

The Potential Positive Impact of Depreciation on the Value Added Tax (VAT) in the Saudi Arabian Housing Sector

Basil Omar Al-Sasi

The Department of Industrial Engineering
Faculty of Engineering
King Abdul Aziz University
Jeddah 21589, P.O. Box 80204 Saudi Arabia
balsasi@kau.edu.sa

Abstract

The implementation of Value Added Tax (VAT) in Saudi Arabia took effect at the beginning of 2018, at a rate of 5% added on to all products and services inclusive of the housing sector. This action is an attempt to reform the existing tax revenues system with the aim to generate sufficient funds required for public expenditure projects. A consideration towards adding various economic factors such as depreciation to the tax revenues system could complement the process with tangible outcomes. Steering the directive actions to satisfy a larger segment of citizens in need to own property for self-use. The objective of this paper is to reflect on the potential positive impact of depreciation for mortgage buyers, on the total house unit cost, once added to a house. Where the value of land increases over time, the value of the house standing on it, depreciates over time reducing the overall house unit cost for mortgage buyers by 18 percent. Decreasing the minimum monthly salary criteria of customer segments complying with the debt burden ratio from the salary bracket of 22,000 Saudi Riyal or 5860 U.S. Dollars down to a lower monthly salary bracket of 18,605 Saudi Riyal or 4961 U.S. Dollars.

Keywords

Depreciation, DBR, APR.

1. Introduction

Eltony (2002) identified a wide gap between the actual GCC tax revenue and the potential GCC tax revenue with great potential for higher tax revenue collection through the introduction of rigorous tax reform programs. Eltony (2002) found that despite the increasing efforts for a better tax index trend almost all the GCC tax revenue is lower than the potential, especially in UAE, Kuwait, Qatar and Saudi Arabia. The results found to be not uniform across the GCC as Oman and Bahrain's tax effort indices shown a relatively stable performance over a six-year period slightly above the unity tax index particularly in the year 2000. However, the GCC budget deficit can be reduced by the introduction of tax reforms that could increase tax revenues. The GCC conclusive initiative towards reforming the tax revenues system took effect on January 2018 with the implementation of the VAT across all members' states. As with any newly implemented reforms, the process for refining essential factors is an ongoing one with the objective to better adapt the various tax systems with the respective business sectors, creating a balance between the collection of tax revenues required for public expenditure projects and a steady market growth across all business sectors of the economy. Currently in the Saudi Arabia housing sector, only 20 percent of the targeted citizens earn an adequate monthly salary that would enable them to purchase a piece of land with the aid of a credit facility from a bank (Dorchester, 2014). Oil price volatility has a major impact on the Saudi Arabian economic growth. Where for the year 2016 for example, the annual citizen income was 20,484 U.S. Dollars (Al-Sasi et al 2017), an amount that would enable a potential customer to obtain a credit facility from a bank in form of a mortgage at a maximum loan amount of 102,420 U.S. Dollars which is below the minimum market price for a house unit. The Debt Burden Ratio (DBR) is the ratio of total monthly installment such as payable loan instalments and outstanding payable credit card limit or any other committed monthly repayments to the total income of an individual. The current DBR for borrowers intending to purchase a house with the aid of a mortgage credit facility is fixed to a maximum monthly installment rate equivalent to 50 percent deductible from the bank account deposited monthly salary. A piece of land and a building constructed on it are real property (White et al, 2012). Whereas the building on the land is depreciable, the land itself is not (Department of the Treasury, 1996).

The cost basis of the property is recovered over the recovery period of the asset. The cost basis is essentially the taxpayer's investment. In most cases, this is the cost of the property plus the unadjusted basis. The cost basis less capital recovered, such depreciation deductions, is known as unrecovered investment, adjusted basis or book value. The recovery period is simply the time over which the cost basis can be recovered (Department of the Treasury, 1996).

The complexity level of the house ownership availability challenge increases for property seeking citizen's with the issue of listing strategies connected to the dynamic search and pricing literature in which sellers learn about demand and set list price accordingly. Sellers, while waiting for potential buyers to arrive, may set and subsequently change their list price during the property marketing period (Knight, 2002, Herrin et al., 2004, Merlo and Ortalo-Magne, 2004, Haurin et al., 2010, Deng et al., 2012, De Wit and van der Klaauw, 2013; Bucchianeri and Minson, 2013).

As compared to the rather established literature on listing strategies, little is known about listing strategies when sellers face potential loss and whether they decide to cut loss upon market entry, or cut list price subsequently. Particularly during recession periods with stagnant property sales activities, such as the fiscal year of 2016 in the Saudi Arabian housing business sector as shown in tables 4,5,6,7,8,9,10 and 11 also affecting the government VAT house sale revenues.

2. Cost breakdown of a house unit for cash buyers

A local family consisting of four members, targeting a 400 square meters piece of land for to construct their house on it. The cost estimation to convert the raw piece of land into a developed piece of land equipped with all the essential facilities such as connecting the land to the electricity grid network, fresh water network, sewage network and fiber optic telecommunication network is set at a price of 500 Saudi Riyal or 134 U.S. Dollar per square meters. Adding up to 200,000 Saudi Riyal or 53,000 U.S. Dollars for a 400 square meters piece of developed land. Furthermore, the construction cost for a 400-square meter house can be estimated at a cost of 2000 Saudi Riyal or 530 U.S. Dollars per square meter. The construction cost adds up to 800,000 Saudi Riyal or 213,000 U.S. Dollars. The Aggregated cost of the 400-square meter developed piece of land, the house construction cost and the 15 percent profit margin, sums up to 1150,000 Saudi Riyal or 307,000 U.S. Dollars for cash buyers as shown in table 1. Finally, adding the 5% property VAT on top of the final price.

Table 1. Cost breakdown of a house unit for cash buyers

Cost for developing land at a rate (500 S.R. / 1 SQ.M) for 400 SQ.M land	200,000
Cost for constructing a detached house at a rate (2000 / 1 SQ.M) without profit margin for 400 SQ. M house	800,000
Developer 15 % profit margin on the construction work of the house and developing the land	150,000
Total end unit price of the house(build up house + land) Saudi Riyal to customer buying cash exclusive 5% VAT	1,150,000
Total end unit price of the house(build up house + land) Saudi Riyal to customer buying cash inclusive 5% VAT	1,207,500

3. Cost breakdown of a house unit for mortgage buyers without the consideration of depreciation

Buyers who depend on a mortgage credit facility offered through local banks will pay back the principal 1,207,500 cost to creditors in addition to the annual compounded interest rate over a 20- year payback period. The total sum of 2,645,781 Saudi Riyal or 705,542 U.S. Dollars where the Annual Percentage Rate (APR) is equivalent to 4 percent when applied in the given formula (White et al, 2012) as shown in Table 2.

Table 2. Cost breakdown of a house unit for mortgage buyers

House end unit price to customers with a mortgage credit facility inclusive 5% VAT at 4% APR paying back over 20 years in Saudi Riyal	2,645,781
Annual instalment	132,289
Monthly instalment	11,024
Minimum required monthly salary 22,000 Saudi Riyal for the DBR not to exceed 50% deductible with mortgage facility	22,000

4. Cost breakdown of a house unit for mortgage buyers inclusive of depreciation

The depreciation value of a building standing on a piece of land will decrease over the 20 years payback mortgage credit facility period, by a proposed rate of 5 percent which is equivalent to the current VAT 5 percent and a deductible value of (286,789) Saudi Riyal as show in table 3. Equivalent to (76,477) U.S. Dollars. Whereas the value of the land itself, increases over the 20 year payback mortgage credit facility period. With depreciation placed into perspective in contrast to its current absence, the total payback amount to creditors decreases from 2,645,781 Saudi Riyal or 705,542 U.S. Dollars down to 2,358,992 or 629,065 U.S. Dollars as shown in Table 3.

Table 3. Cost breakdown of a house unit for mortgage buyers inclusive of depreciation

House end unit price to customers with a mortgage credit facility inclusive 5% VAT at 4% APR paying back over 20 years in Saudi Riyal	2,645,781
Depreciation rate -5% on the house alone (cost of the house 800,000 Saudi Riyal) equal to the 5% VAT rate over 20 years	- 286,789
Revised house end unit price to customers inclusive of depreciation with a mortgage credit facility inclusive 5% VAT at 4% APR	2,358,992
Annual instalment	117,950
Monthly instalment	9,829
Minimum required monthly salary 22,000 Saudi Riyal for the DBR not to exceed 50% deductible with mortgage facility	18,605

Table 4. Riyadh region actual villa sales and government VAT revenue for the year 2016 number of units sold per month and average price per unit per month as registered by the Saudi Arabian Ministry of Justice

Riyadh region actual villa sales 2016				VAT revenue
Month	Average Price/Unit	Number of Units	Total	5%
1	SAR2,975,515	134	SAR398,719,008.00	SAR19,935,950.40
2	SAR1,678,882	132	SAR221,612,424.00	SAR11,080,621.20
3	SAR1,435,379	111	SAR159,327,069.00	SAR7,966,353.45
4	SAR1,331,251	62	SAR82,537,562.00	SAR4,126,878.10
5	SAR1,661,643	62	SAR103,021,866.00	SAR5,151,093.30
6	SAR1,294,443	97	SAR125,560,971.00	SAR6,278,048.55
7	SAR1,289,732	89	SAR114,786,148.00	SAR5,739,307.40
8	SAR1,388,471	98	SAR136,070,158.00	SAR6,803,507.90
9	SAR2,012,375	68	SAR136,841,500.00	SAR6,842,075.00
10	SAR1,308,190	72	SAR94,189,680.00	SAR4,709,484.00
11	SAR1,223,531	107	SAR130,917,817.00	SAR6,545,890.85
12	SAR1,605,493	47	SAR75,458,171.00	SAR3,772,908.55

Table 5. Makkah region actual villa sales and government VAT revenue for the year 2016 number of units sold per month and average price per unit per month as registered by the Saudi Arabian Ministry of Justice

Makkah region actual villa sales 2016				VAT revenue
Month	Average Price/Unit	Number of Units	Total	5%
1	SAR1,524,478	49	SAR74,699,422.00	SAR3,734,971.10
2	SAR1,546,816	69	SAR106,730,304.00	SAR5,336,515.20
3	SAR1,442,928	42	SAR60,602,976.00	SAR3,030,148.80
4	SAR1,522,287	64	SAR97,426,368.00	SAR4,871,318.40
5	SAR1,385,211	33	SAR45,711,963.00	SAR2,285,598.15
6	SAR1,343,514	44	SAR59,114,616.00	SAR2,955,730.80
7	SAR1,562,583	47	SAR73,441,401.00	SAR3,672,070.05
8	SAR1,278,396	53	SAR67,754,988.00	SAR3,387,749.40
9	SAR1,230,666	22	SAR27,074,652.00	SAR1,353,732.60
10	SAR1,164,900	27	SAR31,452,300.00	SAR1,572,615.00
11	SAR1,033,783	30	SAR31,013,490.00	SAR1,550,674.50
12	SAR1,296,183	15	SAR19,442,745.00	SAR972,137.25

Table 6. Eastern region actual villa sales and government VAT revenue for the year 2016 number of units sold per month and average price per unit per month as registered by the Saudi Arabian Ministry of Justice

Eastern region actual villa sales 2016				VAT revenue
Month	Average Price/Unit	Number of Units	Total	5%
1	SAR1,600,000	1	SAR1,600,000.00	SAR80,000.00
2	-	-	-	SAR0.00
3	SAR785,000	2	SAR1,570,000.00	SAR78,500.00
4	SAR1,340,500	1	SAR1,340,500.00	SAR67,025.00
5	SAR1,500,000	1	SAR1,500,000.00	SAR75,000.00
6	SAR1,200,000	2	SAR2,400,000.00	SAR120,000.00
7	SAR1,450,000	1	SAR1,450,000.00	SAR72,500.00
8	SAR1,574,982	3	SAR4,724,946.00	SAR236,247.30
9	-	-	-	SAR0.00
10	-	-	-	SAR0.00
11	SAR1,250,000	1	SAR1,250,000.00	SAR62,500.00
12	SAR750,000	1	SAR750,000.00	SAR37,500.00

Table 7. Average villa price per region and kingdom wide for the year 2016 as registered by the Saudi Arabian Ministry of Justice

Average villa price by region 2016	
Makkah region average villa price	SAR1,360,978.75
Riyadh region average villa price	SAR1,600,408.75
Eastern region average villa price	SAR1,272,275.78
Saudi Arabia Kingdom wide average villa price	SAR1,411,221.09

Table 8. Riyadh region actual apartment sales and government VAT revenue for the year 2016 number of units sold per month and average price per unit per month as registered by the Saudi Arabian Ministry of Justice

Riyadh region actual apartment sales 2016				VAT revenue
Month	Average Price/Unit	Number of Units	Total	5%
1	SAR471,648	228	SAR107,535,744.00	SAR5,376,787.20
2	SAR433,202	233	SAR100,936,066.00	SAR5,046,803.30
3	SAR457,461	189	SAR86,460,129.00	SAR4,323,006.45
4	SAR445,099	155	SAR68,990,345.00	SAR3,449,517.25
5	SAR408,675	222	SAR90,725,850.00	SAR4,536,292.50
6	SAR389,698	256	SAR99,762,688.00	SAR4,988,134.40
7	SAR375,271	245	SAR91,941,395.00	SAR4,597,069.75
8	SAR409,942	239	SAR97,976,138.00	SAR4,898,806.90
9	SAR441,710	200	SAR88,342,000.00	SAR4,417,100.00
10	SAR435,539	153	SAR66,637,467.00	SAR3,331,873.35
11	SAR448,063	246	SAR110,223,498.00	SAR5,511,174.90
12	SAR471,338	136	SAR64,101,968.00	SAR3,205,098.40

Table 9. Makkah region actual apartment sales and government VAT revenue for the year 2016 number of units sold per month and average price per unit per month as registered by the Saudi Arabian Ministry of Justice

Makkah region actual apartment sales 2016				VAT revenue
Month	Average Price/Unit	Number of Units	Total	5%
1	SAR736,954	699	SAR515,130,846.00	SAR25,756,542.30
2	SAR650,943	685	SAR445,895,955.00	SAR22,294,797.75
3	SAR683,928	560	SAR382,999,680.00	SAR19,149,984.00
4	SAR633,794	524	SAR332,108,056.00	SAR16,605,402.80
5	SAR745,586	519	SAR386,959,134.00	SAR19,347,956.70
6	SAR696,440	717	SAR499,347,480.00	SAR24,967,374.00
7	SAR656,292	851	SAR558,504,492.00	SAR27,925,224.60
8	SAR631,210	658	SAR415,336,180.00	SAR20,766,809.00
9	SAR693,076	369	SAR255,745,044.00	SAR12,787,252.20
10	SAR596,479	404	SAR240,977,516.00	SAR12,048,875.80
11	SAR577,092	697	SAR402,233,124.00	SAR20,111,656.20
12	SAR588,307	342	SAR201,200,994.00	SAR10,060,049.70

Table 10. Eastern region actual apartment sales and government VAT revenue for the year 2016 number of units sold per month and average price per unit per month as registered by the Saudi Arabian Ministry of Justice

Eastern region actual apartment sales 2016				VAT revenue
Month	Average Price/Unit	Number of Units	Total	5%
1	SAR471,648	310	SAR146,210,880.00	SAR7,310,544.00
2	SAR433,202	316	SAR136,891,832.00	SAR6,844,591.60
3	SAR457,461	299	SAR136,780,839.00	SAR6,839,041.95
4	SAR445,099	286	SAR127,298,314.00	SAR6,364,915.70
5	SAR408,675	296	SAR120,967,800.00	SAR6,048,390.00
6	SAR389,698	378	SAR147,305,844.00	SAR7,365,292.20
7	SAR375,271	322	SAR120,837,262.00	SAR6,041,863.10
8	SAR409,942	459	SAR188,163,378.00	SAR9,408,168.90
9	SAR441,710	309	SAR136,488,390.00	SAR6,824,419.50
10	SAR435,539	277	SAR120,644,303.00	SAR6,032,215.15
11	SAR448,063	388	SAR173,848,444.00	SAR8,692,422.20
12	SAR471,338	164	SAR77,299,432.00	SAR3,864,971.60

Table 11. Average apartment price per region and kingdom wide for the year 2016 as registered by the Saudi Arabian Ministry of Justice

Average apartment price by region 2016	
Makkah region average apartment price	SAR657,508.42
Riyadh region average apartment price	SAR432,303.83
Eastern region average apartment price	SAR432,303.83
Saudi Arabia Kingdom wide average apartment price	SAR507,372.03

5. Conclusion

As with any newly implemented reform, refining essential factors is an ongoing process that has the objective to better adapt the various tax systems with the respective business sectors, creating a balance between the tax revenue collections required for public expenditure projects and a steady market growth across all business sectors of the economy. The placement of the depreciation factor into perspective complements the main objective targeting tax revenue increase, in addition to the improvement of the housing business sector, reducing constraints that would increase the range of targeted citizens, who are seeking to own a house for personal use by 18 percent.

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Biography

Dr. Basil Omar Al-Sasi is an Assistant Professor at the Industrial Engineering Department of King Abdul Aziz University in Jeddah Saudi Arabia, brought up trilingual speaking (Arabic, German and English) and bicultural to a Saudi father and German mother. He obtained a B.Sc. degree in Industrial Engineering, from King Abdul Aziz University in Saudi Arabia then a M.Sc. degree in Management Systems, from the University of Hull in the U.K. Finally, he obtained his PhD degree in Engineering Management, from the University of Southampton in the U.K. with a scholarship award granted by the University of Southampton then a scholarship award granted by the Saudi Arabian Ministry of Higher Education. The main interest area of research is energy and housing with teaching duties covering the courses of Engineering Management, Industrial Management, Supply Chain Management and Systems Engineering Analysis and Design.