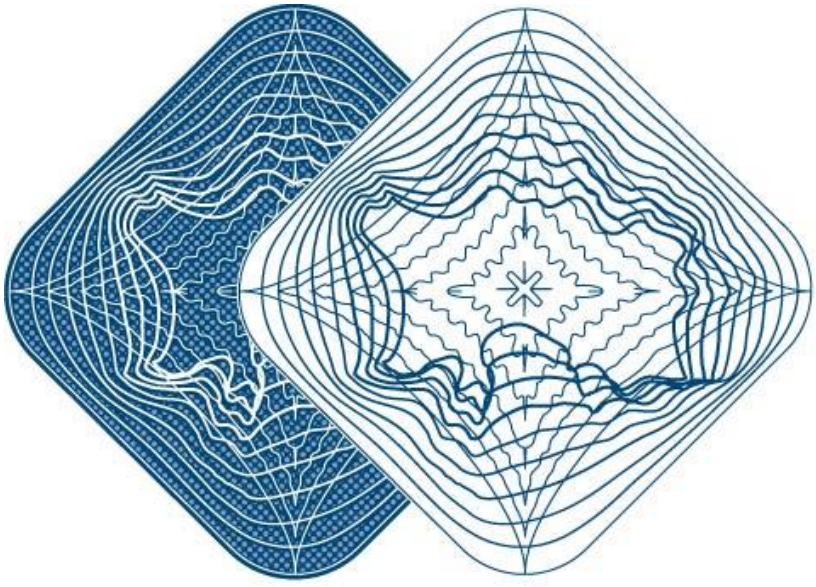
Jersey's Fiscal Policy Panel: *Advice for the 2020-23 Government Plan*

March 2019



Introduction

The Fiscal Policy Panel (FPP) welcomes the opportunity to present this special report, which provides advice and recommendations for the Government of Jersey to consider in developing its first Government Plan.

This report fulfils a statutory requirement, under the current Public Finances Law (PFL), for the Panel to prepare a report to inform the preparation of a draft medium-term financial plan (MTFP). The Panel understands that new legislation is being prepared to replace the MTFP with the Government Plan.

The Government Plan represents a new approach to planning public finances with a move from a fixed four-year spending plan under the MTFP to annual plans for both income and expenditure. This allows greater flexibility than the MTFP, but the Panel understands the Plan will also include forecasts for income and expenditure for a further three years. In the case of the 2020-23 Government Plan, therefore, the States Assembly will be asked to approve income and expenditure for 2020 but indicative plans will also be included for 2021-2023.

In contrast to last October's Annual Report, the current report has more focus on the medium term. The Panel has produced updated economic forecasts for this report, including a reassessment of Jersey's trend rate of growth. These new forecasts should be used to inform the fiscal envelope for the Government Plan.

However, this report has been prepared at a time of significant uncertainty regarding the UK's exit from the European Union and the potential impacts on Jersey. Further updates to this advice will be provided as necessary, including the potential for updated forecasts.

We look forward to reviewing the draft Government Plan when it is lodged in the summer. The Panel will produce their Annual Report in the autumn, to help inform the subsequent Government Plan debate.

Summary of recommendations

1 The Government of Jersey should plan to run surpluses over the 2020-2023 period – though retaining the flexibility to respond to changes in the cyclical position.

2 The Government should consider implementing revenue-raising measures or expenditure cuts now, when the economy is above trend, to increase the ability of the public finances to support the economy in a future period of below trend output.

3 In any year, the contributions to or withdrawals from the Stabilisation Fund should mirror that part of the current Budget position driven by the economic cycle and the automatic fiscal stabilisers. The Panel's forecast implies that the economy will be running around 2% above capacity next year, meaning that the addition to the Stabilisation Fund should include 0.32% of GVA in 2020 (about £16m). A further transfer is also needed to replenish the past use of the Fund for active fiscal policy through the last downturn, and ensure that the Fund is ready to provide additional fiscal support in the event of any future downturn.

4 The Government should assess potential uses of the Stabilisation Fund according to the 'three Ts' – i.e. that active fiscal policies should be timely, targeted and temporary. Should it be required over the next medium-term planning period, the Panel would advise that any active counter-cyclical support to the economy (using the Stabilisation Fund or elsewhere) should be assessed against these three criteria.

5 The Government should consider working towards a larger Strategic Reserve through a long-term programme of contributions and retaining the returns from investment, given that its objectives include insulating the economy from the sudden collapse of a major island industry.

6 The Government should ensure that any policy decisions related to the Social Security Funds consider a range of different scenarios and the impact these may have on the ability to pay deferred pensions.

7 The FPP's view is that the early part of the forthcoming Government Plan period is an appropriate time to plan an increase in the long-term care contribution, while the economy is running above trend. Consideration should also be given to whether a larger increase could be appropriate in order to provide additional flexibility regarding future increases in the rate.

8 The Government Plan will need to consider and set out how the proposed capital programme can be delivered in a way that does not put excess pressure on the limited resources available on-island.

9 It is important that the forthcoming Economic Framework focuses policy on measures that will enable improvements in private sector productivity. These should be aimed at addressing the five key drivers of productivity growth: investment, infrastructure, innovation and enterprise, skills and competition.

Section 1 - Update to the Economic Outlook

The Panel's Annual Report from October 2018 provided a full review of the economic outlook and therefore this report provides only a brief update. The global outlook has deteriorated a little further. Falling equity markets at the end of 2018 and trade tensions fuelled a degree of pessimism, reflected in downgraded world growth forecasts. Equity markets have recovered losses but trade tensions remain.

Data updates on the local economy show inflation starting to recede from its mid-2018 peak but Brexit-related uncertainty weighing somewhat on business sentiment. The Panel's updated forecasts are set out in detail in section 2 but the short-term outlook has been downgraded – with a slowdown expected this year as a result of continuing uncertainty around the UK's withdrawal from the EU. There are a number of other broad risks to the economy and to public finances over the forthcoming Government Plan period and beyond. These span a number of different time horizons and include risks to financial services, ongoing poor productivity performance and the ageing population in the long term.

1.1 International outlook

The IMF's latest estimate is that the world economy grew by 3.7% in 2018 after growth of 3.8% in 2017, the best rate of growth since 2011.Whilst growth in the euro area and Japan slowed considerably (to 1.8% and 0.9% respectively), the US economy accelerated to 2.9% annual growth. Growth remained stable in emerging markets at 4.6%.

Looking forward, the January update to the World Economic Outlook revised forecasts downwards for 2019 and 2020 growth, citing an escalation of trade tensions, tightening financial conditions, the threat of a "no-deal" Brexit and a sharper slowdown in China. The IMF states that risks to global growth have tilted to the downside. More recently, the OECD has significantly revised down its growth forecasts for almost all G20 economies.

The Manpower Global Employment Outlook reports a loss in momentum with employers in 23 of the 44 countries surveyed reporting a weakening in hiring intentions in their Q1 2019 survey.

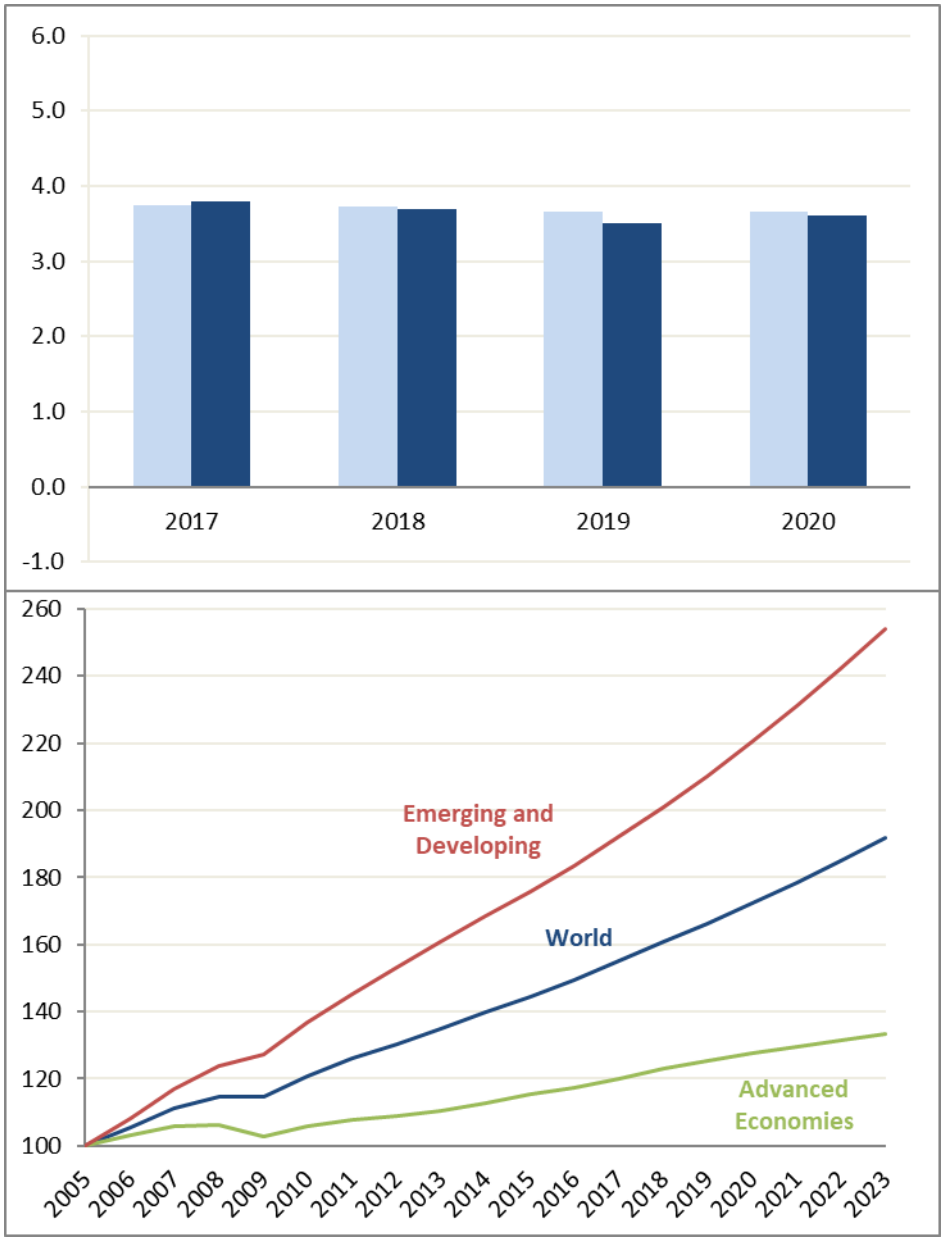
Figure 1.1

Global growth

Top panel: global GDP real growth – January 2019 estimates/forecasts; pale bars are October 2018 estimates/forecasts

Bottom panel: index (2005=100) of real-terms GDP - January 2019 estimates/forecasts

Source: International Monetary Fund (IMF) World Economic Outlook October 2018 and January 2019.



1.2 Jersey economic developments

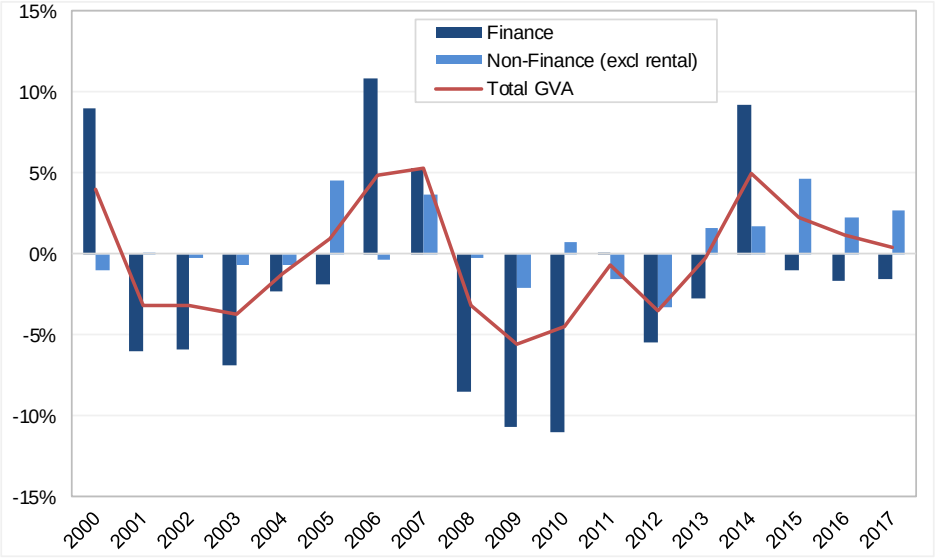
As covered in last October's report, growth in Jersey's Gross Valued Added (GVA) was 0.4% in real terms in 2017. This marked a fourth year of recovery from an extended downturn after 2007 leaving GVA 9.0% below its 2007 level and 9.5% below its 2000 level. This fall is driven by declines in productivity, which in 2017 was 24% below its 2007 level and 28% below its 2000 level when measured by GVA per full-time equivalent worker. Real output in the finance sector fell by 2% while non-finance grew by 3% driven by strong results in the construction sector (9%) as well as in other business activities (4%) and transport, storage and communication (4%).

Figure 1.2

A breakdown of Gross Value Added growth

Annual % real terms change

Source: Statistics Jersey



The Jersey Retail Price Index (RPI) increased by 3.9% in the year to December 2018, falling from the six-year peak in inflation of 4.5% in June but higher than the annual increase of 2017 (3.6%) The main contributors to inflation in 2018 were housing costs (1.1 percentage points), household services (0.8 percentage points) and leisure services (0.5 percentage points). Employment remains healthy with the number of jobs in June the highest to date. Annual job growth was 0.5%, the fifth consecutive year of June-to-June employment expansion, though there has been some slowdown from the 2% growth seen in the previous two years.

Though GVA growth slowed in 2017, it is important to note that this was largely driven by losses in a small number of companies in the banking sector and that the non-financial sector grew by 3%. The fourth quarter Business Tendency Survey (BTS) reported a fall in inflationary pressures and a degree of deterioration on forward-looking indicators reflecting uncertainty regarding Brexit and broader economic trends. After falling by roughly a half since 2013, the numbers of registered Actively Seeking Work remained steady throughout 2018 at around 900 people.

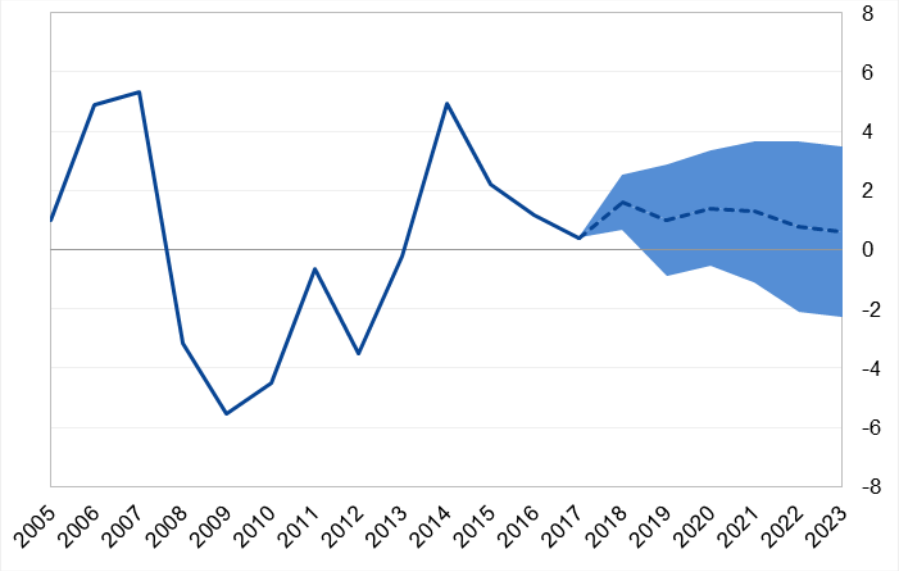
Section 2 presents the Panel's forecast for the period to 2023. A slowdown is expected due to uncertainty regarding Brexit with growth forecast to be 1% in 2019 before recovering slightly to 1.4% in 2020. Over the following two years, growth is expected to slow to its projected trend growth rate of 0.6% (Figure 1.3). The forecast assumes, in common with the UK Office of Budget Responsibility, that the UK makes an orderly departure from the EU on 29 March into a transition period that lasts to the end of 2020.

Figure 1.3

Economic growth forecast

% change in real GVA on year before

Sources: Panel judgement; Statistics Jersey



However, while the Panel's central case is for a slowdown in 2019 as a result of the uncertainty caused by Brexit, it is clear that there are significant downside risks to these forecasts. A number of these are set out in the remainder of this section.

1.3 Brexit

Under Protocol 3 to the UK's Accession Agreement, the UK's membership of the European Union (EU) single market is extended to Jersey in respect of the trade in goods. However, Jersey is already a third country in respect of services – which represent the majority of Jersey's exports to the EU. More importantly, however, the effect on the value of sterling and the economic prospects of Jersey's largest trading partner are a significant source of uncertainty.

In response to a request from the House of Commons Treasury Committee, the Bank of England has modelled the possible effects of the eventual withdrawal in a recent report[1]. The analysis addresses a number of different potential scenarios based on the form of the final agreement, or lack thereof, rather than forecasts; using empirical data on established economic relationships to quantify the likely impacts. The scenarios include "disruptive" and "disorderly" Brexit scenarios related to a no-deal withdrawal without a transition period, involving the sudden introduction of tariffs and other barriers to trade as well as "close" or "less close" scenarios of economic partnership with the gradual emergence of non-financial services trade and new regulatory checks on goods traded.

[1] EU withdrawal scenarios and monetary and financial stability: A response to the House of Commons Treasury Committee, November 2018.

In the no-deal scenario, the level of UK GDP is 4.75-7.75% lower by 2023 while CPI inflation peaks at 4.25-6.5% and the unemployment rate rises to 5.75-7.5%

Inflation in Jersey is strongly correlated with inflation in the UK and therefore a no-deal scenario is likely to also see a spike in Jersey's inflation rate. With significant imported inflation (referred to as a "supply shock"), the spending power of Islanders would fall and cause a shortfall in demand for non-exported production in turn leading to downward pressure on growth and jobs. Whilst this will likely result in less overall recessionary force than in an export-restricted UK, a fall in the level of Jersey's GVA of 4.5% or more (in relation to current expectations) with a disorderly Brexit is plausible. The Panel will continue to monitor developments in the Brexit process, and the impact this is likely to have on Jersey's economy.

1.4 Risks to financial services

Financial services represents the largest sector in Jersey's economy and contributes a significant proportion of government's revenues. However, this sector faces several risks in the medium term. Not least of these is the possibility of adverse regulatory decisions.

Jersey's strong regulatory framework is a key source of competitive advantage. The EU Code of Conduct Group on Business Taxation has determined that Jersey is a cooperative tax jurisdiction and work is ongoing to ensure that the legal framework provides reassurance over any potential substance concerns. The Peer Review Group of the OECD Global Forum on Transparency and Exchange of Information for Tax Purposes rated Jersey fully compliant in all ten of the areas it reviewed in a 2017 assessment, and a 2016 evaluation of Jersey's institutional, legislative and regulatory framework by MONEYVAL (the Council of Europe's Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism) awarded the Island the highest score amongst all jurisdictions assessed.

Moreover, the Island has proven resilient in overcoming past regulatory challenges, such as the ring-fencing of retail banking required by the UK's Independent Commission on Banking. Jersey's banking sector has repositioned itself in response to this and now looks to become a key part of some of the 'non-ring-fenced' banking operations of large banking groups.

Despite these high standards, regulatory risks remain. Legislation in regards to transparent company beneficial ownership was passed last year imposing an open register on overseas territories in the Caribbean.

At the time of drafting this advice, a Commons vote on legislation with some cross-party support to extend this to the Crown dependencies was delayed in Westminster, with the Crown dependencies engaging with UK parliamentarians to seek a solution that does not contravene the established constitutional relationship.

There is upside risk to interest income from a normalisation of monetary policy. Though market expectations are for a small increase in interest rates, these have been repeatedly postponed over the past ten years. Despite the fact that the Federal Funds rate in the US is now 2.5%, up from its all-time historic low of 0.25% in December 2015, ,and a small increase in the Bank of England's Bank Rate to 0.75% in August 2018, the most recent announcements by the US Federal Reserve and the European Central Bank were for a continuation of quantitative easing and looser monetary policy. A further period of low interest rates would constrain growth in interest income for Jersey's banking sector, and therefore profitability and corporate tax receipts.

1.5 Productivity

An ongoing risk to Jersey's economy is continuing poor productivity growth. As measured by annual real GVA per Full-Time Equivalent (FTE) worker, productivity has seen only one year of increase since 2007, thus falling from £89,000 per FTE to £68,000 in 2017. While much of this trend is due to falling profitability in the finance sector due to the low interest rate environment, there are clearly challenges in all sectors.

With a tax base heavily skewed towards employment income, falling productivity growth, and thus slower growth in employee compensation, means slower growth in tax revenue and therefore makes it more difficult to deal with spending pressures such as those from the ageing society.

However, there are also potential upside risks to productivity, particularly from greater adoption of technology and automation, and the potential impact of this on Jersey's key sectors is discussed further in section 2.

It is important that the forthcoming Economic Framework focuses policy on measures that will enable improvements in private sector productivity. These should be aimed at addressing the five key drivers of productivity growth: investment, infrastructure, innovation and enterprise, skills and competition.

1.6 The ageing society

A long-term risk facing Jersey's fiscal position, common to many countries, is that posed by demographic pressures and a rising dependency rate. With political and environmental limits to immigration, lower fertility and mortality

rates the ratio of working-age people to those of dependent age (more importantly retirees, but also children) is set to fall. This will result in greater spending pressures to fund the care needs of the elderly with no offsetting increase in the number of working-age taxpayers

These challenges are compounded by the need to dedicate more labour resources to lower productivity industries as care work takes on a larger share of the economy. Indeed, with the recent expansion of employment in the "Other business activities" sector in Jersey, this dynamic may already be contributing to poor productivity growth.

Figure 1.4 shows the percentage changes in dependency ratios for a range of high-income jurisdictions from 2015 to 2035. Population projections under a number of immigration scenarios indicate that the pressures of an ageing society are significantly worse in Jersey than in the UK and many other major industrialised economies, even under scenarios with significant levels of net inward migration.

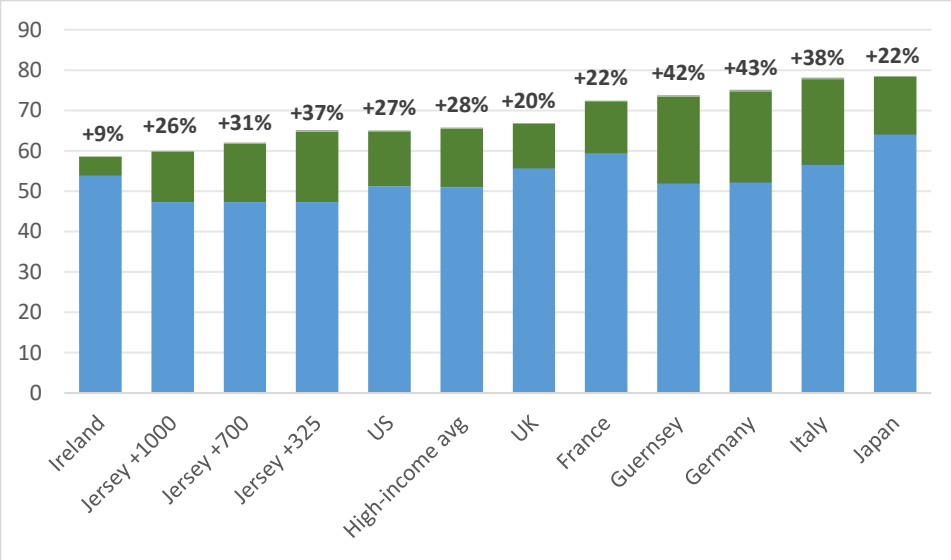
Figure 1.4

International dependency ratios

Ratio of population 0-14 and 65+ per 100 population aged 15-64 (blue column is 2015, green column shows the change to 2035).

% change in dependency ratios above each column.

Source: Statistics Jersey, United Nations



Section 2 – Trend growth and spare capacity

2.1 Introduction

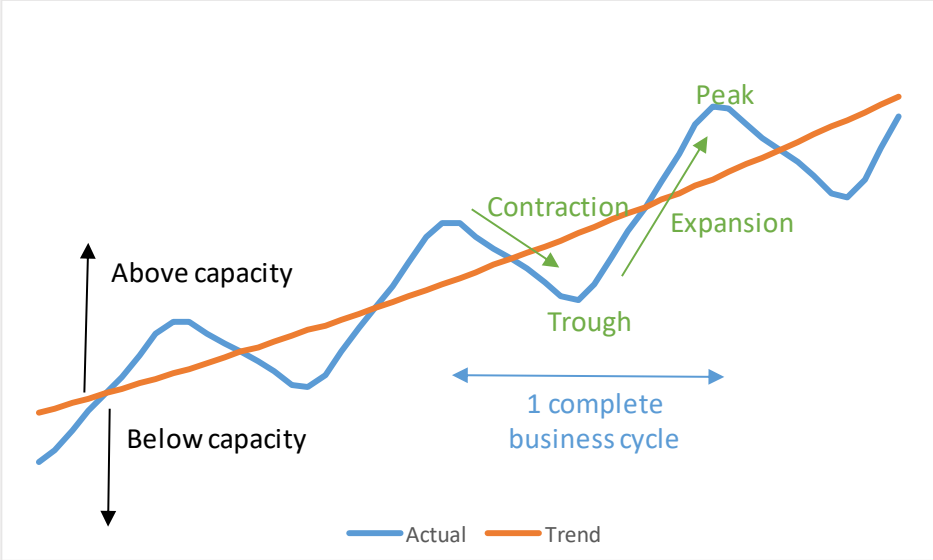
A key element of the Panel's advice for the Government Plan is an update to the estimate of Jersey's likely trend rate of economic growth (as measured by GVA – gross value added) over the next medium-term planning period and beyond. The trend rate of growth is a key step for the Panel in forming a view of the current structural position of the Government of Jersey's finances, and informs the Panel's recommendations on the balance of fiscal policy over the Government Plan period.

The trend rate of growth is the rate of growth once cyclical factors are removed i.e. the underlying rate of growth over the business cycle. The trend *rate* of growth is closely related to the concept of 'potential output' (on-trend GVA); that is the *level* of economic output associated with full non-inflationary use of resources. When the economy is above potential output this implies demand is above the non-inflationary capacity of the economy and there is upward pressure on inflation with a positive 'output gap'. Conversely, when the economy is below potential output this implies under-utilisation of capacity and resources e.g. unemployment above its sustainable rate, and downward pressure on inflation. Neither the trend rate of growth nor the output gap can be measured/observed: they can only be estimated.

Figure 2.1 shows a stylised illustration of how actual measured GVA might move above and below estimated trend GVA through the economic cycle. The gradient of the trend GVA line here represents trend growth.

Figure 2.1
Illustration of trend GVA

Trend GVA (orange line) and actual GVA (blue line)



Analysis undertaken in the FPP's 2015 pre-MTFP (medium-term financial plan) report concluded that, at that time, there was insufficient evidence to assume a significantly positive trend rate of growth in Jersey. This led to a recommendation that fiscal forecasts should be tested against a trend rate of growth of *0%* over the economic cycle. The Panel has now updated its assessment of prospects for trend growth, which is set out in the rest of this section.

2.2 Recent trends in GVA

Changes in output (GVA) from year-to-year will include both cyclical factors, as the economy moves through the business cycle, and more permanent structural or 'trend' effects. Potential GVA, or trend GVA, is an estimate of only the trend effects and therefore excludes any cyclical impacts.

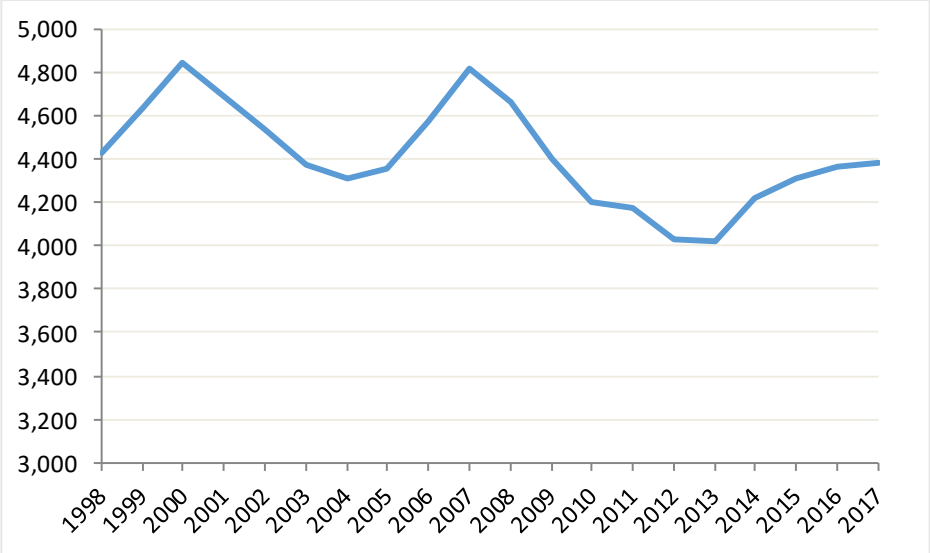
Figure 2.2 shows real GVA, over the period for which a consistent series is available, from 1998 to 2017.

Figure 2.2

Jersey GVA

£m, constant 2017 prices

Source: Statistics Jersey

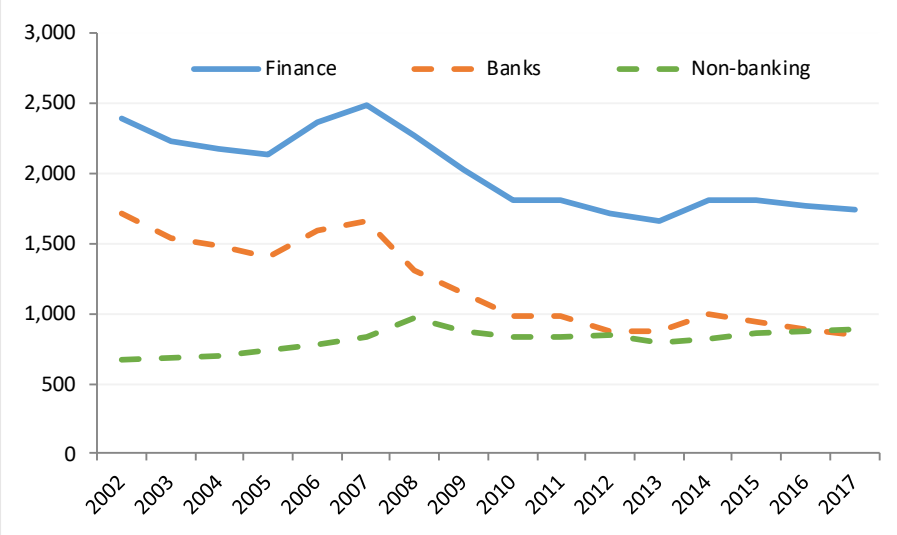


After four years of real growth to 2017, GVA had essentially returned to its 1998 level in real terms. However, the modest growth since 2013 was preceded by a period of sustained decline following the global financial crisis - with GVA falling by 16% over six years - 'peak to trough'. This is both a deeper and more sustained decline than that in the UK, where output fell just 6% over 5 quarters following the financial crisis.

Much of this fall in GVA was due to a fall in the output of the finance sector in Jersey, particularly banking. Figure 2.3 shows that banking GVA fell sharply between 2007 and 2010 and has since followed a broadly downward trend in real terms. Banking GVA in 2017 was less than half the 2002 level, after adjusting for inflation.

Part of the downward trend in banking GVA is explained by a squeeze on deposit margins, and this is covered in the next section.

Figure 2.3
Finance and banking GVA
£m, constant 2017 prices
Source: Statistics Jersey



2.3 Margin-adjusted trend

An important source of bank profits comes from recycling of funds from savings into loans for investment, known as intermediation, with the profit driven by differentials between the interest rates that banks pay on deposits and receive on loans. This can be split into the lending margin, which can be based on the difference between the rate paid by borrowers and some benchmark rate; and the deposit margin, which can be based on the difference between the benchmark rate and the rate paid to depositors.

Previous FPP reports have highlighted a squeeze in deposit margins due to the low interest rate environment that followed the global financial crisis. This is clearly demonstrated in Figure 2.4, which shows that the fall in UK interest rates (in this case the sterling overnight index average - SONIA) has led to a squeeze on deposit margins. As much of Jersey's banking sector is deposit-focused (e.g. intermediating deposits to the UK financial sector, with a relatively small amount lent locally), this has limited the ability of some banks to maintain profit margins with benchmark interest rates close to zero. Around 95% of Jersey's deposits are held in sterling, euro or US dollars – all three currencies have experienced historically low interest rates over the last decade.

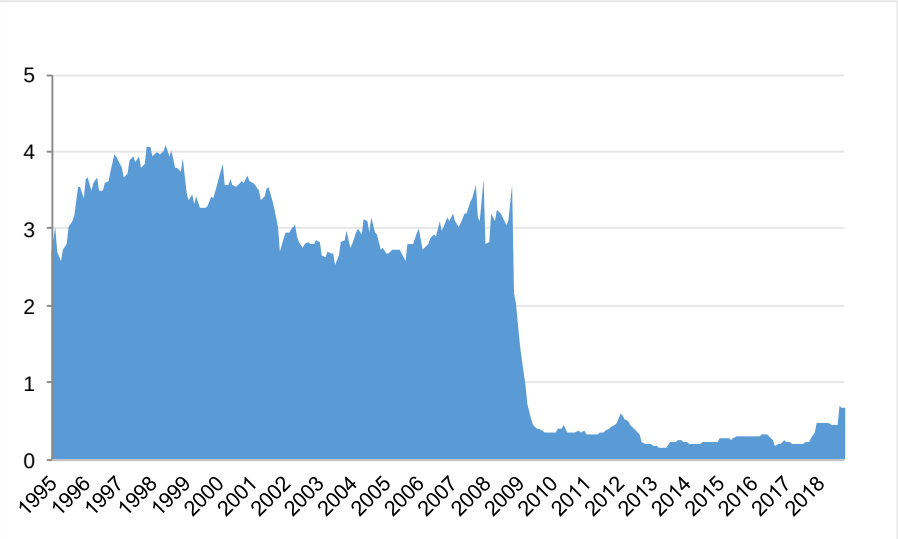
Figure 2.4

Deposit margin

Per cent

SONIA less instant access deposit rate

Source: Bank of England, Panel calculations



As this reduction in deposit margins will directly impact on profitability of a number of Jersey's banks, the Panel has undertaken analysis to estimate how GVA would have performed if margins had not been squeezed. This shows that after adjusting for the impact of the fall in the deposit margin (and the fall in the sterling level of deposits over the same period), underlying growth in finance sector GVA has been positive over the period, particularly pre-crisis.

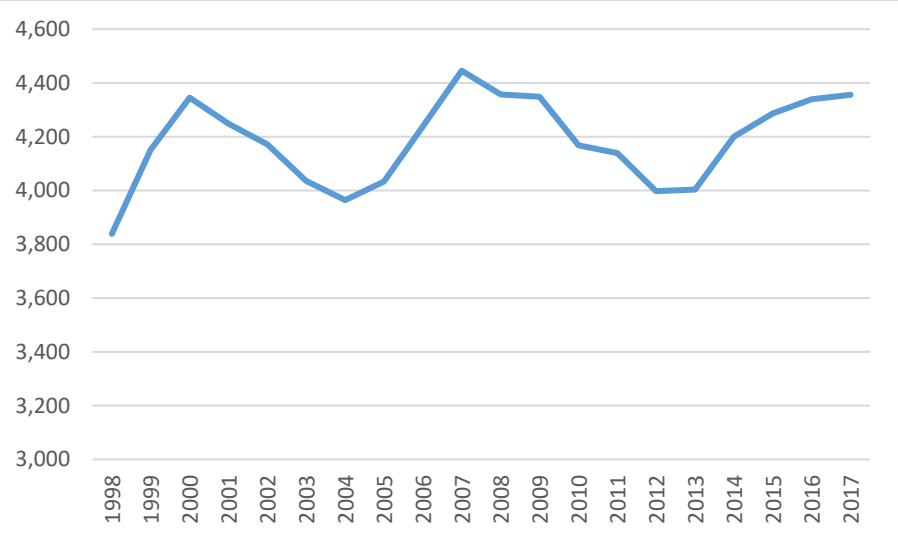
In large part, the reduction in deposit margins is cyclical, driven by interest rates in the UK, euro area and US all being below their likely longer-run levels. These cyclical causes of changes in margins should not be included in estimates of trend GVA growth. Applying the same adjustment to the overall economy, underlying GVA grew by 0.7% on average each year, in real terms, over the period since 1998. Section 2.5 will look in more detail at the current level of the output gap.

Figure 2.5

Margin-adjusted total GVA

£bn, 2017 prices

Source: Statistics Jersey; Panel calculations



2.4 The component parts of GVA

GVA growth, and therefore trend GVA growth, can be broken down into a number of separate elements:

- Labour productivity (e.g. GVA per FTE – full-time equivalent employee)
- Employment rate (i.e. the ratio of employees to working-age population)
- Working-age population

Looking at the trend rate of growth of each of these components together shows how quickly the workforce might grow and how efficiently this labour could be used to produce output. The Panel's judgement for the trend rate of growth of each of these elements leads to a *bottom-up* estimate of the trend rate of GVA growth.

2.4.1. Trend productivity

Labour productivity in Jersey can be measured as GVA per FTE – the average output produced per full-time equivalent employee. This measures how efficiently labour resource is used to produce outputs, and how this changes over time.

Productivity tends to be pro-cyclical: it increases during periods in which the economy is growing but deteriorates when output is falling. This is partly because employment tends to lag changes in output - with firms either hoarding labour or employing an element of relatively fixed labour.

Figure 2.6 shows GVA per FTE for Jersey since 1998. Productivity has tended to be pro-cyclical for most of the period, with both productivity and GVA increasing in 1999-2000 and 2005-2007; and both falling in 2001-2003 and 2009-2012. However, in the last three years productivity has fallen 4% during a period in which GVA has increased by 4%.

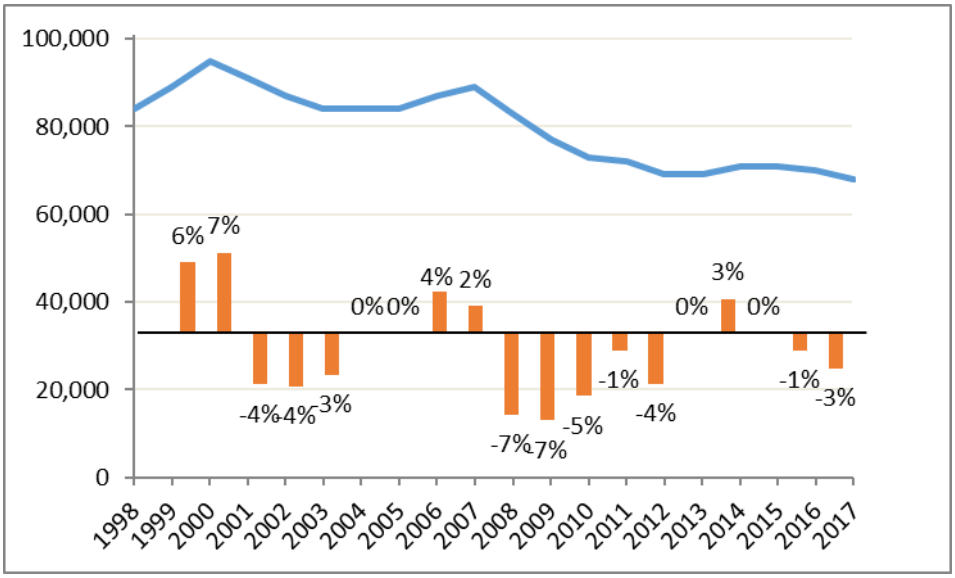
Figure 2.6

GVA per FTE

£, constant 2017 prices (blue line – LHS axis)

% change on previous year (orange bars – no vertical axis)

Source: Statistics Jersey



The fall in deposit margins explains some of the fall in productivity. Using the margin-adjusted GVA figures from Figure 2.5, the productivity of the whole economy grew by 0.1% per year on average over 1998-2017.

Finance sector productivity

Productivity in the finance sector is difficult to measure. Under the income approach to calculating GVA, the method used in Jersey, this is expressed broadly as the sum of profits and wages in the sector per employee. Intuitively, a financial firm that is more productive will undertake more activity given its inputs and will have higher profits or wages, or both.

On this basis, productivity in the sector is highly volatile, with 15 of the last 19 years seeing movements of more than 3% in real terms, compared to the previous year. The majority of these have been significant falls, but there have also been some individual years of strong growth.

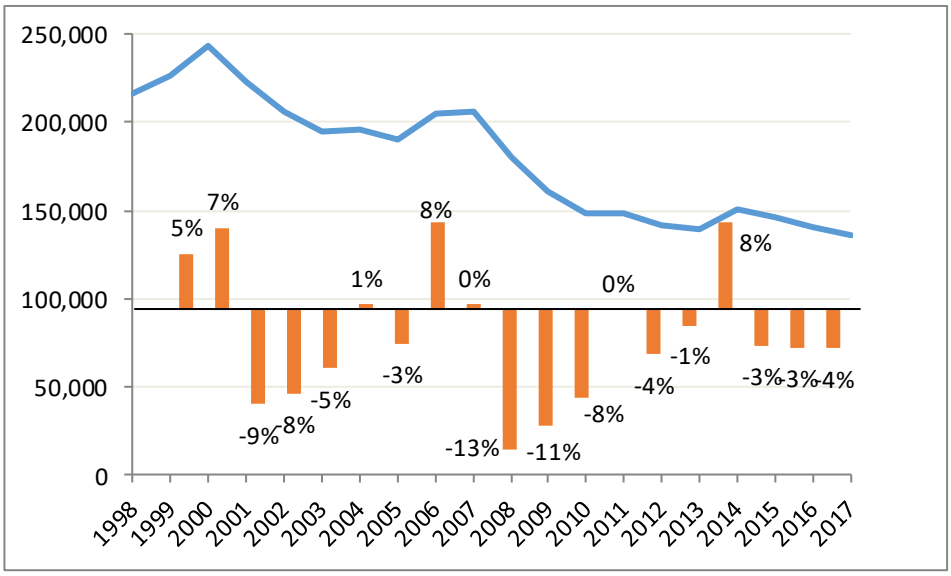
Figure 2.7

GVA per FTE, financial services

£, constant 2017 prices (blue line – LHS axis)

% change on previous year (orange bars – no vertical axis)

Source: Statistics Jersey



Productivity in financial services has been significantly affected by the fall in deposit margins over the latter part of the period. After adjusting for this impact, the productivity of the sector still fell at an annual average rate of 0.9% (over the pre-crisis period on the same basis it grew at an annual rate of 1.0%).

A further significant reason for the fall in finance sector productivity has been the shift of employment from high-productivity banking into the relatively less productive sector of trust and company administration. For example, if the shares of finance sector employment had held constant over 2002 to 2017 then this on its own would have resulted in the overall sector's productivity being 13% higher than it actually was in 2017.

In addition to the impact of deposit margins and sectoral change, there are further one-off factors related to the global financial crisis that may have led to step changes in productivity – rather than signalling a long-term downward trend. For example, some of the capital of Jersey's banks was transferred to support liquidity at the parent companies, reducing the future profitability of the Jersey bank - as it no longer has access to this capital. Second, across the financial sector as a whole there has been an increase in the resources required for regulatory compliance, resulting in an increase in costs which the Panel judges to have been largely a structural reduction in the profitability and level of output in the sector, rather than an impediment to the future rate of trend growth. Third, there has been a significant reduction in the value of deposits held by Jersey banks since 2007, which is likely to have impacted on productivity over this period, but may not reduce the future trend rate of growth in deposits.

Therefore, there is a strong argument that the global financial crisis has driven some of the fall in productivity during the last ten years. Much of this fall is likely to be a permanent reduction in the *level* of productivity but not necessarily a sign that the negative *rate of growth* over this period represents a 'new normal'.

Looking forward, there are reasons to expect a more positive trend. Some productivity growth is likely to be driven by the move to greater automation in the sector. This could potentially benefit productivity in all the main subsectors of Jersey's financial services sector – with the prospect of technological solutions to reduce the cost of routine legal, administration, accountancy, and compliance tasks.

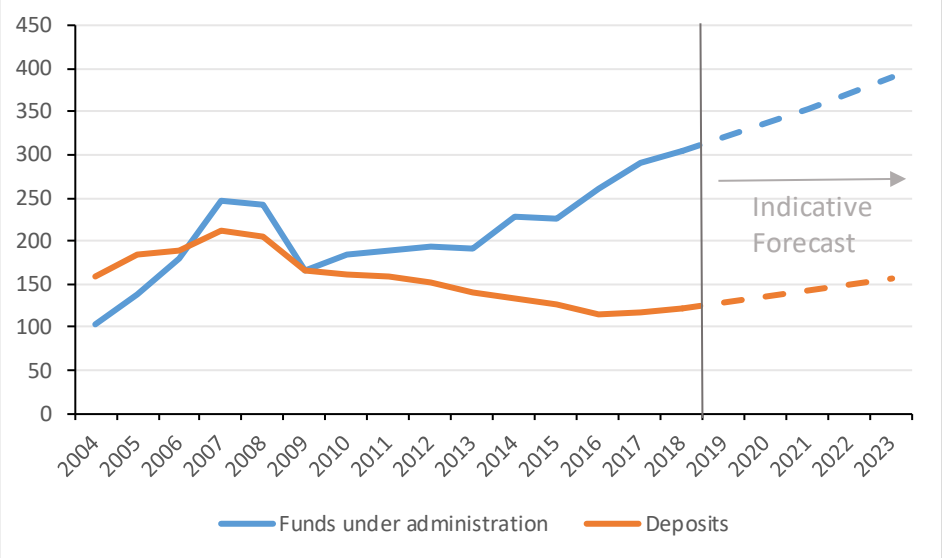
While there has been a fall in deposits over recent years, the impact of this has been partially offset by increases in the value of funds administered in Jersey. Given that Jersey appears to be in a good position competitively (given local expertise and a strong legal framework along with high standards in transparency and tax compliance), there is no strong reason to suggest that there will be a significant downward trend in Jersey's market share going forward. This has been illustrated in Figure 2.8 by a 5% annual growth rate, in line with average forecasts for nominal world GDP growth over the next five years – representing an estimate of growth if Jersey were to maintain a constant market share.

Figure 2.8

Deposits and funds

£bn, total banking deposits held in Jersey (orange line) and net asset value of regulated funds under administration (blue line)

Source: Jersey Financial Services Commission



Assuming that this rate of growth can be sustained in the future, and if there is no repeat of the structural 'one-off' reductions to productivity from increasing compliance costs and falling deposits, there is potential for the sector to see an increase in future trend productivity growth. While the Panel previously

assumed 0% growth in productivity in their 2015 report, some of the downward pressure has already been seen in the performance since then, and a trend of ½% seems reasonable over future economic cycles. This reflects not just an end to some of the one-off permanent reductions to finance productivity, but also the prospect of some future improvement as a result of the considerable potential for technology and automation.

Non-finance productivity

Productivity in the non-finance sector has been much less volatile than financial services, with growth being flat in many years (when rounded to the nearest £1,000). There were significant falls from 2008 to 2012 that were not subsequently recovered when the economy returned to growth.

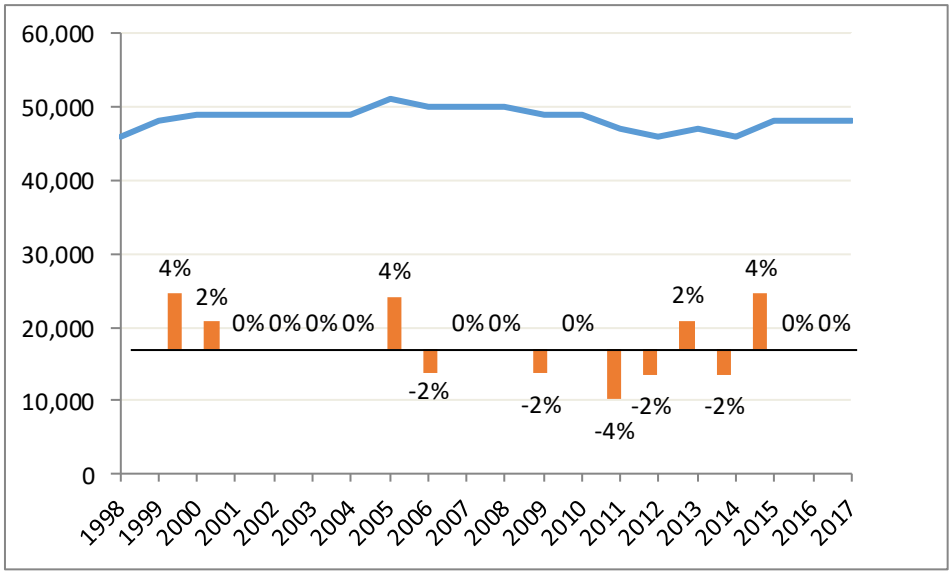
Figure 2.9

GVA per FTE, non-finance

£, constant 2017 prices (blue line)

% change on previous year (orange bars)

Source: Statistics Jersey



Much of the fall in non-finance productivity also relates to structural change, with the relatively low-productivity sectors growing (in particular 'other business activities' – which covers a range of activities including for example security services, cleaning, residential care homes and estate agents). However, few of the individual sectors have shown much growth in productivity over the last two decades.

Figure 2.10 shows how the four biggest private non-finance sectors (by employment share) performed over the 1998-2017 period. These sectors represent over 80% of FTE employment in the non-finance private sector. It is clear that other business activities was the fastest growing sector in employment terms but also that this sector saw a significant fall in productivity over the period.

Figure 2.10
Non-finance sectoral performance 1998-2017

Average annual growth in FTE and productivity

Sector	FTE growth	Productivity growth
Construction	1%	1%
Wholesale & retail	-1%	0%
Hotels, restaurants & bars	0%	0%
Other business activities	3%	-1%

There is likely to be some further potential for other business activities to grow in size relative to the other sectors due to increasing demand for residential care, but this is difficult to quantify. Should productivity in this sector remain below the non-finance average, this will drag down the productivity of the non-finance sectors as a whole. This sector and other non-finance sectors may see some increasing levels of automation but the potential opportunity for this is less clear than in the finance sector. There is also the risk that there may be a more general trend for non-finance in particular to be moving towards a low-productivity, high-employment economy, as with the UK and many other advanced economies.

Given recent trends and ongoing structural shifts to lower productivity sectors, the Panel's judgement is that there is no clear evidence that the non-finance sectors will see any sustained productivity growth over future economic cycles. Therefore, trend productivity for these sectors remains zero in the central case.

The Panel welcomes the commitment to develop a new Economic Framework that will look to reverse the poor productivity performance seen in recent years. The benefits of this are likely to take some time to come to fruition, and the Panel will look for clear evidence of improvement that would then support a more positive forecast for productivity growth.

Hours worked

There is potential for output per employee to increase if average hours worked increases, without any underlying growth in output per hour.

Data on hours worked are available from the Census. Between the 2001 Census and the 2011 Census, there was little change in the aggregate average hours worked when including both employees and the self-employed. More up-to-date data are available from the Jersey Opinions and Lifestyle Survey (previously the Jersey Annual Social Survey) and these suggest that there is no clear upward or downward trend in the average hours worked since 2011.

On this basis, therefore, the FPP has not assumed that there will be any increase in GVA/FTE as a result of the trend in hours worked. The Office of Budget Responsibility makes a similar assumption in their assessment for the UK, also in line with recent trends.

Overall trend productivity

Based on ½% growth in finance sector productivity, flat non-finance productivity and no change in hours worked, the Panel's central estimate is for trend productivity (GVA/FTE) to grow by 0.2% per year in the central scenario. The Panel has also estimated a low scenario of -0.2% annual growth, representing a fall of ½% in finance trend productivity and flat non-finance trend productivity; and a high scenario of +½%, representing both finance and non-finance trend productivity growing by ½% per year. These high and low scenarios reflect that, in trend growth terms, the risks to the finance sector are to the downside but the risks for non-finance are to the upside.

2.4.2. Trend employment rate

The employment rate represents the proportion of the working-age population that is in work, i.e. either an employee or self-employed. This excludes not only those who are unemployed but also those who are economically inactive (including students, retirees and those who are not looking for work). The unemployment rate and economic inactivity rate both tend to vary over the economic cycle – with periods of recession associated with increasing rates of unemployment and inactivity; and periods of above trend growth associated with falling rates of unemployment and inactivity. Therefore, the employment rate can be considered as partly cyclical i.e. it changes as the economy progresses through the economic cycle.

As with the other factors, it is necessary to remove these cyclical effects in order to consider the trend employment rate – the employment rate associated with an economy at full non-inflationary use of resources.

Jersey's employment rate can be most accurately calculated based on Census data but as this is every ten years, it will not necessarily be timely or fit with the economic cycle. The Panel has therefore used the number of jobs from the Manpower Survey and adjusted this to reflect the ratio of jobs to persons in employment from the 2011 Census.

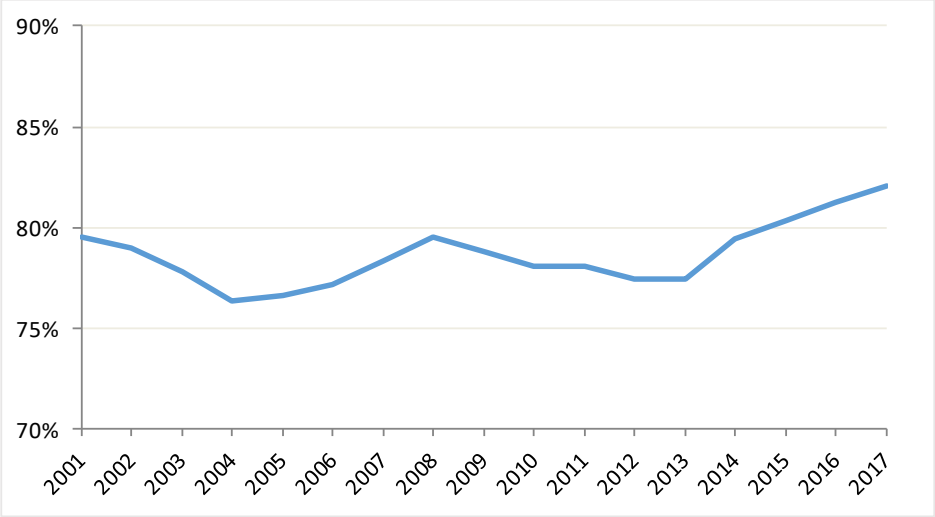
Figure 2.11 shows that on this basis, the employment rate in 2017 reached a new high. The employment rate has followed the economic cycle closely, and has been rising since 2013. This may be partly due to the method of calculation as there may have been faster growth in jobs than there has been in employment – perhaps with growing numbers of second jobs since 2011 (as the ratio of jobs to persons in employment has been based on the 2011 Census data).

Figure 2.11

Employment rate

Total employment as a % of working-age population (15-64)

Sources: Statistics Jersey, Fiscal Policy Panel calculations



The UK rate also reached a new high in 2017, reaching 75% for the first time in May 2017 before rising further to almost 76% by November 2018. While Jersey's employment rate is significantly higher than the UK, and high compared to other advanced economies (with only Iceland having a higher employment rate), there is still some potential for further increases as people work to a greater age. This will be partly driven by changes in pension age - with the pension age having increased to 65 for women, and set to increase further to 67 for both genders by 2031.

The Panel's previous projection for the trend rate of growth in the employment rate was for an increase in the rate of 0.2% per year. Recent data suggest that some of this growth may already have occurred, though the 2021 Census will provide a clearer picture of how participation and unemployment trends have changed. For the future, the Panel have taken a lower central assumption of 0.1% annual growth in the trend employment rate.

The low scenario assumes a 0.2 percentage point annual fall in the trend employment rate, which would see the rate fall closer to the rate of international comparators over time. In the high scenario it has been assumed to grow by 0.3 percentage points which would imply significant increases in the rate of employment of those above the current pension age.

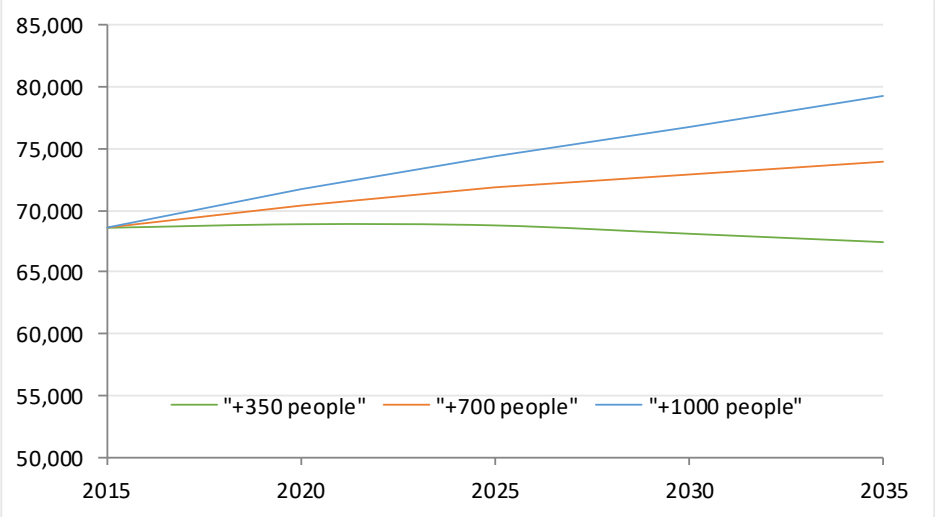
Trend working-age population

Growth in the working-age population varies significantly depending on the expectations for future migration patterns. Statistics Jersey produces population projections based on a number of scenarios – ranging from no net migration to +2,000 net inward migration per year. Considering the recent past trend where net migration averaged +880 over the 10 years to 2017, the Panel has based its calculations on +700 net inward migration over the next decade. This scenario results in continuing growth in the working-age population, growing at around ½% per year to 2020, before slowing to around 0.3% from the mid-2020s onward.

Figure 2.12
Working-age population

Projections for working-age population under differing scenarios for migration.

Sources: Statistics Jersey



The overall average growth rate from 2020 to 2030 is 0.3% under the +700 scenario. As can be seen in Figure 2.12, this varies significantly under the other migration scenarios – with +350 resulting in a fall of 0.1% per year and +1,000 resulting in an annual growth rate of 0.7%. The Panel has included these alternative population projections as the low and high scenarios respectively.

Conclusion of trend GVA component analysis

Using these three components, the Panel has assessed the overall rate of trend growth out to 2030

Figure 2.13
Calculation of trend GVA growth

Summary of projections for trend in each component of GVA

Annual % growth in trend	Low scenario	Central scenario	High scenario
Productivity	-0.2	+0.2	+0.5
Employment rate	-0.2	+0.1	+0.3
Working-age population	-0.1	+0.3	+0.7
Trend GVA	**-0.5**	**+0.6**	**+1.5**

The central scenario represents an increase compared to the Panel's previous advice that fiscal planning should be based on a trend rate of growth of 0%. This previous recommendation included an element of prudence (the Panel's 2015 calculations actually showed a small positive trend in the central scenario), which was partly driven by uncertainty around the finance sector and the extent to which further falls in productivity might be seen over the medium-to-long term. Data published since the 2015 report suggest that some of these falls in productivity have now occurred, and the risk of a continued downward trend now seems less likely.

The primary reason for the higher trend growth rate is, however, the increase in the estimate of the trend rate of growth in the working-age population. This reflects the change from the previous assumption of +325 net migration to the current assumption of +700 in the central case. The Panel may update this assumption again as the Government of Jersey develops its policy around population and future migration levels.

This estimate of the future trend rate of growth is, however, made at a time of significant economic uncertainty, as covered in section 1.

2.5 Current degree of spare capacity

As stated in section 2.1, it is not possible to directly observe or measure the output gap. The usual approach is to reach a judgement on the level of the output gap based on measures of the level of spare capacity in the economy. The Panel has considered three indicators in particular:

- Unemployment (as measured by registered actively seeking work)

- Private sector vacancies advertised on the government web-site
- Capacity utilisation (as reported in the Business Tendency Survey)

In addition, the Panel has explored the potential to estimate Jersey's output gap using a technique called Principal Component Analysis (PCA) that is a way of weighting together these (and potentially other) spare capacity indicators. More detail on this can be found in Annex 1.

2.5.1. Unemployment

The proportion of the labour force that is currently unemployed is a key indicator of the level of spare capacity in the economy, and therefore of the likely size of the output gap.

Statistics Jersey publishes two measures of unemployment – the internationally comparable International Labour Organization (ILO) rate; and the number of people registered with the Customer and Local Services Department as 'actively seeking work' (ASW). The ASW measure does not include all unemployed people, as there is no compulsion to register, but it is more frequently updated than the ILO measure[2]. This makes it more useful as a timely measure of the level of the output gap.

Figure 2.14 shows the number of people registered as ASW as a proportion of the sum of private sector employee jobs and ASW (a proxy for the labour force). The data prior to 2008 do not represent a consistent series with the later part of the period, due to the change in regime associated with the introduction of Income Support. The period since 2008 shows ASW peaking in 2013 before falling back gradually over the following five years, to end close to its 2009 level. There are some caveats to this as there have been a number of changes to the Income Support criteria, particularly since 2014, meaning that a significantly larger number of individuals are now required to register as ASW, when compared to the earlier part of the post-2008 period. It is therefore probable that the true decline of the unemployment rate in recent years has been understated.

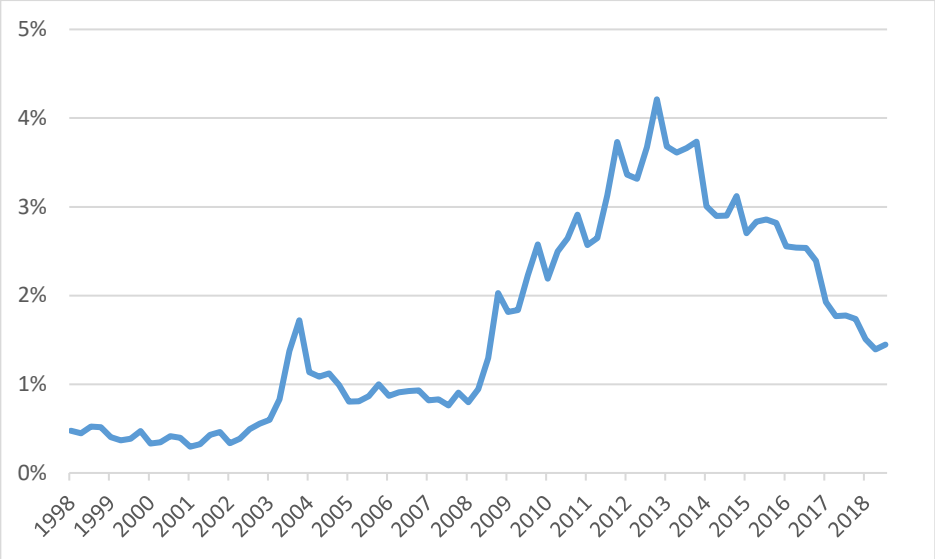
[2] The ASW data are collated monthly and published at the end of each quarter; the most recent ILO measure is for 2014/15.

Figure 2.14

Actively seeking work

Number registered as ASW (non-seasonally-adjusted) as a proportion of the labour force (represented as ASW plus private sector jobs)

Sources: Statistics Jersey, Fiscal Policy Panel calculations



2.5.2. Vacancies

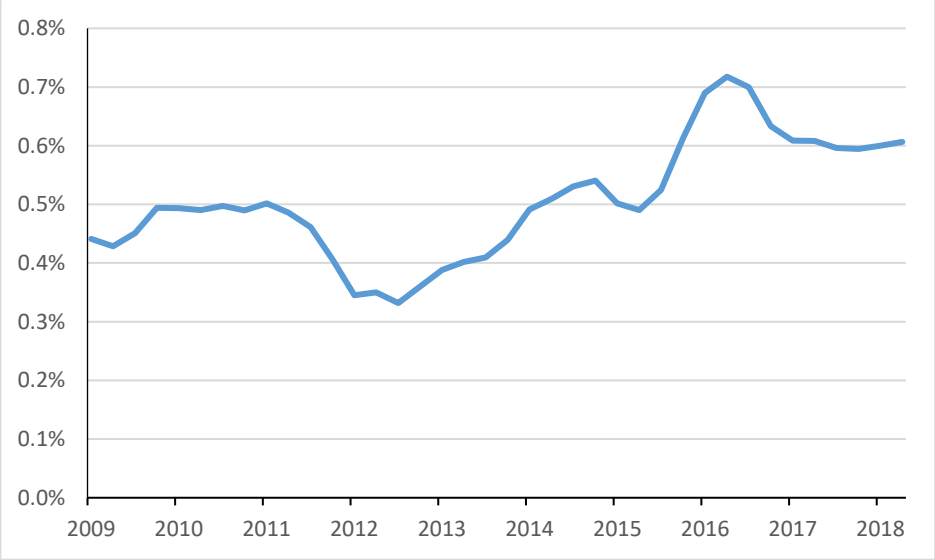
While survey data for vacancies are not available, it is possible to look at those vacancies published on *gov.je*, the Government of Jersey web-site. Figure 2.15 shows that private sector vacancies as a proportion of the labour force has remained in the range 0.3-0.5% for most of the period from 2009 to 2015 but since then has seen considerable growth, peaking in 2016 before falling back to around 0.6%. There may be an upward trend in vacancies from this source over the last ten years, as a larger proportion of jobs tend to be advertised online but, even with this caveat, the last three years look to be particularly strong for this indicator.

Figure 2.15

Vacancies

Four-quarter moving average of the number of private sector vacancies advertised on SoJ website during the final month of each quarter, as a proportion of the labour force (represented as ASW plus private sector jobs)

Sources: Statistics Jersey, Government of Jersey, Fiscal Policy Panel calculations



2.5.3. Capacity utilisation

The Business Tendency Survey includes a question asking firms if they are operating above or below normal capacity. This is a useful indicator of spare capacity within firms, complementing the unemployment figures that measure spare capacity outside firms. In addition, the capacity utilisation indicator may indicate broader capacity issues beyond labour constraints.

Figure 2.16 set out the responses to this question since the survey began in 2009. The non-finance sector reported consistently working below capacity in the early part of the period shown, followed by a period of working relatively close to capacity from 2014 to 2016 with this turning to a small and generally positive net balance from December 2016.

The finance sector has followed a similar pattern, though at a higher level: it was broadly neutral between 2009 and 2014 before increasing to a significantly positive balance. Since the beginning of 2017, the sector has seen some significant quarterly swings.

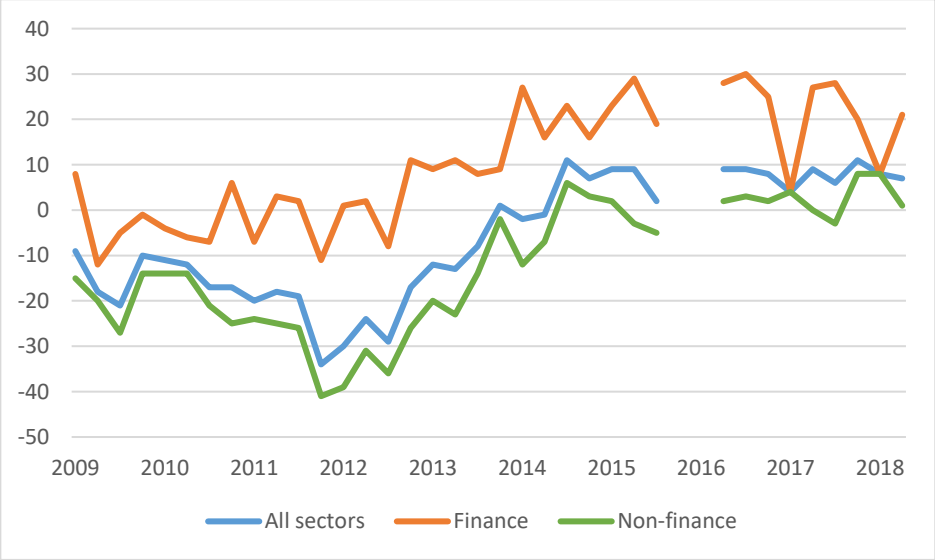
Figure 2.16

Capacity utilisation

Weighted net balance of respondents to Business Tendency Survey reporting operating above capacity (not seasonally adjusted)

No survey undertaken in June or September 2016

Sources: Statistics Jersey



2.5.4. Principal component analysis

The Panel has considered a number of statistical approaches which can be used to estimate the output gap (see Annex 1). While there are some data constraints in Jersey, the Panel has found one approach in particular (Principal Component Analysis – PCA) to be useful in providing further insight into Jersey's economic cycle and the size of the output gap. The approach, which is a way of weighting together a set of indicators, suggests that the economy was below potential in 2009, followed by very weak growth relative

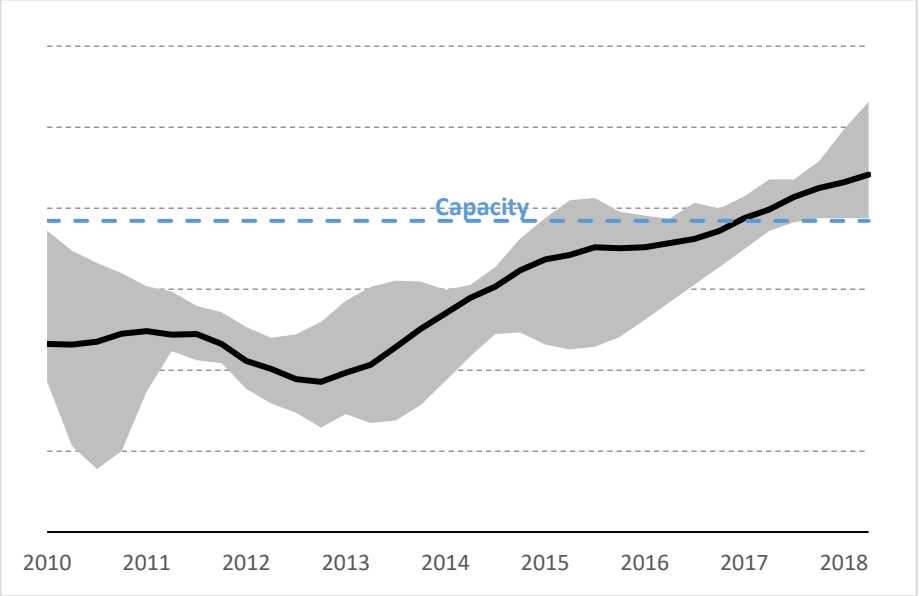
to potential up until early 2013, and from then momentum in the economy has strengthened with the output gap closing and the economy moving above trend in recent years. On the basis of recent developments in the economy, the Panel's 2018 Annual Report concluded that the economy was likely to be slightly above trend in 2019 and the new analysis supports the judgement that the economy has continued to strengthen with a small positive output gap currently.

Figure 2.17

Output Gap estimate based on PCA

Thick line is Principal Component; swathe is minimum and maximum of scaled series used in PCA

Sources: Statistics Jersey, Government of Jersey, Panel calculations



2.6 Economic assumptions

The Fiscal Framework tasks the Panel with producing economic assumptions to inform the Income Forecasting Group in forecasting income from taxation and social security contributions. A range of assumptions is required, and the Panel has made an estimate of the trend rate of growth for each from 2023 onward, with specific forecasts for years before then.

Figure 2.18

Central economic assumptions

% change year-on-year unless otherwise stated, bordered numbers indicate outturns.

Note: Changes in profits, earnings, employment costs and house prices are in nominal terms

Sources: Panel judgement

	2017	2018	2019	2020	2021	2022	Trend 2023+
Real GVA	0.4	1.6	1.0	1.4	1.3	0.8	0.6
RPI	3.1	3.9	3.1	2.6	2.5	2.6	2.6
RPIY	3.2	3.5	2.9	2.5	2.4	2.5	2.5
Nominal GVA	3.6	5.1	3.9	3.9	3.7	3.3	3.1
GOS (including rental)	-0.7	5.8	3.2	3.6	3.5	3.2	3.2
Financial services profits	-6.6	4.0	2.0	2.9	3.1	3.3	3.4
Compensation of employee	7.6	4.5	4.5	4.2	3.9	3.4	3.1
Employment	2.3	1.0	0.5	0.7	0.8	0.5	0.4
Average earnings	2.6	3.5	4.0	3.5	3.2	2.9	2.7
Interest rates (%)	0.3	0.6	0.8	0.9	1.0	1.1	1.1*
House prices	2.9	7.1	6.3	5.4	4.5	3.6	2.7
Housing transactions	6.7	7.2	3.0	4.0	3.2	2.3	1.5

*Interest rate assumption for 2023 only

2.6.1. Trend economic assumptions

In section 2.4, the Panel used a *bottom-up* approach to estimating the trend rate of GVA growth, based on analysis regarding the likely level of growth of productivity, the employment rate and the working-age population. The trend economic assumptions are based on this and some additional analysis undertaken for inflation and the housing market.

Inflation – The Panel has undertaken analysis to compare past trends in Jersey's RPIX (the Retail Prices Index excluding the cost of mortgage interest payments) inflation and CPI (the Consumer Prices Index, which also excludes owner-occupiers' housing costs) in the UK. After taking in to account changes in GST and VAT, this analysis shows that while these two measures of inflation may diverge at times, on average and most of the time changes in Jersey RPIX are similar to changes in UK CPI with Jersey inflation tending to be a little higher.

Therefore, based on the UK's target for CPI of 2.0%, the Panel judges that the trend rate of RPIX inflation in Jersey is likely to be 2.5%. RPIY inflation (RPI excluding mortgage interest payments and indirect taxes), used as the GVA deflator in Jersey, is assumed to follow a similar path, with trend RPI inflation slightly higher to reflect housing costs increasing more quickly than general inflation.

Financial services profits – Profits in the finance sector are also forecast to grow in line with employment growth and productivity in that sector. Assuming that in the long run the finance sector maintains its share of employment, the trend employment growth rate would be 0.4%. Section 2.4.1 sets out an assumption of 0.5% productivity growth in the financial services sector, leading to overall profits growth of 0.9% in real terms and 3.4% in nominal terms.

GVA – GVA can be broken down into total wages (Compensation of Employees – CoE) and profit (Gross Operating Surplus – GOS). The Panel has assumed that the share of GVA represented by GOS and CoE respectively remains constant in the long run, therefore both elements are forecast to grow in line with the sum of productivity and employment growth. As set out in section 2.4.2 the trend rate of employment growth is estimated at 0.4% per year; and productivity growth is estimated at 0.2%. Therefore, the Panel's estimate is for trend GVA CoE to grow at 0.6% per year in real terms, or 3.1% in nominal terms. Trend GOS grows slightly faster, at 3.2%, due to the predominance of finance sector profits in the total.

Earnings - The trend rate of growth in nominal average earnings is assumed to be equal to the trend rate of growth in productivity plus inflation, i.e. 2.7%.

House prices – The trend rate of growth in average house prices is assumed equal to the trend rate of growth in earnings, i.e. 2.7% per year.

Housing market transactions – The trend rate of growth in housing market turnover has been assumed to follow its long-term average growth rate – i.e.1.5% per year.

2.6.2. Economic assumptions 2018-2022

A number of factors are considered to forecast each of the variables out to 2022, including the trend assumptions set out in section 2.6.1, the current position in the economic cycle as assessed in section 2.5, and the Panel's view of the likely performance of the economy, including the impact of the current uncertainty regarding Brexit.

Inflation – Underlying inflation (the change in RPIY) is currently significantly above the trend rate and the Panel's central assumption is that this will fall back to its trend rate over the next two years. However, this is very dependent on external factors including monetary policy in the UK, global oil prices and the sterling exchange rate.

Employment – The Panel's judgement is that employment growth is likely to have slowed in 2018, given the outturn for June 2018 (0.5% annual growth). 2019 is expected to see a slowdown in employment growth, due to Brexit uncertainties, with a small bounce back in 2020 and 2021 before falling gradually back to its trend rate of growth over the remainder of the forecast period.

Profits – There is likely to have been a small boost to financial services profits due to recent increases in interest rates, particularly in the United States. Therefore, financial service profits are estimated to have grown by 4% in 2018, representing a ½% real increase. A similar rate of growth is estimated for non-

finance – given the current stage in the economic cycle.

However, the rental income of private households (including owner-occupied imputed rent) is expected to have grown rapidly, due to strong growth in rents in 2018, and this pushes up the overall growth in GOS. Profit growth is expected to slow in 2019, due to the uncertainties associated with Brexit, before gradually returning to the trend rate of growth by 2023.

Earnings – 2019 and 2020 are expected to see relatively strong earnings growth, in spite of Brexit uncertainty. This is due to a tight labour market with the lagged effect of high inflation in 2018 and the significant increases in minimum wage (5% in April 2019, a further 1.8% in October 2020 and the potential for a further significant increase in April 2020). Beyond 2020, earnings growth is expected to fall back gradually towards its trend rate over the remainder of the forecast period.

House prices / turnover – Both house prices and housing market turnover are currently above trend but are expected to gradually fall back to trend over the forecast period. The Panel expects a small slowdown in housing transaction growth in 2019 due to uncertainties surrounding Brexit.

Interest rates – The Panel has used yield curves from the Bank of England based on overnight index swap (OIS) rates to forecast the future path of interest rates. This shows interest rates rising slowly over the period, reaching 1.1% by 2023.

The Panel's judgement is that the economy was, on average, around ½% above trend in 2018 (see fig 2.17). Based on the above forecast of a further 0.4% growth above trend this year and 0.8% next year, this means that the economy would be around 1% above capacity in 2019 and 2% above capacity in 2020. This informs the fiscal advice in the next section.

Section 3 – Medium-term fiscal considerations

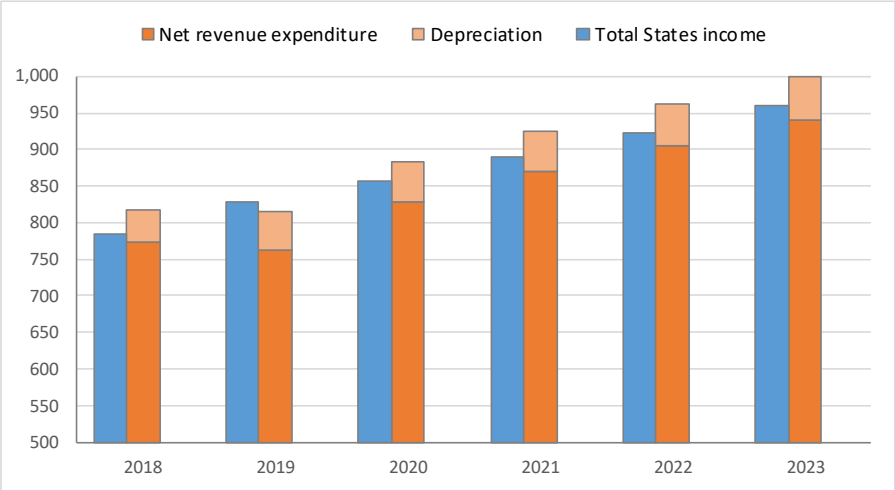
3.1 Revenue and spending projections – future structural position

Budget 2019 forecast a significant increase in government expenditure over the forthcoming Government Plan period but, based on forecasts at the time, government income was not expected to keep pace[3]. After including depreciation, the current surplus of £11m forecast for 2019 deteriorates to a deficit of £40m by 2023. This is the result of a £133m increase in income but a £177m increase in expenditure.

Figure 3.1
General Revenue Income and Departmental Net Revenue Expenditure

£ million (current prices)

Source: Treasury and Exchequer



The Panel set out the key drivers for the forecast increase in expenditure in its 2018 Annual Report, including the shortfall from non-domestic waste charges (which affects net revenue expenditure rather than revenue) and the States Grant to the Social Security Fund returning to its formula (after being frozen for the MTFP2 period). The Budget 2019 forecast of a significant deficit by 2023 appears to be a reasonable starting point to guide the decisions in the Government Plan, though this is before funding any of the commitments in the Common Strategic Policy.

These growing deficits need to be set in the context of the economic forecasts from section 2. While the Panel's central forecast is for some short-term weakness in the economy in 2019, the forecast is for GVA to remain above its trend level throughout the forecast period. **Based on the updated economic forecasts, the Government of Jersey should plan to run surpluses over the 2020-2023 period – though retaining the flexibility to respond to changes in the cyclical position.**

[3] These income forecasts were based on the Panel's August 2018 economic assumptions and the Panel understands that these will be updated to inform the 2020-23 Government Plan.

Given that the purpose of the Stabilisation Fund is to make fiscal policy more counter-cyclical, there is a strong rationale to transfer at least part of these surpluses to the Fund to build up a balance that can be used to support the economy during weaker periods – the Stabilisation Fund is considered further in the following section.

3.2 Reserves and borrowing

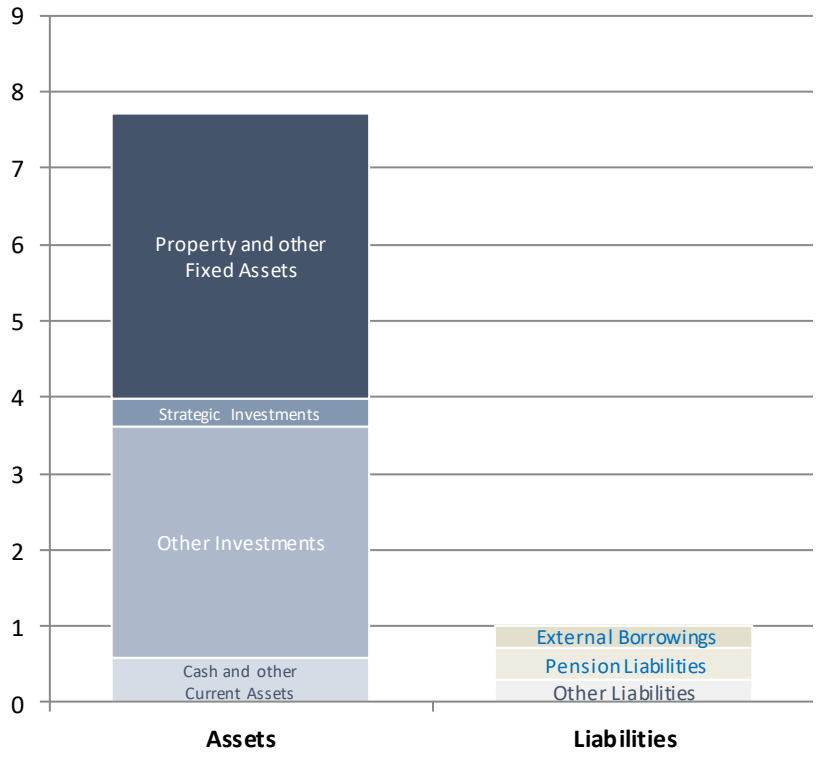
The Government of Jersey has a strong overall net asset position, with total assets of £7.7bn and total liabilities of £1.0bn, as at the end of 2018. Net assets therefore amounted to almost 150% of the FPP's estimate for 2018 GVA. Excluding property and other fixed assets, the net asset position is around 65% of GVA, having grown from 59% at the beginning of the current MTFP period.

Figure 3.2
States assets and liabilities

Total year end assets and liabilities

£ billion (Current Prices)

Source: Treasury and Exchequer



Excluding fixed assets, the majority of government assets are held in seven funds: the Consolidated Fund, the Stabilisation Fund, the Strategic Reserve and four Social Security Funds. Figure 3.3 shows that the value of these funds has risen significantly as a proportion of GVA from 56% in 2015 to a forecast ratio of 62% in 2018. The Social Security Funds (in particular the Social Security Reserve Fund) comprise around 2/3 of the total, with the Strategic Reserve making up around 28%.

Figure 3.3
States reserves

Balance of main funds at year-end, £ million

Source: Treasury and Exchequer

	2015 £ m	2016 £ m	2017 £ m	2018 £ m
Consolidated Fund	65	91	120	127
Strategic Reserve	771	820	840	807
Stabilisation Fund	0	0	0	0
Social Security Reserve Fund	1,289	1,572	1,780	1,717
Social Security Fund	88	72	72	85
Health Insurance Fund	76	86	94	94
Long Term Care	11	20	25	25
Total	**2,300**	**2,661**	**2,930**	**2,857**
Total as proportion of GVA	*56%*	*63%*	*67%*	*62%*

The Panel sets out some key consideration for the main funds below.

3.2.1 Stabilisation Fund

Fiscal stabilisation is partially automatic - i.e. it does not require special fiscal measures to be introduced. Expenditure on social security transfers (e.g. benefit payments conditional on unemployment or low income) is not fixed but varies directly with unemployment. So in a recession, when unemployment typically rises, the fall in households' income is partly offset by increased transfers from government to households. By contrast, when the economy is growing strongly unemployment and consequent social security expenditure tends to fall. This means a proportion of social security and other government expenditure is counter-cyclical.

Government revenues such as income tax tend to rise more quickly when the economy is growing strongly, driven by both employment and typically rising real wages. When wages rise faster than inflation the value of tax allowances rises more slowly than income (in Jersey a number of allowances increase with the lower of earnings or inflation while a number are fixed in nominal terms). Indirect taxes on expenditure, such as GST and duties, also rise when household spending is growing strongly alongside wages and salaries. Taken together the effects on revenues and expenditures means that government net spending is counter-cyclical, tending to result in budget deficits in recessions and surpluses in booms. FPP estimates suggest that the semi-elasticity of government borrowing/saving in response to the economic cycle is 0.16%. **Therefore, if the economy falls from trend to 1% below capacity we would expect government net spending (i.e. spending less revenues) to rise by 0.16% of GVA automatically – without any changes in fiscal policy.**

This cyclicality of government revenue and expenditure is called the "automatic stabilisers" since it has the desirable effect of offsetting the economic cycle. So when the economy is operating below capacity fiscal policy automatically becomes more expansionary and vice versa in an economic boom. In most countries fiscal policy supports the management of the economic cycle by letting the automatic stabilisers take effect, with government borrowing rising in recessions with budget deficits and falling in booms with budget surpluses or smaller deficits. In Jersey, the Stabilisation Fund was put in place to manage government finances through the economic cycle, with expenditure from the Fund being authorised in downturns and the Fund replenished through cyclical budget surpluses. There is an important distinction between the Stabilisation Find and the Strategic Reserve:

- The Stabilisation Fund supports government finances in managing the economic cycle through cyclical effects on the level of actual economic output that are not expected to permanently change the level or trend rate of growth in the economy;
- The Strategic Reserve exists for exceptional circumstances including when an economic shock is structural and hence expected to permanently and significantly change the level of potential economic output and the trend rate of growth in the economy. In this case the Strategic Reserve is used to enable economic adjustment.

The Stabilisation Fund was established in 2006 "to make fiscal policy more countercyclical and create in the Island a more stable economic environment with low inflation."[4]

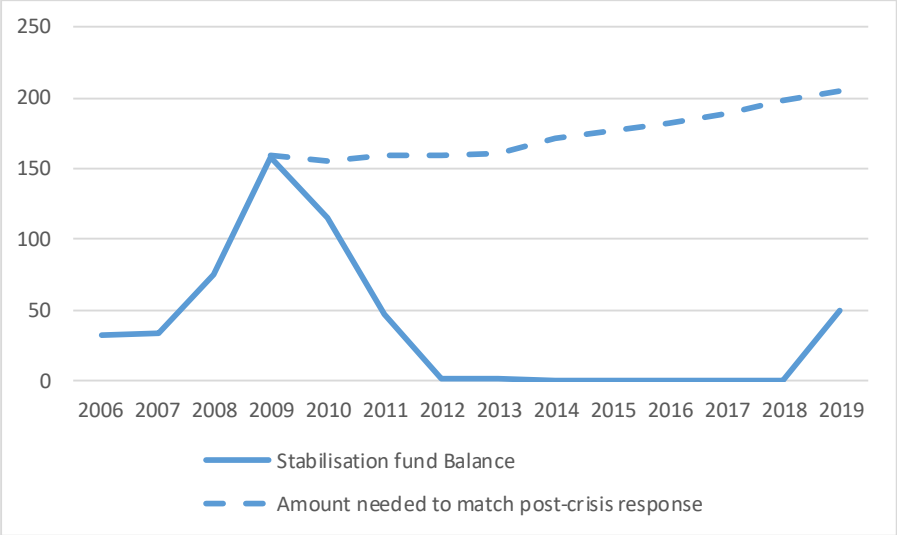
The initial four years (2006-2009) saw cash injections totalling £151m into the Fund. Following the financial crisis, £158m was drawn down over three years - 2009-2011. This included the majority of the investment returns, leaving just £1m in the Fund until it too was drawn down in 2014.

[4] P.133/2006 https://statesassembly.gov.je/Pages/Propositions.aspx?ref=P.133/2006

Figure 3.4
Stabilisation Fund balance

Actual balance of the Stabilisation Fund (maximum in-year balance) and amount needed to match the post-crisis drawdown as a % of GVA

Source: Treasury and Exchequer; Panel calculations



However, in addition to the £159m drawdown from the Stabilisation Fund, further transfers were made from other reserves to support the economy, in line with Fiscal Policy Panel advice that the economy remained under capacity. Transfers were made from the Strategic Reserve, the Currency Notes Fund and the Health Insurance Fund (HIF). In total, government drew down £6m in 2011 and the same sum in 2012 and then a further £61m over the first MTFP 2013-2015.

The first half of the current MTFP period (2016-2019) saw further drawdowns of £57m from the Strategic Reserve in 2016 and £50m in 2017 – primarily to support capital allocations, and £6m from the HIF. In 2018, £8m was transferred from the Strategic Reserve to the Hospital Construction Fund. Going the other way, Budget 2019 approved a transfer of £50m back to the Stabilisation Fund.

Therefore, a total of almost £340m was drawn down from reserves from 2009 to 2017 (excluding the transfer to the Hospital Construction Fund in 2018). If Jersey's economy was to experience a similar, protracted period below trend then it might be expected that a similar amount would be needed. However, this does not necessarily mean that the Stabilisation Fund should be built up to this level – as the Panel has advised that counter-cyclical fiscal policy can be funded using other reserves if necessary, as has happened over the first MTFP period, and the first half of the current MTFP.

While the funding required to support the economy during a downturn is difficult to predict, the Panel recommends that the government build up the Stabilisation Fund from its current level, during the period in which the economy remains above trend.

In any year, the contributions to or withdrawals from the Stabilisation Fund should mirror that part of the current Budget position driven by the economic cycle and the automatic fiscal stabilisers. The Panel's forecast implies that the economy will be running around 2% above capacity next year, meaning that the addition to the Stabilisation Fund should include 0.32% of GVA in 2020 (about £16m). A further transfer is also needed to replenish the past use of the Fund for active fiscal policy through the last downturn, and ensure that the Fund is ready to provide additional fiscal support in the event of any future downturn.

Since automatic stabilisers in Jersey are quite weak with an elasticity of 0.16% (the FPP's estimate of the impact of 1% stronger GVA on the government net borrowing position as a percent of GVA) - compared to an OECD average of 0.49%), there is an argument for the government of Jersey undertaking a more activist counter-cyclical fiscal policy to support the operation of these stabilisers (i.e. to actively cut spending/raise taxes in booms and vice versa in recessions). However, such activism presents a number of challenges since stabilising policies would need to be carefully calibrated.

The FPP reaffirms its advice that the Government assesses potential uses of the Stabilisation Fund beyond the automatic stabilisers according to the 'three Ts' – i.e. that active fiscal policies should be timely, targeted and temporary. **Should it be required over the next medium-term planning period, the Panel would advise that any active counter-cyclical support to the economy (using the Stabilisation Fund or elsewhere) should be assessed against these three criteria.** Given that the automatic stabilisers are relatively small in proportion to the economy, Government should plan to run surpluses when above trend which are in excess of those which result from the automatic stabilisers. **The Government of Jersey should therefore consider implementing revenue-raising measures or expenditure cuts now, when the economy is above trend, to increase the ability of the public finances to support the economy in a future period of below trend output.**

While the most appropriate approach is to build up the balance of the Stabilisation Fund while the economy is above trend and run it down in downturns, this may not always be sufficient to deal with a protracted period of below-trend growth, such as that experienced in the aftermath of the global financial crisis. Therefore, the government should consider whether alternative methods of funding a counter-cyclical fiscal policy are appropriate, in order to respond to any significant future downturn.

This could include borrowing. The government could borrow to create a significantly larger fund, investing the proceeds of its debt issuance in assets judged to be unlikely to lose value if Jersey experienced a downturn. Alternatively Government could work to establish an overdraft facility that could be drawn on in times of economic distress, or borrow from own reserves.

Government should consider these options with a particular focus on having flexible access to funding that could support a rapid response to the economic environment. Borrowing is considered in more detail in section 3.2.4.

3.2.2 Strategic Reserve

In Jersey, the Strategic Reserve is governed by a States Assembly decision as follows: the capital value is only to be used in exceptional circumstances to insulate the Island's economy from severe structural decline such as the sudden collapse of a major Island industry or from major natural disaster[5]. The capital value is based on the balance at the end of 2012, increased in line with RPIY.

In preparing its advice on the Strategic Reserve, the FPP has considered it useful to consider a range of examples from other countries. It is, of course, impossible to predict ahead of time what kind of circumstances might prevail in Jersey in such an extreme event. So rather than develop an economic scenario under which the use of the Strategic Reserve would be appropriate for Jersey the Panel has considered a range of examples in other countries where the use of a Strategic Reserve would have been appropriate. These case studies outline what other economies have experienced in the face of large shocks, and provide an indicative yardstick of the challenges Jersey could face if the Island were to be affected by such an event and to inform a judgment about the scale and use of the Strategic Reserve.

For this analysis the FPP has considered three small country structural crises: Finland 1990, Iceland 2008 and Cyprus 2013 (a short description of each crisis is supplied in Annex 2).

Figure 3.5 shows the path of GDP through these three crises relative to the pre-crisis peak.

[5] The States Assembly has also agreed that the capital value can be used for the Deposit Compensation Scheme and the planning and creation of new hospital services.

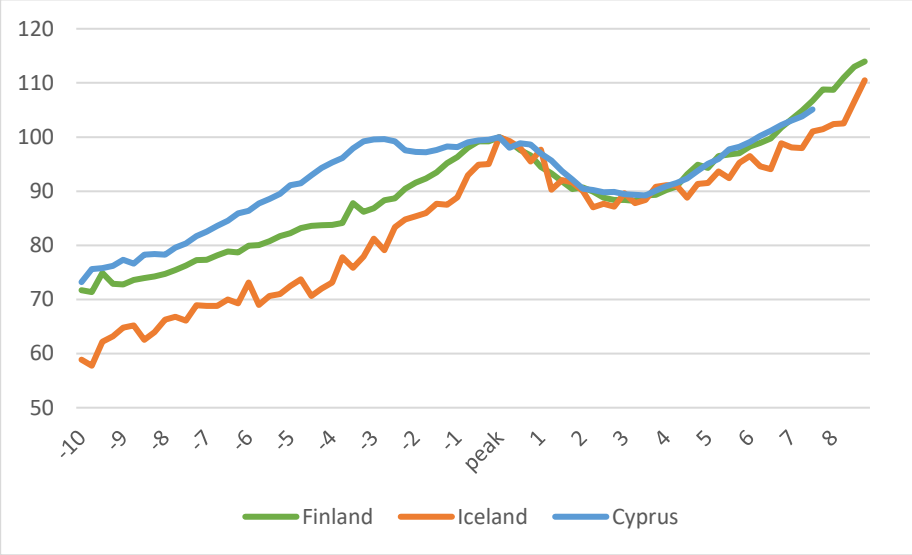
Figure 3.5

Small country crises: GDP

Index of GDP (pre-crisis peak = 100).

Horizontal axis shows from ten years before pre-crisis peak to eight years after.

Source: OECD, Statistical Service of Cyprus



	Finland	Iceland	Cyprus
Peak to trough fall in GDP	-12%	-13%	-11%
Time from peak to trough	3 years	2 years	3 years
Cumulative loss of GDP from peak to recovery back to peak	-43%	-53%	-38%
Time from peak to recovery back to peak	7 years	8 years	6 years

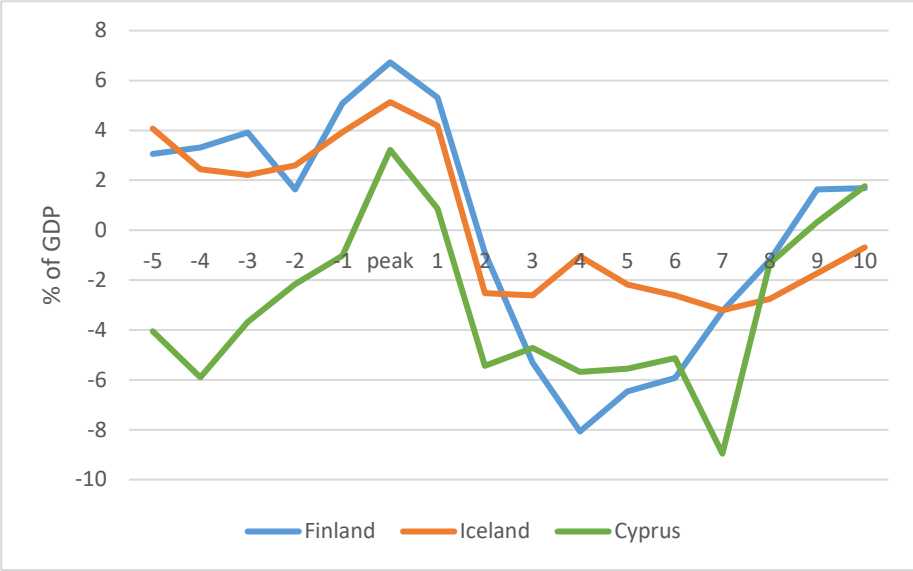
A notable feature of these three crises is how similar they were in terms of depth and duration. Whilst this is probably largely coincidental, there are features of these crises that seems likely to be common to small countries. First, the initial downturn is large and fast, causing significant economic disruption. Second, the recovery is also surprisingly quick with GDP recovering back to its peak level within 8 years - illustrating the flexibility of small countries relative to their larger comparators. However, as with all structural crises, GDP never recovers all the way back to its pre-crisis trend indicating that some permanent or very long term loss of output (relative to pre-crisis trends) is inevitable. Thus when considering the role of the Strategic Reserve it is important to realise that its function in such a crisis would simply be to smooth the transition to a lower output path.

Figure 3.6
Small country crises: Net government lending

Net government lending as a proportion of GDP.

Horizontal axis shows from five years before pre-crisis peak to ten years after

Source: OECD, Statistical Service of Cyprus



	Finland	Iceland	Cyprus
Total borrowing from peak to recovery	-31%	-19%	-35%
Largest deficit	-8%	-3%	-9%
Total borrowing from peak to recovery relative to pre-crisis average	-63%	-54%	-35%
Time from peak to recovery back to peak	7 years	8 years	6 years

Figure 3.6 illustrates the response of government borrowing in these three crises. Again, the pattern is similar and suggests that the crises resulted in an extra borrowing of around 30% to 60% of GDP relative to pre-crisis levels before stabilising about eight to ten years afterwards.

Although the type and extent of any structural crisis that could hit the Jersey economy is impossible to predict**, the limited evidence from other small countries indicates that a Strategic Reserve of over 30% of GDP would have been prudent in those crises.**

As at the end of 2018, the Strategic Reserve was equal to around 18% of the FPP's estimate for GVA**. The effects on an economy and fiscal costs from the collapse of a financial sector are large. Given that the objectives of the Strategic Reserve include insulating the economy from the sudden collapse of a major Island industry, the Government should consider working towards a**

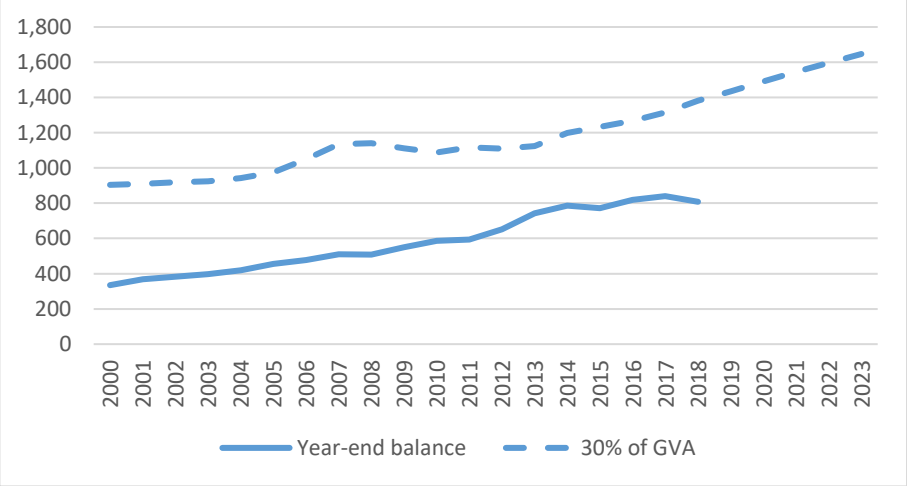
larger Reserve through a long-term programme of contributions and retaining the returns from investment. For example, to reach 30% of GVA by 2030 would require the Strategic Reserve balance to grow 1% faster than nominal GVA each year over 2019-2030. This would see the fund reach the lower bound of the range set out above. If investment returns were to be 4% per year, this would see the Strategic Reserve grow to only 20% of GVA by 2030. In order to reach 30%, this would require a transfer of ¾% of GVA to be made into the fund on average each year – around £35m based on the Panel's forecast for 2020 GVA. This is likely to prove very demanding, given the long-lasting impact of the financial crisis on the economy. However, this means accepting that the Strategic Reserve is probably below an optimal level.

If any of the current balance of the Strategic Reserve is drawn down, for example for a new hospital, this would make it significantly harder to build the fund up as not only will the capital value be lower but it would also reduce the size of investment returns as a proportion of GVA. This was one of the considerations behind the Panel's advice in 2016 that borrowing is the best and most cost effective way of funding the proposed new hospital.

Figure 3.7
Strategic Reserve balance

Actual balance of the Strategic Reserve and 30% of GVA, nominal, £m

Source: Treasury and Exchequer; Statistics Jersey; Panel calculations



3.2.3 Social Security Funds

The majority of the Government of Jersey's reserves are held in four funds, collectively known as the Social Security Funds:

The Social Security Fund provides contribution-based benefits, primarily pensions but also in the event of death or incapacity. The Fund is financed through contributions from employees and employers, topped up by funding from general tax revenues (*the States Grant)* for lower earners.

The Social Security (Reserve) Fund is a reserve that can be used to smooth any increase in contributions caused by ageing demographics. Until 1998 the Social Security Fund was operated on a largely pay-as-you-go basis but the decision was taken to increase contributions such that a reserve could be built up.

The Health Insurance Fund provides a subsidy towards GP visits, the cost of prescriptions and other primary care contracts. This Fund is financed through contributions from employees and employers, collected as part of the Social Security contribution.

The Long-Term Care Fund provides benefits to adults with long-term care needs. It is funded through contributions collected from personal income tax payers, plus a government grant which is maintained in real terms.

The Panel has considered the combined Social Security and Social Security Reserve Fund, and the Long-Term Care Fund in more detail below.

Social Security Fund (including Social Security Reserve)

The Panel set out the anticipated increase in the dependency ratio in section 1, under a variety of population projections produced by Statistics Jersey. Under all of the scenarios included in Figure 1.4 there is a significant increase in the dependency ratio – which will mean that the number drawing down pensions from the Social Security Fund will increase as a proportion of the number of contributors. While the planned increase in the pension age will ease some of the impact, it is not expected to maintain the current ratio.

In light of this, it is positive that Jersey has taken the prudent step to set up a Reserve Fund to ease the impact this will have on contribution rates. While the accumulated reserve is not likely to be sufficient to meet the liabilities of the Fund, the government has exceeded its initial objective to build up a Reserve Fund of around five times annual expenditure.

One advantage of having a significant reserve balance has been that investment returns have added to the surplus contributions and will further reduce the future contribution rates required to meet future expenditure. The most recent actuarial review of the Fund was published in 2017 and concluded that based on the position at the end of 2015, contribution rates would need to rise to only 12% by 2065 (from 10.5% currently) to meet the expected expenditure of the fund (under a +700 net migration scenario). Further, if the current contribution rates were maintained, the reserve balance would be sufficient to continue to fund expenditure beyond 2075. Both these conclusions are subject to considerable uncertainty, however, given the margin of error around the assumptions used over such a long period.

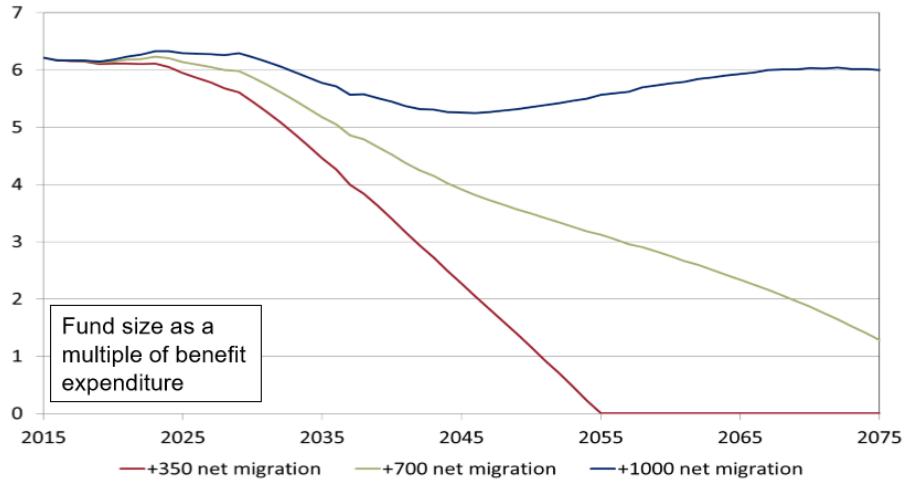
In particular, if there was a significant structural deterioration in Jersey's economy, the reserve balance may be needed to fund pension liabilities that have been built up, should there be a permanent reduction in future incomes and therefore contributions. **The Government of Jersey should ensure that any policy decisions related to the Social Security Funds consider a range of different scenarios and the impact these may have on the ability to pay deferred pensions.**

An updated actuarial review is to be published on 22 March 2019. The Panel will consider the findings of this review in future reports.

Figure 3.8
Forecast Balance of Social Security Reserve

Based on actuarial review of Fund as at end of 2015

Source: UK Government Actuary's Department



Long-Term Care Fund

The Long-Term Care Fund was set up at the end of 2013, with benefits payable from the mid-2014. On the basis of economic advice at the time, the Government deferred the initial collection of contributions until 2015 and introduced them gradually given that Fiscal Policy Panel advice was that the economy remained below capacity.

The first actuarial review of the Fund was published in 2018, based on the position at the end of 2017. This concluded that the current contribution rate of 1% was sufficient for the fund to breakeven in 2018, with benefits from 2019 therefore likely to require funds to be drawn down from the balance built up to date (c. £25m) from contributions and from underspends in the benefits budget. The Social Security Minister has indicated consideration is being given to increasing the contribution rate to 1.5% from 2020.

The Long-Term Care Fund is also likely to see significant spending pressures in the long term as a result of ageing demographics. The actuarial review forecasts that without an increase in contributions, the Fund will be exhausted by 2027. **The FPP's view is that the early part of the forthcoming Government Plan period is an appropriate time to plan an increase in the long-term care contribution, while the economy is running above trend. Consideration should be given to whether a larger increase could be appropriate in order to provide additional flexibility regarding future increases in the rate.** This could be particularly valuable if it is able to prevent the need for further increases at a time when the economy is running below trend, as was the case in 2014 and 2015 when the introduction of the full 1% rate was deferred. Indeed increasing the rate while the economy is above trend could allow a balance to be built up in the Fund that might allow a temporary reduction of the rate in future when the economy dips below trend.

Figure 3.9
Long-Term Care Fund actuarial review

Key results

Source: Aon actuarial review, 2018

Year	2018	2023	2028	2033	2038	2043
Income	£47.9M	£48.4M	£49.7M	£51.1M	£52.4M	£53.9M
Expenditure	£47.9M	£51.8M	£60.7M	£69.9M	£77.4M	£89.8M
Net Income / (Expenditure)	£0.0M	(£3.4M)	(£11.0M)	(£18.8M)	(£25.0M)	(£35.9M)
Breakeven contribution rate	1.0%	1.2%	1.5%	1.8%	2.1%	2.5%
Projected LTCF balance at start of year	£25.0M	£19.6M	(£10.5M)	(£80.8M)	(£185.0M)	(£330.1M)

3.2.4 Investment policies / borrowing

The Government of Jersey is unusual among sovereign states in having considerable financial assets in a range of funds alongside a low level of financial liabilities such as debt, so public sector net financial liabilities are negative. The funds are pooled for investment purposes in a Common Investment Fund (CIF). Within the CIF, the exposure to risk of individual funds is set by their investment strategy and is managed at a strategic level through their asset allocation as published within the States Investment Strategies. Investment strategy is considered over a long-term investment horizon and diversifies risk across managers and assets.

Recent returns on investment have been high. For example in 2017, the Strategic Reserve achieved a net rate of return of 9% and the Social Security (Reserve) Fund achieved a return in excess of 12%. These funds are predominantly invested in global equities and reflect the general strong increase in equity market valuations. 2018 was more challenging than recent years for equity investment returns.

Returns on equities are generally higher in the long run than returns on fixed-rate investments such as bonds, but equities have a higher degree of volatility in their returns and hence risk. Recent average returns on these funds are also high, averaging 8% for the Social Security Reserve and 6% for the Strategic Reserve over the last five years. But returns on equity investments in the future may be lower or even negative, so in assessing the medium-term sustainability of the funds Government of Jersey should assume a return on equities additional to that on bonds – the equity risk premium – that is consistent with the average performance over the long term.

The Government of Jersey should consider its risks and returns more broadly across its entire portfolio of liabilities and assets jointly. For example, Government revenues and expenditures are exposed to the economic cycle in Jersey, and prospects for the financial sector in Jersey are dependent in part on developments in global financial markets. So investment strategies should consider whether returns are correlated with Jersey's economic cycle and aim to ensure, where possible, that investment returns offset rather than compound budgetary pressures over the cycle.

In general, government borrowing can support aggregate demand and smooth the economic cycle by running cyclical deficits or smaller surpluses in economic downturns. The Government of Jersey aims to meet this objective without borrowing by using the Stabilisation Fund, which is discussed earlier in this section.

Borrowing would also be prudent for investment in an asset that provides a financial return for government or the private sector, or a non-market return in providing a free good:

- Government may borrow to finance public corporations that charge for goods and services and hence operate in the market sector. The investment undertaken by such corporations and the dividends they return to government should justify the borrowing. Investment in social housing such as through Andium in Jersey is an example.
- There may also be public investment such as infrastructure that is complementary to investment by the private sector to deliver goods and services in the market economy. In this case the public investment may raise productivity in the private sector

- Government may need fixed capital assets e.g. buildings to deliver public goods and services that are freely provided such as health and education. Where the service from such capital assets is provided over time, in contrast to current expenditure on wages and salaries along with procurement, it makes sense to borrow to finance such investment.

So government borrowing for investment can either be appropriate to provide a better service for future residents such as the health service enabled by a better hospital, or will promote output and productivity in the private sector. However, a strategy of borrowing while simultaneously investing funds is not without risk.

The Common Strategic Policy 2018-2022 set out Government's intention to consider the creation of an investment fund to support the delivery of an economic and investment framework. Such a fund with a planned programme of investment subject to rigorous cost-benefit analysis and appraisal could ensure better allocation of capital budget. It could also help ease the capital 'bottleneck' and provide stability in capital allocation and funding. The FPP looks forward to reviewing proposals for such a fund and the investment framework more generally when it is published.

With significant financial assets, the Government could borrow from its own funds to finance investment, but there are reasons to suggest this is best avoided. Importantly there may be a mismatch in timing and duration between the objective of the fund and repayment. This means that if funds are loaned out with a scheduled repayment over a long duration they are not available quickly for their original purpose. So this would present an additional liquidity and financing risk. This risk is smaller when the fund's objectives and liabilities fall due over the longer term such as those in the Social Security Reserve Fund.

However, this could weaken the ring-fencing and hypothecation of specific funds to meet specific liabilities. There is also the risk of accidental or explicit subsidy if the interest rate on any such borrowing is set below the rate that would be offered by the market. Borrowing at rates comparable to the market rate of the government makes clearer the required rate of return on the capital investment and the opportunity cost of the funds.

In this context, the FPP notes the recent borrowing from Andium, the public housing corporation, from Treasury up until 2047 at an interest rate of 5%. This rate is higher than the rate of 3.75% on the £250m bond issued by the Government of Jersey in 2014. However, Andium would not be able to borrow externally at the same rates as the Government of Jersey, without a complete guarantee from the Government, reflecting its risks in borrowing to invest in social housing and make a return from the sale and rental of properties.

The FPP notes that this kind of arrangement is common in the public financing of housing corporations; where rents from social housing are used to repay the cost of borrowing.

3.3 Capital expenditure

Government capital expenditure can be particularly useful in a downturn as it allows under-utilised resources in the economy to be used to invest in infrastructure that can increase the productive capacity of the economy in future or to provide an asset that is needed anyway to support the delivery of public services in the future. However, there are challenges, particularly in finding capital projects that can begin in a timely manner.

In the early years of the economic downturn in Jersey, a large proportion of the initial Fiscal Stimulus programme was spent on capital projects – with £23m spent on construction and maintenance and £6m on civil infrastructure works[6]. Much of this spending was on maintenance and refurbishment, which tend to be easier to progress than significant new infrastructure projects.

During the current MTFP period, it has become particularly challenging to deliver capital projects. Similar issues are experienced in other jurisdictions and it is understood that recent delays in Jersey have largely been the resulting of planning or political decisions rather than any funding bottleneck.

Looking to major capital projects to contribute to the cyclical management to the economy seems unlikely to succeed, although with the benefit of hindsight the prolonged downturn following the global financial crisis was a missed opportunity in many jurisdictions to bring forward needed capital projects while the economy was below trend capacity. However, in more 'normal', short-lived, cyclical downturns this is less likely to be appropriate or achievable.

The Government of Jersey should therefore plan for the maintenance of existing infrastructure and investment in capital projects as part of regular fiscal planning. The updated economic assumptions indicate that the economy will be above trend for the next four years and therefore **the Government Plan will need to consider and set out how the proposed capital programme can be delivered in a way that does not put excess pressure on the limited resources available on-island**.

In common with many other jurisdictions, the Government has faced challenges in ensuring that actual spending on capital matches the spending planned in the capital programme. **It is recommended that further consideration is given to how best to manage the capital allocation process in the Government Plan.**

[6] https://statesassembly.gov.je/assemblyreports/2011/1543-20845-362011.pdf

Annex 1: The output gap

Methods to measure the output gap (and thus the position within the business cycle) can be organised into two broad groups: univariate and multivariate. The former focus on output itself and attempt to measure the current level against estimates of a trend. The latter employ other indicators, such as unemployment, to refine judgements on the amplitude of the business cycle and the growth of potential output.

The simplest method is linear de-trending, assuming a constant rate of trend growth. Judgement is employed in deciding how long a period to use to calculate the average. Subtracting the most recent observation from the trend will provide an estimate of the current gap. Filters such as Hodrick-Prescott, prior-constrained (PC) and Christiano-Fitzgerald use equations to estimate a trend that minimises fluctuations, or error terms, which can then in turn be measured to determine an output gap. The Beveridge-Nelson decomposition similarly regresses a series of data on output growth with an estimate of the trend extracted from calculations of the fluctuations (using the ARIMA method).

Filters are also employed in multivariate methods, with the Philips curve-augmented PC filter involving change in inflation, the Okun's law augmented PC filter involving change in unemployment, the capacity utilisation-augmented PC filter using employer survey results and the multivariate filter model incorporating all three. Principal components analysis employs a statistical technique to draw a common signal from a range of standardised cyclical indicators weighted by their relative strength in explaining overall variation (see section 2.5.4). Finally, the aggregate composite measure is the same as principal components analysis, but with the individual weights set explicitly by the user.

The availability of data limits the extent to which some of these methods can be applied to Jersey. However, the Panel has used available data for Jersey to undertake the principal components analysis.

Principal Components Analysis

In assessing the economic cycle there are a number of indicators that are clearly cyclical, notably the unemployment rate that typically rises in a recession and falls when the economy is growing strongly in a boom. As set out, there are a number of indicators including survey measures from businesses of capacity utilisation that provide a subjective assessment of how close to full capacity firms are in their production of goods and services.

Implicitly such cyclical indicators are all driven by a common factor, namely the economic cycle, and how far the economy is from its level of full employment and potential output compared with actual employment and output. Potential output and the sustainable rate of employment consistent with stable inflation are unobserved and change over time.

Arguably, in assessing the economic cycle it is better to use as much available information as possible, potentially contained in a range of economic indicators, instead of relying on only one or two indicators such as the unemployment rate. However, some indicators will be more strongly correlated with the economic cycle than others, and should be given a higher weight in deriving a central or composite indicator.

Principal Components Analysis (PCA) is a statistical method that provides an estimate of unobserved common factors that may be driving the changes in a set of variables. The factors are derived as weighted averages of the variables to account for as much of the variance in the dataset as possible. There are as many factors are as there are variables in the dataset but when the data are highly correlated the first factor would explain much of the variance in the dataset e.g. 70% or more and so this summary statistic could be said to embody 70% of the 'information' in the dataset.

The data are standardised with a mean-variance adjustment and the PCA calculation applied to the mean-variance adjusted data then provides a set of weights to be applied to each indicator in calculating the summary statistic. A variable that is uncorrelated with other variables and hence unlikely to be driven by a common factor would be 'unexplained' and would receive a low weight in the first factor. In the limit a variable that had zero correlation with any other variable would have a weight of zero in all factors but one single factor where it would have a weight of 1.

For Jersey, a range of indicators was selected on the basis that they were likely driven by the economic cycle, and hence could be used in a PCA analysis to provide a summary assessment of the economic cycle. The set of indicators comprised an unemployment rate, vacancy rate and employment rate, along with key survey balances from the Business Trends Survey (BTS): capacity utilisation across all firms and in the finance sector; product prices across all firms, the non-financial sector and the finance sector; future employment across all firms; new business in the non-finance sector and finally average earnings growth in the non-finance private sector and finance sector. Apart from unemployment all these indicators are pro-cyclical i.e. they would be expected to fall in a recession and rise in a 'boom', so the sign of the unemployment indicator is changed meaning the adjusted data is pro-cyclical.

The 'swathe' chart of the mean-variance adjusted data (Figure 2.17) demonstrates that these series follow a similar trend, and a PCA reveals that the first factor explains 70% of the variance across these twelve indicators. Like many statistical techniques it is important to apply judgement in using PCA, the challenge of assigning a meaning to the factors can be pronounced when it is used in an unstructured way. In this context the first factor can be interpreted as an indicator of the economic cycle or output gap.

There are some important caveats to apply in considering the result. The sample period for the PCA analysis runs from 2009Q3 to 2018Q3, as while some variables are available for a longer period the time period for this analysis is constrained by the BTS. This period is not a full economic cycle and therefore it is not possible to conclude what the on-trend level is solely from this analysis.

This analysis suggests that the economy experienced weak growth relative to potential up until early 2013, and from then momentum in the economy has strengthened with the output gap closing and the economy moving potentially above trend in recent years. Previous assessment concluded that the economy was likely to be slightly above trend in 2019 and this analysis supports the judgement that the economy has continued to strengthen with a small positive output gap currently.

Annex 2: Strategic Reserve - structural case studies

The brief review here considers economic and financial crises in three small countries: Iceland, Cyprus and Finland, it does not consider in detail the drivers of these crises but focuses more on the consequences and the policies to manage them. It also includes a short reference to a natural disaster in the Caribbean and the potential for such a disaster in Jersey.

ICELAND

The collapse of the Icelandic banking system in October 2008 exemplified the global financial crisis. Iceland was a nation with no history or experience of international banking and yet in just under 5 years a small island economy with just 300,000 population saw total assets of the banking system rise to just under 750% of GDP. In this period real GDP growth averaged 5.5% each year. The roots of the crisis lay in the privatisation of the banking system, followed by failure in the regulation and supervision of the banking system within the wider European Union passport in financial services. But it was also driven by explicit government policy to develop Iceland as an international financial centre, with the financial service industry becoming larger than the combined agricultural and fishing sectors that had been the mainstay of the economy historically.

The financial and then economic collapse in Iceland was extraordinary. The effective exchange rate fell by around 75%, pushing inflation in the price of imported goods excluding alcohol and tobacco to peak at 30%, with domestic CPI inflation peaking at just under 20%. Moreover, Iceland, via its banks, had taken on considerable debts denominated in foreign countries—Icelandic banks had taken on considerable sterling deposits, for example—and the sharp depreciation increased the value of these debts in local currency terms.

In under a year the unemployment rate rose from around 1% to peak at 9%, and real wages fell by 20% subsequently. Over 2008-10 domestic demand in real terms, after taking account of inflation, fell by just under 30%. Real-time indicators were valuable in corroborating the downturn: domestic retail card turnover fell by a similar amount. Real GDP fell by 6.6% in 2008 and a further 4.1% in 2009, gross fixed investment fell by over 50% in real terms in 2009 alone.

However, the Icelandic economy was able to recover from this severe structural decline in its financial sector. There are many factors to consider and a range of policies that supported this recovery.

Most importantly Iceland was able to draw on assistance from the International Monetary Fund (IMF), who in 2008 approved Iceland's request for a Stand-By Arrangement (SBA) with exceptional access, under conditions that the IMF staff report described as the "Perfect Storm".

In 2008 the banking system had collapsed, there were central bank reserves of US$ 3.6 billion, the current account deficit was just under 30% of GDP and gross external debt was 550% of GDP. Iceland left the SBA in 2011 and repaid, ahead of schedule, all program-related funding in 2015.

There was extensive public and private debt restructuring in Iceland, and in the 'real' economy a key mechanism of adjustment was undoubtedly the exchange rate. The volume of imports fell by 50% while export growth was sustained. The Icelandic economy restructured with a renewed emphasis on tourism with visitor numbers rising in line with the fall in the real effective exchange rate from around 60k a year in 2010 to just under 100k currently. The fishing sector, traditionally the largest in the economy, was eclipsed by finance but both have largely been replaced by energy and tourism.

Following the crisis there was extensive outward migration of not only foreign citizens but also Icelandic citizens in 2009, 2010 and 2011 with the population falling slightly in 2010. The recent Article IV report from the IMF published November 2018 highlights an economy that has substantively recovered since the crisis of a decade ago. Growth in real GDP of around 4% with an unemployment rate of around 2½%, in the medium term the IMF expect growth of about 2½%, inflation near target and a current account surplus of around 2% of GDP.

CYPRUS

Cyprus was another economy that saw a collapse in its financial sector, albeit somewhat after the global financial crisis. Large imbalances and an unsustainable expansion of the banking sector led eventually to its collapse in 2013. In contrast to Iceland there was a longer history with the banking sector in Cyprus that at its height had liabilities nine times the size of the domestic economy. The cause of the crisis included a failure in regulation and supervision but the Independent Commission on the future of the Cyprus banking sector pointed to two important external drivers:

"Cyprus' accession to the EU (2004) and the euro (2008) which rapidly liberalised a previously tightly controlled banking system while simultaneously making it harder for Cyprus to restrain credit growth with traditional monetary levers."

The internal failures are rather familiar, including a failure to appreciate the risks as well as the rewards and some element of capture by powerful interests. There is debate as to whether the failings, in addition to the actions of the banks themselves, lay more with banking supervision or government policy but the consequences were quite pronounced.

Over the three years 2012-14 real GDP fell consecutively by over 10% in total, growth finally turned positive in 2015Q1 after falling for nearly 4 years in total, and unemployment rose rapidly to peak at over 16% with youth unemployment rising to 40%. Being in a currency union (the euro area) meant that Cyprus did not, unlike Iceland, have the adjustment mechanism of depreciation to restore competiveness or promote growth.

Consumer price inflation in Cyprus was similar to that in Greece and other countries but real compensation per employee (a proxy for real wages) showed much lower growth than that in the EU, falling by around 6% over the year to 2013 Q3 in Cyprus as compared with growth of around zero in the EU. So much of this adjustment to restore competitiveness and reduce unemployment was through lower nominal wages: pre-crisis unit labour costs in Cyprus may have been around 5% higher than the EU average but by the end of 2016 they were over 10% lower.

The expansion of the banking sector in Cyprus was associated with extensive domestic lending to residential property and commercial real estate, with house prices and commercial property prices falling sharply in the crisis. From peak to trough house prices fell by roughly 30%, with a similar fall in real terms given very low inflation, with household debt the highest in the euro area at over 120% of GDP. For the non-financial corporate sector debt at 225% of GDP is only higher in Ireland and Luxembourg, and both of these jurisdictions are the location for many multi-nationals. The fiscal position deteriorated markedly with government debt rising from under 50% of GDP to over 105% currently.

As with Iceland the resolution of the crisis was only possible with the help of the IMF. There was an extensive restructuring of the banking sector with huge losses for creditors and also depositors, the banking sector in Cyprus also made losses on the Greek government bonds it had bought. There does not appear to have been much rebalancing in the sectors of the economy, there has been an increase in tourism but is it is modest, and the banking and financial sector is simply smaller.

Employment fell in every year 2011-2015 by over 10% in total, and that suggests that part of the fall in the unemployment rate may have been driven by falls in labour market participation. The unemployment rate still remains over 10% and the youth unemployment rate still around 30%.

More broadly the domestic banking sector remains impaired with a high level of non-performing loans and so despite the economic recovery the 'repair' of private sector balance sheets progresses very slowly. While Cyprus has exited its IMF programme there remain concerns over debt sustainability and it will need to run surpluses for the foreseeable future.

FINLAND

The banking crisis in Finland was typical in its origins with financial liberalisation in the domestic credit market and foreign exchange leading to a marked expansion in bank lending to the corporate and household sectors. With hindsight this deregulation should clearly have been accompanied by reforms that would have dampened the clear economic incentives to massively increase debt, including tax incentives that promoted debt over equity for companies and debt interest relief for households.

Neither banks nor borrowers understood the changing financial environment and the changing risk structure. Banks that were used to competing for market share continued to do so with little regard for credit risk. Interest rate risks were not adequately accounted for, and both parties misjudged the increase in risks with floating rate and foreign currency loans. Insufficient diligence was given to the value and quality of collateral with the risk of falling asset values, given the historical record, completely discounted.

At the start of 1987 bank lending to the corporate and household sectors was growing at around 10% per annum, but without a whole set of historical constraints there followed a massive stock adjustment, and in the peak year of 1988 bank lending growth peaked at an annual rate of 30%. The domestic economy began to expand far too quickly, and the monetary tightening of early 1989 was too late and too small. In addition fiscal policy did not move to help curb domestic demand, and 1989 saw the second year of real GDP growth of more than 5%.

Towards the end of 1989 the boom began to unwind with monetary tightening and high debt levels beginning to bear down on domestic demand. Servicing higher levels of debt took an increasing share of the income for corporates and households. Real estate prices were affected quickly and asset values and profits soon began to fall sharply. On top of deteriorating domestic demand the Finnish economy was hit by a collapse in exports to the Soviet Union in 1991 delivering a negative demand shock, including indirect effects, of around 2.5% of GDP.

GDP growth fell sharply and unemployment rose rapidly over the following 3 years in the recession from under 5% to 17% by early 1992. Alongside the

rapid decline in output were serious balance of payments problems with weaker confidence in the fixed exchange rate.

To head off rising expectations of a devaluation the currency was linked to the European Currency Unit (ECU) in June 1991, nominal interest rates after initially stabilising then rose with expectations of devaluation and in November the currency was devalued by 12%. Rising interest rates and devaluation markedly raised debt servicing for borrowings in domestic and foreign currency. The devaluation operated in a similar way to that in Iceland: increasing the size of external debt in domestic currency.

By the end of 1992 credit losses were pronounced for Finnish banks totalling 22bn Markka with households accounting for under 7% but real estate in lending to non-financial corporation's 20%. In March 1992 the Government was forced to launch a huge and broad rescue package including injections and guarantees spending 23bn in 1992 to support banks' capital adequacy. Along with losses and previous claims the resources for bank support totalled just under 8% of GDP.

In consequence and alongside a fall in revenues and increase in expenditures through the recession gross public sector debt rose from under 20% of GDP in 1990 to over 60% by 1993. Finland was able to recover strongly from the deep recession, initially spurred by a devaluation of the markka with exports of goods and services rising from under 25% of GDP to 40% by 1999. Large cuts in government expenditure with primary spending falling by 10 percentage points of GDP between 1992 and 1998 – the largest fall in the EU – moved the public finances from a deficit of 7% of GDP in 1993 to a surplus in 1998. Alongside firm monetary policy this cleared the way to join the Euro though the legacy of the crisis remained with high public debt and high unemployment.

MAJOR NATURAL DISASTER

There are no precedents for major natural disasters in Jersey so it is difficult to consider a comparator. While Jersey is not subject to extreme weather events such as hurricanes and tornadoes, the States Assembly has included a major natural disaster as one of the potential trigger events for this use of the Strategic Reserve, and so in this context it is useful to consider hurricane 'Irma' that struck the British Virgin Islands in September 2017. While the hurricane was anticipated it was very significantly more powerful than expected with its strength intensifying before striking the islands directly. It was the strongest hurricane ever recorded over the open Atlantic Ocean (excluding the Gulf of Mexico and Caribbean Sea), and subjected the island to severe damage, destroying most buildings and infrastructure and exfoliating the island of natural vegetation. Approximately 85% of housing stock - over 4,000 homes - were damaged or destroyed, and it took over 6 months to restore the

electricity supply. The estimated damage to property was initially calculated to be US$ 3.6 billion.

While the economic damage was very significant, thankfully only four people died as a direct result of the hurricane although there were an abnormally high number of deaths in the period following the hurricane – as is often the case with these natural disasters. There are no reliable estimates of the economic impact though it is clear that was significant. In the first government budget following the disaster the Ministry of Finance reported a 46% decline in tourist arrivals, and projected a 9.3% decline in Government revenues, and a contraction of 2.6% in GDP. A significant failure of government policy with hindsight was that the government was self-insured i.e. without insurance for its property.

Hurricanes in the United States have caused huge losses to property and costly economic disruption with hurricane 'Katrina' for example in 2005 hit Louisiana, Florida, Texas and Mississippi, and the government sought US$ 100 billion for repairs and reconstruction. In Jersey in the event of such a severe natural disaster it would be natural to draw on the strategic reserve to provide emergency relief and also fund the rebuilding of property and infrastructure.

There are other disasters that while not natural would perhaps justify the use of the strategic reserve, for example a major oil spill would devastate the natural environment in Jersey, adversely affect tourism and impose significant clean-up costs. The SS Torrey Canyon was shipwrecked off the coast of Cornwall, England in March 1967 spilling 120,000 tons of crude oil – at the time the largest vessel ever to be wrecked. Attempts to contain the oil spill and mitigate its impact by igniting the oil were broadly unsuccessful, and significant quantities came ashore in Guernsey where it was removed and stored in a quarry. It is worth noting that Jersey and Guernsey have a joint disaster plan to try and manage an offshore oil spill. The industries that might be significantly affected by an oil spill are summarised as shellfish farms, wild fisheries and tourism – all of which are material for Jersey. The clean-up costs of oil spills can be very large but it is likely that companies would be liable for the costs incurred by Jersey in addressing such a disaster.