DEVELOPING HOUSING FINANCE FRAMEWORK AS AN APPROACH TO PROVIDE AFFORDABLE FINANCE MECHANISMS FOR MIDDLE INCOME CITIZENS AND HOUSING DEVELOPERS IN SAUDI ARABIA

By

MUSAED KHALID ABDULWAHAB ALQANNAS

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment of

the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON

MAY 2016

ABSTRACT

DEVELOPING HOUSING FINANCE FRAMEWORK AS AN APPROACH TO PROVIDE AFFORDABLE FINANCE MECHANISMS FOR MIDDLE INCOME CITIZENS AND HOUSING DEVELOPERS IN SAUDI ARABIA

Musaed Khalid Abdulwahab Alqannas, PHD

The University of Texas at Arlington, 2016

Supervising Professor: Ard. Anjomani, PHD

With high economic growth rate, population rate, increased employment, and income opportunities, the demand for housing has increased, along with the lack of affordable finance mechanisms. A main concern of the housing problem in Saudi Arabia is the high demand compared to housing needs. Saudi Arabia lacks a housing finance framework or strategy to create flexible and affordable lending mechanisms to tackle the affordable finance problems. This research targets: 1) the middle income citizens to increase the homeownership rate and 2) the housing developer to increase affordable housing units and the investment in the housing market. This research compares the best western housing finance paradigms that have been successful in the housing finance policies, innovations, and institutions. This research investigates, suggests policy options, and develops a financial housing framework to provide affordable finance mechanisms for middle-income citizens and housing developers in Saudi Arabia. It is recommended that the current policy reform and that some of the applicable western housing finance policies, institutions, and innovations, applicable to the Saudi context, be adopted. This research explores stakeholders (e.g. governmental agencies, financial institutions, and the private sectors).

This research addresses two main questions: 1) How should the housing financial framework be designed or modified in order to provide affordable housing finance mechanisms targeting the middle-income Saudi citizens and housing developers? 2) Considering western financial policies, innovations, and institutions, which of these are transferrable to the Saudi context that would reform the housing finance sector in order to a) provide both affordable housing finance and units for middle-income Saudi citizens and b) increase housing developers' participation in the Saudi Arabia housing finance sector? This research examines these questions through qualitative analysis of data and information gathered through interviews with official housing staff and stakeholders. The research findings assist in developing 1) a list of policy recommendations and critical success factors to implement the new financial framework in Saudi Arabia with the main housing sector stakeholders; 2) a list of the recommendations of the applicable western housing finance paradigms in Saudi Arabia.

DEDICATION

To my great family, my parents Khalid and Bushra; my siblings Naif, Maan, Dalal, and Aljuhara (may God protect them) who have supported me, prayed for me and encouraged me throughout my journey to complete this dissertation.

To my country Saudi Arabia, the country of glory and decisive, that gave me this opportunity to learn and grow in the United States. In this dissertation it was my honor and pleasure to contribute addressing solutions in developing and enhancing the national Saudi housing sector.

To His Majesty King Abdullah (rest in peace) who establish the great scholarship program to have a great educational generation educated in the great international universities and His Majesty King Salman (may God protect him) who continues the march of development and prosperity in our nation.

To the souls of our martyrs military and veterans who gave their lives to defend and save our nation.

ACKNOWLEDGEMENTS

First and foremost, thanks to my great Lord for giving me the health and wealth needed to accomplish this goal of achieving and completing my dissertation.

I would like to take this opportunity to express my gratitude to the many people that have contributed to my journey along the way. I owe a deep heartfelt, gratitude, and thanks to my doctoral supervisor, Prof. Ard. Anjomani for his continued support, effort, inspiration, constant guidance, and insightful advice during my dissertation work. Also, I would like to extend my gratitude and thanks to the doctoral committee members Prof. Colleen Casey and Prof. Rod Hissong for assisting me with the most valuable, practical and academic knowledge. My doctoral committee members, thanks to each one of you for helping me realize a personal dream.

Additionally, I would like to express my appreciation to all the involved officials' gentlemen in public and private sectors for their valuable time and participation in this research. Especially, the official staffs in the Ministry of Housing (MOH) and the Real Estate Development Fund (REDF).

Finally, thanks to one of the most powerful universities in the south, the University of Texas at Arlington (UTA). Its College of Architecture, Planning and Public Affairs (CCAPPA) gave me the great chance to develop my skills and enrich my knowledge.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1- INTRODUCTION

The demand for affordable housing mechanisms and affordable housing units around the world, specifically in Saudi Arabia has increased in the past decades (Samba Financial Group, 2010) (Struyk, 2005) (GIZ, 2011) (Opoku, R. & Alhassan, G., 2013) (Sidawi, 2009). The affordable housing finance system of Saudi Arabia provides by some government agencies, financial institutions and the private sector (Banque Saudi Fransi, 2011) (GIZ, 2010) (Samba Financial Group, 2010). The three stakeholders are concerned predominately with meeting present and future demand, development of an achievable housing strategy, and the creation of flexible and affordable housing finance mechanisms in order to resolve housing problems (Sidawi, 2009) (Bohsali et al., 2014). The successful aforementioned efforts would address issues of affordable housing availability (e.g. system and housing shortage etc.), therefore, ensuring the well-being of the society (Assaf, Bubshaitr, & Al-Muwasheer, 2010).

The cost of purchasing a single family home is increasingly becoming inaccessible for the middle-income citizens (Samba Financial Group, 2010) (Struyk, 2005) (GIZ, 2011). Under the assumption that purchasing a home is feasible for a potential family buyers encounter a shortage of supply alongside the absence of affordable options. Many of the property investment in recent years has been relegated to the upper end of the market or into commercial real estate development without addressing the housing needs of the wider population (Opoku, R. & Alhassan, G., 2013). Furthermore, potential home buyers also face difficulties securing mortgage financing (Bohsali et al., 2014). The inaccessibility of mortgages can be attributed to the lack of a legal framework which permits banks to offer financing options (Bohsali et al., 2014). This matter also impacts Saudi housing developers' ability to increase the affordable housing units via the availability of capital (GIZ, 2011). The housing developer involvement in the affordable housing sector is critical in order to help improve macroeconomic conditions. Therefore, it would behoove the Saudi government to develop a national affordable housing policy in order to expand the scale and extent of mortgage and lending for affordable housing in Saudi Arabia (GIZ, 2011).

Struyk (2005) advises stakeholders to examine the housing concern with a long time horizon to assess potential projections. First, all indicators point to a strong continuing demand for housing in Saudi Arabia because population growth will certainly continue at a high rate (Struyk, 2005). Second, the high growth in households, however, means that gross domestic product (GDP) increase will be divided over more households, so housing affordability (the value of the housing unit a family can afford to occupy) could decline (Struyk, 2005).

Saudi Arabia is a welfare state, but it seems that the government is unable to sort out the housing finance problems (Sidawi, 2014) (Samba Financial Group, 2010). This is due to a number of reasons: 1) the funding problem that exists at all stages of the housing delivery include the funding of housing construction stage and the government financial institutions (E.g. Real Estate Development Fund (REDF) does not maintain a constant and correct flow of funding to finance housing) (GIZ, 2011) (Sidawi, 2014). REDF supported this view, demonstrating that it does not have the capacity to provide enough mortgages to the citizens (Banque Saudi Fransi, 2011) (GIZ, 2011) (Sidawi, 2014). Affordable housing finance offered by the REDF are very limited and usually includes a long lag between application and award as a result of bureaucratic financing processes and mechanisms (GIZ, 2011) (Banque Saudi Fransi, 2011) (Sidawi, 2014).

The develop financial framework and policy options to provide affordable housing finance for middle-income citizens and housing developers in Saudi Arabia claim to combine the strengths of a variety of sectors and partners to create a complementary relationship with the stakeholders (government agencies, financial institutions, and the private sectors) that can tackle housing projects more affordable with a greater variety of expertise involved. It is recommended to adopt some of the Western finance policies, institutions, and innovations in a manner complementary to the Saudi ethos. Currently in Saudi Arabia, there are no housing finance strategies to tackle the finance affordable housing problems. The housing finance policies and programs of North America effectively address the shortfalls in government funding and help to provide essential services, big projects, and infrastructure (GIZ, 2011).

The purpose of this research is to investigate, suggest policy options, and develop a financial framework to provide affordable housing finance for middle-income citizens and housing developers in Saudi Arabia. It is recommended that some of the applicable Western housing finance policies, institutions, and innovations, applicable to the Saudi context, be adopted. In addition, policy reform is needed in order to address the hindrances to the development of an efficient housing finance market as well as improve the regulation system of the affordable housing sector in the country. The research explores the current characteristics, potentials, and limitations of the main stakeholders such as governmental agencies, financial institutions, and the private sectors.

This research addresses two main questions: 1) How should the housing financial framework be designed or modified in order to provide affordable housing finance mechanisms targeting the middle-income Saudi citizens and housing developers? 2) The researcher investigated western financial policies, innovations, institutions leading to the second inquiry. Which of the aforementioned, of those transferrable to the Saudi context, would reform the housing finance sector in order to a) provide both affordable housing finance and units for middle-income Saudi citizens and b) increase housing developers' participation in the Saudi Arabia housing finance sector? The results of this research will assist in developing a list of policy recommendations and critical success factors to implement the new financial framework in Saudi Arabia with the main stakeholders in this research: governmental agencies, financial institutions, and the private sectors.

The following is an outline of the thesis structure:

- Chapter 1: Introduction. This chapter provides an overview of the area and topic of the research.
- Chapter 2: Literature Review. This chapter reviews the related outcomes of the extensive literature review and includes the distinction between comparing international best practices for countries (The United States and Canada) that have successful experience in affordable housing finance; especially, the housing finance policies, institutions, and innovations that designed for middle-income

households and housing developers. In addition, the chapter highlights the gaps in the literature and previous research.

- Chapter 3: Research Methodology. This chapter describes the research methodology and discusses the qualitative research approaches that used in the research. The reasons for selecting the adopted research are explained as well. The chapter explains the interview steps in the fieldwork Saudi Arabia. Finally, it defines the instruments and processes used for the research approach.
- Chapter 4: Research Discussion and Findings. This chapter provides a framework for improving the Saudi housing finance sector practices based on the extensive analysis of the interviews with the main stakeholders in the research experts.
- Chapter 5: Research Conclusion and Recommendations. The chapter concludes the theoretical and practical contributions of the research to academia and industry. The researcher also proposes and recommends areas for future research.

1-1- The Research Background:

Saudi Arabia, about a quarter the size of the United States, Saudi Arabia area is 2,150,000 square kilometers (830,000 square miles), (Figure 1) show the Kingdom of Saudi Arabia map, the kingdom covering 80 percent of the Arabian Peninsula and located in the southwest of Asia (MOEP, 2013). Saudi Arabia has experienced economic growth and unprecedented development during the past half-century (MOEP, 2013). The global oil price has risen during the seventies which contributed to additional revenue for the country, further stabilizing the economy of the country. In the seventies, the Saudi government implemented development programs and economic reforms that contribute to comprehensive development in many important sectors in Saudi Arabia (MOEP, 2011). After two periods of declining oil revenues in 1988-1990 and 1998-2001, Saudi Arabia experienced a recession. Then in 2002 the global oil prices increased, resulting in an improved Saudi economy and increased GDP (MOEP, 2011). There is a variety of sectors the Saudi government should prioritize in order to improve the national economy. One of the priority areas recommended, per this paper is the housing sector.

Figure 1: The Kingdom of Saudi Arabia map

Source: Ministry of Interior, 2014

Over the past four decades, Saudi Arabia has seen rapid population changes. The population has risen from 17 million in 1992 to about 22.6 million in 2004, and to 30.7 million in 2014 (MOEP, 2015). The Saudi population age structure features a large share of people in the age group 15-64, who account for 59.5 percent of the total population. Age group 0-14 represents some 38 percent of the Saudi population while persons in the age group above 65 years account for a mere 2.5 percent of the population (GIZ, 2011). These demographic forces lay the foundations for a sustainable demand for housing for several years to come, as housing demand will continue to rise over the next 15 years with many persons reaching marriage age. In addition, Saudi Arabia gross domestic per capita income was estimated to be $26,323 USD (CDSI, 2013).

With high economic growth rate, increased employment and income opportunities, and the rapid acceleration of population growth rate the demand for housing has also increased. However, a supply and demand gap emerged (GIZ, 2011). A keynote concerning the housing problem in Saudi Arabia is lack actual demand (that is demand combined with purchasing power and affordability) compared to housing needs (GIZ, 2011). The low actual demand can be attributed to a variety of reasons: large share of housing need and housing demand relates basically to demand for government-provided housing; an efficient demand due to high prices of private sector provided housing; or due to the welfare and subsidy pattern pursued by the government for an extended period (GIZ, 2011). This is evident in the objectives of the successive development plans, including the most recent ninth plan (2010-2015) which includes general aims and targets for the housing sector in Saudi Arabia. In brief, these goals stress the importance of increasing citizens' home ownership rates and increasing the supply of residential land and housing (MOEP, 2011). The objectives include construction of housing for the citizens as well as encouragement of the private sector participation in order to provide support to various housing activities and programs.

Saudi housing market is large and fast growing. However, it remains underdeveloped with estimates of a mere 30 percent of Saudi homeowner (Samba Financial Group, 2010). At present, the major avenue for Saudis wanting to obtain finance to buy a house has been through the Real Estate Development Fund (REDF) which is under the Ministry of Housing. This government intervention in housing provision dates back to the mid-1970s (Opoku & Abdul-Muhmin, 2013). Through this fund, interest-free, easy term loans and payable in ten years are made available to ensure the provision of appropriate housing for Saudi citizens, especially those with limited income. Since its inception, the REDF has provided SR153.7 billion loans up to the end of 2010 (SAMA, 2011). Currently, the maximum loan an applicant can obtain has increased from SR300,000 to SR500,000 (US$79,900 to US$134,000) (Opoku & Abdul-Muhmin, 2013). Access to this fund is all too often confined to few people especially those working in the government sector (Opoku & Abdul-Muhmin, 2013). With no family financial support, the prospect of accessing this fund by those not employed in the government sector and seeking to be homeowners is very bleak (Opoku & Abdul-Muhmin, 2013). In addition, local banks demand significant interest on mortgages, making them even more unaffordable. This situation is not likely to change anytime soon until clear legislation on a financial framework is instituted to help support the banks' ability to foreclose on borrowers who fail to keep up payments (Opoku & Abdul-Muhmin, 2013).

Despite all the efforts by the government and the private sector to provide affordable housing for households, Saudi Arabia currently has a supply-demand mismatch (Opoku & Abdul-Muhmin, 2013). The housing supply is concentrated towards the high-income residential segment, whereas the middle income population remains underserved (Opoku & Abdul-Muhmin, 2013 & Samba Financial Group, 2010). However, considering the housing financing options enumerated above, it appears that middle-income citizens do not have alternatives to choose from. It is not clear as to middle-income Saudis' level of knowledge about mortgage loans and other financing options and their choice among these alternatives (Opoku & Abdul-Muhmin, 2013).

Despite price constraints, the Saudi home ownership rate per studies is inconsistent. Some report homeownership rates as high as 60 percent (Banque Saudi Fransi, 2011). According to the 2004 general census, and 2007 demographic data showed the rate remained consistent. The ownership rate had fallen to 55 percent from 65 percent between 2000 and 2004, over which period the ratio of average home rental costs to total income climbed to 30 percent from 26 percent, according to Ministry of Economy and Planning data (Banque Saudi Fransi, 2011). Some independent estimates put home ownership rates as low as 30 percent (Banque Saudi Fransi, 2011).

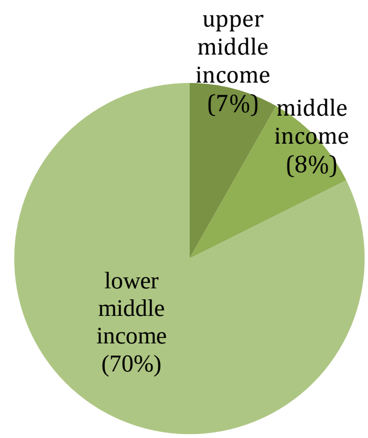
The main targeted groups in this research are the middle-income citizens and housing developers. The Ministry of Housing (MOH) have subdivided housing demand for the citizens into three broad groups (MOH, 2016):

- High-income groups with incomes above SR 30,000 ($8,000) per month, which have access to finance and can build housing without further government assistance.
- Middle-income households with incomes of less from SR 12,000 - more than SR 20,000 ($3,200 - $5,333) per month, which looking for affordable housing finance mechanisms from private or public section institutions.

- Low-income households with income less than SR 6,000 ($1,600) per month, which sometimes live in substandard housing. Within this group, the needy, often require temporary or permanent housing support.

In this research, the target is the Saudi middle-income families which earns between less then SR 12,000 to more than SR 20,000 ($3,200 - $5,333) per month. Also, according to the Saudi Central Department of Statistics and Information (CDSI) the average monthly income for the Saudi middle-income families is SR 13,610 ($3,626.96) (CDSI, 2013). In 2014, the Ministry of Housing (MOH) established a national website portal to register and collect the main information of the citizens who are looking for government supports. The applicants to the housing portal are 754,570 applicants and they are annually increasing. The data collected in the portal shows the percentage of various incomes that need government supports (e.g. finance or land grant or both finance and land grant or grant housing units). The grant housing units are government supported specifically for the low income citizen. However, more detail for the middle income citizens, which are the main targeted groups in this research, have been divided into three segments from the Ministry of Housing (MOH) recent data (MOH, 2016). Also, (Figure 2) show the three middle income citizens segments in this research:

Figure 2: the three middle income citizens segments in this research



Source: Ministry of Housing (2016)

- **Upper middle income:** SR 20,000 (more than $5,333) they are around 7 percent.
- **Middle income:** between SR 12,000 – SR 20,000 ($3,200 - $5,333) they are around 8 percent.
- **Lower middle income:** SR 12,000 (less than $3,200) they are around 70 percent.

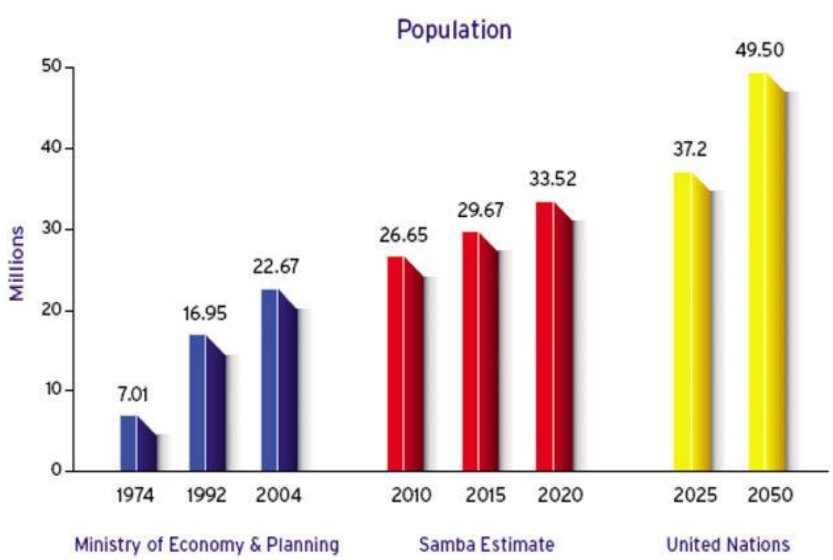
On the other hand, the other targeted group in this research is the housing developers. The housing developers in Saudi housing market is divided into 30 big players, who specialize in housing development, diversified conglomerates with interests in real estate, and medium-size private companies, who also have interests in a housing development (Samba Financial Group, 2006). In the housing market, the very small firms possess a 25 percent market share (Samba Financial Group, 2006). The top 30 housing construction companies have a 20 percent market share, followed by the diversified conglomerates at around 30 percent and medium-sized companies at 25 percent (Samba Financial Group, 2006). Housing delivery largely stems from individual construction by homebuilders (GIZ, 2011). The process consists of the acquisition of a vacant lot or a ready-to-build land plot; secure a building permit, and the construction phase entails hiring contractors or construction workers. In Saudi Arabia, construction of key-ready homes by developers with an estimated share of 10 percent of the annual unit output plays still a minor role compared to other countries (GIZ, 2011). Outside the three most populated provinces, individual homebuilding is almost the exclusive way of housing production. Dar Al Arkan, as the largest developer, delivers roughly 1,000 new units per year only (GIZ, 2011).

1-2- The Research Problems:

Saudi Arabia's housing market continues to lack affordable housing finance as well as struggles to resolve a shortage of supply and mounting demand which has placed home ownership affordability out of reach for many middle-income citizens. As upward pressure on asking prices for housing increases, there is an urgent need for new housing units in order to address the affordable housing crisis among vulnerable populations (Banque Saudi Fransi, 2011) (GIZ, 2010) (Samba Financial Group, 2010). Considering the housing supply-demand gap and the impending boom in middle-income demand for homes, developing a financial framework that provides affordable finance for the middle-income citizens will widen the scope of home ownership in the long term (Banque Saudi Fransi, 2011). Still, reforms to address the market's structural deficiencies will need to complement the housing policies and law. Barring a holistic approach to housing sector reform, many middle-income families could be compelled to rent instead of buy due to comparatively low rental yields, keeping a strain on already high rents and reducing ownership rates (Banque Saudi Fransi, 2011).

According to census figures of the Ministry of Economy and Planning (MOEP) in the past 30 years, the total population in Saudi Arabia rose from 7.01 million in 1974 to 16.95 million in 1992, and 22.674 million in 2004. Saudi Arabia's population increased in absolute terms by 5.7 million between 1992 and 2004 (Samba Financial Group, 2006). The total population yearly growth averaged was 2.45 percent from 1992 to 2004, including foreigners, and 2.49 percent for Saudis only. While this is lower than the widely perceived growth rate of above 3 percent, it remains above the global average growth rate of 1.5 percent during the same period. The proportion of Saudis in the total population slightly rose from 72.63 percent in 1992 to 72.90 percent in 2004 (Samba Financial Group, 2006). Samba Financial Group (2006) estimate that the Saudi population will be reach 25.77 million in 2010, 28.95 million in 2015 and 32.52 million in 2020. Due to socio-economic trends in Saudi Arabia, such as urbanization, the population growth through 2020 will continue its decline below the 2.45 percent mark witnessed between 1992 and 2004. According to the 2004 United Nations report on World Population Prospects, Saudi Arabia's population will grow to 37.2 million in 2025 and 49.5 million in 2050 (Figure 3).

Figure 3: the population number and outlook of Saudi Arabia.



Source: Samba Financial Group (2006).

Saudi Arabia is predominately young country, the natural outcome of relatively high birth rates. Around 70 percent of the population is made up of people less than 30 years of age and around 45 percent of the population are under 15 years old (Assaf, Bubshaitr, & Al-Muwasheer, 2010). The number of young people moving out of their parents' homes and into separate dwellings as they reach marriage age in the coming decade is likely to surge (Banque Saudi Fransi, 2011). The size of Saudi families has, meanwhile, fallen since the 1980s to an average 5.65 per household in 2008 from 7.4 in 1987, creating a large pool of young people on the hunt for mid-market detached, affordable homes (Banque Saudi Fransi, 2011).

Table 1: the housing demand number and population estimations in Saudi Arabia

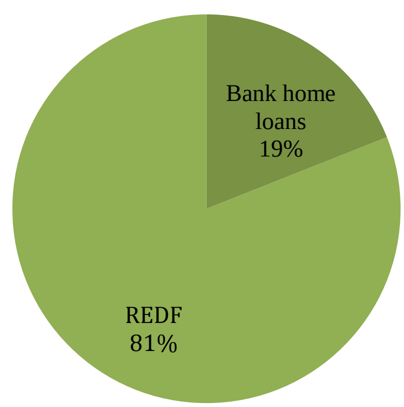
The National Commercial Bank (2005)	Estimated to require an investment of nearly SR1.20 trillion to construct the 2.32 million new housing units between 2005 and 2020. On occupancy basis, it estimated that around SR64 billion will be needed annually to build around 145,000 new housing units per year up to 2020
SAMBA financial group, (2006)(2010)	Estimated that 2.32 million new housing units are to be built in Saudi Arabia between 2005 and 2020. The stock of occupied housing units is projected to expand from 3.99 million units in 2004 to 6.31 in 2020
Banque Saudi Fransi (2011)	Estimated that private and public developers will need to build about 275,000 units a year through 2015, for a total of 1.65 million homes over six years, to cater to demands of a population that have doubled in size since 1988 and grew more than 2 percent annually.
Saudi Investment Fund (2006)	Estimated that a total of 2.62 million housing units will have to be build while SR75 billion will be required to meet the annual housing demand in Saudi Arabia by 2020
Aldosary, Alshuwaikhat, & Quadri (2006)	Estimated that 906.876 affordable housing units are needed by 2025. This based on forecasted estimation of the total population as 39.581.511 million in future
Plumb, Hassouni, & Sahyon, (2011)	There is a shortage of about 400,000 units of affordable housing in the Saudi market, with an estimated 1,000,000 new households to be constructed across Saudi Arabia by 2015
Struyk (2005)	Estimated that more than 50,000 households will face housing affordability problems within the next 20 years in Riyadh city alone (the Saudi capital)

Source: the researcher

However, according to the demographic forces lay the groundwork for sustainable housing demand for many years to come. The demand for housing will grow in the coming decades as many reach marriageable age. In (Table 1) summary of studies show housing demand number and population estimations that demonstrate a future problem with a shortage of supply and mounting demand in the Saudi housing market.

The lack of affordable housing finance mechanisms for the middle-income citizens and housing developers is one of the main concerns in the housing sector in Saudi Arabia. The Saudi government is devising several policy efforts to alleviate supply constraints. The government is dedicating SR55 billion ($14.7 billion) to programs to assist the citizens obtain funding for home purchases and allocating SR250 billion ($66.7 billion) to the new Ministry of Housing to finance immediate construction of 500,000 new units (Banque Saudi Fransi, 2011). The government's goal is to raise home ownership among citizens to 80 percent by 2024 by boosting the supply of affordable housing and expanding financing options for citizens. Achievement of such objectives may not be sufficient to accommodate present and future demand. The demographic profile demonstrates that at present two-thirds of the Saudi population are below the age of 30, including 47 percent under the age of 20 (Banque Saudi Fransi, 2011). The projected demand as the current population will provide a new set of challenges.

Figure 4: comparing REDF loans parentage to the commercial banks



Source: Banque Saudi Fransi, 2011

Saudis of lesser financial means can apply for home loans through publicly-held Real Estate Development Fund (REDF), established in the 1970s with a goal of distributing non-interest-bearing home loans to citizens for construction and purchase of homes. (Figure 4) REDF dominates the Saudi housing market, accounting for 81 percent of the total home financing. Still, the estimated waiting period for

Saudis who apply for REDF loans has been 18 years due to the backlog of demand. The new capital could reduce this waiting period, but not as sharply as the state's aim to bring it down to eight years. One cause of the long waiting period for REDF loans has been the body's difficulty in collecting outstanding loans.

However, housing prices rise rather faster than incomes which cause the housing affordability to decline substantially from the period of borrowing and throughout the life cycle of the purchase. On average, housing prices would rise by approximately 50 percent and purchasing power by approximately 30 percent (Struyk, 2005). The increase in purchasing power for Saudis is approximately 25 percent, against a 50 percent housing price rise (Struyk, 2005). Less number of citizens would be able to afford their houses in the future and be eligible for bank loans. For example, in Jeddah city (main city in the Saudi western coast) confirmed that affordably priced house of 350 square meters (3767.37 square feet) that were sold at 900,000 Saudi Riyals (239,904 US dollar) six months ago are now generally being sold in excess of 1.2 million Saudi Riyals (319,842.22 US dollar) (Samba Financial Group, 2011).

Even for those middle income employed, the cost of buying single family homes is gradually becoming out of reach for the public sector employee (where vast majority of Saudi nationals are employed) and young graduates whose average monthly incomes are between SR5,200 (US$1,387) and 8,000 (US$2,133) (Samba Financial Group, 2010; Sfakianakis, 2011). Assuming that such a purchase is even manageable, both mortgages and sufficient quantity of housing at affordable price are also not available because much of the property investment in recent years has gone toward the upper end of the market or into commercial real estate development without addressing the housing needs of the wider population (Opoku & Abdul-Muhmin, 2013).

The rise of land pricing has emerged as the largest obstacle to developing affordable housing (GIZ, 2011) (Banque Saudi Fransi, 2011); another primary concern for middle-income citizens and housing developers across Saudi Arabia. Plots of residential land have risen sharply over the past decade, and some estimates say land accounts for more than half of total building costs (Banque Saudi Fransi, 2011). The state's shift to grant some developers the right to sell units off-plan should encourage construction of large-scale projects, and such reforms must continue (Banque Saudi Fransi, 2011).

Barring a holistic approach to housing sector reform, many young Saudis are compelled to rent instead of buying due to comparatively low rental yields. Therefore, keeping a strain on already high rents and reducing ownership rates. According to Samba Financial Group (2010) average asking prices for land in big cities rose 18.3 percent.

The current state of the housing market is highly influenced by regulatory reform; future outlook depends heavily on how market participants react to reforms and how the legislation will be enforced (Aljazira Capital, 2015). The recent land tax law to be imposed on vacant land will change market dynamics and housing investment towards development rather than the current state of investment for capital gains (Aljazira Capital, 2015). In addition, the 30 percent down payment mandate imposed by SAMA partially offset the potential surge in liquidity from mortgage lenders (Aljazira Capital, 2015). Currently, liquidity in the market remains as a potential issue (SAMBA, 2010) (Aljazira Capital, 2015). The Ministry of Housing (MOH) led the government's recent efforts in easing what is deemed by many as a housing crisis in Saudi Arabia. It is estimated that the ministry of housing's efforts in the market along with the Real Estate Development Fund (REDF) will not have a direct short-term impact on both land and housing prices along with rental rates in Saudi Arabia (Aljazira Capital, 2015).

In North America for example, the governmental agencies, financial institutions, and the private sector are all involved in the development of affordable housing (Hawtery, 2009). The government allocated land for the construction of housing; funds for housing are provided through financial institutions; the private sector builds homes (Hawtery, 2009). This triangular relationship is absent in Saudi Arabia. Functions of the governmental agencies, financial institutions, and private sector are interchangeable within the context of understanding the construction and finance of affordable housing (GIZ, 2011). Saudi Arabia resources are vast, and the government decides how to allocate these resources, and how much to allocate to housing development (MOEP, 2014). The key idea is to align strategic resources and expectations in order to improve housing, housing standards, and policies. However, several problems and constraints remain, which calls for the formulation of programs, measures and policies that should be designed to ensure radical treatment of the housing demand gap in Saudi

Arabia. The impact of this will be twofold in that it will not only speed up the delivery of housing projects in Saudi Arabia but will also educate local players and lay down the foundation for a more sustainable and community-based model that will contribute to the overall well-being and prosperity of Saudi Arabia and its people.

In this research, the main stakeholders are governmental agencies, financial institutions, and the private sectors they are involve developing financial framework as an approach to finance affordable housing for middle income in Saudi Arabia. The three main stakeholders need to develop new regulations; legislation, policies, and incentives which culminate in an overarching holistic approach for the Saudi housing sector. However, the first stakeholder (***the government agencies)*** consists of The Ministry of Housing (MOH) has a strong enabling mandate, but for the time being focuses mostly on important land development. The Real Estate Development Fund (REDF) continues to lead, but must eventually find a new role that does not actively undermine lending of the private sector, perhaps related to mortgage insurance, subsidization of the needy, and secondary market operations. The Ministry of Municipal and Rural Affairs (MOMRA) has this role in the land and development sector; Saudi Arabian Monetary Agency (SAMA) and the Ministry of Finance (MOF) share this role for finance; and the Ministry of Justice (MOJ) has an enabling role in land registration, real estate information systems, and implementation of foreclosure. It will, however, take many years before these new roles are fully developed. The second stakeholder the ***(financial institutions)*** consist of the commercial banks, Public Pension Agency (PPA), and General Organization for Social Insurance (GOSI). The third stakeholder ***(The private sectors)*** consists of housing developer companies and construction companies.

Consequently, from the reviews above this is a list of summarized points that determine the research problems:

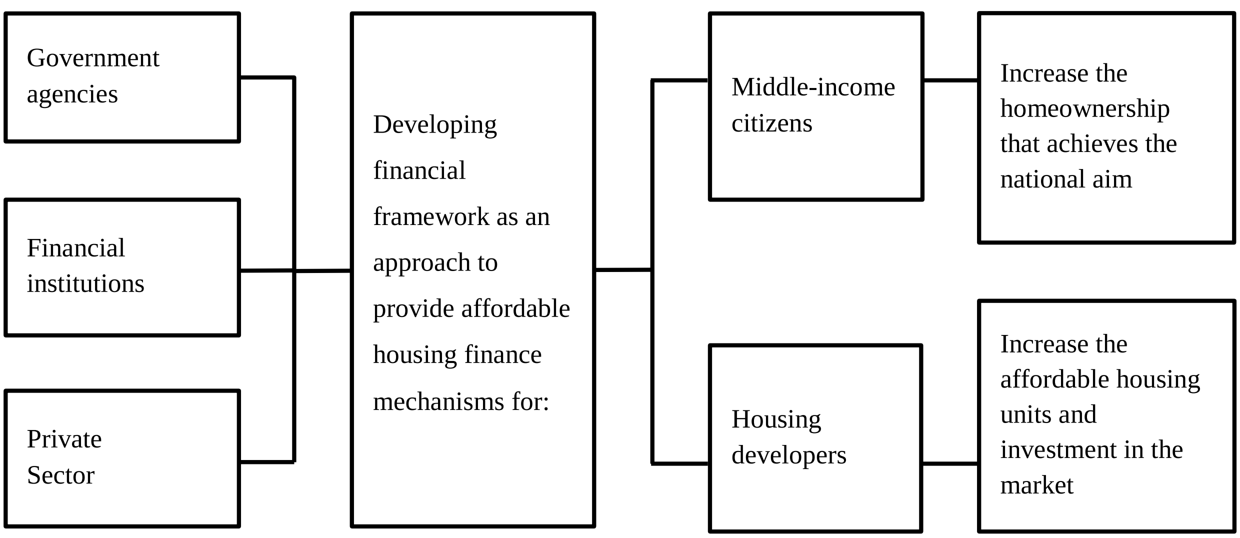
- Lack of framework that involve the main stakeholders (governmental agencies, financial institutions, and the private sectors) in the affordable housing finance sector to finance the middle-income citizens.

- Lack of financial mechanisms for the middle-income Saudi citizens to own affordable housing.
- Lack of financial mechanisms for the housing developers to build and invest in the affordable housing market.
- Lack of innovations and institutional framework that develops and enhance the affordable housing finance system.
- Lack of affordable housing units in the Saudi housing market.
- Lack of sufficient public sector role in the housing sector to establish housing financial regulations and policies.
- The huge increase price in the housing lands that barrier to own for middle-income citizens and housing developers.
- The 30 percent down payment required by the Saudi Arabian Monetary Agency (SAMA) cause a major obstacle for citizens to become homeowners

1-3- The Research Purpose:

The purpose of this research is to investigate, suggest policy options, and develop a financial framework to provide affordable housing finance for middle-income citizens and housing developers in Saudi Arabia. It is recommended that some of the applicable Western housing finance policies, institutions, and innovations, applicable to the Saudi context, be adopted. In addition, policy reform is needed in order to address the hindrances to the development of an efficient housing finance market as well as improve the regulation system of the affordable housing sector in the country. The research explores the current characteristics, potentials, and limitations of the main stakeholders such as governmental agencies, financial institutions, and the private sectors (Figure 5).

Figure 5: the main stakeholders in the Saudi housing:



Source: the researcher

The results of this research will assist in developing a list of policy recommendations and critical success factors to implement the new financial framework in Saudi Arabia with the main stakeholders in this research: governmental agencies, financial institutions, and the private sectors. This research addresses three main questions: What are the recommendations to create a financial framework to provide affordable housing finance mechanisms targeting the middle-income Saudi citizens and housing developers? What are the western finance policies and innovations that applicable in the Saudi context would help to reform the housing finance sector and provide affordable housing units for the middle income Saudi citizens and housing developers in Saudi Arabia?

1-4- The Research Objectives:

These study objectives are to explore, find ways, and policy instrument for:

1) Developing a financial framework to provide affordable housing finance in Saudi Arabia.
2) Finding the stakeholder's potentials and challenges for the governmental agencies, financial institutions, and the private sectors in Saudi Arabia.
3) Reviewing the current state of housing finance policy and the housing policy process in Saudi Arabia.
4) Comparing international best practices for countries (The United States and Canada) that have successful experience in affordable housing finance; especially, the housing finance policies, institutions, and innovations that designed for middle-income households and housing developers.
5) Studying the success/failure factors and criteria for effective or efficient in the United States and Canada implement housing finance policies that applicable in Saudi housing context.
6) Providing affordable housing in Saudi housing market.
7) Making affordable finance mechanisms available to Saudi citizens and housing developers.
8) Improved macroeconomic conditions increased private sector interest in expanding the scale and extent of mortgage and lending for affordable housing in Saudi Arabia.
9) Exploring the stakeholders views by using the Semi-Structured Interviews approach to investigate the necessary data in the research.

2- LITERATURE REVIEW

2-1- Theoretical Framework:

There are several methods to support mortgage financing and insurance to a large proportion of households. Channels commonly used in developed, and increasingly in developing economies, include financial markets, government intervention through indirect or direct subsidization as well as market regulation (Erbas & Nothaft, 2005). In general, such government policies have had the dual objective of 1) stimulating household savings and 2) channeling them to the housing sector (Erbas & Nothaft, 2005). When feasible and successful, implementation of policies which have achieved this dual objective often employs a critical policy program that combines both redistributive policies and growth-enhancing policies in order to improve living standards (Erbas & Nothaft, 2005).

Stephens (2003) provide an array of housing finance systems native to the advanced economies. The variation of the system can be explained by the relationship between finance and property. The high levels of owner-occupation are facilitated by the Liberalized finance supports that is system supporting by ownership rights. The relatively quick foreclosure processes, market valuation systems, mechanisms for credit enhancement and often favorable government policies (Stephens, 2003). Such systems are also associated with tenure polarization and housing market volatility (Stephens, 2003). When fundamental affordability problems arise, the level of owner-occupation stagnates and may well decline (Stephens, 2003). Transition countries, with very high levels of home-ownership, share many of the financial system attributes of the southern European countries. If access to housing is to be improved, so must access to housing finance. Therefore, modification of the mortgage finance systems in order to address can generate high loan to value loans with relatively long repayment periods is pressing on both equity and efficiency grounds (Stephens, 2003). Liberalized finance systems combined with robust valuation systems and efficient foreclosure laws can directly improve access to credit and hence the housing market system is attracting to a market economy. At present, the system of developed countries entails revised mortgage debt is just a few percentage points of GDP, reflecting, among other things, short repayment periods (often less than ten years and seldom more than 15), uncertainty over foreclosure and inefficient subsidy systems (Struyk, 2000).

Warnock & Warnock (2008) analyzed the determinants of market housing finance system in a sample of 62 countries both developed countries and a wide range of emerging economies. Across all countries, controlling for country size, they found countries with powerful legal rights for borrowers and lenders (through collateral and bankruptcy laws), strong structure credit information systems, and a more stable macroeconomic environment have a more stable predictable housing finance systems (Warnock & Warnock, 2008). These same factors also help explain the variation in housing finance across emerging market economies (Warnock & Warnock, 2008). Access developed countries which tend to have low macroeconomic instability and comparatively extensive credit information structures, they found that variation in the strength of legal rights contributed to the variation of the housing finance system (Warnock & Warnock, 2008).

Sanders (2005) found that development of the international mortgage market demonstrated notable difference among developing countries. Factors that influence the development of country-specific mortgage markets include but are not limited to: (1) legal systems that delay foreclosure proceedings, (2) incomplete or weak financial institutions, (3) high inflation, and (4) cultural barriers to mortgage market development and homeownership. Improvements in aforementioned markets can be achieved through modifications several institutional, legal systems, new contract designs, and changes in banking and financial systems (Sanders, 2005).

Improved macroeconomic conditions increased private sector interest in expanding the scale and extent of mortgage and consumer lending for housing and in accessing domestic and foreign capital market funds for the housing sector in countries such as Mexico, Colombia, Chile, Malaysia and Korea (Hoek-Smit, 2011). The global liquidity crisis that morphed into a global economic crisis brought a temporary halt to the expansion of private mortgage lending and many countries reverted to government-sponsored mortgage systems. However, the progressive structure and institutional modifications made by many governments in strengthening the legal infrastructure for housing finance has continued.

Improvements include better land titling and property registration systems, transferability of titles, and stronger enforceability of contracts, (i.e., foreclosure procedures and reforms in judicial systems biased for the underdog) (Hoek-Smit, 2011).

Major structural problems remain or have worsened in many countries due to the crisis (Hoek-Smit, 2011). The significant role of government-owned housing finance institutions, central banks and finance ministries that often led to unanticipated liabilities to the state resulting in an implement to private entry into the sector has further increased in countries where such systems are prominent (Hoek-Smit, 2011). Many governments in developing and transition economies, therefore, face challenges in improving the housing finance system. They are tasked with facilitating (Hoek-Smit, 2011):

- Improvements in institutions and regulatory environments to allow down the market expansion of housing markets.
- Reforms of state housing finance institutions as a prerequisite for creating a more competitive and efficient housing finance system.
- The provision of institutional incentives (mostly regulatory but also through subsidies) to strengthen the private housing finance sector and stimulate efficient lending without exposing the state to excessive risk or moral hazard.

The design of the financial regulation and state intervention must be conducive to a comprehensive federal strategy to promote access to housing finance (Dubel, 2011). The comprehensive plan should consist of strategies to improve institutional diversification and specialization; product innovation; effective mobilization of collateral; appropriate client information, consumer protection, and financial education; as well as adequate borrower screening and monitoring (Dubel, 2011).Thru a few exceptions, commercial banks in developing economies are conventionally unwilling to lending to customers, reflecting high transaction cost, due to perceived low creditworthiness of low-income borrowers. This is alongside inadequate product and underwriting imposed by regulatory barriers, lack of competition related through subsidies for few incumbents, and cartel-style market structures (Dubel, 2011). Suitable housing finance Lending institutions require cash flow based lending models as well as a fine-tuning of regulations reflecting different charters and risk profiles.

Regulators must, therefore, access the critical role of an independent and impartial referee, balancing the interests of the government, consumers and private-sector providers of infrastructure and services. For most countries that do not have a regulatory tradition, the establishment of entities that are responsible for economic regulation poses major challenges as is the case for Saudi Arabia. Until recently, “the economic regulation of infrastructure and utility services was not an issue in Saudi Arabia, as most of these services were provided directly by government entities (Ramady, 2010). As such, issues related to policy, ownership and operation of assets for the provision of the services were interconnected, and any regulation that existed was primarily in the form of self-regulation”.

The housing finance sector can view regarding supply and demand. Demand for housing finance is in a sense a derived demand that flows from the demand for housing, which in turn depends importantly on the rate of household formation and income levels (Warnock & Warnock, 2008). In addition, with housing costs typically being a multiple of annual income, housing is made affordable by spreading payments over time, so adequate housing finance must be longer term in nature (Warnock & Warnock, 2008).

On the supply side, one way to think about the provision of housing finance is to split it into two components: (i) the provision of housing finance by a lender who has ample funds at hand, and (ii) the mobilization of funds within an economy so that lending institutions have access to funds (Warnock & Warnock, 2008). To encourage lenders with adequate funds to choose to allocate some portion to long-term housing finance, a number of preconditions are vital (Warnock & Warnock, 2008):

- **Information on the borrower:** To adequately price a loan, a lender must have information on the creditworthiness of prospective borrowers that enables the determination of the probability of default. The information could be produced by a standardized and accurate source of credit histories such as public credit registries or private credit bureaus.

- **Ability to value the property:** There should be an ability to determine the market value of the property. This is a natural outcome of a well-functioning housing market in which detailed information on housing transactions is maintained in a systematic way.
- **Ability to secure collateral:** The lender should be able to secure collateral against the loan in case of default. The house itself is an obvious candidate for that collateral, providing that in the case of default the lender can seize the property. To seize the property requires that there is something resembling clear title and that the legal system allows the lender to seize collateral.
- **Macroeconomic stability:** The macroeconomic environment should be stable. If inflation is volatile, the lender would incur substantial interest rate risk if it lends at a fixed rate. In an unstable environment, lenders will typically pass on this risk to the borrowers who are less likely to understand it fully by only offering floating rate loans. Substantial interest rate risk, no matter who bears it, will retard the development of the housing finance system as either lender will go out of business (e.g., the United States savings and loans in the 1980s) or borrowers will be unable to repay their loans (or both).

If the conditions for long-term lending are in place, it is critical that lenders have ample access to funds in order to promote the conditions for lending (Warnock & Warnock, 2008):

- **Sources of funds:** In the primary market, deposit-taking institutions, such as banks, can fund mortgages through deposits. However, because deposits are short term, if this is the only source of funds housing loans will tend to be short term or at variable rates. Short-term loans, given that housing is expensive, are unattractive to potential borrowers. Potential borrowers might find variable rate loans attractive, but will likely not be able to gauge the substantial interest rate risk they are bearing. In addition, reliance on deposits implies that funding sources are limited geographically, which increases risk. An important additional source of funds for the housing finance system is the secondary market, which buys the loans from the primary market and finds many ways to mobilize funds. One set of participants in the secondary market is mortgage securities, which bundle and repackage mortgages (or parts of mortgages) to create new securities, and investors in these mortgage securities. The securities can be public (such as Fannie Mae, Freddie Mac, or Ginnie Mae) or private (such as GE Capital); the investors can be domestic or foreign institutions or individuals; and, recent events in markets for mortgage securities notwithstanding, secondary mortgage markets can be an important part of a country's broader capital markets.

- **Additional sources of liquidity:** Whatever the usual sources of funds, it is important to have a backstop, such as a governmental liquidity window, in the case of temporary liquidity crunches.

In summary, a country's basic infrastructure that can enable a well-functioning housing finance system includes: 1) factors that promote long-term lending (eg. the ability to value property and to seize it in the case of default, information on the creditworthiness of potential borrowers, macroeconomic stability) and 2) factors that promote the mobilization of funds (be it through savings and deposits, capital markets, a governmental liquidity window, or secondary markets).

2-2- Affordable Housing Perspectives:

Housing affordability research asserts that "affordability" must be determined by making comparisons at the local level between the cost of housing and incomes of households (Donald et al., 2000). Bhatta defined affordable housing "as housing deemed affordable to those with a median household income" (2010, 23). Bieri & Dawkins (2012) add policymakers have long relied on the standard rule of thumb that households should not spend more than 30 percent of their income on housing expenditures. In addition, Hawtrey defined affordable housing is part of the old theory in economics the supply and demand (2009). Stone add, "It is a relation between housing and people" (2013, 97). Also, he adds "the Affordable housing, it is a three-dimensional notion, a triangulation that asks: affordable to whom, on what standard of affordability, and for how long?" (Stone, 2006, P9). Scholars suggest housing affordability is an indicator; carrying the connotation of a standard. An indicator is an empirical metric, usually of the relationship between housing costs and incomes. A standard, on the other hand, is a normative specification of the appropriate value that an indicator should or should not take (Baer, 1976).

On the contrary, buying a house requires the wherewithal to cover the purchase price, and the capacity to take on a large, long-term debt obligation. Lack of cash and credit, therefore, act as constraints. In the post-crisis financial era, any buying boost resulting from the sharp drop in mortgage rates for prime borrowers will be largely offset by the rising proration of would-be home buyers who can no longer get credit at any rate as banks scale back loans to match their shrinking assets. This climate reflects the altered financial dimension of the housing system and the function of conditions in the capital market, not the housing market (Haughey, 2008). The term affordable housing can be defined as “low-cost housing market, and subsidized housing (irrespective of tenure), ownership (whether exclusive or shared or financial arrangements) available to people who cannot afford to rent or buy houses available on the open market” (UKGOV, 2005). Other definitions use a benchmarking approach. For example, that housing costs should be less than 30 percent of gross household income. However, affordability is not simply a matter of housing costs. A well located dwelling might save significant household travel costs and, therefore, improve overall family economics (NAHC, 2006). However, affordable housing is not the same as social housing. Publicly owned public housing, closely related to the community housing sector, framework social housing and can be thought of as an extension of the government social security services. The culmination of the aforementioned used affordable housing definition the researcher is able to define affordable housing in the Saudi Arabia context as 1) the ability of the household to purchase a home based on the median monthly costs and 2) housing can be considered affordable if, a household pays not more than 30% of its gross income for basic housing costs.

2-3- Housing Developer’s Perspective:

In the developed world context, a housing developer is traditionally considered to be an actor or entity whose central activity is the modification of the physical environment for the purpose of their economic gain (Acioly & French, 2012). Developers can consist of a single actor or group of people, or a partnership or corporation. Housing development is a commercial enterprise that is profit driven and highly speculative. The primary activity is investing in land and buildings and subsequently improving them, typically through the construction of new buildings or the provision of infrastructure and services (Acioly & French, 2012). Therefore, a property developer seeks to add value to the physical environment and capitalize on this added value through selling the improved property, to extract the added value (Acioly & French, 2012).

The world of developers is characterized by decentralization of resources, knowledge and projects, which often reinforces attitudes of risk aversion (McCoy, Thabet, & Badinelli, 2009). Developer are often hesitant to adopt resistance to new technologies due to perceived risks of adoption (McCoy, Thabet, & Badinelli, 2009). The underlying reasons for their resistance can be attributed to uncertainties specific to the industry such as site variability, one-off nature, and the longevity of warranties, supply uncertainty and uncertainty inherent in the built environment (McCoy, Thabet, & Badinelli, 2009).

Using this conceptualization of a housing developer as an actor who seeks to add value and create wealth by modification of the physical environment, many actors in the developing world can be considered as housing developers (Acioly & French, 2012). There are those who follow a similar model to developers in the developed countries which consist of private companies who work within the formal real estate sector to produce the housing with the aim of making a profit. Likewise, governments of developing countries act as housing developers, either directly or indirectly for low-income housing (Acioly & French, 2012).

There are, therefore, key differences between housing developers in the developed and developing worlds. Even though, both are engaged in the same process of producing housing and adding value (Acioly & French, 2012). Housing developers in the developed world are risk-averse, driven almost exclusively by economic gain, and work at large scales in a fast manner (Acioly & French, 2012). In contrast, informal developers in the developing world often take high risks, are motivated primarily by their shelter needs, and predominantly work at small scales, often the unit of the household, at a much slower pace dictated by their financial capabilities (Acioly & French, 2012).

The developer can create a development plan focused on common goals related to a healthy environment, a strong economy, and a high quality of life. Collective decision-making increases pride and investment in the community, which, in turn, encourage high-quality maintenance and adherence to community rules and policies on the part of residents (Bach et al., 2007). Developers can also foster support and trust by a demonstrated long-term commitment to excellence, value, and good design, as well as dedication to active management and maintenance. Critical to the success of developers is the ability to financial structural a given project. Leveraging additional public incentives is often required to make affordable housing projects financially feasible (Bach et al., 2007). Developers often collaborate with local, state, and federal government agencies to obtain additional incentives for the development of affordable housing development. The incentives land grants, tax abatements, brownfield cleanup, lower fees, and an expedited permit and entitlement process (Bach et al., 2007). Finally, affordable housing developers incorporate programs that encourage ownership, which facilitate transitions from rental to ownership and build wealth. Various federal, state, local government, and private initiatives provide financing, technical assistance, and educational resources encourage affordable homeownership (Bach et al., 2007).

2-4- The Housing Finance System in the United States:

Historically, the federal government has played a significant role in the housing finance system, providing both support to the system and regulation (Hoskins et al., 2013). The government provides explicit support to certain homeowners through government agencies like the Federal Housing Administration (FHA), and implicit support to others, such as through the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac (Hoskins et al., 2013). Advocates of government support for homeownership argue that homeownership strengthens ties to the community and is a way for households to accumulate wealth (Hoskins et al., 2013). The government’s support attempts to balance two competing objectives: expanding access to homeownership for qualified borrowers and minimizing the risk and cost to the government (Hoskins et al., 2013).

Homeownership in the United States has been promoted as part of the American Dream. Over the past 50 years, the homeownership rate has maintained a range of 62% to 66% (Weiss, 2013). Since 2008 (financial crisis era) however, the residential mortgage market has experienced historically high default and foreclosure rates, credit losses, liquidity problems, and tighter mortgage standards (Weiss, 2013). In addition, Fannie Mae and Freddie Mac, two congressionally chartered government-sponsored enterprises (GSEs) were formed to provide liquidity and access to the mortgage market. These two programs have been placed in conservatorship and have received various types of financial support from the United States Department of the Treasury and the Federal Reserve (Weiss, 2013).

In the United States, there are two primary characteristics of household considering purchase a house (Frame & White, 2012). First, the house is a long-lived asset; and second, its price is typically several of the household’s income and exceeds the household’s net worth (Frame & White, 2012). Hence, households will seek to borrow a large fraction of the funds that are necessary to purchase the house (Frame & White, 2012). The loan to the purchaser, with the house as the collateral for the loan (i.e., the lender can take possession of the house if the borrower defaults on the loan), is the mortgage (Frame & White, 2012).

Fannie and Freddie established underwriting standards for down payments, debt-to-income ratios, borrower information and mortgage quality which limit organization risks and kept delinquencies and defaults at very low levels (Wallison, 2011). However, the existence of the Government-Sponsored Enterprise (GSE) created moral hazard. Previously and external of neither the GSEs’ MBS nor the buyers of their debt securities cared about the quality of the loans they were buying. We will see this allowed Fannie and Freddie responding to government requirements to acquire vast numbers of subprime and Alt-A loans that were eventually the source of their downfall (Wallison, 2011).

The Housing and Economic Recovery Act of 2008, which toughened the regulation of Fannie and Freddie, Congress, also increased the conforming loan limit for the GSEs in areas with high housing costs (Wallison, 2011). The new limits in high-cost areas had the effect of increasing the size of the mortgages that Fannie and Freddie could purchase. Thus, buyers of homes in the million dollar range could have access to the benefits conferred by eligibility for purchase by the GSEs (Wallison, 2011).

Today, homeowners seeking a mortgage apply to a mortgage originator, which may or may not be part of a larger financial organization (Weiss, 2013). The originator reviews (underwrites) the mortgage application and approves it, according to criteria established by government agencies, such as FHA, or quasi-government agencies, such as Fannie Mae, Freddie Mac, and the Federal Home Loan Banks (Weiss, 2013). The originator typically sells the mortgage to a securitize, which pools them into MBSs that are in turn sold to institutional investors, including trusts, pension funds, and sovereign wealth funds (Weiss, 2013). The government's regulation of the housing finance system is divided across the different levels of government. Some issues, such as the foreclosure process, are primarily regulated by the states. While other issues, such as certain borrower protections when taking out a mortgage, are regulated at the federal level (Hoskins et al., 2013).

The government role in housing finance has been successful in standardizing mortgage terms and created a national market for mortgages. This has been facilitated largely by the sale and distribution of Mortgage-Backed Security (MBS). This has drawn financial resources from institutional investors in the United States and around the world, which supplemented the funds previously supplied primarily by banks. However, these benefits have come at an enormous cost to the United States taxpayers, who have in the past and will in the future have to supply hundreds of billions of dollars to bail out the losses incurred by the government in its financial support for housing (Wallison, 2011). As the government increasing because involved in assisting housing finance, its role will also continue to expand.

2-5- The Housing Finance System Components in the United States:

The housing finance system has two main elements: a primary market and a secondary market. Lenders make new loans in the primary market, and loans are bought and sold on the secondary market.

2-5-1- The Primary Market:

In the primary market, a lender extends a loan to a borrower so that the borrower can purchase a house. Many different types of lenders make home loans (e.g. banks, credit unions, and finance companies (institutions that lend money but do not necessarily accept deposits)) (Hoskins et al., 2013). A loan that uses real estate as collateral is typically referred to as a mortgage (Hoskins et al., 2013). When a borrower applies for a mortgage, the lender will underwrite or evaluate the borrower. The lender is likely to take into account multiple factors, such as the applicant's credit history, income, debts, assets, and the value of the house being purchased (Hoskins et al., 2013). The underwriting process usually takes several weeks or a month as the borrower assembles various financial documents, such as tax returns, that the lender requires (Hoskins et al., 2013).

The mortgage application process can be relatively expensive for borrowers. The borrower pays a variety of fees upfront for items such as credit reports, an independent appraisal, a survey of the land, a title search, and lender fees (Hoskins et al., 2013). All are critical evaluation documents which affect approval or denial; the borrower has to pay additional costs when the mortgage is closed (Hoskins et al., 2013). Collectively, these are referred to as settlement costs or closing costs. The borrower and the seller can negotiate who will pay which fees, but the borrower is responsible for at least some closing costs (Hoskins et al., 2013). The lender is required to provide a standardized form to the borrower at closing that shows the itemized closing costs associated with the mortgage (Hoskins et al., 2013).

2-5-2- The Secondary Market:

The secondary market in residence mortgage is a network of mortgage originators who lend money to home buyers and investors who buy mortgage loans (Warszawski, Alweyl, & Ishai, 1983). Primary mortgage lenders make loans to property buyers and underwrite and service the loans, which can be held in lenders' portfolios or sold to investors (Warszawski, Alweyl, & Ishai, 1983). By selling the loans they originate, lenders obtain funds that they can use to make new mortgages (Hoskins et al., 2013). Investors who buy mortgage loans after primary mortgage lenders have closed them usually consider the loans as investments, and usually pay the lender a fee to continue servicing the loans (Hoskins et al., 2013). After a lender originates a mortgage loan, the lender has several options: 1) the lender could choose to hold the mortgage in its portfolio and not sell it; 2) The lender could also choose to sell the mortgage to another entity (Hoskins et al., 2013). Mortgages are bought and sold in the secondary market to domestic and international investors (Hoskins et al., 2013). If the mortgage is sold, the borrower would continue to send monthly mortgage payments to the mortgage servicer which could be the original lender or a new entity (Hoskins et al., 2013).

In the United States, the secondary market grew, and complexity from the late 1970s until the mortgage crisis began in 2007 (Schwartz, 2015). In the market's earliest form, secondary market institutions merely purchased the mortgages originated by mortgage banks and other lenders and held them in their own portfolios. Starting in 1960, but accelerating in the 1980s, these institutions also formed various types of financial Securities based on large aggregations of individual mortgages (Schwartz, 2015). Fannie Mae, Freddie Mac, and Ginnie Mae almost entirely dominated the Secondary mortgage market into the 1990s, While Ginnie Mae acquired and securitized government insured (FHA and VA) mortgages, Fannie Mae and Freddie Mac focused on the much larger market for conventional mortgages out government insurance (Schwartz, 2015). To minimize the risk of default, the GSEs developed strict eligibility standards for the mortgages they acquired or securitized (Schwartz, 2015).

2-6- Housing Types in the United States:

There are two housing type in the United States; First, Single family housing is 1 and 2 story buildings with an adjacent plot of land, occupied by one family (Warszawski, Alweyl, & Ishai, 1983). They can be detached, or share a common wall (or walls) with neighboring dwellings. Second, the multifamily houses have 3, 4 or more story and contain several dwellings which share a common staircase (Warszawski, Alweyl, & Ishai, 1983).

However, the financing for multifamily rental housing differs in several ways from that for single-family (owner-occupied housing) (Schwartz, 2015). First, multifamily housing is almost always much more expensive than single-family housing and, therefore, requires more financing. The default of an individual multifamily mortgage has much graver consequences for the lender than the default of a single-family mortgage (Schwartz, 2015). This difference alone can make lenders wary of making multifamily mortgages. Second, multifamily housing tends to be much more idiosyncratic than single-family housing (Schwartz, 2015). It varies by property size and configuration, location, and market focus (Schwartz, 2015). These multiple dimensions make it difficult to assess risk.

In the single-family mortgage market, with millions of individual loans, lenders can use sophisticated statistical models to estimate how differences in the characteristics of the property, the borrower, and the mortgage influence the probability of default and can set mortgage terms accordingly (Schwartz, 2015). The multifamily mortgage market is far too small for these statistical models to operate with similar degrees of reliability (Schwartz, 2015). The lack of standardization and a weaker understanding of risk slowed the growth of the secondary market for a multifamily mortgage (Schwartz, 2015).

As with single family mortgages, the secondary market has become an increasingly important source of financing for multifamily mortgages (Schwartz, 2015). As of the second quarter of 2013, 52% of all multifamily mortgages were held in the second mortgage market, up from 45% in 2006 (Schwartz, 2015). The secondary mortgage market claims a larger portion of the market for single-family mortgages (68% as of 2013), but the difference is diminishing (Schwartz, 2015). Interestingly, the market for multifamily mortgage appears to have more stable in the midst of the financial crises then single family mortgage (Schwartz, 2015).

2-7- How are Mortgages Funded?

Today and in the foreseeable future, home mortgages are indirectly financed by financial institutions, such as pension funds, college endowments, central banks, and sovereign wealth funds (Weiss, 2013). A household is seeking a mortgage typically applies directly to an organization (or part of a larger organization) that specializes in the mortgage origination process (Weiss, 2013). This mortgage originator uses credit scores and computer systems to evaluate the mortgage application (Weiss, 2013). The originator may hold the mortgage in the portfolio as an investment or sell it within days of being issued. In the latter case, the mortgage might be sold again, and typically ends up pooled with other mortgages in a mortgage-backed security (MBS) that is guaranteed by Fannie Mae, Freddie Mac, or by the federal government through Ginnie Mae, which is part of the Department of Housing and Urban Development (HUD) (Weiss, 2013). The MBS frequently is sold to an institutional investor. In many cases, servicing is contracted out, and the homeowner does not know who owns the mortgage (Weiss, 2013).

2-8- Mortgage Characteristics:

A mortgage has four basic features (McDonald & Thornton, 2008):

- The amount of the loan (the principal).
- The length (or term) of the loan.
- The schedule for the loan’s repayment (monthly installments or lump sum).
- The interest rate.

Different types of mortgages vary across these characteristics. A fixed-rate mortgage is a mortgage in which the interest rate does not change over the life of the loan (McDonald & Thornton, 2008). An adjustable-rate mortgage has an interest rate that is tied to an underlying index; at agreed-upon intervals, as the index adjusts, so does the interest rate (McDonald & Thornton, 2008). A balloon mortgage has a lump-sum amount, or a balloon payment, due at the end of the loan (McDonald & Thornton, 2008).

The most common type of mortgage in the United States is the 30-year, fixed rate, self-amortizing mortgage. A self-amortizing mortgage is one in which each payment made by the borrower pays down some of the interest and some of the principal until the loan is paid off (Hoskins et al., 2013). Although the typical mortgage contract may have a 30-year term, most mortgages are paid off early. Borrowers pay off a mortgage in several ways (Hoskins et al., 2013). First, a borrower could repay the loan in full over the prescribed period, or earlier if the borrower makes extra payments (Hoskins et al., 2013). Second, the borrower could refinance the mortgage. In a refinance, the borrower takes out a new mortgage (usually with better terms than the original, such as a lower interest rate) and uses the new mortgage to repay the original mortgage (Hoskins et al., 2013). The borrower then makes payments on the new mortgage. Third, a borrower could sell the home and use the proceeds to repay the mortgage. Fourth, a borrower could stop paying, or default, on the mortgage (Hoskins et al., 2013). The lender would then repossess the house through foreclosure and sell it to attempt to recoup the unpaid amount of the loan.

2-9- The Government Intervention in the Housing Sector:

Governments intervene in housing markets because of negative externalities caused by a fundamental conflict between the objectives of borrowers (citizens) and investors. The housing of developed countries can be simplified to every citizen should have the opportunity to purchase a decent, well-built home reasonably affordable, in environmentally sustainable communities where they want to live and work (Flanagan, 2012). All mortgage investors can expect to earn a predictable and sustainable return over the term of the mortgage with all risks equitably and fairly distributed (Flanagan, 2012). Government intervention to raise homeownership is a worldwide phenomenon though the degree and the methods of intervention vary widely across countries (Tsounta, 2011). Initially, some countries have formal subsidy/tax programs which either lower the construction or purchase cost of housing or the interest rate on loans (Tsounta, 2011). Secondly, government's tax system has constructed a favor of owner-occupied housing (e.g. tax deduction). Imputed rental incomes are usually untaxed, and in some countries, there is tax relief on capital gains from home sales and mortgage interest (Tsounta, 2011). Thirdly, some governments provide mortgage insurance (e.g. the United States, and Canada).

Housing is concurrently consumption good as well as investment collateral. Governments who aspire to house every citizen in decent homes intervene, whatever their political and market outlook, to ensure sufficient funding to achieve equitable outcomes in housing provision (Flanagan, 2012). The effort to ensure a steady stream of affordable funds from investors to all types of borrowers ranging from creditworthy to non-creditworthy, regardless of their social grouping, has guided government interventions in developed countries over the last three centuries. As the housing finance market has grown and sophistication, governments have institutionalized and widened the scope of the type and variety of interventions to achieve particular outcomes (Flanagan, 2012). The type and method of intervention vary according to the scope of regulators the private or public housing sector. The following taxonomy can be used to characterize most of the common types of housing finance interventions (Flanagan, 2012):

- Guarantees of mortgage loans and deposits of housing finance institutions.
- Regulation of mortgage product specifications and availability.
- Regulation of housing finance institutions.
- Regulation of the tax treatment of mortgage loans and funding.
- Regulation of mortgage and deposit interest rates.
- Educational or informational programmes.

Cigdem & Wood (2012) acknowledge the essence of the monopoly in the housing sector as one of many characteristics likely to generate market failure and therefore negatively impact both productive and allocative efficiency. A monopoly arises when one firm is responsible for all output in an industry and is protected from new competition by entry barriers (Cigdem & Wood, 2012). Monopoly power prevents markets from operating efficiently because the monopolist can restrict output and thereby raise the price to levels that are higher than would prevail in competition in or the market (Cigdem & Wood, 2012). This form of market failure is not prominent in the private housing sector more than one housing supplier is present, and new firms are permitted to enter the market (Cigdem & Wood, 2012). However, when a developer acquires substantial land banks, and government regulations prevent the release of more land for residential development in an area there can be cause for concern. Even in areas where there is a single developer, the exploitation of monopoly power is constrained by the presence of developers in neighboring areas and regions.

In the United States, factors shaping regulatory policy are opaque as regulatory responsibility for achieving the efficient and effective functioning of the housing finance market is spread across many agencies at both a federal and state level (Flanagan, 2012). Lobby groups, challenging legislation or regulation in the United States Federal and State Court system, also significantly shape United States intervention (Flanagan, 2012).

The United States was traditionally regarded as a heavy-handed regulator regarding numbers of federal and state agencies, GSE organizations, housing finance institutions, and tonnage of handbooks (Flanagan, 2012). On the other hand, enforcement of the regulations became increasingly light-handed over the last 15 years due to an ‘unholy’ alliance between borrowers and investors in the housing finance system; that is, insatiable borrowers demand for more affordable and higher-quality housing as well as investors demand for high, predictable, and government-guaranteed yields on their abundant and leveraged funds (Flanagan, 2012). A moral hazard problem arose in that both groupings felt that the US government would always implicitly guarantee the privatized GSEs (i.e., Fannie Mae and Freddie Mac) debt obligations. Policy objectives and interventions are shaped by one or more of the following four principles (Flanagan, 2012):

- Achieving social and/or economic efficiency.
- Ensuring equitable procedures for all groups of borrowers.
- Achieving equal outcomes by redistributing income to less-advantaged members of the society.
- Ensuring retributive justice for those repeatedly flouting or ignoring regulations.

The United States Agency regulators may focus on a variety of objective from economically efficient outcomes (e.g., the Federal Reserve) while others on socially efficient outcomes (e.g., the HUD). The second and third policy objectives in the United States have been characterized by well-documented areas of conflict between federal and state agencies, intra-federal agencies, as well as consumer lobby groups and federal agencies. The fourth policy objective, that is, that wrongdoer will be caught and suitably punished has been in discussion recently on a variety of levels but notably concerning apparent abuses in the certification of sub-prime mortgages. Some observers, including the Congress of Oversight Panel (COP) as well as the Federal Reserve, claim that these types of abuses demonstrate how the presence of agency dilemma, adverse selection, and moral hazard issues introduced by regulatory intervention can have major and significant unintended consequences.

A major proportion of the United States housing finance intervention is achieved through tax policy, institutional regulation, and targeted government programs. Guarantees have tended to be implicit rather than explicit. Recent federal foreclosure prevention programs have tended to operate by providing interest rate subsidization rather than principal reduction.

The appropriate role of government interventions is now widely accepted as the improvement of the housing finance markets and to directly address the housing problems of households that are not yet served by private markets. This method is employed rather than providing finance through government entities, even though the current crisis necessitates a temporary increasing government role presence in the market of some countries (Hoek-Smit, 2011). However, in order for government interventions to improve the efficiency and stability of housing finance markets, it is necessary that the root to market inefficiencies be understood in considerable detail (Hoek-Smit, 2011). Designing new incentives and institutions with the objective of improving market functioning is complex. It is just as easy for such interventions to create negative effects on markets, particularly if subsidies are used (Hoek-Smit, 2011).

2-10- The Housing Finance Policies Designed for Middle-Income Households in the United States

In this section, I will explain the United States housing programs that are designed to assist middle-income household to become homeowners. These programs include: Government-insured mortgages, Loan Term and Amortization Pattern, Down Payment Size/Borrower Equity, Interest Rate, and Homeowner Taxation (Mortgage Interest Deduction and Property Tax Deduction).

2-10-1- Government Insured Mortgages:

The Federal Housing Administration (FHA) was created by the National Housing Act of 1934 in order to broaden homeownership, protect lending institutions, and stimulate the building industry (Jones, 2013). The FHA does not issue mortgage loans. Rather, it insures mortgage loans made by private lenders that meet certain underwriting and other criteria; thereby expanding the availability of mortgage credit beyond what may be otherwise available (Jones, 2013). If the borrower defaults on the mortgage, FHA will repay the lender the remaining amount owed. FHA insures a range of mortgage types, including single family, multifamily properties and hospital facilities (Jones, 2013).

The role of the FHA as part of the economic recovery program served to restore mortgage lending (Elsinga, 2012). The FHA promised to repay fully outstanding mortgage debt to lenders if borrowers defaulted. As a result, the FHA program restored confidence in the mortgage industry and triggered new credit flows to the housing market (Elsinga, 2012). In 1938, the Federal National Mortgage Association, better known as Fannie Mae, was established. This organization role is to purchase and securitizes mortgages in order to ensure that funds are consistently available to the institutions that lend money to home buyers (Elsinga, 2012).

In 1966, there was a shortage of funds for mortgage borrowers (Elsinga, 2012). One of the responses to this shortage was the splitting of Fannie Mae into two organizations: the Government National Mortgage Association known as Ginnie Mae and the new Fannie Mae (Elsinga, 2012). This new Fannie Mae was privately held and would also be able to sell nongovernment-backed mortgages to raise additional funds (Elsinga, 2012). A guarantee mortgage function was kept inside the government through Ginnie Mae for two reasons (Elsinga, 2012). First, to continue to provide a full government-backed guarantee of timely payments of FHA foreclosed mortgages to the lender and, second, to be able to package and securitize FHA loans (Elsinga, 2012).

However, Hoskins et al. (2013) note that a borrower could also use mortgage insurance if he or she does not have enough for a 20% down payment. Mortgage insurance is an insurance policy that can be purchased by either the borrower or the lender (though usually by the borrower), to compensate the lender in the event that the borrower defaults on the loan (Hoskins et al., 2013). Mortgage insurance provides greater assurance to the lender that the lender will be repaid. Borrowers typically purchase mortgage insurance from private businesses (private mortgage insurance or PMI) or the federal government (Hoskins et al., 2013).

The government guarantee is targeted at the lower end of the market, whereas the rest of the market is covered by private mortgage insurers (Elsinga, 2012). Premiums for the mortgage guarantees fees are paid up front as well as yearly (Elsinga, 2012). The upfront fee amounts to 1.5% of the price of the dwelling, and the yearly fee is 0.5%. When the loan to value ratio is lower than 78%, the yearly fee is canceled (Elsinga, 2012). However, Insurance for loans purchased by Fannie Mae and Freddie Mac is provided by private mortgage insurers and typically paid through monthly premiums and subsequently billed to the borrower (rather than a lump-sum amount) (McDonald & Thornton, 2008). The coverage provided by private mortgage insurance is partial; essentially the insurance covers only a portion of the total loan amount, typically about 20% to 30%. Private mortgage insurance for most borrowers is canceled when the value of the loan falls below 78% of the home's purchase price (McDonald & Thornton, 2008).

Government mortgage insurance coverage varies depending on the agency providing the insurance, but most programs require low or no down payment (Hoskins et al., 2013). The three main agencies that provide government mortgage insurance be as follows:

- Federal Housing Administration (FHA): FHA, an agency within the Department of Housing and Urban Development (HUD); provides mortgage insurance on loans that meet its requirements (including a minimum down payment requirement and an initial principal balance below a certain threshold) in exchange for fees, or premiums, paid by borrowers (Jones, 2012). If a borrower defaults on an FHA-insured mortgage, FHA will repay the lender the entire remaining principal amount it is owed. FHA is the largest provider of government mortgage insurance (Jones, 2012).
- Department of Veterans Affairs (VA): VA provides a guaranty on certain mortgages made to veterans. If a borrower defaults on a VA-guaranteed mortgage, the VA will repay the lender a portion (but not all) of the remaining principal amount owed (Perl, 2013). Because it is limited to veterans, the VA loan guaranty program is smaller and more narrowly targeted than FHA (Perl, 2013).
- U.S. Department of Agriculture (USDA): USDA administers a direct loan program for low-income borrowers in rural areas, and a loan guarantee program for low- and moderate-income borrowers in rural areas (Cowan, 2014). If a borrower defaults on a USDA-insured loan, USDA repays the lender a portion (but not all) of the remaining principal amount owed (Cowan, 2014). The USDA program is more narrowly targeted than FHA in that it has income limits and is limited to rural areas (Cowan, 2014).

2-10-2- Loan Term and Amortization Pattern

During the Great Depression of the 1930s, the United States Home Owners Loan Corporation acquired large numbers of defaulted mortgages, reinstated the borrowers, and converted them into 20-year self-amortizing loans, so that each (equal-size) monthly payment involved a partial repayment of the principal as well as interest on the remaining loan balance. Subsequently entire principal was repaid by the end of 20 years (Frame & White, 2012). The FHA offered insurance on the loans, which improved the marketable of the loan to private investors. In the late 1940s, the FHA extended the standard self-amortizing mortgage term to 30 years. FHA institutionalized a revolutionary idea: 20-year mortgages whereby the loan would be completely repaid at the end of the loan term. If borrowers defaulted, FHA insured that the lender would be fully repaid (Jones, 2013). Mortgage instruments were standardized, and a new confidence was inculcated in the mortgage market. Investment in housing was stimulated and the rippling effects reverberated throughout the economy (Jones, 2013). Eventually, lenders began to make long-term mortgages without FHA insurance if borrowers made significant down payments (Jones, 2013). Over time, 25- and 30-year mortgages have become the standard mortgage products.

A longer term increases both the credit risk and the interest rate risk. The longer the term of the loan, the lower the principal is paid, and hence the higher the probability that the borrower might default with negative equity (Frame & White, 2012). Further, the longer the term, the greater the interest rate risk, since the longer period of compounding will amplify the effects of any change in interest rates (Frame & White, 2012). Thus, faster amortization reduces both kinds of risks. However, the intention of the mortgage is to allow the borrower (the household) to purchase an item (the house) that is far beyond the household’s otherwise available resources. Thus, a short-term loan with rapid amortization would be self-defeating the whole purpose of the loan (Frame & White, 2012).

The rate and extent to which mortgages are amortized can be of critical importance to individuals, households, economies, and financial systems. Low rates of amortization reduce periodic payments, which make borrowing purchase a property more affordable (Leece, 2012). While including this interest rate risk, refinance risk also refers to whether the borrower will be able to obtain funding at the time that the balloon payment is due (Frame & White, 2012). The mortgage payment may even be less than the amount of interest due with the sum owed adding to the outstanding balance (Leece, 2012). This is negative amortization, and mortgages that have this as a contractual feature are negative amortization mortgages. However, negative amortization and the consequent build-up of debt has been the focus of claims, in the United States, as it pertains to irresponsible lending. Such patterns have added to the number of defaults and repossessions occurring in the current economic and financial crisis (Leece, 2012).

The exploration of the properties of a traditional repayment mortgage provide insight into the choice and obstacle experienced by borrowers as they seek to minimize the costs of the mortgage over time (i.e., the total interest rate cost) and minimize the debt balance (Leece, 2012). This also reflects on the role of property in the savings and investment portfolio of the household, as paying off the debt is equivalent to building up the equity stake in the owner-occupied house (Leece, 2012). In addition, Leece (2012) add the implications for risk and affordability of retaining a long maturity on moving house. There are two further related issues (Leece, 2012):

- The consequences and advisability of changing the maturity of the mortgage.
- The choice of the rate of amortization, which is the rate at which the mortgage balance is repaid.

Jones (2013) adds that with a negative amortization loan, borrowers have the option to pay less than the full amount of the interest due for a set period of time. The loan negatively amortizes as the remaining interest is added to the outstanding loan balance (Jones, 2013). Like interest-only loans, this option increases future monthly mortgage payments when the principal and the balance of the interest amortize (Jones, 2013). These types of loans can be useful in markets where property values are rising rapidly because borrowers can enter the market and then use the equity gained from rising home prices to refinance into loans with better terms before payments increase. This type of agreement is also sensible for borrowers of temporary low incomes household but expects a significant increase in income in the future (Jones, 2013). However, when home prices stagnate or fall, interest-only loans and negative amortization loans can leave borrowers with negative equity, making it difficult to refinance or sell the home to pay the mortgage debt.

A potential mortgagor must also make a decision concerning the contracted term of the mortgage (Basciano, Jackson & Grayson, 2008). The two most popular mortgage terms in the United States are the 15-year and 30-year mortgage (Basciano, Jackson & Grayson, 2008). In making a term mortgage decision; a potential borrower considers a variety of critical factor the after-tax cost of the mortgage, the potential opportunity costs associated with the required payments, and the potential prepayment option embedded in the selected instrument (Basciano, Jackson & Grayson, 2008). The mortgagor's interest in present and future consumption and the potential impact on the wealth accumulation of the household are a major underlying influential factor as to which mortgage term is selected (Basciano, Jackson & Grayson, 2008).

Another important consideration for the mortgagor in choosing an appropriate mortgage term involves the consideration of the potential impact of opportunity costs (Basciano, Jackson & Grayson, 2008). In selecting a shorter-term mortgage, a household would benefit from lower financing costs and faster equity accumulation over the life of the mortgage loan as well as an earlier cessation of the contractual payments (Basciano, Jackson & Grayson, 2008). However, these benefits come at the expense of higher contracted monthly payment resulting in less financial flexibility, an increased allocation of the household's wealth to real estate investments in the form of their primary residence, and opportunity costs associated with potential alternative uses of the committed additional funds required to accelerate the mortgage term.

A similar decision involves the selection of an original mortgage term. If mortgagors select a 15-year mortgage, they are contractually required to make higher monthly mortgage payments as compared to a 30-year mortgage (Basciano, Jackson & Grayson, 2008). Instead of making the higher monthly payment on the 15-year mortgage, a mortgagor could alternatively take out a 30-year mortgage with a lower required monthly payment and invest the after-tax payment differentials. Research has evaluated focused on the potential benefits associated with utilizing a 30-year mortgage rather than a 15-year mortgage (Basciano, Jackson & Grayson, 2008). Marshall (1989) and McCartney (1989) discuss the interest savings that accrue to the mortgagor given a 15-year mortgage but also discuss a related opportunity cost in terms of a decrease in the mortgagor's budgetary flexibility. Vrunik and Fisher (1995) discuss the impact of the mortgagor's marginal tax rate and prevailing mortgage interest rates on the relative benefits of a 15-year or 30-year mortgage and conclude that the 30-year mortgage is more beneficial to individuals subject to higher marginal tax rates.

2-10-3- Down Payment Size/Borrower Equity

The larger the down payment (as a percentage of the purchase price of the house) or the lower the loan-to-value (LTV), the greater is the cushion for the lender against a decrease in the value of the house that would put the lender at risk. Borrower equity reduces the possibility of moral hazard insofar as it negates the value of the borrower’s option to default or return the home back to the lender (Frame & White, 2012). The borrower’s propensity to engage in moral hazard behavior will be assessed by expected reputational costs. The lender is recourse abilities against the borrower in the event of default that is, the ability to sue the borrower and make claims against the borrower’s other assets. In the United States is a matter of state law and varies among the states. However, as a practical matter, it appears that, regardless of state law, most lenders do not pursue further claims against defaulted borrowers (Frame & White, 2012). Xiao & Liu (2005) point out that percentage of the down payment has the essential order to in increase homeownership opportunities; the opposed to the changes in allowable debt ratios. However, it is possible that relaxed debt-to-income ratios had less impact on the ability to purchase a home, and a greater impact on the value of the home purchasers could afford (Xiao & Liu, 2005).

The United States housing markets during the 2000s, the standard down payment requirement by lenders was 20%, or equivalently to an LTV of 80% (Frame & White, 2012). However, if the borrower qualified for private mortgage insurance (PMI), lenders were often willing to accept to a 95% LTV loan (with the PMI protecting the lender against the first 15% of any foreclosure loss). Otherwise, if the borrower qualified for mortgage insurance from the FHA or the VA, which would protect the lender for the entire amount of the mortgage, the borrower would need only a 3% down payment (Frame & White, 2012).

FHA-insured loans are obtained by homebuyers who might find it difficult, or more expensive, to obtain a mortgage in the absence of insurance. FHA-insured mortgages have lower down payment requirements than most conventional mortgages (Jones, 2012). Conventional mortgages are mortgages that are not insured by FHA or guaranteed by another government agency, such as VA or USDA (Jones, 2012). FHA will insure mortgages with down payments as low as 3.5%. This is because the down payment is often the biggest barrier to homeownership for first-time homebuyers. The smaller down payment requirement for FHA-insured allows these types of households to obtain a mortgage earlier than they could otherwise. Likewise, FHA-insured mortgages also have less stringent requirements related to credit history than many conventional loans (Jones, 2012). This might make FHA-insured mortgages attractive to borrowers without credit histories or with weaker credit histories, who would either find it difficult to take out a mortgage absent FHA insurance (Jones, 2012).

However, mortgages with smaller down payments made to borrowers with weaker credit histories are considered riskier than mortgages made to borrowers with higher down payments and stronger credit histories (Jones, 2012). Therefore, in the absence of some insurance, lenders might be unwilling to offer mortgages to these borrowers, or would charge higher interest rates to compensate for the increased risk that might exceed the budget capability of borrowers could afford (Jones, 2012). This has led to a concern that some qualified borrowers who can sustain monthly mortgage payments might be unable to obtain affordable mortgages in the absence of mortgage insurance (Jones, 2012). By insuring the lender against the possibility of borrower default, mortgage insurance is intended to make lenders more willing to offer affordable mortgages to these borrowers (Jones, 2012).

There are two types of down payment loan which make homeownership feasible for such households: 1) Zero-down-payment (require either no down payment) and 2) low-down payment loans (significantly lower down payment than has traditionally been required) (Jones, 2013). These types of loans make it easier for homebuyers who do not have a lot of cash up-front to purchase a home (Jones, 2013). This type of loan may be especially useful in areas where home prices are rising more rapidly than income. Such opportunity allows borrowers without enough cash for a large down payment to entering markets they could not otherwise afford (Jones, 2013). However, a low- or no-down payment loan also means that families have little or no equity in their homes in the early phases of the mortgage, making it difficult to sell the house or refinance the mortgage in response to a change in circumstances if home prices decline (Jones, 2013). Such loans may also mean that a homeowner takes out a larger mortgage than he or she would otherwise (Jones, 2013).

2-10-4- Interest rate

In the United States mortgage market, conventional mortgage contracts can be broadly classified into two main categories: adjustable rate (ARM) and nominal fixed rate (FRM) mortgages (Basciano, Jackson & Grayson, 2008). An ARM is essentially a variable or floating rate note issued by the mortgagor (Basciano, Jackson & Grayson, 2008). Alternatively, an FRM is a long-term nominal bond that typically includes an embedded call option that permits the mortgagor to either repay or refinance their mortgage if the current economic environment makes it beneficial to do so (Basciano, Jackson & Grayson, 2008). However, the interest rate on FHA-insured loans is negotiated by the borrower, seller, and lender (Jones, 2013). The borrower has the option of selecting a loan with an interest rate that is fixed for the life of the loan or one on which the rate may be adjusted annually (Jones, 2013).

Adjustable rate mortgages (ARMs) allow the interest rate to adjust over the life of the loan in accordance with an index of market interest rates. By contrast, a fixed rate mortgage (FRM) is fixed for the life of the loan. It is clear that with an ARM, the interest rate risk is borne by the borrower (Frame & White, 2012). As a way of easing this burden for the borrower, lenders often supply ARMs that have an initial fixed-rate period and/or have limits (caps and floors) as to the extent to which the contract interest rate on the ARM can change within a given length of time (Frame & White, 2012). With an FRM (and if the borrower cannot prepay the mortgage), the interest rate risk is shared between the lender and the borrower: If market interest rates fall below the contract rate, the lender has a more valuable asset, but the borrower is paying interest at a rate that is above current market rates). If market interest rates rise above the contract rate, the lender has a less valuable asset, but the borrower is paying interest at a rate that is below current market rates (Frame & White, 2012).

However, borrowers always have the ability to prepay their mortgage effectively, a call option that they pay for either at the time of loan origination in the form of a higher interest rate or at the time of prepayment in the form of a fee (Frame & White, 2012). If borrowers have complete flexibility of prepayment, then with an FRM all of the interest rate risk is borne by the lender: When interest rates rise above the contract rate the lender has a less valuable asset; and when interest rates fall below the contract rate, borrowers will be more likely to pay off the mortgage and refinance at the lower rate, so that the lender does not get the benefit of having a more valuable asset (Frame & White, 2012).

With an adjustable-rate mortgage (ARM), a borrower's interest rate can change at predetermined intervals, often based on changes in an index (Jones, 2013). The new interest rate can be higher or lower than the initial interest rate, and monthly payments can also be higher or lower based on both the new interest rate and any interest rate or payment caps (Jones, 2013. Some ARMs also include an initial low-interest rate known as a teaser rate (Jones, 2013). After the initial low-interest period ends and the new interest rate begins, the monthly payments that the borrower must make may increase, possibly by a significant amount (Jones, 2013).

Adjustable-rate mortgages make economic sense for some borrowers, especially if interest rates are expected to go down in the future (Jones, 2013). ARMs can help people own a home sooner than they may have been able to otherwise, or make sense for borrowers who cannot afford a high loan payment in the present but expect a significant increase in income in the future; at which higher monthly payments (Jones, 2013). Furthermore, the interest rate on ARMs tends to follow short-term interest rates in the economy. If the gap between short-term and long-term rates gets very wide, it might make sense for borrowers to choose an ARM even if they expect interest rates to rise in the future (Jones, 2013). Finally, in markets with rising property values, borrowers with ARMs may be able to refinance their mortgages to avoid higher interest rates or large increases in monthly payments (Jones, 2013). However, if home prices fall, refinancing the mortgage or selling the home to pay off the debt may not be feasible, leaving the homeowner with higher mortgage payments if interest rates rise (Jones, 2013).

2-10-5- Homeowner Taxation

The tax code has been used in the United States to promote owner-occupied housing dating back to the Civil War era (Chambers, 2012). The most prominent provisions of the current tax code which impact housing are 1) the tax deduction from taxable income of mortgage interest payments and property taxes 2) the exclusion of the imputed rental value of owner-occupied housing from taxable income, and 3) the special treatment of capital gains on primary residence (Chambers, 2012). These tax provisions introduce a wedge which impacts the decision of potential buyers to invest in housing relative to real capital, as well as the tenure decision (Chambers, 2012).

The United States tax policy have been studied to ascertain the marginal impact on the decision to purchase a home by using an empirical approach, Laidler (1969), Aaron (1972), and Rosen and Rosen (1980) suggests that the elimination of these tax provisions would negatively impact homeownership rate. However, the possible undesirable distortions associated with the tax treatment of housing raises the question as to why such policies remaining place (Chambers, 2012). Glaeser & Sacerdote (2000) argued that homeownership creates some positive social benefits which are amplified by the use of this differential tax treatment of housing.

2-10-5-1- Mortgage Interest Deduction

The American subsidy of homeownership is among the most prominent feature of the United States tax code. In 1999, 773 billion dollars were deducted by 40 million homeowners via the usage of the home mortgage interest deduction (Glaeser & Shapiro, 2002). After state taxes, it is the most common deduction, and ultimately the home mortgage interest deduction stands as one of the most controversial and debated features of the United States tax code (Glaeser & Shapiro, 2002). To its detractors, the home mortgage interest deduction robs the United States Treasury Subsidizes America’s wealthiest homeowners, the construction industry as well as government/politically active banks and entities like Fannie Mae and Freddie Mac (Glaeser & Shapiro, 2002).

Chambers (2012) adds, the policy permits (i.e. deduction of mortgage interest payments for households that itemize their deductions) is a quintessential depiction of the US housing policy. This deduction creates an incentive to both own and consume more homes, thus generating an asymmetry between the housing and financial investment (Chambers, 2012). Some economists support the policy, insisting that its removal would reduce owner-occupied housing consumption and thus result in smaller homes (Chambers, 2012). From a macro perspective, the elimination of the deduction should lead to a reduction in tax revenue (Chambers, 2012).

Rosen (1979) and Rosen and Rosen (1980) argue that the removal of this deduction would reduce the homeownership rate by four basis points. They point out that their results could be biased in their formulation as housing only serves as the consumption good and has no investment role. More recently, Gervais (2002) employs a general equilibrium life-cycle model where housing is both a consumption and investment good; in his model, the tax system incentives homeownership as opposed to renting. Gervais insists that the elimination of the mortgage interest deduction would reduce the aggregate homeownership by 4.2 basis points. On the other hand, Berkovec & Fullerton (1992) and Glaeser & Shapiro (2002) suggest that the mortgage interest deduction has only a small impact on homeownership. In contrast, with the existing literature, Chambers et al. (2009) find that the elimination of this deduction has a small but positive effect on ownership. Glaeser & Shapiro (2002) add that externalities from homeownership are larger, but the home mortgage interest deduction is the poor instrument for encouraging homeownership since it is targeted at the wealthy, who are almost always homeowners. (5). The removal of the deductions increases investment in physical capital leading to lower interest rates and decreases the cost of homeownership. In another study, Poterba and Sinai (2008) estimate that repealing the mortgage interest deduction would increase the marginal costs of owner-occupied housing by 5% and generate a 60 billion dollar loss in tax revenue.

On the other hand, Bourassa (2012, 15) note that the impact of the deduction in the United States is somewhat blunted by the fact that some home buyers, particularly those with lower incomes, cannot take advantage of it because their total deductions do not meet certain thresholds. Consequently, they take a standard deduction rather than an itemized deductions, and the mortgage interest deduction possesses less utility for this demographic (Bourassa, 2012). The demographic which benefits the most from the deduction have less use of it and would be able to afford home ownership in any case (Bourassa, 2012). For such households, the deduction subsidizes the purchase of larger homes (Bourassa, 2012). Moreover, much of the value of the deduction appears to be capitalized into land prices, meaning that houses are more costly than they otherwise would be (Bourassa, 2012). This is particularly an issue for first-time buyers, for whom any savings provided by the deduction may be offset by higher prices.

2-10-5-2- Property Tax Deduction

A property tax is commonly applied by local governments, providing an autonomous revenue source for local government, with the significant benefit of being a tax base that cannot be moved to a neighboring jurisdiction. Goodman (2005) mentioned that the property tax, typically an annual levy set as a percentage of the property's market value, is a principal source of revenue for state and local governments, (Goodman, 2005). Usually, the revenue raised is hypothecated to the provision of specific services by the local government. As a result, these taxes are commonly analyzed as user fees rather than as taxes on land (Stewart, 2012). In some countries, the property tax may be collected centrally or by provincial governments, but it is invariably used to fund local services (Stewart, 2012).

The design and perception of local government property taxes as user fees may assist their political acceptance and hence longevity (Stewart, 2012). For example, in the United Kingdom, the property tax is called the Council Tax and funds are funneled into local council budgets and primarily used for the provision of services such as garbage collection and road maintenance (Stewart, 2012). In the United States, property taxes are the primary source of funding for local schools and other services. Owner-occupied housing usually forms a significant part of the local property tax base, together with private rental housing and commercial property (Stewart, 2012). Alternatively, some jurisdictions apply a form of income-based valuation based on current use of land (Stewart, 2012). In 1978, the California implemented a purchase price system for property taxes as well as a rollover tax for property passed to family members (Stewart, 2012). This approach can have devastating effects on revenues over time as they fail to keep pace with rising market valuation.

However, Alm, Buschman, & Sjoquist (2011) add that the property tax is an important feature, its base (e.g. assessed value) does not automatically change over time. Wivaryarket value of housing does not necessarily translate into an increase in assessed value (Alm, Buschman, & Sjoquist, 2011). “Lags in these re-assessments, combined with caps on the amount by which assessed values can be changed in any given year and with deliberate changes in millage rates, mean that changes in the overall level of economic activity that may affect housing values may not actually affect property tax revenues in any immediate or obvious way, unlike other taxes that are much more closely linked to economic activity” (Alm, Buschman, & Sjoquist, 2011, 321).

2-11- The Major Innovative of Financial Policies and Institutions in the United States:

Federal, state and local governments intervene to support housing markets in some ways. Interest on most home mortgages is deductible from federal and most state individual income taxes for homeowners who itemize deductions. Individuals who itemize can also deduct state and local property taxes paid on homes. The government has created Fannie Mae, Freddie Mac, the Federal Home Loan Bank System, FHA, and others to encourage homeownership by providing guarantees to reduce the risk to lenders and expand mortgage lending.

2-11-1- Federal Housing Administration (FHA):

The government insures certain mortgages originated by lenders in the primary market through different government agencies. Thus, FHA is the largest provider of government mortgage insurance. FHA is an agency within the United States Department of Housing and Urban Development (HUD) that provides mortgage insurance on loans that meet its requirements (including a minimum down payment requirement and an initial principal balance below a certain threshold) in exchange for fees, or premiums, paid by borrowers (Weiss, 2013). If a borrower defaults on an FHA-insured mortgage, FHA will repay the lender the entire remaining principal amount owed (Weiss, 2013). However, in the secondary market, Ginnie Mae also a government agency in HUD guarantees MBS composed of mortgages guaranteed by FHA and other government agencies (Weiss, 2013). The combination of FHA and Ginnie Mae transfers the credit risk (the risk that some borrowers might default and not repay their mortgages) from the lender and investor to the government (Weiss, 2013).

In addition, Smith (2014) noted that the Federal Housing Administration's (FHA) two major policy directives, 1) access to housing and 2) stability of residential mortgage markets. Since the collapse of the high-risk mortgage market, the FHA's share of purchase mortgage loans has increased from 4 percent of the market in 2005 to over 23 percent in June 2010 (Smith, 2014). The FHA is the only government agency chartered to operate 'entirely' from its self- generated income (Kephart, 2005). The FHA operates more than a dozen different lending programs divided into three subsets: Single-family, multi-family, and health care (Kephart, 2005)

The FHA has a broad nationwide mandate to stabilize mortgage markets and expand homeownership opportunities. Thus, FHA charges a spatially invariant premium (Smith, 2014). As the residential market recovers, the threats to FHA solvency persist. It is important at this point of continued stress and expanded reliance on FHA insurance to explore the impact that the dual roles of housing access and fiscal responsibility have on FHA underwriting decisions and how those decisions vary over time and space (Smith, 2014)., The purpose of FHA sought to to overcome the reluctance of banks and others to make mortgage loans during this period (Wallison, 2011). Over time, FHA had an important role in standardizing mortgage terms, increasing acceptable loan-to-value (LTV) ratios to approximately 80 percent, and encouraging the development of mortgages that amortized over multi-year periods (Wallison, 2011).

2-11-2- The Secondary Market:

The Secondary market plays an important role in providing funding for the loans made in the primary market (Hoskins et al., 2013). If the lender holds the mortgage in its portfolio, the lender has fewer available funds to make new mortgages (Hoskins et al., 2013). Furthermore, selling the loan to another entity allows the lender to transfer the risks associated with mortgage lending to the buyer of the mortgage (Hoskins et al., 2013). The secondary market is the market for buying and selling mortgages. Lenders might choose to keep the mortgages that they originate in their own portfolios, or they might sell them to the secondary market (Hoskins et al., 2013). If a mortgage originator sells the mortgage in the secondary mortgage, the purchaser of the mortgage could choose to hold the mortgage itself or to securitize it in a pool of mortgages. Fannie Mae and Freddie Mac securitize mortgages that conform to their criteria. Ginnie Mae guarantees MBS made up exclusively of mortgages insured or guaranteed by the federal government (Hoskins et al., 2013). Depending on the type of MBS or mortgage purchased, investors will face different types of risks, including credit risk and prepayment risk (Hoskins et al., 2013).

2-11-3- Government-Sponsored Enterprise (GSEs):

Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac): They are operating in the secondary market. Until they were placed under government conservatorship in September 2008. Fannie Mae and Freddie Mac were stakeholder controlled companies with congressional charters that contain special privileges and certain special responsibilities to support affordable housing for households (Weiss, 2013). The GSEs do not originate mortgages (Weiss, 2013). Congressionally chartered, stakeholder-owned GSEs, purchase and securitized mortgages that meet their standards and certain legal requirements. They either hold the MBSs as an investment or sell them to others. The GSEs cannot purchase mortgages that are larger than the conforming loan limit and must state that their MBSs and bonds are not guaranteed by the federal government. Instead, the GSEs purchase conforming mortgages that meet certain eligibility criteria based on size and creditworthiness and either hold the mortgages in their own portfolios or pool the mortgages into MBS (Weiss, 2013). The MBS are sold to investors or retained by the GSEs as investments. The GSEs guarantee that investors will receive timely payment of principal and interest on their MBS even if a borrower with a mortgage that is part of the MBS becomes delinquent (Weiss, 2013). The GSE guarantee transfers the credit risk from the investors to the GSEs. To compensate the GSEs for their guarantee, the GSEs receive a guarantee fee (Weiss, 2013).

2-11-4- Securitization on the Secondary Mortgage Market:

Securitization takes place on the secondary mortgage market. It is the process of buying and pooling of mortgages and selling securities backed by these mortgages to investors (Haffner & Heijden, 2012). The secondary mortgage market, where mortgage-backed securities (MBSs) or more specifically residential MBSs (RMBSs) are traded, together with the primary mortgage market. Where mortgages are originated and offered to homebuyers, form the mortgage market (Haffner & Heijden, 2012). Securitization is one of the ways in which financial institutions acquire capital by converting assets into tradable securities. After these securities are sold to an investor, the assets are removed from the balance sheet of the financial institution. Funds are received which bring liquidity (Haffner & Heijden, 2012). Securitise assets are assets that are expected to generate a future flow of income, which can be converted into cash via securitization (Haffner & Heijden, 2012). Receivables from mortgage loans, receivables from consumer loans, or credit card use are examples of such flows of income (Haffner & Heijden, 2012).

2-11-5- The Structure of Mortgage-Backed Securities (MOSs):

Mortgage-backed bonds were first devised in the 1980s as collateralized mortgage obligations. By the late 1990s, they were referred to as "residential mortgage backed securities" (RMBS) and were designed primarily to address the risk of default (Schwartz, 2015). To this end, investment firms pooled hundreds if not thousands of mortgages together operated a stream of income to support bonds issued by the security (Schwartz, 2015). The security is structured into three broad segments or tranches, each of which support separate bonds. The senior tranche is the first to be paid. The mezzanine tranche receives income next, followed by the equity tranche (Schwartz, 2015). Mortgage defaults, therefore, affect the lowest tranches first. Bonds backed by the lowest tranches pay higher interest rates but carry the greatest risk that interest and principal payments will fall short higher tranche bonds are affected by delinquencies only when the lowest tranches cannot absorb all of the losses; then, the losses shift upwards to the next highest tranche (Schwartz, 2015). To further protect bondholders against default, the issuers of mortgage-backed securities often set aside some of the income from mortgage loan payments in reserve; or the total face value of the bonds is less than that of the underlying mortgages (Schwartz, 2015).

2-11-6- The Federal Home Loan Bank (FHL Bank):

The Act of 1932 created the FHL Bank System as mixed-ownership government corporations (Hoskins et al., 2013). The intent was to increase mortgage availability during banking contractions and to provide a source of funds for members to use to smooth over deposit withdrawals or to respond to mortgage applications and renewals beyond what their deposits would allow (Hoskins et al., 2013). Savings and loan associations were required to become members and to purchase non-public stock of the appropriate regional bank. The regional banks made loans called advances secured by mortgages to members (Hoskins et al., 2013). The FHL Banks obtained the money that they lent to their members by selling non-public stock to the Treasury (Weiss, 2013). The 12 FHL Banks redeemed the Treasury's stock by 1951, making the banks privately owned by the FHL Bank members (Weiss, 2013). Each regional bank is federally chartered with its board of directors. System members are subject to Federal Home Loan Bank Board regulation. The FHL Banks are jointly and severally liable for each other's debt, leading some observers to call the banks a collective or cooperative GSE (Weiss, 2013). Weiss (2013) the act provided for the establishment of 8 to 12 regional banks (similar to the Federal Reserve's regional banks), to enhance the mortgage industry's liquidity.

2-11-7- Public Private Partnership (PPPs) perspective:

Public Private Partnership (PPPs) have defined in a variety of ways by scholars. According to Grimsey and Lewis (2007), the public sector refers to public agencies and enterprises that are state financed, owned and controlled. The International Monetary Fund (IMF, 2006) defined PPPs as arrangements where the private sector supplies infrastructure assets and services that traditionally have been provided by the government. The European Investment Bank (EIB, 2004) states that PPPs are relationships formed between the private sector and public bodies often with the aim of introducing private sectors and/or expertise in order to help provide and deliver public sector assets and services. According to Yong (2010), PPPs are long-term contractual arrangements between the public and private sectors for the delivery of public utilities. However, the Canadian Council for Public-Private Partnerships defines PPPs as a cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks, and rewards.

Almost all countries around the world have witnessed some form of PPP investment in the provision of housing and urban infrastructure since the early 1990s (Moskalyk, 2011). Although the level and success of PPPs vary sharply, particularly in the developing world, their well-documented potential in consistently generating efficiency gains in developed countries like Canada, the Netherlands, the United States and the United Kingdom cannot be overlooked (Moskalyk, 2011). In these countries, partnerships have been a significant contributor to lowering costs and increasing operating efficiencies for urban development projects ranging from affordable housing to water treatment facilities, roads and hospitals (Moskalyk, 2011).

In the United States, PPPs are the country's main source of affordable housing, and there are a myriad of examples of partnerships that have emerged in the housing policy sector (Moskalyk, 2008). For the most part, the approach to low-income housing in the United States has been pursued more aggressively on federal, state and local levels (Moskalyk, 2008). Unlike funding initiatives in Canada, programs in the United States have historically incorporated a wide variety of programs and subsidy techniques to encourage local communities and partnerships to support affordable housing (Moskalyk, 2008). Some programs include housing block grant provided to state and local authorities, effective interest rate subsidies provided through tax-exempt bonds, mortgage insurance and guarantee programs, regulatory influences on mortgage capital, as well as state and local financial support mechanisms such as housing trust funds which dedicate a source of public revenue for affordable housing projects (Moskalyk, 2008).

2-11-7-1- Critical Success Factors of Public Private Partnership (PPPs) Literature Reviews:

While Public Private Partnership (PPPs) can provide a mechanism for exploiting the comparative advantages of public and private sectors in mutually supportive ways, several issues are salient and deserve careful consideration when contemplating a PPP. To start with, the government needs to maintain its involvement, whether in its capacity as partner or regulator (Jamali, 2014). This is especially true where accountability is critical. Cost-shifting presents problems. PPPs should not be expected to substitute for government action nor perform governmental responsibilities. In particular, the public sector should continue to set standards and monitor product safety, efficacy and quality and establish systems whereby citizens have adequate access to the products and services they need. In other words, PPPs do not imply less government but a different governmental role. Because of the stronger position of the private partner, more skilled government participation is often needed (Scharle, 2002).

Samii et al. (2002) highlight the key formation requirements of effective PPPs, including resource dependency, commitment symmetry, common goal symmetry, intensive communication, alignment of cooperation learning capability, and converging working cultures. While Kanter (1994) emphasizes individual excellence, importance, interdependence, investment, information, integration, institutionalization, and integrity as the key ingredients of effective collaboration (Table I). Both the appeal and the challenge inherent in PPP arrangements arise from the notion of building new relationships between actors that have drastically different constituencies/interests, along with divergent strategic and operational realities (Jamali, 2014).

Table 2: PPPs key formation requirement

Based on	Requirement	Description
Samii et al. (2002)	Resource dependency	Recognition by the partners that what can be achieved together cannot be achieved alone
	Commitment symmetry	Equal commitment from partners confirmed through the allocation of time and resources
	Common goal symmetry	Individual goals as an output or a subset of the overall program objectives
	Alignment of cooperation	The sharing of knowledge across organizational boundaries to alleviate problems of information
	working capability	asymmetry and ensure convergence in learning skills and speed
	Converging working cultures	The joint development of a set of working practices and procedures to level out differences in working style/culture
Kanter (1994)	Individual excellence	Both partners are strong and have something of value to contribute to the relationship. Their motives for entering into the relationship are positive (to pursue future opportunities), not negative (to mask weaknesses or escape a difficult situation)
	Importance	The relationship fits major strategic objectives of partners, so they want to make it work. Partners have long-term goals in which the relationship plays a key role
	Interdependence	The partners need each other. They have complementary assets and skills. Neither can accomplish alone what they both can together
	Investment	The partners invest in each other (e.g. equity swaps or public board service) to demonstrate their respective stakes in the relationship and each other
	Information	Communication is reasonably open. Partners share information required to make the relationship work, including their objectives/goals, technical data/knowledge of conflicts, trouble spots or changing situations
	Integration	The partners develop linkages and shared ways of operation so they can work together smoothly
	Institutionalization	The relationship is given a formal status, with clear responsibilities and decision-making processes
	Integrity	Partners behave toward each other in honorable ways that enhance mutual trust without abusing the information they gain, nor undermining each other

Source: Jamali, 2014

Pongsiri (2002) emphasizes the establishment of a transparent and sound regulatory framework as a necessary precursor to private sector participation in a PPP. The regulation provides assurance to the private partner that the regulatory system includes protection from expropriation, arbitration of commercial disputes, respect for contract agreements, and legitimate recovery of costs and profit proportional to the risks undertaken. A sound regulatory framework can also increase benefits to the government by ensuring that essential partnerships operate efficiently and optimizing the resources available to them in line with broader policy objectives (Di Lodovico, 1998 & Zouggari, 2003). Baker (2003) similarly demonstrates that the nature of regulation and control are crucial in decisions about PPPs. Also, outlining that PPPs necessitate a more direct control relationship between the public and private sector than would be achieved by a simple (legally-protected) market-based and arms-length purchase.

Mukhija (2004) mentioned that the use of private developers for building affordable housing is not always successful in terms of ensuring efficiency and management effectiveness. One case from India found that some developers simply stopped construction after receiving funds, constructed poor-quality units, or did not offer the units funded by public funds to the poor as agreed. The issue of regulation and red tape can also slow production of affordable housing in some areas, reducing the availability in the long term to low-income residents (Sengupta, 2006).

Some of the traditional constraints in the way of a successful realization of a PPP configuration include: the long-term planning horizon; the complexity of various projects; the institutionalized competition rules for public projects; the hold-up problem caused by a change in the position of partners; a technocratic implementation; reductionist measures instilling competitive norms instead of cooperative ones; and cultural differences between private and public partners (Nijkamp et al., 2002; Scharle, 2002). For Spackman (2002), a critical characteristic of a successful PPP project is a trusting relationship between the parties based on a shared vision.

Partnerships appear to be most justified where: traditional ways of working independently have a limited impact on a problem. The specific desired goals can be agreed on by potential collaborators. There is relevant complementary expertise in both sectors; the long-term interests of each sector are fulfilled, and the contributions of expertise of the different sectors are reasonably balanced (Linder, 1999). The public sector's concerns for transparency and accountability need to be accommodated, and the private sector needs reassurance about safety and return on investments.

Gees & Ferrer (2011) emphasize the importance of a legal framework and the availability of sufficient private enterprises with the know-how to perform the required work. Also, it is necessary that an "open economy" approach with national treatment be guaranteed in order to attract foreign companies. The lack of sufficient competition in tendering will result in a narrower choice of contractors, higher prices and the risk of not finding a sufficiently suitable private company, increasing the risk that the project objectives are not realized.

Not all public-private partnership efforts at affordable housing have been directed toward the city. Instead, some efforts have attempted to increase affordable housing in the suburbs (Stockman, 1992). However, these attempts have commonly been foiled by exclusionary zoning, in which local zoning laws are structured in such a way as to prevent building affordable housing within the community (Stockman, 1992). One such attempt was the Massachusetts Low and Moderate Income Housing Act, which was intended to address this exclusionary zoning (Stockman, 1992). Public-private partnerships were key in the success of this act, which allowed communities to provide units toward a low-income housing quota by negotiating with private developers to specify some number of their units as dedicated low-income housing (Stockman, 1992). These units, which were offered at subsidized rates for low-income renters or home buyers, served the purpose of increasing penetration of affordable housing into the suburbs without leading to significant resistance from towns (Stockman, 1992).

According to Yong (2010), one of the most important obstacle or issue in structuring successful PPPs in the developing countries is the lack of a suitable PPP framework. Many countries lack an overall PPP policy, as well as the related legislative and regulatory frameworks. The importance of the PPP cannot be overemphasized (Yong, 2010). However, it must also be recognized that in many countries PPPs have progressed despite the absence of some, or all aspects of this framework (Yong, 2010).

2-11-7-2- Incentives and Disincentive of Public Private Partnership (PPPs) for Affordable Housing:

The potential for government to leverage private finance for affordable housing at a gearing ratio greater than one, facilitating government ability to reap efficiency gains, adds a further dimension to our discussion. Studies find that new construction of affordable dwellings is considerably more costly than other methods of housing support (Shroder and Reiger, 2002) and that subsidized construction is an extremely costly method to employ in order to increase home ownership rate of households (Green and Malpezzi, 2003). If the supply of affordable housing and housing capital can instead be stimulated from the private sector, perhaps by the strategic use of government incentives at far less cost, then affordable housing policy will be fiscally more efficient (Hawtrey, 2009).

The United States experience demonstrates the importance of PPPs in affordable housing finance. This process involves collaboration among large intermediaries, community organizations, and state and local housing agencies. According to HUD, this has extended to the design of new products (HUD, 2006). The joint venture (JV) consists of governments developing partnerships with private investors and non-profit organizations in order to provide housing services. This process involves leasing, sale-and-leaseback, and corporate vehicle arrangements. For example, the government authorities can head-lease dwellings management to selected community housing groups (Hawtrey, 2009).

Some avenues, by enabling a partnership between the private and public sectors, can also allow governments to access the large amount of investment dollars available in mutual funds and the like (Hawtrey, 2009). In so doing, the public sector yields more value for the taxpayers' dollar: governments can address the matter of affordable housing at a much lower overall cost than would otherwise be the case, were they acting without private sector involvement. PPPs help create the critical mass required to attract large investors, and to bridge the gap between actual and required rates of return to private investors (Hawtrey, 2009).

The latter is particularly important, as affordable housing, in the eyes of private investors, does not always look immediately appealing. There can be a number of reasons for this perception, including inadequate rental yields, illiquidity, regulatory restrictions, poor market information, location not conducive to capital gains, high management costs, and project small scale (Milligan, 2005). Investors may doubt the return on investment and portfolio diversification benefits of low-end residential investing, and prefer the middle or upper residential markets as less risky (Hawtrey, 2009). Significantly, the process also requires housing financiers: the ability of lenders to have first call on the housing assets (with second mortgages or other charges over the asset held by government funders), a sufficient scale of opportunity to generate commitment from the financial sector, to attract large players (such as banks and pension funds) and/or a regime, and underwrite the risk of private investors. The culmination of the aforementioned thereby reduces the cost of finance (Hawtrey, 2009).

In order to nurture fledgling markets for private investment in affording able housing, with large scale financial sector involvement, government process the ability to play a critical leadership role. Evidence suggests that this makes a critical difference, by provably a level of clarity and predictability to the investment environment (Hawtrey, 2009). Equally, the public sector role is best viewed as transitional. As far as possible, a commercial approach to housing is preferred in the long run, and private sector outcomes to be regarded as the default position. Governments should only intervene when it is essential, minimize intervention and attach a sunset clause (Hawtrey, 2009).

The optimal role for government is not to supplant the private sector but be a catalyst. Governments should be involved only for the duration required to nurture affordable housing capital markets until they attain self-sustainability and with appropriate calibration of its actions to the efficient minimum required to succeed and no more. There are essentially two ways that government can act: tax incentives and risk mitigation.

2-12- The Canadian Programs and Experience that Address Homeownership for their Middle-Income Households:

The government is implementing public policy through its government-backed mortgage insurance framework and Canada Mortgage and Housing Corporation (CMHC), which to a Crown corporation (CMHC, 2014). CMHC is a critical player in the housing process; federal investments in the housing; facilitates access to and competition and efficiency in the provision of housing finance; protects the availability of adequate funding for housing; and contributes to the stability of the financial system. CMHC's public mortgage insurance and securitization programs are available to qualified Canadians and qualified lenders and remained stable throughout the recent global financial crisis (CMHC, 2014).

The Canadian housing finance market is national lending conditions and mortgage products are similar across the country and are largely dominated by domestic lenders, especially by a few well-capitalized banks (Traclet, 2005). The mortgage credit culture in Canada is rather conservative, with a large majority of mortgages at fixed interest rates and a preference for mortgage terms of five years (Traclet, 2005). Interest bearing term instruments sold to savers remain the primary source of funding for mortgage loans, which subsequently remain largely on the balance sheet of lenders.

While the government's influence in the housing market is limited, it is more significant in the housing finance system, essentially through the Canada Mortgage and Housing Corporation (CMHC) (Traclet, 2005). The various government initiatives in this area have aimed to increase the supply of mortgage loans from private lenders (Traclet, 2005). These initiatives have impacted the Canadian housing finance system, as reflected by the current significant share of high ratio mortgages where the down payment is lower than 25 percent of the value of the property. It must be insured and by the recent trend towards increasing off-balance sheet funding based on mortgage-backed securities created from insured mortgages (Traclet, 2005).

The system of housing finance in Canada is composed of three sets of institutions: mortgage originators, mortgage insurers, and the suppliers of funding (Crawford et al., 2013). The Canadian residential mortgage market is dominated by banks, which together hold approximately 75 percent of the value of outstanding mortgages (Crawford et al., 2013). In turn, bank lending is dominated by the five largest banks, which account for about 65 percent of the total market (Crawford et al., 2013). In addition, Traclet (2005) adds that the Canadian housing finance market is a national mortgage credit is accessible across Canada on similar terms and conditions and is shared between various financial institutions: chartered banks, credit unions, finance and non-deposit-taking companies, life insurance companies, pension funds and trust and mortgage loan companies.

Mortgage loan insurance is a significant component of Canada's mortgage market and financial stability framework (CMHC, 2013). Federally-regulated lenders and most provincially-regulated lenders are required by law to have mortgage insurance coverage for high-ratio mortgages (mortgages where the loan exceeds 80 percent of the value of the collateral property) (CMHC, 2013). Mortgage loan insurance helps protect lenders against mortgage default and enables consumers to purchase homes with a minimum down payment of 5 percent with interest rates comparable to those with a 20 percent or larger down payment (CMHC, 2013). Thus, mortgage insurance helps facilitate the availability of and access to mortgage credit (CMHC, 2013).

The mortgage loan insurance market is currently served by one federal Crown corporation Canada Mortgage and Housing Corporation (CMHC) and two private mortgage insurers (i.e. Genworth Financial and Canada Guaranty) (CMHC, 2013). CMHC is Canada's largest mortgage insurer. As the only public mortgage insurer, CMHC provides service in all parts of the country, including rural and smaller markets that may not be served or well-served by private insurers (CMHC, 2013). CMHC also insures mortgages for large rental housing developments, purpose-built student housing projects, as well as nursing and retirement homes. The aforementioned are considered important segments of the housing market that are not served by private mortgage insurers in Canada (CMHC, 2013).

Mortgage loans in Canada are typically amortized over a 25 year period, with mortgage terms running from six months to 10 years. The most common mortgage in Canada has a fixed interest rate for a 5-year term, although there is a range of alternative mortgage products (Crawford et al., 2013). Over 95 percent of mortgages have a term of between six months and five years, and approximately one-third of outstanding mortgages have a variable interest rate (Crawford, et al., 2013). Since the standard amortization period is 25 years, borrowers are exposed to the risk of higher interest rates at renewal (Crawford, et al., 2013).

Canadian mortgages are also recourse loans (Green, 2014). This means that if the borrower defaults and the value of the house that the borrower deeds to the bank are worth less than the amount due to the bank (an amount that includes accrued interest and the costs of recovering the house), the lender may attempt to recover the difference from the borrower (Green, 2014). One of the common methods recovering debts include garnishment of wages; another method included the seizing of other borrower assets.

At the same time, Canadian mortgages included prepayment penalties or lockout clauses. For example, suppose a borrower has mortgages are carries a 6 percent interest rate in the event the market rates fall to 4 percent (Green, 2014). This means that if the borrower repays the mortgage before it is due, the borrower will owe the bank mortgage balance multiplied by 2 percent (which is the difference between the coupon rate on the loan and the market rate available to the lender multiplied by the remaining life of the loan in years (Green, 2014). This assures the lender will yield the return specified at the time the loan was originated (Green, 2014). As such, the Canadian system reduces interest rate risk for lenders while preventing borrowers from benefiting from reductions in interest rates (Green, 2014). However, the borrowers may accelerate the payoff of 20 percent of the loan balance each year without penalty (Green, 2014).

Most Canadian households are homeowners, and because buyers depend on credit, finance is vital to the housing market. Prodded by the government, lenders have offered long-term, high ratio amortizing mortgages since the 1930s. By the 2000s, 90 percent of 95 percent loans and 25-year, or even 30-year, terms were readily available (Carswell, 2012). A large minority of borrowers prefer variable rate mortgages with lower monthly payments (Carswell, 2012).

Canadian house prices were affected by the financial crisis of 2008. In 2010, they had reached unprecedented levels, and the ratio of personal debt to income exceeded that in the United States

(Carswell, 2012). Some spoke of a housing bubble, and, encouraged by Central (now Canada) Mortgage and Housing Corporation (CMHC), lenders began to restrict mortgage terms (Carswell, 2012).

However, CMHC is Canada's national housing agency established as a government-owned corporation in 1946 to address Canada's postwar housing shortage (Elsinga, 2012). The agency has grown into a major national institution. CMHC is Canada's premier provider of mortgage loan insurance, mortgage-backed securities, housing policy and programs, and housing research (Elsinga, 2012).

Until the 1950s, individual investors were a major source of mortgage finance in Canada. Since 1954, the five largest chartered banks have become progressively more important (Carswell, 2012). After acquiring trust companies during the 1990s and 2000s, they dominate the mortgage scene (Carswell, 2012). Federal regulations specify the minimum cash assets that banks must have on hand, and CMHC requires borrowers with less than a 20 percent down payment to buy mortgage insurance (Carswell, 2012). Most observers consider that Canadian banks could survive a major housing market correction. Most mortgages are funded by deposits and not the secondary market; thus, banks remain cautious in making loans. Hardly any subprime, and only 5percent subprime loans, were made even in 2007 (Carswell, 2012). Market dynamics vary by region. Resource booms push prices higher in Alberta and British Columbia, but, because they boost the Canadian dollar, they dampen growth and prices in Ontario and Québec (Carswell, 2012).

The mortgage guarantee has been a key policy instrument of the federal government in the creation, maintenance, and refinement of the housing finance system in Canada. CMHC provides mortgage guarantees with 100percent coverage of individual loans (Elsinga, 2012). The maximum loan to value for guaranteed loans amounts to 95percent and the maximum amortization period is 25 years (Elsinga, 2012). The premiums need to be paid up front and vary by loan to value.

2-13- Comparing Canada and the United States in Housing Finance Systems:

Many mortgage borrowers in Canada have the option of transferring their mortgage within the same lender (including the mortgage insurance) if they decide to sell one property and purchase another (CMHC, 2014). This can be of particular benefit to borrowers if mortgage rates have risen since they obtained or last renewed their mortgage. Mortgage borrowers in the United States do not have this option (CMHC, 2014).

In Canada, mortgages are typically full-recourse loans. Full recourse loan requires the borrower continue to be held accountable for repaying the loan even in the case of foreclosure (CMHC, 2014). Lenders can take legal action to recoup money from the homeowner if a foreclosed home is sold for less than the amount owed on the mortgage (CMHC, 2014). In some United States jurisdictions, mortgages are non-recourse which means that borrowers can often walk away from their homes and the associated mortgage debt, leaving lenders with no recourse beyond the property. Mortgage interest on a principal residence can be deducted from taxable income in the United States: the larger the mortgage, the more interest that can be deducted (CMHC, 2014). Homeowner mortgage interest is not tax-deductible in Canada, so there is no tax incentive for borrowers to prefer a mortgage over rental or maintain higher mortgage balances over the life of a mortgage (CMHC, 2014).

In Canada, the legislation prohibits federally regulated banks from providing residential mortgages without mortgage loan insurance if the loan is greater than 80 per cent of the purchase price or value of the home (CMHC, 2014). This insurance, which can be purchased from CMHC covers the entire amount of the loan and is for the entire life of the mortgage (CMHC, 2014). In the United States banks will often require mortgage loan insurance for loans where the borrower makes a down payment of less than 20 per cent, even though there is a no legal. This is because, for these mortgage loans, Fannie Mae and Freddie Mac are prohibited from purchasing mortgages without a credit enhancement such as mortgage insurance (CMHC, 2014).

Canada’s housing finance system has less government intervention than the United States (Tsounta, 2011). Canadian government policies do not explicitly favor homeownership. Even though the

Canadian system is less complicated and less costly; it has consistently enjoyed similar, and more recently higher homeownership rates than the United States. For example, there are no housing GSEs, mortgage interest is not deductible, and lenders have recourse to borrower's assets and income, both policies encourage repayment (Tsounta, 2011).

Canada’s housing agenda consists of promotion of housing availability across a variety of tenure type’s homeownership, rental housing, supportive housing and transitional housing (CMHC, 2014). The housing needs of low-income Canadians are addressed through government assistance programs (CMHC, 2014). Canada does have an entity that is similar to FHA, the Canadian Housing Finance Corporation. As is the case in the United States, borrowers in Canada may make loans with small down payments, but only if they pay for mortgage insurance (Green, 2014). Canadian borrowers may choose between obtaining insurance from the Canadian Housing Finance Corporation or private mortgage insurance companies (Green, 2014). The fact that Canadians may borrow with little money down is where similarities between mortgages in Canada and mortgages in the United States end. Canadian mortgages have short terms and are not self-amortizing (Green, 2014). For example, a Canadian can get a loan with a 30-year amortization schedule that comes due after five years at which point it owes a balloon payment to the bank (Green, 2014). Also, there is a state-owned mortgage insurer and guarantor, Canada Mortgage and Housing Corporation (CMHC), which manages most of the securitization of Canadian mortgages (King & Pavlov, 2012).

2-14- The Current State of Housing Finance Policy and the Housing Policy Process in Saudi Arabia

Over the past 30 years, Saudi Arabia has undergone vast social, economic, and population growth. Saudi Arabia growth can be attributed to a compilation of initiatives rudimentary private sector finance. The distribution of public land through municipalities and land grants is the construction of services with funding from its national budget, and the distribution of housing loans through the Real Estate Development Fund (REDF) (SAMA, 2013). This section will focus on the social, economic, and political factors which influenced the change in housing policy finance in Saudi Arabia. The Saudi government already has initiated a series of reforms (GIZ, 2011):

- Institutional reforms have created the Ministry of Housing (MOH), which will focus on developing a policy framework and enabling environment for the housing sector, while in the meantime also building housing to alleviate an immediate housing shortfall. The Saudi government has pushed more than 250 billion Saudi Riyals ($66.7 billion) for the Saudi Ministry of Housing which is a great potential for the housing sector (MOEP, 2011) (GIZ, 2011) (SAMA, 2013) (McKinsey Global Institute, 2014).
- A series of mortgage laws are being discussed that will strengthen the role of the private sector in providing mortgage loans to citizens, allow for credible contracts involving real estate, bring Saudi Arabian Monetary Agency (SAMA) oversight to financial companies, and infuse the private banking sector with liquidity.
- Real Estate Development Fund (REDF) has been re-capitalized and now provides loans for 40-60 percent of new owner-occupied housing.
- Urban services have been corporatized under government ownership to increase performance and to establish financial independence and accountability.
- The issue of new land grants has been discontinued until ways can be found to provide land with services and housing. Alternative delivery mechanisms are now being considered.

In 2011, the Saudi government established the new Ministry of Housing (MOH), which exemplifies ever more the utmost importance and possibly urgency of the crises to the rulers of the state (MOEP, 2011). In order for the Ministry of Housing to become a viable institution in charge of housing policy and delivery, it is necessary to define and determine its legal status (MOEP, 2011). The minister should be one if not the major and orchestrating stakeholder in the process (MOEP, 2011). This is an essential component in order to formulate clear tasks descriptions and responsibilities with clarifying of its position within the governmental structure (GIZ, 2011). Such measures should include the evaluation of potential conflicts or overlap of tasks and roles with other institutions (GIZ, 2011). Furthermore, coordination and harmonization of the Ministry's roles and responsibilities with other government ministries and institutions and nongovernment bodies must be secured pursued (GIZ, 2011).

Housing sector issue is a main concern for the Saudi government, in particular, the new Ministry of Housing that established in 2011 (MOEP, 2012). While the Saudi government census data indicates up to 60 percent homeownership within the country, industry experts cite a much lower ownership proportion at 30 to 40 percent, based on their interactions with would-be homeowners. Another indicator of the housing shortage is the unabating rise in rental rates across Saudi Arabia (GIZ, 2011). Housing prices in Saudi Arabia continue to increase, mainly on the back of land price increases (GIZ, 2011). A leading real estate agency (Dar Alarkan Real Estate Company) has estimated that over 70 percent of households in City of Jeddah (the second largest city in Saudi Arabia) are unable to afford the cheapest house on the market today, priced at around 900,000 Saudi Riyals ($239,904) (SAMBA, 2010). On the other hand, the government’s 9th Development plan forecasts a need for 250,000 units annually. The suggested number of units supplies a small percentage of the exclusive demand, rendering an estimated shortfall of around 1 million units (MOEP, 2012).

It is estimated that 2.32 million new housing units are to be built in Saudi Arabia between 2005 and 2020 (SAMBA, 2006). Thus, the stock of occupied housing units is projected to expand from 3.99 million units in 2004 to 6.31 in 2020 (SAMBA, 2006, 2010). This expansion is estimated to require an investment of nearly SR1.20 trillion in order to construct the 2.32 million new housing units between

2005 and 2020. An evaluation of the current occupancy trend, it estimated that around SR64 billion will be needed annually to build around 145,000 new housing units per year up to 2020 (The National Commercial Bank, 2005). Other estimated mention that private and public developers will need to build about 275,000 units a year through 2015, for a total of 1.65 million homes over six years, to cater to demands of a population that have doubled in size since 1988 and grows more than 2percent annually. Saudi Arabia Investment Fund (2006) predicts that a total of 2.62 million housing units will have to be built while SR75 billion will be required to meet the annual housing demand in Saudi Arabia by 2020 (Opoku & Abdul-Muhmin, 2013).

More than 50,000 households will face housing affordability problems within the next 20 years in Riyadh city alone (Struyk, 2005). Saudis will experience a decline in housing affordability over the next two decades (Struyk, 2005). King Fahd University of Petroleum & Minerals conducted research with Al-Saedan Chair on Affordable Housing (Aldosary, Alshuwaikhat, & Quadri , 2006) they mentioned that there is a mass demand for affordable housing in Saudi Arabia, particularly by middle-income Saudi families. It was predicted that 906.876 affordable housing units are needed by 2025 (Aldosary, Alshuwaikhat, & Quadri, 2006). This is based on the forecasted estimation of the total population as 39,581,511 million. These figures depend of course on a number of factors such as the Growth Domestic product (GDP), the population growth rate, purchasing power, etc. These factors interact in a complex way over time and would affect the housing quality and size. The finding states that many middle-class Saudis will not be able to occupy housing of the same size and standards as their parents. The middle-income housing units tend to have less than 150 square meters of floor space, which is less than half the average size of a housing unit in Saudi Arabia (Aldosary, Alshuwaikhat, & Quadri, 2006). The Saudi housing market is undersupplied in affordable middle-income housing and is expected to be the same case in the future.

In Saudi Arabia, as with many countries in the Middle East, citizens have traditionally bought homes using personal capital and family savings (Banque Saudi Fransi, 2011). Banks offer home loans on a limited basis, and some public, and private-sector companies have helped employees buy homes through in-house financing schemes (Banque Saudi Fransi, 2011). These options are usually reserved for wealthier Saudis, leaving a gap of financing among the mid to low-income population. Banks have recently increased mortgage financing to large firms, which permit guarantee loan repayments and minimizing default risk. As a result of offering much-needed financing to citizens (Banque Saudi Fransi, 2011). While new laws for housing finance and mortgages are being established, they are neither sophisticated financial instruments nor appropriate mechanisms to control the financing housing cycle existing currently in the Saudi housing sector (MOEP, 2011). Customer demand can be enabled by creating purchasing power through financing, allowing consumers to pay in installments instead of an unaffordable lump sum payment (GIZ, 2011). Interest from the financial sector in this arena, along with the implementation of the much-awaited mortgage law, is expected to alleviate some of the pressure in this respect (GIZ, 2011).

The Real Estate Development Fund (REDF) reveals a long waiting list of over half a million applicants (597,193 applications until 2009) and involving a total loan amount of 156, 394 million Saudi Riyal ($42 million). Since the REDF established in 1974, they provided a huge number of loans that have contributed to the finance of over 700,000 units (GIZ, 2011). In fact, the REDF served as the official source of housing finance in Saudi Arabia, along with finance sources of various types. During the early years of the REDF's operation, applicants used received the loans within a year of applying. However, this situation has changed with applicants now having to wait for up to 15 years (GIZ, 2011). Most loan recipients are over 40 years old by the time they receive funds (GIZ, 2011). With the announcement that citizens can now apply for REDF loans without the earlier condition of land ownership, the number of new applications has soared to some two million applicants, which far exceeds available REDF resources (SAMA, 2013). The REDF cannot be sustained for a long time in view of rising applications. This is due to the fact that most households would need such interest-free finance (SAMA, 2013). There is a real difficulty in eliminating current REDF waiting list as a result of the volume of demand for loans (SAMA, 2013).

An important component of efficient and coherent policy formulation and strategic planning is the existence of up-to-date, comprehensive data to aid decision making (McKinsey Global Institute, 2014). The Ministry of Housing is required to establish and update a detailed and comprehensive databank, in order to enable all parties concerned to analyze and plan for housing according to demand as well calibrate the governmental inputs accordingly (McKinsey Global Institute, 2014). In order to ensure the operation of an efficient housing policy and delivery system the Ministry is expected to establish continuous monitoring programs and evaluation processes that will contribute to innovations and improvements concerning land policy and land use planning, housing support in terms of pilot measures and models and innovative construction techniques (McKinsey Global Institute, 2014). ***For further clarification, the Saudi government institutions that are related to the finance affordable housing sector in Saudi Arabia mentioned several times in this paper includes:***

- **Ministry of Housing (MOH):** This ministry assumes leadership of the housing sector. MOH is envisaged to take the lead in setting the direction of the housing delivery process by determining broad national housing policy and standards, as a single national policy framework that allows adaptation to different local needs, in consultation with relevant stakeholders (MOEP, 2011).
- **The Real Estate Development Fund (REDF):** a government agency that provides medium or long term loans to individuals or organizations for private or commercial housing projects (MOEP, 2011).
- **The Saudi Arabian Monetary Agency (SAMA):** The financial sector is regulated and controlled by SAMA. Policies on financing and terms of payment aim to facilitate the free flow of financial resources (MOEP, 2011).

2-15- The Saudi Housing Policies:

During the last decades, admirable progress has been achieved. Specifically, in the owner-occupied housing segment, namely through the implementation of the Real Estate Development Fund (REDF) and the free land grant program (MOEP, 2011). Ownership promotion has been a key objective of Saudi housing policy. Housing policies in Saudi Arabia have a direct impact on housing supply and quality. The five-year development plans, which were created by the Ministry of Economy and Planning (MOEP), accelerated housing construction since one of their primary objectives was to provide decent housing for every Saudi household (MOEP, 2011). The Saudi government launched several housing policy initiatives: financial policies that are provided by the government agencies, and financial organizations, and private sector companies in Saudi Arabia, Government development funding and Zero Interest loans, and the private sector financing by housing developers and housing mortgage companies.

2-15-1- Financial Policies that are Provided by the Government Agencies, Financial Organizations, and Private Sector Companies in Saudi Arabia:

In Saudi Arabia, the current state of finance policies in housing for the middle income citizens are provided by the following government agencies, financial institutions, and private sector companies and namely:

2-15-1-1- Government Development Funding and Zero Interest Loans:

The government uses the Real Estate Development Fund (REDF) agency to carry out the above policy. REDF was established in 1974 1) to enable individuals to build their houses and 2) enable the private sector to invest 3) to enter into agreements with the municipalities to develop new residential areas and 4) to assist government institutions in setting up housing projects for their employees (GIZ, 2011). From its funding in 1974 through 2013, the government's Real Estate Development Fund (REDF) provided funding to build more than 928,488 housing units. The number of loans provided by Real Estate Development Fund was (773,740) loans valued at more than 300 billion Saudi riyals (GIZ, 2011).

REDF provides zero interest, 25-year housing loans in amounts of 200,000–500,000 Saudi Riyal ($53,327–$133,317) to eligible Saudi households. This initiative finances up to 70 percent of the estimated construction cost. In recent years, the demand for REDF loans far surpasses the availability. Based on REDF data in 2002, only one out of every 4.7 applications was approved, and the applicant waitlist stands now at about ten years (Sidawi, 2009). Around 8 percent of all housing units built in a year are REDF funded (Sidawi, 2009). Loans are repayable over a long period, and a 20 percent subsidy is also provided. Interest-free loans repayable over ten years are also available to businesses facilitate the construction of units (e.g. apartment buildings and housing compounds) (Sidawi, 2009). These loans were disbursed for financing construction of owner-occupied housing units. Loan repayments amounted to 1.8 billion Saudi Riyal during the same year, declining by 29.9 percent from the preceding year (Sidawi, 2009). Through its investment REDF loans, private Saudi developers are encouraged to apply for investment loans with free interest loans up to $3 million. The number of housing units constructed through REDF's investment loans is 18,196 (Sidawi, 2009).

However, there are number of housing units which has been financed by major national companies for its employees (Sidawi, 2009). For example, The Saudi Arabian Oil Company (ARAMCO) and the Saudi Basic Industries Corporation (SABIC) have launched a Housing Loan Plan to assist its Saudi employees in securing funds to build or purchase family housing in their local communities. Loans are repaid by regular monthly salary deductions up to 20 percent (Sidawi, 2009).

2-15-1-2- The Private Sector Financing by Real Esters Mortgage Companies:

Private sector companies are also involved in financing housing in Saudi Arabia (GIZ, 2011). The main factors in these housing loans in the real esters mortgage companies are the high prices and the high house loan interests. The Saudi Arabian Monetary Agency (SAMA) granted a few housing mortgage companies to engage in financing housing sector for individuals and housing developers (SAMA, 2013). Unfortunately, the housing mortgage companies have difficult conditions are non-concessional, and interest are high because the lack of regulatory and legislations in the housing finance sector (GIZ, 2011). This difficult conditions because the critical requirements from the Saudi Arabian Monetary Agency (SAMA) especially the 30 percent down payment.

The last national government fifth development plan (2010-2015) which design by the Economy and Planning (MOEP) point that the private sector would undertake to build about 875,000 housing units to fulfill part of the demand for housing, in different regions of Saudi Arabia (Sidawi, 2009). Out of these housing units, about 225,000 would be built with the support and assistance of the government (Sidawi, 2009). Nonetheless, there are no foreseeable implementation plans of the government nation fifth development plan in the housing field.

2-15-1-3- The Financing by Commercial Banks and the Social Insurance Institutions:

Saudi banks exhibit abundant liquidity; their net foreign assets have more than doubled in the last two years. Still, housing finance, while conditions are improving, remains limited. By the third quarter of 2010, home loans accounted for only 2.8 percent of total credit extended by Saudi banks. The SR22 billions of home loans in the third quarter represented a 42.2 percent surge from the first quarter of 2009. It is worth mentioning that the size of housing finance provided by commercial banks reached 13.4 billion Saudi Riyal at the end of the second quarter of 2006 (GIZ, 2011).

The projected lack of long-term housing loans available to prospective homeowners or developers has generated much concern among stakeholders. Commercial banks concentrate on granting short and medium term loans while the housing finance depends on long-term loans. The share of the housing sector from commercial banks ranged from 7 percent to 16 percent of the total granted loans, with a value of about 393 billion Saudi riyals during the last 11 years (GIZ, 2011). This is about three times the contribution of Real Estate Development Fund (REDF). In addition, some commercial banks use variable rate of profit and hold the right to increase the rate from 1 percent to 2 percent yearly or every two years (GIZ, 2011). Such a situation may be unfair for clients getting long-term loans to finance family or investment housing.

The social insurance institutions (i.e. Public Pension Agency (PPA) and General Organization for Social Insurance (GOSI)) These government institutions implements social insurance rules, collects contributions from employers and pays benefits to entitled insured persons and their family members. The two institutions have prepared a financial program for their members and retirees to purchase houses. Accordingly, the two social insurance institutions commenced the implementation of such program through which provides financial facilities to finance the employees and a category of retirees subject to (civil / military) pension scheme desiring to purchase a house (GIZ, 2011). Nevertheless, the financial housing program of the social insurance institutions was unsuccessful as a result of lack of affordable housing units in the market and unaffordable interest rates (GIZ, 2011).

2-15-2- Provision of Public Housing by the Ministry of Housing and Other Government Agencies:

In response to the housing shortage in the late 1970s and early 1980s, the Saudi government launched immediate housing projects; houses were constructed in the seventies and early eighties, in different cities to provide free houses for low and median income families. Other government agencies such as the National Guard, Ministry of the Interior, and Ministry of Defense constructed housing projects for their employees (GIZ. 2011). In addition, the Ministry of Higher Education (MOHE) provided houses for the university professors and paid them housing allowances. The programming and design of these projects were recommended by international consultants who urged the Saudi Council of Ministers to act (GIZ. 2011). The catalyst for these huge housing projects is a result of the increased revenue provided due to increased oil prices during the 1970s to resolve the housing problem for the government employees (GIZ. 2011). In 2012, the Ministry of Housing (MOH) was responsible for building 60,000 housing units in selected provinces in Saudi Arabia to target low-income citizens (MOEP, 2013). Indeed, the number of housing units built by the government is very relatively small compared to the units financed through REDF (MOEP, 2013). This reflects the performance of people to build their own houses.

2-15-3- The Grant Lands:

Grant lands facilitate ownership of the plots, owned by municipalities in the country, in order to construct housing. The land grant program has contributed significantly to the success of the housing provision in Saudi Arabia since its inception in the 1970s (GIZ. 2011).Today the land grant program is encountering severe challenges. Waiting periods range from 10-20 years; a huge backlog of not yet served land grants alongside applicants that do not meet eligibility requirements. New land grants are mostly located in remote locations far away from city centers. Many people receive land plots, which are financially not able to build a home and finally, there is some speculation with granted plots. GIZ conducted an analysis and revealed that less than 5 percent of the land grants have been used directly by their beneficiaries to build their home. In view of the problems, the Council of Ministers decision in 2010 established a moratorium on land grants and designed reformation policy of the land grant program (GIZ. 2011). Approaches to reform the general land grant program include (GIZ. 2011):

- Reclamation of unutilized land grants.
- Transfer the land grant program into a land sale program.
- Modifications of the current land grant distribution mechanism (such as the social criteria, prefer applicants with approved REDF loan, etc.).
- Distribution of fully developed land grants exclusively, no more distribution of raw parcels
- Interdiction of land grants resale and building order.
- Building up a registry of land grants.
- Land grants only to applicants with proven housing finance ability.
- Urban development contracts between consignees of Royal land grants and government.

2-16- The Hindrances to Adopting Policies that would Help or Alleviate the Housing Problems:

There are several hindrances within the economic, cultural, social and regulative environment that could affect the adoption of progressive policies. The next section lists eleven significant issues, but this is by no means an exhaustive list:

2-16-1- Need for Multiple Stakeholder Support of Housing Sector:

The sources of government funds for the housing sector come exclusively from allocated government budgets, either to cover operation expenses and nonperforming loans or to increase the paid capital (SAMA, 2013). One of the weaknesses of the public contribution to housing finance is the absence of support government policy as well as the absence of a clear criteria system for subsidized housing means (GIZ, 2011). The housing sector needs to have the main three stakeholders such as government agencies, financial institutions, and private sector, to involve and build cohesive framework. This framework helps to reduce the reliance on the government and to create a new housing industry in Saudi Arabia.

2-16-2- Access to Financing

There is a lack of long-term housing loans available to prospective homeowners or developers; a critical contribution to the crisis state of housing (GIZ, 2011). Commercial banks focus on allowing short and medium term loans while the housing finance hinge on long-term loans. The portion of the housing sector from commercial banks reached from 7 percent to 16 percent of the total approved loans, with a value about 400 billion Saudi Riyal during the last 11 years (SAMA, 2013). This is about three times the contribution of Real Estate Development Fund (REDF). The expected return on interests has contributed to the commercial banks target of government and private employees. This population is comparably better equipped to finance housing than self-employed clients and low-income families. In addition, some commercial banks use variable rate of profit and hold the right to increase the rate from 1 percent to 2 percent yearly or every two years (GIZ, 2011). Such a situation may be unfair for clients getting long-term loans to finance family or investment housing.

2-16-3- Low Investment in the Housing Sector:

The performance of construction and real estate corporations working in Saudi Arabia economy attain moderate performance because they do not use long term loans (McKinsey Global Institute, 2014). Moreover, the average return on total assets in 2009 for construction and real estate corporations was about 6 percent, while the dividends per share were 3.7 percent in 2009, which reflects low incentives for new investments in this sector (GIZ, 2011). Lastly, there are neither sophisticated financial instruments nor relevant mechanisms to control the financing housing cycle currently in the Saudi housing sector.

2-16-4- Weaknesses of the Current Land Subdivision Planning:

Land subdivision ordinances impact the housing provision for instance regarding permissible housing types or its impact on the cost of infrastructure (GIZ, 2011). Currently, several technical standards of land subdivision planning impede better housing construction (e.g. postulating minimum land plot sizes, minimum dwelling sizes, uniform inflexible land plot lay out regarding size and shape, and uneconomical street profiles, which generates high development costs) (GIZ, 2011). These ridged limitations restrict the potential for flexible and mixed residential development, including affordable housing and the creation of sustainable neighborhoods.

2-16-5- Land Hoarding:

It is the practice of purchasing developed and undeveloped land with the intent to await an opportunity for a profitable sell (GIZ, 2011). Land speculation to a certain extent is an impediment to affordable housing production, especially since land hoarding and speculation are no subject to taxation. Land hoarding for the purpose of speculation is a common practice in Saudi Arabia since land is considered as a safe and profitable investment. For example, Riyadh city is one of the most active cities in Saudi Arabia in terms of land speculation (McKinsey Global Institute, 2014). It is a serious bottleneck in the housing delivery. The land prices have experienced a surge in value (McKinsey Global Institute, 2014). Another catalyst currently impacting the housing market is the imposition tax levied on empty unused land within municipalities around Saudi Arabia (Aljazira Capital, 2015). Such a policy would be ultimately beneficial for the general public if implemented appropriately (Aljazira Capital, 2015). The levies of fees on undeveloped vacant land encourage the investment in land for capital gains. Still, in most cases infrastructure is constructed free from the municipality to landowners (Aljazira Capital, 2015).

2-16-6- Lack of Dependable Data on Land Prices:

In Saudi Arabia, there is not a reliable governmental or non-governmental database which stores land price, available developable land at the local or national level (GIZ, 2011). For this reason, the land market is highly opaque and subject to widely varying opinions. To make matters worse, there is not a certified standardized land or property valuation method (GIZ, 2011). Regardless of the lack of dependable data, land supply is a major difficulty in terms of affordability and availability for both developers and private homebuilders. In many regions, land costs count for more than the half of the total project costs (GIZ, 2011). Despite a huge number of land subdivisions, many existing and planned residential areas are fragmented and lack basic infrastructure (GIZ, 2011). Furthermore, there are large vacant land plots within the existing urban fabric, both serviced and not serviced (GIZ, 2011). Land hoarding and land speculation to a certain extend are impediments for affordable housing production.

2-16-7- Mismanaged Land Sector:

Private land development plays a significant role in Saudi Arabia. Governmental land developments continue to be the dominant sources to facilitate residential land ownership as well as provide public utilities (GIZ, 2011). Private land development in Saudi Arabia focuses predominantly only on the three big provinces (the central, western, eastern provinces), whereas the smaller provinces almost completely depend on the governmental land development (GIZ, 2011). Since public utilities are provided free of charge within governmental land developments, private land development suffers from a competitive disadvantage and market distortion. Additionally, housing developers suffer from a lack of available and affordable supply of large raw land plots waiting for development in marketable locations (McKinsey Global Institute, 2014).

2-16-8- Stakeholder Fragmentation:

There are three primary stakeholders government agencies, financial institutions, and private sector, duties are fragmented and lack of cohesive framework. The ***government agencies*** consists of The Ministry of Housing (MOH), The Real Estate Development Fund (REDF), The Ministry of Municipal and Rural Affairs (MOMRA), Saudi Arabian Monetary Agency (SAMA), the Ministry of Finance (MOF), and the Ministry of Justice (MOJ); The second stakeholder is ***the financial institutions*** consist of the commercial banks, Public Pension Agency (PPA), and General Organization for Social Insurance (GOSI); The third stakeholder is ***the private sector*** consist of housing developers companies and construction companies (GIZ, 2011).

A key problem in housing delivery is the overlapping of tasks and the lack of harmonization between the different stakeholders between the various stakeholders, which is referred to as fragmentation. Fragmentation in the housing sector is understood as the disintegration of institutional efforts governing relationships among the various stakeholders (GIZ, 2011). As such, each stakeholder is planning and implementing different goals, objectives, and agendas. Thus, most importantly, this is seriously causing decision making fragmented. The analysis of the intersection of the housing sector reveals fragmentation of efforts at different levels (McKinsey Global Institute, 2014): within the government bodies, between the three categories of organizations acting across the housing sector itself. The current institutional framework governing housing has resulted in numerous constraints to housing delivery in Saudi Arabia (GIZ, 2011). Fragmentation of the housing sector has resulted in a large amount of confusion within and between housing institutions which resulted in significant inefficiencies and wastage (GIZ, 2011). The stakeholders of the housing sector are fragmented and suffer from the following problems (GIZ, 2011):

2-16-8-1- Lack of Common Vision and Leadership Vacuum:

The multitude of agencies responsible for fragments of the housing sector and the absence of an overall housing policy is a major challenge for strategic guidance. In addition, there is an inadequate definition of the role of the three categories of stakeholders in the housing sector. The role of Ministry of Housing is not fully developed yet, but when it does, Ministry of Housing will grow to be the leader of the housing sector. The Saudi government needs to play the central role in setting the national housing policy agenda. Amongst the institutions of government, the state sector's central departments and agencies play a commanding role. In the case of housing, the central government typically assumes responsibility for (Badcock, 2012): National housing plans and strategic frameworks; direct and indirect forms of housing subsidy; regulation and guidance; and, property and land management.

2-16-8-2- Dysfunctional Support Systems:

Ministry of Municipal and Rural Affairs (MOMRA) and Real Estate Development Fund (REDF) are not fully enabled to carry out their housing responsibilities. The waiting list has resulted in delays to the housing development process and a breakdown in the public administration. No linkage between MOMRA land grant system and REDF finance system exist. The historical system of land grants is not only dysfunctional but is also the source of problems. Even with the new royal decrees that increased REDF's capital and increased loan amount, REDF neither can eliminate the waiting lines for the citizens who want the housing loan nor create a sustainable housing support system this way.

2-17- The Hurdles/Barriers to Adopting and Implementing Western-Style Housing Policies:

There are four main hurdles/barriers to adopting western style policies in Saudi Arabia. The barriers stem mainly from the fact that Saudi Arabia is a Kingdom and has different political norms that differ greatly from the west. In addition, there are also other issues within the regulatory and policy framework listed in the next section:

2-17-1- Lack of a National Housing Law:

One of the central issues in Saudi housing system is the lack of a national housing law. As in many global countries, this law would serve as the legal foundation for the entire housing system, and unify all stakeholders and actors, and provide a roadmap for the future introduction of future special purpose housing laws (MOEP, 2011). It would also tackle two crucial issues of developing specialized housing courts and legal provisions for expropriation. Furthermore, development and implementation of a comprehensive national housing law will help to strengthen investor confidence in the housing sector if investors (especially foreign housing developers) believe that the sector is being regulated in a transparent manner; they will feel more comfortable investing in housing in Saudi Arabia (SAMA, 2013).

2-17-2- The Absence of National Housing Research and Data Center:

One of the central issues facing Saudi housing market is the lack of reliable data and information, which creates an incomplete picture of current realities in the housing market. Therefore, by creating a *National Housing Research and Data Center* with a transparent system of housing indicators and benchmarks, the government, private sector, and public sector will be in the much better position to monitor the housing market, understand and accurately forecast trends, and effectively respond to market fluctuations (GIZ, 2011). The foundation upon which the *National Housing Research and Data Center* will be built upon is reliable and transparent data, organized into a system of housing indicators that allows for a detailed view of the Saudi Arabian housing market based on different statistical data and periodical information from different agencies (GIZ, 2011). A data model shall be built containing that various information about the housing stock, the socio-demographic conditions, and the socio-economic situation in Saudi Arabia on the lowest spatial level possible (GIZ, 2011). Housing indicators are primarily intended to give a detailed view of the present housing situation and the past development. After making a couple of assumptions about the future development of demand for house certain types (based on a population forecast, household sizes, expected vacancy levels, etc.), future need for action can be deduced (GIZ, 2011). To monitor housing, indicators can be described as a basic need for an effective and efficient housing strategy. A benchmarking system shall also be developed, so as to enable Saudi Arabia to assess the housing market over a specific period.

2-17-3- Lack of a Codified National Urban Planning Law:

Saudi Arabia still does not have a unique national urban planning law as they exist in almost every country (GIZ, 2011). Currently, the unclear legal situation in legal, institutional and technical aspects of urban planning leads to tension in an uncertain market and weakens the housing sector and the needed developments. Moreover, spatial planning at the national and regional level still lacks a comprehensive legal framework and a clear administrative and organizational structure. The Ministry of Municipal and Rural Affairs (MOMRA) is responsible for urban planning on the national, regional and local level and holds the authority for land subdivisions (GIZ, 2011). However, MOMRA is obliged to create master plans for the municipalities under their patronage as well as regional plans (GIZ, 2011). The main purpose for the master plans is to know the current and future use of land up to 10 to 15 years (GIZ, 2011). There is no general national regulation about public participation in urban planning just as the involvement of potential investors, representatives of public interests such as public bodies or chambers of commerce (GIZ, 2011). Altogether, the unclear legal situation in legal, institutional and technical aspects of urban planning leads to reduce investment, developments, standardization the housing sector (GIZ, 2011). There is an urgent need for a comprehensive Saudi urban planning law (GIZ, 2011).

2-17-4- Zoning and Technical Building Code Restrictions:

Urban planning in Saudi Arabia underwent tremendous changes from traditional settlement patterns to modern gridiron structures with rectangular large building plots tailored to modern houses, and apartment buildings (GIZ, 2011). Currently, the urban master plan still encourages and mandate big building plots and streets with over-dimensioned width. Space-saving, cost-saving, and energy efficiency still plays a too minor role in housing delivery (GIZ, 2011). Often, building codes and zoning regulations do not sufficiently effective land utilization, for instance by overstated height restrictions. On the other hand, Due to a lack of a National Urban planning law and a fragmented legal framework, zoning, and building regulations differ from municipality to municipality in many cases. The unclear and diverse legal framework of urban planning does not support an efficient housing production (GIZ, 2011). The new Saudi Building Code does not deal with legal standards, but with technical building standards, such as architectural, structural, electrical, mechanical, energy conservation, sanitary, fire protection, and existing building standards (GIZ, 2011). Instead, zoning and building rules and regulations are provided inconsistent and fragmented on national and local levels.

3- RESEARCH METHODOLOGY:

A side from an In-Depth, Semi-Structured interviews of relevant literature and reports. The groundwork for this scholarly investigation is chiefly based upon interviews with various stakeholders in the housing finance sector. Interviews with government agencies, financial institutions, and private sector were conducted in order to gather further insight pertaining to the affordable housing finance framework. The interview coding process supplemented the interview results. Interview coding is a qualitative method to aid interview data analysis. It should be noted that the analysis itself is not the coding, but a deeper investigation of the coding results. When paired with the results of the coding process, the interview responses are systematically grouped into common themes that form the developing housing finance framework. Furthermore, by having a diverse interview pool with multiple perspectives in developing housing finance framework, insights into the strategies to overcome these barriers are developed to produce a complete vision of the housing finance sector in Saudi Arabia.

3-1- Using the Qualitative Research Method in My Research:

This research is primarily guided by qualitative research methods normally adopted by social sciences (Creswell, 2003). Qualitative research methods are used toward exploring the social aspects of a problem or question (Creswell, 2003). Qualitative studies can result in constructing theories not previously ascertained to explain certain behaviors (Creswell, 2003). In contrast, Quantitative methods do not take into consideration how the people involved construct the meaning of their experiences and their lives (McBride & Schostak, 2007). Qualitative research design is the process of collecting, analyzing, triangulating, synthesizing, interpreting, and reporting data (Creswell, 2003). In the current qualitative research study, a list of open-ended questions was administered to participants. Qualitative research method revealed open-ended questions that generated the themes and generalizations (Creswell, 2003; Neumann, 2003).

3-2- Selecting In-Depth, Semi-Structured Interviews Approach in this Research:

Conducted In-Depth, Semi-Structured Interviews with respondents, were from various sectors (e.g. governmental agencies, financial institutions, and the private sectors). Provided were the opportunity to describe freely their interpretations of the housing policies; its implementation process as experienced by them, and the challenges that they face in achieving the desired outcome. This type of interview involved the construction of some predetermined questions and/or special topics (Berg, 2007). These questions are normally asked of each interviewee in a systematic and consistent order. Nevertheless, the interviewers are allowed freedom to digress; that is, the interviewers are permitted and fully expected to probe for answers beyond their prepared and standardized questions (Berg, 2007). Semi-structured interviews lie in the middle of the interview structure spectrum: The interview is organized around some main themes or topics that the researcher believes are the most relevant to the research project, guided by a well-defined research agenda (Arksey & Knight, 1999). At the same time, the interview technique and structure is flexible enough to allow both the interviewer and the interviewee to expand on issues and ask for clarification. The interviewer typically asks open-ended questions that leave substantial leeway for the informants ‘own understandings to guide their answers (Arksey & Knight, 1999). Semi-structured interviews are therefore very useful when the researcher seeks qualitative data about complex and individualistic constructs. Nevertheless, he at the same time is much more interested in content and in covering some key questions and topics than in the actual interaction with interviewees (Dunn, 2000).

The basic purpose of the In-Depth, Semi-Structured Interviews is to minimize interviewer effects by asking the same question of each respondent (Patton, 1980). Moreover, the interview is systematic, and the necessity I or interviewer judgment during the interview is reduced (Patton, 1980). The standardized open-ended interview also makes data analysis easier be-cause it is possible to locate each respondent's answer to the same question rather quickly and to organize questions and answers that ore similar” (Patton, 1980). There are three major reasons for using standardized open-ended Interviews as part of an evaluation (Patton, 1980): (1 The exact instrument utilized in the evaluation is available for inspection by decision makers and information users; (2 variation among interviewers can be minimized where a number of different interviewers must be used; and (3 the interview is highly focused so that interviewee time is carefully used.

On the other hand, the strengths of In-Depth, Semi-Structured Interviews (Guest, Namey, & Mitchell, 2012): First, allowing researchers to uncover underlying answers to their questions from experts on the given issue and trying to gain insight about some element of human experience. Second, helping researchers to understand their interviewee's perspectives of processes, norms, decision making, belief systems, mental models, interpretations, motivations, expectations, hopes, and fears. Third, in contrast to other qualitative data collection methods, in-depth interviews are well suited to asking questions about polarizing, sensitive, confidential or highly personal topics. In addition, Patton (1980) explained the common features for the In-Depth, Semi-Structured Interviews approach:

Table 3: In-Depth, Semi-Structured Interviews approach features

Characteristics	The exact wording and sequence interview of questions are determined in advance. All interviewees are asked the same basic questions in the same order. Questions are worded in a completely open-ended format.
Strengths	Respondents answer the same questions, thus increasing comparability of responses; data are complete for each person on the topics addressed in the interview. Reduces interviewer effects and bias when several interviewers are used. Permits evaluation users to see and review the instrumentation used in the evaluation. Facilitates organization and analysis of the data.
Weaknesses	Little flexibility in relating the interview to particular individuals and circumstances; the standardized wording of questions may constrain and limit naturalness and relevance of questions and answers.

Sources: Patton (1980)

Qualitative, Semi-structured interviews (in-depth interviews) typically are much more like conversations than formal events with predetermined response categories. The scholar explores a few broad themes to assistance discover the participant's opinions; otherwise respects exactly how the participant frames and structures the responses (Marshall & Rossman, 2010). This method, in fact, is based on an assumption fundamental to qualitative research. A degree of systematization in questioning perhaps essential in, for instance, a multisite case study or when many participants are interviewed, or at the analysis and interpretation stage when the researcher is testing findings in more focused and structured questioning (Marshall & Rossman, 2010). Discussing these topics in a group or public setting could put the interviewee at risks that range from social embarrassment to financial loss to actual physical harm (Guest, Namey & Mitchell, 2012). The researcher must provide a space in which the interviewee can feel safe discussing matters that are usually kept private. Such is the atmosphere skilled in-depth interviewer strives to create.

3-3- The Interview Process and Format:

I conducted the fieldwork in Saudi Arabia by using In-Depth, semi-structured, open-ended interviews as they are considered effective for consulting and discussing the subject matter with the main informants, in order to reveal insights regarding the context. The interview questions contained a cover letter explaining who the researcher is, what he is doing, and the main objectives of the research study. The questionnaire was designed in a format which was influenced by the insights gained from the literature review. The respondents were encouraged to spell out their idea and attitudes toward their perspective and experience.

The interviews were conducted over the course of two months during September and October of 2015. The first step was to create an interview questions list during the spring semester in consultation with the doctoral committee. The questionnaire was constructed in concert with my committee in order to assure the questions would render useful and adequate data to inform my research questions. The strength of this approach lies in its capacity to shed light on the narratives, and firsthand accounts of circumstances whereas purely qualitative data are missing or tough to obtain.

The initial draft and questions were shortened to reduce the length of the interview. Additional factors were suggested and incorporated into the list of factors. By conducting a mock interview, the questions and guide were tested to determine the flow of the interview and structure of the questions. A final interview guide and a list of factors were approved by both the doctoral committee and IRB before conducting the interview questions.

As Patton suggests, the purpose of interviewing, then, is to allow us to enter into the other person's perspective (Patton, 1980). Thus, for this qualitative research study, one-on-one interviews were conducted in person. Interviews were conducted at the participants' office location. Interview participants were contacted ahead of time either by email or telephone call. Prior to the interview, the participants were provided a brief introduction to the research study in addition to short descriptions of the research.

A total of ten interviews were conducted by various professionals in the housing finance sector for this research. All interviews were conducted with senior stakeholders of in the housing finance sector. Each participant possessed specific industry expertise varying from the minister of the housing; to vice-chairman of REDF, to housing developer; and CEO of housing finance company, etc. All interviews followed the same format and were based on the same set of questions. The interviews followed the general interview guide approach as presented by Patton (1980). This approach follows a general interview outline as a basic guide and checklist and explores a set of issues without the need for standardized questions or results.

Consideration of the interviewer's work schedule was taken into account, and thus, the interview format and question was designed to be completed in less than 45 minutes. However, many participants were more than willing to provide substantial detail on various affordable housing and housing finance issues, resulting in longer interviews. On the other hand, other participants were limited due to time constraints and shorter interviews were used to accommodate. Meanwhile, all interviewees are located in the same city (the Riyadh city, Capital of Saudi Arabia); location need not be a factor. It is important to note that interview results are reflective of this particular geographic only.

By conducting qualitative interviews, those being interviewed are able to respond to questions in their words and express ideas using their unique perspective (Patton 1960). Thus multiple perspectives have been obtained due to the diverse pool of interviewees. To gain fully-developed responses, interview topics were organized into sections to allow natural transitional responses and ease of flow from one topic to another. Questions were posed to extract descriptive responses and respondents were encouraged to use specific examples in their answers. Such open-ended inquire often led to deviation from the outline. These occurrences were uninterrupted and often most insightful, a perspective not obtained in a closed-format interviews.

In addition to the interviews, I also used secondary sources, including previous studies on housing, project documents, case studies and professional reports pertaining to the affordable housing finance system in Saudi Arabia. These documents have provided additional information to supplement the interview data and together formed the basis for a wealth of descriptive data that is beyond the breadth and scope of a structured qualitative approach. The following sections, therefore, describe the research methodology in detail, including the data collection and the analysis process as well as issues of methodological constraints.

3-4- Interview Participants:

Interview length ranged from 30 minutes to 2 hours, with an average of length of 1 hour. Prior to interviewing, participants were provided a brief summary of the research, as well as documents defining the factors that were to be discussed in the interview. The interview guide used for each interview commenced with a formal description of the research, and narratives of both the interviewee's positions, as well as the interviewer's.

With the aim of collecting multiple perspectives for insight and analysis, establishing a diverse pool of interview subjects was critical. Interviews were conducted with various stakeholders in the Saudi housing industry. In the course of the discussion, each participant was asked to describe their role and contribution to affordable housing finance. Throughout the conduction of these interviews, it became apparent that participants had both shared views on certain barriers in affordable housing finance, but in many cases also dissimilar and often contradictory opinions. As such, these interviews provided an extensive perspective, thus allowing one to identify critical success factors to develop housing finance framework. During these interviews, each executive was asked to recommend key contributors to develop an affordable housing finance framework. The interviewees consist in this list:

- Minister of Housing (MOH).
- Undersecretary the Ministry of Housing for Research and Studies (MOH).
- Vice-chairman of the Real Estate Development Fund (REDF).
- Financial manager of the Real Estate Development Fund (REDF).
- Lead Economist in Saudi Arabian Monetary Agency (SAMA).
- Academic housing professor at King Saud University.
- Academic housing professor at Alfaisal University.
- CEO of Moten Housing Development Company.
- CEO of Saudi Home Loans Company.

3-5- Interview Coding:

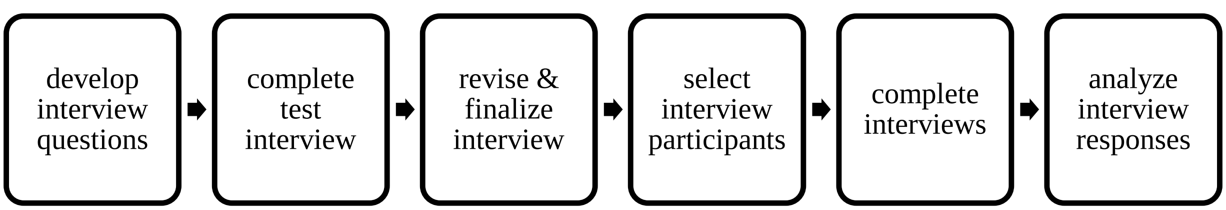
As previously noted, the interview coding process is not the analysis portion of this scholarly investigation, but rather a qualitative research method used to supplement interview results. Interview coding is a method of generating concepts based on organizing, managing and retrieving data from interviews (Coffey and Atkinson, 1996). The analysis thus begins with the identification and extraction of key themes or patterns found within the conducted dialogues. The coding process allows one to link analytically various segments in the data to create a specific category. These categories are then used to arrange systematically concepts and results together. While categories and concepts may be closely related to one another, the analytical efforts are in establishing connections and understanding the meaning of such ties.

During the conduction of interviews, it became apparent that common themes were naturally developing based upon on the opinions expressed by the participants. Repeatedly, comments demonstrated similar trends within the interview extracts. The categories thus surfaced organically and were established as the key concepts for this study. Additional, themes were produced after further analysis of the interview results to complete the list.

3-6- Data Analysis:

Once the interviews are completed, the gathered data has been cleaned, organized and recorded for further analysis. The data will be used to identify key themes are rising among the interviewees, as well as organizing the various issues and factors into common categories. The analysis will focus on identifying the main factors as scored by the participants. Once this step is completed, conclusions will be drawn about the importance and implications to the housing finance process for each factor. Interviewee comments and examples will be used to justify these findings. Qualitative analysis supported, expanded, explained, and complemented responses from the qualitative interview questions. Lastly, the analysis process will conclude by obtaining a list of critical success factors and policies able to develop affordable housing finance using the information obtained from the interview. (Figure 6) shows the process of completing the interviews.

Figure 6: the proposed process of the interview questions.



Source: the researcher

Analysis of the data focused on the emerging themes recurring throughout the data. Because interview records are only part of the entire array of the case study evidence, computerized tools cannot readily handle this diverse array of evidence coming from policy documents. Hence, the recordings were analyzed separately by creating data displays and making a matrix of categories. Therefore, these recordings were transcribed into raw data immediately following each set of interviews, and clarifications were sought in some cases to ensure that everything was accurately captured. The next stage was to index (code) the data. This implied identifying themes and patterns (ideas, concepts, phrases and terminologies) that were frequently used by the participants. Working through an iterative process, there were pre-set categories (themes that I was looking for), as well as emergent categories (themes that emerged from the data). The rationale for the pre-set categories was basically to provide direction for what to look for in the data. These interviews coded into categories. Below is the coding categories and the participants' response (Table 4):

Table 4: the coding categories and the participants' response in this research

Inductive/Deductive Categories	Participant Responses
Cooperate with the main players in the housing sector: governmental agencies, financial institutions, and the private sector	• The government should have rule with the financial institutions and private sector • Involvement with the main housing sector players • The housing problems are not just related to the Ministry of housing but for all governmental and private sectors • The public sector should encourage the private sector in the housing market • Recommendation of the housing strategy that prepared by the German consultant office • cannot configure any policies or plans without presence the main players in the housing sector • Establish new National Housing Research and Data Center to enrich the housing studies in diversity methods in the housing sector
Develop new housing law, regulations, and legislations also require the better integration and reformation of various finance, development, urban planning, and local governance practices.	• Before write, any law or policy there should be full institutional housing structure in Saudi Arabia • Create housing law and regulations • We should attract international private investment by having strong regulations • Roles of the financial institutions have to be more appropriate and

	flexible in the housing finance interment • There is need to have affordable housing finance mechanisms rules • One of the main obstacles in the 30% down payment requirement by SAMA which reduce the housing finance in the market • Strengthen the concept of housing developers and abandonment of individual housing construction • Urgent need for creating housing finance policies that can incentive increasing the homeownership finance and funding the private sector project investment • Tax legislation for the developed lands that contribute to solving the land monopoly and housing inflations in the housing sector
Create new housing finance structure by implementing western policies and institutions that applicable in the Saudi context	• Add new housing finance structure substitute for the current structure • Implement new western policies and institutions to the Saudi context • Adopt the SAVING concept in the housing finance sector
Design appropriate programs for the divided middle-income citizens segmentation that achieve affordable housing finance path	• Divide the middle-income citizens to category parts and design different affordable housing finance programs for each category • Every segment of the middle-income citizens has clear financial and regulation structures • Income of middle income is useful indicator to put the person in the right programs for each category • Design mechanisms of the affordable housing planning and methods • Formation new community culture for the affordable housing especially the size, family number, and middle-income citizens solvency • Provide affordable housing units and affordable finance that help the citizens to own homes

Source: the researcher

4- RESEARCH DISCUSSION AND FINDINGS

This chapter discusses the findings from governmental agencies, financial institutions, and the private sector interviews in Saudi Arabia as it pertains to the housing finance system. The data and this dissertation will be useful and used for various purposes: 1) provide stakeholders of the housing finance system with critical information in order to develop as well as reform the housing finance system 2) investigate and illuminate current trends which will impact the current housing crisis of Saudi Arabia 3) suggest policy options and 4) propose a financial framework to provide affordable housing finance for middle-income citizens and housing developers in Saudi Arabia. The absence of an action plan, inclusive of a financial framework, and the subsequent impact upon the main stakeholder in the Saudi housing sector is the underlying concern of my interviews with research participants. The participants add that there are many fundamental reforms which should be addressed before creating a new housing financial framework in Saudi Arabia. These processes will insure stable and organize the housing finance sector.

Examination a variety of sources (e.g. literature reviews and interviews with federal level stakeholders, private sector executives, college professors, etc.), this sector presents the lack of transferability in the western paradigm's finance policies, innovations, and institutions that could be undertaken and implemented in Saudi context.

4-1- Lack of Transferability in The Western Paradigm's Finance Policies, Innovations, and Institutions that Could Be Potential to be Undertaken and Implemented in Saudi Arabia

After reviewing the variety of knowledge sources (e.g. literature reviews and interviews with national level stakeholders, private sector executives, college professors, etc.); there are several obstacles of transferability as it relates to adopting western housing finance paradigms: 1) Saudi Arabia needs to develop legal and institution framework; 2) some of the policies are incompatible with Saudi Arabia's government structure; 3) the need to adopt new cultural themes to the Saudi context (e.g. concept of affordability, borrowing practices, new approaches and models of affordable housing, etc.); and 4) Saudi

Arabia is in the early stages of developing a market economy which will impact the rate of success and adoption capabilities. The analysis and points detailed above are explained in this chapter.

"The majority of the existing housing stock was largely the product of the booming oil years of the 1970s. However, emerging socio-economic trends demand creative financing strategies. The current ambivalent stance on the part of the central state will only result in deteriorating housing conditions, infrastructure and social services. Shantytowns, squatter settlements and over-crowding will be an inevitable outcome. Without adopting liberal legislation aimed at alleviating institutional obstacles and red tape, private initiative cannot act miraculously on its own" (Mubarak, 1999, 18).

In Saudi Arabia there is no taxation system, whether for income or property like the western countries. However, there is new legislation from the government to impose taxes on unused land within the urban area. The government system standpoint of its constitution includes important items in providing affordability mechanisms and paths to increase the homeownership rate. Both man and woman are equal in applying for a land grant or affordable loan from the Real Estate Development Fund (REDF). The current Saudi finance system is similar to the western liberalism perspective so it is also similar to the western finance paradigm. According to the Saudi Arabian Monetary Agency (SAMA) the Saudi finance system is fixable for implement new western policies, innovations, and institutions that applicable in Saudi Arabia. Nevertheless, before implementing the new western finance paradigm Saudi Arabia needs to reform its measures and procedures of the current housing finance structure toward developing a new housing finance framework in Saudi Arabia.

The need to develop a housing finance framework as well as a legal and institutional framework became apparent. Legal reformation and institutional framework pertaining to the housing sector is critical in order to guide, shape and develop a national objective, regulations and business pattern in Saudi Arabia. However, it will be a near impossible task to build a successful housing sector equipped to provide affordable housing finance if the sectors do not develop comprehensive frameworks consistent with the government objective. Furthermore, the fragmentation of the Saudi housing sector stakeholders (e.g. the government agencies, financial institutions, and the private sector) presents an obstacle of consistency, predictability, and safety of the market, as well as reliability of quality of housing produced.

In order for the housing sector to be successful it is absolutely critical that the public institutions, especially government departments at national, regional and local levels, to implement frameworks, regulations and most importantly enforce compliance. While it may be possible to transfer some western paradigms that are applicable in the Saudi context, there are five main sectors listed in the next paragraph this reflects foundational transformations in order to implement United States and Canada housing finance paradigms in the Saudi context (GIZ, 2011). Also, it helps to enhance and develop the Saudi housing sector (GIZ, 2011):

1- Finance:

In a market-based business system, the finance sector has an important role by providing development companies, constructors and other stakeholders in the housing market with money. It has to build up funding models to create capital as well as gain access to the private financing and expand the availability and affordability of homes to a wider group of people. A legal framework with reliable regulations has to provide security within the financial affairs and thus eases the capital flow.

2- Urban Planning:

The task of urban planning is to enhance and expand development opportunities and ensure the quantitative and qualitative supply of residential land and affordable homes as well as the infrastructure provision. Therefore, it has to control the land-use and provide a set of regulations and standards in order to create a comprehensive legal framework for the land development process. Additional incentives support the provision of homes that are accessible, affordable and meet the needs of the future residents. A special focus lies on the support of private housing developments.

3- Land Market:

A functioning land market is a basis for the land development process and a sufficient supply of homes. Consequently, it has to be ensured that there is enough available and affordable land that can be transferred to development companies and other market participants. A broad set of information and data is necessary for transparent and comprehensible land prices. Additionally, there have to be regulations and incentives for the mobilization of land that prevent land hoarding and speculations, which contributes to an effective respond to the market demand.

4- Construction:

The construction sector is mainly concerned with the execution of the construction work. Important issues that have to be considered are quality standards regarding housing models, building materials and techniques as well as the price for housing. A special focus is set on sustainability aspects like resource saving and energy efficient building equipment. There also has to be a regulation about the needed qualification constructors have to fulfill. In order to reach the goal of producing a large number of houses, it has to be taken care of a sufficient amount of skilled labor. A transparent price system within the construction market is also necessary in order to be efficient.

5- Public Administration

The government can act on the housing market in two different ways. One is the direct intervention, for example by building affordable homes, providing the needed building land or the infrastructure and also by giving direct incentives to private developers. On the other hand, it has to encourage the private sector to provide a sufficient number of houses. Therefore, it has to set out rules and regulations for different parts of the housing sector which create positive conditions for the production of houses. Within the financing sector, for example, the government can enhance the capital flow by establishing or restructuring the mortgage market. However, the important to enhance the government agencies process and the local governance system as a result to develop the housing sector in Saudi Arabia.

The housing sector in Saudi Arabia, especially the housing finance sector, is certainly different from the western countries (the United States and Canada, the case studies in this research). First, Saudi Arabia differs culturally. Therefore, the values and expectation of the housing finance system differ. Nearly all governments intervene in their housing finance markets, primarily for social and political reasons (Hoek-Smit, 2011). Housing finance is a critical component of a nation's housing system. Housing is one of the largest investments a citizen will undertake and is often regarded as a key barometer of social well-being (Hoek-Smit, 2011). When societies urbanize, and real incomes increase, housing expectations, and standards also increase. However, standard housing is expensive relative to household incomes or investor resources, and the degree of access to long-term financing to pay for a house over time is especially important unless the state takes on that responsibility. The lack of an efficient system of housing finance, as well as existing housing, impedes housing markets in particular (Hoek-Smit, 2011).

Saudi citizens usually look to buy a property which represents a shelter for them and throughout their lives; they make incremental changes to their properties (Sidawi, 2014). Internal and external alterations and repairs and renovation are frequent procedures that many opt to carry out on their properties for various reasons. These changes cannot be carried out without adequate ongoing funding (Sidawi, 2014). However, in the United States, housing policy is often a contentious issue that involves various debates among political parties in a democratic system. In addition, the United States history consists of historical experiences which required housing finance in order to address social issues. Therefore in addressing the transferability of the United States policies to Saudi Arabia I have considered the political, social and historical contexts.

At present, the Saudi government support of the middle class to live in high-quality housing takes two forms, aside from the absence of income and property taxes (Struyk, 2005). First, the universal element is the provision of housing-associated infrastructure by the state and below-cost-recovery charges for utility services (Struyk, 2005). Recently there has been an adjustment to this policy in that the city provides infrastructure only to the boundary of new housing developments located outside of the city boundaries. Developers must finance service extensions within the estate. Second, the rationed element is the zero interest rate mortgage loans available only for newly constructed units; these loans are untargeted with respect to household income (Struyk, 2005). As expected, preference for REDF loan financing also tends to be higher among government sector employees than the remaining occupational groups (GIZ, 2011). This is because such interventions have been very beneficial to the former and easier to be accessed by them in Saudi Arabia.

However, Opoku & Abdul-Muhmin (2013) note that this offers opportunities for housing developers to come up with innovative financing options. Some of the developers in Saudi Arabia have tried to do this by developing special arrangements with Saudi banks for the latter to provide the financing for purchases by their customers (Opoku & Abdul-Muhmin, 2013). However, again, it appears that this has not been popular among large sections of the population because of the involvement of banks and interest payments (Opoku & Abdul-Muhmin, 2013). The aforementioned culminates in a demand for housing finance reform which is culturally cognizant and respectful of local values. Through this, countless of citizens will realize their dreams of owning a home of their own (Opoku & Abdul-Muhmin, 2013).

The social and political importance of housing and the reluctance of lenders to provide loans when risks are perceived to be too high has led governments in many countries to take over mortgage funding or the lending function altogether (Hoek-Smit, 2011). On the other hand, banks or business organizations are profitable, and they are more interested in increasing clients' satisfaction and limiting defections by improving a number of professionalism issues (Cohen et al., 2006 & Mylonakis, 2007). During the past, Saudi Arabia banks have provided a very small number of mortgages to Saudi citizens, and they are reluctant to provide mortgages to clients because it is considered the high risk to do so (Sidawi and Meeran, 2011). Now, Saudi Banks and the REDF provide some limited support to fulfill the ongoing socioeconomic needs of citizens. Indeed, these sectors need to be involved within the new developing housing finance policies in Saudi Arabia.

4-2- The Western Paradigm's Housing Finance Policies, Innovations, and Institutions that Seem Applicable in Saudi Arabia:

There are similar aspirations in western countries regarding the need to finance housing for middle-income groups. This implies that there are policies that can be transferred from the western housing finance paradigms to Saudi Arabia. The mortgage is typically a long-term lending arrangement in the United States; it may also involve material interest rate risk. As interest rates for similar instruments change during the term of the loan, one side of the transaction will be worse off and the other side better off. The interest rate on the loan will reflect the general market rate for risk-free lending (the opportunity cost of time) plus additional amounts that will reflect the lender's perception of the credit risk and the interest rate risk. Specific features/terms of the mortgage loan can be seen as the measures which affect the credit risk that is borne by the lender as well as affecting the distribution of the interest rate risk between the borrower and the lender. This method is used in the housing finance system of the United States and Canada is designed for the middle-income people. Such a method can be transferred to Saudi Arabia, which has the financial institutions and foundations that can play the same role of the western housing finance institutions. However, the next paragraphs are summaries of important western policies, innovations, and institutions that applicable in Saudi Arabia. For instance:

- Federal Housing Administration (FHA) and Canada Mortgage and Housing Corporation (CMHC)
- Federal Home Loan Bank (FHLB)
- The secondary mortgage market
- Government-sponsored enterprises (GSEs), such as Fannie Mae and Freddie Mac
- Public Private Partnership (PPPs) approach

The United States financial regulatory system is complex with many overlapping responsibilities. The Department of Housing and Urban Development (HUD) is a cabinet-level agency that includes both the Federal Housing Administration (FHA). HUD is the same level as the Ministry of Housing (MOH) in Saudi Arabia that regulates and organizes the housing sector. Federal Housing Administration (FHA) provided incentives for private market lenders to increase lending for home ownership by providing a guarantee to the lender on behalf of the homeowner. More specifically, the federal government promised to pay lenders if borrowers were not able to maintain payments on the loan. In the United States, Federal loan guarantees had several important features. First, lending institutions were required to amortize the loans fully over a longer payback period. At first, this period was 20 years. It was later extended to 25 and then again to 30 years (Kaplan et al., 2008). Monthly loan payments thus would be considerably reduced. Second, smaller down payments were required-20 percent versus the 30 to 50 percent previously required. Borrowers thus needed less cash to buy a house (Kaplan et al., 2008). Third, interest rates dropped dramatically because the federal government ultimately bore the financial risk (Kaplan et al., 2008). Together, the new programs significantly reduced the total and monthly costs of buying houses.

The most important institutions that could be undertaken and implemented in Saudi Arabia for housing innovations in the western paradigm are institutions such as FHA in the United States and CMHC in Canada. These institutions will support new methods which assist the middle income citizens to have affordable housing finance. The proposal for the Saudi government will establish a new government agency that works like FHA. The new agency will provide government mortgage insurance for the citizens. This includes the advantages from the new agency such as fixed long term, fixed amortization pattern, low down payment, and low-interest rate. These benefits will improve the affordable housing finance, increase the homeownership rate, and maintain the middle-income householders' level. The government mortgages insurance has lower down payment requirements than most conventional mortgages (Conventional mortgages are mortgages that are not insured by the mortgages insurance agency). Since, saving for a down payment is often the biggest barrier to homeownership for first-time homebuyers and lower or moderate-income borrowers, the smaller down payment requirement for insured loans may allow these types of households to obtain a mortgage earlier than they otherwise could. However, mortgage insurance plays an important role in Canada by helping consumers purchase homes with a minimum down payment of 5% at interest rates comparable to those paid by buyers with a 20% or higher down payment (CMHC, 2014). The Canadian mortgage is on its face far less consumer friendly than the American mortgage (Green, 2014). Canadian borrowers get one advantage over their American counterparts; because Canadian borrowers have less valuable options in their mortgages (that is, the option to freely default and the option to prepay) they usually pay lower rates of interest for a given maturity than their American counterparts (Green, 2014).

Another major financial institution in the United States is the Federal Home Loan Bank (FHLB) which provides a reserve system to provide short-term loan advances to thrift institutions. The capital stock of the regional banks is owned by member institutions (banks), each of which is required to purchase stock (Haffner & Heijden, 2012). Member-bank customers must meet collateral, capital, and credit requirements and help capitalize the FHLBs. To receive funds from an FHLB, a local bank must purchase stock in the FHLB proportional to the level of borrowing; the FHLBs are thus cooperatives (Haffner & Heijden, 2012). Nowadays about 80% of the United States lending institutions rely on the FHLBs to finance. For example, affordable housing and community investment the latter program are to further economic development in communities.

In the Saudi context, it is recommended that the Real Estate Development Fund (REDF) serve as a bank funding the Saudi financial institutions that support raising housing loans to middle-income citizens and housing developers. The Real Estates Development Fund (REDF) is a government agency that provides medium or long-term zero interest loan to individuals (MOEP, 2011). This government agency should transform to be like the Federal Home Loan Bank (FHLB) in the United States. This mean the REDF will provide affordable finance for the housing developers and the Saudi commercial banks will take the action from the REDF to provide affordable housing finance to the citizens. There are a number of Saudi ministries and agencies that are related to the residential loans like: Ministry of Finance (MOF), Ministry of Housing (MOH), and the Saudi Arabian Monetary Agency (SAMA). These government agencies should create a new law and regulations that include the necessary conditions to increase the housing loans by the commercial banks.

The secondary mortgage market in the United States has a significant impact on urban housing markets by making additional capital available to homebuyers over the last two decades (Kaplan et al., 2008). It is easier to get a mortgage loan today, and the costs of borrowing are lower. By selling loans into the secondary market, lending institutions now have the ability to pass on the financial risk inherent in making long-term loans. Individual investors are protected from risk by buying bundled securities that are not immediately threatened by the failure of individual loans. The GSEs minimize their risk by issuing guidelines for loans that they are willing to acquire and package for resale on the secondary market (Kaplan et al., 2008). If lending institutions comply with these guidelines, they are guaranteed the ability to sell the loans. The secondary market is the market for buying and selling mortgages. If a mortgage originator sells the mortgage in the secondary market, the purchaser of the mortgage could choose to hold the mortgage itself or to securitize it. When a mortgage is securitized (Fannie Mae and Freddie Mac securitize mortgages), it is pooled into a security with other mortgages and the payment streams associated with the mortgages are sold to investors. Mortgage-Backed Securities (MBS) made up exclusively of mortgages insured or guaranteed by the federal government. Securitization is one of the ways in which financial institutions acquire capital by converting assets into tradable securities. After these securities are sold to an investor, the assets disappear from the balance sheet of the financial institution. Funds are received which bring liquidity (Haffner & Heijden, 2012). Securitize assets are assets that are expected to generate a future flow of income, which can be converted into cash via securitization (Haffner & Heijden, 2012).

In Saudi Arabia, it is necessary to have a secondary mortgage market that can serve the main role in providing funding for the loans made in the primary market. For example, when a mortgage is sold in the secondary market, the lender can use the proceeds to fund additional new mortgages in the primary market. Secondary mortgage market can increase the Saudi middle-income for householders who need to 1) finance and purchase houses and 2) increase the housing development and investment by the housing developers. There is a potential for the Saudi housing market to successfully adopt the concept of the government-sponsored enterprises (GSE) like Fannie Mae and Freddie Mac in the United States. Establishing a new Saudi company that has the same rules of the GSE under the Saudi Arabian Monetary Agency (SAMA) will create new methods in investing and financial liquidly in the housing finance sector in Saudi Arabia. Also, this will develop the secondary mortgage market by securitizing mortgages in the form of mortgage-backed securities (MBS), allowing lenders to reinvest their assets into more lending and in effect increasing the number of lenders in the mortgage market by reducing the reliance on locally-based savings and loan associations (Fabozzi, 1992). Securitization is a method to implement in the Saudi housing finance system. Securitization helps to increase numbers of financial institutions that employ securitization to transfer the credit risk of the assets. They originate from their balance sheets to those of other financial institutions, such as banks, insurance companies, and hedge funds.

An ideal Public Private Partnership (PPPs) provides benefits to both partners, with the pairing creating an entity that is stronger than its individual parts. Affordable housing developers routinely partner with a variety of different organizations (Bach et al., 2007). They may seek or be asked to partner with government agencies, community development corporations, other nonprofit organizations, or for-profit, market-rate developers. The partnership format allows the originating partner to buy talent and experience that is relevant to the project at hand. A successful partnership relies on the strengths of each partner. For-profit developers contribute real estate savvy, contacts with end users, and an understanding of financial resources; nonprofit developers may be able to access low-income housing tax credits; public sector entities can help resolve land assembly problems, ensure that the site is development- ready, ease the entitlement process, and invest in land or infrastructure costs (Bach et al., 2007). A public sector partner's smoothing of the entitlement process keeps the private sector developer confidence, on track, and on schedule and helps make it possible for the developer to assume the risks and to produce an outcome that reflects both the community vision and the market reality (Bach et al., 2007). However, successful affordable housing partnerships are able to (Bach et al., 2007):

- Arrive at the consensus on the community's vision with the active participation of public and private stakeholders.
- Participate in the development consistent with the community’s vision.
- Coordinate and participate in real estate development and infrastructure financing.

- Coordinate actions of public agencies that are responsible for government services.

Regarding the Saudi setting, partnerships can provide opportunities to set mutual expectations and to share risks, costs, and rewards. Public Private Partnership (PPPs) helps ensure a successful outcome through partners that work together and obtain financial leverage through tools such as tax-increment financing, state and federal financing, and foundation grants. Partnerships grow out of a shared vision and provide support at critical moments. A shared vision, shared risks, and a nurtured partnership will build trust and credibility. PPPs is a potential solution that can lead to a faster and more sustainable response (Bohsali et al., 2014). PPPs have already been used to build the necessary infrastructure and provide more efficient public services. Structured correctly, such partnerships can combine the investment funds and expertise needed to execute and manage housing projects, especially the affordable housing projects (Bohsali et al., 2014). They allow government assets to be allocated across more projects (Bohsali et al., 2014). Also, they can build public-sector capabilities by transferring know-how and expertise to relevant government agencies, thus helping streamline the delivery process (Bohsali et al., 2014). As with other areas where the public and private sectors intersect, this form of cooperation will require mechanisms to ensure transparency and efficiency.

By adopting policies from the United States and Canada the Saudi housing finance sector can have the advantage of expanding homeownership to populations who formerly could not afford it. The western housing finance paradigms have policies, innovations, and institutions that could be applicable to the Saudi context, which sets after reviewing the variety of knowledge sources (e.g. literature reviews and interviews with federal level stakeholders, private sector executives, college professors, etc.). The interviewers' findings explain more details of the new western paradigm applicable in the Saudi context and explore emerging concepts that add many enhancements and development to the housing finance sector. However, the current western policies rely on Public-Private Partnerships (PPPs) to stimulate the desired results. The mortgage market is very large and becomes more impactful the wider the United States economy. The federal government supports homeownership both directly through the Federal

Housing Administration (FHA) and indirectly through Fannie Mae and Freddie Mac. This support by the federal government means that the government is potentially liable for financial losses.

4-3- The Research Interviews Finding:

The research codes are Cooperate, Develop, Create, and Design from the interviews data. All the participants are compatible in all points from the interview coding. They are looking for new approaches and implications in the Saudi housing finance sector. Most of the participants' perspectives in the interview are consistent with the literature review in the research. However, there were a few participants whose opinions slightly differed from the majority; the dissenting opinions are expounded upon in this chapter. Based on extensive interviews with senior governmental agencies, financial institutions, and the private sector officials, as well as archival studies, the findings reveal an interaction among various housing officials and demonstrate that the Saudi housing finance framework is driven and shaped by four major policy imperatives. They include:

- Cooperate with the main stakeholders in the housing sector: governmental agencies, financial institutions, and the private sector.
- Develop new housing law, regulations, and legislations also require the better integration and reformation of various finance, development, urban planning, and local governance practices.
- Create new housing finance structure by implementing western policies and institutions that are applicable in the Saudi context.
- Design appropriate programs for the segmented middle-income population (e.g. low-middle, high-middle, etc.) in order to achieve affordable housing finance proposals.

4-3-1- Cooperate with the Main Stakeholders in the Housing Sector: Governmental Agencies, Financial Institutions, and the Private Sector:

All interviewed participants agree that it is necessary to develop a comprehensive framework which works in the interest of all stakeholder sectors. Many of the respondents attributed the failure of the affording housing system to the inadequate policy and procedures of The Ministry of Housing. The Ministry of Housing commonly operates independently and does not foster cooperation among the other stakeholders. In 2011, the ministry established and implemented a unilateral plan to construct and finance housing units. The ministry did not give the opportunity for housing developers, financial institutions, and private sector which led to complexity and dispersion in the housing sector. However, the recent reform in the Saudi government structure led the Council for Economic and Development Affairs to develop and change the Ministry of Housing mechanisms and operation.

The participants in the interviews praised Saudi government for its recent policy efforts huge budget and lands. The budget was SR 500 million ($134 million), and the lands were around 70 million meters (44,495 miles). The Ministry of Housing has all the incentives and potential to resolve the housing problems but has failed to achieve efficiency. The main reason for the failure is the fragment efforts and the absent involve the main stakeholders in the housing sector. However, the new Minister of Housing who has been appointed after the government reform has the aim to create sustainable housing communities and enable the citizens to homeownership. Additionally, the new Minister has sought to build relationships and cooperatives with housing stakeholders in the governmental agencies, financial institutions, and private sector.

A central issue in the housing sector, inclusive of housing finance, stems from the fact that the public sector has not enabled the private sector and develops policies that do not encourage efficient contribute in the housing finance sector. A key problem in housing delivery is the overlapping of tasks and the lack of harmonization between the different stakeholders, which is referred to as fragmentation. Fragmentation in the housing sector is understood as the disintegration of institutional efforts governing relationships among the various stakeholders. As such, each stakeholder is planning and implementing different goals, objectives, and agendas in isolation. Thus, most importantly, this is seriously causing decision-making fragmentation.

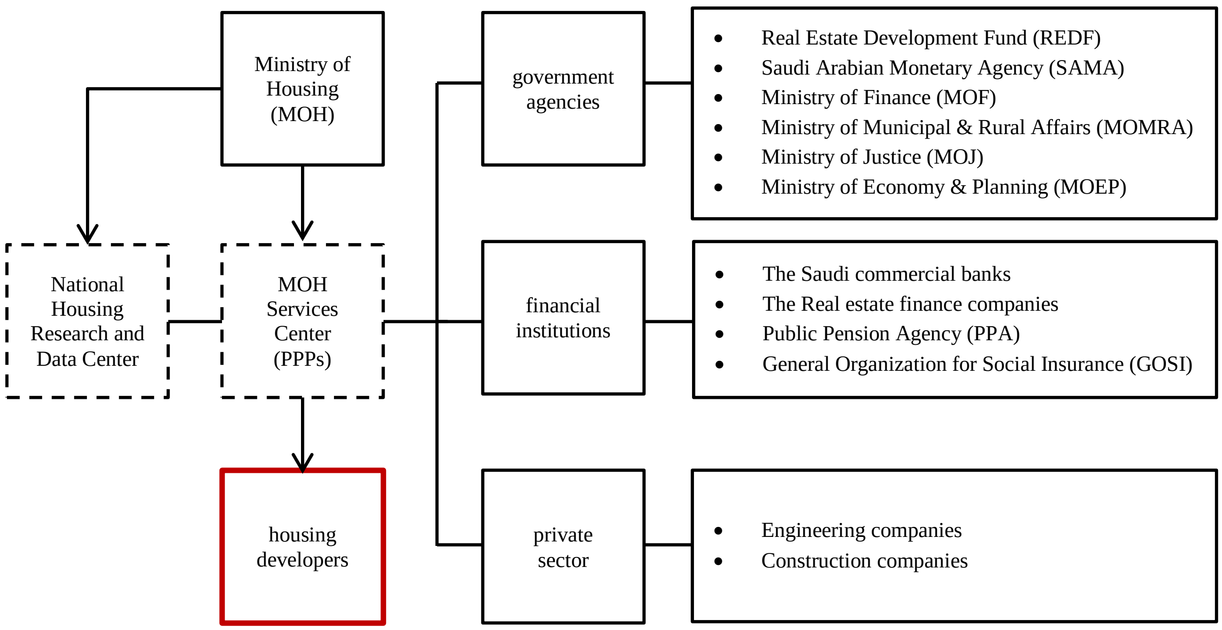
The analysis of the intersection of the housing sector reveals fragmentation of efforts at different levels: within the government sectors, between the three categories of organizations acting on the housing sector itself (i.e. between government agencies, financial institutions, and private sector) between the housing sector and the broader economy. The current institutional framework governing housing has resulted in numerous constraints to housing delivery in Saudi Arabia. Fragmentation of the housing sector has resulted in a large amount of confusion within and between housing institutions which resulted in significant inefficiencies and waste. Next paragraph starts discussion pertaining to the national framework.

During our interview the Minster of Housing mentioned that “the Ministry is planning to launch, not yet established, a new services center which will cultivate relationships among the various housing system." The services center will implant the Public Private Partnership (PPP) system between the Ministry of Housing, housing developers, and other main stakeholders. The center will provide the important elements for the housing developers how are investing to deliver affordable housing units and facilitate access of permits from various government agencies services such as utilities and building permit. The PPPs system regarding to the minister of housing, housing professors, and the housing developer recommended that the services center will provide the residential lands to build affordable housing units and provide the main financial and governmental incentives. The Ministry of Housing is still preparing a new strategy especially the new Service Center to implement PPP approach without any detail mentioned from his side during the interview. Nevertheless, the housing developers in the interview are hoping to see a road map which includes the partnership with the public sector and encourage the investment in the housing sector. Indeed, providing affordable finance for the national housing developers to improve and create housing industry which would provide affordable housing units of good quality and standard. As was previously stated, all the points agreed with the most participants. The PPPs approach helps create the critical mass required to attract large investors, and to bridge the gap between actual and required rates of return to private investors (Hawtrey, 2009). The optimal role for government is not to supplant the private sector but be a catalyst. The government should be involved only for the duration required to nurture affordable housing capital markets until they attain self-sustainability and with appropriate calibration of its actions to the efficient minimum required to succeed and no more. There are essentially two ways that government can act: tax incentives and risk mitigation.

The housing professors of Saudi universities consistently mentioned the need to create a comprehensive framework. Additionally, professors recommended the need for a National Housing Research and Data Center. According to professors the proposed National Housing Research and Data Center should take precedent over the service center. This recommendation is rooted in the professors' opinion that the housing system and subsequent policies should be rooted in facts gathered from research. Research and data foundations are scarce in Saudi Arabia and therefore, professors predict the housing sector will continue to fail as a result of uninformed decision making. The proposed roles and functions of the research center are as follows: 1) assist to design a new methodology and 2) to develop a primacy research agenda that can review annually and 3) assisted by a board of advisors drawn from universities, financial institutions, the private sector, and other government agencies such as the Central Department of Statistics and Information (CDSI). After identifying priority research interests, it prepares requests for proposals with an assistance of consultants or qualified officials and then invites proposals from universities and the private sector both domestic and abroad. It administers implementation by vetting proposals with the cooperation of well-known experts drawn from national and international sources. Also, it disseminates results, perhaps through a quarterly publication of articles based on research funded by the Ministry of Housing (MOH) as well as research prepared independently.

Furthermore, the two new propose 1) the Service Center and 2) the National Housing Research and Data Center under the Ministry of Housing (MOH) will be the initial phase to develop the housing sector in Saudi Arabia especially the housing finance sector. The two centers are both will support to develop cohesive frameworks in different aspects such as the finance, development, investment, and other main aspects in the housing sector. These proposed reformations/efforts will diversify the economy and contribute to the sustainability of the economy. (Figure 7) below describe the new propose two centers under the Ministry of Housing (MOH) and the likes with the other main stakeholders:

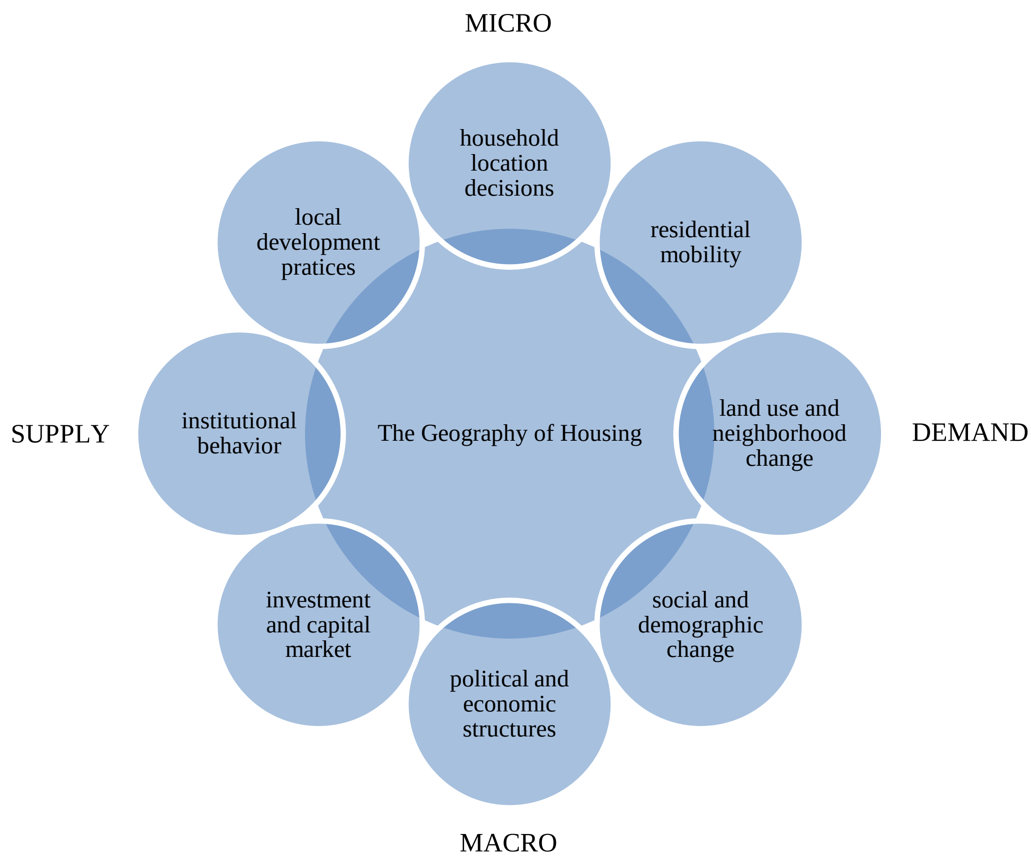
Figure 7: the new reform in the Saudi Ministry of Housing (MOH)



Source: the researcher

In addition, the Saudi housing professors identified a research paradigm. The paradigm of Professor Larry Bourne in his widely acclaimed book, The Geography of Housing, delineated research principles and criteria adopted by Western societies (Figure 8). Figure 8 attempt to convey an image of the many established areas of research which directly contribute to an understanding of housing in contemporary urban environments. In this example eight distinctive areas of research arc shown, although more could easily be added. These areas vary in scale (macro, micro) and in subject matter (demand, supply, policy) as well as in their philosophy and methodology (Bourne, 1990). On the demand side, the most relevant areas here vary from flip literature on residential location models and decision-making at the local level to the societal-level context of social values, attitudes, and political structure (Bourne, 1990). On the supply side, the relevant areas include the study of national housing and capital markets (the housing sector), government, institutions, and the corporate actors and property regulations which shape patterns of land development and housing supply at the local level (Bourne, 1990).

Figure 8: The literature context for studies of the geography of housing.



Source: Bourne, 1990

At the local level, the housing professor of Alfaisal University highlights the importance to improve the local governance framework by reforms; the current approach and gives more powers and responsibilities. The reform is in the governance institutional framework especially the current “Province law” which containing measures of the local governance. This law established in 1992 that organize the authorities, duties, and responsibilities of the local governance as well as provisions related to the performance of its work. Predominantly, the professor stressed the importance to reform the current governance and institutional frameworks before designing or planning any housing framework; specifically housing finance. The local governance was absent of rules in the urban planning and development sectors especially the housing sector because all the rules and plans led in the capital with some authorities in the municipalities. The local governance should have share and design all the local rule and plans in the local area which are consistent with the main ministries in the capital. Factually, local governance should have local plans that are parallel to the national plan from the capital which reflective of local needs. The professor named an example in Saudi context: the central and coastal provinces are more high demand for housing then the other provinces in the Kingdom; it is necessary for each province should have their own plans and visions in the housing theme which coordinated with the province local governances and the main ministries in the capital. In sum, the professor add that the develop in the Saudi local governance and institutional framework including the accompanying reform measures make the Public Private Partnership (PPP) approach fixable to be implemented and organize.

Examples of federally and locally coordinated systems of the west are commonly more complex in nations with federal systems of government, such as the United States and Canada (Beer, 2012). Within federal systems, governance is marked by both horizontal links between agents and institutions and vertically defined interactions that may be hierarchical, competitive, or co-operative (Beer, 2012). Under these circumstances, governance can lead to complex forms of interaction with both positive and negative relationships characterizing governance arrangements. Importantly, within both unitary and federal systems of government policy, approaches and initiatives that are ostensibly decentralized often reveal very little true sharing of power and resources. That is, governments continue to exert a dominant controlling influence, even if they are no longer directly involved in the provision of services or supports (Beer, 2012). Their role as the financier and regulator of service provision maintains their central position in determining the distribution of welfare (Beer, 2012).

In the United States, state governments begin to better understand the impact of high housing prices on their own economic development, a number of states have begun to develop policies to influence local land regulations and to provide incentives for housing construction (Bluestone, 2008). A number of states have created housing trust funds, which provide developers with low-cost loans if they agree to set aside a minimum number of units in their projects that can be rented or sold at below-market prices (Bluestone, 2008). Some cities, including Boston and Cambridge, Massachusetts, have passed inclusionary zoning laws, which encourage builders to include a number of affordable housing units in their developments in return for the municipality permitting them to construct more units per acre and therefore lower their land costs (Bluestone, 2008). Alternatively, the developer of such a dense housing project can pay into a municipal fund that is then used to underwrite the housing trust fund, which can encourage the building of affordable units in other locations within the community (Bluestone, 2008).

Policy arenas such as urban regeneration and regional development saw the widespread introduction of governance structures some decades before their implementation in the housing sphere (Bortel, 2012). This reflects the intuitively tighter fit between economic development and land use policy and the private sector, and the fact that the development of housing governance was of necessity dependent upon system-wide transformation rather than piecemeal innovation (Bortel, 2012). The fragmented institutional field makes decision-making more complexes (Bortel, 2012). Traditional hierarchical steering by the state and market competition is combined with or replaced by more interactive forms of governance (Bortel, 2012). Although network governance is a promising coordination mechanism with a wide potential for use in housing and urban regeneration, it is also not unproblematic or uncontested because it often lacks transparency, accountability, and a clear link with elected bodies of representative democracy (Bortel, 2012).

Generally, Dubel (2011) note that there are two important messages are in framing public support strategies for housing finance. First, policymakers should avoid replicating top-down approaches from the developed world, such as public housing banks. Rather they should develop their own public-private partnership approaches as done in Mexico or Thailand, and help bottom-up lenders rooted in communities or regions to access relevant broader market data, risk management and risk transfer technology through appropriate apex or service institutions (Dubel, 2011). Second, despite low political visibility, officials should not neglect badly needed investment in the mortgage market's infrastructure, they should promote 1) markets by improving price and market intelligence; 2) financial education for consumers; and 3) access to justice systems, modern communication, and land registers and information to consumers. Such investments promise greater social returns for housing than direct lending and regulatory interventions (Dubel, 2011). Anjomani (1994) in the same vain argues that limit to available resources makes it difficult for developing countries striving for growth to undertake sustainable housing development projects and maintain a healthy housing stock. In criticizing the approach of developing countries, therefore he argues against governments' direct involvement in housing and advocates for implementing policies that would instigate its development (Anjomani, 1994). Touting the United States as a success story is the wisdom of the Federal Housing Administration (FHA) which stimulated building without recourse to public finds by creating a partnership between the government and the private sector (Anjomani, 1994).

The participants in the interview by answering the question that regard with cooperate with the main stakeholders in the housing sector: government agencies, financial institutions, and the private sector. The housing finance sector should have more government agencies involve which assume the key role in provide affordable finance of housing, construction, investment, provision of infrastructure to residential districts, as well as the various legal and regulatory aspects. The following are a list of proposed agencies which should collaborate to build a national framework:

- Ministry of Housing (MOH): This is the most recent agency that has been created as the highest administration level of planning, implementation, guideline and control of this vital sector.
- Real Estate Development Fund (REDF), which distributes financial support to applicants for housing loans and grants
- Saudi Arabian Monetary Agency (SAMA), which supervise banks and financial institutions, and as such provides guidance and incentives to guideline housing sector credit, among other producing sectors.

- Ministry of Finance (MOF), which is in charge of state budget allocations for various uses and items, including those of all the above ministries and agencies.
- Ministry of Municipal and Rural Affairs (MOMRA): The ministry's most significant task is to undertake spatial distribution of settlements and implementation of urban planning within selected regions. In addition, the ministry undertakes distribution of land grants to applicants, besides urban planning and provision of infrastructure and other services to residential districts.
- Ministry of Justice (MOJ), which provides the legal framework for economic relations of buyers and sellers of real estate and other assets. The ministry implements official cadaster of real estate property, in addition to dispute settlement, arbitration and other legal and legislative issues.
- Ministry of Economy and Planning (MOEP), which lays down plans, policies and development strategies with related socio-economic, environmental and population dimensions.

4-3-2- Develop New Housing Law, Regulations, and Legislations also Require the Better Integration and Reformation of Various Finance, Development, Urban Planning, and Local Governance Practices:

The participants unanimously agreed before the study or develop the housing finance sector in Saudi Arabia we should have a written housing law and policy (including financing, producing, designing, and siting). The law and policies should be conscious and deliberate about the relationships between housing and other land uses in the relevant geographical unit. Law and policy reformations included comprehensive planning law, subdivision law, and environmental law. Currently, there is no comprehensive housing law and polices that support any developing framework in diversity aspects. Professor at Alfaisal University mentioned that the current local governance and urban planning systems are weak in government staff, legislatively and political aspects. The professor details the deficient aspects, and the following sections elaborate upon his critique.

The aspect of urban planning and development are important to enhance and develop suitable environment the housing sector. The current Saudi urban planning and development has an unhealthy environment for residents in the neighborhoods and discourages investment in the private sector. This is because the current rules and regulations that led by the local municipalities without clearly, thoughtful, and carefully standards that kept pace with developments in the cities. Wherefore, the need to have new national urban planning law, is very necessary which create good foundation to have develop and stable the housing finance sector.

The participants were concerned that Saudi Arabia still does not have an effect national urban planning law as such laws exist in almost every country. Currently, the unclear legal situation in institutional and technical aspects of urban planning leads to uncertainty and weakens the housing sector and its development. The participants especially the housing professors propose that the new law should replace the existing outdated, fragmentary and incomplete legal and technical framework of urban planning. The national urban planning should include: administrative procedures, technical standards, development process, and the land tax is imposed recently.

The urban planning in Saudi Arabia underwent tremendous changes from traditional settlement patterns to modern gridiron structures with rectangular large building plots tailored to modern houses, semi-detached houses, and apartment buildings. Currently, urban master plans still encourage and mandate big building plots, and streets with over-dimensioned width. Space-saving, cost-saving, and energy efficiency still play a too minor role in housing delivery. Frequently, building codes and zoning regulations do not sufficiently support a more efficient land utilization, for instance by overstated height restrictions.

The task of urban planning is to enhance and expand development opportunities and ensure the quantitative and qualitative supply of residential land and affordable homes as well as the infrastructure provision. Therefore, it has to control the use and development of land and provide a set of regulations and standards in order to create a comprehensive legal framework for the land development process. These concern the subdivision of land, urban design matters well as the service delivery. Additional incentives support the provision of homes that are accessible, affordable and meet the needs of the future residents in the context of urban planning and affordable housing.

The research participants recommend the following national urban planning law reforms: urban design and building code regulations refer to changes in urban planning policy avoiding unlimited horizontal expansion; promotion of vertical expansion, introducing urban design competitions; dismantling of building and zoning obstacles to affordable housing; new National technical standards for cost efficient land development; and to introduce e-government platforms to ease building licensing procedures. In addition, the scope categories to regulate National Urban Planning Law are as follows: definition and principles of urban land-use planning; master plan and land subdivision plans; safeguarding land-use planning; control of land use for building; land reallocation; expropriation and compensation, provision of local public infrastructure; urban redevelopment measures; land and property valuation; plot sizes; scope of floor area ratios.

The United States and Canada have been successful in implemented national urban planning and development policies that support and complement the main framework of the housing finance sector.

Urban planning and development policies are commonly implemented at the local level, but there are also national policies that promote the economic development of cities (Yezer, Liu, & Larson, 2012). These policies are intended to improve the structural appearance of cities by providing access to public spaces or more attractive housing opportunities (Yezer, Liu, & Larson, 2012). Local governments influence the pattern of land use through a variety of regulations (Yezer, Liu, & Larson, 2012). Public purchases of land for creating open spaces and for other public purposes are common (Yezer, Liu, & Larson, 2012). Zoning commonly limits the types of land use among and within categories like residential, commercial, and industrial uses (Yezer, Liu, & Larson, 2012). Floor-area-ratio regulation limits the density of development and minimum lot zoning places a lower limit on the size of lots used for detached housing (Yezer, Liu, & Larson, 2012).

On the other hand, the land market in Saudi Arabia is widely dominated by the prevailing land grant system. The land grant system is traditionally practiced and contributed in the sixties and seventies to the accelerated development of the modern Saudi Arabia. However, the system demonstrates an adverse effect on the land market, mainly due to suppressing the market-oriented trade with land and due to a relatively high degree of unused housing land at inner-urban locations. Much of this unused land is subject to speculation and land hoarding, resulting in high land prices, which are not affordable by the majority. The major concern is the available, affordable, ready-to-build land at urban related and functional locations. Despite an enormous number of land subdivisions, many existing and planned residential areas at a central location are not or only fragmented developed and lack basic infrastructure. Furthermore, there are large vacant land plots within the existing urban fabric, both serviced and not serviced. Land hoarding and land speculation constitute restrictions for affordable housing production, especially since land hoarding and speculation are no subjects of taxation, betterment fees or other obligations.

The mismanaged land development this through the governmental land developments continues to be the dominant way of residential land provision. Since public utilities are provided free of charge within governmental land developments, private land development suffers from a competitive disadvantage and market distortion. Furthermore, developers suffer from a lack of available and affordable supply of large raw land plots waiting for development in marketable locations. In addition, there is no dependable governmental or non-governmental data on land prices and land price development available, neither on national nor local levels. For this reason, the land market is highly non-transparent and subject of widely varying opinions. What makes it worse; there is no standardized or certified land or property valuation. Regardless of the lack of dependable data, land supply is a major difficulty regarding affordability and availability for both, developers and private homebuilders. In many regions, land costs count for more than the half of the total project costs. This is inappropriate according to international standards.

The Saudi government imposed annual taxes on developing and undeveloped plots of land in urban areas. This new progressive policy supports the urban development and provide public fund for the residential projects. The big land owners will be taxed 2.5 % of the value of undeveloped urban land in a drive to stop land speculation and monopolies. The land tax is an ideal source of public finance that is charged when regulatory or infrastructural interventions increase land prices. Its function is to discontinue the current land monopoly and speculative practices. The government will use the tax to develop plots with full infrastructures in the urban areas. The housing developers in the interview verify the tax will create successful opportunities to have Public Private Partnership (PPP) in addition to the big previous support from the government in the housing sector. However, according to the Minster of housing that the ministry is studying to offer incentives for the housing developers by provides the housing projects with the infrastructures. Generally, the infrastructure projects are prepared via the cooperation of many sectors like municipalities, electricity and water companies. Nonetheless, many of these projects culminate into a low-quality standard unit which is the result of fragmentation in the public projects. Overall, there is a need to establish new national housing law, regulations, and legislations to enhance the current situation in the housing development.

However, according to the participants they highly recommend to have housing developer industry in Saudi Arabia to gain sustainable high standard affordable housing development. Participants believe government should not play a primary role in constructing but regulation and framework. The housing developers should lead the housing market which establishes a housing industry like the western countries. Unfortunately, the current housing is following impractical methods in providing houses in the market. The housing delivery is largely from individual homebuilding's which are in two steps. First, the financial step is to get the zero interest loan SR 500,000 ($133,292.46) after long years on the waiting list. Second, land and construction side is to obtain a vacant, ready-to-build land plot, obtain a building permit, and to construct a home by hiring contractors or construction workers. However, the housing developers with an estimated share of 10% of the annual unit output play still a minor role compared to other countries (GIZ, 2011). The housing market has limited numbers of qualify housing developers The other numbers of small housing developer who need support to growth and enable them working on large projects in the housing sector. The current situation in providing houses should change from the individual homebuilding to professional housing development theme that led by the housing developers.

Most participants recommend that the housing industry should be cohesive in order to support the development, finance, and investment aspects in the housing sector. This process will: 1) support investing in the housing sector which contributes to increase the affordable housing units, 2) support the housing developers to raise the number of qualify housing developers in the market, 3) support the housing developers can improve the current housing market by providing suitable and cohesive housing projects with high quality and standard, 4) support the Saudi economy by having the housing sector as new sector can play impotent role in the future like the western countries.

The Saudi government at national and local level can use both regulatory powers and incentives to support the housing developers. It helps to influence the location, design, and layout for new affordable housing with suitable and healthy communities that build through efficient urban standards. Instead, the current situation that remains with random individual homebuilding and inappropriate communities.

For the tax system which is a new role in the Saudi Arabia; there are scholar's studies in the United States that use the tax code to promote owner-occupied housing. The most prominent provisions of the current tax code that affect housing are the deductibility from taxable income of mortgage interest payments and property taxes, the exclusion of the imputed rental value of owner-occupied housing from taxable income, and the special treatment of capital gains on the primary residence (Chambers, 2012). These tax provisions introduce a wedge into the decision to invest in housing about real capital (Chambers, 2012).

In any planning and development system, there are essentially two sets of reasons for imposing special taxes on the development process (Oxley, 2012). One relates to externalities and the other to redistribution (Oxley, 2012). The externalities argument is that the development imposes external costs on a local community, and tax can help to pay for these costs, or possibly encourage developers to mitigate the size or type of development in order to ameliorate the impact (Oxley, 2012). When the tax is designed to pay for infrastructure and other public facilities that are required to service a new development, it may take the form of an impact fee as used in the United States and several other countries (Oxley, 2012). Such fees, paid in advance of the completion of the development, are used to finance improvements off site but to the benefit of the development (Oxley, 2012). In practice, such fees may be passed on to the land owner. Impacts fees may, therefore, be capitalized into land values, and thus represent an extraction of the incremental value of land attributable to the higher value use made possible by new publicly provided facilities (Oxley, 2012).

The redistribution argument for taxation is that there are gains that accrue to developers or landowners that are unearned or unnecessary and can, on grounds of equity, be appropriated. The gains can thus be taxed for the benefit of the community (Oxley, 2012). The case for taxation in such cases can be additionally supported on efficiency grounds if the gain that is subject to taxation is economic rent and thus a surplus which, when removed, will not affect output (Oxley, 2012). Landowners who sell their land for residential use are typically the recipients of large windfall development gains, because the granting of planning permission tends to increase land values, and taxation can have a powerful role in capturing these economic rents for the wider community (Oxley, 2012). Such taxation will not impact on housing supply or prices because it is passed on to land owners according to the standard neoclassical theory of economic rents. The burden of the tax is then expected to fall largely on landowners (Oxley, 2012).

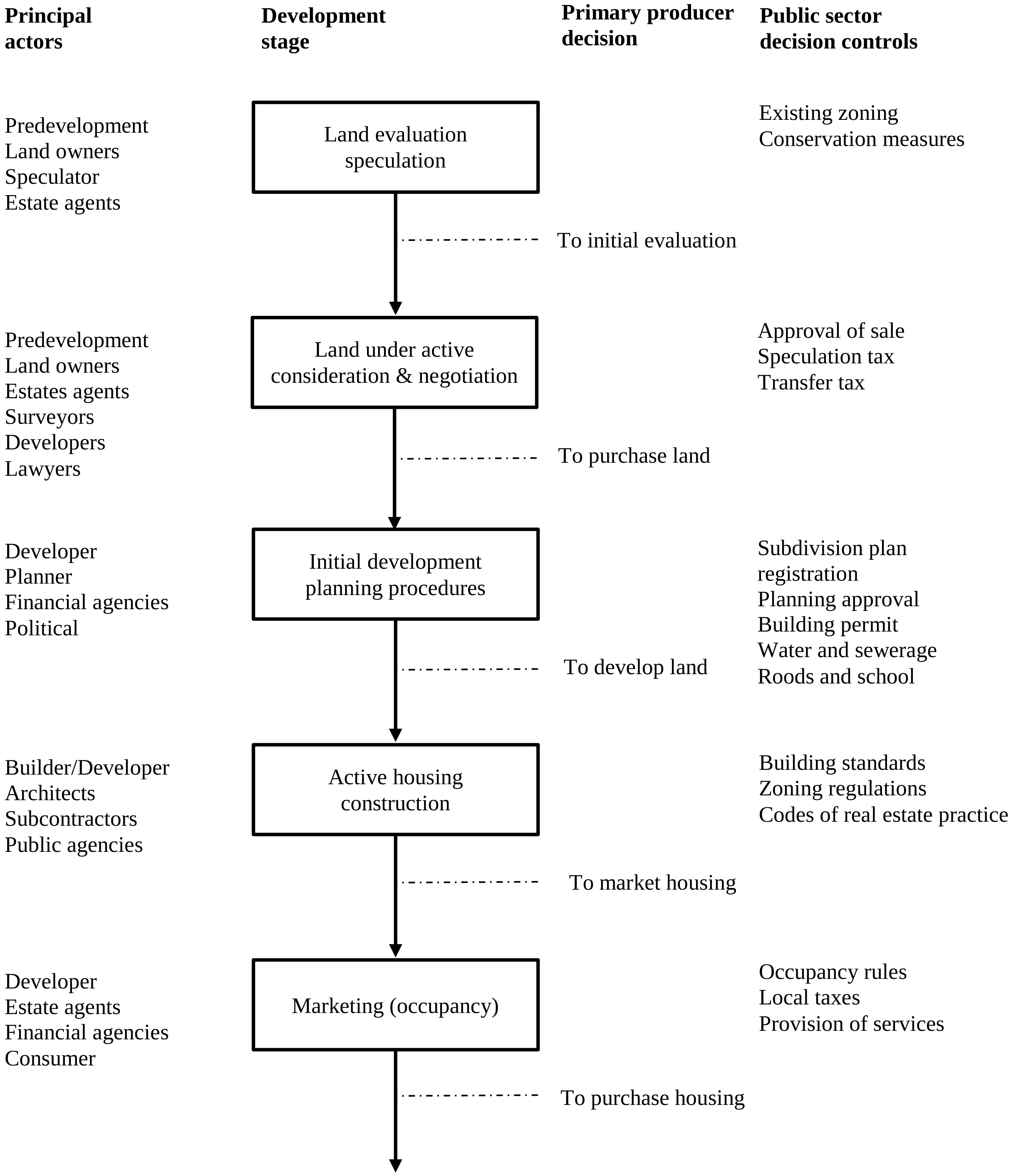
As government regulations become more complex, housing developers and government officials must interact more frequently. These contacts might take place at the approval stage for a project when the developer must negotiate a zoning change or variance, satisfy an environmental review, or obtain a building permit (Schill, 2005). Long, costly delays frequently occur and may be attributable to insufficient staffing of governmental agencies, long backlogs in processing, and antiquated procedures. The problems middle-income when, as often happens, the developer must deal with multiple agencies, and even multiple governments, to obtain permits and approvals (Schill, 2005).

On the other hand, the housing professors in the Saudi universities have pointed to Professor Larry Bourne book named The Geography of Housing that have a chart of paradigm for housing development stages that should be implemented in the sectors work in the Saudi housing project field (Figure 9). The chart provides one generalized example of the sequence of land development for residential purposes. Although the actual outline will vary depending on the area and time period under study, perhaps five major stages can be recognized in most areas:

- a parcel of land takes on an urban interest, based on an evaluation of emerging pressures and prospects for development;
- the parcel undergoes active development consideration and feasibility studies, including the initiation of negotiations for the sale or lease of the land;
- initiation of planning for development and implementation of financing and government approvals;
- active low-interest site preparation and construction.

Local government agencies intersect with the residential development process at several points in time. (Figure 9) lists examples of these specific points and the relevant policy instruments available to public agencies to influence decisions taken in the private sector:

Figure 9: the housing development stages



Source: Bourne, 1990

4-3-3- Create New Housing Finance Structure by Implementing Western Policies and Institutions that Applicable in the Saudi Context:

The participants mentioned the urgent need to create new housing finance structure by constructing new housing financial methods and products. The procedures should integrate western policies institutions and innovations which are applicable in the Saudi context. These processes help to make the housing finance more affordable for middle-income citizens and housing developers. With the large increase in oil and foreign reserves, Saudi Arabia does not suffer from a finance problem; conversely, this problem is linked with affordable housing finance mechanisms.

The sources of government funds for the housing sector come exclusively from allocated government budgets, either to cover operation expenses and nonperforming loans or to increase the paid capital. One of the weaknesses of the public contribution to housing finance is the absence of support government policy as well as the lack of a clear criteria system for subsidized housing means. This issue is a concerned the Saudi government. Currently, housing finance in Saudi Arabia for the middle income citizens is provided predominantly through individual means, government support (such as the Real Estate Development Fund), financial institutions (such as commercial banks which are limited because the high interest). Furthermore, the housing finance is very limited options for the housing developers.

The participants in the interview, especially the housing professors, point out that one of the essential challenges that the Saudi governments face is to devise mechanisms and structures by which an adequate and steady flow of long-term financial resources from both the public and private sectors. It could be mobilized and channeled into the housing development and particularly for housing the citizens and providing infrastructure. The other challenges are to develop the effectiveness, efficiency, and accessibility of the current housing finance structures, 1) to create and devise innovative housing finance mechanisms and instruments, 2) to promote equal and affordable access to housing finance for all people. The Saudi government should intervene and incentivize the housing finance systems by linking the formal housing finances and by developing community-based finance institutions and instruments.

The Chief Economist in the Saudi Arabian Monetary Agency (SAMA) pointed out in the interview that SAMA possesses a safe and effective financial system. SAMA is one of the main components in the housing finance sector and could create or implement new financial western policies, institutions, and innovations that help to provide affordable housing finance. Also, he added SAMA plays a leading role in the financial deepening of the markets, through the creation of new financial regulatory and legal framework within which such developments can occur. Together, these changes incorporate evolving public perceptions of monetary assets and increasingly active participation in the market place, while they create a higher level of sophistication leading to economic development. More importantly, SAMA has the effective financial foundation to implement new policies, institutions, and innovation in the Saudi housing finance sector.

In addition, the Chief Economist of SAMA mentioned that Loan-to-Value (LTV) ratio is one of the macro prudential tools included in the requirements of the Saudi Real Estate Finance Law and its implementing regulation. It is the maximum percentage of the total value of the property to be provided by a financier to a buyer. In addition, it is one of the tools to be considered in assessing risks of real estate loans. Some countries tend to lower LTV ratio in order to reduce lending ratio and default risks. In 2013, SAMA issued the implementing regulation of the Real Estate Finance Law. This states the real estate finance entity shall not extend credit to any form of finance exceeding 70 percent of the value of the dwelling subject of the real estate finance contract. SAMA may change such percentage according to prevailing market conditions. The full compulsory implementation of finance laws and their implementing regulations came into effect on November, 2014. However, The CEO of the housing finance private company disagrees with the Saudi Arabian Monetary Agency (SAMA) in methods and methodologies. The company faces the main obstacle like many Saudi citizens by the required 30% down payment by SAMA. The 30% requirement reduces the housing finance demand because the potential clients do not possess such a down payment. In sum, the companies assume responsibility for SAMA which basis the problems and losses.

Consequently, most participants in the interview highly recommended designing new housing finance structure which substitute for the current structure. The new housing finance structure would involve the main stakeholders (i.e. the governmental agencies, financial institutions, and private sector) to develop new financial framework that support to have a sustainable housing finance sector. This progress will support the improvement of the current housing finance. Currently, the zero interest loan SR 500,000 ($ 133292.46) with long years in the waiting list is the only chance for the middle income citizens to gain affordable housing finance. Also, the housing developers have limited sources and access to the financial institutions such as the commercial banks. The inadequate financial options limit the homeownership rates for the middle income citizens to achieve the government national aim and the investment for the housing developers to provide affordable housing units in the market.

All of the participants' agreed with the twelve entry points (below) presented as fundamental changes of the Saudi housing finance sector. The points were the suggested implementation of the western policies and institutions which were could be applicable in the Saudi Arabia. Affordable housing finance requires the enforcement of a variety of critical western mechanisms which were proposed in the research:

1. Implementing Government insured mortgages program
2. Implementing Loan Term and Amortization Pattern program
3. Implementing Down Payment Size/Borrower Equity program
4. Implementing Interest Rate program
5. Providing the housing loans to the middle-income citizens from the Saudi banks that should take over this function from the Real Estate Development Fund (REDF)
6. Establishing a government institution under the Ministry of Housing such as (FHA in the United States and CMHC in Canada)
7. Implementing the tax system in the housing sector
8. Increasing the government intervention roles in the Saudi housing market

9. Developing the role of the Real Estate Development Fund (REDF) to be a government bank that funding the Saudi financial institutions like the Federal Home Loan Bank of the United States
10. Creating secondary mortgage market in Saudi Arabia to increase the housing loans from the financial institutions and open investment phase in the housing sector
11. Founding Government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the Saudi housing market
12. Forming Securitization feature in the Saudi housing finance system that support increasing numbers of financial institutions employ securitization to transfer the credit risk of the assets

Many of the participants echoed the importance of the mortgages insurance industry in the Saudi housing finance. The participants highly recommended, especially the REDF officials, to form the mortgages insurance industry in order to assist the middle income citizens gain affordable housing finance. Implementing government insured mortgages program which include the advantages programs: loan term, amortization pattern, down payment, interest rate might be a new theme in the Saudi housing finance sector. Mortgage insurance protects lenders and investors who hold mortgages, or securities issued against mortgages, some or all of the loss that results from default by the borrower (Guttentag, 2012). The government insured mortgages can provide benefits for the middle income householders by providing: fixed long term, fixed amortization pattern, low down payment, and low interest rate. The recommendation from the participants is to establish a government agency under the Ministry of Housing such as the Federal Housing Administration (FHA) in the United States and Canada Mortgage and Housing Corporation (CMHC) in Canada. Also, in the position of the mortgages insurance government agency could include the saving scheme which helps to pay the down payment amount (I have discussed the saving scheme below).

Many people in the United States and Canada for decades have benefited from the government insurance; the government insured mortgages promote housing by working through the financial system to make housing finance easier and affordable. Furthermore, limiting risk premium in interest rates and relaxing quantitative standards such as those on long term, amortization pattern, down payment, and interest rate. The Federal Housing Administration (FHA) provides mortgage insurance on loans made by FHA approved lenders for single family and multifamily home. The goal of the organization is to improve housing condition, to provide an adequate home financing system through mortgage insurance, and to stabilize the mortgage market. The FHA is the only government agency that operates entirely from its self-generated income and costs the taxpayers nothing. The proceeds from the mortgage insurance paid by the homeowners are captured in an account which entirely finances the operation of the program.

Furthermore, there are many benefits to adopting a system like FHA mortgage insurance provides lenders with protection against losses as the result of homeowners defaulting on their mortgage loans. The lenders bear less risk because FHA pays a claim to the lender in the event of a homeowner's default. Loans must meet certain requirements established by FHA to qualify for insurance. Unlike conventional loans that adhere to strict underwriting guidelines, FHA-insured loans require very little cash investment to close a loan, and this gives more flexibility in calculating household income and payment ratios. The cost of the mortgage insurance is passed along to the homeowner and typically is Included in the monthly payment. FHA loans are insured through a combination of a small upfront mortgage insurance premium as well as a small monthly mortgage insurance premium. A borrower with an FHA loan always pays the same mortgage insurance rate regardless of credit score. Conventional mortgage insurance premium rates factor in credit scores, whereas FHA mortgage insurance premiums do not.

Canada Mortgage and Housing Corporation (CMHC), is a federal government agency that to eliminates better on a commercial basis. Mortgage loan insurance is a significant component of Canada's mortgage market and financial stability framework (Crawford, Meh, & Zhou, 2013). Federally-regulated lenders and most provincially-regulated lenders are required by law to have mortgage insurance coverage for high-ratio mortgages (mortgages where the loan exceeds 80% of the value of the collateral property) (Crawford, Meh, & Zhou, 2013). Mortgage loan insurance helps protect lenders against mortgage default and enables consumers to purchase homes with a minimum down payment of 5% with interest rates comparable to those with a 20% or larger down payment. Thus, mortgage insurance helps facilitate the availability of, and access to, mortgage credit (Crawford, Meh, & Zhou, 2013).

The REDF officials and the chief economist of SAMA mentioned the impartment to have the secondary mortgage market with the government sponsored enterprise to invest and improve the housing finance sector in Saudi Arabia. Also, they coincided that the secondary market help the country fill its budget gap resulting from the sharp drop in oil prices. Creating a secondary market facilitate access to liquidity for the financial institutions for finance mechanisms and housing mortgages. It will increase the housing loans from the financial institutions and open investment phase in the housing sector

Founding Government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the Saudi housing market will aid in providing a stable source of funding for residential mortgages across the country. The GSPs concept provides funding for residential mortgages across the country. Also, purchase mortgages that meet certain standards from banks and other originators, pool those loans into mortgage-backed securities that they guarantee against losses from defaults on the underlying mortgages, and sell the securities to investors a process referred to as securitization. There is basis to having securitization of finance related mortgage instruments and making the new financial derivatives attractive to investors. Forming securitization support increasing numbers of financial institutions employ securitization to transfer the credit risk of the assets Furthermore, strengthening accounting with auditing systems of finance aspects, moreover, strengthening the role of credit rating for new finance mechanisms and housing mortgages.

In the United States experience, the secondary mortgage market channels funds to borrowers by facilitating the resale of mortgages and Mortgage-Backed Securities (MBSs) (Lucas, 2011). In that market, lenders such as banks, thrifts, and mortgage companies obtain funding for the mortgages they originate by selling the loans to purchasers such as the Government-Sponsored Enterprise (GSEs) Fannie Mae, Freddie Mac, other financial institutions such as banks and insurance companies, or government entities. Those purchasers, in turn, obtain funds through the national and international capital markets (Lucas, 2011).

Fannie Mae and Freddie Mac fund the purchase of mortgages they securitize by selling the resulting MBSs to investors in the capital markets. An investor who buys a mortgage-backed security guaranteed by one of the GSEs will be paid the principal and any interest that is due even if borrowers default on the underlying loans (Lucas, 2011). Federal policies that affect the secondary market are mainly intended to achieve two public purposes (Lucas, 2011):

- Helping to ensure a steady supply of financing for residential mortgages.
- Providing subsidized assistance for mortgages on housing.

The government has pursued those goals largely through policies that increase the liquidity of mortgages and MBSs (Lucas, 2011). In a liquid market, investors can quickly buy or sell large quantities of an asset without affecting its price. The government can enhance the liquidity of the secondary mortgage market by providing credit guarantees, which make MBSs safer and thus easier for investors to value, and by standing ready to buy and sell MBSs. Such government support has the greatest impact on the availability and price of mortgage funding during disruptions in the financial markets (Lucas, 2011).

The Vice Chairman and the Financial Manager of the Real Estate Development Fund (REDF) are willing to transform REDF to into a government bank instead of the current situation as government agency. The REDF imagine that such a transformation would allow them to design numbers of programs that could help many citizen gain access to affordable housing finance. As opposed to reliance on a single program from 40 year does not change which provide zero interest loan SR 500,000 ($ 133,292.46) after long years in the waiting list of REDF. According to the REDF officials, they would emphasize the capital and authorities which are the necessary element to achieve the REDF purposes. Also, they like the other participants hoping to have reform in the Saudi housing finance sector. The current mode of operation employed by the Real Estate Development Fund (REDF) cannot be sustained for a long time in view of rising applications. This is due to the fact that most households would need such interest-free finance. There is a real difficulty in eliminating current REDF waiting lines as a result of the tremendous volume of demand for loans. Replacing the REDF by banking and non-banking financial institutions will help rationalize REDF resources and work in accordance with new mechanisms that can support efficiency and rationalize finance. It is, therefore, inevitable to replace the existing REDF based system, with a new system featuring the financial institution and the private sector involvement. The new system would include two key phases:

- First: Providing the housing loans to the middle-income citizens from the Saudi banks that should take over this function from the Real Estate Development Fund (REDF). Banks and non-banking financial institutions would provide loans, with the REDF taking care of loan payments and guarantee of loan payment in case of default on the part of borrowers. In this capacity, the REDF would serve as an insurer of finance and mortgage loans. The REDF could then leverage its funds through domestic or overseas investments that would generate enough revenues to finance interest and insurance premium payments obtained from banks and non-banking financial institutions.
- Second: Developing the role of the Real Estate Development Fund (REDF) to be a government bank that funding the Saudi financial institutions likes the Federal Home Loan Bank of the United States. Restructure the REDF as a housing government bank. Rather than dealing with individuals and households, the REDF thus would deal with banks and non-banking financial institutions and housing developers. In this capacity, the REDF would act as a market maker in case a secondary market for new finance instruments and mortgages is created. This would enable other players, including financial institutions involved in offering mortgage loans, to gain access to liquidity whenever needed.

The concept of the Federal Home Loan Bank (FHLBanks) is a structure recommended to transform the REDF to be a government housing bank, according to the participants. The bank is believed to improve the housing finance sector by providing liquidity for financial institutions to provide affordable housing finance for the citizens. Also, the transformation will support the housing developers to provide affordable housing units in the market. In the United States, the FHLBanks have provided a few benefits to mortgage borrowers beyond serving as a source of low-cost funding and liquidity for financial institutions (especially small banks that lack the scale to gain access to capital markets efficiently on their own) (Lucas, 2011). However, the FHLBanks serves a critical role in affordablehousing programs that goes to community-based programs that provide housing assistance the households (Lucas, 2011). Although the main way that the FHLBanks increase liquidity in the mortgage market is by making advances collateralized by mortgages to their members, the banks also purchase and resell individual mortgages through several programs aimed at providing liquidity to their member institutions (Lucas, 2011).

The Minster of Housing, the Real Estate Development Fund officials, and the housing professors advocated the savings theme used in countries to support the homeownership efforts of citizens. To assist in resolving the obstacle of the 30% requirement for the house down payment, the Saudi employers, and non- employers can contribute to deduction monthly for saving that help to have the down payment amount aimed at purchase a house. The saving theme is an emerging model for the Saudi housing finance. Indeed, the housing professor at King Saud University emphasized the need to adopt this theme in the Saudi context and cited the Singapore experience. The government institutional in Singapore improves the housing condition by using the saving scheme which supports an increase in the homeownership rate. The key aspect of the public housing program is the Home Ownership Scheme (HOS) and its attendant allocation policy (Sim, Yu, & Han, 2003). Introduced in 1964, the HOS took off in 1968 after the government decided to allow the purchasers to make use of their savings in the Central Provident Fund (CPF) to pay for the purchase of the Public Housing in Singapore (HDB) flat (Sim, Yu, & Han, 2003). The Central Provident Fund (CPF) is the bedrock of Singapore's social security system. It is a defined contribution scheme with individualized accounts fully-funded by both workers and employers (CDF, 2015). The comprehensive savings system provides for three essential elements of financial security: retirement, home ownership and healthcare (CDF, 2015).

The Central Provident Fund (CPF) members are not directly exposed to investment risks as the CPF Board invests their savings in special securities issued by the government, which pays the Board the same interest rates that members receive. Insurance funds are managed separately and are invested in a diversified range of assets including equities and fixed income instruments (CDF, 2015). Ordinary Account (OA) savings can be used for housing purchase, investment and other approved purposes (CDF, 2015). A higher OA contribution at the start of the individual's working life allows CPF members to purchase their first home earlier (CDF, 2015). Under the Public Housing Scheme (PHS) and Private Properties Scheme (PPS), members may buy public housing or private property using their OA savings. Withdrawal limits are set to ensure that members' ability to save for retirement is not compromised. Upon the sale of the property, members are required to refund to CPF the principal amount withdrawn as well as the interest that could have been earned if the monies were not withdrawn.

The compulsory savings in the CPF account can be used for the 20% down payment as well as the monthly mortgage installments. With the use of the CPF savings, most families are able to pay for the flat they purchase from the Public Housing in Singapore (HDB), without suffering any reduction in their monthly disposable income (Sim, Yu, & Han, 2003). Furthermore, HDB flats are also priced to ensure that they are affordable (Sim, Yu, & Han, 2003). The CPF system is a critical element in the government's success in providing housing to the masses in the early years and support investment in the private sector to provide the affordable flat (Ng, 2013). Through a carefully controlled circular flow of funds, CPF savings have been used to enable individuals to fund the construction and ownership of government flats. Today, about 80 percent of Singapore citizens reside in such housing (Ng, 2013). In sum, the basic principle of requiring working Singaporeans and their employers to make monthly contributions to their CPF accounts remained constant. The philosophy that underpinned this system was that of individual responsibility; this was also consistent with the Singapore government's aversion to state welfare (Ng, 2013).

4-3-4- Design Appropriate Programs for the Segmented Middle-Income Population (e.g. Low-Middle, High-Middle, etc.) In Order to Achieve Affordable Housing Finance Proposals:

The housing professor at King Saud University explained emerging approaches in the housing finance sector. The first approach is designing appropriate programs for the middle-income citizens that divided segments to achieve affordable housing finance path for each segment. The main targeted groups in this research are the middle-income citizens which have been divided into three segments:

- **Upper middle income:** SR 20,000 (more than $5,333) they are around 7 present.
- **Middle income:** between SR 12,000 – SR 20,000 ($3,200 - $5,333) they are around 8 present.
- **Lower middle income:** SR 12,000 (less than $3,200) they are around 70 present.

These segments help to design tailored affordable housing finance programs that include many factors such as: house size, house type (apartment, townhome, house), and house funding amount. These segments provide a clear vision and an accurate depiction of the housing demand for the targeted groups main stakeholders such as governmental agencies, financial institutions, and the private sector. The professor highly recommends following the residual income approach in designing the three segments. The residual income approach would illuminate insight about the housing affordability concept for the segmented groups and would therefore allow decision makers to better eliminate the barriers to affordable housing finance. The most general measure of housing affordability is simply the relationship between housing costs and income-essentially the ability to qualify for a loan (Stone, 2006). The residual income approach to housing affordability is one that looks at what different household types can afford to spend on housing after taking into account the other necessary expenditures of living (Stone, Burke, & Ralston, 2011). Using the residual income method is to calculate the distribution of housing affordability in aggregate and for household types by tenure, income, state and other relevant variables to get some assessment of the scale and distribution of residual income affordability. This includes comparison with the ratio method, either the aggregate 30 percent measure (Stone, Burke, & Ralston, 2011).

Stone (2006) recommended that the residual income approach is used "at very least for advisory purposes if not as a formal criterion" (p. 178). The residual income approach may also be used to bridge the gap between the varying housing costs from one housing market to another. The residual income approach may be a better way to assess individual homeowner affordability because it intentionally takes into account household size and geographic location (Jewkes & Delgadillo, 2010). Approaching the issue of one's ability to afford housing through the residual income approach could ensure that households have adequate housing, thereby not endangering their financial situation (Jewkes & Delgadillo, 2010). Such approaches could be modeled after the United States Department of Veteran's Affairs home loan program (Jewkes & Delgadillo, 2010). This program utilizes the residual income approach, including household income, size, and geographical location, to qualify veterans for a mortgage (Jewkes & Delgadillo, 2010). In practice, there appears to be a greater variety of approaches to defining housing affordability (Stone, Burke, & Ralston, 2011):

- Categorical: a statement of ability or inability of households to pay for market housing, but without a measurement foundation.
- Relative: changes over time in the relationship between housing costs and household incomes.
- Subjective: whatever individual households are willing or choose to spend.
- Family budget: monetary standards based on aggregate housing expenditure patterns.
- Ratio: maximum acceptable housing cost/income ratios.
- Residual: normative standards of a minimum income required to meet nonhousing needs at a basic level after paying for housing.

The method which is selected enables the development of household-specific price points that can be used by industry or government to identity the targeting of affordable housing developments. This could be important where there is inclusionary zoning or simply in government (state and local) negotiations with developers to include some proportion of affordable housing (Burke, Stone, & Ralston, 2011). However, housing affordability is inseparable from housing standards. An analysis of the extent and distribution of affordability problems that takes into account other forms of housing deprivation would increase the number while adjustment for over-housing would decrease the number of households determined to have a true affordability problem (Burke, Stone, & Ralston, 2011). Because of these offsetting tendencies, and the difficulties of definition, ideally housing affordability studies should be iterative (i.e. applying an economic affordability standard in the first instance) while exploring ways of enhancing the precision of the analysis to account for under-housing and over housing (Burke, Stone, & Ralston, 2011). There can be no subjective and normative-based minimum housing shelter standard of affordability. There can be a minimum standard of occupancy, such as the Canadian occupancy standard, and there can be minimum conditions standards as defined though planning and building regulations, but there can be no affordability standard (Burke, Stone, & Ralston, 2011). Affordability measurement has to be household type specific and emerges as a residual of other expenditures (Burke, Stone, & Ralston, 2011).

The professors encouraged the reformation of the land grant system. The land grant system is difficult to discontinue for a variety of reason. The land grant system is considered an acquired right for the citizen. Meanwhile, the land grant system requires certain important controls such as proving worthy of the grant. The beneficiary has proof ability to make full use of the land grant; if not could switch to different support system such as use the land value for the down payment. Change the entitlement culture of the Saudi citizens especially the middle-income group need many efforts from many sectors to adopt the affordable housing concept with the affordable home type and size. The elimination of the current culture is to provide the affordable housing concept which can be applicable for the affordable housing finance. This concept requires strenuous efforts and cooperation between the different organizations and government departments. The following are recommendations to aid in altering the culture: media and advertising programs to demonstrate the affordable housing concept with affordable finance which includes the features of housing type, size, and amount cost.

The professors recommended that the Saudi context should adopt an architectural design framework in order to provide efficient, affordable housing units (e.g. type, size, and cost). The professors also add that government facilitation of homeownerships serves the role of providing adequate housing for the family to achieve immediate needs and accommodate their wishes for the future within financial possibilities. The facilitation (or empowerment) is in reducing the gap between household incomes and housing cost. The architectural design framework for the affordable housing could provide diversity of housing models which fit any the three segments of the middle income households. This requires to have changed and improving the building regulations, and urban polices in the architectural design framework. In addition, provides architectural innovative, affordable housing designs with the principles that help reduce the housing cost. The framework should have the organizational and procedural facilities that encourage affordable housing units for young families; working to unify and integrate the architectural and engineering systems to provide basic design affordable housing models. The architectural design framework could support the concept to reduce the grant land size from the government about 824 feet (the current 1640 feet). The architectural design will assist in the effort to provide affordable housing design models those are adequate with the new land size that fits with one of the middle-income households segments and reduces urban sprawl.

5- RESEARCH CONCLUSION AND RECOMMENDATIONS

The research aim is to investigate, suggest policy options, and develop a financial framework to in order to provide affordable housing finance for middle-income citizens and housing developers in Saudi Arabia. It is recommended that some of the applicable western housing finance policies, institutions, and innovations adaptable to the Saudi context be adopted. The research highlighted the importance of policy reform and the development of a national framework (e.g., current law and institutional framework) in order to 1) address the housing crisis as well as 2) support the existing main stakeholders and 3) cultivate a vibrant investment culture. In addition, policy reform is needed in order to 1) address the hindrances to the development of an efficient housing finance market as well as 2) improve the regulation system of the affordable housing sector in the country. The research has explored the current characteristics, potentials, and limitations of the main stakeholders (i.e. governmental agencies, financial institutions, and the private sectors). Therefore, this research undertook an evaluation of the current housing finance system in order to propose viable recommendations to the following two questions: 1) How should the housing financial framework be designed or modified in order to provide affordable finance mechanisms targeting the middle-income Saudi citizens and housing developers? 2) The researcher investigated western financial policies and innovations and leading to the second inquiry. Which of the aforementioned, of those transferrable to the Saudi context, would reform the housing finance sector in order to a) provide both affordable housing finance and units for middle-income Saudi citizens and b) increase housing developers' participation in the Saudi Arabia housing finance sector?

The research highlights an essential complex challenge faced by the Saudi government: devise mechanisms and structures by which an adequate and steady flow of long-term financial resources from both the public and private sectors could be mobilized and channeled into housing development and particularly for housing the citizens and providing infrastructure. The other challenges include (but are not limited to): develop the effectiveness, efficiency, and accessibility of the current housing finance structures; to create and devise innovative housing finance mechanisms and instruments; and to promote equal and affordable access to housing finance for all householders. The Saudi government should intervene and incentivize the housing finance systems by linking the formal housing finances and by developing community-based finance institutions and instruments.

The literature review and analysis, constructed from the interviews, constructed the following research themes: 1) provide stakeholders of the housing finance system with critical information in order to develop as well as reform the housing finance system 2) investigate and illuminate current trends which will impact the current housing crisis of Saudi Arabia 3) suggest policy options and 4) propose a financial framework to provide affordable housing finance for middle-income citizens and housing developers in Saudi Arabia.

From the United States and Canada experiences, the applicable western housing finance policies, institutions, and innovations in the Saudi context will help the targeted group in the research: 1) the middle-income households to increase the homeownership rate and 2) the housing developers to increase the affordable housing units and raise the investment in the housing industry. The western policies are innumerable; however, all of them are not applicable to the Saudi context and require adaption in order to be adopted. Nevertheless, many of the western policies if adopted require the transformation of some organizations as Saudi Arabia journeys to reform its housing finance system. For example, consider the following proposals:

- The transformation of the REDF to be a government bank like the Federal Home Loan Bank to provide the necessary financial liquidity for the financial institutions to be the alternative of providing the housing loan.
- Establishment of a new government agency under the Ministry of Housing act like the Federal Housing Administration (FHA) and Canada Mortgage and Housing Corporation (CMHC) to provide government insured mortgages program which includes the advantage programs (e.g. loan term, amortization pattern, down payment size/borrower equity interest rate, etc.). Additionally, the adoption of the saving themes is an emerging theme in the research. The theme assists to reduce the down payment amount which is an obstacle for the middle-income householders.

- Creating the secondary mortgages market with the main components such as establishes a government-sponsored enterprise (GSEs) like the Fannie Mae and Freddie Mac in the United States. These new policy reformations will provide more financial liquidity and investment in the Saudi housing finance sector which help to provide affordable housing finance framework for the middle-income householders and housing developers. Also, these policy reformations include forming the securitization and mortgage-backed securities system for more safe and sustainable to the secondary mortgages market.

The findings supported the need to revise the existing housing finance policies and identified several specific policy alterations. As a result, it is proposed that the current housing policy and the housing finance be altered. The research proposes an array of reform recommendations in order to address the Saudi housing finance system as it negatively impacts the middle-income households and housing developers. The aspects reviewed include the following: creation of a new housing law, a national urban planning law, and architectural design framework. These aspects will aid the formation of the national framework by proposing: 1) legal framework, 2) organize the housing market, 3) affordable housing mechanism (e.g. lot sizes, designs, land policy, etc.). In addition, there are important emerging themes in the research such as the savings themes and design appropriate programs for the segmented middle-income population (e.g. low-middle, middle, high-middle.) in order to achieve affordable housing finance proposals. These themes could support the homeownership for the middle-income population; provide policy insight to the decision makers as well as housing developers.

The result of this research assists in the development of a national policy framework and identifies factors critical to success necessary to integrate into the new financial framework in Saudi Arabia with the main stakeholders in this research: governmental agencies, financial institutions, and the private sectors. Also, the western housing finance policies, institutions, and innovations, which are applicable to the Saudi context.

5-1- The Research Summary:

5-1-1- The Literature Review Chapter:

The theoretical framework provides the knowledge and the paradigm of the housing finance. This includes demonstration for the analyzing the determinants extent of housing finance. Countries with stronger legal rights for borrowers and lenders (through collateral and bankruptcy laws), deeper credit information systems, and a more stable macroeconomic environment have deeper housing finance systems. These same factors also help explain the variation in housing finance across emerging market economies. Across developed countries, which tend to have low macroeconomic volatility and relatively extensive credit information systems, we find that variation in the strength of legal rights helps explain the extent of housing finance. Financial regulation and state intervention must be designed to support a consistent strategy for access to housing finance. This should include greater institutional diversification and specialization; product innovation; effective mobilization of collateral; appropriate client information, consumer protection, and financial education; as well as adequate borrower screening and monitoring. The development of the international mortgage market has varied across the developing countries. Factors influence the development of country-specific mortgage markets to include but are not limited to (1) legal systems that delay foreclosure proceedings, (2) incomplete or weak financial institutions, (3) high inflation, and (4) cultural barriers to mortgage market development and homeownership. Improvements in these markets can be achieved through modifications to legal systems, new contract designs, and changes in banking and financial systems.

Currently, housing finance in Saudi Arabia for the middle income citizens is provided predominantly through individual means, government support (such as the Real Estate Development Fund), financial institutions (such as commercial banks which is limited because the high interest). Furthermore, the housing finance has very limited options for housing developers. The new housing finance structure would integrate the concerns of the main stakeholders (i.e. the governmental agencies, financial institutions, and private sector) in order to develop a new financial framework which creates a sustainable housing finance sector. This progress will support the improvement of the current housing finance. Presently, the zero interest loan SR 500,000 ($ 133,292.46) with long years in the waiting list is the only chance for the middle-income citizens to gain affordable housing finance. Also, the housing developers have limited sources and access to the financial institutions such as the commercial banks. The inadequate financial options limit the homeownership rates for the middle-income citizens, reflective of the government's national objective to increase homeownership, the investment for the housing developers to provide affordable housing units in the market.

The research explored and evaluated effectiveness to address the crisis and identified areas for improvement the current state of housing finance policy and the housing policy regulations and development which include: 1) Saudi financial policies, 2) provision of public housing by the government agencies and 3) the grant lands system. Review the hindrances to adapting and implementing western housing policies that would help or alleviate the housing finance problems. Also, identify the applicable western policies, institutions, and innovations in the Saudi context.

The research investigated plausible policy recommendations the research undertook an evaluation of Western politics by comparing international best practices for (The United States and Canada) that have successful experience in affordable housing finance sector. Also, reviewing and evaluating the current housing finance system and framework in the United States and Canada. The procedures integrate western policies institutions and innovations which are applicable in the Saudi context. These processes help to make the housing finance more affordable for middle-income citizens and housing developers. The western housing finance components which could be applicable in the Saudi context such as: 1) The Federal Home Loan Bank; 2) Federal Housing Administration (FHA); 3) Canada Mortgage and Housing Corporation (CMHC); 4) The Secondary Market; 5) Government-sponsored enterprise (GSEs); 6) Securitization on the secondary mortgage market; 7) The Structure of Mortgage-Backed Securities.

The mortgages insurance industry assists the middle-income citizen's gains affordable housing finance. The government insured mortgages such as the Federal Housing Administration (FHA) in the United States and Canada Mortgage and Housing Corporation (CMHC) in Canada provides benefits for the middle-income householders by providing: fixed long term, fixed amortization pattern, low down payment, and low-interest rate. The secondary market facilitates access to liquidity for the financial institutions for finance mechanisms and housing mortgages. Government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the United States providing a stable source of funding for residential mortgages across the country. The GSPs concept provides funding for residential mortgages across the country. Also, purchase mortgages that meet certain standards from banks and other originators pool those loans into mortgage-backed securities that they guarantee against losses from defaults on the underlying mortgages and sell the securities to investors a process referred to as securitization.

5-1-2- The Research Methodology:

The research was conducted in Saudi Arabia by using In-Depth, semi-structured, open-ended interviews as they are considered effective for consulting and discussing with key informants, to reveal insights regarding the context. The purpose of interviewing the identified stakeholder was to explore and illuminate the insights of the main stakeholders. By conducting qualitative interviews, those being interviewed are able to respond to questions in their own words and express ideas using their own unique perspective. Thus multiple perspectives have been obtained using a diverse pool of interviewees. To gain fully-developed responses, interview topics were organized into sections to allow for naturally led responses and the ease of flow form one topic to another. Questions were posed to extract descriptive responses and respondents were encouraged to use examples in their answers. Identified main stakeholders and interviewed to understand their potentials and challenges in Saudi Arabia.

A total of nine interviews were conducted with various professionals in the housing finance sector for this research. With the aim of collecting multiple perspectives for insight and analysis, establishing a diverse pool of interview subjects was critical. Once the interviews were completed the data gather, have been cleaned, organized and recorded for further analysis. Where necessary the responses have been coded to facilitate the creation of descriptive statistics. The response data used to identify key themes are rising among the interviewees, as well as organizing the various issues and factors into common categories. Analysis extracted the participants' main areas of concern; the data explored the existing and emerging themes recurring throughout the data.

5-1-3- The Interviews Analysis Chapter:

The analysis, per the respondents' insight, obtained from the interviews, identified the many perspectives, the various obstacles of the stakeholders encountered as a result of the existing affordable housing finance framework. The data gathered was used to aggregate the proposed reformations to successfully modify the current affordable housing finance framework. The factors were identified through the interview responses of 9 individuals from various sectors (i.e. governmental agencies, financial institutions, and the private sectors). The diverse pool of interview subjects ensured that multiple points of view could be collected and used to identify a complete set of issues confronting the housing finance sector. Analysis of the interview data includes emerging themes recurring throughout the data. The finding reveals an interaction among various housing officials and demonstrates the Saudi housing finance. The research codes are Cooperate, Develop, Create, and Design from the interviews data. All the participants are compatible in all points from the interview coding.

Based on extensive interviews with senior governmental agencies, financial institutions, and the private sector officials, as well as archival studies, the finding reveals an interaction among various housing officials and demonstrates that the Saudi housing finance framework is driven and shaped by four major policy imperatives. They include:

First, cooperate with the main stakeholders in the housing sector (e.g. governmental agencies, financial institutions, and the private sector): The housing research & data center and the housing developers services center under the Ministry of Housing are the core to create cooperate with the main stakeholders in the housing sector. This cooperate establish the foundation to improve the housing sector especially the housing finance, provide the necessary resources and data for the policymakers, housing developers, and housing scholars, facilitate the housing developers with the full services, and implement the Public Private Partnership (PPP) system with the main stakeholders.

Second, Develop new housing finance law, regulations, and legislations in various development and planning aspects: The interview participants were concerned that Saudi Arabia still does not have an effect national urban planning law as such laws exist in almost every country. Currently, the unclear legal situation in institutional and technical aspects of urban planning leads to uncertainty and weakens the housing sector and its development. They propose that the new law should replace the existing outdated, fragmentary and incomplete legal and technical framework of urban planning. The national urban planning should include: administrative procedures, technical standards, development process, and the land tax is imposed recently.

Third, Create new housing finance structure by implementing western policies and institutions that are applicable in the Saudi context: From the United States and Canada experiences, the applicable western housing finance policies, institutions, and innovations in the Saudi context will help the targeted group in the research: 1) the middle-income households to increase the homeownership rate and 2) the housing developers to increase the affordable housing units and raise the investment in the housing industry.

Herein lays the importance of the transformation of the Real Estate Development Fund (REDF) as well as the reformation of other critical organizations. Transform the REDF to be a government bank like the Federal Home Loan Bank to provide the necessary financial liquidity for the financial institutions to be the alternative of providing the housing loan. Establish a new government agency under the Ministry of Housing act like the Federal Housing Administration (FHA) and Canada Mortgage and Housing Corporation (CMHC) to provide government insured mortgages program which includes the advantage programs: loan term, amortization pattern, down payment size/borrower equity interest rate. In addition work to the government agency, adopt the saving themes which is emerging theme in the research. The theme assists to have the down payment amount which is obstacle for the middle-income householders. Creating the secondary mortgages market with the main components such as establishes a government-sponsored enterprise (GSEs) like the Fannie Mae and Freddie Mac in the United States. These new policy reformations will provide more financial liquidity and investment in the Saudi housing finance sector which help to provide affordable housing finance framework for the middle-income householders and housing developers. Also, this policy reformation includes the form the securitization and mortgage-backed securities system for more safe and sustainable to the secondary mortgages market.

The savings theme used in countries to support the homeownership efforts of citizens. To assist in resolving the obstacle of the 30% requirement for the house down payment, the Saudi employers, and non- employers can contribute to deduction monthly for saving that help to have the down payment amount aimed at purchase a house. The saving theme is an emerging model for the Saudi housing finance.

Forth, Design appropriate programs for the segmented middle income population (e.g. low-middle, high-middle etc.) in order to achieve affordable housing finance proposals: These segments help to design tailored affordable housing finance programs that include many factors such as: house size, house type (apartment, townhome, house), and House funding amount. These segments provide a clear vision and an accurate depiction of the housing demand for the targeted groups. These segments recommend following the residual income approach in designing the three segments. The residual income approach would illuminate insight about the housing affordability concept for the segmented groups and would, therefore, allow decision makers to eliminate better the barriers to affordable housing finance. Adopt an architectural design framework in order to provide efficient, affordable housing units (e.g. type, size, and cost). The framework facilitation of homeownership serves the role of providing adequate housing for the family to achieve immediate needs and accommodate their wishes for the future within financial possibilities. The facilitation is in reducing the gap between household incomes and housing cost.

The Real Estate Development Fund (REDF) is an essential stakeholder and requires the primary modification within the national framework. As a result, here are the recommendations of transformation. First: Provide the housing loans to the middle-income citizens from the Saudi banks that should take over this function from the REDF. Banks and non-banking financial institutions would provide loans, with the REDF taking care of loan payments and guarantee of loan payment in case of default on the part of borrowers. Second: Developing the role of the Real Estate Development Fund (REDF) to be a government bank that funding the Saudi financial institutions likes the Federal Home Loan Bank of the United States. Restructure the REDF as a housing government bank. Rather than dealing with individuals and households, the REDF thus would deal with banks and non-banking financial institutions and housing developers. In this capacity, the REDF would act as a market maker in case a secondary market for new finance instruments and mortgages is created. This would enable other players, including financial institutions involved in offering mortgage loans, to gain access to liquidity whenever needed.

The mortgages insurance industry assists the middle-income citizens gains affordable housing finance. Implementing a government insured mortgages program has a myriad of advantages: loan term, amortization pattern, down payment, the interest rate might be a new theme in the Saudi housing finance sector. The government insured mortgages can provide benefits for the middle-income householders by providing: fixed long term, fixed amortization pattern, low down payment, and low-interest rate. The recommendation from the participants is to establish a government agency under the Ministry of Housing such as the Federal Housing Administration (FHA) in the United States and Canada Mortgage and Housing Corporation (CMHC) in Canada.

It is important to have a secondary mortgage market with the government sponsored enterprise to invest and improve the housing finance sector in Saudi Arabia. The presence of both helps the country fills its budget gap resulting from the sharp drop in oil prices. Creating a secondary market facilitates access to liquidity for the financial institutions for finance mechanisms and housing mortgages. It will increase the housing loans from the financial institutions and open investment phase in the housing sector.

The establishment of Government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the Saudi housing market will aid in providing a stable source of funding for residential mortgages across the country. The GSPs concept provides funding for residential mortgages across the country. Also, purchase mortgages that meet certain standards from banks and other originators pool those loans into mortgage-backed securities that they guarantee against losses from defaults on the underlying mortgages and sell the securities to investors a process referred to as securitization.

There is a basis for having securitization of finance related mortgage instruments and making the new financial derivatives attractive to investors. Forming securitization will increase the numbers of financial institutions which employ securitization to transfer the credit risk of the assets. Strengthening accounting with auditing systems of finance aspects, moreover, strengthening the role of credit rating for new finance mechanisms and housing mortgages.

5-2- Policy Recommendations:

Through the literature review and the interview data analysis, a number of policy recommendations have been developing in order to aid decision makers in the design of a new financial framework. This research will aid the decision makers seeking to devise a framework which facilitates the provisions of affordable housing finance for middle-income citizens and housing developers in Saudi Arabia:

- **Establish a new government agency under the Ministry of Housing in order to implement government insured mortgages program**. This program which includes the advantage programs for the middle-income citizens: loan term, amortization pattern, down payment size/borrower equity interest rate. This should establish a government agency under the Saudi Ministry of Housing such as the Federal Housing Administration (FHA) in the United States and the Canada Mortgage and Housing Corporation (CMHC) in Canada. These western agencies provide benefits: fixed long term, fixed amortization pattern, low down payment, and low-interest rate. These benefits by improving the affordable housing finance, increasing the homeownership rate, and maintaining the middle-income householders' level.

- **Transform the role of the Real Estate Development Fund (REDF) to be a government bank,** that providing a sure and steady flow of funding to the Saudi commercial banks such as the Federal Home Loan Bank of the United States. The REDF with the new transform will serve the public by providing a readily available, low-cost source of funds to commercial banks members through advances. These funds may be used for residential mortgages, funding the housing developers, community investments, and other services for housing and community development. This transform of REDF will provide the housing loans to the middle-income citizens from the Saudi commercial banks that should take over this function from REDF.

- **Form and adopt the western policy secondary mortgage market in Saudi Arabia.** This motivate increases the supply of money available for mortgage lending and increases the money available for new home purchases. The basic component in the secondary market is establishing Government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the Saudi housing market to enhance the flow of credit to targeted sectors of the economy and to make those segments of the capital market more efficient and transparent, and to reduce the risk to investors and other suppliers of capital. In addition, creating securitization and mortgage-backed security features in the Saudi housing finance system that support increasing numbers of financial institutions employ securitization to transfer the credit risk of the assets

- **Establish national housing research and data center.** The center should be before any progress in the housing finance sector. The research conclusion included the recommendation of a center which would house many experts from varying disciplines. The center will provide recent studies and statistical figures to support the policymakers, housing developers, housing scholars to have the right decision and progress.

- **Encourage the Ministry of Housing to establish the new housing developers service center under the Ministry.** The center will build the Public Private Partnership (PPP) approach which likes between the housing developer and the main stakeholders such as the Ministry of Housing, governmental agencies, financial institutions, and the private sector. The center supports the housing developers by centralizes all services need in one place. The center roles and services include building permits, utility budget, infrastructure documents, and other services for housing and community development. In addition, the center will demonstrate and specify the qualify private sector companies such as construction and engineering companies to cooperate and work with the housing developers in the housing market. The service center provides the incentive for the housing developers such as provide affordable finance and enhance the investment to provide affordable housing units with suitable development communities. In sum, the center will encourage establishing housing industry by supporting the housing developers sector in Saudi Arabia. It is an important phase to create housing industry which includes various disciplines in cohesive financial, institutional, and legal frameworks.

- **Adopt the saving theme.** The saving is assist resolving the obstacle of the 30% house down requirement payment form the Saudi Arabian Monetary Agency (SAMA). The saving theme is an emerging model for the Saudi housing finance. The Saudi employers and non-employers can contribute to deduction monthly for saving that help to have the down payment amount aimed at purchase a house. The saving theme could be within the new proposed government agency that acts like the FHA and CMHC.

- **Increase the government intervention roles in the Saudi housing market**, through imposition regulations that preserve the housing finance system to be predictable and stable. Also, the implement of a tax system in the housing sector, especially for the big undeveloped residential lots which are frequently used by monopoly and speculation. The land tax provides a good fund for the public sector which can be used in the housing project and developing communities. Also, improve the housing finance system.

- **Develop new housing law, regulations, and legislations also requires the better integration and reformation of various finance, development, and urban planning, and local governance practices.** These are namely new housing law and national urban planning law which according to the interview participants should be prioritized tasks for the government agencies as a reform the housing finance sector. These laws will improve the housing condition in many features such as finance, regulations, investment, and development. The reform recommends include the following: urban design and building code regulations, zoning to affordable housing, new national technical standards for cost efficient land development, and introduce e-government platforms to ease building licensing procedures. In addition, the important to reform the local governance which helps to highlight and bring to the fore the commonality of interests, values, goals, and aspirations which are shared by the different groups. Placing responsibility for managing local affairs and for local sustainable development at the local level rather than central government will afford citizens greater access to, and ability to influence the policy and decision-making process.

- **Design appropriate programs for the segmented middle-income population (e.g. low-middle, middle, and high-middle).** These segments in order to achieve affordable housing finance proposals. These segments help to design tailored affordable housing finance programs that include many factors such as: house size, house type (apartment, townhome, house), and House funding amount. These segments provide a clear vision and an accurate depiction of the housing demand for the targeted groups to the various stakeholders such as governmental agencies, financial institutions, and the private sector. Also, it is recommended to use the residual income approach in designing the three segments. The residual income approach would illuminate insight about the housing affordability concept for the segmented groups and would, therefore, allow decision makers to eliminate better the barriers to affordable housing finance.

- **Adopt new affordable housing perspectives that assist to change the entitlement culture of the Saudi citizens.** This is especially important for the middle-income group that needs many efforts from many sectors. The changes of the current culture are to provide the affordable housing concept which can be applicable to the affordable housing finance. This concept requires strenuous efforts and cooperation between the different organizations and government departments. The following are recommendations to aid in altering the culture: media and advertising programs to demonstrate the affordable housing concept with affordable finance which includes the features of housing type, size, and amount cost.

- **Create an architectural design framework,** in order to provide efficient, affordable housing units (e.g. type, size, and cost). The framework facilitation of homeownership serves the role of providing adequate housing for the householders to achieve immediate needs and accommodate their wishes for the future within feasible financial possibilities. The facilitation (or empowerment) reduces the gap between household incomes and housing cost which make the finance more affordable. The architectural design framework for the affordable housing could provide the diversity of housing models which fit any of the three segments of the middle income households. As a result, the building regulations and urban polices in the architectural design framework must be transformed to support the new framework. The architectural affordable housing designs and principles would reduce the housing cost. The framework should have the organizational and procedural facilities that encourage affordable housing units for young families; working to unify and integrate the architectural and engineering systems to provide basic design affordable housing models. The architectural design framework could support the concept to reduce the grant land size from the government about 824 feet (the current 1640 feet). The architectural design will assist in the effort to provide affordable housing design models those are adequate with the new land size that fits with one of the middle-income households segments and reduces urban sprawl. The land grant system requires the implementation of certain important controls such as proving worthy of the grant. The beneficiary should have to demonstrate the ability to make full use of the land grant; if not could switch to different support system such as use the land grant value for the down payment.

However, there are two figure charts that provide explanations and simplifications of procedures on the research results. First, Figure 10 describes the major steps to implement the priorities reform which are recommendations to have a cohesive and organized housing finance framework in Saudi Arabia. Second, Figure 11 explains the new rule and organization in the housing finance framework in Saudi Arabia.

Figure 10: this figure chart simplifies the process to reform the Saudi housing finance sector:

Legal framework:

- New Housing Law
- National Urban Planning Law
- reform of the Local Governance

Institutional framework:

- Housing Research and Data Center
- Service Center for the housing developers

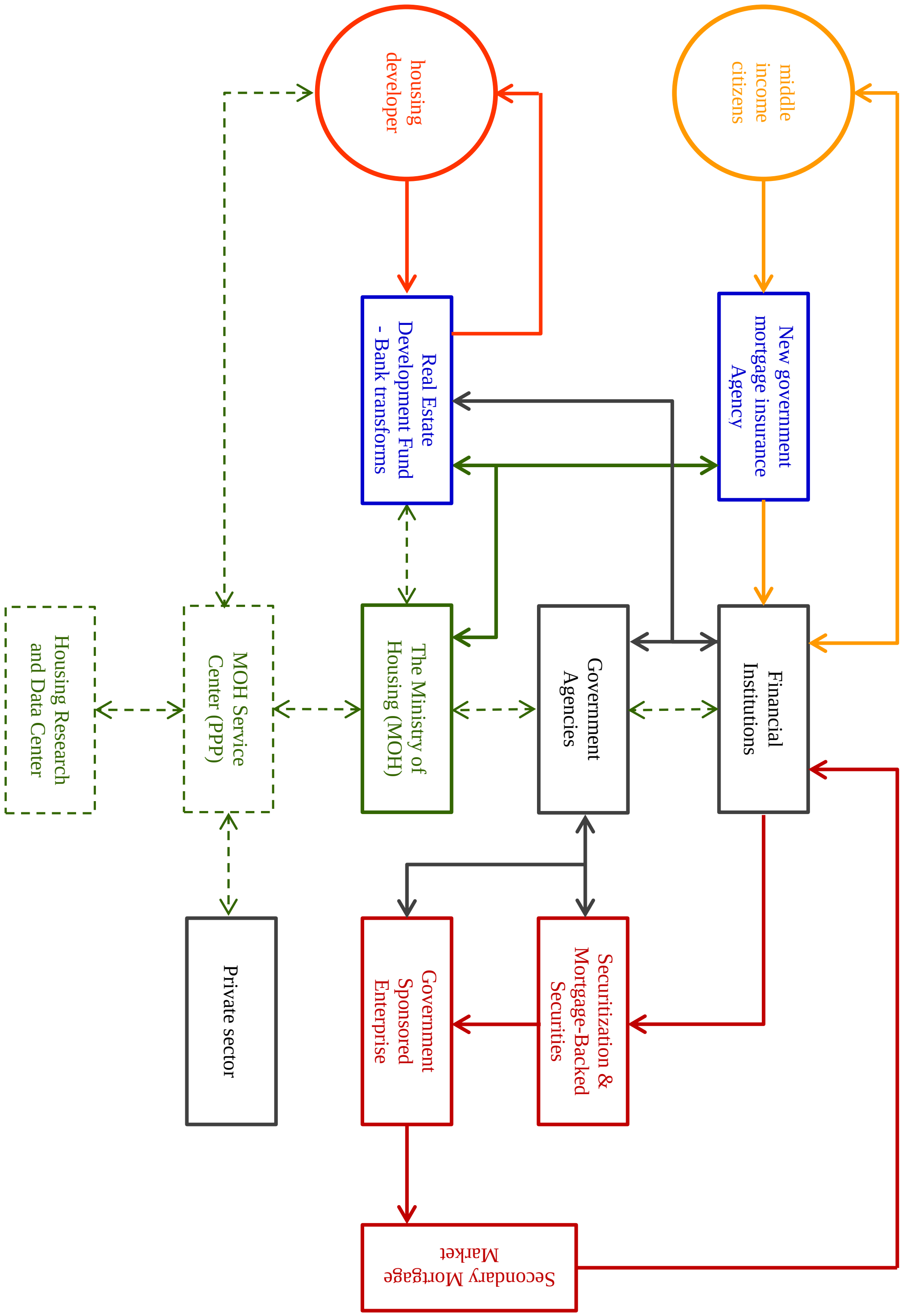
Developing housing finance framework as an approach to provide affordable finance mechanisms for middle income citizens and housing developers in Saudi Arabia

- Develop new housing law, regulations, and legislations also requires the better integration and reformation of various finance, development, and urban planning, and local governance practices.
- Transform the role of the Real Estate Development Fund (REDF) to be a government bank.
- Create new government agency under the Ministry of Housing have the rule of government insured mortgages programs.
- Establish national housing research and data center.
- Encourage the Ministry of Housing to establish the new housing developers service center under the ministry.
- Increase the government intervention roles in the Saudi housing market.

- Implement government insured mortgages program targeting the citizens.
- Form and adopt the western policy secondary mortgage market in Saudi Arabia.
- Adopt the saving theme.
- Design appropriate programs for the segmented middle income population (e.g. low-middle, middle, and high-middle).
- Change the entitlement culture of the Saudi citizens.
- Create an architectural design framework.

Source: the researcher

Figure 11: this figure chart explains the new rule and organization in the housing finance framework in Saudi Arabia:



Source: the researcher

This chart depicts the researcher's proposed housing finance framework, as a result of the research and interviews, in order to address the affordable housing crisis in Saudi Arabia. This approach also entails proposals pertaining to the finance mechanisms for middle-income citizens and housing developers in Saudi Arabia. A detailed description of the chart is below:

- **The yellow circle and lines:** describes the middle-income citizens' path; they will apply to the new proposed government agency (e.g. FHA & CMHC) which will serve the role of a government insured mortgages program. This agency will aid middle-income citizens via the program offerings: fixed loan term, fixed amortization pattern, low down payment size/borrower equity and low-interest rate. After having the insurance approval, they can have the housing finance from the financial institutions (commercial banks) which will be affordable because the benefit of government insured mortgages program. In addition, the new government agency responsible of the monthly deduction the new saving theme for the citizens.

- **The orange circle and lines:** this describe the housing developers path; they can apply for affordable finance from the proposed of the Real Estate Development Fund (REDF) to be a government bank working in the housing finance sector as the Federal Home Loan Bank of the United States.

- **The green rectangle and lines:** this describes the proposed role of the Minister of Housing (MOH) and the lines connected with the other main players in the new housing finance framework

- **The green dotted rectangles and lines:** this describes the other path for housing developers. The second path of a developer seeking to participate in the Ministry of Housing (MOH) affordable housing projects from the new propose service center which work in the PPP approach that cooperates with the main stakeholders in the housing finance sector. The path described the role of the new propose Housing Research Data Center, which aids decision makers and prepared the recent research studies and data which assist and support the policymakers, scholars, and housing developers in verity aspects such as finance, investment, strategic plans, and other necessary aspects in the housing sector.

- **The blue rectangles:** this rectangle reflect the proposal of the financial innovations and institutions in the new housing finance framework: 1) the new propose to establish a government agency under the Saudi Ministry of Housing such as the Federal Housing Administration (FHA) in the United States and the Canada Mortgage and Housing Corporation (CMHC) in Canada that provide the government insured mortgages; 2) modify the role of Real Estate Development Fund (REDF) that transform to be a government bank, the bank providing a sure and steady flow of funding to the Saudi commercial banks such as the Federal Home Loan Bank of the United States. The REDF with the new transform will serve the public by providing a readily available, low-cost source of funds to commercial banks members through advances.

- **The gray rectangle and lines:** this depicts the expected relationships of the stakeholders within the new framework (government agencies, financial institutions, and private sector) in the housing finance sector; the lines show the connection with the other main players in the new housing finance framework. The main stakeholders consist of:

The government agencies:

- Ministry of Housing (MOH)
- Real Estate Development Fund (REDF)
- Saudi Arabian Monetary Agency (SAMA)
- Ministry of Finance (MOF)
- Ministry of Municipal and Rural Affairs (MOMRA)
- Ministry of Justice (MOJ)
- Ministry of Economy and Planning (MOEP)

The financial institutions:

- The Saudi commercial banks
- The Real estate finance companies
- Public Pension Agency (PPA)
- General Organization for Social Insurance (GOSI)

The private sectors:

- Engineering companies
- Construction companies

- **The red rectangles and lines:** This demonstrates the role of the secondary market as well as depicts the interaction with other sectors. This describes the connection network in the newly proposed Secondary Mortgage Market system which supports the investment in the housing sector and provide financial liquidity to the financial institutions. The secondary mortgage market consist of: the newly proposed Government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the Saudi housing market to enhance the flow of credit to targeted sectors of the economy and to make those segments of the capital market more efficient and transparent, and to reduce the risk to investors and other suppliers of capital. In addition, creating securitization and mortgage-backed security features in the Saudi housing finance system that supports increasing numbers of financial institutions employ securitization to transfer the credit risk of the assets.

5-3- Further Research and the Limitations in this Research:

There are many possible areas of further research that could be explored. This research focuses on only one possible component of a holistic model of developing the housing finance in Saudi Arabia. This research study adds to the existing literature on the housing finance sector. Additional literature that delves deeper into the recommendations listed above would serve well to further increase the knowledgebase and studies of the housing sector in Saudi Arabia. In addition, the future research will focus on developing a cohesive housing finance structure, designing housing finance models, adopting the concept of housing affordability in different disciplines including designs, costs, and urban planning regulations, and creating a sustainable housing industry in Saudi Arabia.

The research recommendations are based on the in-depth review of literature, relevant studies, professional reports, and the data gained from the interviews. The main limitations in this research are that the recommendations are based on the mentioned review of literature and interviews. Also, there are few studies that serve the Saudi housing needs and work on revising the Saudi housing sector. The other limitations were difficulty accessing some official staff in the public or private sectors to whom I have conducted interviews for this research. Some of them did not like to participate in this research and share their present and future perspectives in the housing sector, which otherwise could have been further beneficial to this research. A further explanation of the need as well as examination of future policy options are warranted. Similarly, future research on various related aspects as well as future development policy mandates are needed to highlight the hidden points underlying the framework and structure of the housing and housing finance sectors.

APPENDIX

INTERVIEW GUIDE

A. Intro and Background Information:

Hello (Mr.) ____, thank you for taking the time to speak with me today. Let me begin this conversation by introducing myself. My name is Musaed Alqannas. I am a graduate student at the University of Texas at Arlington, working towards completion of my doctoral degree in Urban Planning and Public Policy. Currently, I am in the process of finalizing my doctoral thesis. The topic of my research is *Developing financial framework as an approach to provide affordable housing finance for middle income and housing developers in Saudi Arabia.* I am specifically interested in identifying a list of critical success factors and policies that are able to support affordable housing by using the information obtained from the interview

B. Interview Goals:

At the end of this interview, my goal is to suggest policy options for providing and financing affordable housing for middle income citizens in Saudi Arabia. In addition, the research will explore existing characteristics, potentials, and limitations of the main stakeholders such as governmental agencies, financial institutions, and the private sector.

C. Contact:

Cell phone: +966505855482
Email: alqannas202@hotmail.com

D. Interview Questions:

Q1: What in your opinion is a major barrier to the *government agencies* financing housing in Saudi Arabia? Please explain your answer.

- Regulative
- Legal
- Financial
- All of them

Q2: What in your opinion is a major barrier to the *financial institutions* financing housing in Saudi Arabia? Please explain your answer.

- Regulative
- Legal
- Financial
- All of them

Q3: What in your opinion is a major barrier to the *private sectors* financing housing in Saudi Arabia? Please explain your answer.

- Regulative
- Legal
- Financial
- All of them

Q4: What role should the *government agencies* play in housing finance for middle income citizens? By role I mean the responsibilities in areas such as regulation, legal, housing control, etc.

Q5: What role should the *financial institutions* play housing finance for middle income citizens? By role I mean the responsibilities in areas such as mortgages, loan, and finance projects, etc.

Q6: What role should the *private sectors* play housing finance for middle income citizens? By role I mean the responsibilities in areas such as investments, development projects, construction, etc.

Q7: In your consideration should the current housing regulation and financial frameworks in Saudi Arabia be improve? Please elaborate on your answer.

Q8: How would you describe relationships and interactions between partnerships and stakeholders (e.g. governmental agencies, financial institutions, and the private sectors) in the housing market?

Q9: Do you think the financial options offered is not affordable for Saudi citizens or housing developers? Why?

Q10: In your opinion, why does Saudi Arabia have a lack of affordable housing units in the market?

Q11: a. Mention some global countries that you think have successful policies to provide affordable finance housing? b. In your experience, what would you consider some barriers and obstacles to implementing these successful foreign housing polices in the Saudi context?

Q12: From my studies and analysis I find main programs in the United States that could be applicable in the Saudi context: Government insured mortgages, Loan Term and Amortisation Pattern, Down Payment Size/Borrower Equity, Interest Rate, and Property Tax Deduction. Do you think any of these programs can assist middle income citizens to acquire fund to purchase?

Q13: The Real Estate Development Fund (REDF) policy provides a huge funding for the middle income citizens in Saudi Arabia. Do you think Saudi Banks should take over this like the system in the United States and Canada?

Q14: Do you think the Real Estate Development Fund (REDF) need to have different roles in the housing market? For example: in the United States and Canada The Federal Home Loan Bank (FHL Bank) and Canada Mortgage & Housing Corporation (CMHC) provide funding for the financial institutions that offer housing loans to middle income and housing developers in the United states, Do you think the REDF need play the role of (FHL Bank) and (CMHC) by changing REDF to be a state bank that funding to Saudi financial institutions for middle income home mortgage loans and the housing developers?

Q15: Federal Housing Administration (FHA) in the United States and the Canada Mortgage & Housing Corporation (CMHC) has a great experience in increasing the homeownership rate. Do you think there are potential to have a government institution under the Ministry of Housing like FHA in Saudi Arabia to provide insurance for the housing loans?

Q16: The secondary mortgage market in the United States is a network of mortgage originators who lend money to home buyers and investors who buy mortgage loans. The secondary mortgage market increase the availability of financing for residential mortgage loans; they provide credit for innovative as well as traditional types of mortgages, and they serve homebuyers through their purchases of loans above the statutory loan limits of Freddie Mac and Fannie Mae. In your opinion, what is the viability of secondary mortgage market and Government Sponsored Enterprise in Saudi Arabia to increase the housing loans and open investment phase in the housing sector?

Q17: There are international governments have intervention in the housing finance system. In the United States a major proportion of housing finance intervention is achieved through tax policy, institutional regulation, and targeted government programmes. In addition, in March, 2015 Saudi Arabia imposed taxes on undeveloped urban land that new regulation expected to help urban development as Saudi tackles housing shortage. In your view, do you agree the Saudi government should increase intervention in the Saudi market not like the past?

Q18: In your opinion, what is the best strategy and potentials to implement housing finance policies/ developments/projects in Saudi Arabia?

Q19: How likely are you to recommend these points below to implement in Saudi Arabia (5: more agree – 1: not agree):

proposed points to implement in Saudi Arabia	**5**	**4**	**3**	**2**	**1**
Implementing Government insured mortgages program					
Implementing Loan Term and Amortization Pattern program					
Implementing Down Payment Size/Borrower Equity program					
Implementing Interest Rate program					
Implementing Property Tax Deduction program					
Providing the housing loans to the middle income citizens from the Saudi banks that should take over this function from the Real Estate Development Fund (REDF)					
Establishing a government institution under the Ministry of Housing such as (FHA in the United States and CMHC in Canada)					
Increasing the government intervention roles in the Saudi housing market					
Developing the role of the Real Estate Development Fund (REDF) to be a government bank that funding the Saudi financial institutions like the Federal Home Loan Bank in the United States					
Creating secondary mortgage market in Saudi Arabia to increase the housing loans from the financial institutions and open investment phase in the housing sector					
Founding government Sponsored Enterprise such as Fannie Mae and Freddie Mac in the Saudi housing market					
Forming Securitization feature in the Saudi housing finance system that support increasing numbers of financial institutions employ securitization to transfer the credit risk of the assets					

Q20: Do you have any other comments, suggestions or questions regarding this topic that I may have missed?

Q21: Can you please provide me with three recommendations of sources (books, journals, articles, organizations, websites, etc.) that you believe will help me with further research?

Q22: Lastly, can you please provide me with three additional colleagues in the realm of housing finance that I can interview in the future?

I certainly do appreciate your time (Mr.) ____, Thank you very much for helping me with my research and answering my questions. Should you think of anything else at a future point in time, please do not hesitate to inform me. Also, should you have any questions for me, please do not hesitate to ask. Thanks again for your time. Have a great day!!

REFERENCES

Aldosary, A., Alshuwaikhat, H., Quadri, S. and Raziuddin, M. (2007). *Determining affordable housing stocks in administrative area*. Al Saedan Chair on Affordable Housing report, King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia.

Assaf, S. A., Bubshaitr, A. A., & Al-Muwasheer, F. (2010). Factors affecting affordable housing cost in Saudi Arabia. *International Journal of Housing Markets and Analysis*, *3*(4), 290-307.

Arksey, H., & Knight, P. (1999). *Interviewing for social scientists: An introductory resource with examples.* London, UK: Sage Publications Ltd.

Acioly, C. and French, M. (2012). Housing Developers: Developing World, *In International Encyclopedia of Housing and Home*, edited by Susan J. Smith, Elsevier, San Diego, Pages 422-428. Retrieved from: http://dx.doi.org/10.1016/B978-0-08-047163-1.00443-4.

Aljazira Capital (2015). Real Estate Market Outlook: Regulatory Reforms & an Overall Stagnant View for 2015. Real Estate Market Outlook. Retrieved from: http://www.aljaziracapital.com.sa/report_file/ess/SEC-219.pdf

Akinwale, J. A. (2004). *Accessing the national housing fund-loan scheme*. Retrieved from http://www.deltastate.gov.ng/accessing (nhf).htm

Alomran, A. (2015). Saudi Arabia to Impose Taxes on Undeveloped Urban Land. The Wall Street Journal. Retrieved from: http://www.wsj.com/articles/saudi-arabia-to-impose-taxes-on-undeveloped-urban-land-1427131099

Alm, J.; Buschman, R.; & Sjoquist, D. (2011). Rethinking local government reliance on the property tax. Regional Science and Urban Economics. 41 (4), 320–331.

Anjomani, A. (1994). Developing and financing housing and highway systems: Lessons from US experience. *Studies in Comparative International Development*, *28*(4), 50-61.

Bach, A., Prema, G., Richard, H., George, K., Pawlukiewicz, M., and Pitchford, M. (2007). Ten Principles for Developing Affordable Housing. Washington, D.C.: ULI–the Urban Land

Institute. Retrieved from: http://uli.org/wpcontent/uploads/2012/07/TP_AffordableHousing.ashx_.pdf

Beer, A. (2012). Housing Governance, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, 2012, Pages 497-501, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00704-9.

Bourne, L. S. (1981). *The geography of housing*. London: V.H. Winston & Sons, New York.

Bortel, G. (2012). Institutions and Governance Networks in Housing and Urban Regeneration, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, Pages 93-98, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00458-6.

Barth, J. & Hollans, H. (2012). Housing Finance: Deposit Guarantees, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, Pages 450-455, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00221-6.

Berg, B. 2007. *Qualitative research methods for the social sciences*. Boston, MA: Pearson.

Bluestone, B., Stevenson, M. H., & Williams, R. (2008). The urban experience: Economics, society, and public policy. *OUP Catalogue*.

Bourassa, S. (2012). Access and Affordability: Homeowner Taxation, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 13-17, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00203-4.

Baer, W.C. (1976). The Evaluation of Housing Indicators and Housing Standards: Some Lessons for the Future, Public Policy, 24(3), 361–93.

Bhatta, Basudeb (2010). *Analysis of Urban Growth and Sprawl from Remote Sensing Data*. Advances in Geographic Information Science. New York: Springer.

Bieri, D. and Dawkins, C. (2012). Housing Affordability with Local Wage and Price Variation. *College of Architecture and Urban Planning magazine.* University of Michigan Ann Arbor. *3*(2), 1-31.

Badcock, B. (2012). Central Government Institutions, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, 2012, Pages 122-130, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00404-5.

Banque Saudi Fransi (2011). Under construction: Saudi steps up efforts to meet home, loan demand. Retrieved from: www.alfransi.com.sa/en/general/download/file/1134

Basciano, P.; Jackson, P; & Grayson, J. (2008). Mortgage choice: a review of the literature. Journal of Personal Finance. 7(1). 42 – 67.

Canada Mortgage and Housing Corporation (CMHC). (2013). Canadian housing observer. Retrieved from http://www.cmhc-schl.gc.ca/odpub/pdf/67989.pdf

Canada Mortgage and Housing Corporation (CMHC). (2014). Comparing Canada and U.S. Housing Finance Systems. Retrieved from http://www.cmhc-schl.gc.ca/en/corp/nero/jufa/jufa_018.cfm

Coffey, A., Holbrook, B., & Atkinson, P. (1996). Qualitative data analysis: Technologies and representations.

Crawford, A., Meh, C., & Zhou, J. (2013). The Residential mortgage market in Canada: a Primer. *Financial System Review*, *3*, 53.

Center for Housing Policy (CHP) (2014). *Online guide to state and local housing policy*. Retrieved from: http://www.HousingPolicy.org

Cohen, R. & Wardrip, K. (2011). The Economic & Fiscal Benefits of Affordable Housing. Planning Commissioners Journal. Retrieved from: http://plannersweb.com/wp-content/uploads/2012/07/501.pdf

Creswell, J. (2003). “A framework for design,” in *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 2nd Ed*. Thousand Oaks: Sage, p-.3-26.

Chambers, M. (2012). Taxation and Subsidies: The US Case, In International Encyclopedia of Housing and Home, Elsevier, San Diego, Pages 148-151, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00182-X.

Central Provident Fund (CDF, 2015). The Central Provident Fund (CPF) scheme. Retrieved from: https://www.cpf.gov.sg/Members/Schemes#Housing

Crawford, A., Meh, C., & Zhou, J. (2013). The Residential mortgage market in Canada: a Primer. Financial System Review, 3, 53.

Cigdem, M. & Wood, G. (2012). Choice and Government Intervention in Housing Markets, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 137-143, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00212-5.

Dunn, K. (2000). Interviewing. In: HAY, Ian (editor 2000): Qualitative Research Methods in Human Geography. Oxford.

Dubel, H. J. (2011). Institutions and the Promotion of Housing Finance. *In Housing Finance in Emerging Markets* (pp. 119-133). Springer Berlin Heidelberg.

Dübel, H. J. (2011). Regulation and Access to Finance. In *Housing Finance in Emerging Markets* (pp. 83-117). Springer Berlin Heidelberg.

Erbas, S. N., & Nothaft, F. E. (2005). Mortgage markets in Middle East and North African countries: Market development, poverty reduction, and growth. *Journal of Housing Economics*, *14*(3), 212-241.

Elsinga, M. (2012). Government Mortgage Guarantee Institutions, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 298-303, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00413-6.

Frame, W. & White, L. (2012). Industrial Organization of the US Residential Mortgage Market, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 37-48, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00134-X.

Flanagan, M. (2012). Mortgage Markets: Regulation and Intervention, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 507-517, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00267-8.

Fabozzi, F. J. (1992). *Mortgage and mortgage-backed securities markets*. Harvard Business School Press.

Frame, W. S., & White, L. J. (2011). The Industrial Organization of the US Single-Family Residential Mortgage Industry. *International Encyclopedia of Housing and Home*, *forthcoming*.

Grigsby, W. (1990). Housing finance and subsidies in the United States.*Urban Studies*, *27*(6), 831-845.

GIZ. (2011). *Strategic options for Saudi Arabia main report and annexes.* Berlin, Germany: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

Grimsey, D., & Lewis, M. (2007). Public private partnerships and public procurement. *Agenda: A Journal of Policy Analysis and Reform*, 171-188.

Green, R. K., & Malpezzi, S. (2003). *A primer on US housing markets and housing policy*. The Urban Insitute.

Glaeser, E. & Sacerdote, B. (2000). The social consequences of housing. Journal of Housing Economics 9: 1–23.

Glaeser, E. and Shapiro, J. (2002). The benefits of the home mortgage interest deduction. Harvard Institute of Economic Research Working Paper No. 1979.

Guttentag, J. (2012). Mortgage Insurance, In International Encyclopedia of Housing and Home, edited by Susan J. Hoek-Smith, Elsevier, San Diego, Pages 376-381, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00144-2.

Goodman, j. (2005). Houses, Apartments, and Property Tax Incidence. Joint Center for Housing Studies. Harvard University. Retrieved from: http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/w05-2.pdf

Green, R. (2014). International Comparisons of Mortgages, In Introduction to Mortgages & Mortgage Backed Securities, Academic Press: San Diego.

Hoek-Smit, M. C. (2011). Government Policies and Their Implications for Housing Finance. In *Housing Finance in Emerging Markets* (pp. 49-81). Springer Berlin Heidelberg.

Hawtery, K. (2009). *Affordable Housing Finance*. New York: Palgrave Macmillan Studies in Banking and financial Institutions.

Hoskins, S; Katie J.; & Eric W. (2013). An Overview of the Housing Finance System in the United States. *CRS Report for Congress 7*. Vol. 5700.

Haffner, M. and Heijden, H. (2012). Government Sponsored Enterprises in the United States, In International Encyclopedia of Housing and Home, edited by Susan J. Hoek-Smith, Elsevier, San Diego. Pages 311-315, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00414-8.

Lucas, D. (2011). *Fannie Mae, Freddie Mac, and the federal role in the secondary mortgage market*. DIANE Publishing.

Leece, D. (2012). Mortgage Contracts: Traditional, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 341-345, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00192-2.

Iglesias, T. & Lento, R. (2013). *The Legal Guide to Affordable Housing Development.* Chicago: American Bar Association.

Iglesias, T. (2012). Housing Paradigms, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, Pages 544-549, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00436-7.

Jones, K. (2013). FHA-Insured Home Loans: An Overview. Congressional Research Service. Received from: https://www.fas.org/sgp/crs/misc/RS20530.pdf

Jones, K. (2012). The FHA Single-Family Mortgage Insurance. Congressional Research Service. Received from: http://fas.org/sgp/crs/misc/R42875.pdf

Kephart, N. (2005). Federal Housing Administration. Summary report published by the Center on Federal Financial Institutions.

King, C. and Pavlov, A. (2012). Credit Derivatives and the Housing Market, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 269-279, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00137-5.

Ligon, J & Michel, N. (2014). GSE Reform: The Economic Effects of Eliminating a Government Guarantee in Housing Finance. The Heritage Foundation.

Ministry of Economy & Planning (MOEP) (2011). *Housing, Chapter 20 of The Ninth Development Plan*, Riyadh: Ministry of Economy & Planning, Kingdom of Saudi Arabia.

McKinsey Global Institute (2014). *A blueprint for addressing the global affordable housing challenge*. http://www.infrastructureintelligence.com/sites/default/files/article_uploads/McKinsey%20-%20Affordable%20housing%20challenge.pdf

McBride, R. & Schostak, J. (2007). Qualitative vs. quantitative research. Retrieved from http://www.enquirylearning.net/ELU/Issues/Research/Res1Ch2.html

Moskalyk, A. (2008). *The role of public-private partnerships in funding social housing in Canada*. Canadian Policy Research Networks.

Moskalyk, A. (2011). *Public-private Partnerships in Housing and Urban Development*. UN-HABITAT.

Milligan, V. (2005). *Directions for Affordable Housing Policy in Australia: Outcomes of a Stakeholder Forum: Collaborative Research Venture 3:'Housing Affordability for Lower Income Australians'*. AHURI.

McCoy, A. P., Thabet, W., & Badinelli, R. (2009). Understanding the role of developer/builders in the concurrent commercialization of product innovation. *European Journal of Innovation Management*, *12*(1), 102-128.

Mubarak, F. A. (1999). Cultural adaptation to housing needs: a case study, Riyadh, Saudi Arabia. In *IAHS Conference Proceedings* (pp. 1-7).

Marshall, P. S. (1989). Help buyers make the right mortgage wish. *Real Estate Today*, January, 56-61.

McCartney, L. L. (1989). *15-vs. 30-year mortgages. Consumers Digest, July/ August, 66-67.*

McDonald, D. J., & Thornton, D. L. (2008). A primer on the mortgage market and mortgage finance. *Review-Federal Reserve Bank of Saint Louis*, *90*(1), 31.

Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.

Ng, E. Central Provident Fund in Singapore. Rising to the Challenge in Asia: A Study of Financial Markets, 55.

Oxley, M. (2012). Development Land Tax, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, Pages 335-340, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00216-2.

Perl, L. (2013). VA Housing: Guaranteed Loans, Direct Loans, and Specially Adapted Housing. Congressional Research Service. Retrieved from: https://www.fas.org/sgp/crs/misc/R42504.pdf

Patton, M.Q. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage Publications.

Plumb, C., Hassouni, H. and Sahyon, S. (2011), *Affordable Housing in MENA: Why Affordable Housing Matters?*, Jones Lang LaSalle, Chicago, IL.

Phang, S. Y. (2013). *Housing finance systems: market failures and government failures*. Palgrave Macmillan.

Poterba J and Sinai T (2008) Income tax provisions affecting owner-occupied housing: Revenue costs and incentive effects. National Bureau of Economic Research. Working Paper No. 14253.

Rhine, S. (2014). Low-Income Housing Tax Credits: Affordable Housing Investment Opportunities for Banks. Community Developments Insights. Office of the Comptroller of the Currency. Retrieved from: http://www.occ.gov/topics/community-affairs/publications/insights/insights-low-income-housing-tax-credits.pdf

Rudner, L. (1999). Question/problem: Qualitative and quantitative research methods. Retrieved from www.ericae.net

Robert A. Opoku & Alhassan G. Abdul-Muhmin, (2013),"Realizing the dream of owning a home", International Journal of Housing Markets and Analysis, Vol. 6 Iss 3 pp. 300 - 316

Ramady, M. A. (2010). Privatization and Foreign Direct Investment. In *The Saudi Arabian Economy* (pp. 323-349). Springer US.

Schill, M. H. (2005). Regulations and housing development: What we know. Cityscape, 5-19.

Stewart, M. (2012). Taxation Policy and Housing, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego, Pages 152-166, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00701-3.

Sim, L. L., Yu, S. M., & Han, S. S. (2003). Public housing and ethnic integration in Singapore. Habitat International, 27(2), 293-307.

Sidawi, B., & Meeran, S. (2011). A framework for providing lifelong finance to the owners of affordable dwellings in the Kingdom of Saudi Arabia. *Cities*, *28*(2), 138-146.

Stone, M. E., Burke, T., & Ralston, L. (2011). The residual income approach to housing affordability: The theory and the practice.

Stewart, M. (2012). Taxation Policy and Housing, In International Encyclopedia of Housing and Home, edited by Susan J. Smith, Elsevier, San Diego. Pages 152-166, ISBN 9780080471716, http://dx.doi.org/10.1016/B978-0-08-047163-1.00701-3.

Smith, B. C. (2014). Housing Access and Risk Management: Competing Directives in the Federal Housing Administration. *Journal of Housing Research*,*23*(2), 105-126.

Stone, M. E. (2006). What is housing affordability? The case for the residual income approach. *Housing policy debate*, *17*(1), 151-184.

Sidawi, B. (2014). An evaluation of the performance of the housing finance system in the Kingdom of Saudi Arabia. *International Journal of Housing Markets and Analysis*, *7*(2), 156-174.

Sidawi, B (2009). Hindrances to the financing of affordable housing in Kingdom of Saudi Arabia, *Emirates Journal for Engineering Research*, *14* (*1*), *73-82*

Struyk, R. (2005). *Housing Policy Issues in a rich country with high population growth: the case of Riyadh, Saudi Arabia*, Review of Urban & Regional Development Studies, 17, 2. 140-161.

Saudi Arabian Monetary Agency (SAMA) (2013). *The Forty Eighth Annual Report*. Riyadh: Saudi Arabian Monetary Agency, Kingdom of Saudi Arabia.

Samba Financial Group (2010). *Saudi Residential Real Estate Report.* Retrieved from: file:///C:/Users/MUSAED/Downloads/saudi_arabia_housing_market_arb.pdf

Samba Financial Group (2010), Saudi Arabia's Housing Market: Structural Issues, Financing, and Potential, SAMBA Report Series, December, Retrieved from: www.samba.com.sa/GblDocs/saudi_arabia_housing_market_eng.pdf

Shroder, M., & Reiger, A. (2000). Vouchers versus production revisited. *Journal of Housing Research*, *11*(1), 91-107.

Stone, M. (2013). What Is Housing Affordability? The Case for the Residual Income Approach. Tighe, R. and Mueller, E. (Eds.), *The Affordable Housing Reader*. (1st ed., 17(1), p 151-184). New York: Routledge.

Schwartz, A. F. (2014). *Housing policy in the United States*. Routledge.

Sanders, A. B. (2005). Barriers to homeownership and housing quality: The impact of the international mortgage market. *Journal of Housing Economics*, *14*(3), 147-152.

Stephens, M. (2003). Globalization and housing finance systems in advanced and transition economies. *Urban Studies*, *40*(5-6), 1011-1026.

Tsounta, E. (2011). *Home Sweet Home: Government's Role in Reaching the American Dream* (No. 11-191). International Monetary Fund. Retrieved from: https://www.imf.org/external/pubs/ft/wp/2011/wp11191.pdf

The National Commercial Bank (NCB) (2009), *Market review and outlook*, Economics Department Report, Riyadh, Saudi Arabia.

The United States Department of Housing and Urban Development (HUD). (2013). *Affordable Housing*. Retrieved from: http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/programs/home/

The Ministry of Economy and Planning (MOEP) (2015). Saudi Economic Report (SECOR). Retrieved from: http://www.mep.gov.sa/themes/Dashboard/index.jsp;jsessionid=D2F461D497D3C7BC97D6BA6F2C2F3AE3.beta#1437456095596

The National Affordable Housing Consortium (NAHC). (2006). *Queensland Affordable Housing Consortium, Australia*. Retrieved from http://www.qahc.asn.au/modules/tinyd0/index.php?id=8

The National Commercial Bank (2005), Market Review and Outlook, Economics Department, Jeddah, Vol. 15 No. 9.

The Central Department of Statistics and Information (CDSI) (2013). Statistical Yearbook. Retrieved from: http://www.stats.gov.sa/sites/default/files/cdsi_data/yb50/

The Ministry of Housing (MOH) (2016). The Saudi national housing conference. Retrieved from: http://www.alriyadh.com/1128832

The Ministry of Interior (2014). Kingdom of Saudi Arabia map. Retrieved from: https://www.moi.gov.sa/wps/portal/Home/emirates/!ut/p/z1/04_Sj9CPykssy0xPLMnMz0vMAfIjo8ziLQPdnT08TIy83Q0dzQwcPc2N_A08TQ3dPY30wwkpiAJKG-AAjgZA_VFgJc7ujh4m5j4GBhY-7qYGno4eoUGWgcbGBo7GUAV4zAhOLNIvyI0wyDJxVAQAWYyrQQ!!/dz/d5/L2dJQSEvUUt3QS80TmxFL1o2XzBJNDRIMTQyS0dBREIwQUEzUTlLNUkxMEw0/

Traclet, V. (2005). Structure of the Canadian housing market and finance system. *Housing Finance in the Global Financial Market*.

Wallace, J. E. (1995). Financing affordable housing in the United States. *Housing Policy Debate*, *6*(4), 785-814.

Warszawski, A., Alweyl, A., & Ishai, E. (1983). Economic comparison of single family vs. multifamily housing. *Building and Environment*, *18*(3), 151-158.

Warnock, V. C., & Warnock, F. E. (2008). Markets and housing finance. *Journal of Housing economics*, *17*(3), 239-251.

Weiss, E (2013). Changes to the Residential Mortgage Market: Legislation, Demographics, and Other Drivers. Congressional Research Service. Retrieved from: https://www.fas.org/sgp/crs/misc/R42571.pdf

Wallison, P. J. (2011). Eliminating the GSEs as part of comprehensive housing finance reform. In *Brooking Institution Conference, February*.

Vrunik, D. R., & Fisher, D. G. (1995). The effects of income tax rates and interest rates in choosing between 15- and 30-year mortgages. *The CPA Journal*, November, 72-75.

Wallison, P. J. (2011). Eliminating the GSEs as part of comprehensive housing finance reform. In *Brooking Institution Conference, February*

Weiss, E. (2013). Changes to the Residential Mortgage Market: Legislation, Demographics, and Other Drivers. Congressional Research Service. Received from: http://fas.org/sgp/crs/misc/R42571.pdf

Wallison, P. J. (2011). Eliminating the GSEs as part of comprehensive housing finance reform. In *Brooking Institution Conference, February*

Wardrip, K; Williams, L; & Suzanne, H. (2011). The Role of Affordable Housing in Creating Jobs and Stimulating Local Economic Development: A Review of the Literature. Center for Housing Policy. Retrieved from: http://www.nhc.org/media/files/Housing-and-Economic-Development-Report-2011.pdf

XiaoDi, Z and Liu, X. (2005). The Importance of Wealth and Income in the Transition to Homeownership. Joint Center for Housing Studies. Harvard University. Retrieved from: http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/w05-6.pdf

Yong, H. (2010). Public-Private Partnerships policy practice. Commonwealth Secretariat: United Kingdom.

Yezer, A. Liu, F. & Larson, W. (2012). Energy Consumption, Housing, and Urban Development Policy, In International Encyclopedia of Housing and Home, Elsevier, San Diego, Pages 80-86, ISBN 9780080471716