MALTA'S DECLINING HOUSING AFFORDABILTIY – due to rental deregulation?

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INTRODUCTION

The Maltese Archipelago is a small island state of 316km^2[1] situated in the centre of the Mediterranean. It became the smallest member state of the EU in 2004, embracing the euro as its currency in 2008.

The total population stands at 493,559 persons *(NSO 2019),* of these 72,102 presently, or 14.6%, are non-Maltese nationals, a fivehold increase over the 12,112 2005 Census figure, or 3%, of the total population then.

The length of stay of foreign workers of which 80% are considered single, in the Maltese labour market is short. In addition, low retention rates have important implications on the demand of the rental market. Moreover, only 30% remained engaged in the Maltese labour market more than 6 years after their first engagement. The average length of stay of foreign workers is 3.5 years, relatively unchanged since 2012, *(Borg I., 2016).*

Malta being bereft of any natural resources, foreign workers thus are necessary in creating the economic growth to the Maltese Islands, presently between 5%-6% annually, noted the highest in any of the EU member states.

Due to its small size, together with its population, Malta has the highest population density in all EU Member States, standing at 1,507 persons/km^2, compared with the EU average of 117/km^2.

Table No. 1 notes the characteristics of the Maltese Housing Market over the past 70-year period, as a period of high Homeownership, varying from 23% up to 81% over this period. As at 2018 the population living in owner occupied dwellings with a mortgage stood at 21.4% *(Eurostat – Housing Statistics 2018)*. This compared with the majority of the population in each EU Member State living in owner-occupied dwellings in 2016, varying between 52 % in Germany and 96 % in Romania, with an EU average of 69.2%. *(Eurostat – Housing Statistics 2016)*.

Priemus et al. (1993) highlighted the dominance of home-ownership was the result of welfare policies enacted between 1945s and the 1960s and focused on "incentives to buy".

TABLE 1: HOMEOWNERSHIP RATE AS AT CENSUS DATE

YEAR	1948	1957	1967	1985	1995	2005	2011	2018
%	23.1	26.1	32	53.9	68	75.2	77.0	81.6

The proportion of housing tenures in Malta, as at 2011, stood at *(Xerri K., 2018):*

Social housing	5.1%
Private rent at below market prices	10.1%,
The above 2 total of	15.2% is to be compared to 13.5% at 2015 *(NSO 2016)*
Private rent at market prices	5.3%, compared to 4.6% at 2015 *(NSO 2016)*
Free of charge	2.6%.

This paper now delves into why Malta's improving housing affordability up to 2014, has deteriorated, with affordable housing besides social housing in place, becoming necessary to reduce the housing burden. This loss in affordability was brought about mainly due to two different causes:

1/- total de-regularization of Malta's rental market, by amendments to the Civil Code in 2009. This followed on the 1995 initial liberalization of leases. It is to be noted that Malta had the strictest security of tenure in place, with tied rentals leased out at 2%-5% of the open market rentals. The Maltese Courts had resisted changes to this security of tenure, which however had been overturned by the European Courts. So this security of tenure is now also being rejected by the Maltese Courts, with rulings dictating that the present tied rentals have to be upgraded to present market rental conditions, together with backdating of rental arrears due *Xerri K., 2018.* These rental arrears are being paid out by the Government, however pensioners or low paid persons are finding it impossible to pay these market rents.

2/- the increase in the non-Maltese nationals has had a dire effect on the market rentals, which have increased by over 175%, over the past 5-year period. The present rentals in place, which are noted as unaffordable for most Maltese are also noted to impinge badly on the lower paid sector of the non-Maltese nationals. These in turn have tackled this dilemma by living in an apartment rented out to 6 separate individuals, considering their stay in Malta not to be permanent.

LITERATURE REVIEW

Affordable housing models vary across Europe. This is particularly helpful as it identifies three main approaches to affordable housing in the Euro area: a universalistic, a generalist and a residual one *Esping-Andersen, (1990)*. The three main approaches have been classified by *Ingaramo et al, (2011)* as follows:

Universalistic – The Netherlands, Denmark & Sweden (social housing >10%).

Generalist – Austria, France, Finland& Poland (social housing >10%), Belgium, Germany, Italy (social housing between 5% - 10%), Slovenia & Luxemburg (social housing <5%).

Residual – UK & France (social housing >10%), Ireland, Estonia & Malta (social housing between 5% - 10%), Hungary, Cyprus, Portugal, Bulgaria, Lithuania, Latvia & Spain (social housing <5%).

In both the Universalistic and the Generalist groups, social housing is used in tangent with the private sector, with the private rental sector being subsidized to ensure the latter's adequate return on investment. This defined as unitary creates a system where renting from a social landlord is not associated with social stigma and a wide variety of social groupings live within it.

In the residual, also known as the liberal welfare group, emphasis is placed on welfare as a safety net of minimum standards, with the social and private renting serving essentially different markets. This creates a stigmatised and means-tested rental sector. This is further dominated by the Anglo-Saxon group being the most marketed system, whereby purchase of a home has to be undertaken from a speculative developer which in turn fuels speculative land trading. Profits from land purchase means less emphasis on raising building standards. On the continent were speculation is limited, due to the planning policies in place, better constructed dwellings are available*, Camilleri D. H., (2000).* A significant body of literature concludes that British planning control, by containing urban extensions, tends to increase house prices and land values.

In the residual/liberal welfare group, it was then aimed to speed-up new housing supply by streamlining the planning system to *ensure that everyone has the opportunity of living in a decent home, which they can afford, in a community where they want to live.* These objectives were to be carried out by private developers without public subsidy. The hope was that new housing supply could be made more responsive to prices in order to make house prices less volatile, *Poon J., et al., (2012)*.

In many countries a high homeownership rate is deemed politically desirable because it appears to be associated with a number of beneficial effects. For example, homeowners are said to have superior educational achievements, commit fewer crimes, and care more about their communities. On average, they are also wealthier and have provided for their retirement better than renters *Pfeiffer U., et al, 2006.* Critics of a high homeownership rate raise the point that it interferes with labour market mobility, most probably not Malta's case.

Within the residential property market, the availability and cost of finance was a key factor in determining the performance of property markets. The US Department of Housing and Urban Development index measures the ratio of the median family income to the income required to qualify for a conventional loan based on median valued houses sold. This is identified by *HNZC (2004)* which suggests that affordability is not merely a calculation of housing costs and income. Indeed, it is recognised as the ability to obtain housing and to maintain homeownership, but also to have sufficient residual income to purchase basic necessities.

The ratio of average house prices to average earnings *Jones et al. (2011),* is the simplest ratio and there are now long-time series in the UK for this ratio at national and regional levels. Such a ratio takes no account of interest rates and mortgage repayments and so has only limited applicability as a measure of affordability over time.

Finally, the percentage of these households able to buy a house at this threshold is estimated on the basis that they could borrow 3.5 times their income with an allowance for family wealth providing help with the deposit.

The housing affordability index for the United States in 2008 amounted to 2.8 years (€95,500), with the best global rating. This was followed by the Dominican Republic 3.5 years (€33,500). Next came Chile, 4 years (€45,800), then Sweden 4.2 years (€119,500) and Belgium 4.3 years (€121,000) *Torluccio G., et al., (2011)*. Comparative data for Malta in 2008 notes 5.2 years (€110,500), *Source Author*.

The deposit required which may vary from 0% down to 40% challenges for measurement of affordability. The most common form of deposit across countries averages at 10%. Until late 2006, deposit levels or purchase/access issues were not of core concern within affordability narrative. However, the wholesale removal of 95% loan to value LTV mortgage products in early 2007 caused the cost burden of entering the market to severely increase adversely affecting purchase affordability. At the peak in house prices (2007Q1), the deposit requirement consumed 34% of annual income. However, the removal of the 95% LTV product increased deposit levels to 70.2% of income in 2008Q1 for 90% LTV ratios and to 105.1% of annual income for 85% LTV products *McCord m., et al., (2011).* Unsurprisingly, the average age of the first-time buyer rose to 38, as compared with around 30 in the mid-1980s and 34 in 2004. The recent literature finds that down payment subsidies are more effective and less costly than interest rate subsidies in enlarging the pool of successful homebuyers, *Poon J., et al., (2012).*

The following UK experience of the residential housing market gives an indication of what had happened in the residual sector, *Bowcock P., (2015).* Since 1952, it is shown that there was a gradual rise from 1952 until 1971, when prices started to rise more steeply, followed by a plateau until 1977. A steeper rise started in 1982 until 1990, and then prices declined substantially and did not regain the same level until around 1997. At this time, however, a much steeper rise had started and this continued until 2008, when it became apparent that a sharp drop was starting. In September 2004, the International Monetary Fund issued a warning that prices being paid were too high and purchasers should exercise due caution. Why were these events and opinions disregarded?

What is significant, however notwithstanding the above booms and slumps in the residential property market, is that the amount of money which any individual can bid for a house depends very largely on the amount which can be borrowed. Reducing interest rates or extending repayment periods, then it is possible for everyone to borrow more and thus to offer more. Over the past 60 years, repayment terms have changed from 20 years based on three times husband's income alone to 30 years or more based on the income of two partners. These have enabled purchasers to borrow more.

Further *Poon J., et al., (2012) note that* UK house prices increased over the long term, at a rate that not only exceeds the growth in consumer prices, but also the growth in household incomes. Between 1969 and 2010 while nationally UK house prices grew 47 times, consumer prices grew 12 times, while the income of the household sector grew 33 times. For Malta these figures stand at 26.6, 4.1 & 14.8 respectively *(Source Author*).

The ratio of mortgage debt to GDP, then doubled between the late 1980s and the late 2000s. In 2009, mortgage debt as a percentage of GDP was 88% in the UK while the average across the EU-28 States was 52% *Poon J., et al, (2012).* For Malta as at 2009 this stood at 40%, which remained static over this period as at 2017, it read 40.3%.

Affordability measures generally make a link between a normative judgement about the cost of the provision of some form of "adequate" housing and the minimum "residual" income required for other basic non-housing requirements. Another definition of housing affordability, the shelter poverty measure (Stone 2006), uses a sliding scale to reflect the fact that upper income and smaller households can afford to spend much more than 30% of their incomes on housing and still have enough income left over to satisfy other basic needs, whereas extremely low income households that spend even 10% of their incomes on housing costs may be forced to forgo essential medical care and healthy food. It is thus acknowledged; that housing costs in excess of 30% of household income represent "housing stress" is arbitrary.

In 2016, the EU, housing cost overburden of tenants renting at market prices was highest in Greece: 84.6% of them spent more than 40% of their equivalised disposable income on housing. In 2016, an 11.1% share of the EU-28 population lived in households that spent 40% or more of their equivalised disposable income on housing. *(Eurostat – Housing Statistics 2016)*.

The new Italian Housing Plan marks a shift in the Italian approach to social housing. First, it targets medium-to low-income groups, ineligible for public housing subsidies ((on average the limit can be between €18,000 and €28,000/year/family), with affordable units to rent in medium-high quality buildings of 75sqm.

The *Piano Casa*, the new Italian Housing Plan also defines a system of local real estate ethical funds, financial vehicles that allows private institutional investors to sustain the funding strategy by investing in opportunities whose risk is lower than traditional real estate funds thanks to public backing. Such institutions have a core tradition in supporting social and cultural programs and in managing their own finances, and are therefore able to draw upon their managerial skill in developing affordable finance for affordable housing through: commercial players, investment management companies, local authorities, social enterprises and finally, tenants *Ingaramo et al,(2011)*.

It is noted that both high debt-service-to income ratios and high loan-to-values increase the probability of default. This suggests that other options could be more productive for low-income earners, such as fostering house renting rather than house purchase, *Vacca V., et al (2016).*

The overall German homeownership rate has stayed more or less stable around 43%, whilst countries such as Portugal, Belgium and Malta saw increases in their ownership rates of almost 20% since the 1980s; the case of Germany's experience distinguishes it from other industrialized nations, due to the country's reunification. Under the communist regime, homeownership in the Eastern states was practically non-existent. After unification, state owned residential property was not distributed to its German residents or sold to them significantly below market value in contrast to many Eastern

European nations, where such practices led to high homeownership rates uncoupled from local income levels.

The concept of affordability has its origin in the Engel-Schwabe law, which states that, as household income rises, the portion which is spent on a basic necessity such as housing decreases. From a social policy point of view, affordability thus addresses the concern that low income households will be left with sufficient resources to cover their non-housing needs, such as food and clothing

HAI values are again significantly less favourable for homeownership in Germany (66 for houses and 117 for apartments country-wide), than in the USA (169 at the end of 2009). The entry age to homeownership is noticeably higher in Germany (45 years) than France (39years), the USA (31years), and the UK (24years), making it more of a once-in-a-lifetime investment, *Bentzien V., et al, 2012.*

Affordable Housing in Malta over the past 38-year period

Affordable housing is related to the ability to pay. Affordable housing costs should not exceed 35% of gross household income.

Over the past 37 year period 1982–2019, as per table No. 2, the average Malta affordable house prices had increased 12½ times. Doubling in price occurred over the initial 10-year period 1982-1992, doubling again in price over the subsequent 10-year period 1992-2002 and then nearly doubling again in price over the 5-year period 2002-2007. This prior to a drop in residential property prices prior to picking up again, as at 2014. An 85% increase in value was then recorded in the final 5-year period 2014–2019.The affordable house price growth over the 37 year period 1982–2019, stands at 6.73% pa (doubling in value occurs every 10.75 years) as per table 2, decreasing to 4.17% pa (doubling every 15.25 years) over the past immediate 17-year period. The above, is to be compared with the gut feeling that growth rates for Maltese properties used to double in value over every 10 year period (7.2%pa growth rate) to 12 year period (6%pa growth rate).

Table 2 then notes double figure growth rates averaging 14% pa as existing in the period 2002-2007. This heating up of the property market was due to Malta gaining membership to the EU as at 2004, together with repatriation of Maltese foreign funds, which were then invested in property *Xerri K., (2018).* This then expired with the ensuing global financial meltdown that had occurred as at 2008. In 2008, a decrease in value is recorded for the first time under this 36-year period. Leveling off in values is then noted in the years 2007–2012, with an overall loss of 6.79% occurring over this period.

Locality	1982	1987	1992	1997	2002	2007	2012	2014	2015	2016	2017	2018	2019	2020	%growth rate Pa 1982-2020
Fgura / Paola / Zabbar	105	128	256	408	466	987	893	1038	999	1016	1137	1493	1679	1753	7.29%
M'scala	116	175	373	373	505	1001	881	980	992	998	1260	1585	1891	2060	6.82%
Mosta / Naxxar	186	198	291	478	524	1242	1167	1180	1337	1443	1545	1649	2217	2077	6.80%
San Gwann	151	175	256	431	557	1092	962	1076	1022	1152	1558	1742	2005	2131	7.02%
Sliema inner prime	210	338	443	710	883	1373	1402	1457	1720	1756	2459	2303	2638	2755	6.48%
St. Julians	186	233	408	547	687	1321	1186	1311	1369	1447	1998	2360	2455	2616	6.84%
Swieqi	198	245	419	641	785	1473	1443	1376	1535	1539	2070	1864	2521	2398	6.56%
Malta	**163**	**212**	**349**	**512**	**629**	**1211**	**1134**	**1203**	**1282**	**1336**	**1718**	**1856**	**2201**	**2256**	**6.80%**
Trend	**171**	**240**	**337**	**472**	**661**	**925**	**1296**	**1460**	**1521**	**1693**	**1802**	**1920**	**2053**	**2079**	**6.89%**
Gozo					**432**	**857**	**903**	**906**	**1029**	**1017**	**1106**	**1066**	**1137**	**1287**	**5.03%**
Source: DHIperiti in-house valuations 2020															

TABLE 2: AFFORDABLE PROPERTY RATES €/SQM FOR THE MALTESE ISLANDS OVER A 38 YEAR PERIOD

CHART NO. 1: MALTESE ARCHIPELAGO LOCATION OF TOWNS REFERRED TO

This is not considered as drastic as residential property losses that were registered in America or Europe where drops exceeding 30%-60% had been noted. As from 2013 property values started increasing again, with the previous 2007 property values, now equalized in 2014.

Table No. 2 notes that the affordable property rate in Gozo stands at €1,137/sqm, having experienced a 5.91%pa increase in value over the past 17-year period. This as compared to Malta which has been subjected to a 6.08% annual increase in value over the same period, however the Gozo property market stands at 52% of the Maltese value.

Further to the above, table No. 2 can outline preliminary indications that the COVID_19 crisis as commenced in Malta as at March 2020 will impact on these residential market rates. Table No.2 noted a residential market decline following the previous 2008 – 2009 financial meltdown, when the 2007 market rate of €1,211/m^2, was only recovered 7 years later as at 2014. The lowest residential market rate was recorded in 2010 at €1,130/m^2. Considering the above it is to be considered that a greater than 10% drop in market values will occur, with a time lag recovery to pre-Covid values exceeding 5 years.

Rental Matters

Has the releasing of a number of rental premises at market rates been beneficial to the better workings of the affordable property market? Rent control measures introduced as at 1925, were liberalized in 1995, *Xerri K., 2018.*

Camilleri D. H., (2000) had noted, rent deregulation was urgently required. It would improve the condition of our housing stock and improve the affordability of affordable homes. Regulation increases the rental amount due in the uncontrolled rental market. This has an effect of further increasing prices in the home-ownership market. Referring particularly to the Finnish experience with partial rental deregulation as occurring in 1991, *Tulla S., 1998,* noted the greater supply of housing ensuing witnessed a drop in the value of residential premises. Table No. 2 notes this as not Malta's case, with double figure value increases as occurring over the period 2016–2019, despite the flourishing liberalized rental housing market.

Table No. 3 outlines the various forms of home ownership over the censuses period 1995–2011. It is further noted that the % of the rental houses has slid down from 76.9% (table 1 1948 census) to 23.0% at 2011 Census. The furnished & unfurnished rental classification, gives an indication of the regulated rents in place. Thus the regulated rentals in place, have decreased from 25.82% (1995) to 15% (2011).

TABLE 3: % NO. OF DWELLINGS BY OWNERSHIP

Year	owned	Free of charge	Rented furnished	Rented unfurnished
2011 (Census)	77.0%	3.0%	5.0%	15.0%
2005 (Census)	75.2%	2.7%	3.1%	19.0%
2002 (NSO)	70.0%	3.8%	2.6%	23.6%
1995 (Census)	68.0%	3.69%	2.49%	25.82%

The share of people living in rented dwellings with a market price rent in 2016 was less than 10% in 11 of the EU Member States. By contrast in Germany (39.8%) and Denmark (37.9%) lived in rented dwellings with a market price rent as did in Sweden (34%), the Netherlands (30.3%) and Austria (29.7%), whilst in Luxembourg (21.5%), Greece (20.8%) and Belgium (20%). The share of the population that lived in rented dwellings with a market price rent was even higher in Switzerland (50.2%). Those living in a dwelling with

a reduced price rent or occupying a dwelling free of charge was less than 20% in all of the EU Member States *(Eurostat – Housing Statistics 2016)*.

Chart No. 2 now notes household rental amounts as paid over the various censuses in Malta. It is to be noted that the number of households paying rental annual amounts of €200 has decreased from 39,657 households in 1985 (46,814 total households with rentals) to 12,503 households in 2011 (30,345 total households with rentals). It is further to be noted that households paying annual rental amounts exceeding €6000 only commenced in 2011 at 1,130 households.

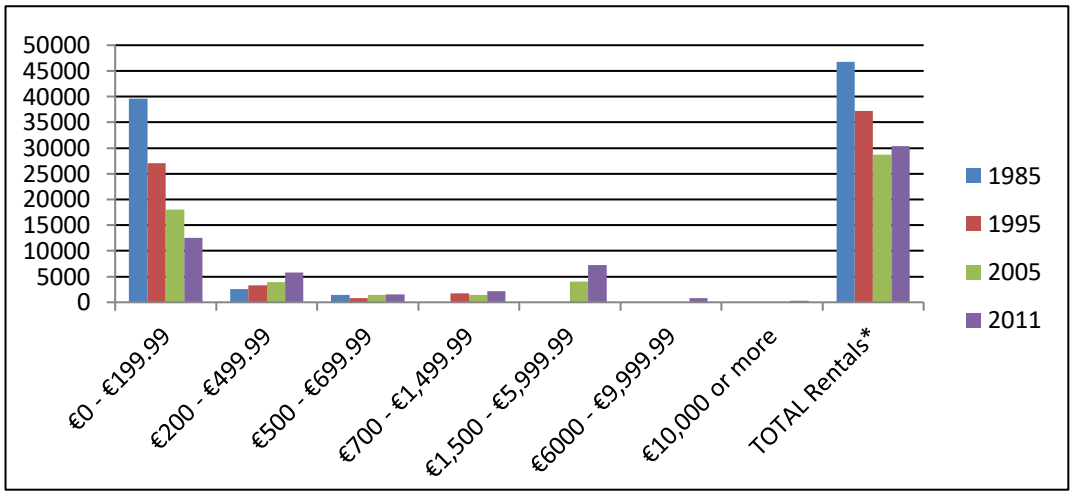

CHART NO. 2: DISTRIBUTION ON ANNUAL RENTAL AMOUNTS WITHIN THE CENSAL PERIODS 1985-2011

*includes for free accommodation

Chart No.2 notes that due to the previous tied rental regime in place, a decline in the number of rental residences was noted from 1985 up to 2005. As at 2011 an increase in rental residences is noted from the 2005 number at 28,760, up to 30,345 as at 2011. Hence with foreign workers increase in Malta, it is envisaged that the rental numbers have increased from the 2011, 30,345 rentals.

As per the 2011 Census the median annual rent paid by those residing in a rented furnished dwelling stood at €3,537 (free rental market €300 monthly), compared to €186 for unfurnished dwellings (tied rental market €15 monthly). 25% paid a rent exceeding €4,800 (€400 monthly) for their furnished dwelling.

Table 4 notes monthly rental data collected over the period 2007 – 2019, spread over 3 bed/r, 2 bed/r & 1 bed/r apartments. Over the initial 6-year period 2007–2013, the average monthly rentals for 3-bed/r apartment, 2-bed/r apartment & 1-bed/r apartment increased by 23%. This increase over this period is to be compared with average increase for the median wage over this period which stood at 18.5%. On the other hand the average rental increase over the following 6-year period, 2013 – 2019 hiked up by 158%. This is totally out of synch with the average 3.5%pa increase to the median wage over this period at 28.6%, together with the increase in affordable housing prices over 2013–2019 at 84.4%.

With the median Maltese household wage standing at €2,644 monthly, a sustainable rental amount equates to 30% of the household income, standing at €793 monthly. Table No. 4 notes the difficulty in achieving an affordable rental amount, due to the distortion from high earning foreign residents.

However, not all foreigners are high earners and also affected adversely by the present rental market. Migrants arriving perilously by boats over the Mediterranean Sea, once their term in detention centres expires, have to seek private accommodation. What they can afford unfortunately is substandard accommodation such as previous cowsheds converted into substandard accommodation. The next option is for 6 of them to rent out an apartment.

TABLE 4: DHI RENTALS MONTHLY DATA

	DHI	DHI	DHI
	3 Bedroom	2 Bedroom	1 Bedroom
2007	€ 491	€ 448	€ 238
2010	€ 492	€ 422	€ 258
2013	€ 541	€ 522	€ 331
2014	€ 478	€ 393	€ 345
2015	€ 752	€ 615	€ 493
2016	€ 983	€ 723	€ 583
2017	€ 1,034	€ 1,008	€ 769
2018	€ 1,179	€ 1,139	€ 859
2019	€ 1,137	€ 1,036	€ 803
2020	€ 1,235	€ 1,032	€ 806

Table No. 5 notes unsustainable residential rental capitalization rates for 1997, as varying between 8.50% - 5.5%. This shifted to more sustainable residential rental capitalization rates as varying between 3.25% & 4.50% between 2004/2007. Rates as standing within the 2% range, then note these locations as being undervalued. High capitalization rates are again noted for 2015, due to the high noted rentals in place, not matched with adequate increases in the market value. With the double digit increases as then occurring in the residential market values, as from 2016 onwards, decreases to the capitalization rates started again. However by 2019 this decline was still above the 3.5% - 4.25% range in most locations, with increases in residential property prices still awaited.

The rental market is a better indicator of the housing market, as people will pay the rental amount that is fair. Rents drive house prices and not vice versa. House prices do correct back to rents rather than rents correcting to house prices, Hargraves *B., 2008*. The analysis in this paper suggests rents lead prices by twelve months. Table No. 4 notes the hike in rental payments to have occurred over 2014 – 2015. Table No. 2 then notes the upturn in market values not occurring prior to 2016 – 2017.

TABLE 5: RENTAL VALUES FOR VARIOUS LOCALITIES AS A % OF MARKET VALUE

Locality	Rental value as % of market value - 1997	Rental value as % of market value - 2004	Rental value as % of market value - 2007	Rental value as % of market value - 2015	Rental value as % of market value - 2016	Rental value as % of market value - 2017	Rental value as % of market value - 2018	Rental value as % of market value - 2019	Rental value as % of market value - 2020
Bugibba – internal	8%	3.60%	3.25%	5.01%	6.32%	5.08%	5.60%	4.03%	5.98%
Qawra - internal	8.50%	4.30%	2.75%	4.89%	6.45%	5.93%	5.30%	3.79%	5.34%
Sliema front	5.50%	2.00%	3.50%	4.20%	0.00%	3.48%	4.13%	4.76%	5.26%
Sliema inner	5.50%	4.10%	4.50%	5.90%	5.60%	5.97%	6.63%	5.88%	5.09%
St Julian's	7.50%	3.50%	3.75%	6.63%	9.62%	6.05%	5.45%	6.33%	5.47%
Swieqi	7.00%	4.15%	4.18%	5.64%	6.96%	6.70%	4.52%	5.05%	6.72%
Source: DHIperiti in-house valuations 2020									

Chart No.3 identifies the under-pricing or overpricing over the periods mentioned, via the trend line analysis as drawn from the trend value for the Maltese Islands noted in table No. 2. The boom years 2002 – 2007 & the slump years 2008- 2014 are identified. The overshoot onto the upper portion of the chart for 2019, indicates again that the property market heading towards the unaffordable range for the 1st time buyer.

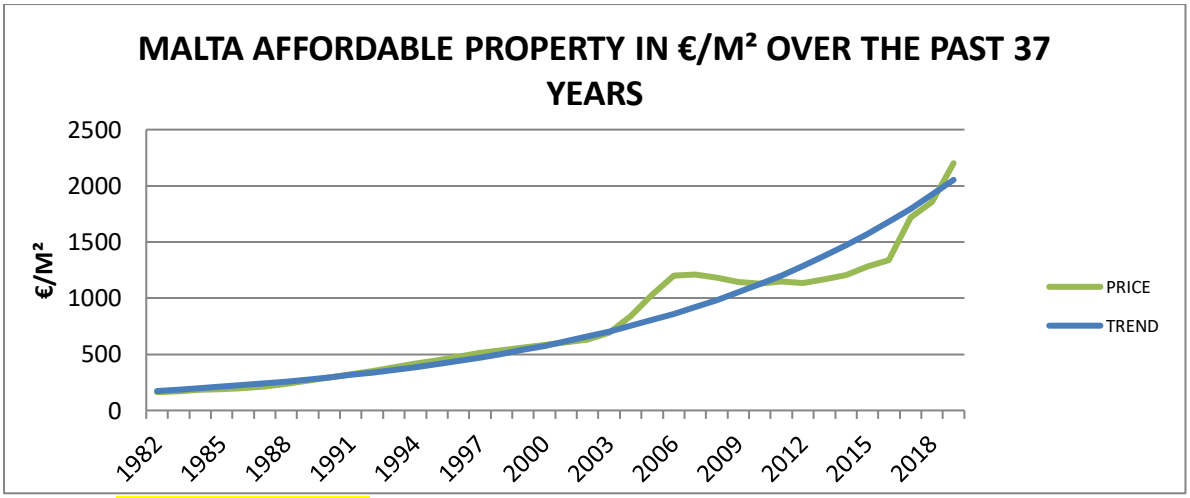

CHART NO.3: MALTA AFFORDABLE PROPERTY IN €/M² OVER THE PAST 37 YEAR

Malta's Housing affordability index (HAI)

Various studies over the years have been undertaken on Malta's HAI, *Camilleri D. H., 2000, Darmanin J., 2008, Camilleri D., 2011 & Micallef B., 2018.* The Housing Affordability Index (HAI) table 6, as defined in the sub-script to this table has been calculated over the period 1982 – 2019.

TABLE 6: HOUSING AFFORDABILITY INDEX FOR THE MALTESE ISLANDS – HAI

Year	*Mortgage Monthly Payment*	*Medium Monthly Family Income***	*Qualifying Monthly Income*	*Ratio of Qualifying Family Income*	*HAI**	*House Price: Earnings Ratio*
	3-bed/2-bed/r		*3-bed/ 2-bed/r*	*3-bed/2-bed/r*	*3bed/2 bed/r*	
1982	*€140 € 56*	*€ 429*	*€559 € 391*	*1.3 0.91*	*77 110*	*4.28*
1987	*€161 €114*	*€ 564*	*€643 € 457*	*1.14 0.81*	*88 123*	*4.23*
1992	*€252 €168*	*€ 745*	*€1006 € 531*	*1.35 0.90*	*74 111*	*5.27*
1997	*€384 €247*	*€ 995*	*€1537 €988*	*1.55 0.99*	*65 101*	*5.80*
2002	*€394 €263*	*€1215*	*€1575 €1057*	*1.29 0.86*	*77 116*	*5.60*
2006	*€606 €429*	*€1665*	*€2119 €1500*	*1.27 0.90*	*79 111*	*7.22*
2007	*€673 €478*	*€1738*	*€2152 €1670*	*1.35 1.01*	*74 104*	*6.97*
2008	*€615 €410*	*€1798*	*€ 2152 €1435*	*1.20 0.80*	*84 125*	*6.58*
2011	*€469 €315*	*€1959*	*€1641 €1103*	*0.84 0.56*	*119 179*	*5.29*
2012	*€448 €305*	*€2058*	*€1568 €1067*	*0.76 0.52*	*132 192*	*5.05*
2014	*€472 €322*	*€2237*	*€1652 €1127*	*0.74 0.50*	*135 200*	*4.93*
2015	*€504 €346*	*€2325*	*€1764 €1211*	*0.76 0.52*	*132 192*	*5.28*
2016	*€520 €358*	*€2354*	*€1820 €1253*	*0.77 0.53*	*130 189*	*5.44*
2017	*€668 €453*	*€2521*	*€2338 €1585*	*0.93 0.63*	*108 159*	*6.25*
2018	*€723 €526*	*€2575*	*€2530 €1841*	*0.98 0.71*	*102 140*	*6.61*
2019	*€799 €624*	*€2644*	*€2796 €2184*	*1.06 0.83*	*95 121*	*7.63*
Source: DHIperiti in-house valuations 2019						

*An HAI of 100 according to the US National Association of Realtors' signifies that a family earning the median household income just qualifies for a median residence, whilst with a HAI less than 100 signifies that the median family has to do away with other necessities.

**the median family income is factored at 1 for 1982, and by 1.35 for 2002 increasing to 1.65 as from 2012 to account for the effect of the 2nd wage earner.

***A long-term 35 Year average level of house prices to income ratio is given at 3.5. The UNCHS (habitat) indicators mention the price earnings ratio desirable range lying between 2 & 6.

Table No. 6 notes for a 3-bed/r median apartment, the HAI has since 2007 at 74 risen to 135 in 2014, the best year, declining worryingly to 95 as at 2019. The worst recording is 65 at 1997, coinciding with the introduction of VAT in 1995. The present declining value is now due to the spiraling buy-to-let rental bonanza is increasing the market value of property.

Over the years it has always appeared affordable to purchase a 2 bed/r median apartment with the HAI never below 100.

The affordability for first time buyers over the period 1982-2019 has varied slightly as noted in table 6 averaging out at 98.2 for a 3 bed/r apartment and at 142.06 for a 2 bed/r apartment. This occurred, despite the increase in house prices over the period given at 6.73%pa and despite the lower average wage growth at 3.75% pa over the same period.

The HAI was kept at a relatively stable level over this period, due to the following:
1/- household income supplemented by the provision of a greater reliance on the: wage of the 2nd wage earner, this signifies 5.1% p.a. increase in the household's earnings over the period.
2/- a lower mortgage rate from 8% in 1982 down to 3.10% in 2019,
3/- a higher repayment period from 25 years in 1982 up to 35/40 years in 2019,
4/- this together with a reduction in the floor area purchased, with a 3 bed/r apartment in 1982 having an average floor area of 135sqm, decreasing to 115sqm inclusive of external areas.

Over the past 1982-2007 period, the HAI averaged out at 75.8, with a 3 bed/r apartment unaffordable for the median Maltese household:

100/75.8 = 1.32 i.e. over this 25-year period an affordable residence averaged 32% more expensive, than could have been purchased by the median wage earner. This 32% shortfall should have been made good by undertaking overtime work. Table 6 notes this to have been reversed since 2009, when the HAI then reads 112 onwards.

Camilleri D., 2011, had noted that the present low mortgage rate era and decline in property values as had occurred up to 2013 had signified that for Malta, the global credit crunch was beneficial for first time homeowners. An improvement in the quality of life of the Maltese family was to occur, as a main job would have been sufficient to own one's home, as noted this has reversed since 2014.

The price earnings ratio from table 6 has increased gradually from 4.28 in 1982 peaking in 2006 at 7.22, before declining to 4.93 in 2014. Presently in 2019 this now reads 7.63. These ratios are considered high, as a long-term 35-Year average level of house prices to incomes ratio is given at 3.5.

The UNCHS (habitat) indicators mention the price earnings ratio desirable range to lie between 2 & 6. These ratios may also refer to property bubbles. A little property bubble will occur if the price earnings ratio is less than 6 and a serious bubble will occur if higher than 10.

Prospective homebuyers should learn the new low inflation housing market game by moderating their borrowings and house price bids. Interest rates are not to remain at this low end for long. A rise of 1% to 3% over the next years would raise mortgage costs by 16% for a 1% mortgage rate increase, 33.33% for 2% increase, and 52.75% for 3% increase. What happens to the personal finances of those who borrowed large sums relative to their income? A prospective homebuyer should look out for a price-earnings ratio closer to the long-term average of 3.5 than the present 7.63 value.

Presently a new affordability measure has been introduced, as now the mortgage payback amount appears affordable, with the forward payments undertaken presently unaffordable. Further to the above mortgage payments, expenses accumulate due to the normal present 10% - 20%+ deposit anticipated, down from the 20% deposit requested in the earlier years. To this deposit, purchase expenses are added onto, which includes for stamp duty + notary and survey fees. In recent years as noted in the literature review, the deposit costs is considered an important barrier to housing affordability.

Why this should be a recent phenomenon is disputed by Malta's data. This notes that to accumulate the 10% deposit to purchase the average new house in 2019; an individual must save 78% of the median annual household income. On the other hand for 1982, when the deposit stood at 20%, this constituted 85% of the then median annual household income. For the most affordable year, as at 2014 (HAI 135), the 10% deposit only attracted 51.5%.

These payments are noted as being a hindrance towards getting onto the property ladder, when these 1st time buyers could consider to opt for the rental market, whilst getting onto the property ladder later on in life. This makes matters more difficult, as the repayment period will then be shorter than 35 years.

RENTAL & MORTGAGE METHODLOLOGY

Table No. 8 notes the working for the prime, median & lowest market apartment values as gauged from table No. 2. The 1 bed/r is sized at 55m^2, the 2 bed/r at 75m^2 and the 3 bed/r 110m^2. These Maltese gross floor area standards are to be compared with the European counterpart, quoted in table 7 as net areas, *de Oliveira Pedro J., 2009.*

TABLE 7: NET INTERNAL AREA SET IN SEVERAL EUROPEAN COUNTRIES (m^2).

No. of Occupants	1	2	4	6	8
Existing Bldgs m^2	21	27	42	56	70
New Bldgs m^2	32	41	59	77	95

Mortgage payments in table No. 8 have been calculated at the lending rate of 3.25% over a 35-year period. In the open market, the purchaser presently will have to fork out 10% of the selling price. In the affordable market however 100% finance will be made available.

TABLE 8 - MORTGAGE MONTHLY PAYMENTS IN € OVER PROPRTY PRICE RANGES

LOCALITY	€/sqm	3 bed/r - €	Mortgage	2 bed/r - €	Mortgage	1 bed/r - €	Mortgage
Median	1,856	213,440	755	165,648	586	117,392	415
Prime	2,360	271,400	960	210,630	745	149,270	528
Lowest	1,493	171,695	607	133,250	471	94,432	334

The monthly mortgage payments in table No. 8 are lower than the required present rentals noted from table No. 4. However the rented and the owned apartments should be compared on a like for like basis. The rentals are for furnished apartments, attracting a €100 monthly premium for furnishings, whilst rental apartments could be to a better specification to a purchased median apartment, attracting an additional 15% premium.

Table Nos. 4 & 8 note presently the rental market should not be considered by persons who intend settling permanently in Malta, as the mortgage payments average out as being 35% cheaper than the actual monthly rental amount. This reconfirms that either the rental market is overheated, or else the present market values do not reflect the rentals presently in place, imposing further hikes to the market value.

Table 6 notes the median annual household wage as at 2018 standing at €30,900, entices a sustainable mortgage monthly payment at €723. According to table 8, this median household may choose between a 3/bed/r in a median location or a 2bed/r in a prime location. The median wage for a single earner presently stands at €18,720 monthly, enticing a sustainable mortgage monthly payment of €445. Further to table 8, this single earner may choose between a 1/bed/r in a median location or a 2bed/r in the lowest priced region.

Table No. 9 now notes the various price brackets of residences as located in the various localities over Malta, together with the necessary income to purchase such a residence.

TABLE 9: HOUSEHOLD OR SINGLE PERSON INCOME NECESSARY TO PURCHASE RESIDENCE.

LOCALITY	3 bed/r - €	EARNINGS	2bed/r - €	EARNINGS	1bed/r - €	EARNINGS
Median	213,440	31,710	165,648	24,612	117,392	17,430
Prime	271,400	40,320	210,630	31,290	149,270	22,176
Fair	171,695	25,494	133,250	19,782	94,432	14,028

On an annual income of €14,000 a residence of €94,500 may be purchased, however Table No 9 identifies the mortgage that may be provided for, by dividing the annual income by 3.5. However, referring to the residual concept of housing affordability, a sliding scale is used to reflect the fact that upper income and smaller households can afford to spend much more than 30% of their incomes on housing, whereas extremely low income households that spend even 10% or less of their incomes on housing costs will be forced to forgo essential medical care and healthy food.

Camilleri D. H., (2000) had noted that in 1995 ordinary expenses for a family of 4 to 5 persons totalled Lm200 monthly (€466). These expenses exclude payments for rent or mortgage. By factoring in the inflation index over the years 1995 – 2018 and factoring in another 1.115 due to added expectations that nowadays are considered essential as compared to 1995, it is noted that presently with a household income of €10,000pa the % that may be afforded towards housing costs is 0%. Hence the sliding scale to be applied is 30% housing costs at €20,000 annual income to 0% at €10,000.

Referring back to the household with an annual income of €14,000, only 12% may be dedicated to housing costs. This works out at a monthly payment of €140, less than the open market mortgage payment of €334 monthly. Here is where affordable housing kicks in, with table No. 8 noting a 1-bed/r may be purchased for a mortgage payment of €334 monthly. On the other hand for this annual revenue an affordable rent stands at €140 monthly.

Homeownership versus renting may be gauged from this investment comparison.

An average residential rental capitalization rate hovers around 3.8% (table 5 net of expenses), whilst the capital appreciation of a residence over a long period is anticipated to achieve 6.7% pa (table No. 2).

The net annual return after deducting 0.75% for maintenance costs works out at:

6.7% + 3.8% - 0.75% = **9.75% pa**

This homeownership annual return is superior to a present safe 2019 Maltese Government 15-year bond at 1.75% pa, as averaged over the past 5-year period.

TABLE 10: RESIDENTIAL UNITS APPROVED BY PA, TOGETHER WITH ISSUED COMPLIANCE CERTIFICATES

YEAR	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of total Units	5481	6128	6707	9081	10409	11343	6836	5298	4444	3955	3064	2705	2937	3947	7508	9822	12885	12485
Apartments approved		4548	5265	7539	8961	10252	6184	4616	3736	3276	2489	2062	2221	3019	6316	8513	11211	10726
Compliance Certificates	2552	2719	4975	3884	3400	7169	7796	8055	7784	6438	6314	6703	6948	7358	8452	9250	9413	
% Completed	47%	44%	74%	43%	33%	63%	114%	152%	175%	163%	206%	248%	237%	186%	113%	94%	73%	
Source: PA																		

The Supply & the Demand side of Malta's Residential Market.

The supply may be gauged from the number of building permits as issued by the Planning Authority for residential premises. The % of the compliance certificates undertaken, then gives an indication of whether these issued building permits have been undertaken or not. It is commonly accepted that housing commencements are a key indicator of the level of economic activity in the broader society, especially when examining the recovery period since the global financial crisis, commencing in 2008 up to 2012 *Reed R., 2016.* On the other hand potential multiple certificates issued on same site and compliance certificates in relation to permits granted in previous years, may distort this analysis.

The boom years of 2002-2007 are noted with maximum number of permits issued as in 2007 totaling 11,343 prior to sliding down to 2,705 as at 2013. The overheating of this market is then noted from 2016 onwards. The booms & slumps identified from the number of permits issued from table 10 may be identified from Chart No. 3.

Table No. 10 notes that the % of compliance certificates issued reads a different story for the boom years of 2002 – 2007, as compared to another boom period 2016 - 2018. It had appeared that the take up of new residences took its time over 2002 – 2006, whilst due to the rental market surge commencing from 2012, the take up of new units appears instantaneous. This take up for 2012 stood at 206%, however sliding down to 73% by 2018.

Within the period 2002-2007 this % averages out at 48% as compared to 93% for 2016–2018, however then sliding down to 73% in 2018. Is this an indication that the average 48% compliance rate as witnessed in the previous boom period 2002-2007 will be achieved within the coming years?

The demand side may be gauged from the annual marriages undertaken standing at 2,400 at 2005 & 3,000 at 2017. Separations and annulments in 2005 stood at 500, increasing to 1,300 separations/divorces at 2017. At 2018, the residential market has to cater also for 14,000 foreign residents. Tourists annually total 2,600,000 on an average stay of 7 nights, of which 43% stay in private accommodation

TABLE 11: HOUSING DEMAND COMPARISON

	2005	2018
Marriages	2,500	3,000
Separations	500	1,000
Holiday Homes/Foreign Residents Long Let	2,000	3,500
Tourists Short Let		1,500
Total New Units	5,000	9,000

Table No.11, notes that 2005 demand stood at 5000 units, increasing to 9000 units at 2018. These demand calculations indicate that 11,343 residential permits for 2007 were excessive, whilst the 9,822 residential permits for 2017 seem that they will stay, although the 12885 units for 2018 noted as excessive.

CONCLUSIONS

This paper has noted an improving housing affordability index HAI for the Maltese Islands following the global credit crunch, as from 2008-2012. The ensuing drop in value of residential premises was not in the 40%-60% drop as experienced by some of the western countries, but below 10% over this period. Hence Malta had experienced a limited bite in the property bubble. Will this limited bite again re-appear post Covid_19, or will the effect of this pandemic on the residential property market, this time round be larger? Data in table No. 2 gives an indication to the post Covid effects.

However as from 2013 a new phenomenon appeared, an aggressive buy-to-let residential market, with rentals skyrocketing by 175% over this 5-year period. It was noted that the residential property market reacted late to the aggressiveness of the buy-to-let market, as it was only from 2016 that property was subjected to double figure annual property increases. Hence the HAI came tumbling down from its maximum 135 in 2014 to 95 in 2019, making a residence again unaffordable for the Maltese household.

Table No. 4 notes stabilizing of the rental market in 2019, with slight decreases in rental costs also observed. On the other hand table No. 2 notes that the market rates of residential property still subjected to an unsustainable double figure increase of 18.6% for the period 2018 -2019 (average annual 6.73% increase over the 37-year period). Table No. 5 then notes that future market rate increases are awaited for the prime locations as the rental return here still fetches above 5%, whilst properties in fairly good locations, with rental returns presently below the 4.25% range, the market price should now stabilize.

Chart 2 notes that the property market is re-entering a boom period, but will a bubble burst this time round? Table 10 notes that the % of compliance certificates being issued is still high, unlike in the previous 2002-2007 boom period. Hence an indication of a bubble burst may be forthcoming when the % of compliance certificates will go below 50%. This probably being independent of the present disturbing price: earnings ratio above 7.

Unfortunately, the liberalization of the residential rental market produced the opposite than anticipated. The increase in the foreign labour force necessary for stimulating Malta's economic growth and the tourist

letting in private residences scenario had not been factored in, which fueled the rental market, now affecting the affordability of Maltese residences.

Hence the production of affordable premises for renting or selling has commenced in earnest, however noting that no new units were made available over the past 10-years. The production of affordable premises will increase the supply side and hence compete directly with the existing property market. This increase in supply of affordable properties should have a direct bearing on prices with reduced values envisaged. To be further noted that post Covid_19 due to loss in income due to job redundancies the supply for affordable housing will increase further.

On the other hand issuing subsidies, if not withdrawn, will increase the market prices of property. Subsidies can sort out the short term; however in the long term their effect is to increase prices. This unlike increasing the supply by providing affordable units, which long term should reduce prices.

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