2.2	2.1	2.0	2.0
	Government debt	% GDP	47.6	48.1	55.4	60.5	60.8	57.7	55.2	52.3	49.7	47.0	44.4	41.9	39.6	37.6	35.8	35.8
	Debt interest expenditure	% GDP	2.4	2.6	2.3	2.4	2.4	2.5	2.5	2.6	2.4	2.3	2.2	2.0	1.9	1.8	1.7	2.2
External balance	Travel services exports	% yr	2.7	4.9	7.2	-3.1	9.2	5.0	5.1	5.2	5.1	4.2	3.9	4.3	3.9	4.1	3.9	4.5
	Stopover visitor arrivals	000s	1463	1327	1370	1301	1437	1510	1562	1619	1676	1721	1765	1824	1876	1929	1981	3.3
	Current account balance	% GDP	-10.1	-15.0	-18.3	-17.8	-15.6	-14.2	-13.5	-13.5	-14.0	-14.2	-14.1	-13.9	-13.7	-13.6	-13.7	-13.7
	Reserve coverage	Months of imports	4.0	3.6	2.9	2.9	3.0	3.2	3.5	3.5	3.3	3.1	2.8	2.7	2.5	2.3	2.1	2.9

Source: Oxford Economics, Central Bank of the Bahamas, Department of National Statistics

Table 6.4: Path of key economic variables in S3

Summary of main headline metrics - S3																		
			Historical				Forecast											
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-yr average
GDP by Expenditure	GDP	% yr	1.5	1.1	1.0	0.7	2.0	2.1	2.2	2.8	3.1	3.2	3.1	3.0	2.5	2.2	2.0	2.6
	Consumption	% yr	1.1	-1.9	2.6	-0.3	1.8	1.8	2.2	2.8	3.0	2.7	2.9	2.9	2.4	2.2	2.0	2.5
	Government Consumption	% yr	-0.3	7.2	-3.9	3.7	-0.4	0.9	0.9	0.9	1.5	4.1	3.9	3.8	3.4	3.2	3.0	2.6
	Investment	% yr	0.6	6.4	8.2	-2.8	-3.6	1.5	1.4	1.7	3.2	3.0	2.9	2.5	2.4	2.2	2.2	2.3
	Exports	% yr	1.3	6.3	7.3	-4.2	5.9	4.2	3.4	4.1	4.1	3.2	2.9	3.0	2.6	2.6	2.5	3.3
	Imports	% yr	-0.4	7.5	9.9	-5.4	1.7	3.2	2.6	3.0	3.6	2.7	2.7	2.9	2.7	2.9	2.8	2.9
Output by Sector	GVA	% yr	3.4	1.9	1.2	-0.7	2.0	2.1	2.2	2.8	3.1	3.2	3.1	3.0	2.5	2.2	2.0	2.6
	Private Sector	% yr	3.5	1.8	1.2	-0.9	2.3	2.2	2.4	3.0	3.3	3.1	3.0	2.9	2.4	2.1	1.9	2.6
	Agriculture	% yr	3.7	-8.5	5.6	-17.2	0.3	1.3	2.3	3.1	3.3	3.3	3.3	3.1	2.6	2.3	2.0	2.6
	Extraction & Utilities	% yr	0.3	-1.3	-6.5	0.9	1.1	1.8	2.6	3.2	3.4	3.4	3.4	3.2	2.7	2.4	2.2	2.8
	Manufacturing	% yr	9.1	-0.2	-0.1	4.5	0.4	1.5	2.2	3.0	3.3	3.2	3.2	3.0	2.5	2.3	2.0	2.6
	Construction	% yr	24.6	10.1	13.3	-1.0	-2.9	1.3	1.7	2.1	3.2	3.3	3.2	2.7	2.4	2.2	2.0	2.4
	Distribution Services	% yr	-7.3	-5.1	-4.6	0.2	3.2	2.4	2.5	3.2	3.3	3.0	2.9	2.9	2.3	2.1	1.8	2.6
	Hotels & Restaurants	% yr	8.9	2.6	1.5	-1.9	5.1	3.1	2.6	3.4	3.4	2.9	2.6	2.7	2.1	1.9	1.7	2.6
	Transport and Communication	% yr	-8.9	8.2	-2.7	-1.0	2.6	2.3	2.6	3.1	3.2	3.1	3.0	2.9	2.3	2.1	1.8	2.6
	Financial and Business Services	% yr	3.2	2.3	1.1	-0.1	2.2	1.9	2.4	3.0	3.1	3.2	3.2	3.0	2.5	2.2	1.9	2.6
	Other Services	% yr	3.0	-0.4	0.6	-1.4	3.7	2.6	2.5	3.2	3.3	3.0	2.8	2.8	2.2	2.0	1.8	2.6
	Government Services	% yr	2.3	2.0	1.8	1.5	-0.4	0.9	0.9	0.9	1.5	4.1	3.9	3.8	3.4	3.2	3.0	2.6
Labour market	Employment	% yr	1.1	2.9	-0.5	0.4	1.5	1.9	1.5	1.7	1.7	2.0	1.8	1.6	1.2	0.8	0.6	1.5
	Public Sector	% yr	0.4	-0.4	1.1	-5.8	0.7	0.7	0.3	0.5	1.4	2.6	2.4	2.3	1.9	1.7	1.5	1.5
	Private Sector	% yr	1.3	3.8	-1.0	2.1	1.7	2.2	1.8	2.0	1.7	1.8	1.6	1.5	1.0	0.5	0.4	1.5
	Unemployment	Rate	16.0	13.6	14.9	14.5	14.3	13.5	13.3	13.7	13.4	12.6	11.9	11.3	10.9	11.1	11.2	12.5
	Unemployment	000s	30.5	25.8	28.7	27.8	27.8	26.5	26.5	27.7	27.7	26.1	24.9	23.9	23.3	24.0	24.2	25.7
	Participation rate	% labour force	74.8	73.1	72.5	71.8	71.7	71.9	72.3	72.7	73.2	73.7	74.1	74.6	74.9	75.1	75.4	73.6
	Nominal earnings growth	% yr	-1.2	-4.0	6.5	2.0	2.0	3.3	5.2	2.7	2.6	3.0	3.2	3.6	3.8	3.9	3.8	3.5
	CPI inflation	% yr	1.3	3.2	2.0	0.4	2.1	5.6	2.2	1.5	1.2	1.7	1.9	2.2	2.5	2.4	2.4	2.4
	Real earnings growth	% yr	-2.5	-7.2	4.5	1.6	-0.1	-2.3	3.0	1.3	1.4	1.2	1.3	1.3	1.3	1.5	1.4	1.2
	Real disposable income	% yr	-2.0	-3.0	1.9	1.3	1.9	0.5	3.5	2.8	2.9	3.1	3.1	3.0	2.5	2.3	2.0	2.6
Fiscal balance	Government balance	B$	-324	-201	-453	-428	-326	-182	-91	-11	20	15	12	13	15	17	18	18.1
	Government balance	% GDP	-4.1	-2.5	-5.5	-5.1	-3.7	-1.9	-0.9	-0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Primary government balance	B$	-132	8	-266	-221	-114	54	166	263	293	287	283	284	285	286	286	286.3
	Primary government balance	% GDP	-1.7	0.1	-3.2	-2.6	-1.3	0.6	1.7	2.6	2.8	2.6	2.4	2.3	2.2	2.1	2.0	2.0
	Government debt	% GDP	47.6	48.1	55.4	60.5	60.8	58.8	56.9	54.7	52.3	49.8	47.3	44.9	42.6	40.5	38.6	38.6
	Debt interest expenditure	% GDP	2.4	2.6	2.3	2.4	2.4	2.5	2.6	2.7	2.6	2.4	2.3	2.2	2.1	2.0	1.9	2.3
External balance	Travel services exports	% yr	2.7	4.9	7.2	-3.1	9.2	5.9	5.7	5.7	5.4	4.5	4.2	4.5	4.0	4.1	3.9	4.8
	Stopover visitor arrivals	000s	1463	1327	1370	1301	1437	1523	1589	1656	1721	1773	1825	1890	1947	2003	2057	3.6
	Current account balance	% GDP	-10.1	-15.0	-18.3	-17.8	-15.6	-14.2	-13.5	-13.4	-13.7	-13.9	-14.0	-13.8	-13.5	-13.4	-13.5	-13.5
	Reserve coverage	Months of imports	4.0	3.6	2.9	2.9	3.0	3.3	3.6	3.8	3.8	3.8	3.7	3.7	3.7	3.6	3.6	3.6

Source: Oxford Economics, Central Bank of the Bahamas, Department of National Statistics

Table 6.5: Path of key economic variables in S4

Summary of main headline metrics - S4																		
			Historical				Forecast											
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-yr average
GDP by Expenditure	GDP	% yr	1.5	1.1	1.0	0.7	2.0	2.5	2.7	2.9	2.9	2.8	2.6	2.8	2.3	2.2	2.1	2.6
	Consumption	% yr	1.1	-1.9	2.6	-0.3	1.8	2.0	2.1	2.5	2.7	2.3	2.4	2.6	2.3	2.3	2.1	2.3
	Government Consumption	% yr	-0.3	7.2	-3.9	3.7	-0.4	-1.5	-0.3	-0.3	0.3	0.0	-0.2	2.6	2.2	2.1	1.9	0.7
	Investment	% yr	0.6	6.4	8.2	-2.8	-3.6	2.1	1.6	1.8	2.9	2.6	2.5	2.5	2.4	2.2	2.4	2.3
	Exports	% yr	1.3	6.3	7.3	-4.2	5.9	5.8	5.0	4.7	4.2	3.3	3.0	3.1	2.7	2.9	2.9	3.7
	Imports	% yr	-0.4	7.5	9.9	-5.4	1.7	3.7	3.0	2.8	3.2	2.0	2.0	2.6	2.7	2.9	3.0	2.8
Output by Sector	GVA	% yr	3.4	1.9	1.2	-0.7	2.0	2.5	2.7	2.9	2.9	2.8	2.6	2.8	2.3	2.2	2.1	2.6
	Private Sector	% yr	3.5	1.8	1.2	-0.9	2.3	3.0	3.0	3.3	3.2	3.0	2.9	2.8	2.4	2.2	2.1	2.8
	Agriculture	% yr	3.7	-8.5	5.6	-17.2	0.3	1.8	2.6	3.1	3.3	3.2	3.2	3.1	2.7	2.5	2.2	2.8
	Extraction & Utilities	% yr	0.3	-1.3	-6.5	0.9	1.1	2.3	2.8	3.2	3.3	3.3	3.2	3.1	2.7	2.5	2.3	2.9
	Manufacturing	% yr	9.1	-0.2	-0.1	4.5	0.4	2.1	2.7	3.1	3.2	3.1	3.0	2.9	2.5	2.4	2.2	2.7
	Construction	% yr	24.6	10.1	13.3	-1.0	-2.9	1.9	2.0	2.3	3.0	3.1	3.0	2.8	2.5	2.2	2.3	2.5
	Distribution Services	% yr	-7.3	-5.1	-4.6	0.2	3.2	3.3	3.3	3.5	3.3	3.0	2.8	2.8	2.3	2.2	2.1	2.9
	Hotels & Restaurants	% yr	8.9	2.6	1.5	-1.9	5.1	4.6	4.1	4.1	3.6	3.1	2.8	2.8	2.2	2.2	2.2	3.2
	Transport and Communication	% yr	-8.9	8.2	-2.7	-1.0	2.6	2.9	3.1	3.2	3.1	2.9	2.8	2.7	2.3	2.1	2.0	2.7
	Financial and Business Services	% yr	3.2	2.3	1.1	-0.1	2.2	2.3	2.6	2.9	3.0	2.9	2.9	2.8	2.4	2.3	2.1	2.6
	Other Services	% yr	3.0	-0.4	0.6	-1.4	3.7	3.7	3.5	3.6	3.4	3.0	2.8	2.8	2.3	2.2	2.1	2.9
	Government Services	% yr	2.3	2.0	1.8	1.5	-0.4	-1.5	-0.3	-0.3	0.3	0.0	-0.2	2.6	2.2	2.1	1.9	0.7
Labour market	Employment	% yr	1.1	2.9	-0.5	0.4	1.5	1.9	1.7	1.8	1.5	1.5	1.3	1.6	1.2	0.8	0.7	1.4
	Public Sector	% yr	0.4	-0.4	1.1	-5.8	0.7	-0.6	-0.3	-0.1	0.8	0.6	0.4	1.7	1.3	1.1	0.9	0.6
	Private Sector	% yr	1.3	3.8	-1.0	2.1	1.7	2.5	2.2	2.3	1.7	1.7	1.6	1.5	1.2	0.7	0.7	1.6
	Unemployment	Rate	16.0	13.6	14.9	14.5	14.3	13.4	12.9	13.0	12.9	12.4	12.1	11.5	11.2	11.4	11.3	12.4
	Unemployment	000s	30.5	25.8	28.7	27.8	27.8	26.3	25.5	26.2	26.4	25.6	25.2	24.3	23.8	24.4	24.4	25.4
	Participation rate	% labour force	74.8	73.1	72.5	71.8	71.7	71.7	72.0	72.3	72.8	73.3	73.7	74.2	74.5	74.7	74.9	73.3
	Nominal earnings growth	% yr	-1.2	-4.0	6.5	2.0	2.0	2.3	2.4	2.3	2.4	2.6	2.7	3.1	3.6	3.7	3.5	2.9
	CPI inflation	% yr	1.3	3.2	2.0	0.4	2.1	1.8	1.6	1.4	1.3	1.6	1.6	2.1	2.2	2.1	2.0	1.8
	Real earnings growth	% yr	-2.5	-7.2	4.5	1.6	-0.1	0.5	0.7	0.9	1.1	1.1	1.1	1.0	1.4	1.7	1.5	1.1
	Real disposable income	% yr	-2.0	-3.0	1.9	1.3	1.9	1.3	2.4	2.5	2.4	2.4	2.4	2.7	2.5	2.4	2.1	2.3
Fiscal balance	Government balance	B$	-324	-201	-453	-428	-326	-151	-118	-77	-32	7	53	71	94	119	147	147.4
	Government balance	% GDP	-4.1	-2.5	-5.5	-5.1	-3.7	-1.7	-1.2	-0.8	-0.3	0.1	0.5	0.6	0.8	0.9	1.1	1.1
	Primary government balance	B$	-132	8	-266	-221	-114	83	139	200	246	285	329	343	361	381	402	401.5
	Primary government balance	% GDP	-1.7	0.1	-3.2	-2.6	-1.3	0.9	1.5	2.0	2.4	2.7	2.9	2.9	2.9	3.0	3.0	3.0
	Government debt	% GDP	47.6	48.1	55.4	60.5	60.8	59.8	58.5	57.0	55.1	52.9	50.3	47.2	44.3	41.5	38.8	38.8
	Debt interest expenditure	% GDP	2.4	2.6	2.3	2.4	2.4	2.6	2.7	2.8	2.7	2.6	2.5	2.3	2.2	2.0	1.9	2.4
External balance	Travel services volumes	% yr	2.7	4.9	7.2	-3.1	9.2	8.0	6.9	6.4	5.6	4.7	4.4	4.6	4.2	4.4	4.4	5.4
	Stopover visitor arrivals	000s	1463	1327	1370	1301	1437	1553	1648	1732	1807	1868	1929	2001	2066	2134	2204	4.4
	Current account balance	% GDP	-10.1	-15.0	-18.3	-17.8	-15.6	-14.2	-13.5	-13.2	-13.4	-13.4	-13.1	-12.6	-12.2	-12.1	-12.3	-12.3
	Reserve coverage	Months of imports	4.0	3.6	2.9	2.9	3.0	3.4	3.8	4.1	4.4	4.7	5.2	5.7	6.3	6.9	7.4	5.0

Source: Oxford Economics, Central Bank of the Bahamas, Department of National Statistics

Table 6.6: Path of key economic variables in S5

Summary of main headline metrics - S5																		
			Historical				Forecast											
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-yr average
GDP by Expenditure	GDP	% yr	1.5	1.1	1.0	0.7	2.0	2.5	2.7	3.0	3.0	2.8	2.7	2.6	2.3	2.2	2.0	2.6
	Consumption	% yr	1.1	-1.9	2.6	-0.3	1.8	1.8	1.9	2.5	2.8	2.5	2.6	2.6	2.2	2.1	1.8	2.3
	Government Consumption	% yr	-0.3	7.2	-3.9	3.7	-0.4	1.0	2.3	2.4	3.1	2.9	2.7	2.6	2.2	2.1	1.9	2.3
	Investment	% yr	0.6	6.4	8.2	-2.8	-3.6	2.2	1.8	2.1	3.1	2.8	2.6	2.2	2.2	2.2	2.1	2.3
	Exports	% yr	1.3	6.3	7.3	-4.2	5.9	5.4	4.6	4.2	3.6	2.7	2.4	2.8	2.6	2.8	2.9	3.4
	Imports	% yr	-0.4	7.5	9.9	-5.4	1.7	3.8	3.0	3.0	3.5	2.3	2.2	2.5	2.5	2.8	2.8	2.8
Output by Sector	GVA	% yr	3.4	1.9	1.2	-0.7	2.0	2.5	2.7	3.0	3.0	2.8	2.7	2.6	2.3	2.2	2.0	2.6
	Private Sector	% yr	3.5	1.8	1.2	-0.9	2.3	2.7	2.8	3.1	3.0	2.8	2.7	2.6	2.3	2.2	2.0	2.6
	Agriculture	% yr	3.7	-8.5	5.6	-17.2	0.3	1.5	2.4	3.0	3.2	3.1	3.1	3.0	2.5	2.3	2.1	2.6
	Extraction & Utilities	% yr	0.3	-1.3	-6.5	0.9	1.1	2.0	2.7	3.1	3.2	3.2	3.2	3.0	2.6	2.4	2.2	2.8
	Manufacturing	% yr	9.1	-0.2	-0.1	4.5	0.4	1.9	2.5	3.0	3.1	3.0	2.9	2.8	2.4	2.3	2.1	2.6
	Construction	% yr	24.6	10.1	13.3	-1.0	-2.9	1.9	2.1	2.4	3.1	3.1	2.9	2.5	2.3	2.2	2.0	2.5
	Distribution Services	% yr	-7.3	-5.1	-4.6	0.2	3.2	3.1	3.0	3.2	3.0	2.7	2.6	2.6	2.2	2.1	2.0	2.7
	Hotels & Restaurants	% yr	8.9	2.6	1.5	-1.9	5.1	4.2	3.7	3.6	3.1	2.5	2.2	2.4	2.0	2.2	2.1	2.8
	Transport and Communication	% yr	-8.9	8.2	-2.7	-1.0	2.6	2.7	2.8	3.1	3.0	2.8	2.7	2.6	2.2	2.0	1.8	2.6
	Financial and Business Services	% yr	3.2	2.3	1.1	-0.1	2.2	2.1	2.4	2.8	3.0	2.9	2.9	2.8	2.4	2.1	1.9	2.5
	Other Services	% yr	3.0	-0.4	0.6	-1.4	3.7	3.4	3.2	3.3	3.0	2.6	2.5	2.5	2.1	2.1	2.0	2.7
	Government Services	% yr	2.3	2.0	1.8	1.5	-0.4	1.0	2.3	2.4	3.1	2.9	2.7	2.6	2.2	2.1	1.9	2.3
Labour market	Employment	% yr	1.1	2.9	-0.5	0.4	1.5	1.9	1.7	2.0	1.6	1.5	1.3	1.2	0.8	0.8	0.6	1.3
	Public Sector	% yr	0.4	-0.4	1.1	-5.8	0.7	0.7	1.0	1.2	2.2	2.0	1.8	1.7	1.3	1.1	0.9	1.4
	Private Sector	% yr	1.3	3.8	-1.0	2.1	1.7	2.2	1.9	2.2	1.5	1.4	1.2	1.1	0.7	0.7	0.5	1.3
	Unemployment	Rate	16.0	13.6	14.9	14.5	14.3	13.3	12.6	12.4	12.2	11.7	11.4	11.2	11.2	11.4	11.4	12.1
	Unemployment	000s	30.5	25.8	28.7	27.8	27.8	25.9	24.9	24.9	24.9	24.1	23.7	23.5	23.6	24.3	24.5	24.7
	Participation rate	% labour force	74.8	73.1	72.5	71.8	71.7	71.6	71.7	72.0	72.5	72.9	73.3	73.8	74.1	74.4	74.6	73.0
	Nominal earnings growth	% yr	-1.2	-4.0	6.5	2.0	2.0	2.5	2.7	2.6	3.0	3.0	3.3	3.5	3.4	3.1	3.0	3.0
	CPI inflation	% yr	1.3	3.2	2.0	0.4	2.1	2.4	2.0	1.9	1.9	2.1	2.1	2.2	2.1	1.9	1.9	2.0
	Real earnings growth	% yr	-2.5	-7.2	4.5	1.6	-0.1	0.1	0.7	0.7	1.1	0.9	1.2	1.3	1.2	1.2	1.1	1.0
	Real disposable income	% yr	-2.0	-3.0	1.9	1.3	1.9	0.4	2.6	2.7	2.7	2.6	2.6	2.7	2.2	2.0	1.7	2.2
Fiscal balance	Government balance	B$	-324	-201	-453	-428	-326	-71	-65	-53	-43	-43	-41	-36	-30	-23	-15	-15.3
	Government balance	% GDP	-4.1	-2.5	-5.5	-5.1	-3.7	-0.8	-0.7	-0.5	-0.4	-0.4	-0.4	-0.3	-0.2	-0.2	-0.1	-0.1
	Primary government balance	B$	-132	8	-266	-221	-114	160	185	216	228	230	234	241	249	257	265	265.0
	Primary government balance	% GDP	-1.7	0.1	-3.2	-2.6	-1.3	1.7	1.9	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9
	Government debt	% GDP	47.6	48.1	55.4	60.5	60.8	58.6	56.6	54.5	52.4	50.3	48.3	46.3	44.5	43.0	41.5	41.5
	Debt interest expenditure	% GDP	2.4	2.6	2.3	2.4	2.4	2.5	2.6	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.0	2.4
External balance	Travel services exports	% yr	2.7	4.9	7.2	-3.1	9.2	7.6	6.5	5.8	5.0	4.1	3.7	4.3	4.0	4.4	4.3	5.0
	Stopover visitor arrivals	000s	1463	1327	1370	1301	1437	1547	1634	1707	1768	1814	1859	1919	1976	2039	2104	3.9
	Current account balance	% GDP	-10.1	-15.0	-18.3	-17.8	-15.6	-14.3	-13.6	-13.3	-13.4	-13.3	-13.0	-12.6	-12.4	-12.5	-12.8	-12.8
	Reserve coverage	Months of imports	4.0	3.6	2.9	2.9	3.0	3.3	3.7	4.0	4.1	4.4	4.6	5.0	5.4	5.8	6.0	4.5

Source: Oxford Economics, Central Bank of the Bahamas, Department of National Statistics

OXFORD
Abbey House, 121 St Aldates
Oxford, OX1 1HB, UK
Tel: +44 1865 268900

LONDON
Broadwall House, 21 Broadwall
London, SE1 9PL, UK
Tel: +44 207 803 1400

BELFAST
Lagan House, Sackville Street
Lisburn, BT27 4AB, UK
Tel: +44 28 9266 0669

NEW YORK
817 Broadway, 10th Floor
New York, NY 10003, USA
Tel: +1 646 786 1863

PHILADELPHIA
303 Lancaster Avenue, Suite 1b
Wayne PA 19087, USA
Tel: +1 610 995 9600

SINGAPORE
No.1 North Bridge Road
High Street Centre #22-07
Singapore 179094
Tel: +65 6338 1235

PARIS
9 rue Huysmans
75006 Paris, France
Tel: + 33 6 79 900 846

Email: mailbox@oxfordeconomics.com

www.oxfordeconomics.com

OXFORD
ECONOMICS