

**States of Jersey Statistics Unit**

**Housing Affordability  
in Jersey**

**2012**

# Contents

**Overview**

**Definitions**

**Summary of results**

## **Section 1 - Jersey Housing Affordability Index**

Central assumptions

Results

Effect of property type and size

Effect of interest rates and property prices

Individual Analysis

Access Analysis

Sensitivity to central assumptions

## **Section 2 – Mortgage and Rental Stress (30/40 method)**

Introduction

Results

## **Section 3 – Ratio Analysis**

Introduction

Mean property price and mean household income

Lower quartile ratio

Comparison with England

## **Section 4 – Key Worker Analysis**

Introduction

All properties at lower quartile purchase price

Private sector rental properties

**Appendix**

Data sources

## Overview

The principal aims of this report are:

- to provide an analysis of the ability of working households in Jersey to purchase and rent accommodation “affordably”;
- to present trends in housing affordability in the Island over time.

In addition, the ability of lower income working households, potential first-time buyers and individual key workers to house themselves affordably in Jersey is examined.

A number of different indicators of housing affordability are in use internationally; such indicators are generally based on a comparison of residential property prices with household or individual income. This report presents a set of indicators of housing affordability in the Island for the period from 2002 to 2012.

There are four main sections to this report: the first section presents the **Jersey Housing Affordability Index**; the subsequent sections present complementary measures of housing affordability involving the **30/40 method** of identifying housing stress, a **Ratio analysis** and a **Key worker analysis**.

The headline measure of affordability, the Jersey Housing Affordability Index (JHAI), is based on a comparison of residential property prices and net household income. This index incorporates the effects of variables such as mortgage interest rates, levels of deposit and mortgage payments relative to income.

The rationale underpinning the **JHAI** is that of producing an overall single indicator of housing affordability in the Island which enables the sensitivity of the assumptions used in the definition of “affordability” to be explored and also allows comparison over time.

The **30/40 method** of identifying mortgage or rental stress calculates the proportion of lower income households (in the lowest 40% of the income distribution) which are paying more than 30% of their gross income on housing costs.

The **Ratio analysis** is based on a direct comparison of property prices and income. Such a measure of housing affordability is conceptually straightforward and enables comparison with other jurisdictions to be made.

The **Key worker analysis** examines the ability of key workers in Jersey (teachers, police officers and nurses) to purchase property in Jersey at the lower quartile price or to rent property, of varying types and sizes, at the mean price in the private sector.

The measures of affordability presented are derived from information on property prices and income compiled by the States of Jersey Statistics Unit; see Appendix: Data Sources. Due to the availability of information relating to share transfer transactions, the measures of affordability derived from distributions of property prices (e.g. the JHAI and lower quartile comparisons) are presented only for the period 2010 to 2012, whilst measures derived from mean averages of property prices (e.g. the ratio analysis) are shown for the full period 2002-2012.

*Throughout this report only the major costs of purchasing residential property are considered, specifically the purchase price of the property and the mortgage payments (principal and interest). Other acquisition costs (such as stamp duty, estate agents’ and legal fees) and other housing costs (such as rates and repairs and maintenance costs) are not considered.*

## Definitions

### **“Average” property price**

*(the same statistical definitions apply to income)*

- the **mean** average of a distribution of property prices (purchase or rental) is calculated by adding together the prices of all the properties and then dividing by the number of properties;
- the **median** average is the ‘middle’ price if all the properties were listed **in order** of their price, from lowest to highest; half of all properties lie below the median and half lie above;
- a small number of very highly priced properties will tend to increase the mean average but not the median average;
- the median average may, therefore, be considered to be a more representative measure of the ‘central’ property price.

**Lower quartile:** the lower quartile price is determined by putting all properties in order of their price, from lowest to highest. The lowest 25% of property prices are said to constitute the lower quartile, i.e. they fall below the lower quartile price.

**Starter home:** a flat or house with 1 or 2 bedrooms.

**Gross household income:** all gross earned and unearned income, pensions and gifts (e.g. inheritance), plus benefits.

**Net household income:** gross household income, plus benefits in kind, minus income tax, social security contributions and pension contributions; *before the deduction of housing costs*.

**Qualifying income:** the income required to service a mortgage affordably on the purchase of a dwelling at a specified purchase price or the mean monthly rental payments in the private sector (based on the assumptions of affordability considered in this report).

**Working household:** a household with at least one adult in employment.

**Young working household:** a household with at least one adult aged between 20 to 39 years in employment.

**Key workers:** individuals employed in the public sector; in this report, key workers are represented by teachers, police officers and nurses who have worked in these roles for three to four years.

## Summary of results

A set of measures of housing affordability in Jersey for the period 2002-2012 is presented.

### The JHAI

- between 2002 and 2012, a working household with mean net income was not able to service a mortgage affordably on the purchase price of a median priced house of any size;
- a working household with mean net income was able to service a mortgage affordably on the purchase price of a median priced 1-bedroom flat throughout the period 2002 to 2012;
- a working household with mean net income was able to service a mortgage affordably on the purchase price of a median priced 2-bedroom flat for most of the past 10 years, but not in 2006 or 2008;
- in order to purchase a median priced 2-bedroom house in 2012, a household with mean net income would have needed an additional deposit of £24,000, corresponding to almost half of their annual net income; in order to purchase a 3-bedroom house, an additional deposit of almost £90,000 would be needed;
- the gross income needed to service a mortgage on a median priced dwelling in 2012 was 2.2 times the mean earnings of individuals (FTE employees);
- in 2012, more than two-fifths of all working households could not service a mortgage affordably on the purchase price of a property at the lower quartile price, a similar proportion to 2011;
- more than a quarter of young working households in Jersey could not afford to service a mortgage on a lower priced starter home in 2012.

### Mortgage and rental stress (30/40 method)

- in 2012:
  - more than half of lower income households living in private rental or non-qualified rental accommodation could be considered as being in 'housing stress', the highest proportions of all tenure categories;
  - around a third of lower income households in the owner-occupier (with mortgages) and social rental sectors could be considered as being in housing stress.

### Ratio analysis

- in 2012
  - the mean price of 1-bedroom flats was around 3 times the mean gross household income, whilst for 2-bedroom flats this ratio was greater than 5;
  - the ratio of mean price to mean gross household income was around 6 for 2-bedroom houses, greater than 7 for 3-bedroom houses and greater than 10 for 4-bedroom houses;
  - the ratio of mean dwelling price to mean household income was essentially unchanged from 2011 for smaller property types (1- and 2-bedroom flats and 2-bedroom houses) whilst a marginal reduction in the ratio was observed for 3- and 4-bedroom houses;
  - the ratio of lower-quartile property price to lower-quartile income was 7, representing a slight improvement on that of two years ago (in 2010) when the ratio was 8.

## **Key worker analysis**

- in 2012
  - the individual earnings of any of the key workers considered were not sufficient to service a mortgage affordably on the purchase of a property at the lower quartile price in Jersey;
  - the mean earnings of all individual (FTE) employees in Jersey corresponded to just over two-thirds of the gross income needed to purchase a lower priced dwelling;
  - the earnings of a teacher, nurse and police officer were sufficient to make rental payments affordably on an average priced 1-bedroom flat in the private sector, but not sufficient to make rental payments on any average priced dwelling with two or more bedrooms;

## Section 1 – The Jersey Housing Affordability Index

The Jersey Housing Affordability Index (JHAI) is an indicator of whether a working household with an average (mean) income is able to purchase a median priced property affordably<sup>1</sup>.

The index attempts to quantify the impact that factors such as mortgage interest rates and deposits have on housing affordability. In general terms, affordability is considered to decline (worsen) when property prices grow faster than borrowing capacity.

**The JHAI computes the ratio of mean net household income to “qualifying income”, defined as the income required to service a mortgage affordably on the purchase price of a median priced dwelling.** The index is based to 100 such that when equal to 100 the index implies that a household at the mean level of income may be considered to be able to service a mortgage on a median priced dwelling “affordably”.

A complementary index based on gross household income is also presented and enables a comparison of housing affordability before and after the application of income tax and social security contributions.

A further analysis is presented which is based on a measure of individual earnings: the mean earnings per full-time equivalent (FTE) employee. This perspective enables the calculation of an “affordability multiple”, defined as the number of full-time equivalent earners required to achieve the “qualifying income”.

An access analysis is also presented: using this methodology it is possible to estimate the proportion of working households in Jersey who cannot afford to access property at the lower end of the market (using JHAI affordability criteria). The ability of young working households to access lower-priced starter homes is also investigated.

### Central assumptions

The central assumptions through which the JHAI attempts to quantify housing affordability are:

- mortgage payments (principal and interest) should consume no more than: 40 percent of net income; or 30 percent of gross income;
- the purchaser has a cash deposit of 10 percent of the purchase price;
- the purchaser is financing a 90 percent mortgage at a variable interest rate for a term of 25 years, with both principal and interest payments paid each month throughout the term.

The interest rates used in the computation of indices are derived from data published by the Bank of England: the sterling standard variable mortgage rates quoted to households by UK monetary financial institutions (excluding the central bank).

### Results

Table 1 shows the information from which the housing affordability indices are derived:

- mean gross and net income for households with at least one adult member earning income from employment;
- median property price (all property types and sizes);
- mean mortgage interest rate;
- qualifying gross and net household income.

---

<sup>1</sup> The Jersey Housing Affordability Index is based on a measure of affordability developed by the Housing Industry Association Economics Group and the Commonwealth Bank of Australia, HIA-CBA.

**Table 1 - Household income, property prices and interest rates, 2010-2012**

| Year        | Mean household income<br>(working households) |         | Median dwelling price | Mean mortgage interest rate % | Qualifying income |         |
|-------------|-----------------------------------------------|---------|-----------------------|-------------------------------|-------------------|---------|
|             | Gross                                         | Net     |                       |                               | Gross             | Net     |
| <b>2010</b> | £64,000                                       | £51,000 | £405,000              | 3.96                          | £76,000           | £57,000 |
| <b>2011</b> | £65,000                                       | £52,000 | £380,000              | 4.04                          | £72,000           | £54,000 |
| <b>2012</b> | £66,000                                       | £53,000 | £385,000              | 4.23                          | £74,000           | £56,000 |

As Table 1 shows, the qualifying income required to service a mortgage affordably on a newly purchased property at the median dwelling price has been greater than the mean household income (gross or net) in Jersey throughout the period 2010 to 2012.

Table 2 presents two affordability indices, based on mean gross and net household income, respectively.

**Table 2- Affordability indices based on household income of working households**

| Year        | Affordability index |                            |
|-------------|---------------------|----------------------------|
|             | <u>Gross</u> income | <u>Net</u> income the JHAI |
| <b>2010</b> | 84                  | 89                         |
| <b>2011</b> | 90                  | 96                         |
| <b>2012</b> | 89                  | 95                         |

The principal measure of housing affordability, the JHAI, is that based on net household income. The JHAI almost reached 100 in both 2011 and 2012, implying that in the last two years the mean net household income was almost sufficient to service a mortgage affordably on the purchase price of a median priced dwelling.

As Table 2 shows, housing affordability in Jersey has slightly improved in the latest two years compared with 2010. This slight improvement in affordability has been driven by a small decrease in the overall median property price.

### **Effect of property type and size**

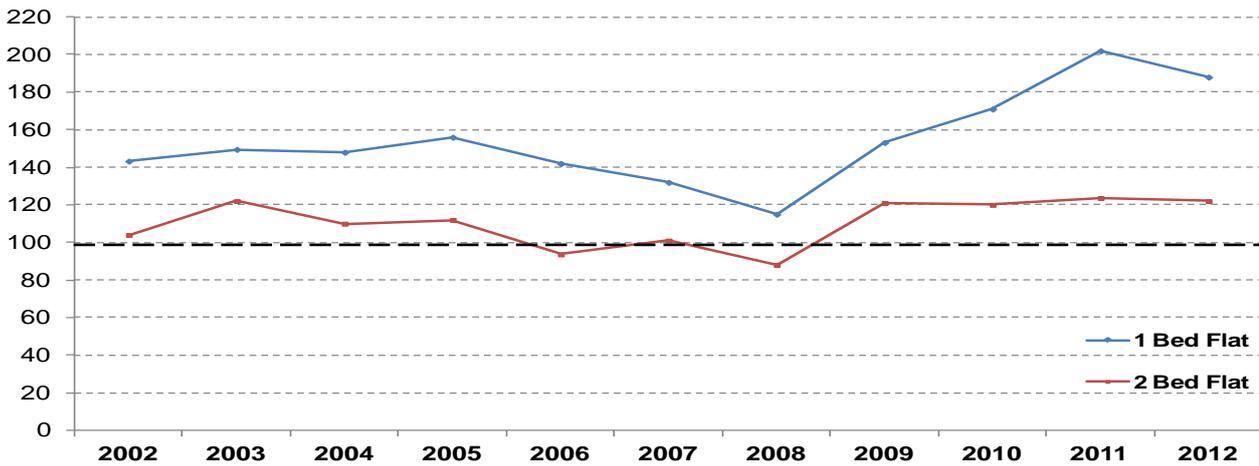
Separate indices are also calculated for each type and size of dwelling (1- and 2-bedroom flats and 2-, 3- and 4-bedroom houses), in order to enable an understanding of the category of property which a household might be able to purchase affordably. These indices, shown in Figures 1 and 2, are based on mean net household income and the respective median prices for each category of property.

Figure 1, showing the affordability indices for flats, indicates that a working household with mean net income was able to service a mortgage affordably on a median priced 1-bedroom flat throughout the period from 2002 to 2012 (the index is above 100 for all of this period).

The affordability of 1-bedroom flats improved significantly throughout the period 2008 to 2011 due to falls in median price and lower mortgage interest rates. In the latest year (2012) the affordability of 1-bedroom flats declined slightly, due to an increase in the median price of this property type.

The index for 2-bedroom flats fell below 100 in 2006 and 2008, indicating that a working household with mean net income was not able to service a mortgage affordably on a median priced 2-bedroom flat in these years. In 2009 the affordability index for 2-bedroom flats rose above 100 and has since remained at a similar level.

**Figure 1 - Affordability indices based on net household income – flats**



The affordability indices shown for houses in Figure 2 indicate that during the period from 2002 to 2012 a working household with mean net income was not able to service a mortgage affordably on the purchase price of a median priced house of any size at any time.

In the latest year (2012) the affordability of 2-bedroom houses declined marginally; in contrast, the affordability of 3- and 4-bedroom houses has improved slightly in each year since 2008, largely due to annual declines in the median purchase prices of these dwelling types.

**Figure 2 - Affordability indices based on net household income – houses**

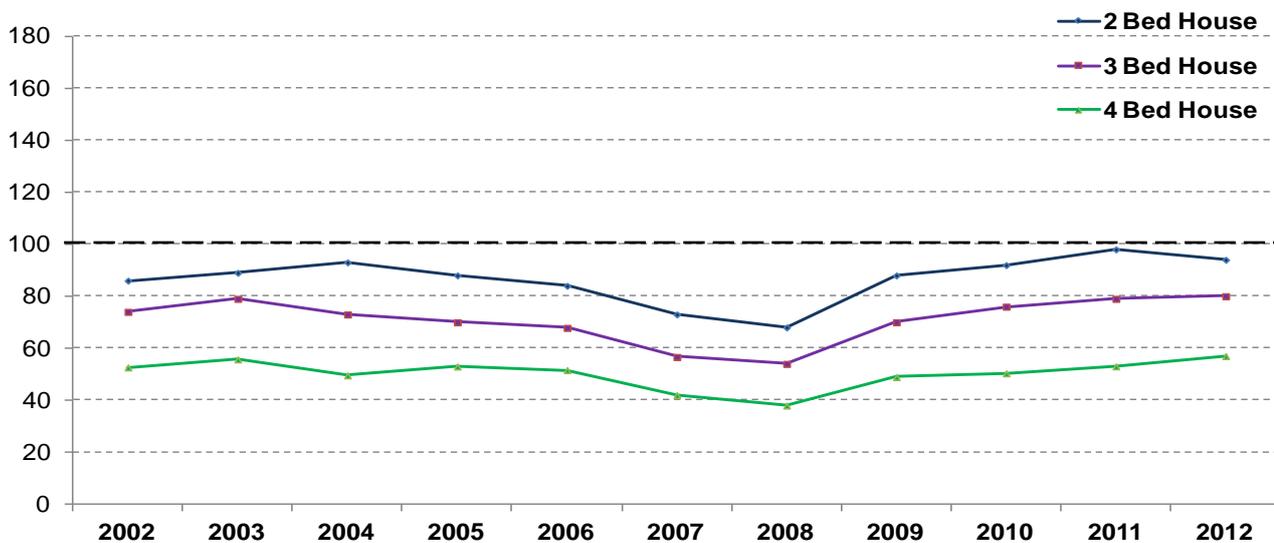


Table 3 shows the median prices of 2-, 3- and 4-bedroom houses in 2012 and the qualifying net income that would be required in order to service a mortgage “affordably” on the purchase price of each dwelling type. The ‘deposit gap’ represents the difference by which the median dwelling price exceeds the affordability threshold, expressed as a factor of mean net household income (£53,000).

**Table 3: Median house prices, qualifying household income and deposit gap, 2012**

|                    | Median House Price | Qualifying Net Income | Additional deposit required | Deposit Gap*<br>as a factor of mean net income |
|--------------------|--------------------|-----------------------|-----------------------------|------------------------------------------------|
| <b>2 bed House</b> | £390,000           | £56,000               | £24,000                     | 0.5                                            |
| <b>3-bed House</b> | £455,000           | £66,000               | £89,000                     | 1.7                                            |
| <b>4-bed House</b> | £688,000           | £92,000               | £272,000                    | 5.1                                            |

\*Gap between the median house price and the affordability threshold, as a factor of mean net household income.

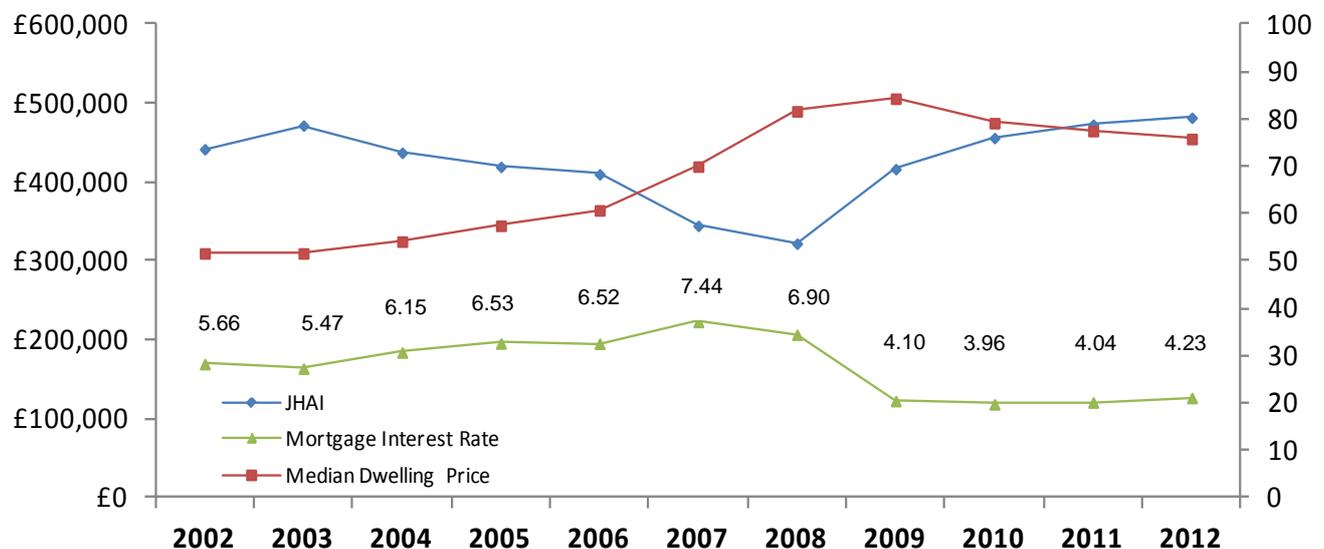
In order to service a mortgage affordably on the purchase of a median-priced 2-bedroom house in 2012, a household with mean net income would have required an additional deposit of £24,000, representing almost half of their annual net household income.

For the purchase of a median-priced 3- or 4-bedroom house, the additional deposit required increased to £89,000 and £272,000, respectively, representing a deposit gap of almost two for a 3-bedroom house and of more than five for a 4-bedroom house.

### Effect of interest rates and property prices

Figure 3 shows the effect on the affordability of 3-bedroom houses of changes in mortgage interest rates and median property prices. The increase (improvement) in the affordability index since 2008 has been driven by lower interest rates, notably between 2008 and 2009, coupled with marginal annual decreases in the median dwelling price of 3-bedroom houses observed year on year throughout the period 2008 to 2012.

**Figure 3 – The JHAI, median dwelling price (3-bedroom houses) and mean mortgage interest rates, 2002-2012**



## Individual earnings

Using the criteria assumed in the JHAI, an analysis has been undertaken which assesses the ability of individuals with average earnings to purchase a median priced property affordably in Jersey. Based on the mean earnings per full-time equivalent (FTE) employee, this approach enables the calculation of an “affordability multiple”, defined as the number of full-time equivalent earners required to achieve the “qualifying income”.

Table 4 shows that from the perspective of individual earnings (the mean gross earnings of a FTE employee) housing affordability in Jersey has remained essentially stable throughout the period 2010 to 2012; the qualifying income for the purchase of a median priced dwelling has been more than twice the mean earnings of a FTE employee in Jersey in each of the last three years.

**Table 4 - Affordability index based on Individual earnings (per FTE employee)**

| Year | Median dwelling price | Mean mortgage interest rate % | Annual mortgage payments | Mean gross annual earnings | Qualifying gross earnings | Affordability multiple |
|------|-----------------------|-------------------------------|--------------------------|----------------------------|---------------------------|------------------------|
| 2010 | £405,000              | 3.96                          | £23,000                  | £33,000                    | £76,000                   | 2.3                    |
| 2011 | £380,000              | 4.04                          | £22,000                  | £33,000                    | £72,000                   | 2.2                    |
| 2012 | £385,000              | 4.23                          | £22,000                  | £34,000                    | £74,000                   | 2.2                    |

In 2012 the level of income required to service mortgage payments on a median priced dwelling affordably was 2.2 times the mean individual earnings of a FTE employee. For context, the 2011 Jersey Census showed that on census day, 27 March 2011, there was a mean number (headcount) of 1.7 workers (full-time or part-time) per household in households in which there was at least one adult member earning income from employment. This mean number of workers corresponded to 1.6 FTE employees per working household.

## Access analysis

Using the JHAI methodology it is possible to examine the ability of households in Jersey to access property at the lower priced end of the property market. It is also possible to estimate the capacity of young working households in Jersey to access starter homes, in an attempt to assess the situation commonly faced by first-time buyers on the Island.

Table 5 shows the percentage of all working households in Jersey who could not afford to service a mortgage affordably on a property purchased at the lower quartile price in Jersey (all dwelling types and sizes) throughout the period 2010 to 2012.

**Table 5 – Affordability of lower quartile properties (all types); all working households**

| Year | Lower quartile price | Household income required to service mortgage affordably | % of all working households <u>unable</u> to purchase affordably |
|------|----------------------|----------------------------------------------------------|------------------------------------------------------------------|
| 2010 | £278,000             | £52,000                                                  | 50                                                               |
| 2011 | £252,000             | £48,000                                                  | 43                                                               |
| 2012 | £256,000             | £49,000                                                  | 44                                                               |

In 2010, half (50%) of all working households in Jersey could not afford to service a mortgage at the lower quartile price of all property types. Since 2010 this proportion has decreased slightly; nevertheless in 2011 and 2012 more than two-fifths of all working households in Jersey could not afford to service a mortgage on a property at the lower quartile dwelling price.

To reflect the situation commonly faced by first-time buyers in the Island, the proportion of young working households (with one or more working representative aged between 20 and 39 years) that could not afford to purchase a starter home (1- or 2-bedroom flat or house) has also been estimated.

As Table 6 shows, the percentage of young working households who, by the assumed criteria of the JHAI, could not afford to purchase a starter home at the lower quartile property price decreased from almost two-fifths (39%) in 2010 to around a quarter (26%) in 2011. In the latest year (2012) this proportion increased slightly (to 28%) due to a marginal increase in the lower quartile price of starter homes and a slight increase in mortgage interest rates.

**Table 6 – Affordability of lower quartile starter homes (1- or 2-bedroom flat or house); young working (FTB) households.**

| Year | Lower quartile price (starter homes) | Household income required to service mortgage affordably | % of FTB households <u>unable</u> to purchase |
|------|--------------------------------------|----------------------------------------------------------|-----------------------------------------------|
| 2010 | £230,000                             | £43,000                                                  | 39                                            |
| 2011 | £195,000                             | £37,000                                                  | 26                                            |
| 2012 | £200,000                             | £39,000                                                  | 28                                            |

It should be noted that greater proportions of young working FTB households would have been able to afford a property priced below the lower quartile price. Similarly, greater proportions would have been able to purchase such properties affordably if they had larger deposits available.

For context, the number and type of starter homes which sold in 2012 at or below the lower quartile price of £200,000 were: 140 1-bedroom flats and fewer than 10 2-bedroom flats. No 2-bedroom houses were recorded as having been sold at or below the lower quartile price in 2012.

## **Sensitivity to central assumptions**

The methodology underpinning the JHAI enables examination of the effects of changes in property prices and mortgage interest rates and also of changes in the central assumptions (e.g. the percentage of gross or net income consumed by mortgage payments). In this section, the effect of such variations on the affordability of 2-bedroom flats and of 3-bedroom houses is considered.

### **Two-bedroom flats**

In 2012

- a median priced 2-bedroom flat (£300,000) was affordable to a household with annual gross income of at least £58,000 and net income of at least £43,000;
- a household with mean income was able to service a mortgage on a median priced 2-bedroom flat, with mortgage payments consuming a quarter (26%) of their gross income or a third (33%) of their net income;
- if mortgage interest rates and household incomes remained constant at 2012 levels, then the median price of a 2-bedroom flat could increase by around £66,000 before such a property would be considered unaffordable to a household with mean income;
- if property prices and household incomes remained constant at 2012 levels, then mortgage interest rates could rise to an average of 6.1% before the mortgage payments on a median priced 2-bedroom flat became unaffordable;
- the gross earnings of 1.5 FTE employees were required in order to service a mortgage affordably on the purchase of a median priced 2-bedroom flat.

### **Three-bedroom houses**

In 2012

- a median priced 3-bedroom house (£455,000) was affordable to a household with annual gross income of at least £88,000 and net income of at least £66,000;
- the mortgage payments on a median priced 3-bedroom house accounted for two-fifths (40%) of the mean gross income and for about half (50%) of the mean net income of working households;
- if interest rates and incomes remained at 2012 levels, the median price of a 3-bedroom house would need to fall by a fifth (by 20%, corresponding to almost £90,000) in order to make the purchase of such a property affordable to a household with mean income;
- the gross earnings of 2.2 FTE employees were required in order to service a mortgage affordably on the purchase of a median priced 3-bedroom house.

## Section 2 - Mortgage and rental stress (30/40 method)

### Introduction

The 30/40 method refers to the point at which a household in the lowest 40 percent of the entire equivalised<sup>2</sup> income distribution spends more than 30 percent of its gross income on housing costs. This measure can be applied to both home ownership affordability and rental market affordability. The methodology was introduced in the early 1990s by the Australian Federal Government to provide a measure of the proportion of households that were over-burdened by their housing costs.

Prior to the adoption of the 30/40 method, a widely used measure of mortgage and rental 'stress' assumed that any household, regardless of their income level, which spent more than 30 percent of their gross income on mortgage or rental costs was in housing stress. However, this approach has the potential to overestimate housing stress, since some high earning households are able to spend more than 30 percent of their income on housing costs and still have sufficient funds remaining to pay for non-housing expenses.

### Results

Table 7 shows the percentage of households in Jersey which are in the lower 40% of the household equivalised income distribution and are paying more than 30% of their gross income either on mortgage payments (principal and interest) or on rental payments; such households would be classified as being in housing stress according to the 30/40 criterion.

**Table 7 - Percentage of lower income households living in housing stress (30/40 method); by tenure, 2012**

|                                                  | <b>Owner-occupiers<br/><u>with</u> mortgages<sup>3</sup></b> | <b>Social<br/>rental</b> | <b>Private<br/>rental</b> | <b>Non-qualified</b> |
|--------------------------------------------------|--------------------------------------------------------------|--------------------------|---------------------------|----------------------|
| % of lower income households in 'housing stress' | 35                                                           | 33                       | 54                        | 52                   |

It is apparent from Table 7 that the greatest proportions of households living in housing stress were in the private and non-qualified rental sectors; more than half of the households living in private sector or non-qualified rental accommodation, whose income was in the lowest two quintiles of the distribution, were paying more than 30% of their gross income on housing costs.

In contrast, around a third of the lower income households in the owner-occupier (with mortgage) and social rental sectors were living in housing stress, according to the 30/40 criterion.

Overall, including owner-occupier households without mortgages, almost a quarter (23%) of all households in Jersey (across the entire income distribution) spent more than 30% of their gross income on mortgage or rental payments in 2012. This proportion increases to around a third (32%) if we consider only those households in the lowest 40% of the income distribution.

---

<sup>2</sup> Equivalisation is the process used to standardise household income levels, accounting for differences in household size and composition; the modified OECD equivalence scale is applied.

<sup>3</sup> This category excludes owner-occupier households who own their properties out-right and are therefore making no mortgage payments. Including such households reduces the proportion of owner-occupiers in the lowest two income quintiles who are paying more than 30% of their income on housing costs to 10%.

## Section 3 - Ratio Analysis

### Introduction

The ratio of property price to income is a widely used measure of housing affordability. Such a ratio analysis approach is particularly useful for making comparisons between jurisdictions and for examining trends in affordability over time.

Several versions of this conceptually simple indicator are used internationally; the preferred forms of the UK Department for Communities and Local Government (DCLG) are the ratios of lower quartile and median property prices to lower quartile and median earnings. Although these UK methodologies compare dwelling prices with the earnings of individuals, such an approach tends to amplify affordability difficulties. Therefore, the ratio of mean property price in Jersey to mean household (gross) income is also presented in this section.

### Mean property price and mean gross household income

Figures 4 and 5 show the ratio of mean property price to mean gross household income (all working households) for flats and houses in Jersey during the period from 2002 to 2012.

Figure 4 - Ratio of mean property price to mean gross household income: flats

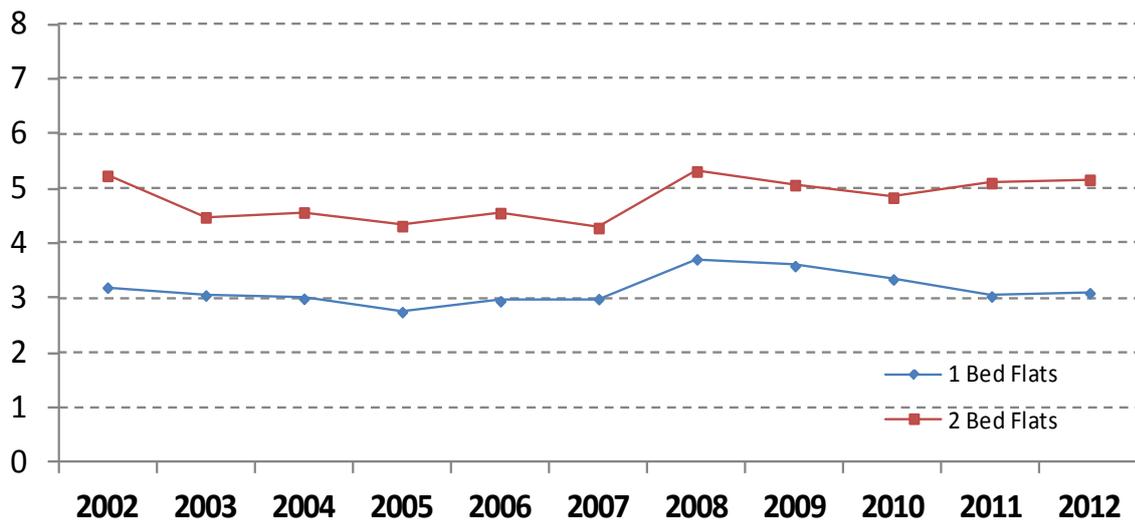
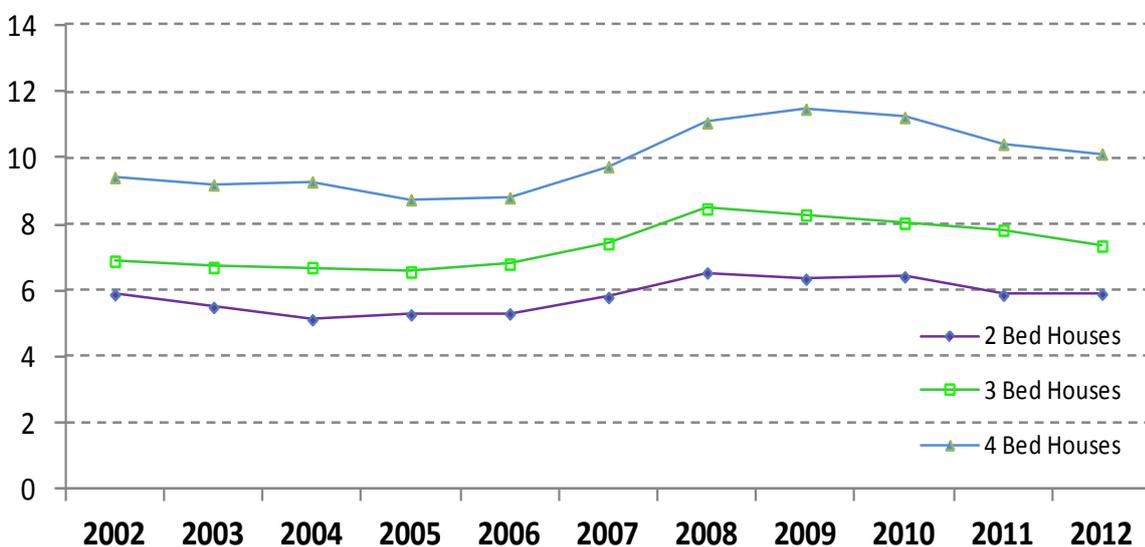


Figure 5 - Ratio of mean property price to mean gross household income: houses



From Figures 4 and 5 it is apparent that during the period from 2002 to 2012 the ratio of the mean property prices to mean gross household income in Jersey was:

- around 3 for 1-bedroom flats, and approached 4 in 2008-2009;
- around 5 for 2-bedroom flats;
- around 6 for 2-bedroom houses;
- around 8 for 3-bedroom houses from 2008 to 2011; falling to 7 in the latest year;
- around 11 for 4-bedroom houses from 2008 to 2010; and around 10 subsequently.

In the latest year (2012) the ratio of mean dwelling price to mean household income in Jersey has remained essentially similar to 2011 for smaller property types (1- and 2-bedroom flats and 2-bedroom houses). In contrast, the ratio of property price to income for 3- and 4-bedroom houses reduced slightly in 2012, due to marginal falls in the mean property prices of these larger dwelling types in the latest year.

### Lower quartile ratio

The ratio of lower quartile property price to lower quartile income is often used to assess whether households with lower levels of income can afford to purchase lower priced properties<sup>4</sup>.

**Table 8 - Lower quartile ratio, 2010-2012**

| Year | Lower quartile property price | Lower quartile gross household income | Ratio |
|------|-------------------------------|---------------------------------------|-------|
| 2010 | £278,000                      | £34,000                               | 8     |
| 2011 | £252,000                      | £35,000                               | 7     |
| 2012 | £256,000                      | £36,000                               | 7     |

In 2012, the price of a lower quartile property in Jersey was essentially the same as in 2011, at approximately 7 times the income of a household at the lower quartile level.

### Comparison with England

In order to compare housing affordability in Jersey with areas of England, the ratio of median house price to median earnings per full-time equivalent (FTE) employee is presented in this section.

Table 9 shows a summary of the ratios of property price to earnings for England and its regions in 2011, the latest year for which comparable data at this level is available.

In 2011, regional ratios of property price to earnings in England ranged from 5 in the North East to almost 9 in London. Housing was generally less affordable in the South compared to the North, with the South West of England recording the highest ratio after London.

<sup>4</sup> The ratio of 'lower quartile' property price to income is calculated by ranking all property prices and gross household incomes in ascending order; in each distribution the lower quartile are those values lying below the 25<sup>th</sup> percentile value. The lower quartile ratio is calculated as the ratio of the 25<sup>th</sup> percentile property price to the 25<sup>th</sup> percentile gross household income.

**Table 9 - Ratio of median property price to median earnings per individual FTE;  
Jersey and England, 2011**

|                          | Ratio of Median Property Price to Median Earnings |
|--------------------------|---------------------------------------------------|
| <b>Jersey</b>            | <b>14.2</b>                                       |
| England                  | 6.7                                               |
| London                   | 8.6                                               |
| South West               | 7.6                                               |
| East                     | 7.3                                               |
| West Midlands            | 5.8                                               |
| East Midlands            | 5.7                                               |
| Yorkshire and the Humber | 5.3                                               |
| North West               | 5.2                                               |
| North East               | 5.0                                               |

Ratios at the local authority level in England are available from the DCLG for 2012. Table 10 shows the ratio for Jersey compared with the twenty highest ratios of local authority areas in England.

**Table 10: Local authority areas in England with highest property price to earnings ratios, 2012**

|                        | Ratio of Median Property Price to Median Earnings |
|------------------------|---------------------------------------------------|
| Kensington and Chelsea | 27.8                                              |
| Westminster            | 16.9                                              |
| <b>Jersey</b>          | <b>14.3</b>                                       |
| Hammersmith and Fulham | 14.1                                              |
| Richmond upon Thames   | 13.8                                              |
| Camden                 | 13.7                                              |
| Wandsworth             | 13.3                                              |
| St. Albans             | 13.2                                              |
| Tandridge              | 13.0                                              |
| South Bucks            | 12.5                                              |
| Elmbridge              | 12.5                                              |
| Waverley               | 12.4                                              |
| Chiltern               | 12.3                                              |
| Cotswold               | 12.1                                              |
| South Hams             | 11.7                                              |
| Brent                  | 11.4                                              |
| Islington              | 11.4                                              |
| Barnet                 | 11.2                                              |
| East Dorset            | 11.2                                              |
| Harrow                 | 11.1                                              |
| Haringey               | 11.0                                              |

## Section 4 - Key Worker Analysis

### Introduction

This section focuses on the ability of three different types of individual “key workers” (teacher, police officer and nurse) to be able to afford to purchase a property in Jersey at the lower quartile price (all property types) or to rent a mean priced property in the private sector.

The analysis of the ability of key workers to purchase lower priced property in Jersey is based on the methodology of the JHA; a purchaser is assumed to have a 10% deposit and be servicing a variable rate mortgage over a 25 year term. It is assumed that for a dwelling to be affordable, mortgage payments (principal and interest) should consume no more than 30% of gross earnings.

The ability of key workers to service mean monthly rent payments on flats and houses affordably in Jersey’s private rental sector is also investigated, again assuming that housing costs (rental payments) should consume no more than 30% of gross income.

For each key worker, earnings represent that potentially achieved after three to four years of service.

*It should be noted that for this analysis earnings is measured at the individual level and, therefore, is not representative of a household containing more than one person with income contributing towards a mortgage. For comparative purposes, the affordability measure is also calculated for an individual employee earning the mean FTE income of all employees in Jersey.*

### All properties at lower quartile purchase price

Table 11 shows key worker incomes as a percentage of the income required to service a mortgage affordably at the lower quartile price of all properties in Jersey, and also that for all individual employees in the Island.

**Table 11 – Individual and key worker earnings as percentage of the income required to service a mortgage affordably at the lower quartile price of all properties, 2012**

| Year | Lower quartile price | Qualifying annual income (gross) | Earnings as % of qualifying income |                |       |                     |
|------|----------------------|----------------------------------|------------------------------------|----------------|-------|---------------------|
|      |                      |                                  | Teacher                            | Police officer | Nurse | All employees (FTE) |
| 2012 | £256,000             | £49,000                          | 74                                 | 93             | 74    | 69                  |

Of the three types of key worker considered, affordability issues by this measure were most severe for teachers and nurses. The earnings of a nurse or a teacher amounted to around three-quarters (74%) of the income required to service a mortgage affordably on the purchase of a dwelling at the lower quartile price.

In contrast, the earnings of a police officer were almost sufficient (within 7%) to service a mortgage affordably on the purchase of a dwelling at the lower quartile price.

In 2012, the average (mean) earnings of all employees in Jersey were just over two-thirds (69%) of that required to service a mortgage affordably on a lower quartile property.

## Private sector rental properties

Table 12 shows key worker incomes as a percentage of the income required to make rental payments affordably on an average (mean) priced rental property in the private sector in 2012.

*Average monthly rental payments are based on private sector rents only and, for the purposes of this analysis only, derived from new rental consents which were granted during the year 2012 and not from all private sector rents in the Island.*

**Table 12 – Individual and key worker earnings as a percentage of the gross income required to service mean private sector rents in Jersey in 2012**

|                    | Mean monthly rental payments | Qualifying annual income (gross) | Earnings as % of qualifying income |                |       |                     |
|--------------------|------------------------------|----------------------------------|------------------------------------|----------------|-------|---------------------|
|                    |                              |                                  | Teacher                            | Police Officer | Nurse | All employees (FTE) |
| <b>1 bed Flat</b>  | £830                         | £33,300                          | 109                                | 138            | 109   | 101                 |
| <b>2 bed Flat</b>  | £1,260                       | £50,300                          | 72                                 | 91             | 72    | 67                  |
| <b>2 bed House</b> | £1,290                       | £51,600                          | 71                                 | 89             | 70    | 66                  |
| <b>3 bed House</b> | £1,740                       | £69,600                          | 52                                 | 66             | 52    | 49                  |
| <b>4 bed House</b> | £2,420                       | £96,800                          | 38                                 | 47             | 37    | 35                  |

Based on the assumption that rental payments should account for no more than 30% of gross income, the earnings of an individual teacher, police officer and nurse in 2012 would have been sufficient to service rental payments on an average priced 1-bedroom flat in the private sector but not on a dwelling (flat or house) with two or more bedrooms.

It should be noted that in 2012 new rental consents were granted for a considerable number of properties in the private sector which were rented for less than the mean rent of a 1-bedroom flat; in 2012 almost a quarter (24%) of all new rental consents were granted for properties priced at less than £830 per month, the majority of which were bedsits or 1-bedroom properties.

### Data Sources

#### Property purchase prices

Mean average property prices and measures of distributions, such as median and lower quartile prices, are derived from data collected for the compilation of Jersey's quarterly House Price Index. The data on transaction prices comes principally from the Jersey Property Bulletin (for freehold and flying freehold properties, recorded by the Royal Court) and the States of Jersey Income Tax Department (for share transfer transactions), supplemented by information on dwelling type and size provided by the States of Jersey Population Office.

Property prices (means and measures of distributions) have been calculated using the transaction prices of all 1- and 2-bedroom flats and 2-, 3- and 4-bedroom houses sold in Jersey in each year. Certain property types (e.g. bedsits, 1- and 5- or more bedroom houses and commercial properties) are excluded from the analysis.

To determine mean property prices, distributions are winsorised in order to prevent exceptionally high or low values from overly influencing the estimate of the mean. Mean prices of each dwelling type in each calendar year are derived from quarterly data weighted by turnover; furthermore, the overall mean price for each calendar year is "mix-adjusted", i.e. it is independent of the particular "mix" of properties sold in a given year.

Median and lower quartile prices are measures derived directly from distributions and do not account for differences in the mix of properties sold.

#### Housing costs (30/40 method)

Data pertaining to household spending on housing (mortgage interest and capital repayments and rental payments), used in the 30/40 method of identifying housing stress, is derived from the Household Spending and Income Survey 2009/2010.

This survey represents the combination of the Jersey Household Spending Survey and Income Distribution Survey in which all households were asked about their income and spending behaviour.

#### Private sector rentals

The principal data source for mean private sector rents (used only in the key worker analysis) is the States of Jersey Population Office.

Average rental prices are based on the rental of properties in the private sector for which consents have been granted during the year and not from all existing private sector rents in the Island.

As with average house prices, mean rentals for each property type (1- and 2-bedroom flats and 2-, 3- and 4-bedroom houses) are calculated from winsorised distributions; calendar year averages are derived from quarterly data weighted by turnover.

#### Housing loan interest rates

Housing loan interest rates are derived from figures published by the Bank of England and represent a yearly mean average of interest rates offered by UK monetary financial institutions. The rates used are those for sterling variable rate mortgages quoted to households.

It should be acknowledged that a different range of mortgage products from that in the UK may have been available to Jersey residents throughout the period covered by this report.

## **Income**

Measures of net and gross **household** income have been derived from data collected by the 2009/2010 Jersey Income Distribution Survey. Household level data are weighted by tenure.

A process of winsorisation was applied for the calculation of mean household incomes, to prevent exceptionally high or low values from overly influencing the estimate of the mean.

Since the Jersey Income Distribution Survey is not conducted annually, measures of household income for each year of the period from 2002 to 2012 have been calculated by deflating/inflating values derived from the 2009/10 survey according to the annual percentage changes determined by the Jersey Index of Average Earnings.

Data on **individual** employment income is sourced from the annual survey for compiling the Jersey Index of Average Earnings; this survey enables estimation of the mean full-time weekly earnings for both private and public sector workers in Jersey (gross earnings, including overtime, but excluding bonuses, employers' insurance contributions, holiday pay and benefits in kind).

For this survey, firms report the total gross wages and salaries paid to employees before any deductions (e.g. for income tax, social security or pensions) as well as the number of people employed (part-time employees are converted to full-time equivalents, FTEs). Mean earnings are compiled for each sector and the sectoral means are weighted according to the sectoral share of total employment in order to provide an estimate of the overall mean weekly earnings per FTE employee in Jersey.

**Statistics Unit**  
**17<sup>th</sup> May 2013**