ARANDAAZ

ENHANCING BUILDER FINANCING IN PAKISTAN

TO PROVIDE AFFORDABLE HOUSING AND BOOST SMEs ASSOCIATED WITH THE INDUSTRY

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ACRONYMS

ABAD	Association of Builders and Developers
AD&C	Acquisition, Development and Construction
AMC	Ansaar Management Company
AMI	Area Median Income
BMGF	Bill and Melinda Gates Foundation
BOM	Bill on Material
BOQ	Bill on Quantity
CCP	Competition Commission of Pakistan
CDA	Capital Development Authority
CGT	Capital Gain Tax
CHO	Community Housing Organizations
CPI	Consumer Price Index
DC	District Commissioner
DFID	Department for International Development
DHA	Defense Housing Authority
EWS	Economically Weaker Sections
FAR	Floor-to-Area Ratio
FBR	Federal Board of Revenue
GDP	Gross Domestic Product
GST	Goods and Services Tax
HBFC	House Building Finance Corporation
HCA	Homes and Communities Agency
HIG	Higher Income Group
HPI	House Price Index
IPO	Initial Public Offering
KDA	Karachi Development Authority
KKB	*Khuda Ki Basti*
L/C	Letter of Credit
LARMIS	Land Administration and Revenue Management Information System
LDA	Lahore Development Authority
LIG	Lower Income Group
ME	Medium Enterprise

MFI	Median Family Income
MIG	Middle Income Group
MSME	Micro, Small and Medium Enterprise
NAB	National Accountability Bureau
NAHB	National Association for Home Builders
NLRMP	National Land Record Modernization Programme
NOC	No Objection Certificates
PBS	Pakistan Bureau of Statistics
PfP	Places for People
PKR	Pakistan Rupee
PLRA	Punjab Land Records Authority
REIT	Developmental Real Estate Investment Trust
RERA	Real Estate Regulatory Authority
RoA	Return on Assets
RoE	Return on Equity
SBP	State Bank of Pakistan
SE	Small Enterprise
SECP	Securities and Exchange Commission of Pakistan
SME	Small and Medium Enterprise
UAE	United Arab Emirates
UK	United Kingdom
US	United States
WHT	Withholding Tax

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EXECUTIVE SUMMARY

Financing to SME builders in Pakistan through commercial banks and financial institutions is low. Builders and developers in Pakistan fund their projects out of their own equity, investor advances, and customer installments. The land is purchased usually on the equity of one or a pool of several builders, while the initial construction costs are covered through multiple bookings made by private investors at below-market rates for ongoing projects. Meanwhile, installments by buyers fund the rest of the project.

Bank lending is usually relationship based and often limited to those builders who have other formal and established businesses, with an asset base that can be used as collateral. Owing to a range of limitations—from land administration and titling issues leading to insecure collateral, to the lack of capacity of SME builders—commercial banks are wary of lending to new or small builders with no history with the financial institution. Given a limited long-term mortgage market, only those who can meet the regular installment obligations within shorter time spans, or can pay fully upfront, buy property: this demographic usually falls in the upper-middle to upper income households.

Affordable housing is direly absent, with the current regulatory environment unconducive to builders delivering and meeting the low-cost housing demand. The real estate sector is beset by ballooning property prices, less because of the rising cost of construction materials, and more because of mounting land prices that have historically been a casualty of speculative markets. Land is bought and resold many times over before any construction begins, which persistently pushes the prices upward. In the absence of mortgage financing, a lot of investment in the real estate sector is investor-driven with the incidences of genuine property buyers low and limited to middle-to-high income groups. Meanwhile, in the recent past, there haven't been any government-backed schemes for affordable housing which have seen fruition.

There are 40-50 allied industries associated with the construction and real estate sector, most of which are SMEs. The construction sector contributed 2.7 percent to Pakistan's GDP in FY17, estimated to be 2.8 percent during FY18. With over 50 industries indirectly associated with the real estate construction sector, the overall economic impact is much higher. This study estimates that the incremental contribution to economic growth as well as employment would be significant if 100,000 more houses were constructed each year. For instance, if that number of 5-*marla* (1,125 square foot) houses in Lahore was constructed, it would contribute an additional 1.2 percent to the GDP and generate employment for 200,000 people. For 10-*marla* (2,250 square foot) houses, the GDP contribution would be 1.9 percent with employment generation for nearly 400,000 people. Meanwhile, in Karachi, high-rise apartments of that volume could yield 2.2 percent of the GDP output.

Banks are hesitant in lending to builders, especially SME builders, and builders are hesitant in seeking formal financing. SMEs in general have a hard time attaining bank financing. Some broad reasons are lack of documentation within the SME builder community. They may be unable or unmotivated about keeping their financial records in order since the cost of maintaining and auditing financial accounts is high. Cash flow management is often inefficient and dependence on regular advances from customers may limit builders' capacity for marketing and financial and project management.

It would make sense that banks do not readily lend to builders, especially those that are SMEs as these carry a higher risk due to the aforementioned reasons. For one, the bank's cost in gauging the credit-worthiness of an SME builder would be high. Bank lending is usually done on the basis of cash flows, which are not clear in the case of builders.

Many builders do not have an asset base to use for collateral, other than the property which is being developed and banks usually don't accept the same property as security as often times, the titles of these properties are dubious or not clean. The sector is also notorious for tax evasion and being used as a haven for parking black money. The property transaction tax rates have remained high, which encourages even clean money buyers to under-declare the transaction value. This makes almost all the money invested in real estate grey.

Banks have also had poor experiences in the past with SME borrowers with a handful of willful defaults. Historically, developers face long project delays. Builders' informality and their inability to meet contractual obligations, or to provide evidence of smooth cash flows, are only some of the other reasons why banks do not lend to builders they do not have an established, long-running relationship with.

The regulatory environment is not conducive for bank lending to SME builders. Whereas some efforts have recently been made on the part of Punjab and Sindh governments to digitize land records, there are a number of legal and administrative issues relating to land that add to the cost and delivery of a housing project. Poor master planning of cities, governance issues at national and local government levels, the involvement of multiple institutions in administrative procedures, problematic zoning restrictions, restrictive building codes, and unreliable public utility connections all lead to administrative issues in land management. Clean titles are still a major problem across the country, which makes the land on which the property is being developed unattractive to the bank as collateral. Land registration is lengthy, costly, and cumbersome.

These issues result in significantly raising the cost of doing business. According to the World Bank's Doing Business report of 2018, it takes nearly seven months to register a property, but builders argue that because of long procedural requirements in attaining pre-construction approvals, this period can go up to 16 months in the case of high-rise projects.

For the FY19 budget, the federal government has rationalized the property transaction tax rates, and requested the provinces to do the same. Further, the federal government kept the provisioning to buy the property at certain premium to declared values within three years. This is intended to encourage real estate buyers to declare the actual value of the property. The parking of black money is dealt with by not allowing non-filers to buy properties exceeding PKR 4 million in value. These steps may help in slashing speculative transactions and arresting the artificial price hike trend, leading to enhanced documentation in the industry and encourage bank financing.

Improvement in the regulatory environment can be sustainable if regulators are performing efficiently. Efforts have been made to regulate the real estate sector. The latest changes introduced in the budget could potentially help address some of the issues. However, the establishment of a real estate regulatory authority tasked to bring the sector out of the grey economy and oversee all projects relating to real estate should be the next logical step. The regulator should ensure that speculators are kept out of the market, all properties, dealers, builders and brokers are registered with the authority, that building codes and density laws are updated favorable to vertical development, builders are disincentivized to delay projects, and customers get housing on time without having to pay abnormally high prices, there is no contention on property titles, the tax structure is streamlined and black money can no longer be parked into the sector.

There are development authorities like Capital Development Authority (CDA), Karachi Development Authority (KDA) or Lahore Development Authority (LDA) who own the land and look at the some of the tasks of the regulator. Meanwhile the Securities and Exchange Commission of Pakistan (SECP) under the Companies Bill 2017 ensures companies that are registered with it would have to attain approval from the SECP before embarking on any project. That leaves the rest of the industry not registered with the SECP to fend for itself. The need for an overarching body whose interest lies in removing the bottlenecks that are prevalent across the length of the sector becomes even more necessary.

The central bank can play its role in persuading banks to cater to the real estate sector by providing indicative targets to banks for mortgage and builder financing. Meanwhile, the establishment of private credit bureaus that is possible now under the Credit Bureau Act of 2015, needs to be boosted.

Existing development authorities must ensure transparent titles and title transfer. They could ensure that land is bought only by known and legitimate builders and developers and provide a stipulated time until which construction should start. In the case that said time passes without any development work, the land should be taken back by these authorities and auctioned out again. These authorities should also vet the projects to ensure they are not indulging in false marketing practices and deceiving property buyers.

Pakistan could learn from and adapt some global examples of financial product innovations for the housing sector. It is argued that even if the supply of housing is somehow boosted, demand may still not be met simply by virtue of housing prices being too high and the near non-existence of a robust and well-developed mortgage market. Because mortgage availability is low, the perceived demand for housing that can actually be met is severely limited in Pakistan. A product that combines both builder and mortgage financing by one bank may resolve the financing issues on both sides of the demand-supply equation. This model is tailored across Turkey, India, US, Australia, and developing countries like Kenya.

Another popular model is a cross-subsidy model that can be taken on as a public-private partnership or even initiated by private developers who want to tap into the low-income and affordable housing demand which is substantial and growing. The model works such that the project would have a requisite number of low-cost units and a number of middle-income and even high-end units. The developer makes a small margin on the low-cost units subsidized by the higher margins on the middle-income or high-end units. This has shown promise in Pakistan in the renowned *Khuda ki Basti* (translated as God's Township) project and can be replicated across the country according to the needs and resources available.

Banks could offer tailored solutions to builders through third-party financing. Since there are over 40 SME industries tied to the construction sector, banks could offer financing to these SME contractors and vendors which they are often willing to do against the lien on goods supplied or against the payment committed by the owner. The biggest issue of immovable property that banks are hesitant to take on as collateral due to the unclarity of land titles can be bypassed here. The product can be designed for different contractors at the finishing and interior designing stages of any small or large development project.

1. BACKGROUND

1.1 Housing gap and the importance of the construction sector

The housing gap in Pakistan is huge and growing dramatically. In 1998, the housing stock was 19.2 million, while the shortage was 4.3 million.[1] According to the population census of 2017, the housing stock is 32.2 million, of which 39 percent is urban.[2] This means the housing stock increased on average by 0.68 million annually between 1998 and 2017. The World Bank estimates an annual additional requirement of housing in Pakistan to be 0.4–0.7 million, with about 0.1–0.35 million formal units being built annually.[3] However, the census numbers seem overestimated. Rough estimates suggest that the existing shortage is 10–12 million units, with this gap growing every year.[4]

The housing shortage would be more acute if room density came down. The current measure of people living per room is 3.5 for Pakistan, against a developed country average of 1.1. This difference has only been exacerbated by population growth, and the hike in real estate prices with mounting construction costs and land prices. Zameen.com's property price index for Pakistan shows that property prices grew by 126 percent from 2012 up until March of 2018; by 59 percent between 2012 and 2014; by 24 percent between 2014 and 2016, and by 9 percent since then.[5]

The dearth of low-cost housing is, in fact, a severe socioeconomic problem in South Asia resulting in reliance on slums and squatter settlements.[6] Nearly half of Pakistan's urban dwellers live in informal settlements, or what are called *kachi abaadis* (8 million in Karachi; 1.7 million in Lahore); against India's 24 percent of the urban population. More than 25 million families in India do not have a home. It is even worse for Bangladesh (55%) and Afghanistan (63%).[7] In Kabul, it was estimated that 70 percent of the city's residents live on land that is not properly registered—titles are characterized by multiple competing claims.[8] The focus of developers and builders has been to provide housing to middle-to-high income groups who have the capability to buy property. The demand for low-cost housing has not been tapped. It is not surprising that more than 60 percent of the housing shortage in South Asia is felt in the lower-income groups.

The construction sector contributed 2.7 percent of the GDP in Pakistan in FY17 and is estimated to contribute 2.8 percent during FY18.[9] The industry grew by 13.68 percent during FY16, 9.8 percent during FY17, and is projected to grow by 9.1 percent in FY18, the highest sector-wise growth in the economy. The real estate industry has more than 250 associated industries with 40–50 construction allied industries, including, aside from larger cement and steel industries, a host of SMEs.[10] The industry has a significant impact on the economy and on employment. According to a 2008 World Bank study, "*a unit increase in expenditure in construction sector has a multiplier effect and the capacity to generate income as great as five times the cost of the unit.*"[11] (See **Annexure 1** for details on materials and services used in construction.)

[1] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.
[2] Population Census 2017 of Pakistan, PBS.
[3] The World Bank. Project Information Document. Pakistan Housing Finance Project (Dec 2017).
[4] Ibid.
[5] Zameen.com is a privately-owned real estate portal for Pakistan. The portal publishes a property index for Pakistan and major cities.
[6] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.
[7] World Bank database.
[8] Housing Finance in Afghanistan: Challenges and Opportunities. Ernesto May et. al. World Bank.
[9] The State Bank of Pakistan (SBP). Annual Report 2016–17.
[10] Bricks, timber and wood, marbles, tiles and marbles, electrical and sanitary works, glass, paints and varnishes, electrical lightning, power and gas, horticulture, interior decoration, transport, light-heavy construction machinery, plastics, fibers, furniture, electrical appliances, etc.
[11] The World Bank. Ninova, Tatiana. Pg 1, Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.

Table 1: Housing gaps in South Asia				
	*Shortage as % of population	Slums as a % of urban population	Shortage 2008–9 (million)	Shortage 2017 (million)
Afghanistan	35	63	1.5	NA
Bangladesh	18	55	5	8
India	11	24	18	10
Pakistan	31	46	7.5	12

Note: *Figures are for 2008–09 from The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC. Slum figures are from World Bank Database for 2014. Revised shortage: India (Housing and Urban Affairs); Pakistan (World Bank); Bangladesh (based on the projection that in 2021, the gap will widen to 8.5 million as 0.12 million houses are in demand each year).

1.2 State of financing for builders and developers

In South Asia, as in many other developing economies, builders fund projects with their own equity, investor advances, and customer installments, which together limit development projects to a small scale. One or several builders pool money to purchase the land. Meanwhile, private investors advance builder funds for multiple bookings at prices below the ongoing market rates which cover part of the construction costs; advances at regular intervals fund the rest. This is true for most projects in Bangladesh, Afghanistan, India, and Pakistan. Developer finance through commercial banks is very scant.

In India, financing is available via commercial banks as well as capital markets but remains limited to high-end development projects. Meanwhile, in Pakistan, banks may lend to those they have built relationships with over the years, who have an asset base for collateral, have their accounts in order, and are either established developers or have other formal businesses. Owing to a range of limitations—from land administration and titling issues leading to insecure collateral, to a lack of capacity of SME builders—commercial banks are wary of lending to new or small builders with no history with the financial institution (more on this in **section 4**).

The World Bank report of 2010 contends: *"These are pockets of unregulated tracts of land scattered throughout the landscape of large cities; and over the years, they have sprouted to fulfill the housing needs of the low-income stratum of the society. Because property ownership in these shantytowns is devoid of a legal title, housing finance from the formal credit system could not trickle to these areas."*[12]

The construction costs of most projects are financed by the buyers themselves through installment advances to the builder. Buyers also use their savings given limited long-term mortgage financing options. This ensures that only those who can afford to pay upfront, and those who can meet the regular installment obligations within a short time frame of 2–5 years, would be able to afford a house.

Ultimately, the financial product available is a plain vanilla relationship lending product, where some banks accept the land of the project as collateral, while most require separate collateral due to titling and registration issues. The existing financing comes either in the form of cash lines or term finance for projects.

The House Building Finance Corporation (HBFC) is the only specialized institution in Pakistan that caters to the mortgage financing needs of middle- and low-income groups in the country. While two products (short- to long-term loans) are available for builders and developers, these have had little to no success. The products have not attracted any significant number of small builders. Around 30–40 builders in Karachi availed these funding options, most reportedly defaulted because they were unable to find buyers for the properties (see **Annexure 4**).

Developer financing too low in Pakistan?

In the past ten years, the construction sector has remained between 2.8 percent and 3.8 percent of total private sector business loans,[13] which is roughly in line with construction sector contribution to GDP which stood at 2.7 percent in FY17 (see **table 2**). In the SBP database, construction is bifurcated into "building construction" and "infrastructure construction." For the purposes of this study, building construction is the measure being considered. The share of building construction finances has actually fallen from 2.3 percent in 2006 to 1.8 percent in 2018 (see **figure 2**).

[12] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.
[13] State Bank of Pakistan. Econdata.

Table 2: Construction financing snapshot	
Construction contribution in GDP FY17	2.70%
Total construction finance as a % of loans to private sector businesses	3.80%
Building construction as a % of loans to private sector businesses	1.80%
Lending to SMEs as a % of loans to private sector businesses	8.90%
Lending to building construction SMEs as % of total building construction finance	9.80%
Lending to building construction SMEs as % of loans to all SMEs	1.90%

Note: SBP bifurcates construction lending into building and infrastructure. Source: SBP, Feb 2018; Economic Survey of Pakistan.

Of the total lending to building construction borrowers, lending to building construction SMEs[14] is 9.8 percent, which is not completely out of line with lending to SMEs within private sector businesses in general (see **figure 3**). In fact, SME loans as a share of total private sector business loans were 8.9 percent in March 2018; down from a peak of 15 percent in December 2016, and 10.7 percent in December 2015. Meanwhile, lending to SME building construction has remained less than 2 percent of all lending to SMEs (see **figure 4**). It is clear that the sector is not on the radar of commercial banks, and financing to SMEs, whether builders or other businesses, has remained insubstantial. One reason for this is the property crash in the late 2000s, which resulted in financial institutions becoming averse to construstion real estate related lending.

Anecdotal evidence suggests that real estate and construction lending may be underreported as some bank borrowers divert the financing extended to them for other businesses toward real estate development or construction of residential and commercial buildings. For example, money borrowed for long-term financing of textiles at subsidized rates is invested in making shopping plazas. There are instances where cash lines from banks for other businesses are deployed in real estate projects.

Figure 1: Total construction credit in Pakistan (PKR Millions)

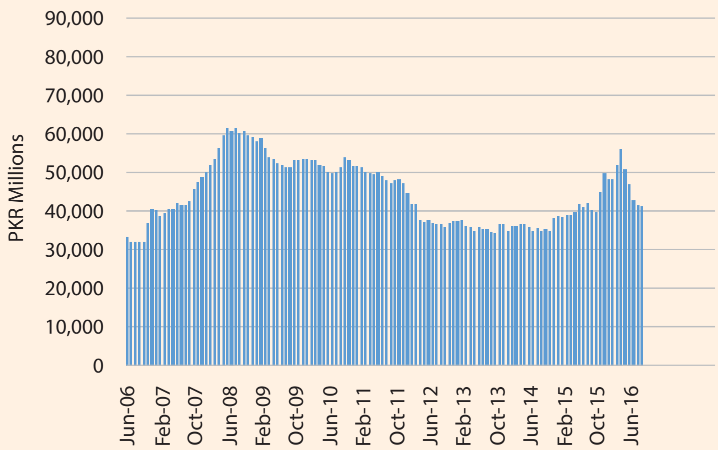


Figure 2: Building construction finance as % of loans to private sector business

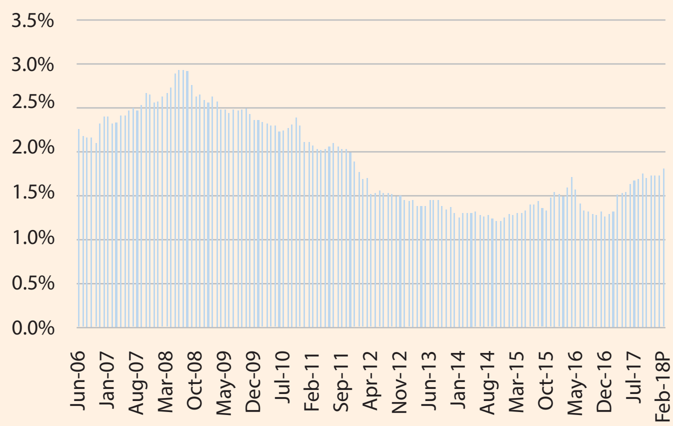


Figure 3: Building construction SMEs finance as % of building construction finance

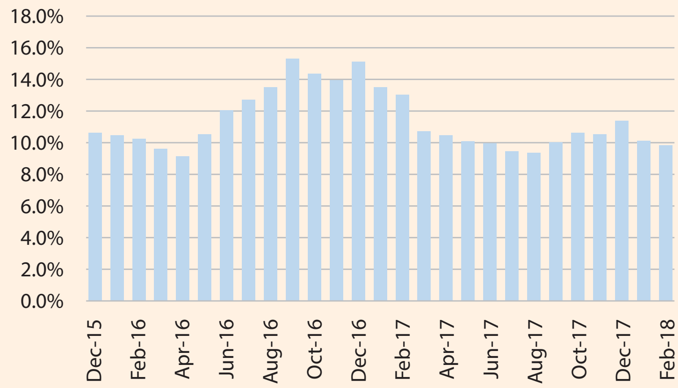
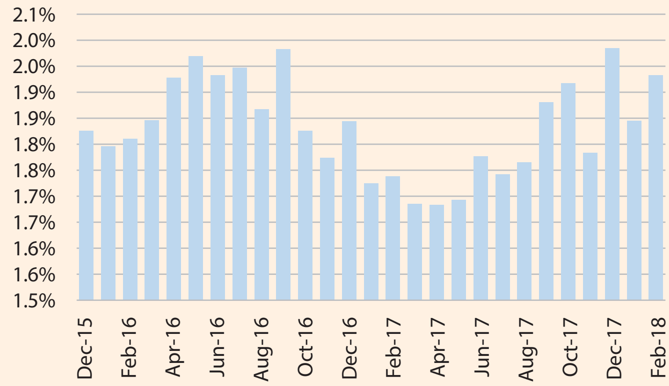


Figure 4: Building construction SMEs finance as % of loans to all SMEs



1.3 Aim of this study

The aim of the study is two-fold:

i) To identify products targeted and tailored towards the needs of builders and developers, particularly those working on, or those who could potentially work on, low-cost or affordable housing projects.

ii) To estimate the costs of construction across the country and determine the incremental economic contribution, as well as the employment generation, that this industry can create if the existing and growing housing demand is met.

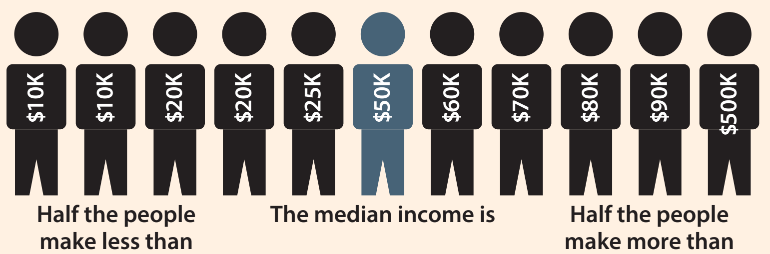
2. LOW-COST HOUSING: DEFINITIONS AND MODELS FROM AROUND THE WORLD

2.1 Defining low-cost or affordable housing

Throughout literature, there is no singular definition of what affordable housing means. Across countries, different measures are used to determine what constitutes affordable housing. One popular measure of housing affordability is the ratio of "*the sum of the monthly housing expenses (e.g. rent, mortgage repayments) to the monthly income per household.*"[15] This proportion indicates the share of a household's income needed for housing.

In the United States, housing is considered affordable if a family spends 30 percent or less of their income to live there. This threshold is called the "affordable rent burden."[16] The term affordable housing is used for households in the middle or at the lower end of the income scale for which the government calculates median family income (MFI), which is the median, not average, income in the income distribution of all households. Using MFI, the government creates income categories where each category is a percentage range based on MFI. And there are separate MFIs for different states, cities, and boroughs.[17]

Figure 5: Median family income in the United States



Source: Recreated illustration from Center for Urban pedagogy. "What Is Affordable Housing?" (2009)

In California for instance, affordable housing is directed toward very low, low, moderate, and middle-income households,[18] which are determined by the Area Median Income (AMI).[19] Very-low-income households are those that earn up to 55 percent of the AMI in San Francisco, low-income households earn up to 80 percent of the AMI, moderate-income households earn up to 120 percent of the AMI, and middle-income households earn up to 140 percent of the AMI.

Housing cost that does not exceed 30 percent of income is also used to establish the threshold for affordable housing in other less developed countries like Kenya. In India, the Ministry of Housing and Urban Poverty Alleviation categorizes Indian households by their income when designing housing policies. The four categories are: economically weaker sections (EWS), lower income group (LIG), middle income group (MIG), and higher income group (HIG).[20] Nearly 90 percent of the shortage in India is in the EWS and LIG categories, these being the primary targets for affordable housing.

A common measure of house affordability is the median multiple: this rates the affordability of housing by dividing the median house price with the annual median household income. A multiple of three or less is considered affordable according to the Demographia International Housing Affordability Survey.[21] Unfortunately, this survey does not cover Pakistan or South Asia.

[15] Reed. Housing Affordability from a Global Perspective: Comparison of Housing Affordability in Germany and Australia. (2011).
[16] The Center for Urban pedagogy. What Is Affordable Housing? (2009)
[17] Ibid.
[18] Planning Department, San Francisco. Affordable Housing Defined. web. http://sf-planning.org/affordable-housing-defined. Accessed May 26, 2018
[19] Area = a particular geographical area, e.g., San Francisco; median = middle point: half of the households earn below the median while the other half earn above; income = total income of the entire household.
[20] Aashna Desai. Financing Affordable Housing for the Low-Income in Urban India. (2014).
[21] Wendell Cox. Housing affordability and the standard of living: the 14th annual demographia international housing affordability survey. Web. http://www.newgeography.com/content/005858-housing-affordability-and-standard-living-the-14th-annual-demographia-international-housing-affordability-survey. Accessed May 26, 2018.

2.2 Low-cost and affordable housing models: a cross-country look

Pakistan

There have been a number of low-cost housing schemes in Pakistan: some were successful, many were not. Among the successful projects are earlier public sector schemes like the Greater Karachi Resettlement Programme of 1958 in Korangi Town, funded by the World Bank, and the Surjani Town scheme. In the latter scheme, the HBFC was involved in providing mortgage financing. These projects were initially unsuccessful because infrastructure and transport was not available. As a result, dwellers left the units and defaulted on loans. However, a couple of years later, once the area was developed and infrastructure was built, these schemes were re-inhabited. Another scheme was the Lyari Expressway Project that resettled squatters who had set up homes on the bed of the Lyari river.[22] This scheme provided residential infrastructure and essential services including transport, water, and a sewerage system. According to World Bank consultant Zaigham Rizvi, the scheme was successful.

In public-private partnerships, Al-Azam Builders in the '60s and Maymar Builders in the '70s joined hands with the government for a successful joint venture where the state sold land at concessional rates to develop low-cost high-rise apartments. Another public-private project that reached fruition was a collaboration between an NGO called Saiban and the HBFC, which provided financing, to spearhead *Khuda ki Basti* (KKB). The project was launched in Hyderabad in 1987, in Karachi in 1999,[23] and in Lahore in 2006.[24] KKB was very well-received. The Lahore KKB was launched with the support of Acumen Fund and, with the help of the organization's involvement, garnered global recognition. In fact, the model is considered highly adaptable. The project was a cross-subsidy model where 10 percent of the plots were sold at market rates. Meanwhile, the ownership of the plots was conditional on families living on site and the plots were non-transferable.[25] This model was later adopted by Ansaar Management Company(AMC), a private builder enterprise with particular focus on the development of low-cost housing (see **box 1**).

Among the unsuccessful ones is the Aashiana scheme that was launched by the Government of Punjab. It hit snags and is currently under investigation on multiple charges of corruption. There have been similar projects in the past.

Turkey

To enable the construction of low-income housing, one option is to build housing that incorporates cross-subsidies into the model. In this scenario affordable or low-cost units make a loss or a small margin subsidized by the middle-income units, which make a larger margin or are sold at market rates. "*Many housing experts believe that in order for affordable housing to be financially viable, especially in an urban setting and without alternative technologies, mixed-income is the only way to go.*"[26]

A similar model of revenue sharing or mixed-income is found in the social housing projects in Turkey by the Turkish Housing Development Administration, also known as Toplu Konut Idaresi (TOKI). The government-based housing agency carries out all housing-related activities in line with government policies. Eighty-five percent of the housing stock under TOKI is social housing, while the rest generates revenue. For the social housing component land is provided by the government and an affordable flexible payment schedule is offered to poor and lower middle income segments.

Box 1: Low-cost housing by Ansaar Management Company in Pakistan

Ansaar Management Company (AMC) was an Acumen Fund portfolio company in Pakistan; Acumen Fund had a 40 percent stake in the company. Jawad Aslam, CEO of AMC, worked on the Saiban KKB-4 project and, after a fellowship with the Acumen Fund, wanted to adopt the same concept in a for-profit venture. The model constructs and sells houses block by block in order to avoid having to raise capital for a large project. Nearly 40 percent of the houses are subsidized with a lower return of 10-12 percent, while the rest are sold at market rates to earn up to 20 percent. Inhabitants have to be living on site. Since the project is constructed in small numbers and sold thereon, economies of scale are not achieved and return is lower than for traditional models. The Acumen Fund report states that "*in exchange for a lower margin, AMC is able to recycle capital and spread out demand, and the profits made from each block can be used to fund the construction of the next block.*"

In 2016, the company was acquired by two UK-based players from the low-cost housing market: Real Equity for All (Reall), and Places for People (PfP). While Reall wanted an entry partner into Pakistan, PfP was looking to increase visibility across South Asia, and AMC's model was perceived by these players to be highly replicable.[27]

[22] Hawksbay Town (Scheme 42), Taiser Town (Scheme 45), Baldia Town (Scheme 29).
[23] Partnering with Malir Development Authority.
[24] Partnering with Acumen Fund of USA.
[25] "The laid-out-plan is based on 50:50 model, whereby 50% of the land is reserved for residential plots, 30% for internal roads, 15% for amenity plots, and 5% for commercial plots. Saiban partly works on a cross-subsidy model, since it holds 10% of plots and the commercial areas to be sold at the going market rates once the scheme is inhabited." Zaigham Mahmood Rizvi. The World Bank. Pakistan: Low Income Housing Initiatives.
[26] ABCs of Affordable Housing in Kenya. Web. https://acumen.org/wp-content/uploads/2013/03/ABCs-of-Affordable-Housing-in-Kenya.pdf. Accessed May 26, 2018.
[27] Acumen portfolio company gets acquired by two UK funds. Business Recorder. Web. https://www.brecorder.com/2016/12/30/608/. Accessed May 26, 2018.

The monthly payments are made according to a reimbursement plan which is designed using the public sector wage index calculated by the Ministry of Finance of the Republic of Turkey. While construction is finished within 24 months, the loan maturities under TOKİ lie between 8–25 years on average, depending on the financial capabilities of the target groups.

The interesting aspect here is that the property rights remain with TOKI until the debt is repaid. This acts like a guarantee for the project and minimizes the potential for defaults. According to official sources, "the rate of non-payment is near to zero in the sales. The rate of termination of the sales contracts or rate of taking back of the houses are also low (approximately 1/2,000 houses)."[28] Public banks hold TOKI accounts and the reimbursements for the sales and loans made available by TOKİ are collected by these public banks.[29] The collections accumulating in banks are transferred to the accounts of the administration within the framework of the protocols with the banks.[30]

India

The government, or a government agency, can play the role of the facilitator or guarantor together with a private sector partner that brings in funding. In India, with the Modi government's push toward 'housing for all' by 2022, and the new real estate regulations which give tax incentives, provide easier financing through banks, and improve land registration issues, developers and home buyers have greater confidence in this sector. For instance, the newly launched Goods and Services Tax (GST) allows consistent cost of construction materials across states, reducing the disparity in construction costs across the country.

The government also launched a credit linked subsidy scheme under *Pradhan Mantri Awas Yojana* for low- and middle-income groups. Meanwhile, private sector developers are also embarking on low-cost housing projects—which they find to have high margins compared to high-end housing because of greater demand in the affordable segment—shifting focus away from luxury housing. Such projects are also likely to kick off if home buyers find financing. For this reason, a private developer, Xrbia Developers, launched the 'No-Income-Proof' Home Loan Scheme, which allows home buyers to seek finance without submitting income proof documents. This enables those employed in the informal sector, and who have stable incomes, to finance home loans.[31]

There are some innovative projects to provide low-cost housing (see **box 2**). An interesting product innovation to stimulate low-income housing comes from India, a model created by Monitor Deloitte for Indian Micro-mortgages Inc., whose features include linking buyer financing to developer financing. A prominent deterrent for housing supply meeting the demand—which was largely in the informal, unsalaried segment of the economy—was the lack of formal documentation. The model first recognized that low-income customers were not 'high-risk' but 'unknown risk,' and in order to assess them, field-based verification rather than formal financial documentation was necessary. This led to small ticket housing finance, or "micro-mortgages."[34] In the model, a micro-mortgage[35] company provides loan payments on behalf of the buyers to the developer in tranches, or draws, that are linked to the project development status. This finances the developer's working capital needs.[36]

The model was found to be very viable and could breakeven within three years, with return on assets (RoA) of 3 percent,[37] and return on equity (RoE) of more than 20 percent[38] in the long term.[39] Monitor Deloitte studied the demand and concluded that many urban low-income houses were keen on purchasing a house and had the ability to make the initial down payments and regular monthly mortgage payments. However, the lack of housing supply and absence of mortgage availability for the informal sector were key barriers.

United Kingdom, United States and Australia

There are countries where government-backed funds are set up to provide financing. In the United Kingdom, a home building fund administered by the Homes and Communities Agency (HCA) exists to finance large as well as small registered builders, with products tailored and structured for the individual needs of the builders.[32]

In the United States, the National Association for Home Builders (NAHB) offers unique loans for construction to not only builders but also individuals. Residential acquisition, development and construction (AD&C) financing or residential land acquisition, development, and construction is a product where funding can go from land purchase, to development of home lots, and even installing infrastructure. This loan can be for the construction of one home, several homes, or an entire subdivision of homes, with a maturity period of 6–18 months.

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[28] Housing Programs. TOKI. Web. http://www.toki.gov.tr/en/housing-programs.html. Accessed May 26, 2018.

[29] Ziraat Bank, HalkBank, and Vakıflar Bank.

[30] Ibid.

[31] Economic Times. Private developers to tap affordable housing policy push. Web. https://economictimes.indiatimes.com/wealth/real-estate/private-developers-to-tap-affordable-housing-policy-push/articleshow/59983317.cms. Accessed May 26, 2018.

[32] Introduction to home building fund, UK. Web. https://www.gov.uk/government/publications/home-building-fund/an-introduction-to-the-home-building-fund. Accessed May 26, 2018.

[33] Julie Lawson et al. Australian Housing and Urban Research Institute. Enhancing affordable rental housing investment via an intermediary and guarantee.

The loans are extended in a series of draws linked to stages of completion, while the balance of the loan increases with each draw. Interest is paid periodically, usually monthly, while the loan is outstanding, and the principal is repaid when a completed home is sold. The disbursement of the loan draws are contingent upon the completion of each stage, which ensures that there are no delays and the project is finished on time (see **Annexure 5**).

In Australia, Community Housing Organizations (CHOs) are non-profit agencies providing affordable rental housing for people on low to moderate incomes across Western Australia. These organizations offer a range of quality housing options to people eligible for public housing. CHOs seek funding from commercial banks for construction, to fund acquisition, or to refinance existing loans. But even in Australia, these organizations face similar issues with banks as in the developing world: lenders tend to be risk averse and wary.

Term financing is more prevalent versus project financing. Because of banks' low risk appetites, despite the fact that loans are based on cash flows of the projects, banks often require security beyond the property on which the development is underway. Banks were also found to be more open to lending to CHOs where government funding or other form of support existed: "The active involvement of government as a party to a tripartite lending structure was viewed favorably by the lender." Banks are comforted that the government could intervene if a borrower defaulted, though ultimately the government would simply end up nominating another CHO to step in.[33] The cross-subsidy model is also used here. Meanwhile, relationship building with the banks is not uncommon. The CHOs invest time in helping lenders become familiar with the nature of community housing.

Kenya

One way to create affordable housing is through innovative designs and layouts which can help in using space efficiently and are cost effective. Adding community spaces and commercial areas within the residential areas is one option. An example is the Nairobi City, Umoja Estate, in Kenya. According to an Acumen Fund study, the units were in groups of five or six homes, and the utilities (toilet, shower, and sink) were built in a block outside each cluster instead of placed inside each individual unit. Unit costs dropped significantly. Costs were saved on individual plumbing systems, materials, space, and time. While this was an interesting design, it was not maintained over time, and the shared infrastructure could not be retained. Had the right mechanisms been put in place for long-term maintenance and quality, the design would likely have been successful in the long run as well.40

[34] Micromortgages: a macro opportunity in low income housing finance. Web. http://www.merchantkushagra.info/cloud/whitepaper-MicroMortgage-final-screen-10-19-10.pdf. Accessed May 26, 2018.

[35] Micro mortgages are different from microfinance loans as they are secured loans, because the customer's house serves as collateral.

[36] Aashna Desai. Financing affordable housing for the low-income in urban India. (2014).

[37] Return on asset: calculated as the ratio of its net income in a given period to the total value of its assets.

[38] Return on equity: calculated by dividing net income by average shareholders' equity.

[39] Micromortgages: a macro opportunity in low income housing finance. Web. http://www.merchantkushagra.info/cloud/whitepaper-MicroMortgage-final-screen-10-19-10.pdf. Accessed May 26, 2018.

[40] ABCs of Affordable Housing in Kenya. Web. https://acumen.org/wp-content/uploads/2013/03/ABCs-of-Affordable-Housing-in-Kenya.pdf. Accessed May 26, 2018.

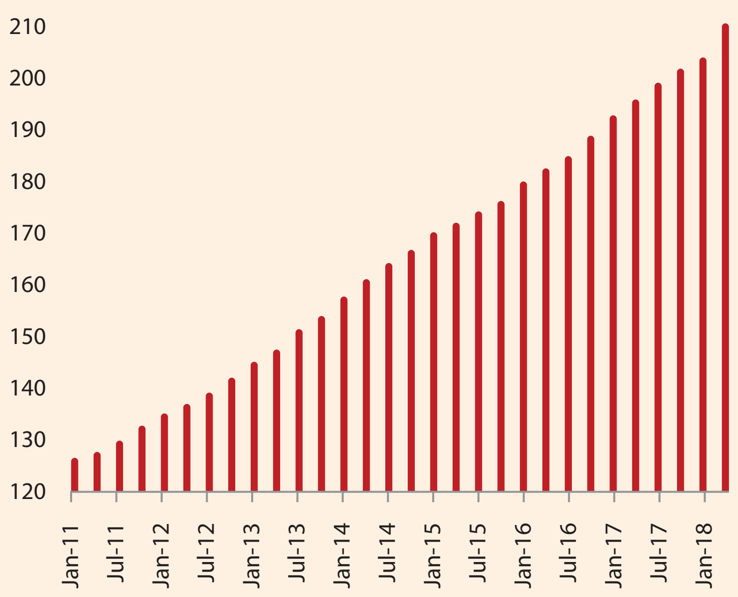
[41] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC

Box 2: Slums to rental transition is missing

One solution to providing low-cost housing is to establish affordable, well regulated, and stronger rental markets so those living in slums can move to low-cost housing on rent. In India, rental markets are mostly informal and slumlords operate largely to provide hutments to the poor, exploiting them in the process. The World Bank study on South Asia argues that pure market-based solutions are less likely to carry the weight of the entire low-cost housing gap; and a combination of market-based options with government policy and support is necessary.[41] Rental housing remains the most viable solution. In the formal rental market however, the laws are too stringent with rent controls and tenant-favoring laws (eviction is difficult, for example). This makes landlords very selective. They require tenants to enter into legally binding agreements to vacate the premises after a pre-determined period or when asked. Such rent laws make the development of a strong rental market difficult. For slum dwellers, renting is the only way to go, but because of prevailing laws and high rental prices, builders are discouraged from developing housing units along models that earn rental incomes. Moreover banks do not want to finance such projects because the risk is high.

In Pakistan, under the law, both landlord and tenant have rights, but enforcement has been difficult. Further, the legal framework is complicated and often differs depending on the location. In Islamabad, landlord and tenants can negotiate their own rent. However, in other provinces, regional rent controllers have the power to set a "fair price." This often leads to corruption and bribes. In Punjab, under the Punjab Rented Premises Act (2009), tenants can be evicted in a number of situations. However, litigation takes years to resolve as the courts are burdened by a huge backlog. Different provinces have legislated different rental increases: in Punjab and Balochistan it goes up 25 percent annually after three years, and in Sindh up to 10 percent annually after three years. However, these laws are not followed to the letter. Landlords raise rents whenever they deem necessary. Frequently tenants cannot take the lengthy and expensive legal route, so they either pay the higher rent or shift residences. According to the Pakistan Bureau of Statistics (PBS), housing rent inflation went up by an average of 7 percent between CY11 and CY17. In such a scenario, slum-to-rental transition is virtually impossible.

Figure 6: Quarterly rental index in Pakistan



Source: Pakistan Economic Survey

3. THE SME CONNECT: QUANTIFYING IMPACT OF HOUSING CONSTRUCTION IN PAKISTAN

Bridging the housing gap is not only important for providing formal means of living for the growing population, but also because adding to the housing stock creates opportunities for a multitude of SME segments which are directly and indirectly associated with the housing industry. The construction industry contributes nearly 3 percent to the GDP, and employs around 7–8 percent of the total labour force, but gven the largely informal nature of the industry these figures are highly likely to be an understatement. To gauge the true impact of increasing housing supply on the GDP as well as on employment the incremental housing construction cost has been estimated in this section. The estimations demonstrate the economic contribution of SMEs to the construction industry, and the number of jobs created each year by these SMEs through housing construction. For the purpose of this study, Lahore and Karachi have been selected as they are the largest metropolises of the country driving demand (see **Annexure 2** for definitions of specific terms used in this section).

3.1 Costs of construction

Lahore

Our calculations, based on the experiences of builders and developers in Lahore, suggest that in a 3-*marla* house (a *marla* is a common measure of area in South Asia equivalent to 225 square feet, or 25 square yards) constructed in the city will cost PKR 2.79 million (or PKR 2,536 per square foot), with grey construction costs at PKR 1.18 million, finishing costs at PKR 1.48 million, and 5 percent miscellaneous costs. Similarly, grey construction costs come out to around PKR 1.68 million for a 5-*marla* house, while finishing costs are estimated to be PKR 1.98 million. With miscellaneous costs of 10 percent, the total construction cost of a 5-*marla* house would be PKR 4.03 million (or PKR 2,519 per square foot). In a 10-*marla*house, grey construction costs PKR 2.74 million and finishing PKR 3.17 million, which makes the total cost of construction, together with miscellaneous costs, PKR 6.5 million (or PKR 2,499 per square foot). Some estimates have also been made for low-cost apartments, based on existing models where per square foot construction costs go down as more rooms are added.

Figure 7: Construction cost of 3-*marla* house in Lahore (PKR 000)

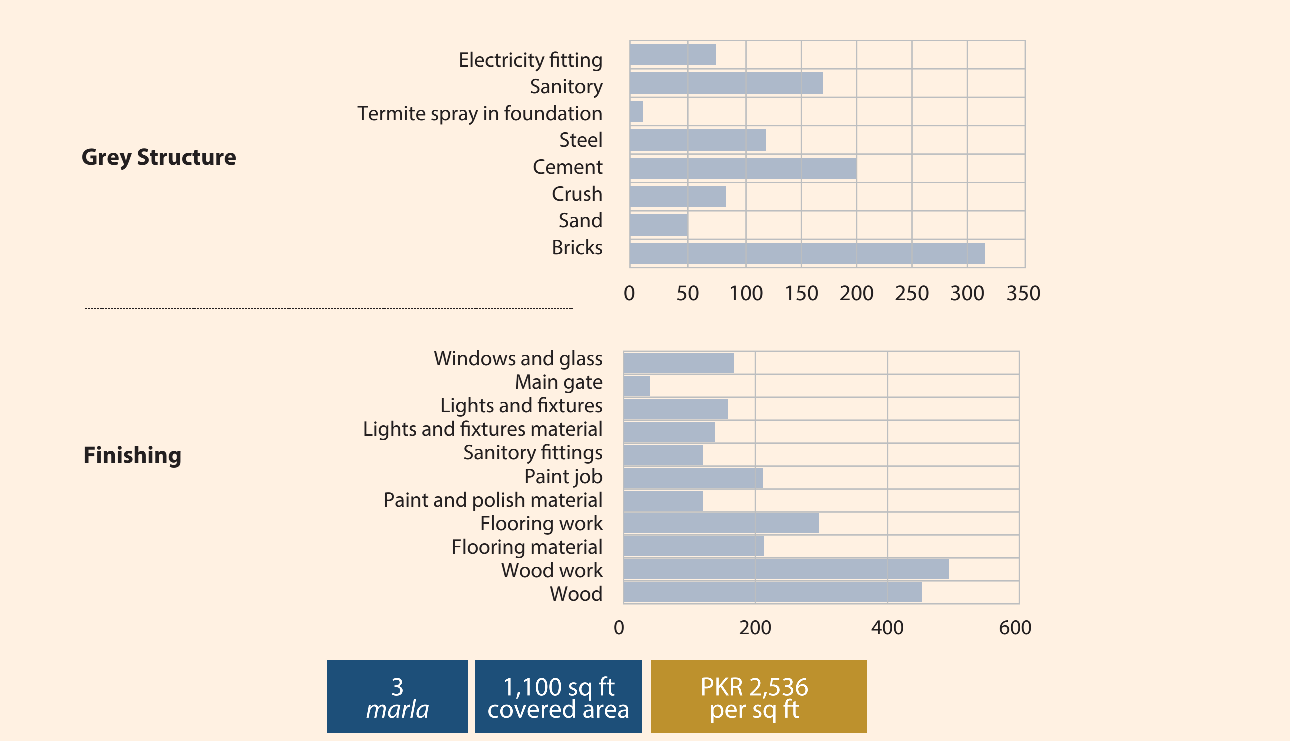


Figure 8: Estimated construction cost of 5-*marla* **house** in Lahore (PKR 000)

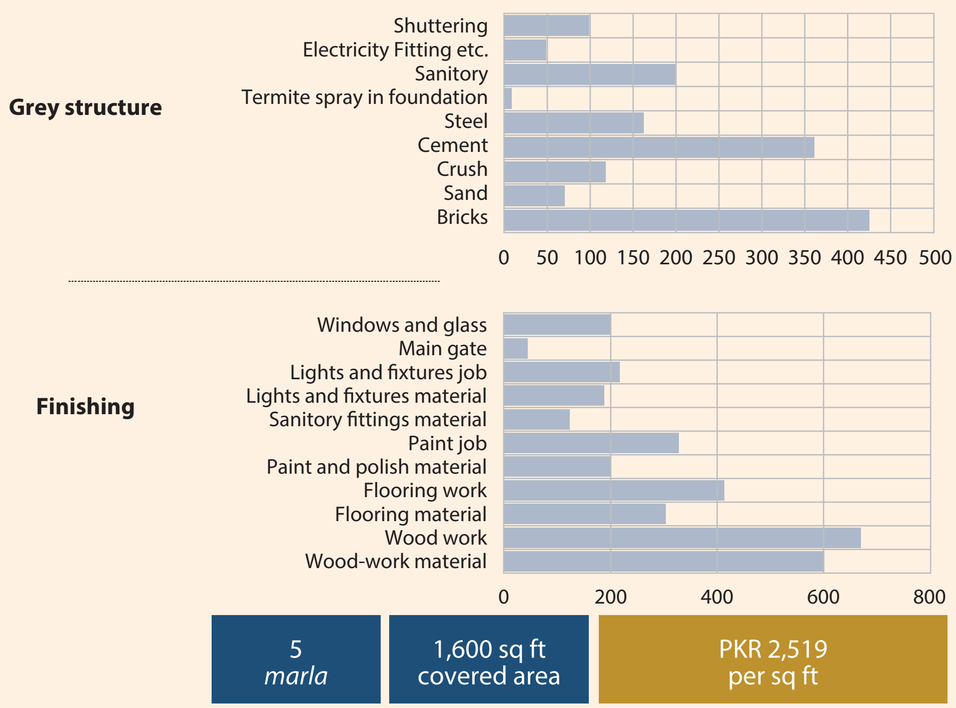


Figure 9: Estimated construction cost of 10-*marla* **house** in Lahore (PKR 000)

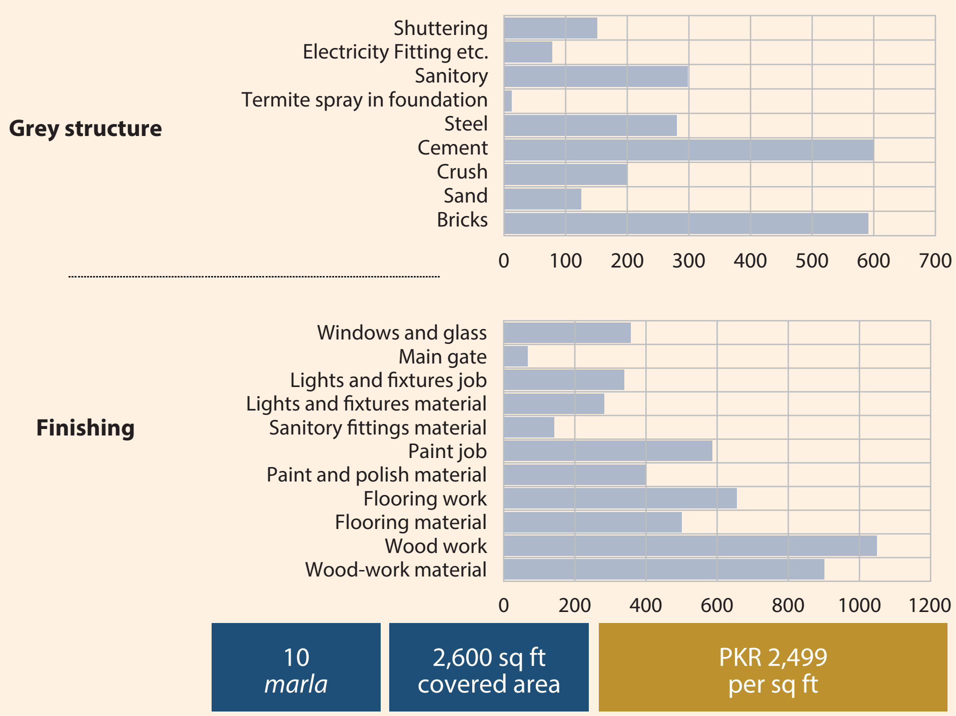


Figure 10: Summary of estimated cost of construction of 3-, 5-, 10-*marla* houses in Lahore (PKR million)

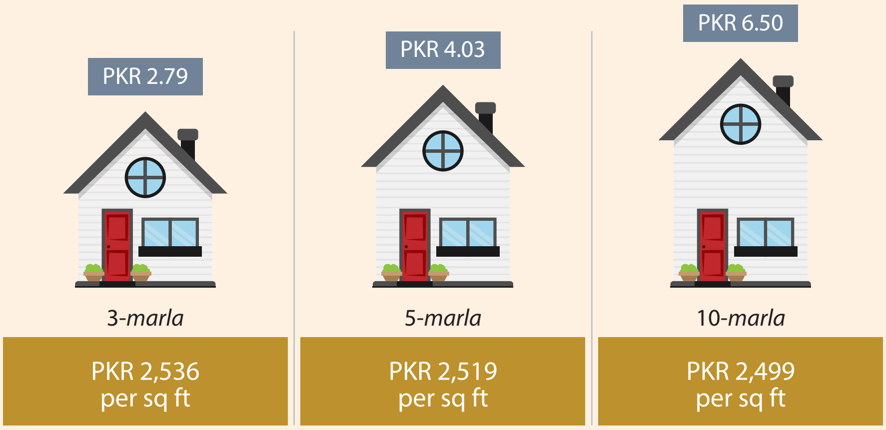
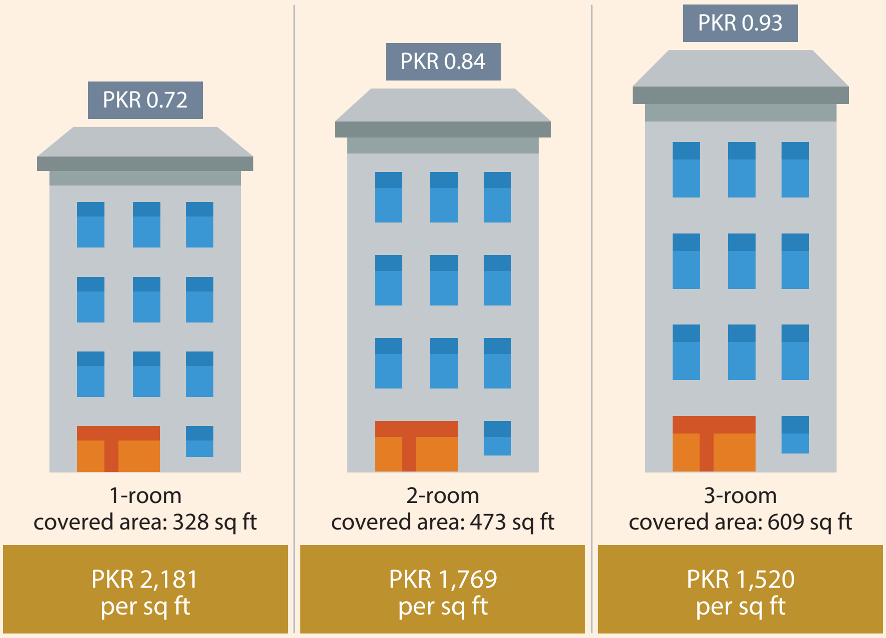


Figure 11: Estimated cost of construction of low-cost apartments* (PKR million)



*Estimates based on an existing low cost housing project

Karachi

In the sprawling city of Karachi, total construction costs and quality of apartments vary significantly across different locations. The three localities taken into consideration for the purpose of this study are Shaheed-e-Millat, where a high-rise building is constructed; Garden East, where a low-rise building is constructed; and Scheme 33, chosen for a building in the outskirts of the city (see **figure 12** for details of the different projects).

Construction costs per square foot are estimated to be PKR 2,500 for high-rises; PKR 2,000 for low-rises, and PKR 1,800 for the outskirts. There isn't a marked difference in construction costs per square foot as material and labour costs are pretty consistent. At these rates, the estimated cost of construction of a high-rise apartment is PKR 7.5 million; for a low-rise, PKR 5.3 million, and PKR 2.1 million for an apartment in the outskirts. Land costs are considerably lower in such locations, and they balloon as we move up the locality to more central urban spaces. Construction project life is considerably higher when building in the outskirts as these projects are often delayed due to the low purchasing power of the consumer that opts for these types of housing. In the absence of a strong mortgage market, these projects can take up to 10 years, if indeed, they ever kick off or reach completion.

For projects in the outskirts, the number of apartments is much higher than for in-city projects. This is because any project that is undertaken in the outskirts involves higher risk, and may have to be accompanied by building infrastructure around the locality. Since these projects have scale, if they are executed, the returns are also much higher—nearly 24 times (see **figure15**).

Figure 12: Main features of apartment buildings in Karachi

high-rise
120,000 sq ft

- Land price is high so ground floor is kept for commercial use
- Location: Shaheed-e-Millat
- Project life: 4 years
- Pre project preparation time: 6 months
- 10 floors of apartments with 4 apartments per story
- Total apartments: 40
- Selling price/apartment: PKR 30 million
- Cost of construction: PKR 2,500 per sq ft

low-rise
50,000 sq ft

- Land is medium priced and it is purely for residential use
- Location: Garden East
- Project life: 2 years
- Pre project preparation time: 4 months
- 4 floors of apartments with 4 apartments per floor
- Total apartments: 19
- Selling price per apartment: PKR 30 million
- Cost of construction: PKR 2,000 per sq ft

outskirts
700,000 sq ft

- Land price is low in the outskirts of Karachi
- Location: Scheme 33
- Project life: 8 -10 years (buyer does not have cash flows capaity to pay higher installments)
- Pre project preparation time: 6 months
- 10 floor of apartments with 60 apartments per floor
- Total apartments: 600
- Selling price per apartment: PKR 4 million
- Cost of construction: PKR 1,800 per sq ft

Figure 13: Project life for different housing localities in Karachi (years)

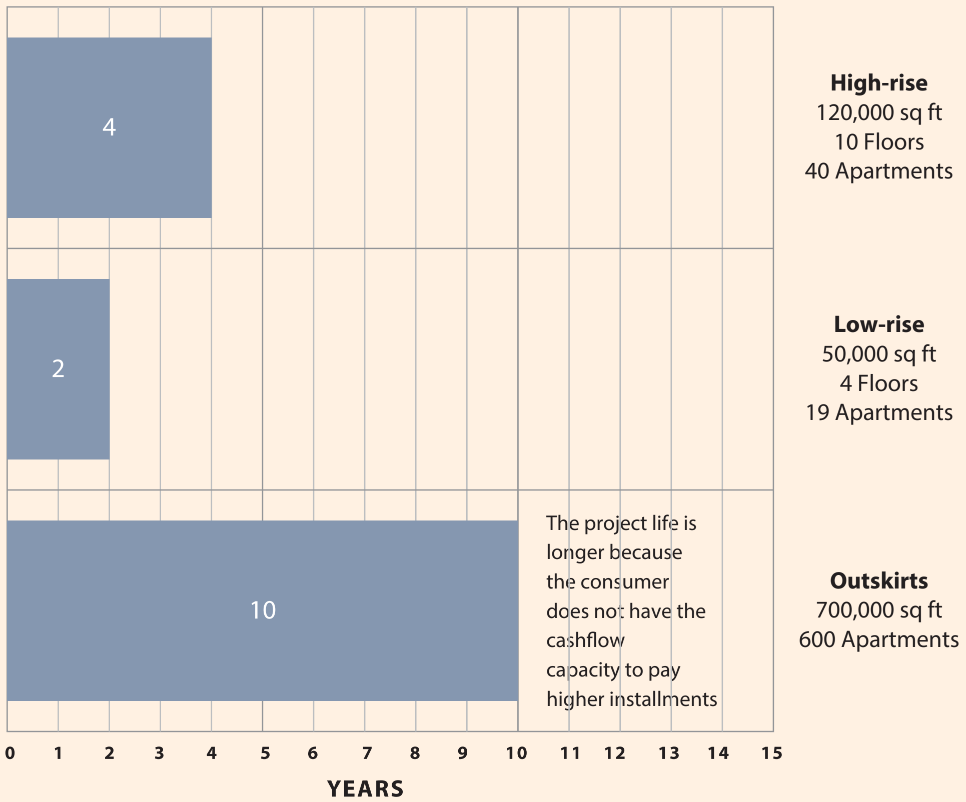


Figure 14: Housing costs based on different housing localities in Karachi (PKR million)

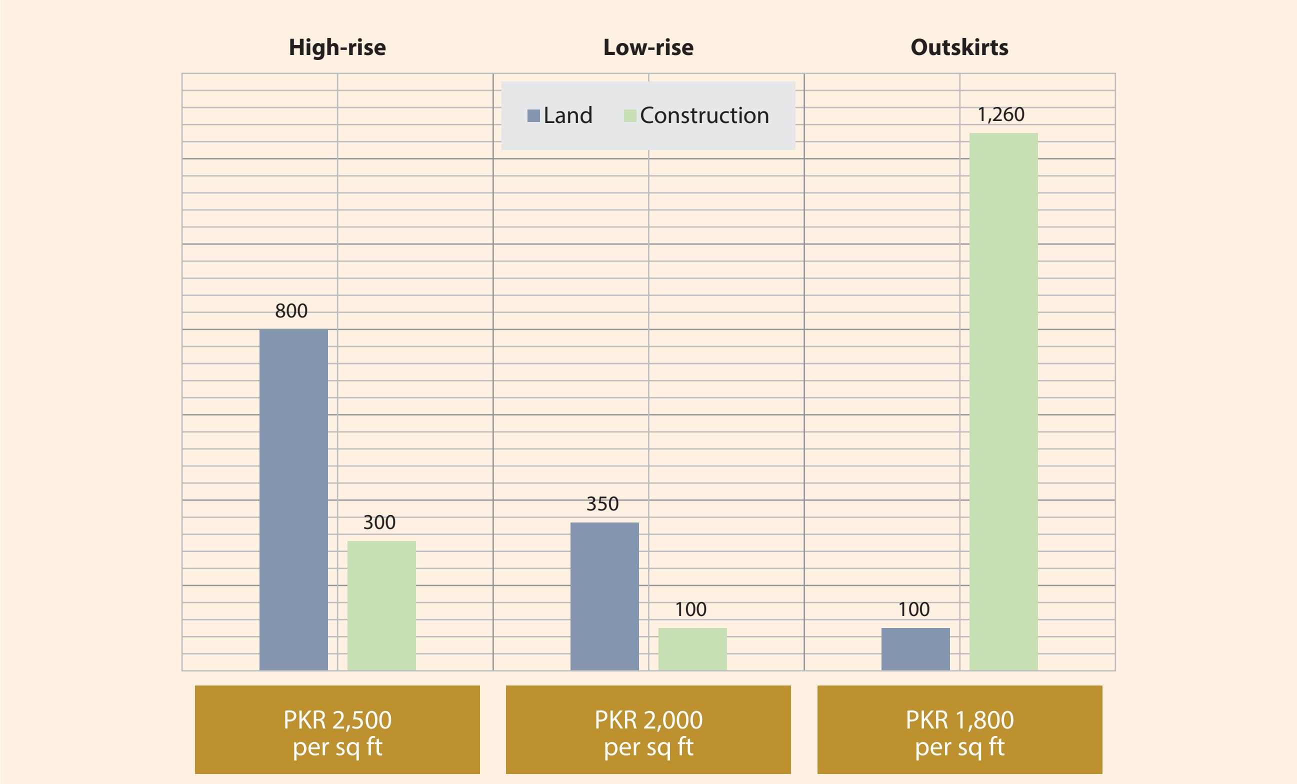


Figure 15: Housing costs vs selling prices based on different housing localities in Karachi (PKR million)

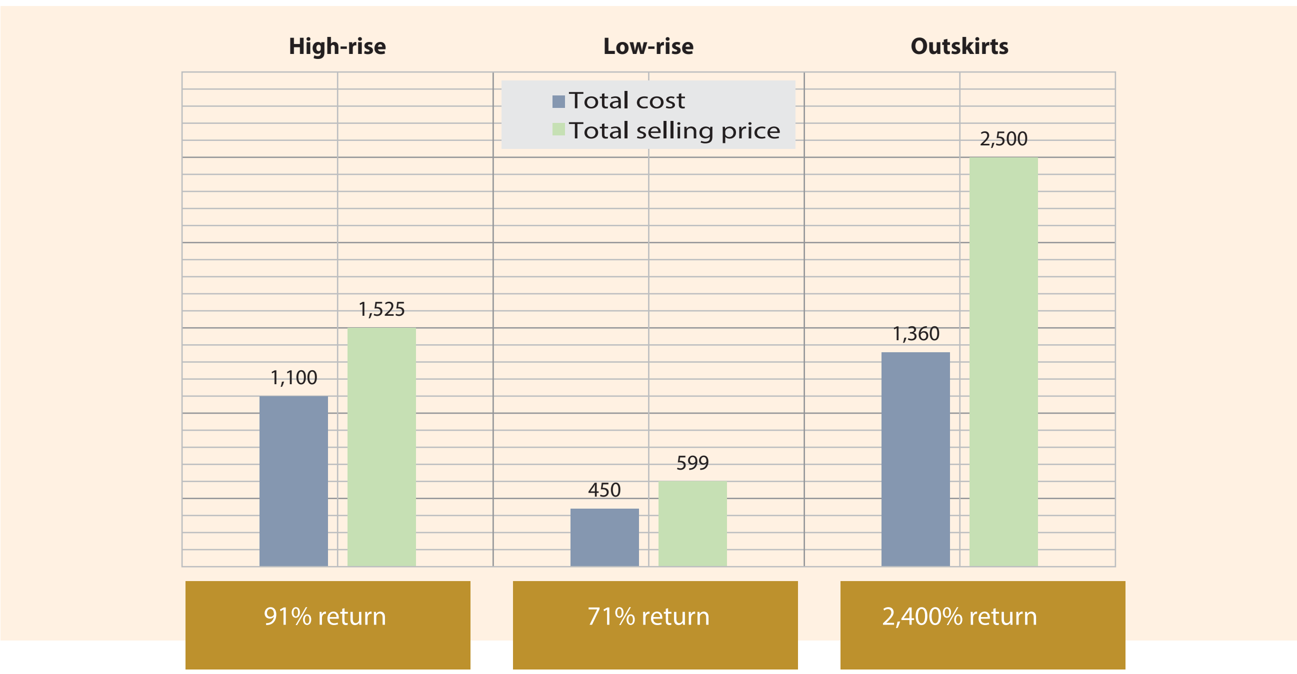
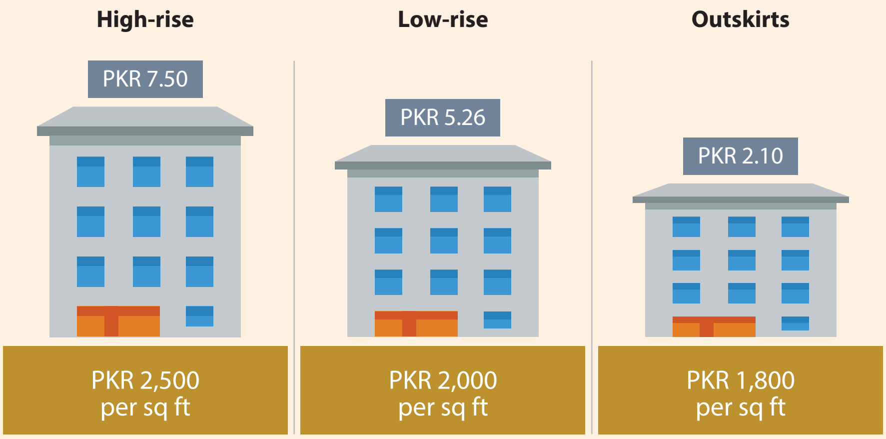


Figure 16: Estimated cost of construction of apartments in Karachi (PKR million)



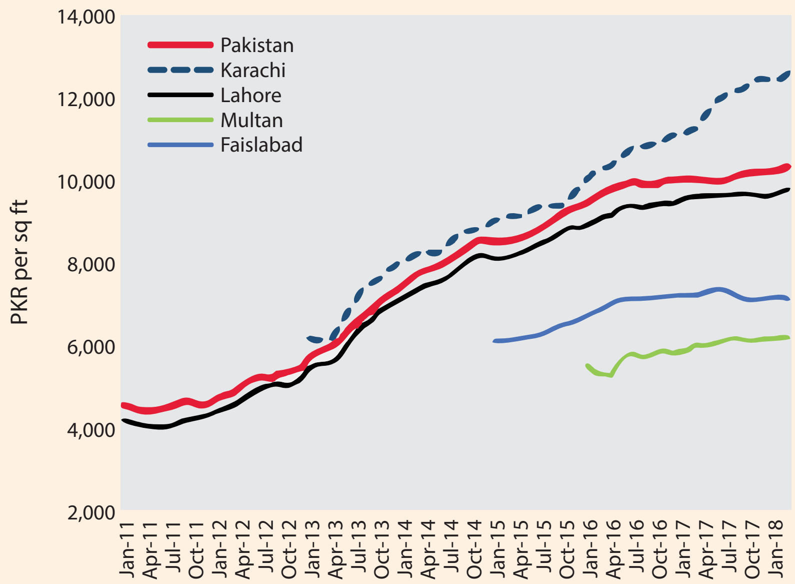
Property price escalation: a quick look

Property prices in South Asia have witnessed mammoth growth, less because of the rising cost of construction materials and more because of rising land prices. In Bangladesh and India, the cost of construction materials has roughly followed an inflationary trend, along with rising incomes. However, property prices have skyrocketed due to land shortages, and due to the escalation in land prices that, when traded in secondary markets, shoot up because of their speculative nature. This has been the outcome of the ill-conceived land administration in the region (more on this in **section 4**).[42]

The house price index compiled by the Reserve Bank of India shows a growth of 77 percent between 2012 and 2017 against Consumer Price Index (CPI) growth of 44 percent during the period.[43] In Pakistan, the price per square foot (land plus construction) has grown from PKR 4,576 -10,352 between 2011 and 2018, with the index growing by 126 percent. It is evident that the cost of construction has not grown as dramatically. Taking cement as a proxy for construction costs,[44] the price index for the commodity grew by 51 percent between 2011 and 2016, against a CPI growth of 39 percent.[45] During this period, Zameen.com's property price index for Pakistan grew by 120 percent.[46]

Perhaps a more accurate measure for construction costs would be to use the combined construction index published by the PBS. Between January 2013 to March 2018, the construction input index grew by 30 percent, construction wage index grew by 47 percent, and the CPI grew by 25 percent.

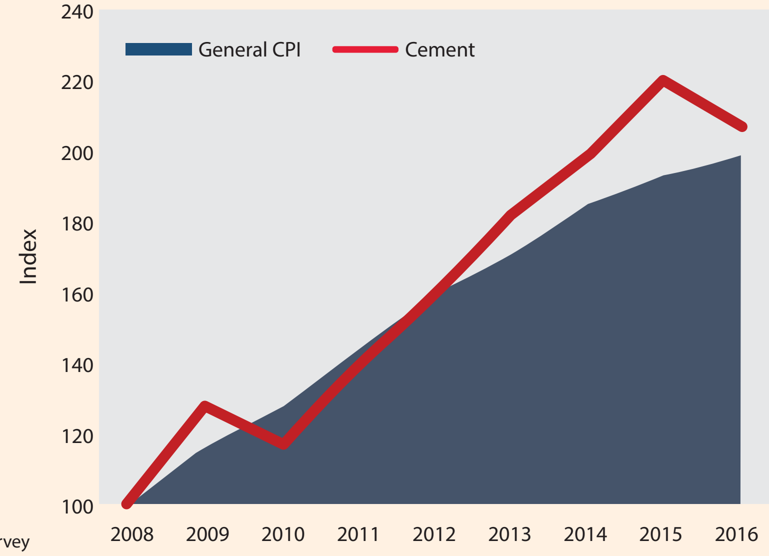
Figure 17: Property price index in Pakistan and selected cities



Source: Zameen.com

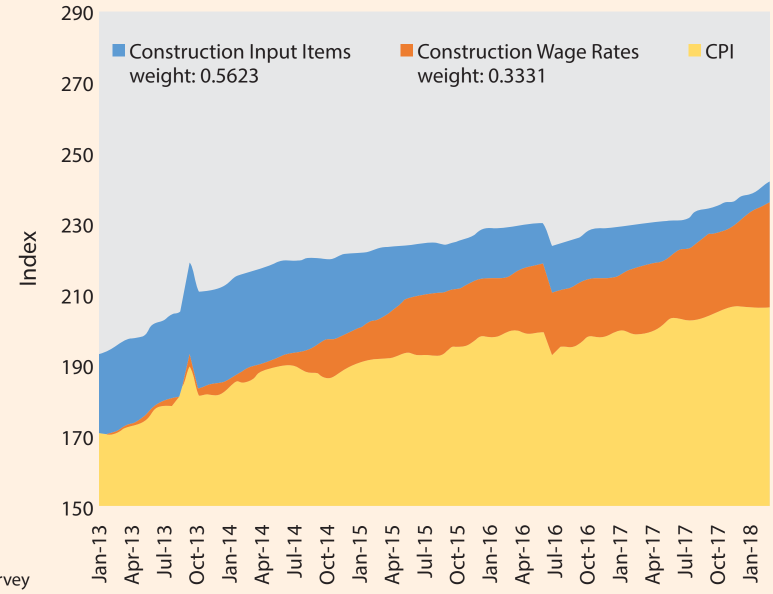
[42] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.
[43] Web. www.indiamacroadvisors.com. Accessed May 26, 2018.
[44] Since cement is a major contributor of the cost of construction and has also seen dominant price hikes.
[45] Ministry of Finance. Pakistan Economic Survey 2016-17.
[46] Housing and Property Price Index. Zameen.com.

Figure 18: CPI general and cement index (2008: rebased to 100)



Source: Pakistan Economic Survey

Figure 19: Construction input index and construction wage index against CPI



Source: Pakistan Economic Survey

3.2 Employment generation

For Lahore employment has been estimated in number of days as well as the labourers required to work those labour days. A 3-*marla* house would generate employment of 421 labour days. For a 5-*marla* house 606 labour days will be generated. Much of the work is simultaneously done so 34 and 36 labourers are required to build a 3- and 5-*marla* house respectively (see **figures 20, 21,** and **22**). Similarly, for a 10-*marla* house, employment is for 1,096 days, with 41 labourers working on site at both grey and finishing stages (see **figure 23**). At each level of construction, we also estimated how many labourers are needed for 5- and 10-*marla* houses, and the number of days these labourers work.

Assuming 100,000 houses are constructed in Lahore in a year, it is estimated that the total employment generation of this number of 3-*marla* houses would be around 150,000; for 5-*marla*, 200,000, and nearly 400,000 for the same number of 10-*marla* houses (see **figure 24**).

In Karachi, since such detailed data could not be attained a rough estimate was made that if there are 40 apartments in one building and the employment generation in one building is for 50 people, one apartment will generate employment for approximately 1.2 people. The cycle of construction is such that on average, three years are needed to finish an apartment building. Assuming 100,000 apartments are constructed in a year, and at any one point in time 300,000 apartments are being constructed, this comes out to about 360,000 people being employed in this sector every year (see **figure 22**).

Figure 20: Summary of employment generation in 3-, 5-, and 10-*marla* houses in Lahore

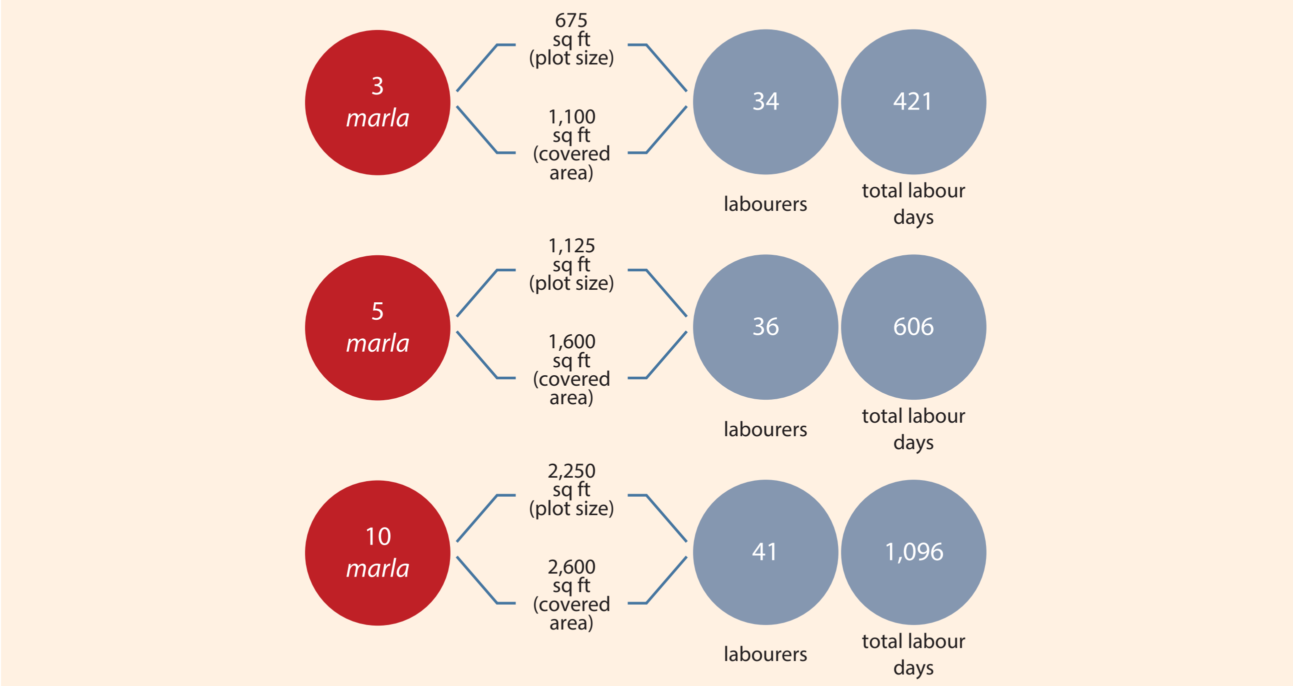
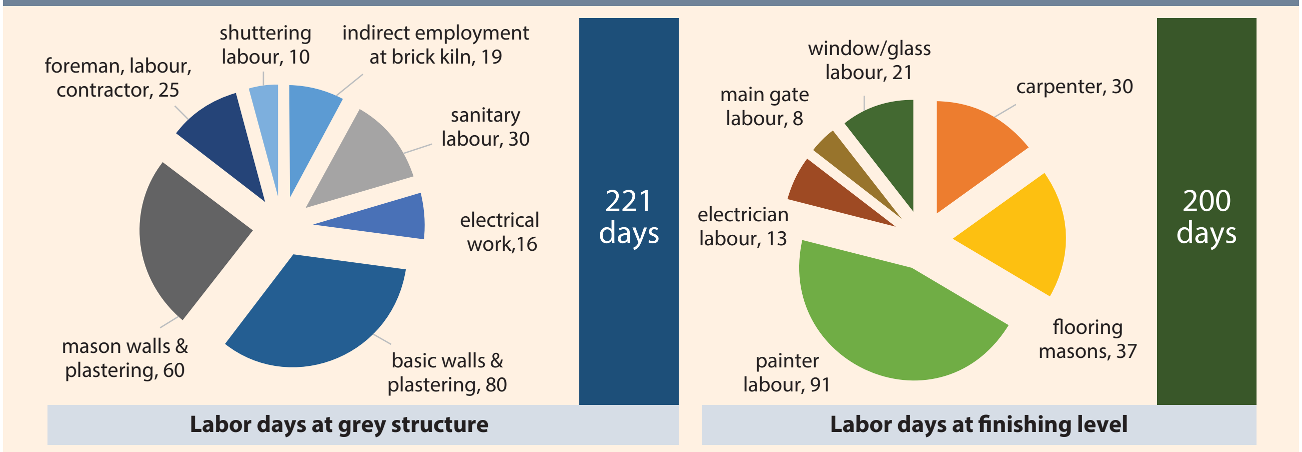
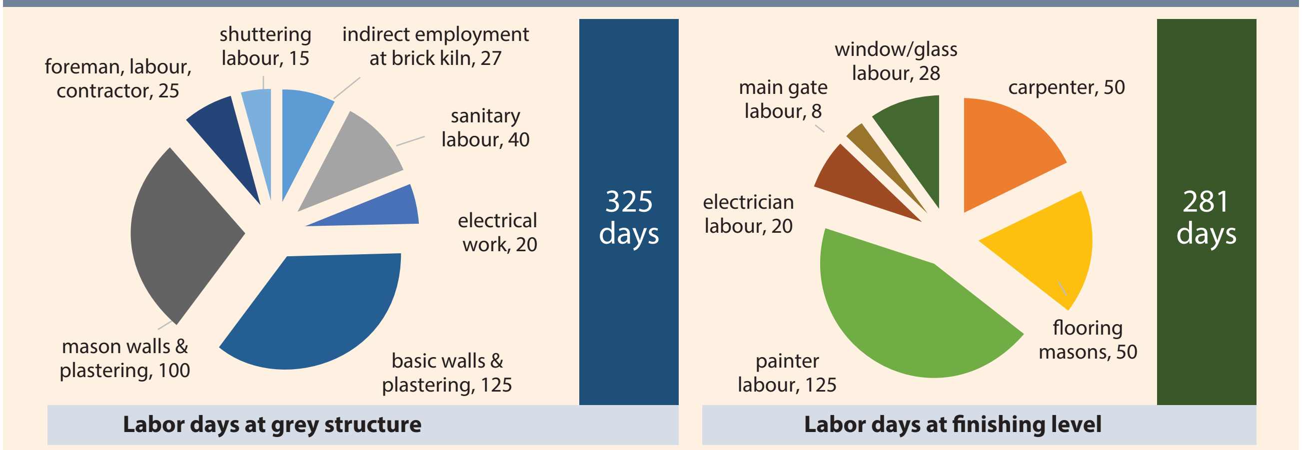


Figure 21: Employment generation at each level of construction in Lahore (3-*marla*)



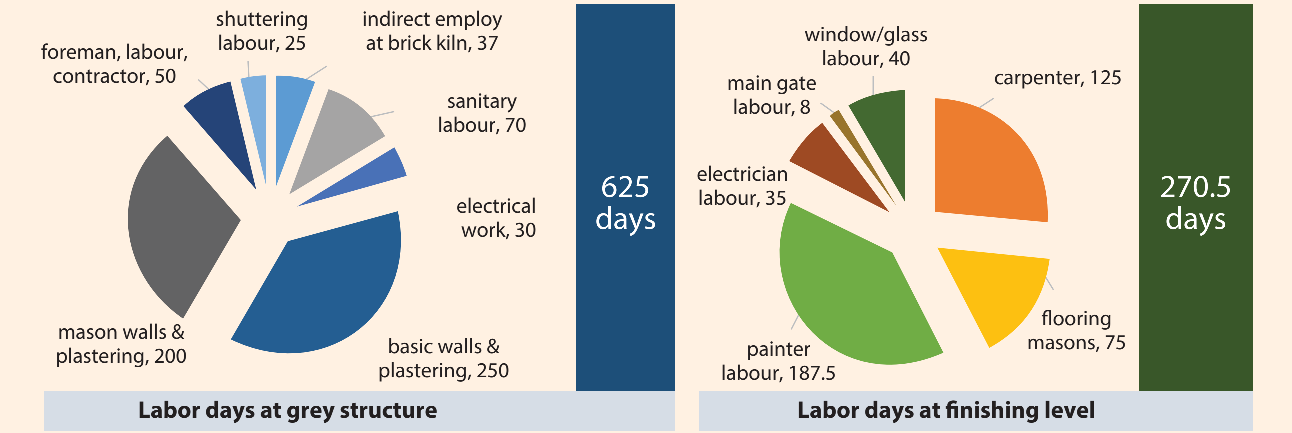
Notes: Covered area for 3-*marla*; 1,100 sq ft

Figure 22: Employment generation at each level of construction in Lahore (5-*marla*)



Notes: Covered area for 5-*marla*; 1,600 sq ft

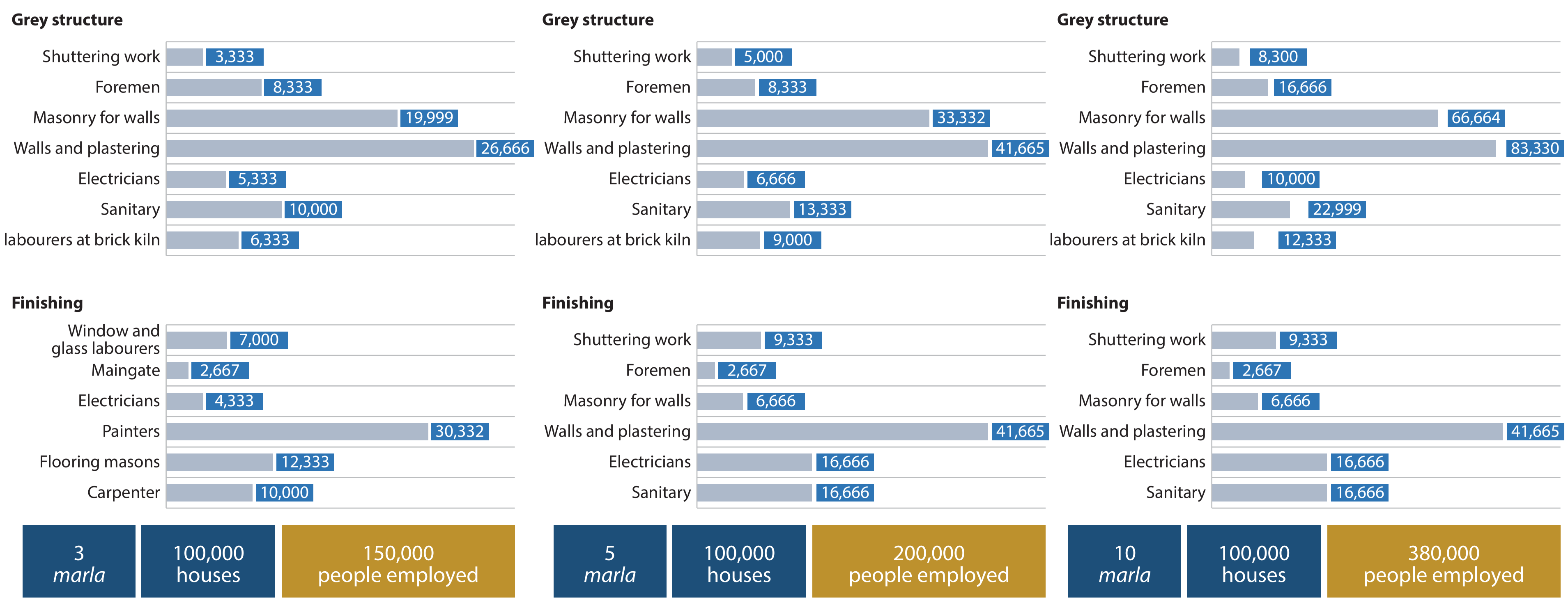
Figure 23: Employment generation at each level of construction in Lahore (10-*marla*)



Notes: Covered area for 10-*marla*; 2,600 sq ft

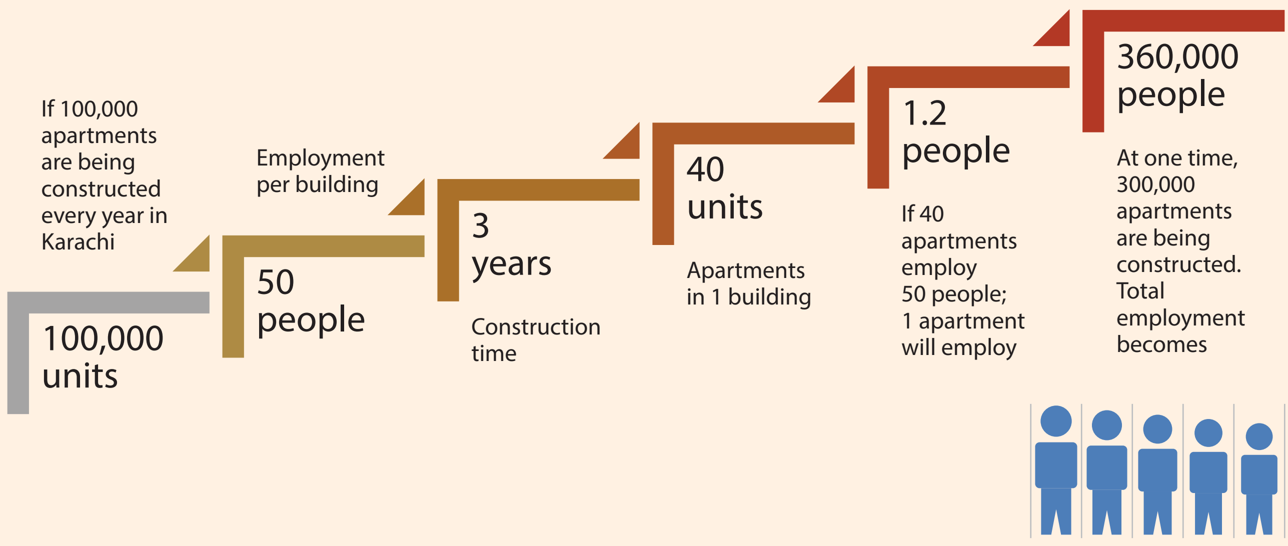
Figure 24: Number of labourers at each level of construction in Lahore

Figure 25: Employment generation in one year in Lahore



Notes: Assuming in one year, 100,000 houses are constructed in Lahore
Covered area for 3-*marla*; 1,100 sq ft
Covered area for 5-*marla*; 1,600 sq ft
Covered area for 10-*marla*; 2,600 sq ft

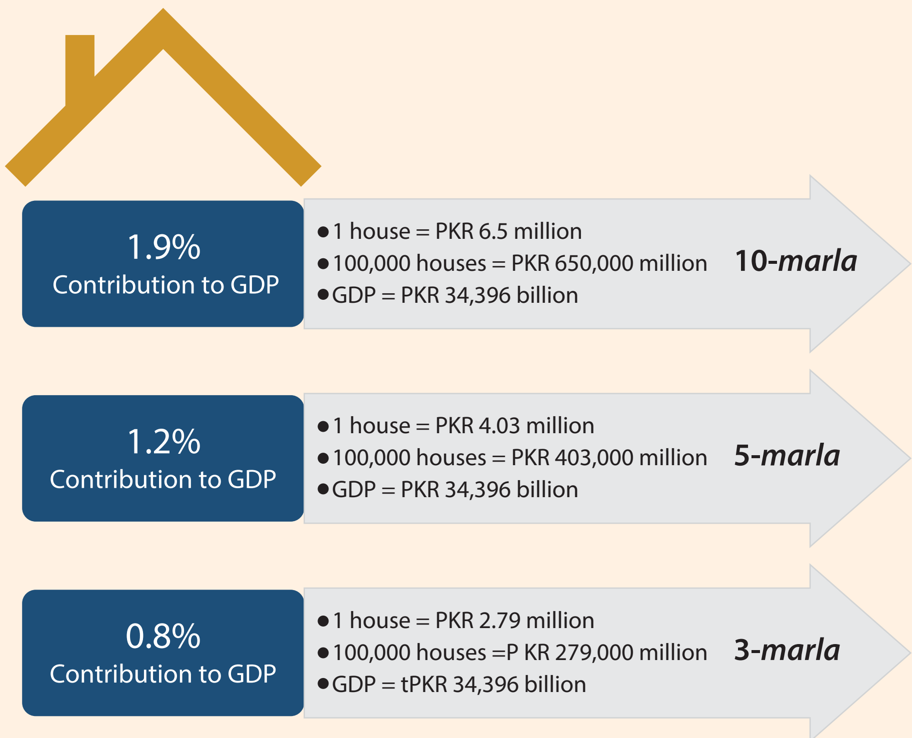
Figure 26: Employment generation in one year in Karachi



3.3 Contribution to GDP

Estimation of costs are based on the experiences of builders in Karachi and Lahore, and though a comparison cannot be made between a 5- or 10-*marla* house in Lahore with an apartment in Karachi, an estimation of 100,000 houses or apartments in different categories nonetheless yields predictable results. If 100,000 high-rise apartments are made, the contribution to the economy would be 2.2 percent, compared to 1.9 percent for a 10-*marla* house in Lahore. For a low-rise building, with similar volume, the contribution to the GDP would be 1.5 percent, against 1.2 percent for a 5-*marla* house in Lahore. Low-cost apartments in Lahore, or apartments in the outskirts of Karachi, would contribute less than 0.5 percent to the GDP at these volumes (see figures 26 and 27).

Figure 27: Annual contribution to GDP by type of housing in Lahore



Notes:
Covered area for 3-*marla* - 1,100 sq ft
Covered area for 5-*marla* - 1,600 sq ft
Covered area for 10-*marla* - 2,600 sq ft
Assuming in one year, 100,000 houses are constructed in Lahore

Figure 28: Annual contribution to GDP by type of apartments in Karachi

High-rise

2.2%
Contribution to GDP

- 1 apartment = PKR 7.5 million
- 100,000 apartments = PKR 750,000 million
- GDP = PKR 34,396 billion

Low-rise

1.5%
Contribution to GDP

- 1 apartment = PKR 5.26 million
- 100,000 apartments = PKR 526,000 million
- GDP = PKR 34,396 billion

Outskirts

0.6%
Contribution to GDP

- 1 apartment = PKR 2.1 million
- 100,000 apartments = PKR 210,000 million
- GDP = PKR 34,396 billion

Notes:
High-rise: 120,000 sq ft; 10 storys/40 apartments
Low-rise: 50,000 sq ft; 4 storys/19 apartments
Outkirts: 700,000 sq ft; 600 apartments
Assuming in one year, 100,000 apartments are constructed in Karachi

4. DEMAND AND SUPPLY IMPEDIMENTS FOR BUILDER FINANCING

4.1 Demand side: Builder and developers constraints

The builder and developer industry, especially in the SME segment, has remained largely informal as taxation and regulations are stringent, land administration is inefficient, and grey money is parked in the sector. Builders use informal means of financing to fund projects. In case of projects like small housing schemes or apartment complexes, the builder provides the equity in the form of land and raises funds through customer advances to finance the construction. In case the builder does not have enough capital to buy land, the land is bought in installments—either the amount is paid in installments spanning the period of construction or the chunk of developed land is transferred to the seller. The transaction is informally structured between the builder and landowner.

The risk in this case is also transferred from the developer to the buyer because the latter pays advances to the developer for construction. This restricts the market to high-income groups who can pay upfront. The dependence on customer advances is likely to cause delays and inefficiency. This is why low-income housing projects are also uncommon: customers do not have steady cash flows to fund construction.

A predominant reason why many SME builders defaulted on the loans attained from HBFC was that they only pay back the loans if they sell the house. The market works on trust and once a borrower defaults, banks are unlikely to supply credit again.

Informal means of financing are also prevalent since many builders, especially those in the SME segment, do not have their documentation and paperwork in order. Record keeping of financials is limited since the cost of maintaining and auditing financial accounts and cash flow management is high. A lack of funds also means there are severe limitations in marketing and project management.

Many builders do not have an asset bank to use for collateral, other than the property which is being developed. Banks usually do not accept the same property as security and, often times, the titles of these properties are not clean or are dubious. In the past decade or two, earnings from illegal means and tax evasion have been parked in the real estate sector all over Pakistan. Even clean money becomes black in real estate buying or selling, as it has become a norm of declaring the transaction value at a fraction of the real value owing to the higher transfer levies (more on land titling issues below)[47].

4.2 Supply-side: Regulatory and business environment constraints

Land administration

There are a number of legal and administrative issues relating to land that add to the cost and delivery time of a housing project. Poor master planning, governance issues at national and local government levels, multiple institutions and administrative procedures, problematic zoning restrictions, restrictive building codes and unreliable utility connections all cause administrative issues in land management.[48]

In Pakistan most of the land is owned and auctioned by the government and land owning agencies. After auction, the land is traded in secondary markets on cash which drives up the prices due to speculation. By the time the land is ready for construction, the price of the land alone is so high that only high-income groups can afford that housing. There are no conditions or stipulations specifying for development or construction to be started within a certain timeframe, or a limit to how many times the land can exchange hands.[49] This is a major cause of titling and registration constraints. The shortage of land itself is a major issue as illegal land grabbers occupy large tracts of state land, a problem which is only

[47] DC value chart of main cities versus perceived real value
[48] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.
[49] There is dearth of investment avenues for corruption, smuggling or tax evaded money; it's becoming hard to send money abroad as KYC requirements are getting more stringent globally. Real estate in Pakistan is a grey area where a majority of black money is parked.

exacerbated by poor registration and titling issues. The commodification of land also means a productive asset remains highly underutilized.

Restrictive building codes and laws favor horizontal development with limited provisioning for vertical construction when in fact, in fast growing urban centers, the shortage of housing supply is also due to scarce land resources. For example, in Karachi only 5 percent is earmarked for apartments and 55 percent for individual housing. In Lahore, the floor-to-area ratio (FAR) is restricted to 1.0:1.5 (or 0.7).[50] FAR is used as a common measure to ensure high density in any development and a ratio of less than 1 is considered low. The laws are skewed towards low residential density, but the urban population is growing fast which results in shortage of housing and highly inflated land prices.

The low density ratio also places major strain on public utilities which has a negative impact on the value of property. Furthermore, a large share of the city buildings cannot be put on the secondary market or used as collateral because their developers did not respect the limit on the number of floors.[51]

Land registration and titling

Perhaps the biggest issue in South Asia relating to real estate is the limitation in establishing and registering property and transfer of titles. Land registration is lengthy, costly, and cumbersome. Unclear titles of property and poor record-keeping (mostly paper-based) makes it difficult for the property to be held as collateral. Speed, low cost, and simplicity are fundamental to an efficient system for registering property and the transferring of titles. Often, many transactions on a property (such as gifts) are left unrecorded because of the costs associated with property registration. This complicates land records.

There also isn't a clear way to determine who the uncontested owner of the land is. Titling is even more troublesome for new developments where property sales are made before construction is completed. There is also no entity that provides indemnity for its opinion on property titles. In Kenya, fake and insecure titles affect bank securities. Mortgages should be a relatively safe product for the banks because the collateral is the title deed itself, but with titling issues, the deeds are often not accepted by the banks. There have been instances where "*large scale revocation of illegally provided deeds shook confidence in the land titling system and affected the banks' appetite for collateralization*" in Kenya.[52]

In Pakistan, aside from insecurity of land title, there is no sole land allotment authority. There is a general lack of coordination among different record-keeping agencies, resulting in different databases and methodologies by which they are maintained. Institutional overlap also leads to duplication. Manual documentation without safety and security of records is still prevalent. With no centralized land registery, land records are not secure. Since there is no guarantee provided by the government, buyers must do their own due diligence to check the seller's title. Such matters, if contested, are settled in court which could take years, if not decades.[53] Due to this, banks only accept land as collateral in limited areas. For example, in Peshawar, Khyber Pakhtunkhwa only land in cantonment areas is accepted as collateral by banks.

The deed registration system is primarily paper-based in India as well, but it is now being digitized. The government of India launched the National Land Record Modernization Program (NLRMP) with the primary objective of introducing end-to-end computerization of land records. If the registration system is unified across offices, the search and registration of the sale deed can be done in any sub-registry office, regardless of jurisdiction.[54] This would secure titles while ensuring transparency and easy accessibility of information.

Some efforts have been made in Pakistan for digitizing land records as well. In Punjab, the Punjab Land Records Authority launched a digital land registry under the PLRA Act of 2017. This open-access registry would help reduce fraud and illegal practices and bring transparency for land transactions. This would also help make it difficult for anyone to manipulate land records or land rights.[55] Similarly, the Land Administration and Revenue Management Information System (LARMIS) was launched to cater to all districts in Sindh to digitize land registrations and titles. This database would generate all property related documents of rural and urban areas of Sindh, including "sale certificates, Fardi, ghat wadh, etc., as well as record all mutations, transaction through registered deeds and update revenue record with respect to its ownership and usage".[56] The system was launched in 2016.

[50] "Floor area ratio (FAR) is the measurement of a building's floor area in relation to the size of the lot/parcel that the building is located on. It is an effective way to calculate the bulk or mass of building volume on a development site." Web. https://metrocouncil.org/Handbook/Files/Resources/Fact-Sheet/LAND-USE/How-to-Calculate-Floor-Area-Ratio.aspx. Accessed May 26, 2018.

[51] The World Bank. Ninova, Tatiana. Expanding Housing Finance to the Underserved in South Asia. (2010). Washington DC.

[52] ABCs of Affordable Housing in Kenya, web, https://acumen.org/wp-content/uploads/2013/03/ABCs-of-Affordable-Housing-in-Kenya.pdf. Accessed May 26, 2018.

[53] Dawn. Insecure Land Title. Web. https://www.dawn.com/news/1173963. Accessed May 26, 2018.

[54] Ibid.

[55] https://rodportal.punjab-zameen.gov.pk/about. Accessed May 26, 2018.

[56] http://www.sindhlarmis.gos.pk/index.php/larmis/about-larmis. Accessed May 26, 2018.

Dis-ease of doing business

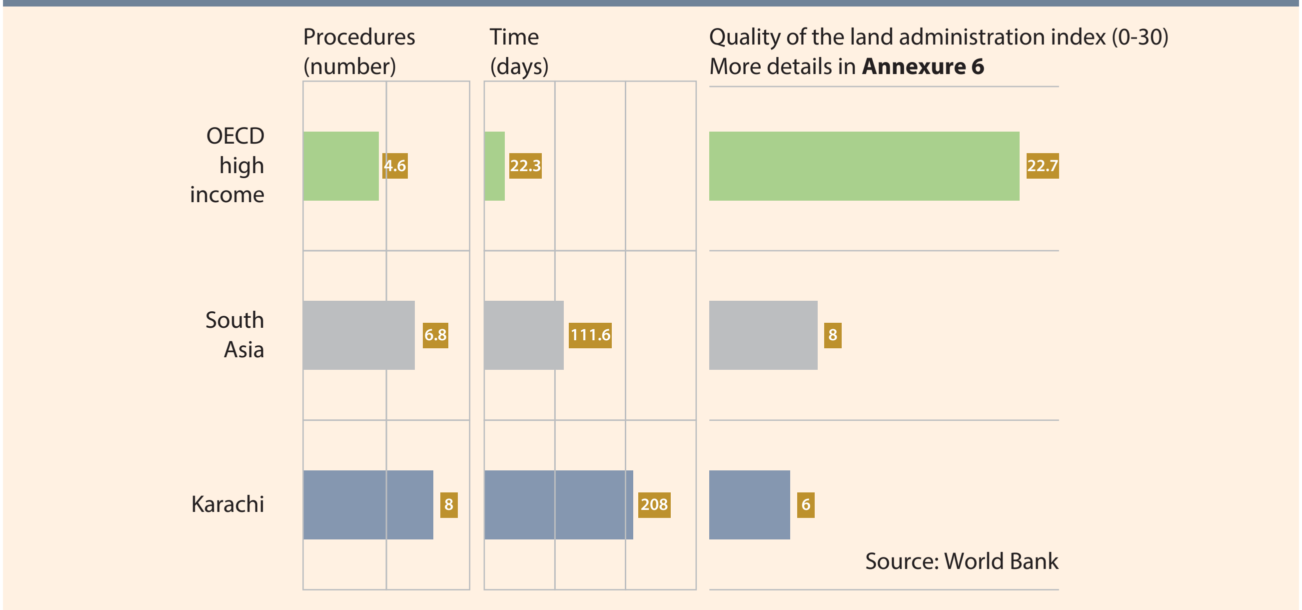
Poor land administration, and registration and titling issues all result in a higher cost of doing business (see **figure 28**). There are more than 17 agencies in Karachi responsible for the registration and land titling process. Meanwhile, bureaucracy is also a major issue. According to data collated for the World Bank's Doing Business Study (2018) it takes 208 days, or 7 months, to register a property in Pakistan (see **figure 29**). However, builders in Karachi claim that it takes them around 12–16 months to attain pre-construction approvals, including registration, that involve acquiring necessary no-objection certificates (NOCs) from approving agencies (see **figure 30**).

Much like Pakistan, bureaucracy in India is also a time consuming constraint. According to KPMG, the global consulting firm, there are several varieties of approvals demanded by the municipal, state, and central bodies, which can mean up to three years instead of just a few months before a developer can begin construction after entering into a land purchase agreement. This delay can add between 25 - 30 percent to the project cost. This defeats the purpose of affordable or low-cost housing. Many of these approvals are rooted in bribery and corruption.[57]

Given so much time spent on just pre-approvals, it makes sense for builders to go for smaller volume but higher margin projects for the upper-income segment in order to overcome the costs of complying with regulations. The Quality of Land Administration index reported in the Doing Business study gives Pakistan a score of 6 out of 30. The index measures land administration along five key components including reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution, and equal access to property indices (details in **Annexure 6**).

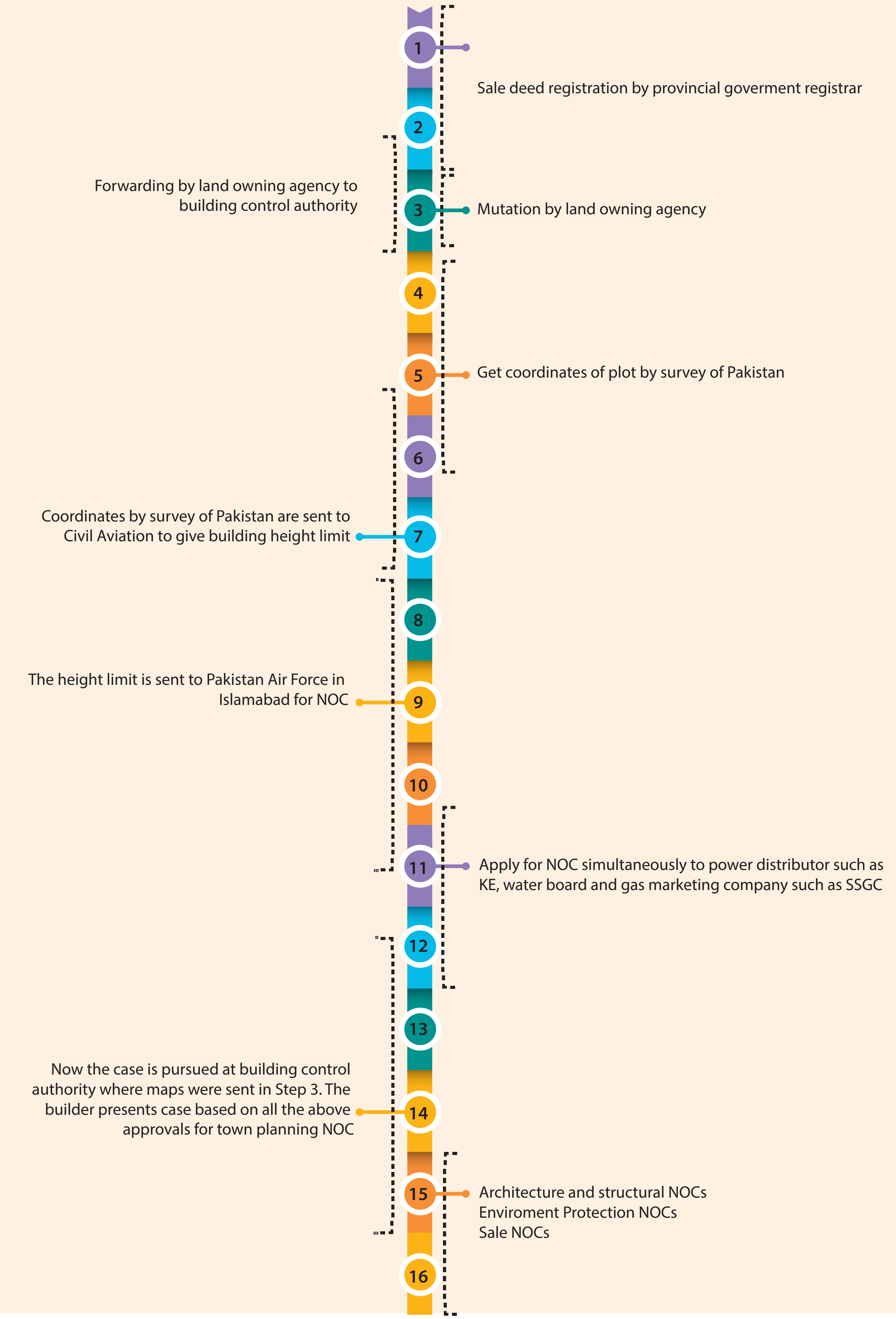
In Kenya as well, many developers purchase the land and begin building only to find another party comes and claims the land, causing many cases to be stuck in litigation.[58] This is common accross in South Asia where titles of lands are often passed from generation to generation. Property rights are also transferred through bills of sale, powers of attorney, and other such informal documents. Meanwhile, land classification and conversion of agricultural land to residential is a long and tedious process across many countries.

Figure 29: Registering a property in Karachi in 2018



[57] Aashna Desai. Financing Affordable Housing for the Low-Income in Urban India. (2014).
[58] ABCs of Affordable Housing in Kenya. Web. https://acumen.org/wp-content/uploads/2013/03/ABCs-of-Affordable-Housing-in-Kenya.pdf. Accessed May 26, 2018.

Figure 30: Pre-construction approvals for high-rise buildings in Karachi



Inefficient laws in property ownership

Land ownership problems are also incurred due to the inefficiency of modern laws and inconclusive property registration. In Pakistan, an oral gift of immovable property is accepted as authentic and legal under Islamic law, while the courts insist upon evidence that such a gift was made. The uncertainty of ownership rights was previously also in question because of *benami* (absentee) ownership which allowed the use and benefit of a property by a person other than the person who is shown as the owner. This led to tedious litigation. However, in 2017, the Senate passed a bill providing for the confiscation of *benami* (where the benificial owner is different from the title owner) properties. Under the bill, anyone found guilty of entering into a *benami* transaction would be fined up to 25 percent of the fair price of the property and face imprisonment for a period of up to seven years.[59]

In Afghanistan, several incompatible legal regimes operate at the same: customary law (*rawaj*), civil law (*qanoon madani*), religious law (*Shar'ia*), and statutory or national state law which adds to the land titling issues. Establishment of a clear title to the land is impossible with such lack of clarity. Meanwhile, corruption and forgeries can lead to competing claims to the same piece of property. In Kabul, nearly 70 percent of residents live on contested property. Affordable procedures for property transfer and registration could encourage formal registration, limiting the opportunity for corruption. Improving uniformity by computerizing land records can also help.

Credit information and collateral databanks

Banks' lack of confidence in SME borrowers, particularly first-time borrowers, has roots in the lack of documentation of the businesses as well as an inability of the bank to gauge their credit-worthiness. Banks do not have the capacity to pursue every single borrower, which is where credit registries come in. This is clearly not a builder/developer specific issue. Credit registries, some of which are private, others state-run, have financial data that helps lenders evaluate the reliability of borrowers. Most countries in South Asia have these registries but the coverage of borrowers is significantly low, and most cover larger loan borrowers, missing out on SMEs and SME builders. Often the data is not computerized which causes delays and errors.

Secondary markets and speculation

Secondary markets are not established enough, though they are active. Lack of transparency and sales on illegal or disputed documentations are common. Many real estate agents are informal. There is also a deeply speculative approach toward property prices in Pakistan and other countries within the region. Land is bought through auction and resold in the informal secondary markets, causing price speculation and price hikes. "*There is a dual pricing system as a result of high property costs and in an effort to avoid taxes, which obstructs revenue collection, limits transparency, and acts as an obstacle to market liquidity*," a World Bank report argues.

This is exacerbated by high transfer taxes. In Bangladesh, the transfer tax rate is extremely high: 12.5 percent of gross price. In Pakistan it is 6–7 percent which strongly discourages the official transfer of assets and, unofficially, the assets that are transferred remain in the grey economy. The existence of multiple valuations, where the Federal Board of Revenue (FBR) values the property different from its DC value[62]—which again differs from its market value—encourages undervaluation of property against the actual market value of the property and leads to speculation. In the 2018/19 budget the government abolished the immovable property valuation fixed by FBR. As per the revised provision, property transactions will be recorded on the value declared by the buyer and the seller. Meanwhile, at the federal level, a one percent adjustable advance tax from the purchaser on the declared value will replace the existing withholding tax on sellers and purchasers. Property transaction tax rates have been rationalized and provinces have been advised to do the same. This will encourage real estate buyers to declare the actual value of their property. Federal government can also buy property at a certain premium to the declared value within three years, reinforcing the incentive to declare the actual value of property. The parking of black money is being constrained by disallowing non-filers to buy property with a value exceeding PKR 4 million. These steps have been welcomed by many with the hope that the artificial price hike experienced in the real estate market may be arrested, while documentation is enhanced, leading to greater access to banks financing.

In Kenya as well, speculation is widespread. Investors buy land and resell at higher prices.[64] An Acumen Fund report offers some potential strategies to discourage speculative price increases. These include developing strict criteria for buyers to qualify, ensuring owner-occupation within a short time period, limiting the number of homes that can be purchased by one individual, and withholding the title deed for a period of time such as five years so owners are unable to re-sell.[65]

[59] Senate passed bill to curb *Benami* transactions. Dawn. Web. https://www.dawn.com/news/1309177. Accessed May 26, 2018.

[62] DC value is the rate of the District Commissioner's office.

[64] ABC of Affordable Housing in Kenya. Web. https://acumen.org/wp-content/uploads/2013/03/ABCs-of-Affordable-Housing-in-Kenya.pdf. Accessed May 26, 2018.

[65] Ibid.

Regulation unsupported by legislature

While the budget 18-19 has introduced some measures to combat the myriad issues facing the real estate sector, there is no real estate authority or a long term real estate policy that would envision the sustainability of this growing economy. Housing schemes are governed under the Cooperatives Societies Act of 1925, or specific acts of parliament for development authorities like the Capital Development Authority (CDA), Karachi Development Authority (KDA) or Lahore Development Authority (LDA). These authorities own the land and may perform some of the tasks of the regulator, but there is need for greater efficiency and transparency.

In a public hearing held by the Competition Commission of Pakistan (CCP), consumers claimed that deceptive marketing practices by rapidly proliferating housing schemes are too common in the real estate sector in Lahore under the watchful eye of the LDA that allows such practices to prevail and thrive.

A bill to establish Real Estate Regulatory Authority was proposed in July 2017 in the Senate which would overlook all real estate projects. Many of the features in the bill were adopted from a similar regulation passed by the Indian government in 2016 (see **Box 3**). As per the bill, every real estate project presented in the market for sale would require prior registration with the regulatory authority. Similar registrations will be required from individuals working in the real estate sector. Meanwhile, the bill outlined a mechanism to transfer properties within each real-estate project to avoid disputes. However, the bill was opposed by the CDA claiming they were already working on many of the proposals introduced in the bill including creating a mechanism for the transfer of titles.

Many governments in the past have attempted to create a regulatory authority and hold development authorities accountable. So far, this task has been undertaken by the National Accountability Bureau (NAB), usually in the aftermath of a crisis. The Securities and Exchange Commission of Pakistan (SECP) in 2017 under the Companies bill 2017 was tasked to ensure that real estate companies that are registered with it have to attain approval from the regulator before embarking on any project. But that still left out the rest of the industry not registered with the SECP. As a result, many fly-by-night projects still take off the ground, even within the jurisdiction of the development authorities. Thus, the need for an overarching body to regulate and remove the bottlenecks that are prevalent across the length of the sector becomes even more necessary.

Box 3: New real estate regulations in India aim to help builders and developers raise capital

Real estate construction is a capital-intensive business and, with increasing scarcity of land and rising land prices, the costs have become even higher. Usually, in India, as elsewhere in South Asia, builders and developers raised funds through investor financing and paid for the construction through customer advances. They offered pre-launch offers and schemes to entice consumers into paying advances. Many builders sold units whose plans were not sanctioned or did not meet the regulatory requirements. Meanwhile, consumers faced frequent project delays and unreliable schemes.

Under the 'housing for all' policy of the India government, the Real Estate (Regulation and Development) Act of 2016 (RERA) was introduced by the government of India with the aims of introducing a streamlined regulatory framework for construction.

The regulations are meant for customers to regain confidence in the completion of projects they put money into, while stringent regulations give confidence to financial institutions in lending to builders and developers—though the burden on builders does increase.

Developers have to deposit 70 percent of the proceeds received from a project into a separate account to be used only for the said activity. No units can be sold without registration of the units with the regulating authority. The unit is only registered if it meets certain compliances. As a consequence, the initial stages of the project, which were funded by the customers, can no longer be funded with the sale of the units. Developers will have no choice but to turn to debt or equity financing. The cashflow generated from the project subsequently can be used to help repay the same.[66]

Meanwhile, the developer cannot transfer or assign his majority rights and liabilities to a third party without obtaining prior written consent from two-thirds of the buyers of the property, and without the prior written approval of the regulatory authority.[67]

4.3 Supply side: Bank constraints

There is a reluctance on the part of banks to lend to builders or borrowers, particularly SMEs. Banks are wary of project delays, willful defaults, the informality of the builders, their inability to meet contractual obligations, land tilting issues, and the fact that they have limited information about advances and the builders' cashflows. This is why relationship-based lending is dominant.

In addition, the fact that a lot of black money is parked in the real estate sector has led to the creation of a few Ponzi schemes in the residential development sector which has also made banks cautious. Often builders either do not have cashflows or are reluctant to show cashflows. This lack of transparency, where builders are reluctant to show the banks their exact position of booking and advances, causes trust issues with the bank. While collateral is one of the concerns of the banks, it is the cash flows on which they decide whether the builder is credit-worthy.

Banks also tend not to rely on collateral on which the property is being developed which is a huge challenge for builders. Often buildings do not get approval due to zoning issues, restriction on the number of floors, inability to attain NOCs for public utilities, etc. The frequent or irrational changing in building laws makes banks uncomfortable to finance builders. For instance, there were many buildings in the upscale areas of Karachi where construction of high-rises was under process when the courts decided to restrict the height of the project. This made a few projects infeasible.

Lack of formality and transparency, or the outright non-existence of builders' financial books, also make banks uncomfortable. Builders may unethically maintain three sets of documentation on a buyer—one for its own office record, another for the buyer, and a third for audit and tax. This is often done to evade tax liabilities. Thus, banks are shy of relying even on audited builder accounts to estimate project cash flows for designing the repayment schedule. Many buildings, especially in Karachi, do not have completion certificates due to non-compliance with building codes and regulations. These properties cannot be sold in the secondary market or be used as collateral for bank financing.

For a single apartment, at times, multiple hands are changed before the project reaches the stage of sub-lease, and the builder normally does not keep a record of all transactions. There is no recording mechanism in an apartment building. In the case of big landowning agencies such as Defense Housing Authority (DHA), records of all transactions are available, though these are absent in cases of most smaller builders. Due to this, some disputes may be created which disturb the installment plan and, in turn, slow down the construction process. It is hard for banks to gauge a builder's actual cash flows, which makes the case of financing difficult. And in case of third party disputes, the bank's repayment schedule is disturbed. That is also why some banks want third-party collateral, as disputes may arise on the land under construction.

Cost overruns and time lapses in building construction are the biggest impediments for banks to finance. They are both interrelated: if time lapses, cost overruns are almost inevitable. Moreover, the bank wants the builder to have some skin in the game. Builders prefer to take their profits in the early days of a project, while banks want the builder's stake to remain intact until the end. Banks may not have the time and capacity to critically review feasibility, especially in the cases of SMEs, so they refrain from financing altogether.

Why should builders go to banks?

It is evident that reliance on customer advances means delays will be inevitable due to erratic payments by some customers. Delays result in cost escalations and also tarnish builder reputation as those customers paying advances on time are antagonized when the project does not finish as advertised.

The delays and resulting cost escalations also reduce the builder's return and may result in project failure. This can be hedged by having a bridge financing facility—the builder can use the bank's cash line to not let the speed of the project be compromised in case of delays in customer advances.

Meanwhile, to finance the first part of the construction phase, builders sell some units below market rate to investors. These investors sell at a premium in the market later on. Though these investors provide developers with the liquidity to initiate the project, they also represent a cost. Since the investors share the risk, they take 20–25 percent of the return. The cost of debt through banks, however, would cost much less. This is one of the reasons why genuine buyers should be encouraged and investors discouraged. On the other hand, genuine buyers cannot fund the entire project since often they do not have the capacity, especially if they are part of the salaried class. This is where banks come in.

Aside from bridge financing, the builder can get a supply of material on credit from vendors and pay them once the project is sold. However, the vendor charges premiums for supplying on credit. Alternatively, the builder can avail bank financing to get supplies on cash. In this way, the supplier would provide goods at a discount, and the builder can earn higher returns, net of bank financing.

[66] Business Today. Web. https://www.businesstoday.in/current/policy/challenges-in-real-estate-project-financing-under-rera/story/260933.html. Accessed May 26, 2018.
[67] Ibid.

5. ADAPTABLE FINANCING MODELS AND PRODUCTS

5.1 The builder and architect universe in Pakistan

SMEs dominate the universe of housing construction and designing. A majority of builders are small businesses operating as sole proprietorships or as partnerships. According to the SECP 936 construction-related firms and 224 real estate development firms were newly incorporated in 2017, with the total number of incorporated companies at 4,845 for construction and 1,764 for real estate development. In 2011 these numbers used to be 2,751 and 1,199 respectively with 205 and 29 new incorporations in that year.

Many of the SME builders are not registered with the Association of Builders and Developers (ABAD) or any other organization and are termed as contractors in the industry. They do small projects and have virtually no access to formal financing. A rough estimate is that 5,000–6,000 such builders exist in big urban centers. There are around 900 members of ABAD; mostly SMEs operating from Karachi. In Lahore, there are 25 ABAD members. Of the total, 75 are private limited companies.

Table 3: Size and structure of an ME builder firm

Type of firm	Sole proprietorship or partnership
Employment	8 employees per project: 1 civil engineer; 1–2 sub engineers/supervisors; 1 accountant; 1 regulatory coordination employee; 3–4 support staff. The rest of the services—including design work, architecture, structural, dispute resolution, etc.—are outsourced.
Project duration	3–5 years
Work	Housing and commercial building construction and selling
Number of projects executed at a time	1–12 projects at time; average 3 projects
Average size of a project	PKR 400–500 million
Projects that get formal financing	Approx. 10%

Another industry that runs parallel to builders directly involved in real estate construction is the architectural industry that renders services to builders. Some architects operate from home while others run small establishments in the form of a sole proprietorship or partnership arrangement. There are a little over a 100 big architecture and engineering firms operating in the country involved in mega projects who might themselves be builders and developers. The SMEs architectural firms are either formal or informal and may be run by one or more architects working together. Some estimates suggest in Lahore there may be 200–250 SME architects, up to 300 in Karachi, and around 150 in the rest of the country. They have a annual revenue range of PKR 4–50 million.

Table 4: Size and structure for an SME architecture firm	
SE Architecture Firm 1	
Type of firm	Sole proprietorship or partnership
Employment	2 architects (owner partners); 4 draftsmen (PKR 30,000–60,000 per month); 2 support staff; 1 sub-engineer
Work	Consultancy in housing and commercial building construction and interior designing
Consultancy	Architectural design (in-house); structural design (outsourced); electrification (outsourced); public health (outsourced); interior design (in-house); and top supervision (in-house)
Number of projects in a year	Designing: 25–30; detailed supervision: 1–2; interior designing: 5–6; commercial building: 1–2
Consultancy charges	4–5 percent of project cost, but in housing it is mostly a lump sum amount totaling 4–5 percent of project construction cost
Annual Revenue	PKR 15–50 million
SE Architecture Firm 2	
Type of firm	Sole proprietorship or partnership
Employment	5–7 architects, including owner/partners and employees (salary PKR 35,000–80,000); 1 structural engineer (PKR 50,000–60,000); 5–7 draftsmen (PKR 30,000–60,000 per month); 2 sub engineers; 2–3 support staff
Work	Consultancy in housing and commercial building construction and interior designing
Consultancy	Architectural design (in-house); structural design (in-house for small projects and outsourced for bigger projects); electrification (outsourced); public health (outsourced); interior design (in-house), and top supervision (in-house)
Annual Revenue	PKR 40–50 million

Note: SMEs, as defined by the SBP, have a turnover upper limit of PKR 800 million with financing of up to PKR 200 million (see **Annexure 2**).

5.2 Examples of Builder Financing Products

Revolving line of credit in the US

A revolving line of credit construction loan allows a builder to attain financing for several homes at a time instead of taking individual construction loans for each home built. The line of credit specifies the maximum construction loan allowed, the number of loans, the duration of each loan, and the number of houses that can be built under the line. However, banks prefer this form of credit for pre-sold houses. Margins for the revolving loans are lower compared to individual loans because of the larger loan size and the interest rate being tied to prime. Because of fewer transactions and recurrent costs (documentation charges, transaction, inspection and recording costs, title insurance, etc.), this saves builders some money. These loans give an assurance of financing to the builder to efficiently plan construction workflow.[68]

Financing model for mid-size builders constructing apartment complexes or townhouses in the UAE

These include two repayment cases:

Case A - to sell the project and payback the bank
Case B - to keep the project, rent the apartments, and pay the bank through rentals

The property under construction is the lien here but for the bank, that is considered a secondary factor; the primary source to secure a loan is to ensure repayments through the project cash flows. The feasibility is done in both options:

Case A: In outright sale of project scenario, project financing is approved after gauging the buyer market. The repayment schedule is usually smaller and payments come in big chunks. The charge on the property which is mortgaged with the bank, is not cleared till the builder clears the bank loans against the property. But the prospective buyer does not pay the seller until the charge is clear.

Tripartite agreement: In this case, banks do a tripartite agreement between the builder, buyer, and bank in which the bank asks the buyer to pay the bank, and the bank gets the charge of the property cleared from registered authorities in favor of the buyer.

[68] https://www.nahb.org/en/research/nahb-priorities/ad-and-c/other-types-of-construction-financing.aspx. Accessed May 26, 2018.

Case B: Rental markets and yields are analyzed and forecasted. The repayment period is usually long (around 10 years), the financing is priced, and the project repayment schedule is prepared according to rental cash flows. The bank normally engages a third party who manages the rental building and assigns the rental yields to the bank, and the bank, after deducting its share, deposits the rest in the owner's account.

Both owner and builder financing can be done by one bank or by different banks. In case financing is done by a single bank, the bank's risk increases but the bank has more control on the project.

Builder and mortgage financing product

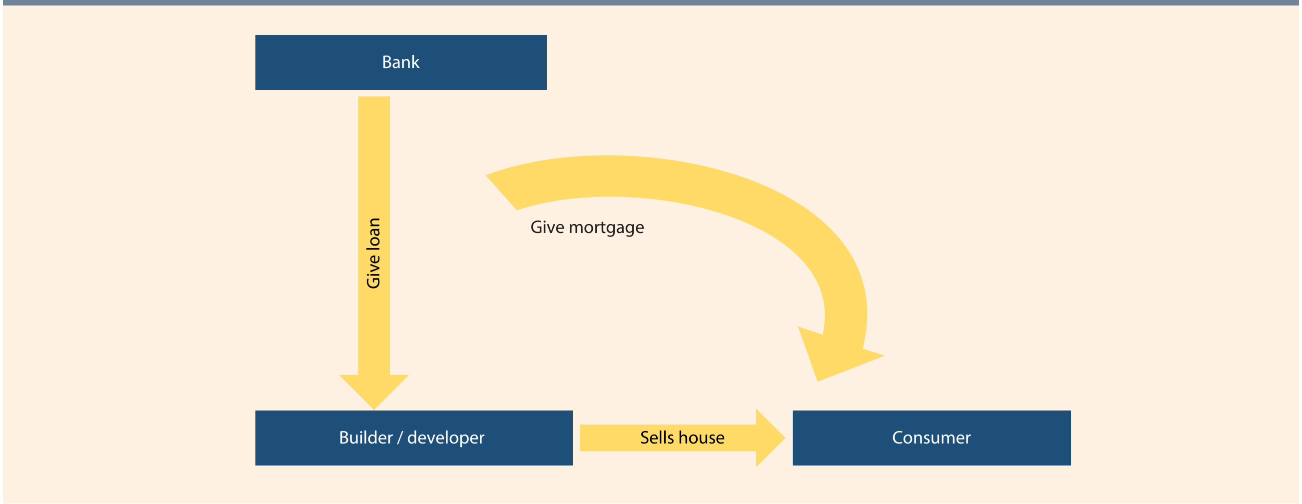
Two major constraints in the ability of the current housing supply to meet demand are: 1) the high prices of land (often a result of speculation in secondary markets) that result in high property prices, and 2) the absence of a robust and well-developed mortgage market. It is in fact argued that while perceived demand is high, how much of it can actually be met is limited since mortgage markets are weak. Hence, housing supply uptake is directly related to availability of mortgage finance. This is where a clubbed product can be introduced that combines builder and mortgage financing from the same bank. A study on this practice in Kenya illustrates that end-user finance cannot be ignored. Even if affordable homes are offered at a price lower than market rates, access to mortgage is still needed.[69]

In Turkey, this model is already working effectively and it combines builder financing with home loans. Once the credibility of the developer is established and the bank is satisfied with the collateral, the consumer can get a mortgage at a lower interest rate from the same bank that is working with the builder. This mortgage then serves as repayment of the builder's loan. Simply put, the buyer or consumer pays the builder's loan through the mortgage. This ensures that the builder sells the houses and the bank's repayment of the builder's financing is ensured. The bank carries the risk but also has more control of the consumer.[70]

Such products are also available in the US. Here the builders partner with home buyers in a combination construction loan,[71] or an all-in-one loan which is made to the buyer instead of the builder. The construction phase of the loan finances acquiring the finished lot and constructing the home. Both the builder and buyer save time and money because the single loan closing eliminates multiple loan applications, approvals, fees, and closing costs. Since the loan is taken by the home buyer, he/she is the one that pays the closing costs and interest instead of the builder, but this way the buyer can bargain for a lower sale price. Home buyers benefit from being able to lock in the rate on the permanent mortgage when construction starts, and they are generally allowed to shift to lower rates, if available, prior to completion of the home. Another benefit to home buyers is the ability to deduct the interest on the loan during the construction phase.[72]

A similar product variation mentioned in this study (see **section 3**) was introduced in India where micro-mortgage companies offer mortgages to the buyers of property in a way where they pay the tranches to the builder directly. This helps in smoothing out the builder's cash flows.

Figure 31: Cycle of loan system by bank in Turkey



[69] ABCs of Affordable Housing in Kenya, web, https://acumen.org/wp-content/uploads/2013/03/ABCs-of-Affordable-Housing-in-Kenya.pdf. Accessed May 26, 2018.
[70] Finance and System of Provision of Housing: The Case of Istanbul, Turkey. FESSUD. Web. http://fessud.eu/wp-content/uploads/2015/03/Housing_Istanbul_WP152-FESSUD.pdf. Accessed May 26, 2018.
[71] Also known as 'one time close' and 'single close.'
[72] https://www.nahb.org/en/research/nahb-priorities/ad-and-c/other-types-of-construction-financing.aspx. Accessed May 26, 2018.

Box 4: Real estate informality—is there an appetite for white money buyers of property

It is often argued that no housing complex can be sold on fully documented money; however, there is no conclusive study to support this position. The real estate marketing companies claim that there is not enough appetite from white money holders to buy a complex within a 3–5 year payment period. However, the experiences of Arif Habib, Naya Nazimabad, and Bahria Karachi clearly show that housing societies and complexes can be bought within the formal economy.

Bridge financing

Short term bridging loans are common across the world. In the UK, they are offered readily, but they require the builder to show—among other requirements—the final source of repayment through either a property sale or an alternative offer of finance. In the US, too, these loans are available for most SMEs to bridge seasonal gaps in revenue. These loans can come in the form of a line of credit as well. This kind of financing is currently available for builders in Pakistan that have strong relationships with their banks.

In Malaysia, these loans typically have higher interest rates to reflect the higher risk the bank takes on, given the developer's failure to attract sufficient buyers. However, builders prefer this financing because it covers their costs during the time when the purchase agreement is signed and the time at which long-term financing can be obtained. This helps in smoothing out the cash flows available to builders during the construction phase.[73]

Contractor or vendor financing

SME contractors can attain loans for big development projects under this model. The credit committees of banks in Pakistan are usually averse to lending to even big construction projects, but they are willing to finance related industries and contractors. For example, banks may not be enticed to extend advances for building a multistory building, but if the project is in progress, the banks may be willing to finance the electrification contractor. The financing for the contractor is done against the lien of goods supplied or against the payment committed by the owner. Since there is no immovable collateral involved, there is no problem of title clarity here either.

While in the early stages of bconstruction the bank's risk is high, once a multistory project has shown decent progression in its grey construction phase, the risk of failure diminishes closer to the finishing stage. This is why the bank's risk in financing to contractors at the finishing stage is low.

To illustrate how financing to contractors is possible suppose a builder requests bids for air conditioning in a high-rise complex. The air conditioning contractor who wants to bid will go to a bank for a bid bond before submitting the bid. Once the contract is awarded, the project manager may ask for a performance guarantee to assure the deliverables, and the contractor comes back to the bank for a performance guarantee to be issued in favor of the builder. The contractor will demand financing options to purchase and install air conditioning and other goods until the time the builder pays the bill. The bank will finance in a way to have its lien on the goods supplied. A good structure for loans the bank provides is to minimize the time between when the bank pays for the good supplied and the owner's payment to the contractor, a payment which may be assigned to the bank.

The bank will open a Letter of Credit (LC) in favor of the supplier, on behalf of the contractor, to supply air conditioners to the site. The contractor here can be either the builder who is seeking finance for units supplied, or it can be a specialized sub-contractor for the supply and installation of certain products. The bank would have a lien on the goods while they are installed at the site. Now the bank finances the contractor against the receivable from the owner to discount the owner's bill. In this case, the contractor has no right to the goods supplied in terms of title and ownership. The contractor is facilitated on the goods being supplied by an instrument with no cash outflow at this point. The bank would have evidence on paper that the goods have actually moved from the supplier to the construction site.

Similar products can be designed for other contracts during the finishing and interior designing stages. In fact, this arrangement can work in the case of supplying material at the grey structure stage as well. Some contracting jobs include sanitary fittings, lighting fixtures, paint, glass and window, kitchen and other equipment, as well as interior designing contracts for furniture supply, cement, steel supply, etc. This product can be targeted to an array of small and medium contractors associated with medium-sized real estate development, as well as mega projects.

[73] Where developers get their financing. Web. https://loanstreet.com.my/learning-c.entre/where-developers-get-their-financing. Accessed May 26, 2018

Box 5: Contractor financing model in UAE

Owner: Can be a private party or government

Big projects: Multistory residential apartment complexes or townhouses

Packaged financing facilities: The contractors require an array of facilities from financial institutions to execute tasks. Banks usually have their own independent criteria for evaluating the capability of the contractor, as well as a methodology to check the work done at various stages. The bank gives a complete package to the contractor/builder including bonds/guarantees, LCs, cash flow based lending, etc.

Banks evaluation process: Contractor financing is a main line of business for a few banks in the UAE, so it makes business sense to have engineers and architects on the payroll of the banks. Hence, banks usually have in-house consultants to evaluate the feasibility submitted by a contractor and to check work progress at various stages of financing. The bank's engineers prepare technical reports on the contractor's technical capabilities, with regard to manpower and the technical capacity he/she possesses to execute the project, the kind of machinery/equipment the contractor owns and the quantum of projects a contractor can manage at any given time, as he/she might be doing multiple projects simultaneously. The contractor's financial capabilities are gauged by the bank's credit team.

The following are the stages of project financing:

- **Bid bond:** At the time of bidding for the project, the contractor is required to submit a bid bond, which is provided by the bank. A bid bond is called if the contractor backs out after being awarded the project. The bank does its due diligence in gauging the commitment of a contractor before issuing the bond.
- **Performance bond:** The contractor is required to submit surety that their performance will be as per contract specification. The bank at the time of issuing bid bond also evaluates the contractor's ability to perform if the project is awarded to them.
- **Bill discounting:** The contractor creates an invoice against the work done at every agreed stage, and that invoice is checked by a third party consultant who is hired by the employer. On approval by the consultant, the bill is submitted and the employer takes 30–90 days (usually 30 days) to pay. The bank discounts the invoice at 80–90 percent and pays the contractor in anticipation that employer payment comes directly to the bank. And the cycle continues. The assignment of payment from employer to bank is contracted at the start of the project (anchor-agent model). The employer is usually the government or a large private group, and the employer contract is credible.
- **Product design:** Based on work and payment schedules, the bank credit team estimates cash flows for the life of the project and then run sensitivity analyses. For instance, payment from the employer can get delayed by few weeks and then the bank repayment schedule gets disturbed. The project timelines are stringent, and operational delays in payment do not affect the speed of work. The bank keeps a factor of safety provisions at the time of structuring the product's payment and repayment schedules. The cash flows projection is a dynamic process which keeps on changing based on project progress duly checked by bank's engineers. The key to managing risk is to track the pulse of the project at any given time.

5.3 Developmental Real Estate Investment Trust (REIT)

Developmental Real Estate Investment Fund (REIT) is an alternate financial avenue to enhance housing supply.[74] It is a closed-end fund with a limited life.[75] The period of a RIET is usually the time to develop or build, market, and sell the project. In case of a housing complex, it may vary between 4–5 years. For developers, REITs provide liquidity. Developers can get last-mile funding for stalled projects while small developers can raise capital more easily.[76]

REITs have picked up across many economies. Nearly 36 countries—including many Asian economies like India, Japan, and Singapore—not only have REIT regulations but have very strong REIT markets. In the US alone, there are 222 REITs under the Nareit index with a market capitalization of $1.1 trillion operating across twelve different sectors.[77] In fact, with rents ballooning across the US, the dearth of affordable housing is spreading from low-income to middle-income households. Residential REITs have come up as an option to accelerate affordable housing.

In Pakistan, there is only one REIT which is of a rental type, the Dolmen REIT. And while the issuer, Arif Habib Investment, is interested in building an apartment complex on a developmental REIT structure in an urban center, there are some regulatory, taxation, and leveraging hurdles hindering developmental REITs from picking up. Due to the largely informal nature of the real estate market, it is hard to sell a complete housing or commercial project to fully declared or documented money as REITs disclosure requirements are high.

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[74] "Developmental REIT Scheme is a REIT scheme established with the objective of development construction and refurbishment of such real estate for industrial, commercial or residential purposes or a combination thereof." JCR-VIS. Web. http://jcrvis.com.pk/docs/RentalREITs-Mehtodology2015.pdf. Accessed May 26, 2018.

[75] An investment model where a fixed number of shares are issued which are not redeemable from the fund.

[76] India's new real estate and infrastructure trusts. PWC. Web. https://www.pwc.in/assets/pdfs/publications/2017/indias-new-real-estate-and-infrastructure-trusts-the-way-forward.pdf. Accessed May 26, 2018.

[77] https://www.reit.com/data-research/data/reits-numbers. Accessed May 26, 2018.

There is a multiplication in taxation and valuations both by federal and provincial governments. The tax reforms package announced in the FY19 budget proposes to document and rationalize taxation on real estate. If this is implemented, the market may be ready to issue REITs.

Developmental REITs: Supply-side constraints

- The SECP does not allow borrowing in the REIT structure. The project has to develop on the equity of sponsors and money raised in IPO. Market participants think that commercial viability is eluded on projects financed solely on equity. Globally when a REIT is offered, sponsors raise a chunk by issuing a REIT, while the rest is financed by the bank and through buyer advances. Experts think the absence of leveraging is the biggest impediment to development REITs taking off in Pakistan.
- The imposition of capital gains tax (CGT) at the stage of transfer of land from sponsors to REIT structure (trust). Since there is no cash transaction at the time, CGT is paid from the sponsors' pocket. This out-of-pocket expense at the inception stage impedes REIT issuance. For casual income (in case property owner's main business is not real estate development), CGT is imposed in a staged manner till three years and with no tax thereafter; however, it is treated as business income for real estate development businesses which is taxed at income tax rates. The tax is not applicable for purely residential REITs, but imposed on hybrid developmental REITs (mix of commercial and residential building).
- Higher withholding tax (WHT) on dividend income for corporates. The dividend tax on REITs income is at 25 percent for banks and corporations, while for individuals it is 12.5 percent. The dividend tax rate was low when the Dolmen REIT was issued, but right after that the tax was increased. For REITs to kick off, it is largely the corporate sector that has the deep pockets needed to invest. Seeing this, the dividend tax on developmental REIT was reduced to half by the government—12.5 percent for corporate and 6.25 percent for retail investors, provided it is launched before June 2018.
- Builders lack financial management capacity. International accounting standards are not adhered to. The cash flows are in the trustee's control, restricting owners' flexibility to use cash.
- REITs require all the transactions to be on documented and declared money. The inherent limitation of REIT in Pakistan is that there is not enough white money in the real estate market to absorb medium to large size projects (see **box 6**).
- Provincial transfer taxes are high, but now provincial governments are rationalizing it for REITs. The provincial taxes on property transfer are 6–7 percent. The tax rate is too high and DC value[78] is mostly a mere fraction of the actual value. Since REITs can only be issued at actual value, at such a high tax rate, the proposition becomes too expensive.
- The Sindh Government has lowered transfer taxes for developmental REITs—now at 1 percent—and the market expects the Punjab Government to follow suit. The reason for reducing rates on REITs is that inherently the whole structure is fully documented, and it is fair to assume that the transaction will take place on actual value.

Development REITs: Demand-side constraints

- There is high demand for housing by documented or white money holders (e.g. the salaried class) but they do not have enough cash to buy a unit on a 3–5-year installment plan. It is often argued that affordability will increase exponentially if installment plans can be increased to 8–15 years. The probable solution is for a REIT issuer to partner with banks in mortgage finance. Islamic banks have an appetite for mortgage finance, and Arif Habib Group is in talks with banks for potential partnerships. The bank will pay the money to a REIT structure in 3–5 years, while the consumer would pay the bank back in 8–15 years by executing tripartite agreements.
- Current development of REIT structure suits corporate investors. The REIT is a closed-end fund and it has to be listed on the stock exchange. The listing requirement is that any issue has to be of a minimum PKR 250 million and, to make it feasible for sponsors, the cost of the project ought to be at least PKR 1 billion.
- If the SME counter on the stock exchange for listing is approved, the minimum issue size will be lowered, and documentation requirement will be eased to attract the medium-size builders to issue REITs.

[78]Deputy Commissioner rates.

Box 6: Simple financing and return structure in REITs

Once a sponsor decides to issue a REIT, the land is transferred to the REIT structure. A feasibility is done and the financial structure is designed accordingly. Assuming that the land cost is PKR 1 billion and the construction cost is also PKR 1 billion, this makes the total project worth PKR 2 billion over a project life of, say, 4 years. If it is further assumed that the selling price of the project is PKR 3 billion, at prevailing market conditions this makes the return on the project quite unattractive. Only if the project is leveraged would the risk-return matrix start making sense for sponsors.

Sponsor equity can be in the form of land (PKR 1 billion), and if the project raises PKR 300 million issuing REITs, that make the total equity PKR 1.3 billion. The rest (PKR 700 million) is borrowed from banks (PKR 400 million) and raised through customer advances (PKR 300 million). These customer advances are based on selling 40 percent of the apartments in installments at launch price, and subsequently more apartments might be sold in the second stage (after 2 years) at a higher price.

6. RECOMMENDATIONS

6.1 Introducing mortgage financing with builder financing

What comes first, the demand or the supply? The housing sector faces constraints not only from the supply side but also the demand side—even if builders were to supply more housing, would buyers be able to buy? A dual constraint in supply meeting the housing demand are the high prices of land and the absence of a robust and well-developed mortgage market. Because mortgage availability is low, the perceived demand for housing that can actually be met is severely limited. Hence, it is argued that housing supply will come if mortgage comes. A clubbed product could be introduced that combines builder and mortgage product financed by one bank. This model is applied across the world, and a well-conceived idea comes from Turkey where the mortgage serves as repayment of the builder's loan. Similar products have been introduced in India, US, Australia, and developing countries like Kenya. In general, the availability of a mortgage facility can provide the impetus on both sides side of the housing equation.

6.2 Other innovative models

Cross-subsidy models

Federal and provincial governments are the biggest landowners in Pakistan. Given this scenario, and the fact that more than 60 percent of the housing gap is accountable for by low-income households with limited ability to pay, public-private partnership models should come into play in which government can provide land, and builders could construct housing on it. This mechanism has shown success in the past. A similar model can be adopted for providing affordable and low-cost housing solutions using principles of cross-subsidy through a public-private partnership or even initiated by private developers who want to tap into the low-cost demand which is substantial, and growing rapidly.

These models have seen some success around the world as well as in Pakistan. One of the most popular applications of this model is the *Khuda ki Basti* project spearheaded by Saiban, an NGO. The pilot project ran in Hyderabad in the 1980s, and later the model was replicated in several cities across Pakistan. The project is divided into affordable or low-cost units and middle-income units, and the latter essentially subsidize the former. The project makes a small margin, or even a loss, on the affordable units which are financed by the sale of units sold at market rates where the margins are higher. The latest application of this cross-subsidy model comes from AMC, an Acumen Fund portfolio company that has launched several affordable housing projects across the country (more in **Section 3**).

Contractor or vendor financing models

As discussed in detail, there are over 40 SME industries tied to the construction sector. While banks remain hesitant in lending to SME builders on account of land and other issues, they are often willing to lend to SME contractors or vendors of these development projects. The financing for the contractor is done against the lien of goods supplied, or against the payment committed by the owner and the problem of title clarity or immovable collateral is avoided. The bank can make this financing as the project is already on the ground running—the risk of failure diminishes as the project enters the finishing stage.

This product can be designed for different contractors at the finishing and interior designing stages to provide, for instance, electrification, air-conditioning, kitchen and other equipment, and so on, enveloping an array of small- and medium-sized contractors associated in the real estate development of medium-size as well as mega projects.

6.3 Improving land administration and bringing costs of regulation down

While both the Punjab and Sindh governments have digitized land records and registrations, there are still swathes of land that are contested, and may not have clean titles within these provinces and across Pakistan. This will continue to discourage banks to accept the land on which property is being developed as collateral and pose a problem for SME builders who do not have a collateral bank. These information systems need to be strengthened.

Meanwhile, the sheer cost of doing business is significantly high with a long line of red tape. Nearly 17 agencies are involved in pre-approvals and registrations leading to delivery delays, incidences of bribes and corruption, and escalating costs for the developers. These procedures could be automatized and streamlined using examples from global experiences.

Perhaps the biggest constraint which limits the affordability of property in Pakistan by mid- or low-income households is the ballooning prices of real estate in the country. This ballooning is brought on by the rising costs of land. The land owned by the government or landowning agencies is auctioned but post-auction, it doesn't go directly into construction. In fact, the land is traded in secondary markets on cash which propels the prices upward due to speculation. By the time the land is ready for construction, the prices of land are so high that only high-income groups find such housing affordable. Meanwhile, the shortage of land itself is a major constraint as illegal land grabbers occupy large acres of state land, which is a direct consequence of poor registration and titling issues.

The regulator's job is integral

Creating a housing regulatory authority has been a plan for many a governments that have come and gone. A bill to establish a Real Estate Regulatory Authority was proposed in July 2017 in the Senate which would overlook all real estate projects, but it was no approved. Though the Capital Development Authority (CDA) claims it performs most of the tasks that the bill presented and there would be an overlap of functions across two different authorities, issues such as transfer of property titles, building codes and density laws, speculative price increases have never been dealt by it or any other development authority. In fact, while development authorities like CDA, KDA, LDA or DHA rein the power as they own the land, they rarely perform the tasks of an effective regulator. They are often accused of allowing illegal and misleading housing schemes to prevail. Ultimately, such cases end in creating a mistrust between developers and customers and discourage genuine buyers of property.

The job of the regulator in fact, is a far-reaching one. For example, the regulator could introduce laws to combat the sky rocketing price escalation of land by ensuring that land auctioned out for housing construction should have a stipulated time within which construction must kick off. If the builder is unable to start construction within that time period, the land should be taken back by the government and auctioned again. This will keep speculators out of the market, ensure only credible builders enter the real estate sector, and prevent the land being tied up for years without any development while also reducing the likelihood of project delays. Meanwhile, for new development localities, developers can be encouraged to include low-income portions which can be developed first and populated so the area develops fast and attracts attention of other property buyers.

An improvement in building codes and density laws by the regulator or regulators will also help. Currently, laws are favorable towards horizontal development when, in fact, in urban centers, cities should grow vertically as land availability in already populated cities is scarce. The floor to area ratio in Lahore, for instance, is 0.7 when it should be more than 1 to be considered high density. At the same time, urban centers should be provided with adequate infrastructure and public utilities to support and enhance vertical housing in the increasingly dense populations across the country.

Where can the SBP step in?

The central bank can play a role in pushing banks to cater to the real estate sector. The SBP started giving financing growth targets to banks for agricultural financing. After witnessing a strong upward trend in financing for agri-businesses, the regulator went on to provide targets for SME financing as well. This should be followed by indicative targets for mortgage financing to boost the housing sector, which can serve as a stimulus for housing supply, followed by targets for builders' financing as well.

The current credit bureau run by the SBP (eCIB) evaluates the credit-worthiness of borrowers for banks. However, banks may require a lot more information on fresh borrowers, especially those in the SME sector. The Credit Bureau Act in 2015 made the establishment of private credit bureaus possible, which can greatly help build the trust deficit between banks and SME builders seeking financing. The collateral registry of immovable assets that is in the works by the SBP is similarly in process and will be a crucial step in facilitating bank financing for businesses.

6.4 REIT as a solution

Development REIT can help enhance the supply of housing. There is no development REIT issued yet in the country as the regulation and taxation hurdles discourage investment in the sector. The impediments are now in the process of being removed: taxation, for instance, has been rationalized by both federal and provincial governments, and the SECP may allow REITs to leverage, which will incentivize the private sector to offer REITs. Once a few REITs are issued, the Karandaaz team may consider investing in the REIT structure (see **section VI**).

6.5 Where can Karandaaz step in?

Most of the existing innovations taking place in the housing industry are either in the interior design of the house, or on the finishing side, and these only cater to the high-end of the market. A case can be made for modern and innovative techniques to be introduced in the market at construction stage to cut down the costs of overall construction. Karandaaz's Innovation Challenge Fund is well-placed to offer an innovation challenge for architects and builders to come up with scalable modern construction methods which encourage better space utilization and energy conservation and make use of other cost-effective solutions to bring the costs of construction down.

Moreover, new financing models tailor-made to the needs of architects or builders and developers can be designed and piloted on a small scale with financial service providers under participatory risk agreements. enabling banks to build a deeper understanding of the market, while sharing the risks of a few first movers.

ANNEXURES

Annexure 1: Primary materials and services used in construction sector	
Materials:	**Services:**
Brick kiln	General labourer
Sand/crush/bajjar industries	Brick mason
Cement production	Electrician
Precast concrete slab production	Plumber
Woodworks (doors, cabinets)	Tile work specialist
Steel work (door frames, windows, entry gate)	Painter
Steel supplier (rebar)	Boring specialist
Bitumen production	Ironworker
Polythene sheet production	Surveyor
Marble tiles	Sub-engineer
Ceramic bathroom fixtures	Architect
Plastic factories (PVC pipes)	Draftsman
Water tank sellers	(Not included: roadwork, sewerage work, OHT, etc.)
Water pump motors	
Paint suppliers	
Sanitary supplies (faucets, sinks, etc.)	
Electrical supplies (switches, DB, wires, etc.)	

Annexure 2: Sources of data and definitions	
Definition	**Medium Enterprises:**
Small Enterprises:	Employees: 50–250 people
Employees: 1–50 people	Turnover: PKR 150–800 million
Turnover: up to PKR 150 million	Financing: PKR 25–200 million
Financing: PKR 15–25 million	Source: SBP. http://www.sbp.org.pk/smefd/circulars/2016/C2.htm

Houses measured in *marla*: The *marla* is a traditional unit of area used in the sub-continent, primarily India, Pakistan, and Bangladesh. The measure was first standardized under British rule to be equal to the square rod, i.e., 272.25 square feet, 30.25 square yards, or 25.2929 square meters. As such, it was exactly one 160th of an acre. This definition is based on the old definition of *marla* known as "big *marla*". Today, 1 *marla* in Pakistan is equivalent to 225 square feet.

Sources of data

The costs of construction and labour estimates provided in Section III come from discussions with builders in Lahore while Karachi estimates were provided by ABAD house members (see Annexure 3). All other infographics are appropriately cited.

Annexure 3: Consultative meetings		
Organization	**Name**	**Designation/stream**
ABAD House	Hasan Bakhsi	Builder, Member, Former Chairman of ABAD
Private developer	Akber Sheikh	CEO Guarantee (large developer)
Private developer	Fawad Nabi	SME developer
Silk Bank	Talha Saeed	Executive Director
Bank Alfalah	Shahid Malik	Head of SME
Habib Metropolitan Bank	Sirajuddin Aziz	CEO
World Bank	Namoos Zaheer	Senior Financial Sector Specialist
Dubai Islamic Bank	Waqas Shaukat	Unit Head, Corporate and Investment Banking
_	Khurram Munawar	UAE Banker
Meezan Bank	Saleemullah Shaikh	Head of SME
_	Shahid Jamal	Architect
Arif Habib Investment Management Limited	Nasim Baig	Vice Chairman/Director
Ansaar Management Company	Jawad Aslam	CEO
House Building Finance Company Limited (HBFCL)	Basit Aly	MD
Karandaaz Pakistan	Navid Goraya	Chief Investment Officer

Annexure 4: HBFCL products

Product 1: Small builders scheme under HBFCL

Purpose: To facilitate and encourage the small builders (sole proprietorship/partnership) who are in the business of building, selling houses, flats.

Mode of financing: Profit-based financing.

Financing limit: Up to PKR 10 million per party.

Facility tenure: For 12, 18, or 24 months (optional), extendable for further six months on payment of additional profit.

Availability: This facility is now available for Karachi, Hyderabad, Lahore, Islamabad/Rawalpindi, Multan, Faisalabad, and Peshawar cities only.

Maximum loan to value ratio: 60:40.

Profit rate: One year KIBOR plus 2.75 percent spread, yearly re-priced.

Qualifying criteria:

- The builder (proprietor in case of sole proprietorship and partners in case of a partnership) should be at least 22 years of age and not more than 65 years at the time of the maturity of the financing.
- The builder/contractor firm which has employees (including contract employees) up to 20 persons and annual sales turnover up to PKR 75 million shall be entitled to financing.
- Financial accounts in some form, signed by builder/entity, are required to help HBFCL / estimation agency to assess/verify the cash flows/repayment capacity.
- The builder or contractor firm should own plot(s) in the municipal limit area of the city. The entire infrastructure like water, electric, sui gas, telephone, sewerage, and metal roads should be available in the area and the house(s) or flat(s) should have good prospects of sale after completion.

Maximum number of loans at a time: The builder or entity can avail up to six loans at a time subject to a maximum per-party limit of PKR 10 million.

Coverage: Life plus property up to the extent of the loan amount.

Product 2: Balance transfer facility (BTF) from other banks to HBFCL

Purpose: To swap an existing housing finance facility from any financial Institution in Pakistan.

Financing tenure: 3 to 20 years.

Financing range: Up to PKR 10 million. Financing will cover only the outstanding principal amount and may also include any applicable early termination penalty, but not any other penalties/charges etc.

Corporation investment ratio (CIR): Not more than 70 percent of the appraised forced sale value of the property, to the maximum of locality-wise capping. Not more than investment limit of the company.

Investment based on current DBR.

Profit rate: Financing will be based on variable rate option, i.e., 1 year KIBOR (subject to review on each anniversary of loan) plus HBFCL's spread (3.25 percent for salaried class and 3.50 percent for business individual). Spread remains fixed during the entire tenure of the loan.

Disbursement: Payment will be made in one go, directly to the mortgagee bank in the presence of the customer securing release of title documents to the satisfaction of HBFCL.

Payment: The payment of installments will start from the first day of the following month from the date of execution of Islamic House Finance Agreement.

Coverage: Life plus property up to the extent of the loan amount.

Annexure 5: Residential AD&C loan in the US

This is an example of a formula for calculating construction loan draws/disbursements:

First draw (slab/foundation – 15%) This draw will be used to purchase land if the builder does not already own it. The draw is released at closing. Any builder "soft costs" such as permits are added to this advance. Septic and any site work are also included. The loan fees, attorney's fees, title insurance, etc., are paid at closing.

Second draw (framing/rough carpentry – 10%) This draw is released when the foundation is poured. It covers building the first floor walls, putting the sub-flooring in place, and sheathing the exterior walls.

Third draw (roof/mechanicals – 20%) This draw occurs after the second-floor sub-flooring and walls, roof framing, rough plumbing, electrical, HVAC, and any miscellaneous items like garages and pools are in place.

Fourth draw (exterior/interior finishes – 20%) This draw occurs after doors, windows, and drywall are installed, and the exterior siding or painting is complete.

Fifth draw (trim-out – 20%) This draw occurs when all interior trim, cabinets, paint, final plumbing, HVAC, and electrical are complete.

Final draw (project closeout – 15%) This draw occurs when all decks and patios, house cleaning, appliances, and landscaping are complete, the final inspection has occurred, and occupancy permits have been issued.[79]

Source: National Association for Home Builders (NAHB)

[79] NAHB, Residential AD&C, Web. https://www.nahb.org/en/research/nahb-priorities/ad-and-c/residential-ad-c-financing-the-basics.aspx.

Annexure 6: Quality of land administration in Pakistan

Reliability of infrastructure index	Pakistan	Transparency of information index	Pakistan	Geographic coverage index	Pakistan
In what format are the majority of title or deed records kept in the largest business city—in a paper format or in a computerized format (scanned or fully digital)?	Paper	Who is able to obtain information on land ownership at the agency in charge of immovable property registration in the largest business city?	Anyone who pays the official fee	Are all privately held land plots in the economy formally registered at the immovable property registry?	No
Is there an electronic database for checking for encumbrances (liens, mortgages, restrictions and the like)?	No	Is the list of documents that are required to complete any type of property transaction made publicly available—and if so, how?	Yes, online	Are all privately held land plots in the largest business city formally registered at the immovable property registry?	No
In what format are the majority of maps of land plots kept in the largest business city—in a paper format or in a computerized format (scanned or fully digital)?	Paper	Is the applicable fee schedule for any property transaction at the agency in charge of immovable property registration in the largest business city made publicly available—and if so, how?	Yes, online	Are all privately held land plots in the economy mapped?	No
Is there an electronic database for recording boundaries, checking plans and providing cadastral information (geographic information system)?	No	Does the agency in charge of immovable property registration commit to delivering a legally binding document that proves property ownership within a specific time frame—and if so, how does it communicate the service standard?	No	Are all privately held land plots in the largest business city mapped?	No
Is the information recorded by the immovable property registration agency and the cadastral or mapping agency kept in a single database, in different but linked databases or in separate databases?	Separate databases	Is there a specific and separate mechanism for filing complaints about a problem that occurred at the agency in charge of immovable property registration?	No	Land dispute resolution index	3.5
Do the immovable property registration agency and cadastral or mapping agency use the same identification number for properties?	No	Are there publicly available official statistics tracking the number of transactions at the immovable property registration agency?	No	Does the law require that all property sale transactions be registered at the immovable property registry to make them opposable to third parties?	Yes
		Who is able to consult maps of land plots in the largest business city?	Anyone who pays the official fee	Is the system of immovable property registration subject to a state or private guarantee?	No
		Is the applicable fee schedule for accessing maps of land plots made publicly available—and if so, how?	Yes, in person	Is there a specific compensation mechanism to cover for losses incurred by parties who engaged in good faith in a property transaction based on erroneous information certified by the immovable property registry?	No
		Does the cadastral or mapping agency commit to delivering an updated map within a specific time frame—and if so, how does it communicate the service standard?	No	Does the legal system require a control of legality of the documents necessary for a property transaction (e.g., checking the compliance of contracts with requirements of the law)?	Yes (registrar; interested parties)
		Is there a specific and separate mechanism for filing complaints about a problem that occurred at the cadastral or mapping agency?	Anyone who pays the official fee	Does the legal system require verification of the identity of the parties to a property transaction?	No
				Is there a national database to verify the accuracy of identity documents?	Yes
				How long does it take on average to obtain a decision from the first-instance court for such a case (without appeal)?	More than 3 years
				Are there any statistics on the number of land disputes in the first instance?	

Source: World Bank Doing Business 2018.

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